Across the country
September is
NATIONAL HOME MONTH

see this Readers' Choice
House page 28

- Land analysis for small subdivisions
- Two churches in contemporary design
- A NEW way to frame a roof
- Build good will by x-ray methods

Exclusive... Beginning a series of 8 articles
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SELLS HOMES FASTER

NUTONE Kitchen Ventilating Fans get rid of cooking odors and grease before they can spread throughout the entire house. Keep greasy film from settling on walls, woodwork and furnishings.

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NUTONE Door Chimes make any home more inviting...with a real musical welcome each time guests come calling. So pleasing to the ears...attractive to the eyes...and easy on the nerves.

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For installation in Ceiling or inside Kitchen Cabinets over stove. NO LOOSE PARTS—saves installation time. SPRING TENSION Mounting avoids costly service problems. Patented Grille and "SNAP-IN" Assembly—for easiest cleaning. "PLUG-IN" Motor guaranteed 5 years. $38.50 list.

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Besides this Radiant model NuTone offers the famous HEAT-A-LITE...Ceiling Heater plus light and air circulator. $49.95 to $67.95 list.
The conventional 8' wide garage door was fine for the narrow cars of the '20s. But today—with cars as wide as 6' 8"—the extra clearance of Strand's 9' wide Door works wonders in protecting thousands of owners against costly fender damage! Installing this wider door gives you not just a talking point—but a feature your owners will appreciate and enjoy—for a long time to come!

The cost of this 9' door (over a door only 8' wide) is negligible—factory list prices only $5.50 more. This popular all-steel door will stay new for a lifetime and you get permanently easy operation. No warping, swelling, sagging—ever.
Strand Doors are galvannealed (galvanized with a heavy zinc coat for rust protection; oven-baked to provide a clinging base for paint). No prime coat is needed.
Based on installed cost, Strand is America's greatest garage door value. The first cost is surprisingly low—because of huge production. Your cost of installation is lower, because of the one-piece door leaf and factory-assembled hardware.

Strand Doors are available in these types and sizes: 8' x 7' Receding (track) and Canopy; 9' x 7' Receding (track) and Canopy; 16' x 7' Receding (track) Only. Order from your dealer, or mail coupon for information and dealer's name.

YOU'LL WANT THIS NEW BOOK!
GARAGE PLANS AND IDEAS is a new 32-page book of information and illustrations. Helps you plan your garages for appearance, economy and all-around usefulness. Includes 12 designs and floor plans by nationally known designers, how-to-build instructions, material lists, driveway sketches, etc. Also information about Strand All-Steel Garage Doors.
More than just a key

goes into a KWIKSET lockset

The working parts of KWIKSET locksets are with high test quality brass stampings and pressure cast Zamak No. 5, the modern high test alloy that has given years of reliable, trouble-free service. The dependability of these materials has been proven by the more than 18,000,000 KWIKSET locksets now in unconditionally guaranteed service.
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"We have advertised in **House Beautiful** regularly for 57 years... intend to continue and expand...", writes Samuel Cabot Jr., Treasurer of Samuel Cabot, Inc.

Mr. Richard A. Hoefer, Publisher
HOUSE BEAUTIFUL Magazine
572 Madison Avenue
New York 22, New York

May 6, 1953

Dear Mr. Hoefer:

We have advertised in **HOUSE BEAUTIFUL** regularly for 57 years!

Over all these years, in peace and war, in good times and bad, **HOUSE BEAUTIFUL** has produced uniformly satisfactory results high grade inquiries at low cost. **HOUSE BEAUTIFUL** reaches just the market that we want to hit: the responsible home-owners who take pride in their houses and want to buy quality products for them. The editorial content of **HOUSE BEAUTIFUL** is appealing and presented with good taste.

Speaking from 57 years of experience with advertising in **HOUSE BEAUTIFUL**, we at Samuel Cabot, Inc., know that it pays to pick your best market and stick with it.

That's why we intend to continue and expand our advertising campaign in this profitable advertising medium.

Yours truly,

SAMUEL CABOT INCORPORATED
Treasurer

After 57 years as a **HOUSE BEAUTIFUL** "regular", Samuel Cabot, Inc. is still expanding its advertising campaign in the magazine! More evidence that it pays to be a regular **HOUSE BEAUTIFUL** advertiser.
How About the Country Village?

TWENTY years ago two middle western villages about 400 miles apart, in different states, each had populations of about 500 people. Each was served with a railroad, was a short distance from an important transcontinental highway and about 20 miles from a thriving county seat. Both were in rich farming areas, and each had a block of profitable stores. That was 20 years ago. Now, one of the villages has doubled its population, while the other has something less than 300 people.

The shrinking or dying village has only one store left, a desultory general store. It has a school, a lighted playing field, a rundown community house, blacktop streets, an ineffective fire department, a primitive street lighting system, no water system, no sewage, a struggling bank, a physician, no dentist, no barber shop, decaying houses, nine of them for sale with no takers, and little to offer.

The other village has a smart block of prosperous stores, a modern high school with gymnasium, assembly hall and swimming tank, a lighted play field, a nine-hole golf course, paved streets, a water system, a sewage disposal plant, good street lighting, one of the best trained and equipped fire departments in the state, new and modernized houses, and all the charm of middle western living. Many of its people drive daily to employment 10 to 30 miles away.

On the face of things 20 years ago there was no reason why the fate of the two villages should not have been exact parallels. But, behind the face there were two men in one of the villages who had no counterparts in the other. The two had unlimited faith in the future of off-the-road communities and believed that modern communication and transportation, combined with the fruits of the mechanical and electrical age, could spell new life and virility rather than death for the isolated village.

You guessed it. Their business was home building, and the first thing they did was build new, modern homes for themselves. That demonstrated their intention to stay in the village, as well as their faith in the future of real estate values. Next, came the water system and the reorganized fire department. These did not come easily, nor did the sewage plant which followed. They took a lot of patient selling, and a lot of other work, such as personally running the water system and sewage disposal plant until the village fathers decided to take over. The new school came a little easier. Renewed pride made store modernization fall into line, and after that, everything they proposed was accepted quickly. Merchants and professional men are prosperous, and population and property values rise steadily.

The difference in the two villages was two men in one of them who had justifiable faith, a little more than ordinary imagination, normal organizing ability, and good, sound sales sense. Any builder can change any down-at-the-heels village, on the road or off the road, into a paradise for modern country living. There are thousands of such opportunities for builders everywhere.
TRENDS
in the Building Field

The Extent of the Slum Problem

The slum problem is one that squarely faces builders. Ultimately, builders, financial institutions and city officials will be required to cooperate to reclaim hundreds of square miles of substandard housing that exists in large and small metropolitan areas, as well as in small towns and farm areas.

The 1950 Census of Housing shows that two out of ten dwelling units in urban areas either lack a private toilet and bath, or are in structures that are dilapidated. Surprisingly, the smaller towns (less than 2,000 population) are in the worst shape. Less than half of their dwelling units are without modern plumbing and in a state of disrepair. Plumbing facilities are not so readily available on farms, but it is amazing that in spite of more than ten years of farm prosperity in the United States, eight out of ten farm dwelling units lack a private toilet and bath or are in a dilapidated condition.

The principal causes of slums are overcrowding and inadequate maintenance of structures. The 1950 census shows that one out of six dwelling units is overcrowded. The census measure of overcrowding is based on occupancy of 1.01 or more persons per room. This means, for instance, that more than four persons occupy a four room dwelling unit. There are examples, of course, of four-room dwelling units which are occupied by eight, ten or even more. Add to this the fact that little or nothing is done in the way of maintenance and the dwelling unit quickly becomes a slum.

It is not always indifference on the part of tenants that creates slums, but more often intolerable conditions that private enterprise has failed to relieve. Public housing has not helped much because it is not extensive enough, it has been built at great expense, and it has created a difficult social situation.

During the last seven years, builders have built seven million new non-farm dwelling units. Almost all of them have been built at the edge of cities or towns. The only attention given the older residential sections, for the most part, has been subdividing the structures to provide more dwelling units. It is estimated that 1.750,000 new dwelling units were created from 1940 to 1950 by alteration of existing structures. In many cases the result has been the creation of good, but smaller dwelling units. In some of the cases the alterations have been ill-advised, resulting in more slum dwellings.

Many slum buildings are structurally sound or can be readily repaired. It is inconceivable that vast numbers of them will be torn down. If the overcrowding can be relieved, and if the structures can be improved, they will provide suitable housing for many families. The overcrowding can be relieved by attracting tenants from overcrowded areas to new houses on the outskirts of towns. Special emphasis by builders on low-cost houses and promotion of home ownership will lure many families to suburban areas. When and if the older residential structures are relieved of their overcrowding, they can be rehabilitated from slums by being rebuilt to house fewer people.

It is probable that the majority of slum dwellers are in that 25 per cent of the population whose incomes are less than $2,000 annually, so housing built to accommodate them would have to be really low-cost. There are notable exceptions, however, of builders who have built houses recently that were sold on terms of a dollar a day.

The 1950 Census shows that there are 17 out of 46 million dwelling units that do not have private toilets and baths or are in dilapidated structures. Of these, six million are in urban places, six million in small towns and five million on farms.

Mississippi has the worst housing conditions according to census standards. Seventy-five per cent lack private toilet and bath. Thirty-two per cent are overcrowded.

The slums of New York may be disappearing. In New York state only 17 per cent lack private toilet and baths, one of the lowest rates in the country. Only 12 per cent are overcrowded.

Dwelling units in the South, from Virginia through Texas, are overcrowded to a much greater extent than those in the East and North-Central regions. They also lack plumbing facilities to a greater degree.

There is a bright spot on the West Coast. In California, where one out of three dwelling units standing in 1950 was built between 1940 and 1950, only 14 per cent lack private toilets and baths in structures not dilapidated, and only 12 per cent are overcrowded.

The slum problem in Chicago has been in the spotlight for several months. Yet Illinois is below average with 33 per cent lacking private toilets and baths and 13 per cent being overcrowded.

Public interest in slums in Chicago has recently been aroused to such a degree that proposals have been made to spend from two to eight billion dollars to eliminate them. The vastness of this program can be judged from the fact that total expenditures for one million new dwelling units each year in the United States runs to about ten billion dollars. There is no doubt that some such program will be carried out, and it will be a welcome cushion for builders and the building trades if, as is expected, the demand for new houses declines during the period 1955-1960. Similar action in other states is called for.

The time to improve the slums is short. After 1960 the building industry will be engaged in building a record number of dwelling units to house the increased population that will be coming of age after 1960.
GUARANTEED FOR THE LIFE OF THE BUILDING

HDCG SLIDING DOOR HARDWARE FOR REALLY QUIET PERFORMANCE

QUIET

AEER APPLIANCE MANUFACTURING COMPANY - 2660 RAYMOND AVE., PASADENA, CALIFORNIA
ON and OFF the RECORD

HOW DO YOU GET PROSPECTS for trade-in selling of new houses, is a question that is asked frequently. For the factual answers consult the feature and news pages of this magazine. The July issue contained some case histories. Subsequent issues will contain others.

THIS DEPARTMENT, however, is not restricted to factual reporting. It can prospect, propose and suggest. So, we will have a try at advancing some new ideas. Some of the suggestions may seem fanciful, but every one is predicated on a known case.

TAKE, FOR INSTANCE, the assumption that everyone who purchases a new home or orders one built for himself is thrilled and satisfied with his buy for several years.

KNOW A FELLOW who had a new custom-styled house built. He was as satisfied as he thought he had any right to be. A few months after he occupied the new house, his Sunday afternoon was interrupted by a stranger who stopped to ask if the house, by any chance, was for sale. The answer was an unqualified NO!

THAT ENDED THE MATTER. Or did it? A few months later the stranger stopped again. Said that since he couldn’t buy the house, he had built one something like it in a different setting. Wondered if Mr. Owner would like to run out and see it. This time the answer was yes.

WELL, MR. OWNER, after an examination of the stranger’s house, decided that there were a lot of things about the house the stranger wanted to buy from him that he definitely did not like. The stranger’s house was more modern, had a better site.

MR. OWNER knew right then that he should have sold his own relatively new house and built what the stranger had.

THE POINT IS that if Mr. Owner’s builder needed more business, he could have had it by knowing his “trade-in” possibilities.

IT’S NO CONFESSION of weakness for a builder to at least ask an old customer a year or so later, or four or five years later, if his house still meets all of the owner’s requirements. Any one of a number of things could have happened to make his customer ripe for another new house.

BUT, IF THAT’S a little far-fetched, how about Bill? Bill had raised his family in a three-level, four-bedroom house. In due course his daughter was married, as were his sons. Finally there were only Bill and Mrs. Bill.

BILL AND MRS. BILL knew that they did not want the large house after the daughter was married. The announcement of the daughter’s engagement was published in the local papers, but no one came near Bill.

AFTER THE WEDDING, Bill looked for and found a lot in the community, a couple of miles away from his old house. Then he found an architect and a builder. Then he had to sell the old house.

THE WHOLE THING cost Bill a pretty penny both in time away from his job and in cash outlay.

NOW, BILL was a prospect for a new house from the day his daughter’s engagement was announced. And there are countless other Bills in the same boat.

WHY NOT GET a prospect list by watching the announcements of engagements in the newspapers? Make one telephone call to see whom the impending marriage is going to leave at home, and if it’s only Bill and Mrs. Bill, start to work on them with a trade-in service to save them time, money and headaches.

THEN, THERE’S GEORGE. George came to the community two years ago, and bought an excellent used house. This spring George’s firm transferred him to a city 500 miles away. George had to go to the new city, find a lot to build on or a house to buy, put up some earnest money on the house he chose, come back and sell his old house.

THE WHOLE THING cost him several trips to the new city and a lot of time and money trying to get rid of the old house, even though he had a competent realtor doing the selling.
WHY NOT DESIGNATE a clerk to clip notices of personnel transfers in the newspapers? George’s transfer appeared in the local papers. A builder in the city from which George was being forced to move could have contacted a builder in the city to which George was moving, and between the two of them there could have been a trade-in transfer. Conceivably it could have been a two-way direct swap, because executive and sales personnel are continuously being moved from one city to another.

GEORGE would gladly have paid what he had to spend himself as profit to the builders involved to engineer the whole thing for him.

THERE ARE TWO POINTS to all this. One is that there is a lot of trade-in going on all the time. It is a costly and often frustrating experience for the buyer. The builder or builders involved can take a good and legitimate profit from the owner who is trading locally or inter-city, and at the same time save money and time for the owner.

THE SECOND POINT is that countless families in all income brackets could be induced to trade up or down if the builder had an efficient trade-in service and advertised that he had it.

ADMITTEDLY there are problems. But if owners have been meeting and solving these problems themselves for ages, and to a large extent that is what they have been doing, the builder with his professional experience should find nothing he cannot solve.

ADVERTISING. On the subject of executive and sales personnel transfers from city to city, has anyone ever tried the monthly magazines of the important lunch and business clubs in the large cities?

FOR INSTANCE, in Chicago there are 10 or 12 lunch clubs or business clubs with a combined membership of probably 15,000 to 20,000 of the city’s most prominent and successful executives. Each club publishes a monthly magazine for its members. Many of them are subject to transfer, have been transferred to Chicago, will be transferred from it.

(Continued on page 10)
5 YEAR written GUARANTEE furnished with each unit

PRECISION folding stairway

No other stairway offers so much

EASY TO OPERATE — The cleverly engineered counterweights operate on LIFE-TIME ROLLER BEARINGS and silently raise or lower the stairway with practically no effort.

RUGGED & STRONG — Construction of No. 1 kiln dried lumber throughout. Brackets, rocker arms and hinges cast of special aluminum alloy. Trim furnished on door panel only. All parts are numbered and interchangeable. Frame is made to fit 26” x 54” opening in ceiling.

INSULATED PANEL — Panel is insulated with Cellufoam and protected with tough chip board.

SAFETY TREAD — Each step is covered with full-width composition safety treads. Adds to appearance as well as safety.

FITS ALL CEILINGS — The stairway fits any ceiling from 7 feet to 9 feet, 9 inches figured from finished floor to finished ceiling. Runners are graduated to facilitate cutting off at different heights. Two standard sizes: 8’9” fits from 7’ to 8’9” ceiling, 9’9” fits from 8’9” to 9’9” ceiling.

EASY TO Handle — Shipped in 1 package assembled. Precision Stairways are packed completely in one heavy carton, assembled complete with jamb and ready for installation, which offers a considerable savings over other attic stairways. Shipping weight 130 pounds.

EASY TO INSTALL — No adjustments — No springs — Requires no attic space. Full height above attic floor is only 36”. Folds completely into 26” x 54” opening in ceiling.

Accepted by F.H.A. Listed in Sweets. Specified by leading architects. Sold by more than 12,000 dealers in U.S.A. and Canada.

Manufactured by
PRECISION PARTS CORPORATION
400 NORTH FIRST STREET — NASHVILLE 7, TENNESSEE

On and Off the Record
(Continued from page 9)

HERE, THEN, ARE thousands of middle- and high-income executives interested in homes for themselves, homes for personnel they are ordering to Chicago, or homes for personnel they are sending from Chicago.

HOW ABOUT a Chicago builder’s taking space in some of these magazines and advertising himself as “Chicago’s suburban builder for discriminating executives. We specialize in housing Chicago’s business leaders.” Nothing gaudy. Just a simple, dignified statement with a suggestion that the builder’s working arrangements with similar builders in all major cities enable him to handle a complete transaction, including disposing of the house in the city from which the buyer is moving.

TAKE THE WHOLE onerous burden off the shoulders of the newcomer. Meet him and his wife at the train or airport, show them a few new or used houses in the appropriate price class, right location, size and design. Know in advance, through an appraisal made by the cooperating builder in the other city, what the house in the other city is worth, and thus be ready to close on the spot.

AND WHY SHOULDN’T not builders in New York, Cleveland, Los Angeles and perhaps a few other cities place the same kind of advertising in these same Chicago lunch or business club magazines? There’s a service to be rendered and a profit to be made.

THE ADVERTISING is pinpointed to people with money who want houses or who influence other people who do.

MAYBE IT SHOULD be added here that the writer does not have an ax to grind, does not know whether these types of magazines carry advertising generally, or whether they would accept advertising from non-members. But it still sounds like an idea worth trying for somebody.

ANYWAY, every builder has a character in performance and a character in styling to sell. He should do general newspaper advertising. But, if he will study his own operation carefully he might find that he can do some very effective pin-point advertising to select lists of prospective customers.
CALCINATOR automatic home disposal units provide the builder with a low priced home appliance that has tremendous BUYER APPEAL.

When you install CALCINATOR in your homes you sell truly modern living—free of garbage and trash problems. CALCINATOR consumes all garbage and trash right in the home without ODOR, SMOKE, or NOISE. Simple installation requires NO PLUMBING or SEWAGE CONNECTIONS.

CALCINATOR gives your customers a BIG PLUS in value, gives you a BIG PLUS in BUYER APPEAL. Gas, electric and LP gas models available. AGA and UL approved.

WARRANTED FOR 5 YEARS
**ELJER BALANCED-CONSTRUCTION Ballcock**

- long-wearing cup washer
- plunger
- plunger bore
- plunger bore clearing pin
- heavy-duty encased seat washer
- high-copper alloy body
- slotted stem for adjusting quietness
- oversize packing
- leather washer
- stainless steel screen

**HERE'S HOW IT WORKS . . .**

**Snap-Action Shutoff**—Water passing upward through plunger bore, as float rises, builds up pressure above cup washer. This creates an overbalance of downward force that snaps the plunger shut at correct water level setting.

**Integral Stop and Volume Control Permits . . .**

A. Positive and easy adjustment for quiet operation under high pressure.
B. Complete shutoff for repair without disturbing main water supply.

---

**Why you should know about this ballcock:**

This new ballcock is typical of the extra quality you get in Eljer Fixtures and Fittings. It was designed and perfected to operate quietly and efficiently under extremes of high or low pressure . . . and it does just that . . . in assuring trouble-free performance. No other ballcock has so many desirable features.

Snap-action shutoff provides instantaneous closing without water hammer . . . assures longer seat life . . . maintains constant water level, even after years of service.

Extra quality is built into all Eljer Fixtures and Fittings. That’s why it’s good business to install Eljer. You don’t lose time and profits handling complaints. You add to the good reputation of your business.

For complete information, see your Eljer Distributor or write Eljer Co., Box 192, Ford City, Pa.
FNMA Begins New 'One-for-One' Plan

A new "one-for-one" plan of buying and selling FHA and VA mortgages has been started by FNMA. The plan was authorized by Congress earlier this year, and home builders have called it the "first ray of hope in the money drought."

Under this plan, FNMA will purchase eligible mortgages from an investor equal to the amount of mortgages the investor purchases from FNMA.

This arrangement has the effect of making the investor into a salesman for FNMA. It works like this:

The mortgagee or the builder can go to FNMA and take an option on a specific block of FNMA-held mortgages. He then goes out and becomes a salesman—he sells the block of mortgages to a long-term investor. Then, by paying FNMA a 1 per cent "commitment fee," the mortgagee or builder obtains a firm one-year commitment from FNMA to buy his new mortgages at par.

FNMA holds about $2.4 billion in FHA and VA mortgages purchased prior to the recent increase in interest rates. The "one-for-one" plan makes this a potential revolving fund from which home builders may obtain a line of permanent financing.

Investors who come to FNMA to buy mortgages will be able to purchase 4 per cent VA mortgages at $96, and FHA 4 1/4 per cent mortgages at $97.75. The new 4 1/2 per cent VA and FHA's will be handled at par. These prices apply on one to four-family dwellings.

When the investor turns into salesman and peddles his block of mortgages to a long-term investor, he will probably find the "actual market value" of VA mortgages is below $96. In that case the salesman will have to absorb the difference, and that could prove to be a block to the "one-for-one" plan. This discount may be too steep to absorb.

Another possible block to the plan, according to NAHB, is the fee schedule published by FNMA. This includes the 1 per cent "commitment fee" which is charged when FNMA issues its one-year commitment. An additional one-half of one per cent is charged when and if the commitment is actually used.

FNMA is a part of HHFA and Albert M. Cole, the administrator, thinks the "one-for-one" plan will benefit both the home builders and the government. For the former, he said, the plan gives commitments when the mortgage market is admittedly tight. For the government, it means mortgages will be sold at higher prices than would otherwise be possible.

FHA Will Now Approve Windowless Bathrooms

FHA has advised its field offices that they may now approve mortgage insurance for one- and two-family houses with windowless bathrooms, provided there is adequate mechanical ventilation.

This move was long sought by builders and architects. They claim it will permit much greater flexibility in planning. It will also reduce costs in some cases by the use of back-to-back plumbing.

The new FHA ruling does not apply to garden-type or walk-up apartments.

Wage Rates for Building Trades Continue to Rise

Wages paid to construction workers continue to rise, but the pace is a little slower. This was pointed up by a survey of 85 cities, made by the Bureau of Labor Statistics.

The bureau reported average union wages in the building trades went up 3 per cent in the first half of this year. The increase in the same period of last year was 4.6 per cent.

This B.L.S. survey covered seven major building trades—bricklayers, carpenters, electricians, painters, plasterers, plumbers and laborers.

According to the bureau, the "average" union worker in construction was receiving $2.69 per hour on July 1, 1953.

Hollyday Suggests 3-Point Program

At a joint meeting of Chicago builders and investment bankers, Guy T. O. Hollyday outlined a three-point FHA program designed to cement relations between builders and FHA.

The three-point program advanced by the FHA commissioner is:

1. Return to judging of appraisals on value by FHA.
2. Closer contact with the lawmaking powers.
3. Conservation of older areas.

In the past few years builders have registered innumerable criticisms of the governmental agency concerning its appraisal techniques. One of the biggest gripes by the nation's builders has been the negligible additional appraisal allowed for good design. Most builders agreed that good architectural design costs money, yet FHA appraisals do not reflect this additional cost. Many other yardsticks of appraisal used by the FHA had little up-to-date value. Builders, it was said, will be pleased to see a new appraisal system based on value.

Close contact with law makers will reduce the number of conflicting regulations and other stops that Washington has placed on the industry.

Slum rehabilitation will see a streamlining of 207 and attempts at legislation to help conserve existing structures, stated Hollyday.

(Continued on page 16)
**NEWS**

**Cole Rolls Up Sleeves on Housing Problems**

In Chicago August 6, on the first leg of a "shirt sleeve" tour which would take him to six cities, Albert M. Cole, new administrator of the Housing and Home Finance Agency, held an informal, open meeting for all segments of the Chicago housing market. Cole's objective is to take the pulse of local housing leaders in an effort to orient HHFA to housing problems at the grass roots level.

Representing builders at the meeting were Joseph E. Merrion and C. E. Blomgren. Merrion said that in his opinion the heart of the housing problem at this time lies in the freeing of mortgage money. The need is for adequate financing. Merrion advocated the lowering of FHA down payments and close attention by HHFA to the problem of VA mortgages, for which the market is now practically zero, he said.

Blomgren spoke for the small-volume builder and stressed two points. The first was the need for a simplification of the whole FHA-VA procedure. The second was the need for a more even flow of mortgage money, which would enable builders to carry out the long-term kind of planning essential to their product. Blomgren reported that the market for new houses is still good, but mortgage money is not keeping up with it. Like Merrion, Blomgren felt that lower FHA down payments are much needed, though what effect such action would have on the value of the dollar is uncertain.

**Middle-Income Units Needed**

Keen interest in the problem of providing housing for middle incomes was shown. Asked by Cole to define "middle income," builder Merrion replied, "An income of from $4,000 to $5,000. Any man who makes $80 a week can buy a home from me."

While some builders have done much to provide housing for this segment of the market, it is a segment which lies mostly between public housing and the volume of building activity by private enterprise. Cole said he was much interested in rental housing, and considerable discussion was directed toward the failure of Section 213, Title II of the National Housing Act to stimulate any volume of cooperative housing projects by middle-income groups.

Jerry Voorhis, director of the U.S. Cooperative League, charged that lending agencies have failed to recognize the value of middle-income housing under Section 213, and called for a strengthening of FHA's work along this line.

**City Rebuilding and Public Housing**

The indispensable place of properly sited public housing in the city rebuilding picture was generally recognized. Earl Kribben of Chicago's Metropolitan Housing and Planning Council urged the strengthening of Title I of the National Housing Act to include aid for modernization and remodeling work in conservation areas. He also urged FHA to encourage loans in such areas.

**A Mortgage Banker's View**

Maurice A. Pollak, president of the Chicago Mortgage Bankers Association, called for an increase in the limits of FHA Section 203 mortgages to match the high cost of building today. He also felt that FHA Section 207 requirements would have to be revised to insure a higher per cent of construction costs, if the building of apartments is to go forward.

Spelling out for new building in slum or conservation areas, Pollak thought that 90 per cent of construction costs for such projects would have to be insured.

Pollak reported plentiful money for conventional mortgages in Chicago, but not enough funds for the 4½ per cent FHA and VA loans.

Other spokesmen for housing in Chicago included: Oscar Brown, president of the Chicago Negro Chamber of Commerce; the Reverend Daniel M. Cantwell, vice president of the Housing Conference of Chicago; Ellsworth Smith, secretary of the Chicago Industrial Union Council of the CIO; Francis W. McPeek of the Chicago Commission on Human Relations; and Eugene Galbreth, a tenant in one of the city's public housing projects.

After a whirlwind tour of the city, Cole and his party went on to similar meetings in Omaha, San Francisco, Albuquerque, Fort Worth and Dallas, and Memphis.

**builder goes to court over a carport**

Edgemont Park is a planned residential community of 450 units and a $8 million shopping center now under way at Lansing, Michigan, by the M. and M. Development Co. Protected by well-drawn plat restrictions, Edgemont Park recently had a chance to test the power of restrictive covenants.

An owner decided to build a lean-to version of a carport at one side of his house. He ignored the Edgemont restriction which requires that all building plans, including garages, be submitted to the developer for approval. The developer sued the owner, declaring that he had not complied with the plat restriction and that the carport as designed was not in harmony with the neighborhood.
St. Louis Strike Curtails Residential Building

The early summer construction strike has cut the production of new homes in the St. Louis area almost 50 per cent, according to C. S. Upson, president of the Home Builders Association of Greater St. Louis. Informed estimates place the figure for postponed residential building alone as high as $50 million, and it is believed that more than 4,000 projected housing units were eliminated from this season's building program.

"The effect of the long work stoppage will be felt next year, too," Upson predicted, adding, "Builders have no new plans for next season, except to finish this year's program of building." He explained that with money tied up in improvements in a subdivision, the completion of which was impossible because of the strike, builders could not plan the development of a further subdivision. He said that this did not necessarily apply in the case of the mass production builders, but more especially was the case of the smaller operation.

The work stoppage, which began in May, involves truck drivers for ready mixed concrete companies in St. Louis and St. Louis County.

Creden Named Public Relations Director of Hines Lumber Co.

Philip A. W. Creden, recently appointed director of public relations at Edward Hines Lumber Co., Chicago, is widely known for his appearances as a public speaker and his activities promoting the welfare of the building industry. He currently is chairman of the public relations committee of the National Retail Lumber Dealers Association, member of the executive committee of the Lumber Dealers Research Council and program chairman for Ponderosa Pine Woodwork.

SEPTEMBER 1953

Dickerman's Column

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

What Price Money?

The days of easy mortgage credit are over—and we may as well face it.

Much is heard these days about the "hard money policy." But what is the significance of this policy besides making money hard to get? It means that the whole Eisenhower administration's approach to credit and governmental control of the economy is geared to indirect manipulation of credit, rather than direct controls such as Regulation X. The present administration has adopted the theory that, by controlling credit at its source, all industry and business can be accelerated or decelerated as the national economic health requires. In fact, a gigantic and virtually untried experiment in fiscal policy is currently under way. Its results, while perhaps academically interesting, can have and are having a most pronounced adverse effect on the home builder's ability to secure both permanent and interim financing.

Many in official Washington recognize that the process of "hardening" money (i.e., making it worth more), if pursued too enthusiastically, can result in an economic down-turn. They are confident that, should such a decline become too steep and its momentum unduly swift, ready tools are at hand to check the drift and reflate to the degree necessary. However, opinion on the practicability of this is not unanimous. Likewise, the political dangers implicit in such a course can hardly be ignored by the administration.

In the meantime, what can the average home builder look forward to in the next several months when he sits down with his lender to talk mortgage money? The chances are he will not be able to get as large a commitment as he would like nor will the terms be as liberal as perhaps he has become accustomed to. Actually, there is—and will continue to be—a marked regional variation in both the availability and terms of mortgage credit. In the Northeast, close to the large financial centers, the builder will continue to have more favorable financing terms. In the South, Southwest and West, while some money will be available, it will cost more, either at marked discounts or at higher interest rates.

Those using FHA and VA will find their problems complicated by the frozen interest levels, and the quota system of large institutional lenders which restricts the total volume these companies will lend in a given area at a given time.

The chaotic condition of the mortgage market in some parts of the country in midsummer was a product of a series of events beginning with the decision of the Treasury to refinance portions of the national debt on longer terms and at higher interest rates than had been in vogue for 20 years. The issuance of the 3 1/4 per cent, 30-year government bonds which unexpectedly began selling at discounts signalled the end of the government's previous deliberate policy of holding down interest rates. Shortly thereafter, the FHA and VA programs were upped to 4 1/2 per cent. Congress then lifted restraints on discounts. Lenders who had previously assured all and sundry that an interest rate adjustment would bring forth an adequate supply of money red-facedly had to admit that their calculations were in error. Money was still tight, if not, in fact, tighter than before the interest rate change.

The picture is not all black, however. Conventional financing remains in fair supply even though at higher interest rates and on less favorable terms. The new Federal National Mortgage Association "one-for-one plan" should assist materially in loosening FHA and VA money. The market should recover somewhat after the glut of lower interest rate mortgages is absorbed. The anticipated decline in housing starts should also relieve the pressure on the demand side of the mortgage market. None of these developments in themselves will produce a plentiful supply. Therefore, builders should proceed cautiously, assuring themselves of firm financing commitments in advance of construction during this period.
Cook Suggests Action to Rehabilitate Chicago Slums

Chicago was the target for a verbal tongue-lashing by G. Yates Cook, director of rehabilitation for the National Association of Home Builders. Cook claimed that slums in the midwest metropolis are the second worst in the country, led only by those of the nation’s largest city, New York.

Cook related these facts to home builders and mortgage bankers at a joint meeting held recently in Chicago. This was the 18th city across the nation to be inspected and advised by the rehabilitation expert.

G. Yates Cook, Director of Rehabilitation for NAHB

Cook was one of the key figures in the “Baltimore Plan.” He worked for the city administration, enforcing the statutes on sanitation and health. His part in the “Baltimore Plan” makes him qualified for his present position with the NAHB.

Cook looks at blight and rehabilitation areas with almost overwhelming simplicity. He claims, “Any high school student can look at a rundown block and suggest the steps needed to remedy the situation—that part is simple.”

Getting the job done is the fight, according to the NAHB expert. It will take the combined efforts of the building industry plus City Hall endorsement and the aroused citizenry crying for rehabilitation.

He warned that with today’s high governmental expenditures, blight areas are a bankruptcy factor. Only within the past 20 years have communities added health and welfare departments which today take large slices of the finances.

These are growing each year, yet the housing inventory is decreasing in urban areas and tax receipts are dwindling. It is not economically sound to permit slums to develop, added Cook.

The biggest single problem to be tackled in this fight is financing so private industry can alleviate many of the sordid conditions. FHA programs, according to Cook, need investigating to see if they will meet the financing needs and if they don’t, then new legislation will have to be enacted for rehabilitation.

The crusading NAHB slum fighter went on to tell of his experience with the most common FHA rehabilitation program. Title I financing. Limitation to the FHA program was the short 3-year amortization period which necessitated too much of the owner’s monthly income to be effective. Cook wants longer amortization loans.

Immediate action suggested by Cook was to rehabilitate “pilot blocks.” These will develop facts and figures that can be used as bases for starting a full-scale program. To the local citizenry, the “pilot block” will also score as a symbol of what can be done and what it will look like. Publicizing the project can stimulate and enlarge the program whereby owners can do much of the job.

It was shown in Baltimore that just paving a slum street was enough incentive for the property owners to dig themselves out.

Now is the time when additional surveys and “ivory tower” plans must come to a stop. Now is the time when work must start and progress be made as it goes along, stated Cook.

The rehabilitation program of the NAHB started last year during Alan Brockbank’s term as president. Brockbank became alarmed at the conditions that existed. He became acutely aware of them in his NAHB travels on speaking tours from one NAHB chapter to the other. This year the now past-president heads the rehabilitation committee and was instrumental in bringing G. Yates Cook to the National Association. During his 5-month tenure, Cook has already advised Memphis, Miami, Fort Worth, San Antonio and New Orleans on definite slum rehabilitation programs. The other 13 cities he has visited are now planning feverously, prior to the “big push.”

Outlays for Residential Building Hit New Peak

Outlays for new residential construction in the first seven months of 1953 set a new record, according to a joint estimate by the Departments of Commerce and Labor.

The 1953 outlays were estimated at $6.6 billion, up 10 per cent from last year’s $6.0 billion.

Meanwhile, spending for new residential construction in July was off 1 per cent from June.

Hollyday

(Continued from page 13)

Hollyday, in his two-day Chicago visit, viewed some of the Chicago blight areas as well as some which have been kept in good repair. The commissioner was instrumental in the operation of the “Baltimore Plan” and will try to institute measures that will help to rehabilitate many of the run-down slum dwellings.

His barnstorming tour, talking to builders, mortgage bankers and city officials, is in line with his program of bringing FHA to the industry. He has had more than an earful of past suggestions and criticism of FHA.
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SEPTEMBER 1953
Charles E. Slusser, public housing administrator, will supervise a sharply-curtailed public housing program during the current fiscal year. Congress has limited the program to 20,000 units, and all must come from contracts already signed. FHA may make no new contracts.

Enlarged Florida Group Plans First Banquet

The Builders Association of South Florida, which merged recently with the Home Builders Association of Greater Miami, is planning to hold its first banquet this month at a Miami country club.

The association’s new policy of holding its regular meetings in different sections of Miami has improved attendance, according to S. A. Dansy, executive director. He also reports that separate “shop talk” sessions for builder-members will meet the second Tuesday of each month.

Although many new members have joined the organization since the merger, a membership drive was begun in August under the direction of Joseph Gittleman, assisted by Charles Stoker and Herman Camner.

Hazeltine Gets Community Facilities Post at HHFA

John Hazeltine, a Los Angeles businessman, is the new Commissioner of Community Facilities and Special Operations in the Housing and Home Finance Agency.

Hazeltine, 53, joined HHFA on August 3. He succeeded Pere F. Seward, who remains with the housing agency as an assistant commissioner for community facilities.

The new commissioner’s background has spanned the oil, lumber and construction industries. At the time of his appointment to HHFA he was assistant manager of the construction and maintenance department of the Richfield Oil Corporation.

Dealer’s Viewpoint

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

Manufacturers Back New NRLDA Advertising-Promotional Scheme

Retail lumber and building materials dealers and the manufacturers of building products are developing a plan for coordinating their advertising and promotional programs two or three more times during the next year. The basic idea proposes that a wide consumer response can be created if a large number of dealers and manufacturers will appeal to the public with the same theme at the same time.

The idea was born at a Merchandising Conference held in connection with the spring meeting of the Board of Directors of the National Retail Lumber Dealers Association. It was discussed with a group of manufacturers at a subsequent committee meeting, then a letter describing the proposal was sent to the advertising managers of 125 building products manufacturers.

Thirty manufacturers expressed a definite interest in the idea and a number of others expressed the hope that they could adopt their own advertising and promotional programs to the plan.

The preliminary details are being developed by NRLDA’s new Merchandising Committee, which then will discuss the program with a group of interested concerns.

Among the themes which are being considered for the coordinated promotions are: “Planning Your New Home Now,” “Fix Up Your Home for Spring,” “Get More Pleasure from Your Home This Summer,” “Buy Your New Home Now,” and “Get Your Home Ready for Winter.”

The dealers will agree on how many themes it will be practical to use during the first year, which themes will appeal to the largest number of dealers and manufacturers, and when to schedule each theme selected.

It is not hard to visualize the tremendous consumer response which could be developed if several thousand dealers and several dozen manufacturers all reached the public simultaneously with the same appeal every three or four months.

Each dealer and manufacturer would develop the themes in his own way, but each would be telling consumers the same story. Dealers would stress the theme in their newspaper, radio and direct mail advertising, and manufacturers would feature it in their consumer advertising and point-of-sale materials.

One strong appeal of this plan is a provision against entailing any additional advertising expense for companies who participate. Dealers and manufacturers will merely dedicate their advertising expenditures to the selected themes when the scheduled dates come around instead of each one’s striking a different note.

At the start some manufacturers may find it difficult to adapt their advertising and promotional programs to the industry-wide themes, and some dealers may prefer to stand on the sidelines at first, but the plan is basically sound that the individuals and doubting Thomases are bound to join sooner or later.

If broad repetition is a major force in creating advertising impact, here is the way to get it!

Pittsburgh Builders Honor FHA District Director

The new FHA district director, Jesse F. MacFarlane, was guest of honor at the Pittsburgh Home Builders Association’s luncheon held in the Carnegie house immediately following his recent swearing-in. Shown are (l. to r.): Frank Corace, Pittsburgh HBA’s committee chairman to Federal Housing Administration; C. F. McWilliams, Jr., Home Builders Association president; MacFarlane; and James Neville, FHA zone director.
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LUDMAN—WORLD'S LARGEST MANUFACTURER OF AWNING WINDOWS AND JALOUSIES
Advance Reports Indicate a Lively National Home Month

The month of September—National Home Month—promises to better the promotions held in behalf of new houses during September last year. Early reports indicate that more NAHB chapters have organized celebrations this year than in 1952, when over 60 cities participated in National Home Week.

An important new factor this year, from all indications, is the action by lumber dealers in behalf of National Home Month. Taking a random sampling last month among lumber dealers in 22 states, American Builder found that individual firms in 13 of these states were planning something special for National Home Month promotion. In the main, this something special consists of extra newspaper advertising and model houses showing the use of new materials.

The concentration of activity, however, is in the National Home Week demonstrations staged by NAHB chapters during the week of Sept. 20-27. Highlights from centers include, among other headliners, the following:

Chicago
The Chicagoland Home and Home Furnishings Festival opens Sept. 20 with 90 builders participating. Of the 90 some model houses on display, 35 will be completely furnished. The festival continues until October 11.

Houston
Houston builders, staging their second Parade of Homes, are presenting 33 fully furnished homes on one street in a large subdivision where visitors may inspect over 1,000 new houses. As part of the fun, Houston is giving away an $18,000 house complete with swimming pool and air conditioning.

Columbus, Ohio
Columbus builders are following their one-site Parade of Homes of last year with a similar venture this year, but have extended National Home Week exhibits to new houses outside the parade itself. The Home Builders Association is publishing a plan book of all houses displayed during the week and will distribute these books at the Parade of Homes.

Seattle and Portland
Seattle and Portland, Oregon, have also organized Parades of Homes this year. The Seattle parade will feature 100 houses. Some 25 builders are included in the Portland parade.

New Orleans
The New Orleans Parade of Homes is in Henfer Park, a new subdivision along the Mississippi. The tract has a central section of 26 lots, and the 26 entries in the parade occupy these lots. The remaining 36 lots in the tract are being used for parking space during the time of the parade. These model homes will be held open past National Home Month so that the directors of the National Association of Home Builders may be able to see them at the time of their annual fall meeting to be held in New Orleans.

The San Fernando Valley
The San Fernando Valley Building Contractors Association is opening a parade of 21 houses built by members on both sides of one block in Van Nuys, which is approximately the geographical center of the valley. The association itself will present one of these houses, built on a prize-winning design resulting from a contest held for students in drafting classes in the local high schools. Every house will be furnished and landscaped.

St. Louis
In Greater St. Louis, the Home Builders Association expects to set a record for the number of new houses displayed during a National Home Week promotion, and for the first time to show air conditioned homes in the lower-priced, non-custom field.

Tornado-Stricken Flint Rebuilds Devastated Area
D. W. Riegle, mayor of Flint, Mich., has issued a proclamation designating two days in August as “tornado rebuilding days.” The city was struck by a tornado on June 8 which demolished more than 300 homes, and killed 116.

The city executive, in cooperation with the AFL-Flint Building Trades Council, has asked the help of volunteers from throughout the community to assist in a program to build 100 houses in two days in the tornado area for victims whose houses were destroyed.

Robert L. Craft Appointed Will Serve Indiana Group
The Board of Directors of the Indiana Lumber and Builders’ Supply Association recently announced through their president, Robert J. McCutchan, the appointment of Robert L. Craft, Indianapolis, as secretary-treasurer of the organization, which numbers over 500 companies in the state. In this capacity, Craft will also serve as a director from Indiana to the National Retail Lumber Dealers Association, Washington, D.C.
LETTERS

bouquets for National Home Month booklet
Sir: Your National Home Month literature was most interesting. The more folks stirring up interest in these most worthwhile projects, the better off we will be. As the "pappy" of this program, readers will appreciate your comments.

Congratulations and keep up the good work.

Conrad P. Harness
Public Relations Director
Nat'l. Association of Home Builders
Washington 6, D.C.

Sir: Thank you for the copies of your National Home Month booklet. It is well put together and tells the story quickly and simply.

Our local association plans to participate in National Home Week this year, the first time in several years that we will have undertaken this activity. It is too early to determine whether or not we will enter your NHW Contest.

I think you are doing a splendid job for the industry.

James M. Albert
Regional Vice President, NAHB
Miami, Florida

Sir: I think your booklet "How to Plan a Successful National Home Month" is excellent and I hope that dealers will follow your advice.

As you know, we are appointing a new Merchandising Committee and we will bring up the subject of National Home Month at its first meeting.

Everett B. Wilson
Director of Public Relations
Nat'l. Retail Lumber Dealers Assn.
Washington 6, D.C.

Sir: Congratulations on the excellent booklet on "How to Plan a Successful National Home Month." The publication is complete in every detail and should prove to be a valuable guide to associations, firms and builders.

As usual, your fine magazine has added another excellent contribution to industry promotion.

Lawrence W. Nelson
Executive Vice President
Minneapolis Home Builders Assn.
Minneapolis 3, Minn.

we acknowledge with thanks, Mr. Spiegel
Sir: I wish to compliment you on the May issue since it gives so many stories and pictures which must be of inestimable value to all builders, small or large. Your "How To Do It" articles have always been extremely interesting, and I am glad to see that you are continuing to provide new ideas to the industry. I note also your new section, "Ask the Experts," and this, too, is most informative.

I was particularly impressed by your editorial and agree with you that there is no basis for a quarrel between retail lumber dealers and builders. This matter has disturbed many people for some time and I think that you showed great courage and forthrightness in your editorial comment.

E. M. Spiegel, President
Nat'l. Association of Home Builders
Washington 6, D.C.

builder-retailer editorial rings bell
Sir: I cut your editorial "What about Builder-Retailers?" out of the May, 1953, issue and brought it to the attention of several here in our organization. We think it is so good that we are planning to reprint it and send it out to our contractors. Congratulations on your clear thinking and courage.

C. A. Thompson
Thompson Lumber & Bldg. Supplies
Champaign, Ill.

Sir: In the May, 1953, issue of American Builder there is an editorial entitled "What about Builder-Retailers?" I have read this editorial and was very much impressed by it, and I would like to reprint the entire article in our Annual Book, to be published in time for our Annual Convention in October.

Before doing so, I felt that I should get permission from you.

Ralph H. Hilton
Executive Secretary
Building Material Dealers Assn.
Los Angeles 17, Calif.

Permission was granted.

—The Editor
(Continued on page 24)
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    - T. M. Cobb Co.
      - Los Angeles, San Diego
  - **Colorado**
    - Lumber Dealers, Inc.
      - Denver, Colorado
  - **Connecticut**
    - General Woodcraft Co., Inc.
      - North Bergen, New Jersey
  - **Delaware & District of Columbia**
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      - Baltimore, Maryland
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      - Bradenton, Fla.
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    - ReOw Distributors
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  - **Idaho**
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      - Joliet, Illinois
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    - Michigan
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        - Royal Oak, Michigan
    - Minnesota
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        - Minneapolis, Minnesota
    - Missouri
      - IMSE-Schilling Sash & Door Co.
        - St. Louis, Missouri
      - Martin Material Co.
        - Kansas City, Missouri
    - Montana
      - Falls Window & Cabinet Shop
        - Great Falls, Montana
      - Interstate Lumber Co.
        - Missoula, Montana
      - Western Builders
        - Billings, Montana
    - Nebraska
      - The Sotman Co.
        - Grand Island, Nebraska
    - New Hampshire
      - General Woodcraft Co., Inc.
        - North Bergen, New Jersey
    - New Jersey
      - General Woodcraft Co., Inc.
        - North Bergen, New Jersey
      - Johnson & Wimsatt, Inc.
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D. PORTER & SON
Stellarton, Nova Scotia

Buyers of modern homes are entitled to the convenience and beauty of removable wood windows. No other window can duplicate the weather-snug construction of R-O-Ws. Over 8,000,000 R-O-Ws are now in daily use.

See your local lumber dealer or write
R-O-W SALES COMPANY 1338 - 66 ACADEMY AVENUE • FERNDALE 20, MICHIGAN
NEW for homes and apartments

makers of AuthOtone Chimes ... the original non-electric door chimes ... now present a new model ... THE METROPOLITAN.

This latest design of AuthOtone Chime incorporates a one-way mirror peephole which permits the resident of the dwelling to observe who is calling without being observed. The caller simply sees a handsome polished brass plate with a push button, a mirror, a name card, and an apartment or house number card. When he presses the push button two musical resonant chime notes sound throughout the dwelling. The resident, by fingertip control of a shutter on the ivory chime inside the door, can see who is outside through the one-way mirror without being seen. The chime operates mechanically without electricity, wiring, or batteries. Fits any door up to 2" thick.

For further information write on your letterhead to Auth Electric Company, Inc., 34-20 45th Street, Long Island City 1, N.Y.

Other Auth Non-Electric Door Chimes

UNIVERSAL MODEL No. 835

A completely non-electric door chime ... no wiring. Utilises a mechanical push button mounted on the outside of the door or door frame to sound two musical notes on the chime mounted on the inside. Handsome plastic push button escutcheon plate has gleaming, rust-proof, polished brass finish. Decorative chime (only 6½" x 3" x 2") is finished in ivory enamel. Fits all doors or door frames up to 9" thick. A great money-saver for any home or apartment.

The Auth Electric Company, makers of AuthOtone Chimes ... the original non-electric door chimes ... now present a new model ... THE METROPOLITAN.

letters...

(Continued from page 21)

home building has a human side too

Sir: You do cram a lot of concise information, facts and data into your publication. I read it every month and I am sure it keeps me better informed. If there is a criticism, or let's say a suggestion, that I have, here it is: try to get on a more personal relationship with the builder and your other readers. Houses are not entirely made of appliances, gadgets and patented products that have the trade-mark of a national corporation.

Houses comprise the thinking and the labor of many different people, all the way up to the fellow who puts in the sod. Why not follow the steps a builder takes to build a house from the beginning to the end and tell the story both in prose and pictures as humanly as possible?

Also let me suggest a department in your magazine covering the goings-on in labor from month to month.

A. G. Broback, President.
A. G. Broback Co., Minneapolis, Minn.

> These excellent suggestions have been passed on to the editorial staff, and will be acted upon in the future.

—The Editor

reader since 1905

Sir: I believe I am one of your oldest readers: as a young carpenter I was given some of the first copies of the "American Carpenter and Builder" (1905 edition). That was a wonderful periodical; very helpful to the young mechanic who wished to learn more about his vocation.

Homes are a vital part of our democracy, and they should speak for their occupants, the independence of thought and desire that is self-evident in the design. "Beehives in rows" can never be a credit to the families who occupy them.

I am deeply interested in building and home ownership, and trust that we will never depart from good design and variety to satisfy the profit of speculative builders.

C. P. Ludden, Builder.
Portville, N.Y.

(Continued on page 26)
RUSCO PRIME WINDOWS Are Fully Pre-Assembled —
Glazed, Finish-Painted and with Hardware Attached —
All Ready to Install in Window Openings!

- In ever-increasing numbers, architects and builders are finding Rusco Prime Windows their best solution to the problem of top-quality specifications within fixed cost limitations.

These unique, ready-to-install windows make truly remarkable savings in installation time and costs. They can be fully installed on many types of construction in as little as 5 minutes per unit! When you consider their low initial cost, plus the elimination of field glazing, painting and fitting of hardware, you can readily appreciate why the installed cost on Rusco is frequently less than that of the cheapest conventional windows obtainable.

Rusco Prime Windows are precision-built of sturdy, tubular galvanized steel, bonderized and finish-painted with baked-on outdoor enamel. Smooth and effortless in operation, they are available with insulating sash (eliminating the need for storm windows—and also an ideal treatment for air conditioning) and with Rusco’s Fiberglas screens which are rustproof, rotproof, burnproof and never need painting.

For Complete Specifications and Illustrated Catalog,
Write Dept. 7-AB93

THE F. C. RUSSELL COMPANY
Cleveland 1, Ohio • In Canada: Toronto 13, Ontario
for QUICK, LABOR-SAVING, EASY INSTALLATION

Time saved is money saved and these windows save installation time by coming to the job factory-assembled, including all hardware and glazing. Easily mullioned for window wall construction. Proven, long lasting performance and convenience features add sales appeal to any type of building.

Gate City Perma-Treated
WOOD AWNING WINDOWS
Pioneered by GATE CITY SASH & DOOR CO.
“Wood Window Craftsmen Since 1910”

Member of The Producers’ Council, Inc. Refer to Sweet’s Builders’ File, 4d-Ga

Write today for name of nearest Gate City Dealer. List of stock sizes and literature.

GATE CITY SASH & DOOR CO.
P. O. Box 901, Fort Lauderdale, Florida
Gentlemen: Please send Builder’s Literature and complete information on Gate City Awning Windows.

Name ___________________________ Address ___________________________
City ___________________________ State ___________________________

letters...
(Continued from page 24)

more praise for booklet
Sir: The wonderful book of information which you have prepared on National Home Month has just reached my desk. I think you have done more than could have been expected, and the big idea now is to get the book read by “positive” thinkers and “doers,” and not just be put back on the shelf.

For National Home Week last year, Dallas put over one of the best Parade of Homes in the country. It’s hard to do a promotion of this kind unless you have seen it in action or have gone through it yourself. NAHB chapters can make more on a real “jam-up” Parade of Homes than a home show. National Home Week is one of the greatest features ever launched for the home building industry.

Grover A. Godfrey.
Executive Vice-President (retired).
Home Builders Assn. of Dallas.
Dallas, Texas

April catalog-directory in demand
Sir: I have been enjoying the April issue of American Builder very much and would like to get three copies for my mechanics. You are publishing a wonderful magazine and I know that the home builders all over the country really appreciate your efforts.

Walter J. Shapter, Jr., Builder.
Columbus 15, Ohio

Sir: Under no conditions do I miss the April edition of your magazine. The late date of renewal was far from intentional. For I find your magazine more than useful in my business.

Frank G. Snow, Builder.
Grand Rapids, Mich.

1925 rafter table still serves reader
Sir: Send me, if possible, a copy of the rafter table published on page 134 in the March, 1925, American Builder. I have worn the other one out.

Guy Sutton, Builder.
Prentiss, Miss.

Reader was sent a photostatic copy of the rafter table he has found so useful for 28 years.

—The Editor
SPENCER’S
POPULAR “C” BOILERS
NOW OFFER NEW FEATURES

NEW SIZES . . .
MORE ATTRACTIVE PRICES!

Now, the most popular series in Spencer’s quality line of boilers is available for a wider range of jobs . . . and at more attractive prices.

Improved design now makes this outstanding boiler available with standard 15” base or extra base heights, at nominal charge, for special fuel-burning installations. Four new larger models, with heavy 3” fire tubes, have been added to the line, providing greater range in application.

Here are some of the outstanding features of the Spencer “C” Boilers: water-cooled, precision-ground flue and fire-door frames, equipped with heavy cast-iron insulated doors; extra-heavy steel-plate smokeboxes; staggered boiler tubes for rapid heat transfer; service water-heating coils in many capacities.

Entire boiler line available with attractive standard jackets, insulated with glass wool, with beautiful blue-gray hammerloy finish.

Any fuel can be fired in the Spencer “C” Boilers. Easily and quickly converted from hand to automatic firing.

For any job—residential, industrial or commercial—requiring 1100 to 5000-sq.-ft. net load steam, low pressure, specify one of Spencer’s “C” Series. Save dollars and provide the highest quality heating plant available.

SPENCER “C” BOILERS
For Larger Homes, Motels, Schools, Churches, Apartments
Commercial and Industrial Buildings

Capacity Range: 1100 to 5000 sq. ft. steam net rating
1760 to 8000 sq. ft. water net rating

SPENCER HEATER
LYCOMING-SPENCER DIVISION

Lycoming-Spencer Division
AVCO Manufacturing Corp.
Williamsport, Pennsylvania

Dear Sirs:
Please send additional information and specifications on the new Spencer “C” Series Boilers to:

Name ____________________________
Position ____________________________
Company ____________________________
Address ____________________________
City ____ Zone ____ State ____

SEPTEMBER 1953
this is the "READERS' CHOICE" house
built for NATIONAL HOME MONTH

Unique among thousands of houses shown this month by builders over the country as part of their National Home Month endeavor is the "Readers' Choice" house developed by Better Homes and Gardens. The "Readers' Choice" tag was given the house because it was designed to conform to ideas and suggestions advanced to Better Homes and Gardens editors by a group of selected readers.

The plan and promotion program were presented to 150 home builders at a special meeting held at the 1953 NAHB Convention in Chicago. American Builder Editor Edward G. Gavin related to the builders present the history of National Home Week and the subsequent change to National Home Month. He went on to say that at the inception of the program five years ago, he prophesied that consumer magazines would join the promotion. “For the first time,” stated Gavin, “a magazine devoted to improved housing standards and addressed to consumers is lending its influence to further project the idea of National Home Month to the buying public.”

Building Editor John Normile of Better Homes and Gardens introduced the "Readers' Choice" house and explained to the builders present the merchandising and promotional aids that have been developed to make the house a spectacular National Home Month feature.
Trude started construction in latter part of January. Concrete and masonry work were covered during the cold weather.

Framing of "Readers' Choice" house utilized 4x16's ten feet on center. Posts were 4x4's at exterior wall.

The promotion included newspaper, radio, and television publicity, tie-in with leading department and furniture stores to furnish the houses, reciprocal advertising at local levels, and the promotion in Better Homes and Gardens and American Builder.

The first house to be completed, and the one which was photographed for use in this story, was built by William Trude of Arlington Heights, Illinois. Trude is a Chicagoland builder specializing in ranch-type homes selling for $20,000 to $30,000.

The "Readers' Choice" house is a departure from the construction types that Trude has been building. Trude stated that he entered the National Home Month program because it gave him an opportunity to identify himself as a leader in accepting advanced ideas in home construction and design. Features of the house which Trude believes will find the greatest favor with the public are:
1. Dressing room with built-in lavatory
2. Built-in kitchen range
3. Terrace dining room
4. Linen cabinet and built-in hamper
5. Large glass areas with privacy feature
6. Children's bedroom-play area
7. Outdoor patio
8. Air conditioning

SEPTEMBER 1953
Construction of the “Readers’ Choice” house parallels the advanced design of the structure. Basically it is post and beam framed on 10-foot centers. The beams are 4x16 and rest on 4x4 posts set at the exterior walls. Roof decking for the large span is 3x6 T&G industrial flooring nailed to the supporting beams.

The house is built on a concrete slab with a finished floor of black-stained concrete scored in approximately 3-foot squares.

Exterior materials combine cypress siding, insulated double glazing and Cemesto panels. Interior materials are wood paneling, pegboard, plaster board and plywood.

The house is heated with two air conditioner-heating units located in the utility room and utility closet in the bedroom area. These warm air units operate in a perimeter duct system.

Carpenters used 60d nails to fasten roof decking to beams. Nailing procedure was time-consuming as end nailing required prior drilling.

Feature Number One: Dressing room adjacent to master bedroom and bath has built-in lavatory and full-length mirror. Surrounding mirror is theatrical-type lighting. Wall is pegboard.

Feature Number Two: Kitchen, looking through from terrace dining room, shows sliding glass partition, serving bar, and built-ins.

External materials combine 4-inch cypress paneling and 2-inch Cemesto sheets. Cypress was finished natural and Cemesto painted in pastel colors.
Feature Number Three: Terrace dining room connects living and sleeping areas of “Readers’ Choice” house. Two sides of the room are insulated glass walls with sliding doors. Room can be opened up taking advantage of garden and patio.

Feature Number Five: West side of terrace dining room overlooks patio garden. Stockade fence assures privacy to room.

Feature Number Four: Bath has several features to please buyers: a mirror-wall, a linen wall cabinet (reflected in mirror), and a built-in clothes hamper. Bathroom is interior; has plastic skylight.
“READERS’ CHOICE”

Feature Number Six: Children’s suite in sleeping area has two rooms and large play area. Folding wood doors divide sleeping room from play area.

Feature Number Seven: Patio area, as viewed from east side of terrace dining room, shows stacked block wall, barbecue, and play area.

decentralization—

“H” feature of plan points separation of living and sleeping areas, also makes possible outside vistas from all rooms. Open areas at sides of dining room are enclosed by glazed sliding doors.

**READERS’ CHOICE HOMES**

<table>
<thead>
<tr>
<th>BUILDER</th>
<th>TOWN</th>
<th>OPENING DATE</th>
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</thead>
<tbody>
<tr>
<td>Charles R. Byrd</td>
<td>Birmingham, Ala.</td>
<td>Aug. 30</td>
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<tr>
<td>Paul Querin</td>
<td>Phoenix, Ariz.</td>
<td>Sept. 6</td>
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<tr>
<td>R. C. Hamilton</td>
<td>Little Rock, Ark.</td>
<td>Sept. 20</td>
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<tr>
<td>William K. Kelley</td>
<td>Palo Alto, Calif.</td>
<td>Aug. 29</td>
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<tr>
<td>Frank Vanderlip, Jr.</td>
<td>Rolling Hills, Calif.</td>
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<tr>
<td>Richard Bonne</td>
<td>Sacramento, Calif.</td>
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<tr>
<td>H. A. Jenkins</td>
<td>Colorado Springs, Colo.</td>
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<td>Lester Morris</td>
<td>Chaska, Conn.</td>
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<tr>
<td>Walter Cowart</td>
<td>Jacksonville, Fla.</td>
<td>Sept. 20</td>
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<td>Jack O. Smith</td>
<td>Pensacola, Fla.</td>
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<tr>
<td>Clair Siefferman</td>
<td>St. Petersburg, Fla.</td>
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<tr>
<td>Albert Barber</td>
<td>Moultrie, Ga.</td>
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<td>William Trude</td>
<td>Arlington Heights, Ill.</td>
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<tr>
<td>William Barratt</td>
<td>Michigan City, Ind.</td>
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<tr>
<td>Andy Place</td>
<td>South Bend, Ind.</td>
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<tr>
<td>Ken Stowell</td>
<td>Wichita, Kans.</td>
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<tr>
<td>George C. Martin</td>
<td>Lexington, Ky.</td>
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<td>L. P. Smith</td>
<td>New Orleans, La.</td>
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<td>William Weir</td>
<td>Detroit, Mich.</td>
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<tr>
<td>Harold Reandahl</td>
<td>Minneapolis, Minn.</td>
<td>Sept. 20</td>
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<tr>
<td>Floyd Kimbrough</td>
<td>Jackson, Miss.</td>
<td>Sept. 6</td>
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<tr>
<td>Jerry Mafford</td>
<td>Richmond Heights, Md.</td>
<td>Sept. 1</td>
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<tr>
<td>Glenn L. White</td>
<td>Springfield, Mo.</td>
<td>Aug. 29</td>
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<tr>
<td>Fred P. DeBlasso</td>
<td>Rochester, N.Y.</td>
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<tr>
<td>Thomas Wilson &amp; Co.</td>
<td>Raleigh, N.C.</td>
<td>Aug. 28</td>
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<tr>
<td>Homer Friend</td>
<td>Columbus, Ohio</td>
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<tr>
<td>Ralph T. Sharp</td>
<td>Dayton, Ohio</td>
<td>Sept. 1</td>
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<tr>
<td>Gene Reser</td>
<td>Elyria, Ohio</td>
<td>Aug. 28</td>
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<tr>
<td>K. H. Flannery</td>
<td>Oklahoma City, Okla.</td>
<td>Sept. 1</td>
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<tr>
<td>James Nuckelis</td>
<td>Tulsa, Okla.</td>
<td>Sept. 20</td>
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<tr>
<td>Edward M. Ryan</td>
<td>Pittsburgh, Penn.</td>
<td>Sept. 13</td>
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<tr>
<td>Fry &amp; Cashman</td>
<td>Corpus Christi, Texas</td>
<td>Sept. 6</td>
</tr>
<tr>
<td>Truett A. Bishop</td>
<td>Dallas, Texas</td>
<td>Sept. 6</td>
</tr>
<tr>
<td>Frank W. Sharp</td>
<td>Houston, Texas</td>
<td>Sept. 20</td>
</tr>
<tr>
<td>Homer Cooper</td>
<td>Salt Lake City, Utah</td>
<td>Sept. 20</td>
</tr>
<tr>
<td>Al Batch</td>
<td>Seattle, Wash.</td>
<td>Sept. 20</td>
</tr>
<tr>
<td>M. K. Stults</td>
<td>Spokane, Wash.</td>
<td>Sept. 4</td>
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</tbody>
</table>

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AMERICAN BUILDER
This view from the west points up the "H" design of the house. Section shown here between sides of "H" is used for garden.

"Readers' Choice" house as seen from the street shows choice of lively colors for painted Cemesto panels.

keynote of design

The plan slices the second story off a two-story house and places it next to the first floor area. To achieve this with harmonious effect the architect produced an "H" plan. A terrace dining room connects living and sleeping areas.

The 13x16-foot terrace dining room has sliding glass walls facing the garden and patio. A sliding glass partition between the kitchen and dining room facilitates serving. On kitchen side of glass partition is counter that can seat four.

The sleeping wing has a master bedroom 11x12 feet and a 6x11-foot dressing room. A private bath, with tub, adjoins master bedroom.

The other portion of the sleeping area has two children's rooms 11x9 feet, opening onto a large 11x20-foot play area. The bedrooms can be closed off the play area with folding walls. Second bath, with shower, serves children's bedrooms.

The living unit contains a living room 16x19, kitchen 9x11, utility room 9x12 and two-car garage.

The house has 1,629 square feet of living area, excluding the garage.
The two wings of this split-level house with divergent roof slopes work together to achieve a unity of design.

**AMERICAN BUILDER BLUEPRINT HOUSE**

**BUILDER:**
Staalsen Construction Co., Chicago, Ill.

**DESIGNER:**
Arthur V. Hansen, Chicago Ill.

**TOTAL GROUND AREA:** 1,807 square feet

**COST:** $14.50 per square foot

The house is a combination of a number of design features. Specifically they are—

**THE SPLIT LEVEL**, which takes advantage of a three-foot, six-inch differential in the grade of the two roads which adjoin the property.

**THE L-PLAN**, which effectively separates the living and bedroom areas and provides good circulation throughout the house.

**AND THE V- (OR BUTTERFLY) ROOF**, in which the roof of the two main sections of the house by-pass each other, creating interesting features within, focusing pleasant views without.

To these basic features the designer has positioned the house to site in order to keep most of big oak trees.

The L-plan and split-level arrangement separate quiet areas from the living and work centers.
With a split-level arrangement it is possible to reduce the ground area covered. In this house the two floors in one wing are connected by a half-flight of stairs.

The V-roof made many of the features in the house possible. The wood framing beams spaced four feet on center and the 2x6 V-cut roof sheathing in the living wing are left exposed. Floor of this wing is six inches above the high point of the finished grade.

The high point of the living room is 11 feet, 6 inches from floor to underside of beams, with clerestory windows spaced between beams on the high wall. The ceiling in the end portion of this room drops to a height of 8 feet, forming a projecting canopy across this entire area.

The living room which includes living and dining areas, entry and passage, is literally one large space divided by a 4x6x7-foot-high free-standing unit which serves as a guest closet, sideboard, and storage space for silver, linen and other small articles.

The other wing, which is the long leg of the L-plan, is two stories at high point of roof and one-and-a-fraction stories high at the low end. Garage and utility room occupy the lower portion with floor at the same grade as the low point of the road at the front. Kitchen and breakfast nook are one-half flight below living room. The kitchen height is seven feet, two inches. This ceiling height eliminated the need for a dropped or furred beam over the wall cabinets; further, it provided generous storage facilities above the kitchen.

The top floor contains two bedrooms, a bath and a hall, with ceiling of the center bedroom following the slope of the roof. One-inch holes
bored through exterior walls are spaced two inches apart at the end of each rafter spacing, above the line of the ceiling insulation, to provide ventilation for the rafter area. These holes are protected by screens and the splayed ends of metal gravel strips which extend six inches over the edge of the roof and form the finished cornice line.

In the living and dining area, windows are large units with ventilation louvres under the sill. Other windows are outward-acting sash.

Freedom from condensation is obtained through use of hermetically sealed double glazing in all fixed units. A three-foot sunshade extends out over the large glass units on the south wall of the living room, and on through the south and west walls of the front bedroom, where two large fixed units with vents under occupy a corner position.

The house is placed on 10-inch concrete walls and footings. The concrete slab of the living-kitchen area is laid on two feet of foundry sand with one-eighth-inch moisture barrier under entire slab and one-inch rigid insulation around the perimeter under the slab.

Walls above are 2x4 frame-faced with 1x10 vertical redwood siding, except fireplace wall which is buff colored pressed brick. This is a cavity-type wall with one-inch air space filled with rigid insulation. Roof is four-ply tar and gravel with marble aggregates.

Change in roof pitch for both wings on rear elevation allows sufficient height for clerestory windows in living room.

The free-standing closet, shown in the center of the photograph, serves as a room divider in the living-area wing.

BRAND NAME PRODUCTS USED

- Allmetal weatherstrips and thresholds
- Barrett four-ply roof
- Bennett-Ireland fireplace screen
- Columbia Mills aluminum screens
- Crane plumbing fixtures
- Cycleweld-core plywood garage door
- Dodge vinyl-cork tile
- Darley fireplace damper
- Electromode heater
- Formica kitchen and vanity counters
- Hotpoint disposer, range and refrigerator
- Hydraulic pressed brick
- Janitel gas-fired heating unit
- Lauan Philippine mahogany plywood and trim
- Lightolier electric fixtures
- McKee upward-acting garage door hardware
- Meadows Corkite perimeter slab insulation
- Meadows Membrane moisture barrier
- Moen kitchen faucet
- Mosaic tile floor and wainscot
- Mutschler Bros. kitchen cabinets
- NuTone kitchen vent and door chimes
- Red Jacket well pump
- Schlage hardware
- Sherwin-Williams paint
- Smithway hot water heater
- Sterling sliding-door hardware
- Thermopane glass
- USG rockwool insulation
- USG Sheetrock
- Whitco sash hardware

For complete one-quarter-inch working plans of this house, write American Builder Home Plan Service, 79 West Monroe Street, Chicago 3, Illinois.
PARTIAL ELEVATION OF WINDOW MULLION AT HEAD

TURN AND UNFOLD FOR ELEVATIONS, DETAILS AND QUANTITY LIST OF MATERIALS
# Quantity List of Materials

## For American Builder Blueprint House No. AB 193

Arthur V. Hansen, Designer

### General Information

- **House — Type**: frame
- **Garage — Area**: included in house area
- **Porch (2) — Area**: 283 sq. ft.

### Excavating

- **Trench for foundation**: 137 lin. ft.
- **Chimney and column footings**: 5 footings
- **Excavation for basement and garage**: 76 yards

### Cement Work

- **Concrete work**: 1,560 sq. ft. Thickness: 4"
- **Anchor bolts**: 80 — 3/4"x10"
- **Waterproofing**: basement wall 400 sq. ft.

### Masonry

- **Brick**: 1
- **8" wall**: 122 sq. ft.
- **12" brick**: 40 sq. ft.
- **Lintels**: 1 — 8"
- **Hearth**: 1 — Lannon stone

### Millwork

- **Windows — Type**: fixed and awning
- **Windows, glazed including trim**: 10 — 30"x30" over 26"x12"
- **Flue lining**: 12" — 12"x12"
- **Fireplace**: 1, face brick
- **Throat and damper sets**: 1
- **Supporting column for lintel**: 1 — 2'6"x2'6" in dia.
- **Hearth**: 1 — Lannon stone

### Carpenter

- **Beams and girders**: 4 — 6"x6" — 8'0"
- **Foundation plates**: 1 — 6"x8" — 22'0"
- **Joists**: 29 — 2"x10" — 18'0"
- **Studding and plates**: 94 — 2"x4" — 8'0"
- **Ceiling joists**: 9 — 2"x6" — 12'0"
- **Roof rafters**: 5 — 2"x6" — 14'0"
- **Framing Lintels**: 2 — 2"x10" — 8'0"
- **Subfloor, wood**: 578 b.f.m.
- **Roof sheathing**: 2"x6" &g V-joint, 1,900 b.f.m.
- **Side-wall sheathing**: wood sheathing, 2,050 b.f.m.
- **Side-wall materials**: redwood vertical siding, 2,000 b.f.m.
- **Carpenter stairs**: 6 — 2"x10" — 4'0"
- **Flooring — Hardwood**: 1 — 2"x12" — 10'0"
- **Softwood**: 2 — 2"x4" — 8'0"
- **Exterior material — porch**: 4 — 2"x8" — 8'0"
- **Insulation — Rigid**: 1,735 sq. ft.
- **Blanket (2'4'')**: 1,600 sq. ft.

### Sheet Metal

- **Gutters**: 27'
- **Downspouts**: 10'
- **Roofing materials**: tar and gravel

### Interior Walls

- **Area**: 4,500 sq. ft.

Note: This does not include brick, 16'x8' boards, or materials covered elsewhere in list.

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This quantity list will be subject to variation depending on the common practices in various sections and municipalities of the country, the techniques of individual builders, the types of materials available locally and cost factors. The list published here is a suggested one, complete enough so that it can be used in arriving at a reasonably accurate estimate of the quantities and cost of materials that will be required to complete the structure. It was prepared by experts at the Edward Hines Lumber Co., Chicago.
To understand clearly the perimeter system and its use in basementless one-story houses built on a concrete slab, it is necessary briefly to cover the developments in the field of warm-air heating that lead up to the widespread use of the perimeter method.

The Problem of the Cold Slab Floor

At no time during the past 35 years, in which the National Warm Air Heating and Air Conditioning Association has been sponsoring a research program at the University of Illinois, have developments in warm-air heating come at such a rapid pace as in the last few years.

Some of these developments resulted from industry’s demands, while others were imposed from the outside. The problem that confronted the industry when the basementless ranch-type home was introduced into the northern climates is not to be minimized. Complaints began to arise concerning cold floors, especially with slab floors laid on the ground. In some cases moisture condensation occurred on the concrete floors, and in a few cases frost formation was reported on the floors. Discomfort because of drafts from the window surfaces was experienced in some homes having large glass exterior wall areas such as picture windows.

Initial Attempts to Use Conventional Heating Methods

Shortly after World War II the number of homes built upon a concrete slab floor was small. The warm-air heating industry was not greatly concerned about the difficulties of heating this new type of home, and conventional overhead forms of warm-air heating were used initially.

It was a simple matter to run ducts in the furred ceiling of a hallway or attic and supply warm air through registers located in the ceiling or on inside partitions. The return air intakes were concentrated close to the furnace room. Thus, the entire air circulation was above the floor.

Many of these installations gave acceptable results, particularly when the automatic controls were properly adjusted to provide practically continuous operation of the blower. Nevertheless, the industry was not satisfied with the conventional approach, particularly since the hot water heating industry meanwhile had successfully promoted:

1. the hot water floor-panel heating system,
2. the ceiling-panel system,
3. the baseboard radiator heating system.

The overhead distribution of warm air at this time was considered satisfactory, but the placement of return air intakes on inside walls near the floor caused cool drafts from the windows and walls to be drawn across the room at floor level. To overcome this condition, return intakes were located along the outside walls and the return air ducts placed below the floor slab.

Importance of Edge Insulation of the Floor Slab

During this period, research was conducted on the problem of reducing heat loss from the concrete floor slab to the cold outdoor air and the cold ground. Studies demonstrating the importance of insulating the edge of floor slabs were carried on by the National Bureau of Standards at Washington, D.C. It was proved that the cold area extended around the entire perimeter of the house. In effect, the cold floor area tended to reduce the livable area of a home already crowded for space by forcing moving of furniture in from walls.

These studies were greatly extended at the University of Illinois Small Homes Council. They were made in a climate colder than that prevailing in Washington, D.C., and showed that edge insulation was a vital necessity. It was also brought out that even with the best type of
edge insulation in use, a cold floor area existed near the exposed walls. In other words, edge insulation was not the answer to the satisfactory heating of a home built on a concrete slab floor.

**Ceiling-Panel Heating with Warm Air**

In the period beginning about 1947 and continuing strongly to the present day, dozens of new methods, unusual systems and unorthodox techniques were tried. The inherent flexibility of the warm-air heating system proved to be a challenge to the ingenuity of heating contractors and builders alike.

One of these developments was a logical extension of the idea that if a ceiling-panel system was considered as a satisfactory method of heating a room, there was no reason why the ceiling panel could not be heated as readily with warm air as with hot water.

Such a system was installed in Utica, N.Y., with test results taken over a range of weather conditions. Sufficient data was collected to formulate a design procedure for this type of heating system.

The main obstacle to the ceiling-panel system's universal acceptance proved to be the cost of providing the air space. This is the area established between the normal ceiling line and the suspended, false ceiling through which the warm air could be circulated. Furthermore, when a ceiling-panel system is installed in a basementless house built over a concrete floor slab, the surface temperatures of the floor near the perimeter of the house are not as warm as thought desirable.

Contrary to some claims, it was found that the air temperatures and the surface temperatures of the surrounding walls for the ceiling-panel system were not materially different from those for a conventional system.

The conclusion was drawn that the ceiling panel provided merely another source of heat addition to the living space, and that the heat thus added eventually warmed the room air. Since the heat source was in the ceiling next to an unheated attic space, the heat loss from the building proved to be larger than that experienced with a conventional warm-air system.

**Floor-Panel Heating with Warm Air**

Experiments with floor-panel heating were being conducted in various sections of the country. The method was simple: warm air from the furnace was delivered into channels provided below the floor slab; the air became cool as heat was transferred to the slab and ground, and the cool air was finally returned to the furnace to be reheated. Various means were used to provide the channel for the air flow, among these being hollow tile, hollow prefabricated floor beams, steel joists, a concrete
slab supported above a concrete subfloor and even wood floor joists placed on top of a concrete slab floor.

The performance results with the so-called closed-panel system were generally satisfactory, particularly as far as providing warm floors was concerned. On the other hand, the system had the same limitations as any floor-panel method; the response to sudden changes in heating demand was slow and the arrangement poorly adapted to homes designed to admit large amounts of solar energy through the windows.

**Panel-Convection Heating with Warm Air**

The panel-convection method proved most significant in the development toward an ideal practical system. Instead of circulating the warm air entirely in the subfloor channel spaces in a closed circuit, the slab was “punctured” where it proved to be most effective. In this manner the warm air from the ducts was permitted to enter directly into the room and return to the furnace above the floor.

This method has been designated as a panel-convection system, since some floor-panel heating is done, but the remainder is accomplished by the cooling of the warm air in the room. This system proved impressive in performance, even though the cost of installation was higher than was practical for low-cost structures.

**Perimeter Loop Warm-Air Heating**

The panel-convection arrangement was finally modified to the present-day perimeter loop method. An analysis of the fundamental requirements of the heating of a slab-floor-type home showed that the following essentials had to be provided by the heating system:

1. A heat source must be provided in the floor slab along the perimeter of the structure to provide warmth at the most critical part of the floor.

2. Adequate edge insulation is mandatory to minimize the heat loss from the floor slab to the outdoor air and to the ground.

3. Good drainage must be provided so that the edge insulation, the floor slab and the subfloor heat ducts are kept dry.

4. If the entire floor slab is not to be heated by means of subfloor ducts, then the few ducts that are to be installed must be so located that the usual cold, exposed corners of the building will be warmed.

5. The only effective way to counteract the drift of cool air that rolls down windows is to provide a counter-current of warm air from below the window. The cool drafts must be neutralized before they have a chance to settle in the middle of the room.

6. Since the greater part of the heat loss from a house occurs at the outer walls and windows, the registers must also be located near such exposures. This is contrary to long-established custom in warm-air heating, but is consistent with the best practice of the steam and hot water heating industry as far as radiator locations are concerned.

7. If the sources of cold drafts are taken care of at their beginning, then the location of the return air intakes should be relatively immaterial.

These seven essential items are incorporated into the so-called perimeter loop warm-air heating system. The performance obtained from such systems has been satisfactory as long as the installations are made in strict accordance with the instructions given in manual number four of the National Warm Air Heating and Air Conditioning Association.
new construction technique ......
WING-LIKE ROOF PERMITS NATURAL LIGHTING

Wing-like roof of New Orleans lumber office-sales room was so designed to allow plenty of natural lighting.

This unusual roof line is not a whim of an architect striving for something different. It is a new construction technique that allows natural light to enter the building.

The technique, used in the new office-sales room of the Singer Lumber Company of New Orleans, Louisiana, points up the use of dimensional lumber in place of heavy timbers for free cantilevered spans.

The most unusual feature of the building is the complete independence of the roof from the side walls of the structure. At no point does the roof bear on the top plate of the perimeter walls. The void between roof and sidewall is enclosed with glass. This is the feature that admits natural light. In fact, enough light enters the structure to offset need of fluorescent ceiling strips.

Blank walls around the structure are void of conventional windows. The front plate glass window is
Glass between top plate of sidewall and roof can be seen in this photograph. Glass edges are lapped rather than set in wood stops. Glass line is unbroken around perimeter of building.

Singer's office has one wall of folding doors so that two offices can be converted to one for large staff meetings.

Office area is void of ceiling lighting. Desk lights are only source of artificial illumination.

Roof does not bear on perimeter wall. Void between top plate and roof is enclosed with glass.

used for display and will have a screen behind the display items to cut outside glare.

The roof is supported by four posts forming a square inside the perimeter of the building. Tied to these posts are steel brackets. On top of the steel bracket is a beam of two 3-inch by 14-inch by 50-foot wood members with a 3/4-inch by 13 1/2-inch by 36-foot steel flitch plate between. The flitch plate was welded to the metal bracket.

The gable section, made from 2x10's, is tied at the ridge with a 1x10 ridge plate that has been glued and nailed. These 2x10's were fabricated on the deck of the structure and lifted into position. The cantilevered rafter sections were fabricated from two 2x4's and anchored to the flitch plate beam and then were tied to the ends of the 2x10 rafters (see detail). The building bears on four concrete chain walls, 6 inches by 18 inches, 12 feet on center, running the length of the building. Double 2x4 plates were bolted to the chain walls. Joists are 2x10's. The subfloor is diagonally laid 1x6 t&g sheathing. Paper and then 3/8-inch plywood were installed over the subfloor. Sidewalls of structure are conventionally built and are 7 feet high.
The roof load of the structure has been figured for 30 pounds per square foot.

The architect, Elbert Charles Ledner of New Orleans, was a pupil of Frank Lloyd Wright and has widespread recognition for his unusual yet practical design.
EDITOR'S NOTE

Following American Builder's article on "trade-in" selling in the July issue, interest in this merchandising tool has reached a high pitch. Here is another of a series of documented experience stories. More will follow. For the convenience of readers, the four types of trading most widely used are reprinted here from the July issue.

I. STRAIGHT TRADE-IN.

The builder accepts older house at a predetermined figure when he turns over the new house. His staff or a realty broker sells the older house. Usually the profit on the older house after selling expenses is near 10 per cent.

II. TRADE-IN GUARANTEE.

Here, the builder guarantees the owner of the older house a percentage of appraised value and starts construction on the new house. In the intervening 90 to 120 construction days every effort is made to sell the old house at the owner's price. If sold, the builder is washed out of the deal. If not, he takes the house at the predetermined figure.

III. TIME LIMIT TRADE.

The old house is never taken in by builder in this type of operation. A prospect can choose a house and has 90 to 120 construction days to dispose of his old house. The builder usually has a tie-in with a realtor who attempts to sell it in the time limit. Usually the realtor's biggest problem is getting the owner to accept a realistic value for the older residence. If the house is not sold in the predetermined time, contract for the new house is void.

IV. REMODELED TRADE.

Some builders of low-cost, new homes trade for rundown older houses which require some remodeling to make them favorable on the selling market. Kitchens, baths, a new half bath, and exteriors are the portions that generally are remodeled. The builder may have a remodeling crew or sub-contract the remodeling to an expert in the field. His appraisal must include the worth of the house after remodeling. This operation can tie up a substantial amount of his capital before the house is ready for the market. Yet there is a definite need today for this type of trading. It is part of America's basic renovation of older living units and has great potential.

"WE COULDN'T keep our present pace without trading," stated Vincent C. Buck, vice president-secretary of Western Builders in Spokane, Washington. This building concern has turned 60 trade deals this year resulting in the sale of 60 new houses—sales they wouldn't otherwise have made, according to Buck.

The organization uses the "Straight Trade-In" method, designated as the No. 1 plan for trading in American Builder's July issue. They are forced to use this system because of the delay of local lending institutions in completing paper work on new houses. Buyers of used houses want immediate occupancy, so the builder holds the old house off the market until just prior to the time the buyer takes possession of the new house.

Appraisal Procedure

Buck and one of his sales staff are qualified to make appraisals of the older property. Both make individual appraisals, taking into account neighborhoods, repairs which are needed, recent sales experiences of like houses, etc. Back in the office they sit down to compare notes and arrive at a joint appraised value for the older structure.

They use a formula similar to that advanced by the American Builder article of July, 1953, whereby they allow 35 per cent of the appraised value. The remaining 15 per cent is needed for sales commission and a cushion against a falling market.

Financing of Old House

Buyers are given firm prices for their old houses and in most cases the company will apply the equity, or portion thereof, on the new house. They usually take over the remainder of the mortgage. Any differential between equity plus mortgage and selling price is usually handled by contract. The contracts are held by the builder and paid monthly to him by the buyers of the used houses.

Strange as it might seem, the builder is having difficulty in servicing buyers who have large equities in their old houses. A lack of mortgage money in the area makes refinancing of larger loans on the old property virtually impossible. When confronted with cases of this kind, the builder persuades the owner to take part of his equity in a land contract.

Pitfalls—Watch Out

Market fluctuations are the dangerous trap in trading operations, according to Buck. Since the first of the year he has faced a softening market and is well aware of this factor. He points out that the need
keep sales volume up

Two-bedroom slab-type house was traded in on new house. See example A. This house cost builder $5,521.19; sold for $6,500.

Open-plan kitchen, dining and living area plus basement make this two-bedroom, $8,200 house a fast seller in Spokane, Washington. Trading keeps sales alive.

for proper appraisals and for the cushion of 15 per cent against possible loss is a real one.

Buck also points to other headaches in addition to assuming real estate risks. He states it is not a business for anyone who is not willing to do three times the amount of normal paper work required and a great deal of running around.

Is It Worth It?

Many builders might ask if taking a chance, and the other numerous headaches, are worth the effort. Here is the dollars and cents experience of this Spokane, Washington, operation. The selling price of the first 45 older houses taken in by the builder averaged $9,000 each, a total of $405,000. In addition, sales commissions of $22,500 were realized by the realty end of the concern. Another five per cent net is expected on the $400,000 gross business the concern expects to do this year in the selling of older houses.

Typical Examples

Case 1. Western Builders bought house A for $5,521.19, broken down as follows:

- Unpaid mortgage: $4,661.19
- Owner's equity: $730.00
- Closing cost: $130.00
- Total: $5,521.19

They sold the house for $6,500. A commission of three per cent was paid to their salesman. That left $800 profit.

In selling the new house to the above owner, they received $400 down and took back a contract of $1,400.

Case 2. House B cost the builder $7,799.19.

- Unpaid mortgage: $6,834.24
- Owner's equity: $800.00
- Closing cost: $144.95
- Total: $7,799.19

The house sold for $7,995, leaving a profit of less than $200. In this case half went to the salesman; that is their standard practice when a house profit is less than the full commission. The owner paid $400 on his new house and Western Builders took a $700 contract on the balance.

WHERE ELSE Can You MATCH THIS DEAL!

Only $400 Down to Vets Puts You in a NEW 1953 2 Bedroom Westwood Home

Complete With Full Basement Sidewalks and Curbs Connected to Sewer Sliding Closet Doors Large Roomy Kitchens -PLUS- 15 More Outstanding Features

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Ask for Tradin' Sam, the Western Man...

No deal too small... He's tradin' big! Let him make you an offer on your old house.

They advertise "Tradin' Sam" and get results; add profit dollars two ways—sales of new houses and sales of traded older houses.
wash days are happy days!
...in El Camino Manor

Jean Fitzgerald and Jackie Stoffen...typical happy housewives who share their delight in the smog-free air at El Camino Manor.

Mrs. Fitzgerald, who moved from Minnesota to Los Angeles with her husband and small son two years ago, says: "It's fun to live in El Camino Manor where it is always clean and fresh and wash days are such a pleasure. We like the location and appreciate the fact that our neighbors have equal pride and responsibility in keeping up their homes."

Mrs. Stoffen, who arrived recently from New Jersey with her husband and two-year-old son, says: "We looked at a lot of homes before we found just the one we wanted. It has a good many extra features, such as the living room window facing the patio and the rear door leading directly into the yard, and its close enough to the aircraft plant where my husband works so we can both have time to enjoy it."

Individual Styling. Quality construction...Centrally located...Schools, from kindergarten to El Camino High...

Camino Manor

COUNTRY CLUB SECTION OF THE SOUTHWEST AREA
ANOTHER COMMUNITY DEVELOPMENT BY MILTON KAUFFMAN...SINCE 1926

fishing's fun for small fry
...at El Camino Manor!

Since 1926...Camino Manor

Lucky teacher... Lucky student

let the neighbors SELL
the neighborhood

THE builder's problem was to appeal to people who had from $2,445 to $3,750 to pay down—a class of buyers that must be sold on the character of the neighborhood as well as on the house itself. This type of personalized advertising, featuring photographs and testimonials of actual residents in the subdivision, did the trick. It was kept up for several months and sold out a tract of 317 houses. The builder was Milton Kauffman of Los Angeles.

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And your own sure feeling of confidence whenever you specify Ro-Way—confidence born of the knowledge that Ro-Way is your own best "standard of comparison" in overhead type doors.

To be sure of the best for your clients—for any residential, commercial or industrial application—always specify Ro-Way—the overhead type doors that offer so much more than meets the eye.
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Left: Even a kitchen as small as this can have the excitement of Gas separate range units built right into the cabinets.

Right: Famous for silent Gas refrigerators, Servel features an ice-maker that starts itself, stops itself, supplies its own water, makes ice cubes without trays. More, its freezing system is so trouble-free it carries a 10-year warranty.
as much sense as Gas

The budget-minded customer who's conscious of cubage costs will appreciate the fuel-cost saving Gas represents. In most areas Gas is cheaper. In all areas Gas is faster — reducing its operating cost again. Yet the most modern-looking ranges of all are fueled with Gas — ranges with clock controls, chrome tops, colored fixtures, separate ovens and a myriad other features. And the newest, most advanced refrigerator in the world is Gas. (It puts ice cubes in a basket automatically!) Consult with your Gas company or Gas appliance dealer to find the models that will make your small kitchens as distinctive as a signature. And remember: every woman who sees a Gas range knows it cooks as well as it looks!

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""Budget' houses are our specialty," says Mr. Frank A. Collins, President of F. A. Collins Company, Philadelphia, Pa., "but most of them have included electric kitchens, because the kitchen is the focal point of interest to women. One important item that always attracts the homemaker of the family is the modern Electric Range. Its features appeal to women. No matter what type of homes you build, it pays to include Electric Ranges."

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Houses may be large or small, but when builders report them selling fast, you're likely to find one resemblance—the Electric Range in the kitchen. No matter what the home costs, the customer wants an Electric Range included. It's both economical and easy, and assures a clean, cool kitchen. Are you taking advantage of this preference in the homes you build? No matter what their location or price bracket, the modern Electric Range can help you sell them!

More builders every day are installing ELECTRIC RANGES

Attractive kitchen wall cabinets in the kitchens of the Collins "Budget Glamour Homes" at Roxboro Park have glass sliding doors. Appliances include electric refrigerator, automatic washer, and the range—of course, it's ELECTRIC!
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NOW—a new, modern laundry tray to replace old concrete or soapstone tubs that are still around—fill a real need in the new home, or the laundry where the old tubs have long since disappeared.

Recent surveys show that a laundry tray is needed badly in the home laundry, particularly for handling the sheer stockings, lingerie and fine woolens, which are seldom entrusted to the automatic washer and must otherwise be laundered in the sink or lavatory. The RICHMOND “Laundray” is the answer—a beautiful tray in vitreous glaze “Perma-Gloss” that any housewife will be proud to have installed in her home.

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giving a
market house
the
CUSTOM LOOK

Built speculatively on a 90-foot lot in exclusive Forest Hill, Cleveland, this house has the earmarks of a job carefully carried through to suit a fastidious owner. But it was built for sale by James T. Restifo, a builder active in both the east and west suburban areas of Cleveland. The house was designed by the builder’s architect son, Nick.

Sold before completion this summer for $47,500, this house is an excellent example of what a well-matched team of builder and architect can do to produce extra-fine houses having the kind of charm and construction excellence which appeal to buyers whose tastes are conservative.

The approach to the house has been made pleasantly individual. Scintled brick, hand-split cedar shakes, slate roof shingles and horizontal wood siding have been combined in the facade for textural contrast. Adding a low 3-inch brick wall creates an attractive entrance court yard. Note how this wall complements the drop of the shed roof of the facing wing, and how the slanting top of the ornamental iron gate follows the roof pitch—little points which subtly contribute to the over-all impression of individuality in the design.

Another of these little points is the special design of the Raynor overhead garage door, complete with Automagic door operator. Restifo also makes a big point of front doors, gives each one an original design.

AMERICAN BUILDER
Color scheme for the exterior is white with details (including the garage door) in a soft blue. Windows are aluminum, all sills are marble.

Restifo's plan is a careful interpretation of one-floor living. Even though there are laundry tubs in the basement, a full-size laundry room furnished with Hotpoint equipment is located next to the kitchen.

The kitchen is complete with a dining alcove which is almost a room in its own right. This space is made even more important by decorating it in harmony with the more formal dining "L" of the living room—with scenic wall paper and dado.

Partial dropped ceilings in kitchen and bathrooms are a device used by the builder to add a strong note of interest and novelty. The variation in effect which can be

Fireplace is of green-gold Holland brick with birch paneling and molding painted to match. Planter extension helps to define dining area. (Below) Two views of the kitchen. (Above) Big broom closet has sliding door, plenty of illumination. Copper drain in laundry room floor catches overflow.
A two-way closet for blankets and linens can be used both from bathroom and hall in bedroom wing. High-quality tile work, dropped ceilings, electric space heaters and well-chosen colors make glamorous bathrooms

achieved in this way is shown in the kitchen photographs.

Restifo used imported Holland brick for the fireplace. Its green-gold color is burnt-in and gives a rich effect. The birch paneling and molding of the fireplace wall were painted to match.

Sliding doors are also a Restifo favorite. He uses them whenever possible. There is even a metal one which acts as a fire stop between garage and back hallway. Trim around doorways is hand-rubbed before painting.

The bedroom wing is served by a large hall, four feet in width, connected to the rest of the house by doorways at two convenient points. The master bathroom is made to double as a powder room. Perhaps the one serious flaw in the plan is the tight dimension of the front entry where the swing of the front door might interfere with easy use of the guest closet.

The partial excavation of the basement plan cuts down on storage room, but this is compensated for by attic storage space reached by a fully finished stairway leading out of the garage. As is, the basement space is more than adequate for recreation room activity and a large laundry-heater room. House is heated by a Niagara gas burner.
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“People like the DELTASHOP,” says Harry Quinn. “Visitors came steadily that opening Sunday, from 8 A.M. until 10:30 at night—several thousands.

“Fully one-third of the visitors were really enthusiastic about the DELTASHOP idea.

One man bought a non-expandable house, and asked for a DELTASHOP—agreed to the extra cost.

“We sold over half the houses in two days—will sell all the rest within three weeks.”
On June 14, 1953, an ad in the Chicago Sunday Tribune by Quinn Home Builders, Inc., invited inspection of new Expandable Homes, each equipped with a DELTASHOP, combination of four famous Delta Homecraft Power Tools. The idea was simple: get an attractive home and save a lot of money by completing the expandable area yourself, using the DELTASHOP and detailed plans furnished as part of the package. “Several thousand people got the idea and liked it well enough to take a look,” says Harry Quinn, architect-brother who designed the homes. “It’s astonishing how many men had always wanted Delta tools; and the chance to get a DELTASHOP, a real Utility for Men, was a big inducement. In fact, we’d already sold three houses from the plans before foundations were in—and the DELTASHOP was an important factor.”

**MERCHANDISING Sells Houses**

It is one thing to build good houses; it’s quite another to recognize people’s deep-seated desires and wants, and utilize them to sell houses. What Quinn is doing is an open secret. If you’d like to investigate how you might put the plan to work in your business, write us. Delta Power Tool Division, Rockwell Manufacturing Co., 6463 North Lexington Ave. Pittsburgh 8, Pa.

**What Buyers said about DELTASHOP**

“I like the DELTASHOP compactness—all four tools on one stand,” says John P. Janus, an early buyer of a Quinn 4-room Expandable House; “and including the tool in the price of the house made it easier to buy.”

Others said:

“Looks to me like a swell idea.” “With tools like that it shouldn’t be too hard to finish the place.”

“Maybe it’s a good idea for a guy like me who doesn’t know a saw from a hammer.”
Builders! Cut costs, save time with this power-packed special!

CUTS 2-9/32" AT 45°

BITEs 2-3/4" ON STRAIGHT CUTS

OUTPERFORMS THEM ALL

8¾in. Blade

**HEAVY DUTY—ALL BALL and ROLLER BEARING—INDUSTRIAL QUALITY**

**MAXAW-800**

only $89.50

with case $99.50

Your Best Buy In 8-in. Saws

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 pivot do you get this jumbo-size 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 Portable Tools

Cummins-Chicago Corp., Chicago 40, Illinois
334 Lauder, Toronto 10, Canada

See the Sensational Cummins do-it Shop

7 power tools in 1—lathe, bench saw, horizontal drill, disc sander, vertical drill press, router-shaper, portable electric drill—on a table-top! At better hardware dealers everywhere.
BUILD IT IN—IT HELPS YOU SELL

KITCHENS. Tells time. Handy outlets for kitchen appliances. Housewives will love it.

BATHROOMS. Just what every busy man, woman or child wants. Serves as clock and night lamp. Two electrical outlets for shaver, hair drier, etc.

ELECTRIC CLOCK, NIGHT LAMP, 2 ELECTRIC OUTLETS.
ALL IN ONE UNIT

Neat, trim TEL-IN-WALL is the low-cost feature to help sell new homes. Goes right in wall. No cord shows. Gives modern, uncluttered look. Ideal for kitchens and bathrooms. Also game rooms, bedrooms, utility rooms. Easy to install. Fits over standard 4” outlet box, GE SP2151 or equivalent. Only six screws to fasten. Movement recesses into wall. Order through your electrical supply or hardware house. Telechron Department, General Electric Co., 181 Union St., Ashland, Mass.
Here's how Bryant Boilers

add extra sales appeal to new homes

There are four things that you—and home buyers—look for most in a boiler. Note how Bryant Boilers—in measuring up to all of these essentials—become an outstanding home sales feature.

1. **Outstanding features**—Only in Bryant Boilers will you find convenience features like “Magic-Action” Valve, “Safety-Sentinel” Pilot and “Finger-Tip” Igniter.

2. **Space-saving size**—Bryant Boilers are extremely compact, requiring as little as 2½ square feet of floor space.

3. **Proved high quality**—Bryant Boilers have been the standard of comparison in the industry for over 40 years.

4. **“Big name” appeal**—Bryant Boilers own a reputation based on superior performance dating back to the very beginning of the automatic heating industry. It's a name homeowners have confidence in.

Your nearby Bryant distributor will be happy to supply you with complete information on the Bryant line. Call him today, or write: Bryant Heater Division, Affiliated Gas Equipment, Inc., 17825 St. Clair Avenue, Cleveland 10, Ohio.
Look what happens when people find out about Ponderosa Pine decorator doors

They’re coming by the thousands—requests from home planners for information about Ponderosa Pine Decorator Doors! National magazines—big city newspapers—are giving prominent editorial mention to these satin-smooth, crisply paneled doors that can so easily be decorated to provide new color interest. These Ponderosa Pine doors provide extra help in selling homes in today’s highly competitive market. Find out the tremendous scope which Decorator Doors can give you in planning homes of distinction and sales-appeal. Mail the coupon for your copy of "Latest Color Style News."

COLORFUL 24-PAGE BOOKLET GIVES COMPLETE INFORMATION!

Page after page of illustrations and ideas!

---

Ponderosa Pine Woodwork
38 South Dearborn Street
Chicago 3, Illinois

Please send me a free copy of your full color book "Latest Color Style News."

Name

Business or Profession

Address

City, Zone, State
Lupton Metal Windows are as near trouble-free as it is possible to make them. For house or factory, shop or office building, one window or a thousand — it pays to use Lupton. Pays you and the building owner.

Lupton Windows can be installed quickly and easily. They need little adjustment, when new or as time goes on — save you the time and expense of call-backs. A precision manufactured Lupton Metal Window correctly installed means a lifetime of service with minimum attention. Fabricated from steel or high strength aluminum alloy — employing the most advanced methods of construction — tested and checked throughout manufacturing — each Lupton Window adds to a reputation for quality that’s been growing for over 40 years.

Big job or small. New construction or remodeling — there’s a Lupton Metal Window “made” for the building — in Bonderized steel or never-needs-to-be-painted aluminum.

Lupton sales offices are ready to give you full information. Lupton distributors can supply you from East and West coast warehouses. Representatives are usually listed in the Classified Section of Telephone Directories under “Windows — Metal” or “Sash — Steel”. Write, wire or phone, you’ll get prompt attention.

MICHAEL FLYNN MANUFACTURING COMPANY
700 East Godfrey Avenue, Philadelphia 24, Penna.
Member of the Steel Window Institute and
Aluminum Window Manufacturers' Association

LUPTON METAL WINDOWS

74
THRIFTY BUILDERS know that there has never been anything made that couldn’t be made for less. They know that some products meet competition with price—others with superior quality.

The builder who chooses his materials for price alone is more interested in initial cost than in getting—and giving his customers—real value for the money.

The thrifty builder of homes buys roofing material for longer wear. He buys for freedom from trouble. He buys for fewer repairs . . . for more dependable service and over-all greater performance. He knows that thrifty buying isn’t merely price-tag buying.

**The Best Buy in Roofs is the Material That Costs Less Per Year of Service**

CERTIGRADE Red Cedar Shingles, applied on inexpensive spaced sheathing offer the thrifty builder low initial price, and the home owner the lowest cost-per-year of carefree service.

Figure your roofing costs both ways: First with ordinary roofing material including the solid sheathing lumber required. Then figure it again the economical way—using only about half as much spaced sheathing and far less labor and nail cost applying it for use with cedar shingles.
Drive leads around at left of house to double garage entrance at rear. Nursery school uses this garage space as a playroom.

**a house with two lives**

**OUTSIDE** ... a home in an exclusive subdivision

**INSIDE** ... a nursery school

View of one corner of the big classroom which occupies most of first floor. Heating for first floor is a radiant-floor copper-coil panel system using a gas-burning Janitrol boiler. This heats the garage space as well.
This house that isn’t a home neatly solved a problem that confronted the developer of Forest Hill, a highly restricted residential area in Cleveland Heights, Ohio.

Some of the residents of Forest Hill wanted to establish a nursery school for their own and other children, and locate it within the subdivision. The developer could not allow a building to go up which would detract in any way from the carefully controlled residential character of the area.

This building was the result of these two desires and purposes, and solved what might have turned out to be an unfortunate impasse.

Designed by Charles A. Metzger for the Happy Day Nursery School, the structure blends perfectly with its neighborhood and could easily be converted into a single-family home should the nursery school disband at some time in the future.

The location as well as the design contributed to the success of this solution. The lot is a generous one (90 feet wide) located next door to a spacious corner site occupied by a church building. On the other side the house-school is flanked by yard of a home occupying another corner.
If was a blistering hot Sunday! Perfect weather for the opening of the first completely air conditioned subdivision in New Orleans. The comfortably cooled model house drew thousands and received rave notices for builder Fred C. Loucks. In fact, the first couple to view the model purchased it that same day.

The story of this subdivision doesn't start here; it goes back a year or more, for Fred C. Loucks had a vision of something different. He wanted to create a modern house for irregular-shaped suburban lots.

Loucks called the New Orleans architectural firm of Carter & Davis to prepare plans for a contemporary house. He believes this to be the start of a close association with the architect, leading to a good builder-architect relationship.

To make the best use of the site, Loucks had it planned by the Land Institute of Dallas, Texas. Use of the land planners made sense as lot values in New Orleans hover around $4,000 each.
The site has a gracefully curved street with a turn-around circle at the far end. Lot sizes and shapes vary but will average 7,200 square feet or better. The curb and gutter are an integral three-foot-wide unit, eliminating sidewalks.

The first house, used as a model, to emerge after a year's work was a low-pitched contemporary with open planning. The glass area and patio placement tie indoors and outdoors together. The floor plan of 1,400 square feet includes three bedrooms, bath, kitchen and open-planned living-dining area. Sliding glass doors which open onto the patio comprise the only fenestration in the living room.

The subdivision is planned for 23 houses, all of different design yet featuring the same contemporary motif. Two- and three-bedroom units with one or one-and-one-half baths were planned. Each house will be equipped for summer cooling and winter heating. All houses will feature storage walls in place of conventional closets.

A two-ton Carrier air conditioner-furnace combination unit is installed in a central utility closet. The duct work, which was kept to a minimum, is placed in the lowered central hall ceiling. The warm or cold air (depending on the season) pours into the room directly from the hallway. One central return register is located in the hall.
Storage walls in bedrooms include two closets with drawers below. Other side of center section has bookcases (see living room photo).

Tape recording made at model was played back on radio later in the afternoon of opening day. L. to r. are E. B. Mitchell, General Electric Co.; C. Bankston, Carrier distributor; Fred C. Loucks, builder; Larry Regan, radio announcer.

Opening Promotion

Newspaper and radio advertising was used extensively throughout the week-end the first house made its debut. The Sunday papers carried both display advertising and an editorial presentation.

Builder Loucks used radio in a novel way. Early in the afternoon a tape recording was made at the model. The virtues of the house were explained by the builder and many local notables gave testimonials. Later the same afternoon the tape was replayed over the air which stimulated evening traffic.

Builder ran this display ad in the Sunday paper.

Plot plan shows full use of expensive New Orleans land.

**BRAND NAME PRODUCTS USED**
- Arcadia sliding door
- Broan exhaust fan
- BPS paint
- Carrier air conditioner-furnace
- Celotex wall sheathing
- Continental hot water heater
- Crane plumbing fixtures
- Formica counter tops
- Kentile asphalt tile
- Modernfold folding door
- Reynolds insulation
- Rusco windows
- USG wallboard
- Washington hardware
PRESENTING

THE NEW ADVANCE STYLE

LAUNDRY TUB

Here's the answer to every home owner's prayer for something fashionably new and different in laundry tubs! Ideal for utility room, laundry room, basement or kitchen. Nothing else can compare with it for sales volume and profit as well as for home satisfaction. Don't delay, order today! Look at these advantages:

- POLISHED STAINLESS STEEL TOP TRIM (WITH 2 EMBOSSED SOAP DISHES)
- FIBERGLAS TUB WON'T CRACK OR MAR*
- MATCHING FIBERGLAS COVER FOR ADDED STYLE**
- IMMACULATE WHITE ENAMEL STEEL CABINET
- FULL SIZE DOOR FOR EASY STORAGE AND REMOVABLE FOR PLUMBING INSTALLATION
- RECESSED BASE FOR TOE ROOM—IN RICH BLACK
- LEVELING SCREWS HIDDEN IN BASE ADJUST FOR HEIGHT AND UNEVEN FLOORS
- LIGHT WEIGHT SIMPLIFIES DELIVERY AND SET UP
- CHROMED BRASS OVERFLOW PIPE SAVES EXTRA WORK, HOT WATER AND SOAP**

*(Trade-mark O.C.F. Corp.)

WITH THE FABULOUS FIBERGLAS TUB!

MADE BY THE

WESSELS CO.

1625 E. EUCLID AVENUE, DETROIT 11, MICH.

PLANTS IN: DETROIT, MICH.; CLEVELAND, OHIO
KANSAS CITY, KAN.; NEW ORLEANS, LA.
SAVE TIME . . . SAVE MONEY . . .
and do a better insulating job with
Johns-Manville Spintex

Fewer packages to handle!

- When you open a package of Spintex Insulation you'll find 25% more Batts or Blankets than in the same size package of ordinary insulations. That's because Spintex is so resilient it can be compressed for packaging yet springs to designated thickness when packages are opened. When you use Spintex you save money on each job because of fewer packages to handle.

Easier to Install!

- You can install Spintex faster and do a better job of insulation because the batts and blankets are far more firmly felted than ordinary types. They are rigid and strong, hold together, don't "flop" or sag when you handle and apply them. And their remarkable resilience makes them grip the studs or rafters when pressed in place. This saves time and money on every job.

Your choice of Batts and Blankets!

- Spintex Insulation is available in fully wrapped blankets or open faced batts in thicknesses to meet every job budget. Each has a heavy vapor seal backing with projecting flanges for easy fastening. Easy-to-follow instructions for application are printed on each batt or blanket.

Johns-Manville—22 E. 40th Street, New York 16
In Canada—199 Bay St., Toronto 1, Ont.
When Ralph Bodek, one of suburban Philadelphia’s foremost residential developers, planned Colonial Park as a community that has everything for better living, he chose AllianceWare—bathtubs, lavatories and sinks—for each of the 500 beautiful brick homes erected in the development.

Like thousands of other home builders and home owners, Mr. Bodek appreciates the exceptional design and construction features of AllianceWare.

The porcelain-on-steel construction of AllianceWare gives you the advantages of lighter weight, easier handling, and simple, quick installation.

Added to these installation advantages is a choice of five stainproof colors—pink, blue, green, tan, and grey—as well as lustrous, gleaming white. With AllianceWare you can install complete bathroom ensembles in matched color combinations of luxurious, lifetime beauty.

For any job—new or remodeling—there’s profit for you with AllianceWare. Complete information on AllianceWare fixtures will be mailed on request.
FLAT BUTTON TIPS

Ball Tip Hinges still can be obtained by adding "BT" after class number and size (as 241F — 3\(\frac{1}{2}\) x 3\(\frac{1}{2}\) — BT). And don't forget—only Stanley FBT Hinges have the exclusive hole in the bottom tip for easy pin removal.

The Stanley Works, New Britain, Conn.
HERE’S WHY...
"4 OUT OF 5"
BUY CLIPPER

- CUT FASTER
- LAST LONGER
- AT LOWER COST

Clipper Superior Blades are manufactured under rigid control... assuring consistent quality. You are guaranteed peak performance... at the lowest possible cost with every blade.

CLIPPER BLADES to fit Every Make and Model Masonry - Concrete - Hand Power Saw

Your guarantee of the finest, fastest, most economical masonry and concrete cutting is the familiar Clipper Trade Mark on a Wet Abrasive - Dry Abrasive - "CBR" (Break-Resistant) or a Diamond Blade.

Nearly 20 Years Experience Behind Genuine CLIPPER PRODUCTS

The unqualified Clipper guarantee of satisfaction is backed by nearly 20 years of world-wide experience, the ability to select the finest materials and the "know-how" to put them together.

SOLD ONLY DIRECT FROM FACTORY BRANCHES
Use
the MAGIC of HOT WATER HEATING
by
AMERICAN-Standard

to make your homes more saleable—to give your customers cleaner,
more uniform, more comfortable heat

- If you could point out to your customers how they could have a completely sealed heating system that is practically invisible... that could not transmit cooking odors, noises, or conversation from room to room... you would have a strong selling point.

You can offer them this—and more—through the magic of hot water heating by American-Standard.

You make your houses more saleable when you use forced hot water heating and baseboard panels... for here is perfect comfort control with compact, efficient equipment. And because of the tremendous heat-carrying capacity of hot water—6000 Btu per cu. ft. as it cools 100°—it is possible for the small copper tube of a baseboard panel to throw a belt of protecting warmth clear around the cold outside rim of the house, regardless of its size or construction.

Your customers will want the heating system that's clean, draft-free, reliable and economical—hot water heating by American-Standard. Ask your American-Standard sales representative or your heating contractor for details.

Hot water heating is modern in appearance...
Hot water heating gives longer years of service...

Show prospective home buyers an attractive installation like this in the homes you build. These Heatrim panels take the place of regular baseboards, permitting freedom of furniture arrangement. They will provide even, gentle heat throughout the room.

To make home buyers aware of the trouble-free years ahead for them when they have a hot water heating system, tell them of the variety of long-lasting cast iron boilers by American-Standard. And be sure to point out that the life of a cast iron boiler is far greater than that of other types of heating units.

The magic of hot water comfort by American-Standard is the way to complete heating satisfaction... for the years ahead

AMERICAN-Standard HEATING

American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.
Serving home and industry: AMERICAN-Standard • AMERICAN BLOWER • CHURCH SEATS & WALL TILE • DETROIT CONTROLS • Kewanee BOILERS • ROSS EXCHANGERS

AMERICAN BUILDER
Decidedly contemporary in design, yet extremely versatile, this Curtis New Londoner flush door gains additional interest from the smart new Curtis trim—one of several choices.

Fresh and original, these new flush door designs by Curtis can help increase your scope in adding distinction to the homes you plan. And the beauty of these doors is as durable as it is striking—thanks to their all-wood, moisture-proof construction that guards against warping or sagging.

Door designs shown here are available either with Curtis New Londoner hollow core construction or Curtis American solid core. These designs are only a few of the many Curtis offers, both for exterior and interior use. Curtis New Londoner hollow-core flush doors are available in wide widths for schools, hospitals and public buildings.

Skillful proportioning and effective use of simple ornamentation create rare charm in this new Curtis door, made in both hollow-core and solid-core construction. Superior dimensional stability has been proved in more than 4,500,000 installations.

Note the carefully-matched grain pattern in this New Londoner Curtis exterior door. Curtis New Londoner and American doors offer a choice of carefully selected veneers in birch, maple, oak and other woods—creating effects of rare beauty.

Here is the patented, locked-in, all-wood core that assures lifetime dimensional stability in Curtis New Londoner hollow-core flush doors. Each New Londoner door is one completely joined unit with nothing to "float" or get out of place. Curtis American solid-core flush doors have a kiln-dried pine core and are completely sealed against moisture.

Get the Facts...Mail the Coupon!

Curtis Companies Service Bureau
AB-9 Curtis Building
Clinton, Iowa

I want to know more about Curtis New Londoner and Curtis American flush doors. Please send literature.

Name: ..................................................
Address: ..................................................
City: ............................................. State: .............................................
Here's another case that proves you can't beat the sales appeal of Murray steel kitchens! The rugged look and feel of quality, and Murray's exclusive contour styling, catch the feminine home-buyer's fancy every time!

Of course, there are dozens of other reasons for a builder to prefer Murray: no painting, no slow fitting of finishing work; no call-backs to fix warped doors, sticking drawers; timed delivery to your job-site; supervision of first installations; and skilled help in planning and promotion. Contact the Murray Builder Department for full details.
June 2, 1953

The Murray Corporation of America
7700 Russell Street
Detroit 11, Michigan
Att'n Mr. C. J. Filson

Dear Mr. Filson:

Please accept this letter as a small token of our appreciation for the efforts of your local representatives, Mr. Burroughs and Mr. Krause, in selling us on the use of the Murray Kitchen in our current project.

Your Kitchen has proven to be one of the biggest selling points we have, and the response is far greater than anything we had expected.

In addition to this, you have provided us with one more means of building our homes faster due to the time saved in installation.

All in all, we are very happy that your representatives were successful in convincing us that the Murray Kitchen would meet with our approval.

Yours very truly,
Robinson Construction

G. L. Robinson

Your Kitchen has proven to be one of the biggest selling points we have, and the response is far greater than anything we had expected.
economy and utility determine these church designs

**BUILDER:**
Staalsen Construction Co.,
Chicago, Illinois

**DESIGNER:**
Arthur V. Hansen and
K. Roderick O'Neal, Architect,
Chicago, Illinois

**CUBIC CONTENTS:**
191,973

**COST:**
$160,000 excluding furnishings

**THE SITE**
requirements and limitations were main factors in determining the plan and design of the Galilee Baptist Church, Chicago, Illinois. Other considerations were a limited budget and an expanding Sunday School.
To provide for these factors, it was necessary: (1) To extend the building on two sides over to the sidewalk line in order to obtain sufficient area for the church structure. Piles were driven for a foundation base to a depth of 30 feet to overcome the effect of a large clay pit. (2) To design a building in the contemporary mode for economy purposes, holding to straightforward lines to the complete exclusion of all forms of applied ornamentation. (3) To provide a two-story structure above grade at the rear of church for the use of the Sunday School. This wing is tied in and made an integral part of the church.

This building has an auditorium and balcony to seat 400 in addition to accommodating approximately 400 Sunday school children. Kitchen and assembly room for 200 diners, in addition to Sunday school space, is provided in basement area.

The building is placed on concrete foundation on wood piles. Walls above are face brick and Lannon stone exterior, with exposed concrete-block interior walls and partitions. Window and door frames are metal. Trusses supporting the roof are of laminated wood members extending from floor to ridge. Eight-inch by ten-inch by eight-foot purlins at right angles to trusses provide support for the 2x6 V-cut face roof decking. Asphalt shingles are nailed to one inch of rigid insulation placed on furring strips which are secured to the decking. The building was completed in December, 1952.
The clever handling of the detail on front provides the design accent for this building

**contemporary styling sets aside**

**fixed ecclesiastical forms**

**IN THE** Sacred Heart Church of Clayton, Missouri, the same principle of economy prevailed. With a limited budget but with maximum requirements to be met, the designer reverted to contemporary design which permitted him greater latitude in planning construction.

As an example, the vertical pylon adjoining the front entrance houses the flue for the heating plant, provides the support for the large cross with its vertical member extending downward where it changes to a horizontal position to form a canopy over the entrance. It also creates a terminus for the projecting front wall and, as a complete unit, gives the effect of a tower which produces a lift to an otherwise foreshortened...
Plain surfaces of brick and plaster throughout produce an effect of strength and simplicity in the interior facade. The two-story fixed window unit with its over-sized muntins heightens this effect.

In contrast to the economy features, the church is entirely fire-proof. This is in accordance with the request of the area's diocese.

Roof is supported by 18-inch steel H beams which extend from top of exterior wall foundation to ridge where they are welded to opposite beams. Beam continues in a vertical position in wall up to roof intersection where it is bent to conform to roof slope. Steel joist purlins are spaced at right angles to beams in regular sequence. A 3-inch-thick precast Haydite slab is secured to purlins, with asbestos shingles nailed and glued to top face of slab.

Main floor is composed of a large nave, sanctuary and two adjoining rooms. Area in basement, except for portion under sanctuary, is left open for recreational purposes.

All walls above grade, both inside and out, are finished with face brick. Ceiling in nave and sanctuary, including exposed beams, is covered with metal lath and plaster.
Covered canopy over drive protects guests arriving in inclement weather, connects office with guest units

**motel units quickly convert into suites**

**BUILDER:**
Sebco Contractors
Minneapolis, Minn.

**ARCHITECT:**
G. W. Brandhorst
Minneapolis, Minn.

This motel is built in units of four bedrooms with intercommunicating interior doors that make possible a quick change from single bedrooms to one or two suites.

The square four-bedroom buildings are divided into two twin bedrooms and two smaller, single bedrooms. A door between each single and twin bedroom permits conversion from two bedrooms to a two-room suite. A doorway also connects the two large twin units making it possible to convert all the space in each building to one four-room suite. The motel is the Modern-Aire, located on Highway 218 near Owatonna, Minnesota. The full unit of four rooms accommodates 12 people.

The four-room units reduce maid service costs for the motel operator since all four units in the block...
Office-apartment area simplifies the management problems. Utility area is in basement below.

Plot plan shows unique use of triangular piece of land. An area is reserved for future expansion.
Awning windows were used throughout. Lattice cutaway in roof admits light to bedroom below

can be cleaned without the maid's going outside to get to any room.

Each building is 34 feet 8 inches by 34 feet 6 inches. Bathrooms are grouped for economical plumbing installation; all have ceiling vents.

Other noteworthy features of the motel are its clean modern design, separate office-apartment-utility building and covered canopy. The design features low horizontal lines in a clean sweep from roadside office unit to bedroom units.

The roadside building has a one-bedroom apartment, private office and general office area. The private office is sometimes used by salesmen.

Office area has large picture window and fireplace.
Registration desk is at other side of the room

Twin bedroom has studio-type beds. Walls are stacked concrete blocks, painted. Heating is baseboard radiation supplied by boiler located under the office area

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<th>BRAND NAME PRODUCTS USED</th>
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<tr>
<td>Benjamin Moore paint</td>
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<td>Bla-Fan exhaust fan</td>
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<td>Celotex wall sheathing</td>
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<td>Crane plumbing fixtures,</td>
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<td>Minneapolis-Honeywell</td>
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<td>window</td>
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<td>USG lath</td>
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Close-up of the X-ray house showing how the exterior wall is cut through to show construction.

Builder:
G. J. Goudreau & Co.
Cleveland, Ohio

Architect:
G. S. Voinovich
Cleveland, Ohio

September 1953

Building good will by X-RAY methods

This X-ray house, typical of a group of homes to be built in the new 171-acre Meadowbrook Community in Bedford, Ohio, and referred to as a “no-secrets home” by the builder, is a comprehensive job of showing just what goes into a home under the paint, behind the walls and under the floor. Every construction feature is exposed.

More than 150 individual cards mark features for public inspection and information.

Viewing the brick veneer building from the street, an irregular opening 15 feet high is seen in the wall. Bricks were omitted in a jagged pattern and the building paper was painted a bright yellow to dramatize the X-ray idea. Toward the
bottom of this opening, the insulation and sheathing are cut away and replaced with glass so that it is possible to see through the wall.

From the inside and outside, visitors see the face brick, the waterproof paper, the fiberboard insulation sheathing, the wall ties and the 2x4 plate secured to the slab floor by a Ramset fastening system.

Inside the house, walls, doors, foundation, ceiling and closets are all "X-rayed" in detail. One of the incomplete walls exposes every stage of construction from concrete block and furring through gypsum board, taping, cementing, sanding, priming and the final finish coat.

The floor is cut away in marked stages to show the rough plywood flooring, the filler material, mastic adhesive and, finally, asphalt tile.

In one of the bedrooms, the ceiling is exposed, showing the insulation blanket. Part of this is cut away, too, showing roof trusses and plywood sheathing. A close-up view of the roof construction is available to visitors in the carport roof which is also cut away.

A specially constructed catwalk was built above the kitchen floor to permit visitors to study construction through two holes left in the floor. One four-foot excavation shows the entire footer, topped with the stages of floor-slab construction from the solid ground through four inches of slag, a waterproof membrane and four inches of concrete reinforced by wire mesh. The other hole reveals heating ducts, sewer pipes and water lines. Every feature is explained by the signs.

One entire kitchen wall is laid bare so that all plumbing and electric wiring, heating ducts and sound insulation are visible. The plumbing stack, waste drains and copper lines are all plainly marked. There are also X-rayed versions of the Apex washer and dryer which are built into the kitchens.

In the living room, part of the ceiling is X-rayed to show the steel wall-ties and joists of the second floor. The living room picture window shows the 2x10 fir header, plasticized sill, flashings over the lintel and the manner in which the steel window is set in place.

At the kitchen window in the rear, masonry has been cut away to show how the window is fitted, flashing and building paper applied, stone sill set in and joints caulked.

The front door is unfinished, demonstrating how the door frame is set in the door buck, plumbed,
trimmed and weather-stripped. Even the veneer on one of the flush interior doors has been stripped away to show construction of the door.

This four-apartment model is the result of over a year of engineering, field-testing and the construction of this pilot demonstration model. The coordinated promotion program carried out by the Goudreau organization resulted in more than 100 deposits on the FHA Title 213 mutual ownership contract the first week the building was opened to the public. More than 10,000 visitors viewed the house during the first week.

The pilot model consisted of a completely furnished model apartment, the X-ray unit, a sales office and one unit left unfurnished. The two-story, three-bedroom apartments with attached carport are priced to sell at $12,290 to $13,190.

Goudreau's plans call for several hundred of the Garden Homes to be built around a planned shopping center of 80 acres. The Garden Homes will serve as a buffer belt to screen single homes from the commercial development. Some garden-type rental apartments will be included in the belt, with three-bedroom homes to be built on the outer periphery of the integrated Meadowbrook community.

**Second Floor Plan:**

Bedroom wall and floor showing stages of construction. Preliminary gypsum wall construction extends to the left.

**First Floor Plan:**

The kitchen wall with the entire plumbing, wiring, heating and insulation visible.

A view of the utility closet. To the right of the furnace is the incinerator with its own access door.
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...Thousands

Don't just take our word for the real, day-to-day usefulness of the Oliver "OC-3". Take the proof offered by the thousands of users... the thousands of uses... of this powerful little tractor. Just ask any owner what he thinks of his "OC-3". In the more than 12 years that the "OC-3" and its predecessor, the "HG", have been in production, they have built a reputation for user acceptance that's unequaled in their class. Proof of this is the fact that it's mighty hard to get a used "OC-3". Users just don't often sell their "OC-3" tractors.

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The "OC-3" has plenty of power to handle all those jobs with ease... a full 22 drawbar h.p. It's ruggedly built to keep maintenance and operating costs down.

Why not have your Oliver Industrial Distributor give you all the facts on the "OC-3", the lowest priced industrial crawler tractor built. Call him or write direct to The Oliver Corporation, 400 W. Madison Street, Chicago 6, Illinois.

THE OLIVER CORPORATION

a complete line of industrial wheel and crawler tractors
Builders and buyers alike benefit from the "two-way" advantages of aluminum ductwork. For instance, finished costs for aluminum ductwork are competitive because light weight makes for ease in handling, ease in fabrication and ease in installation. Additional economies with prefabricated fittings and even complete duct systems are frequently possible. Aluminum ductwork is more attractive, more serviceable. It won't rust out from condensation in cooling systems or in damp laundry areas. It never needs painting or other maintenance. It is a natural insulator and minimizes heat loss.

These advantages, along with other benefits offered by aluminum in building applications generally, add up to quicker sale at a better profit for the builder and a better buy for the home owner.

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 Street, Louisville 1, Kentucky.

Send for free Architectural Aluminum catalog. For quick reference, see catalog in Sweet's Architectural File.

"Mister Peepers" returns September 13th, NBC-TV. Consult local listings for time and station.

REYNOLDS ALUMINUM

MODERN DESIGN HAS ALUMINUM IN MIND

SEPTEMBER 1953
This attractive, brick veneered, prefabricated home was put up by builder-agent J. Alvin Hawbaker in Lewistown, Pennsylvania. During the eight days it was open to the public, it had over 8,000 adult visitors. The all-electric kitchen includes electric range, refrigerator, food-waste disposer and dishwasher. Equipment also includes an automatic washer, electric dryer, and the Water Heater—of course... it's ELECTRIC!

"I'm known as 'Mister Electric' in Western Pennsylvania," says builder J. Alvin Hawbaker of State College, Pa., "because of the electric appliances I feature in my new homes. So it's only natural that the water heaters are electric, too!"

Builders and customers both approve the Electric Water Heater because of these features: 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 Electric Water Heater is a modern water heater for the modern house!

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Insulux panels are as practical as they are beautiful. They have the insulating efficiency of an 8-inch brick wall... won’t frost or sweat in winter. Patterns are available in a wide variety—from the clear block shown above to those that restrict sight completely.

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For information about these uses of Insulux or for help with a specific problem, just write Insulux Glass Block Division, Kimble Glass Company, Dept. AB9, Box 1035, Toledo 1, Ohio.

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The Russwin "All-Star" Line of Builders' Hardware

Meet 90% of your finishing hardware needs with the Russwin "All-Star" Line. You'll save time and money by specifying this complete, simplified line. Consider these advantages...

1. a choice of expertly designed and crafted lock lines: the Standard Duty "Stilemanor" and the Economy "Homegard"... both simple to install.
2. a complete line of finishing hardware... made to uniform standards of quality, size, finish, packaging and price.
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5. other advantages include... one-stop purchasing; speed; dependable delivery; easily-identified packaging; better-informed dealer service; a single source of service. The ultimate payoff... lasting customer satisfaction at no increase in cost.

NOW!

Count on the Russwin "All-Star" Line to help you build "the most houses" for the money. See your Russwin dealer's "All-Star" Builders' Hardware Display. For details on the new "Homegard" line, read the next page.

*Patents Applied For.

Since 1839

Russwin

Distinctive Hardware
Here is an economy line of residential locks and latches that offers new standards of performance and service-life. Eighteen constructional features and refinements put the "Homegard" line at the head of its class. These features include: (1) concealed screw roses on both sides of door (2) inside rose that snaps on, outside rose that's an integral unit cupped over lock case (3) knob retainer positioned in side of knob shank for easy installation; knob snaps on by direct push on spindle (4) all cylinder entrance door sets equipped with the exclusive Russwin ball bearing 5 pin tumbler cylinder (5) all-steel internal working parts, zinc-plated and dichromated. No die-cast parts of any kind.

- Available in wrought brass, bronze and aluminum
- Durable finish
- Backed by the Russwin Name... nationally known and advertised.
- Modern styling

Check and compare the new "Homegard" line from every angle. Isn't this what you've been looking for... an economy line made to Russwin standards of quality and backed by the Russwin name? Stock the new "Homegard" Line and get more hardware business by giving more quality for the money. Russell & Erwin Division, The American Hardware Corporation, New Britain, Conn.
combines every flooring advantage in one beautiful floor

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 extra-high 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 exceptionally 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.
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.
Would you spend $50 to protect this home against moisture menace?

That amount or less makes the masonry in this home Watertight when you use MEDUSA WATERPROOFINGS!

The greatest enemy your construction encounters is moisture menace. Yet you can protect a home like this against water for as little as $50. This is the added cost of protecting average masonry by using Medusa Waterproofed Gray Portland Cement (or when not available Medusa Waterproofing Paste or Powder as an ad-mixture) in a concrete basement floor, in mortar for masonry walls and a waterproofed cement plaster applied to the outside of the foundation. The use of Medusa Waterproofings as an integral part of all concrete would of course be slightly higher.

By specifying and using Medusa Waterproofing you assure your customers of lastingly dry basements and masonry homes. Medusa Waterproofed Cements are as easy to use as regular cements, with an added cost of but a fraction of the expense of repairing water damaged construction at a later date! Safeguard the future of your homes. Use Medusa Waterproofings as a matter of standard practice in every job. Write your nearest Medusa office for further details.

Medusa Waterproofing Paste or Powder
Recommended for use where Medusa Waterproofed Portland Cements are unavailable. Easily used and mixed with any regular cement.

Medusa Waterproofed Cements
Either Gray or White have the correct amount of waterproofing ground into the cement at the mill and are delivered at the job ready for use.

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Easy to handle for small and large jobs.

Complete detailed instructions on back of package.

Moisture-proof polyethylene lining for long storage. Keeps contents dry and in first-class condition.

Self-closing feature protects unused portion.

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SOLVAY PROCESS DIVISION
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New “Display-Package”
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Especially Designed for Retail Showrooms!
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SOLVAY PROCESS DIVISION
61 Broadway, New York 6, N. Y.
Noted architect Stone draws a spectacular performance from clay tile in this uniquely modern bathroom design. But any bathroom—modest or spacious—can sparkle with the same permanent clay tile beauty.

The clay tile lavatory counter tops can be adapted readily to single or dual sinks. Whether you build or design a stall shower, tub or a luxurious tub-plunge like the one illustrated, clay tile is the practical and permanent answer to any shower or tub area.

When it comes to bathroom floors—waterproof, scuff-proof, no-wax clay tile is always a wise specification. And, of course, clay tile walls and wainscot will always hold homeowner maintenance to a minimum.

Clay tile has much to add to the designing, building or remodeling of any residential, industrial or institutional structure: color and design potential, lifetime durability and ease of maintenance that translates into substantial long-range economy. It will pay you to consider this versatile building material in your next project. Your clients will profit, too—whenever clay tile is used!

Tile Council of America, Room 3401, 10 East 40th Street, New York 16, N. Y. or Room 433, 727 West Seventh Street, Los Angeles, Calif.

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More than 15,000 came to see J. M. Snyder's G-E “Young America” Home in Long Hill, Connecticut. This successful promotion also proved again and again—all over America—

**Builder-built G-E “Young**

The **G-E Kitchen** and Laundry you see here is featured in J. M. Snyder & Sons’ “Young America” Home, and in scores of other developments from coast to coast.

G-E Kitchen-Laundry can be built right into a $10,000 or $12,000 house—and the added monthly cost to the homeowner may be no more than that for a regular telephone bill.

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won First Prize for Mr. Snyder in the "Small Builder" Group of Practical Builder Magazine's 1952 Annual Merchandising Contest.

America" Homes sell fast!

During the past year, builders all over the country have been erecting G-E "Young America" Homes in their own communities...

...and all over America prospects come in droves to see and buy.

Some builders even report that their houses—equipped with General Electric Kitchen and Laundry equipment—are selling fast in the very same areas where other houses remain unsold for months! Here are typical comments:

"Sold well over 200 houses with G-E Kitchens in 4 months."
"Sold 56 houses the first day."

"Young America" Home Plans

Plans for five "Young America" Homes have been architect-designed for the General Electric Home Bureau, and are available to qualified builders through local General Electric distributors. There's a profitable opportunity for you to sponsor a G-E "Young America" Home in your community.

Why not get the full story on this and other General Electric marketing plans to help you sell houses faster? Home Bureau, General Electric Company, Louisville 2, Kentucky.

As of July 20th, 75 builders all over America are building G-E "Young America" Homes as models for their developments—and more are signing up each week.

Many of these "Young America" Homes will be open for inspection during National Home Week.

GENERAL ELECTRIC

"YOUNG AMERICA" HOMES

Jacksonville, Fla.—Demetree Builders
Kansas City, Mo.—Vic Regnier
Kansas City, Mo.—Bill Urvan
Kokomo, Ind.—R. D. Robbins
Lebanon, Ind.—Plott & McCoy
Lincolnwood, Ill.—Lincolnwood Dev. Co.
Louisville, Ky.—Garland Cochrane
Mattoon, Ill.—Kent Lumber Co.
Mattoon, Ill.—Midwest Homes
Miami, Fla.—Momar Construction Co.
Omaha, Nebr.—Schroeder Realty Co.
Orinda, Calif.—Robert Platt
Orlando, Fla.—Philips Industries

Portland, Ore.—Bauer Construction Co.
Provo, Utah—L & H Construction Co.
Ray, Ga.—M. L. Green
Rockford, Ill.—Auburn Construction Co.
Rock Creek Park, Md.—H. J. Korzendorfer
San Antonio, Texas—H. C. Barnes
Sapulpa, Okla.—Don Morris
Seattle, Wash.—McPherson Parade of Homes
South Bend, Ind.—Whitcomb & Keller Bldrs.
St. Louis, Mo.—Bert Wennecker
St. Petersburg, Fla.—J. Rosati
Syracuse, N. Y.—Hageman Brothers

Tacoma, Wash.—Northwestern Homes Inc.
Tampa, Fla.—Foster Associates
Toledo, Ohio—Cutter Construction Co.
Trumbull, Conn.—J. M. Snyder
Warwick, R. I.—E. L. Archibald
Warwick, R. I.—Vee-Jay Construction Co.
West Palm Beach, Fla.—Ross Construction
Westport, Conn.—Norman Shapiro
Whiteland, Ind.—Community Homes
Wheaton, Md.—Housing Development Corp.
Williamsport, Pa.—Inc. Real Estate Investors

SEPTEMBER 1953
Buyer has choice of 16 elevations for $10,895. Year-round air conditioning is optional added feature.

3-way modular shop on site SAVES TIME, WASTE, COSTS

For more than a year, we have been doing a lot of talking about the technical side of modular control. The real proof of the pudding, however, comes in the successful application of these principles in the field of operation to save time, cut waste and lower costs.

One of the best current examples of modules at work for the home builder is the 400-unit Brookhaven project which the ABC Construction Corporation, headed by John E. Bauer, has just started in Indianapolis. Not only the four-inch control, but the two-inch and three-inch as well are utilized with such efficiency that all waste from a complete house can literally be contained in a bushel basket.

A casual examination of the floor plan will shock those builders familiar with only the four-inch modular control because room dimensions are not necessarily in four-inch increments. However, this...
plan is completely modular. Because the roof is trussed, interior dimension lumber can be smaller than the 2x4 exterior walls. Therefore, 2x3 wall partitions and 2x2 closet walls are being used to save lumber and increase living space.

Three Controls on One Jig

All walls and partitions are fabricated on the universal modular jig table in a temporary shop at the job site. Roof trusses in shop construction are the same as those used in the houses; they will be reused at the completion of the project.

Fabricated parts are delivered to the slab on a lightweight trailer pulled by a tractor. Sequence of fabrication is such that sections are erected as the trailer is unloaded. The second plate is made up of the
MODULAR PRINCIPLES

Precutting interior and exterior drywall on modular cutting table. Quick setting gives exact dimension, taking into account the offset of the saw, thus, one worker does this usual two-man job

2x4 spacers used as dunnage to separate the exterior sections to prevent damage to exterior window and door trim.

Sheathing of exterior walls is shop-applied. The interior sides as well as interior partitions have the drywall field-applied.

After perimeter walls are erected, gables and trusses are installed and the roof is finished. Immediately the electrician wires the outside walls and ceiling. Then these units are surfaced with interior drywall covering. Interior partitions are brought in through the picture window opening and treated similarly.

Trim Snaps into Place

One of the unusual features in these houses is a metal trim for windows and doors which is merely snapped into place, without nails, to make a tight fit. Developed locally, this material contributes to good appearance, favorable price and quick installation.

Builder Bauer gives full credit to modular control as a value-booster, saying: “It has been the coordinating medium which ties together our design with the shop and field operations. We offer eight different elevations with reverse floor plans,
Owned power equipment indispensable to the ABC Construction Corp. operation (l. to r.): trencher, earthmover for subgrade work, high lift for backfilling.

giving the customer 16 selections to choose from without changing our price. We have never before been able to offer this value in house construction. The purchaser of one of our houses is, in most instances, contracting for the largest purchase of his career. It is mandatory that we supply the latest design which will incorporate the benefits of research for plan and utility purposes at the best price we can afford to supply it.

Bauer, an Indianapolis native, comes from a family of builders. Prior to his three-year service as an Army flight instructor, his company had built about 500 houses. Since reactivation in 1947, ABC Construction has built an additional 500 home units. He is a regional vice president of the National Association of Home Builders and past president of the Marion County Residential Builders. His creed for success is: "Build the house the customer wants, at the price he can afford to pay, in the location he desires to live."

A great deal of the research and effort put into Brookhaven is attributed to James D. Foley, local architect, who was commissioned to prepare plans and coordinate re-

**SEPTEMBER 1953**
search. The first two plans were discarded because a modular analysis disclosed obvious waste in stock sizes of materials. A complete rearrangement of materials made the present plan acceptable.

**Survey Showed One-Size Window Preferred**

The value of ABC’s research can be shown in one of many problems successfully overcome. Obviously the use of one-size windows throughout the house would conserve inventory stocks, simplify design and reflect economy in bulk purchases. However, this is a wide departure from conventional procedure. ABC divided its present home owners into groups for survey purposes and circularized 150 with questions regarding windows. Replies were 25 to 1 in favor of high windows in bedrooms to achieve both better furniture arrangement and privacy. Sixty percent preferred to have the picture window in the living room extended to floor level. Due to the survey, the builders knew they would get consumer acceptance for the use of one-size windows throughout the house, used in either horizontal or vertical grouping to obtain the necessary effect.
Any Plan Can Be Modular

“From the design angle,” Foley said, “it is evident that any house plan is adaptable to the modular principle. The greatest satisfaction to any home owner would be in the knowledge that his house has been engineered and precision-built to his specifications. Adequate plans cost money, but this money is well spent when the savings mentioned above prove beyond any doubt that the modular system works to the home owner’s advantage.

“A better house for less money equals greater value for home ownership. This system will simplify and remove the element of error which often occurs under normal, conventional construction practices now being used by most builders.”

“The modular system has not meant too much to the average builder of one to twenty houses a year. It has probably been a case of not fully understanding the system and its proper application due to its utter simplicity. In my opinion, every home builder should familiarize himself and his organization with modular principles. It is to the interest of the house building industry to promote better housing at lower costs and still retain the American heritage of individuality in selecting the house of one’s choice. The modular system will do it.”

Another chapter in this series on modular control will appear in an early issue.
See that shiny Chase Copper Water Tube! Smart plumbers choose it every time. They know it’s lightweight, easy to handle, and it makes satisfied customers for years to come.

Chase Copper Water Tube is corrosion-resistant...won’t clog with rust and always gives a full flow of rust-free water.

Chase Copper Water Tube and Chase Solder-Joint Fittings are a combination that just can’t be beat for hot and cold water lines, radiant panel heating and for drainage lines, too. Sold by Chase plumbing and heating wholesalers.
“S-a-a-a-a-y, I can EVEN see the dancing girls now that EVERYTHING HINGES ON HAGER!”

FREE! If you enjoyed laughing at Ed Nofziger's mirth-making cartoon this month, send for Hager's new book containing 28 full-size popular "Everything Hinges on Hager" cartoons! It's FREE! Just address:

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SEPTEMBER 1953
... the "priceless" ingredient.
Your greatest asset is the public's confidence in your reputation for true values. The word-of-mouth comments of your customers can make you ... or hurt you.
Unless there's built-in comfort in your homes for the long winter months, you can't expect your home buyers to recommend you ... to help you close future sales.
As home buyers become more critical and more exacting in their demands ... you must be able to demonstrate more and more value.
Study critically the heating systems you have been installing. Were the results really good? Was there keen satisfaction? Pleased home owners?
If not, ask your local Janitrol dealer to work out the economies of true comfort heating. He can help your sales without exacting a price premium.
He'll gladly explain how other builders have used Janitrol's nationally famous reputation for quality to help sell their homes. "Built-in" comfort is not expensive when you install Janitrol. Costs are actually in line with equipment that doesn't have Janitrol's performance and tremendous acceptance.


H E R E ' S  W H A T  T O  D O  A B O U T  I T !
Local Janitrol dealers are listed under "Furnaces", yellow pages of your phone book. Find out how you can merchandise the finest quality heating equipment and installation at a cost that you and your customer will gladly pay.

A N  A M A Z I N G
P E R F O R M A N C E  R E C O R D
With over a million Janitrol steel heat exchanger tubes sold since 1940, less than 1/4 of 1% have been replaced for any cause.
All America is talking about this heavenly NEVAMAR® kitchen

Capitalize on this big pre-sold market... include a carefree NEVAMAR kitchen in your building plans

Here's the NEVAMAR kitchen that has captured the imagination of millions of home-conscious families everywhere. Here's the perfect combination of exciting beauty and practical utility for any home you are building or remodeling. Here's the one outstanding feature that adds greater buyer-acceptance to any home because a NEVAMAR kitchen creates picture-book charm and carefree livability.

NEVAMAR is a high-pressure laminate—a prefinished surfacing material that's designed for lifetime beauty and service. It never needs painting or refinishing... eliminates scrubbing, waxing and polishing. Its "built-in" colors and patterns include warm, mellow wood-grains that can be used in unlimited combinations to create any decorative effect.

Today, when home-buyers are looking for extra values, the home with the NEVAMAR kitchen has more to offer... sells faster. The story of the NEVAMAR kitchen is spreading around the country. Take full advantage of this rapidly growing interest. Put a NEVAMAR kitchen into your building plans and make your homes stand out above all others.

Send for blueprint and brochure describing this kitchen

A detailed blueprint of this NEVAMAR kitchen with sketches showing its adaptability to rooms of various sizes, together with a colorful brochure, will be sent to you free. Please write on your letterhead.

DISTRIBUTOR: THE NEVAMAR COMPANY, BALTIMORE-30, MARYLAND

The NATIONAL Plastic Products Company

Manufacturers of Nevamar High Pressure Laminates • SARAN FILAMENTS • Wynne Molded Products

ODENTON, MARYLAND • NEW YORK: EMPIRE STATE BUILDING • LOS ANGELES: 5025 HAMPTON STREET
Sales-minded contractors are looking at

**OAK FLOORING'S New 4th Dimension**

Oak's 4th Dimension is something new we know about Oak Flooring...something known about no other building material, let alone other floorings. From a nation-wide study, we know now that 80% of all architects, 88% of all contractors, 96% of all real estate agents and 83% of all future homeowners prefer Oak Flooring over all other flooring materials.

What does this 4th Dimension—Oak's overwhelming preference—mean to you?

**As an operative builder,** you are concerned with selling as well as building. With the knowledge that 83% of all future homeowners want Oak Flooring in their homes, you know that your homes will have a big sales advantage. 88% of all contractors agree that nothing helps to sell a house faster than a good Oak Floor.

**As a custom builder,** your counsel on building materials is valued by your customers. More persons every day are becoming sold on beautiful, durable Oak. They know that Oak gives walking comfort...insulating qualities, too. These facts are proved by 96% of all real estate agents, who agree that houses with Oak sell faster.

So, you see, Oak's 4th Dimension means more than the attractiveness and structural worth you have always provided with Oak Flooring.

National Oak Flooring Manufacturers' Assn., Sterick Building, Memphis 3, Tenn.

This mark on Oak Flooring is your assurance that it meets NOFMA standards.
IT'S TIME TO SPECIFY

Universal * Rundle

Truly outstanding bathrooms like this one demand truly fine bathroom fixtures. That's why, when your prospects want a top quality bathroom, it's time to specify U/R fixtures. For they are the world's finest bathroom fixtures—the only fixtures with these features:

★ Whitest white—by actual scientific test!
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★ Surfaces harder than steel for lasting beauty—a result of U/R's exclusive "Hi-fire" process!
★ Lifetime Bond between surface glaze and fixture body!

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This patented, exclusive U/R hanger is the fast, easy way to hang china lavatories—permanently. Easy to fasten to wall . . . easy to align . . . firm grip . . . positive pull-down . . . easy to level!

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The World's Finest Bathroom Fixtures
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140 River Road, New Castle, Pennsylvania

Plants in Camden, New Jersey; Milwaukee, Wisconsin; New Castle, Pa.; Redlands, Calif.; San Antonio and Hondo, Texas

SEPTEMBER 1953
Builders' sales records prove that smart home buyers insist on efficient kitchen ventilation. They want adequate ventilation—in new homes...in older homes. Fasco has promoted ventilation to consumers to stimulate this idea. Many handy home owners install their own. Be sure you're using this plus-selling feature in your homes. Install Fasco 847 or 1047 to help you sell.

**Fasco LEADS THE WAY IN HOME VENTILATION**

**LOW COST VENTILATION**

Every home, regardless of price range, can have a Fasco 847 or 1047 Ventilating Fan. Volume Production brings costs down...and these savings are passed on to you. No other low cost extra can make your houses so inviting. They prove you build for quality.

**LOW COST INSTALLATION**

Fasco 847 and 1047 saves your time in installation. Engineered as a complete and simple package, there's no on-the-job fitting or other time consuming problems. Exclusive design makes this Fasco Ventilating Fan the easiest and quickest to install in the industry.

**NO SERVICE CALL-BACKS**

Fasco virtually guarantees this. So sure is Fasco of highest quality, you get the five-year guarantee against all mechanical and electrical defects. Install them...forget them. With care they'll last a lifetime.

Model 847-1047 Outside Wall Ventilating Fan

Builders everywhere are adopting this sturdy, efficient, low cost ventilating fan. Operates automatically. Release chain—door opens, fan starts. Pull chain—fan stops, door closes. Designed for outside walls 4½” to 15½” thick. 847—8” blade, 475 C.F.M. 1047—10” blade, 650 C.F.M.

CUSTOMER PREFERENCE FOR FASCO MAKES HOUSES EASIER TO SELL

Through consistent national advertising, Fasco has become the leader in home ventilation. Your prospective home buyer knows and respects the name Fasco for quality ventilating fans. Fasco is the one low cost extra that makes the big cost difference.

FASCO—FIRST IN HOME VENTILATION

- Model 880 Ceiling Ventilating Fan for installation through ceiling and roof. For single story construction.
- Models 882-1082 Outside wall ventilating fans with remote control performance. 8 or 10-inch blades.
- Models 1021-728 Ceiling and inside wall ventilating fans. 7 or 10-inch Turbo-Radial Impeller.

FREE—Write today for all the facts on Fasco Ventilating Fans.

Manufacturers of the One Complete Line of Ventilating Fans

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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; 1 1/2" radius, 2" face; 2" radius, 2 1/4" 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 Milcor Manual.

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.
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KITCHEN MARKET!

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STAINLESS STEEL

PRICED LIKE ORDINARY PORCELAIN

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"We have our Chrysler heating and air-conditioning system so balanced that for the past three years, winter and summer no matter what the temperature out of doors, we sleep under a single light blanket all night long . . .

One of our youngsters has been troubled with hay fever and during those summer months when the air-conditioning system is in operation, he is afforded complete relief from pollen irritation during the periods when he is in the house and of course, all night as well . . .

First, I was most surprised with the operating cost which has not exceeded $70 for any complete summer season and this cost includes both power and water...

It is my own personal opinion that our home has stayed so clean on the interior as a result of air-conditioning, that our reduced maintenance and decoration costs have more than paid for the operating cost."

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HEATING • AIR CONDITIONING
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Airtemp Division, Chrysler Corporation, Dayton 1, Ohio

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SEPTEMBER 1953
PRELIMINARY analysis of land to be used for building homes is sometimes overshadowed by the attention given to the houses alone. And yet it is the site that makes the house. A prospective buyer's first impression of the neighborhood and external appearance may make the difference between sale or no sale.

If subdivision planning is neglected, the poor quality may show up in many ways: erosion on unnecessarily steep slopes; ponding on very level land; dying trees where too much fill or too much cut has occurred, or worse still, no trees at all where the bulldozer has taken the place of a good topographic map and a carefully prepared subdivision plan.

A preliminary appraisal of the subdivision possibilities of a site by the developer himself is highly desirable and not too difficult. Pre-requisites are a good topographic map of the site, a pencil, a scale, and at least a speaking acquaintance with the meaning of contours.

The accompanying three sketches illustrate a simple and relatively

---

**FIG. 1** The subject tract is a relatively level one of 16 acres. Contour intervals show drop of 1 ft. in elevation between each contour.
easy method of determining on paper the physical feasibility of the site for the type and price of home to be marketed, the ability to drain or to avoid excessive grading and the extent to which the natural contour of the land can be preserved and made to work for rather than against a good result.

Figure 1 shows the topography of an actual 16-acre tract of land: in this case, a relatively level one. Contour intervals show a drop of one foot in elevation between each contour, or an average drop of slightly over 10 feet across the site from northwest (Point A) to southeast (Point B)—a distance of about 1,000 feet. This is only one foot of drop in each 100 feet, about the minimum slope allowable to drain the site to the natural drainage outlet at Point B. This is also, under average conditions, the minimum slope desirable for good surface drainage of streets and gutters, although such grades can be reduced to a six-inch drop in 100 feet if necessary.

The following procedure will furnish a quick and relatively easy basis for evaluating any tract of land, large or small.

Steps in Analysis
A. Character of Site (Illustrated in Figures 1, 2, and 3):
1. Relatively level site draining NW to SE at average rate of one foot in 100 feet.
2. Soil condition good—sandy clay, no rock, marsh areas or fills.
3. Site contains good stand of second-growth trees and scattered specimens of oak and maple which should be retained where possible.
4. Surface drainage discharge permitted at point B, where sanitary trunk sewer is also present. Water and electricity are at the site on the existing street.

B. Market Requirements for Homes:
1. Single-family ramblers requiring typical lot areas of 7,000 to 8,000 square feet—minimum lot depth, 100 feet.
2. Houses of slab construction, no basements, indoor-outdoor living requiring close relationship between floor and yard grades.

C. Additional Municipal Controls Affecting Layout:
1. Minimum street right-of-way width, 50 feet. Paved roadway, sidewalks.
2. Extension, or at least dedication, of street through tract from point A to C.
3. Culs-de-sac not more than 500 feet.
4. Surface gutter runs not more than 1,000 feet.

Preliminary Layout Analysis
1. Location of streets. This will require a number of trial free-hand sketches on tracing paper laid over the topographic map which in this case should be at intervals of one foot. (For land with slopes of 3—15 feet in 100 feet, 2-foot contour intervals are satisfactory, with 5-foot intervals for steeper slopes.)

Five major factors should be kept in mind: (a) minimum street grades of not less than 0.5 per cent, preferably 1.0 per cent with no sags or sumps between street intersections; (b) minimum lot depths of 100 feet; (c) good relation of street to abutting land for good house siting, with house sites somewhat above street grades wherever possible; (d) minimum grading both as to depth and extent, with balanced cut and fill if possible, otherwise with some excess of cut over fill preferred with retention of natural grades wherever possible; (e) pleasing street alignment.

After some experimentation, you will come up with a street plan similar to Figure 2. Now spot in road elevations on the plan. In this case the west and south roads are a minimum of one per cent, the east road is slightly over three per cent. Note that on topography as flat as this it is necessary to keep the street grades somewhat lower than the lots in order to provide good drainage for the lots. Drainage could be to rear lot lines but this is not as satisfactory unless dictated by topography. Streets are the logical water collectors.

2. Lotting. Now sketch in your lots roughly. This will give you the approximate number, as well as their shape and relationship to the street. Lotting can be precised and tightened up in later studies.

FIG. 3 Rough grading plan to determine depth and extent of earth-moving, and relationship of house locations to street and lot interiors. Light dotted lines are existing contours; heavy solid lines are proposed contours.
3. A rough grading plan can now be sketched in order to determine the approximate area which will be affected. This is illustrated in Figure 3. Light dotted lines are existing contours; heavy solid lines are proposed contours. Curb height is assumed at six inches with a 6-inch road crown. This is a convenient figure for preliminary study. Side slopes shown here are about one to seven for illustrative purposes, but can be steepened depending on the specific soil conditions, thereby reducing the amount of grading. Note that in no case does the cut exceed three feet and in most cases is two feet or less.

Street drainage has been carried to the southeast corner of the site where an easement for underground storm drains will collect from catch basins at this point. No other underground storm sewers would be needed if it were not for the requirement that the west street be carried through to the south boundary. With this requirement, it will probably be necessary to carry a storm sewer in the south street to connect to storm sewer easement.

After sketching in the new road contours, carry them out to existing grades, at the same time studying the house locations, which are assumed here to be within an area 50 feet from the street line. Note the relation of the contours to the house sites. You can then make an approximate estimate on the length of street, quantities of paving and grading, and extent of underground utilities.

The above analysis should be considered only as a preliminary study to determine the feasibility of the site for the particular type of use, the ability to drain it adequately, and the approximate extent and quantity of grading, street and underground utilities required. Any number of variations in the layout could have resulted.

The analysis will also be very useful in working with the municipal and insuring officials. It does not, however, replace the necessity of more precise, detailed site plans and engineering drawings which should be prepared by qualified land-planning and civil engineers.

Because its fine grain, soft texture, light weight and freedom from pitch work easily. The wood cuts clean, matches accurately at mitres. Properly dried to specified moisture content, it doesn’t shrink, swell or split. It absorbs primers evenly, holds paint, stains or transparent finishes, free from bleeding or raised grain.

Certified by the registered Trade-Mark below, it protects your workmanship and reputation with enduring good appearance. For the how and why, write today for your copy of our Handbook for Builders—Free.

ARKANSAS
Soft Pine
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853 Boyle Building, Little Rock, Arkansas
"More than 4,000 homes I've built have Mosaic Clay Tile baths and kitchens

... as a result, they've sold faster,

says Norman R. Schuermann, St. Louis builder.

Since 1937, every house I've put up—over 4,000 houses—has had a Mosaic Clay Tile bath and kitchen. I've found that clay tile is a big sales feature. It's what my buyers want and expect. They like Mosaic Tile's good looks, its permanency, its easy cleaning.

"In my new Bissell Hills development I have 2,300 homes built or under construction. They'll sell for an average cost of $11,400 each. And each one will have a Mosaic Tile bath and kitchen.

"I find that I can't go wrong on the real thing. And I should know, for I've spent far too much money repairing and replacing substitutes for real clay tile."

Mr. and Mrs. Merle Plitt, Bissell Hills, St. Louis, Mo., two-time purchasers of Schuermann-built homes.

"This is the second Schuermann-built house we've bought in twenty years," says Mr. Plitt. "We've been completely satisfied both times. Our present home is just what we want, and it's built with quality materials from one end to the other."

"I like the Mosaic Clay Tile on my kitchen walls," Mrs. Plitt points out to Mr. Schuermann. "It saves me a lot of work . . . will never need paint or repair . . . and it's a dream to clean. I'll never have to worry about splashing water or grease."

"My little boy is like all other boys," Mrs. Plitt adds, "boisterous and just a bit careless about where he puts his hands, and how he takes his bath. With Mosaic Clay Tile on my walls and floor, I don't have to scold, for nothing harms my Mosaic Tile."

Use Mosaic Clay Tile in your low-cost homes. See Mosaic Clay Tile at any Mosaic showroom, or at that of your local Tile Contractor. For helpful literature, write Department 35-13, The Mosaic Tile Company, Zanesville, Ohio.
Perfect For
MOTELS, HOTELS,
APARTMENTS,
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SMALL KITCHENS,
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WORLD'S SMALLEST

COMPLETE KITCHEN!

ONLY 27 1/2 INCHES WIDE!

General Chef complete kitchen units fit in 5.4 square feet. The ideal solution wherever space and dollars are important.

SINK One-piece porcelain top of heavy gauge steel. Faucets and all hardware triple-chrome plated. Units also available without sink.

BURNERS Units come with 3 gas burners (easily adjusted for bottled, natural or manufactured [L.P.] gas), or 3 electric burners (220 V.) or 2 (110 V.).


FREEZER Holds 9 ice cube trays, or 12 standard frozen food packages.

STORAGE DRAWER Ample storage space for pots and pans.

WRITE for complete information and specifications if you are building, remodeling, designing — you will be interested in the space and money you can save with General Chef units. Several models are available. Fully guaranteed. WRITE TODAY for complete information and specifications on all General Chef units. We will also send you name and address of distributor nearest you.
1. **Busby the Builder** designs and builds fine homes like this. The deciding factor in the selection of materials that go into these homes is quality, not cost. Yet, when Stanford Busby selected Bildrite for a quality sheathing job (greater bracing strength, a tighter wall and especially insulation against heat gain) he cut his sheathing costs $73.15 per thousand as compared with wood. Pictures on this page show how

2. **Eliminates building paper.** Since Bildrite is waterproofed throughout with asphalt, there’s no need for felt. Bildrite protects against moisture, yet is highly permeable to allow vapor to escape from inner wall areas.

3. **Reduces costly waste.** Bildrite gives full coverage. No breakage loss. Practically eliminates cutting and matching waste. Here’s an example: The waste remaining after a recent 6,000 sq. ft. sheathing job was placed in one wheelbarrow!

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**How San Antonio’s Busby the Builder... Saves with**

Stanford A. Busby, Busby the Builder, Inc. San Antonio, Texas

**Build and insulate with double-duty**
$73 per M
Bildrite Sheathing

4. Bildrite goes up faster, easier. One carpenter can sheath 1,000 sq. ft. in 8 hours or less with Bildrite. Cuts application time as much as 43% compared with wood. Has tremendous bracing strength. 4’ Bildrite eliminates need for corner-bracing (F.H.A. accepted)!

Write! See how you can save on your next job. Free literature includes Insulite’s cost-comparison folders with which you can easily figure your own dollar and cents savings. Actual “case histories” and product data show how. Write Insulite, Minneapolis 2, Minnesota.
THIS NEW CEMENT lets your own carpenters install plastic counter tops

With Armstrong’s Counter-Top Cement you no longer need to order expensive counter tops from custom fabricators. Your own carpenters can now do a thorough professional job on counter tops, sink tops, and other work surfaces.

This new cement, developed by Armstrong Cork Company, is a perfect adhesive for bonding plastic laminates to plywood, metal, plaster, or composition bases.

Armstrong's Type A Counter-Top Cement is easy to apply, and the installation can be made with regular carpenters' tools. After a clean smooth surface has been prepared, the laminate is measured and cut to size. Next, this ready-to-use liquid cement is brushed on the counter top and the back of the laminate. The laminate is carefully positioned before being pressed into contact. Armstrong's Counter-Top Cement bonds instantly. You can apply all the necessary pressure with a small hand roller or a rubber mallet. No clamps, weights, or overnight curing is needed. To finish the job, add trim or molding as desired.

This powerful new adhesive forms a lasting, trouble-free bond that resists water, soaps, detergents, and solvents. Its bond does not deteriorate with age.

Armstrong's Counter-Top Cement is available at your local lumber or building supply dealer. Ask for it by name and be sure to specify that you want "Type A"—for professional use. Type B, for home craftsmen, is a ready-to-use paste which allows a few minutes for positioning of the laminate before taking final set.

A full description of Type A cement and instructions on how to install plastic laminates can be obtained from your lumber dealer or by writing Armstrong Cork Company, 4309 Rider Avenue, Lancaster, Pennsylvania.
a confidential look at a smart builder's note book

Use slab Foundation instead of Basement...
- More living space for less money.
Use TEMCO Gas Wall Heaters.

Got to make the most of Floor space—Use TEMCO Gas Wall Heaters. They fit between standard studs.

"somehow it always adds up to TEMCO Gas Wall Heaters"

In your home planning, add up all the advantages of TEMCO Automatic Gas Wall Heaters and you'll arrive at the same conclusion. By using TEMCO Automatic Gas Wall Heaters, you can build more attractive, more flexible, more saleable houses and build them at a figure which adds up to fast sales and fine profits too. That's because TEMCO Gas Wall Heaters:

1. Require no basement, are ideal for slab foundations.
2. Take up no floor space, fit between standard 16" OC studding.
3. Are simple and inexpensive to install upstairs as well as down.
4. Are available with dual wall registers.
5. Are built and backed by TEMCO, America's Gas Heat Specialists.
6. Provide completely Automatic Gas Heat at a figure so low you can use it profitably in any home.

TEMCO Inc.
Specialists in the manufacture of gas heating equipment.

For the full story, fill out the coupon below.

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Please furnish catalogue and complete information on TEMCO Gas Wall Heaters.
NAME
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SEPTEMBER 1953
This warm, imaginative redwood Novoply wall, 8' by 8', costs retail only about $21.00 for material!

If you're a builder who likes the new... the imaginative—and yet keeps a close eye on costs, new Weldwood Novoply is a product you'll want to investigate. This is true whether you build new homes in the $10,000 or $50,000 class, or if you are getting into the growing remodeling and expansion field.

Available in either warm-looking pine or glowing redwood, Novoply has a rich "textured" look, yet it is smooth because of the special bonding process which builds up layers of wood flakes to form interesting and varied patterns.

Because it is virtually warp-free, it is ideal for wall paneling, sliding doors and built-ins. As to finishing, this all-purpose wonder wood can easily be waxed, polished, stained or left natural. Sizes: 4' by 8' in 5/6" thickness; many economical sizes in 3/8" thickness from 30" by 60" up to 4' by 8'. Good both sides.

Novoply is nationally advertised. Starting in October the big new national advertising push will start on Novoply with color pages. Month after month Weldwood ads will reach millions. Cash in on the national acceptance of the Weldwood name.

See your nearest United States Plywood or U. S.-Mengel showroom... or see your Weldwood lumber dealer.

Redwood Novoply—it also comes in rich-looking pine—makes this highly practical, decorative, virtually warp-free sliding wall.
This is the kind of Novoply advertising you'll be seeing throughout the year. In full color, it will give homeowners a glimpse of how this low-cost product adds real distinction.

Weldwood advertising is aimed at over 14 million home owners, home buyer prospects, and builders a month in this list of publications. Home buyers want well known products.

ALL WELDWOOD PRODUCTS HELP SELL HOMES!

New addition to the Weldwood line is beautiful, pre-finished Honduras mahogany Plankweld. Why not follow the trend to Weldwood.

Want an excitingly different wall treatment? Then use 3-dimensional Surfwood to add an eye-stopping, rustic touch that helps sell!

There is a Weldwood Product for every part of the home

- Concrete forms
- Wall and roof sheathing
- Cabinets and built-ins
- Exterior siding material
- Westinghouse Micarta for counters, table tops and bars
- Interior walls
- Doors
- Sub-flooring
- Bathrooms and Kitchens

Weldwood
United States Plywood Corporation
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55 West 44th Street, New York 36, N. Y.

Please send me free Novoply Literature and Samples.

FREE Please send me 24-page Contractors and Builders Book—packed full of Weldwood data and specifications.

UNITED STATES PLYWOOD CORP., 55 WEST 44TH STREET, NEW YORK 36, N. Y. AB-9-53

NAME
ADDRESS
CITY STATE
Since the roof surface is usually the largest single area of a building, it is a place where the application of insulation board can be effective. As a result, these structural pressed boards, having such specific physical properties as rigidity, strength and high insulation value, are primarily adapted for use with flat or semi-flat decks.

In order to have this type of material develop its greatest efficiency, insulation boards for roof deck application must be installed with the “know-how” that will assure adequate protection and length of service.

It must be remembered that roofing felts and insulation materials are normally dry. When it arrives on the job site, the material is properly proportioned with relation to moisture content and other physical properties. If, however, it is improperly handled or stored by the builder, it may absorb dangerous amounts of moisture. Therefore, precautions must be taken on the job to protect the materials from becoming damp or wet. If roof-
Living fungi, which break down the substance of wood, are microscopic and abundant. But they need a certain amount of WARMTH and DAMPNESS to develop. Dampness will also peel off paint, crumble plaster, rust iron and steel.

Some insulations promote and retain destructive condensation inside walls and other structural spaces. In addition to warmth, vapor of water also flows through paper, plaster and most building materials, including ordinary insulations, and sometimes even through asphalt paper. Vapor condenses when it strikes a colder surface and reaches a dew-point.

An empty space is the best insulator against heat flow by Conduction; but does not prevent heat flow by Radiation and Convection. Of all heat transferred through structural spaces, 50% to 80% is by Radiation; all but 5% of the rest is Convection. Multiple accordion aluminum sheets throw back all but 3% of the Radiation which strikes them, and block Convection. Their insignificant mass, 1 oz. to the square foot, and their multiple air space construction, minimize Conduction.

They have zero permeability to water vapor and all other gases, including air, hot and cold. Because of their structure, they are practically non-condensation-forming, for a dew-point is not reached on any of their surfaces.

Simple and illuminating discussions of vapor and heat flow, including explanations of how to prevent timber rot, will be found in the U. S. NATIONAL BUREAU OF STANDARDS booklet, "Moisture Condensation in Building Walls." Ask for free copy.

There is now a new standard Infra Insulation (the commercial form of multiple accordion aluminum) improved to form a "blanket" of uniform depth between studs and joists which completely covers the spaces between.

COST OF THE NEW* INFRA INSULATION INSTALLED
in new construction between wood joists, material with labor.
Type 6-S: under 9 1/2¢ sq. ft.
Type 4-S: under 7 1/2¢ sq. ft.
Type 4-S Jr. under 7 1/2¢ sq. ft.
*Patent applied for.

INFRA INSULATION, INC.
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SEPTEMBER 1953
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Nu-Calk

SPEED LOAD

★ Available with or without nozzle
★ Available in Off-White or Pure White color

Nu-Calk Caulking Compound "stays put" as the best seller in caulking compounds—because it's the most efficient, most practical caulking load on the market. Nu-Calk "stays put"—will not dry out, run, crack, harden or pull away. Speed Loads are easy to use—user's hands never touch the compound. Try high quality Nu-Calk Speed Loads and you'll see why they're preferred nationwide!

CG-4 SPEED LOADER CAULKING GUN!
This Speed Loader caulking gun is light, sturdy, fool-proof. Simply slip in a load and you're ready to calk.

CG-3 STANDARD CAULKING GUN!
Always a smooth even flow and easy trigger action in these Speed Loads. Each carton contains 10 loads—packed 4 cartons per shipping case.
NEW HAND SQUEEZE TUBE

available for small jobs!

Here's the nation's favorite calking compound in a practical, handy tube for those small repair jobs around the home. Useful for finishing touches on bigger jobs. The tube itself is your calking gun, nothing extra needed. Counter display carton contains one dozen tubes.

Nu-CALK Calking Compound

in bulk, too!

The "standard of quality" in the calking field! The same fine product as in Speed Loads, available in ½-pint, pint, quart, gallon, 5-gallon cans. Also in 55-gallon drums.

Nu-Phalt PLASTIC ASPHALT CEMENT

For sticking down asphalt shingles and general repair on roofs and flashings! Comes in popular load form with or without nozzle, like M-D's famous SPEED LOAD for calking guns, or in 2½-lb., 10-lb., 50-lb., and 55-gal. containers.

Always use Nu-Glaze Glazing Compound instead of Putty!

Nu-Glaze never dries out, hardens, cracks, or pulls away! It does the job of putty better than putty—sets to a rubber-like consistency. Comes in ½-pint, pint, quart, 5-lb. cans... and in drums—25-lbs., 50-lbs., 100-lbs., and 880-lbs. Order today.

BUILDERS

On sale at all Hardware, Lumber and Building Supply Dealers!

DEALERS

Order now! Your order will be shipped the same day received!
rigid insulation

(Continued from page 142)

Panels of insulation board are installed on the concrete roof deck as fast as the roof asphalt is mopped on. End joints of the panels are staggered. Panel placement quickly follows the mopping to make sure roofing asphalt is hot when panels are set in place.

Closeup view of installation shows the ease of handling the insulation board panels. After panels are secured to deck with hot asphalt, they are sufficiently strong to support the weight of mechanics and equipment.

If mechanics are unable to complete the application of insulation board in a fixed working period, they then seal off the end of incompleted portions with strips of roofing felt. This serves as a water-stop and protects the installation against possible damage by a sudden rainfall.

When the felt-strip water-stop has been applied at the end of first section of insulation board application, roofers then cover this area with hot asphalt and roofing felt. A good deal of care is used to have felt adhere snugly to roof at seams. Creasing or buckling invites air pockets which destroy the efficient performance of the roof.

Final step in the application of the first section of insulation-board panels over a large section, is the placement of a water-stop at the fourth side of the section. Roofers go over entire area to make sure that felt adheres snugly at all seams. After this section is completed, work then proceeds on other sections of the roof deck.
Extra-rugged, lightweight Bundyweld Tubing saves installation costs. Expanded end (if specified) of one coil slips over end of next coil, seals leakproof under silver- or soft-soldering. Tubing doesn't dent or split under accidental hammer blows; uniform coils permit faster, smoother plastering.

Make "also-rans" of your competitors through Bundyweld Ceiling Radiant Heating

With increasing frequency, in hundreds of communities, alert architects and builders make "also-rans" of their competition. Competitors' hottest prospects become their customers, sold by their offer of Bundyweld Ceiling Radiant Heating.

Field reports show this dramatically new heating system opens markets long dominated by competition. And it's no accident. Bundy ads in Better Homes & Gardens, American Home, Small Homes Guide, and House Beautiful have convinced thousands of near-ready home buyers and builders. This conviction is strengthened by reports from friends and neighbors already living with Bundyweld Ceiling Radiant Heating: new freedom from drafts and soot, even-tempered comfort, dirt-free walls, no awkward radiators or registers, redecorating postponed years.

Profitable local sales are aided by our replies to requests for literature, names of architects and builders offering exactly what's wanted: the system that makes all others obsolete, the first big heating advance in years.

Why not share in these profits by sending coupon now. Prompt action can make "also-rans" of your competitors.

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☐ Send Bundy technical radiant heating pamphlet.

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SEPTEMBER 1953
FOR GREATER STRENGTH...EASIER HANDLING
LONGER LIFE...AT NO PREMIUM COST:

Gypsum Wallboard reinforced with

OWENS-CORNING
FIBERGLAS

Yarns!
Now you can offer gypsum board construction that's protected by Fiberglas* reinforcements mixed right into the board itself! Stronger, quicker built, better-looking wall and ceiling constructions—jobs that save money and boost customer satisfaction.

It's the Fiberglas reinforcements that make the big difference. Countless thousands of strands of thin, exceptionally strong fibers of glass are mixed right in with the gypsum plaster at the time the board is made. They form a lasting, rot-proof, incombustible network that strengthens the gypsum core and adds to the board's resilience—provides important advantages like these:

SEE THE DIFFERENCE. Yes, you can actually see the difference when you score and snap a piece of this new Fiberglas-reinforced gypsum board! The tiny glass fibers that form the strengthening network are your identification label to stronger, more flexible, easier to nail gypsum board.

GREATER IMPACT RESISTANCE. Tests show up to 80% greater resistance against shock. Means less damage to board during transit... on the job... after it is on the studs.

EASIER TO ERECT. It's less brittle, easier to nail because the Fiberglas reinforcements help hold the gypsum core together. Cut-outs come clean, edges don't crumble. Board's more resilient, too, withstands handling better, minimizes losses.

NO PREMIUM COST. Costs no more than conventional gypsum board, yet saves on erection costs by reducing losses due to breakage.

CUSTOMER SATISFACTION. Walls and ceilings of Fiberglas reinforced gypsum board give your customers many years of trouble-free service because they are more resistant to the knocks and blows of ordinary usage. This "plus" makes your selling job easier.

If you haven't already checked into this new and important contribution to better construction, be sure to ask your supplier today—or write direct to Owens-Corning Fiberglas Corporation, Dept. 62, 16 East 56th Street, New York 22, N. Y.

OWENS-CORNING FIBERGLAS CORPORATION, Textile Products Division, 16 East 56th Street, New York 22, N. Y.

SEPTEMBER 1953
how would you do it?

ideas for the man on the job

how to repair sagging doors, loose hinges

Get a angle iron $2\frac{1}{2} \times 2\frac{1}{2} \times 3/16$ inches and about 5 inches long. On one side, drill three $5/32$-inch holes and tap them to fit 3/16-inch stove bolts. On the other side, drill two $1/4$-inch holes and countersink them for large screws. Remove the inside casing of the door on the hinge side. Remove enough plaster at a level with the placement of the hinge so that the angle iron can be fitted to the exposed 2x4's. Place the angle iron between side jamb and 2x4 directly opposite hinge of door. Place wood shimming against studding to bring angle iron out flush with plaster. Then fasten hinge in place with stove bolts. Drive screws into studding and replace inside casing. —J. A. Floden, Summer, Iowa.

installing hidden air vents

Air vents for attic air circulation can be installed in the fascia of the eaves so that they are hidden to the eye. Two by fours are spiked to the ends of the rafters so that an air space is left near the roof line. Wire screening is then tacked to the roof sheathing and to the 2x4's. Then a 1x4 fascia board is nailed directly to the 2x4.

A protective covering of metal is then nailed to the roof sheathing and to $1/2 \times 1/2$-inch blocks placed every few feet along the top edges of the fascia board. The piece of metal applied forms a blind for the screened air vent. It also acts as a drip cap and, when painted, will appear as part of the fascia molding. In this way, adequate air circulation is afforded, yet the general appearance of the fascia and sofit does not betray the air vents they contain. —Vernon L. Conyers, Spokane, Wash.

(Continued on page 154)
**Leigh LOK-TAB**

**SLIDING DOOR HARDWARE**

Everything for a complete installation in one handy tube... it goes up in minutes.

1. **HANG THE TRACK**... just screw it to the header. Doors are easily hung without removing the track.
2. **INSTALL THE HANGERS**... before the door is hung. One adjustable locating screw goes in first. Door clearance can be accurately set later.
3. **PLACE THE DOORS**. They swing into position from the front. Then, with guides screwed to the floor, the door is in place.
4. **TWIST LOK-TAB**... and the job is done. The door can't jump the track, ever.

"the best you can buy... and you buy it for less"

PACKAGED UNITS FOR 2, 3 or 4 BY-PASSING DOORS

When you standardize on Leigh Sliding Door Hardware, you're assured of the best unit that money can buy... at the price you want to pay. And the complete Leigh package solves all of your headaches too... it contains all of the screws, all of the parts and all of the instructions you'll need to do a finished job.
Here's how you build a PRECAST JOIST CONCRETE FLOOR

Build exterior wall to floor height. The course supporting joists should be solid concrete block or block with all cores filled. Set the precast concrete joists according to plan.

Lay sheathing or plywood forms over spreaders. Allow for expansion if the wood is dry. Place conduits for plumbing, heating and wiring and then thoroughly oil the forms.

Simplify forms and reduce costs the precast concrete joist gives houses and small buildings strong, rigid, firesafe floors that won't shrink, warp, sag or squeak—advantages associated with larger structures. These are strong sales points. Here are the construction steps:

1. Build exterior wall to floor height. The course supporting joists should be solid concrete block or block with all cores filled. Set the precast concrete joists according to plan.

2. Install bridging between the ends of joists at supports. The bridging may be concrete masonry units as shown in photo above, short precast beams or cast-in-place beams.

3. Insert spreaders on about 30-in. centers to support forms. Spreaders usually are hung with wire hangers. After the forms are removed cut ends of wire hangers off flush.

4. Lay sheathing or plywood forms over spreaders. Allow for expansion if the wood is dry. Place conduits for plumbing, heating and wiring and then thoroughly oil the forms.

5. Set insulations around outside edge of floor and then lay reinforcement consisting of either (1) wire fabric or (2) steel bars placed at right angles to the precast joists.

6. Place properly proportioned and mixed concrete. Spade or vibrate the mix, compact it with wood float, finish with steel trowel. Moist-cure thoroughly, then remove forms.

For forming and bridging sketches, design tables and other data on building precast concrete joist floors and roofs write for new 24-page book. Free but distributed only in U.S. and Canada.

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“are the best equipment we can find!”

—says Mr. H. D. Jordan, General Supt., Southern Builders of Houston, Inc., Houston, Texas

Black & Decker saws have so far cut every rafter and trimmed every decking in Southern Builders' handsome new community development, Edgewood Addition. The company has nothing but praise for the performance of these B&D tools. They've saved time and money over hand labor and have helped step up the pace to 2 home completions per day. In selecting their portable electric saws, Southern Builders did considerable searching for the "best equipment we could find." They standardized on Black & Decker because they discovered "repair costs are reduced two-thirds over repair costs of saws of competitive makes."

Praise like this is typical of reports from users of Black & Decker Utility Saws. That's because every B&D saw is driven by a powerful, universal B&D-built motor, custom-made in Black & Decker's own plant. And B&D Utility Saws feature light weight and perfect balance to cut operator fatigue; telescoping blade guard and instant-release switch for maximum safety; ball-bearings, heat-treated alloy steel gears and strong, aluminum housings for long life. Add all this up, and you'll know why builders everywhere say "B&D can't be beat!"

For a free demonstration, see your favorite B&D Utility dealer. Write today for a free catalog to: THE BLACK & DECKER MFG. CO., Dept. H-663, Towson 4, Md.

7" Heavy-Duty Saw
Cross-cuts 2 5/8" lumber and bevel-cuts 2 1/2" lumber at 45°. Built-in depth and bevel adjustments; telescoping guard. Four other models, priced from $56.50 to $117.
an easy-to-build cornice for indirect lighting

To build an attractive cornice for indirect lighting, fasten a piece of 1x3 to the wall with 3-inch angle brackets approximately 12 inches from the ceiling. Beneath the 1x3, nail a piece of 5- or 6-inch crown molding on the front edge of the 1x3. Fluorescent fixtures fit in the channel created, but should be placed before the crown molding is nailed into place to make for easy installation.—M. G. Miller, So. Williamsport, Pa.

use roofing nails to mark wall studs

Marking studs before plastering eliminates a lot of hunting for them later on. Tack a roofing nail on the subflooring before each of the studs. Then, when plastering is done, each nail will indicate where each stud is located. When the plaster has dried, pencil marks can be placed on the plaster below the baseboard line to indicate placement of studs. Roofing nails can then be removed.—H. E. Hermanson, Jewell, Iowa.

how to make a 2x4 post stronger

When we need a post, we frequently use two pieces of 2x4. Considerable improvement in its load-carrying capacity is achieved when two strips of 24-inch shingle are cut 4 inches wide and are inserted between the ends of the 2x4's to wedge them apart. The center of the 2x4's is nailed tightly together. Any load placed on this post will cause the 2x4's to buckle inward toward each other. The greater the load, the greater the support each 2x4 offers the other.—J. E. Burbank, Stamford, Conn.
ideas for the man on the job

no braces for this barn door

Upon a frame of 1-inch lumber is nailed a sheet of tempered hardboard. Nail 1-inch lumber on the exterior side of the door with the hardboard forming a base. Tongue and groove lumber is therefore not needed as an exterior surface and the hardboard backing insulates the door. The door may be made in one section, then sawed through at a slant as shown.—A. N. Nelson, Kansas City, Mo.

nailing pickets quickly and accurately

Fence pickets are easy to apply if you use a wooden spacer like the one shown. The spacer is made of three strips of wood. One strip is nailed at perfect right angles to another strip and then is braced with a third board.

To start, nail the first picket perfectly plumb to the fence. Tack a 2x4 to the fence posts close to the ground. Be sure that the 2x4 is perfectly level because its position will determine the height of each picket. The triangular spacer is then held so that the bottom piece rests on the 2x4. Hold the picket being applied tightly against the spacer while nailing it on. In this way, all pickets will be at the same height, accurately spaced, and perfectly plumb. No measuring is necessary.—H. E. Fey, New Braunfels, Texas.

SEPTEMBER 1953

Yes, since 1862, PECORA has played its important part in helping America build its better buildings from coast to coast—building with quality materials—material by Pecora. Across the years, across the country, Time has proved the wisdom of depending on Pecora if you’re depending on the best!

Manufacturers of Caulking Compounds, Mastics, Putties, Glazing Compounds, Roof Coatings, Maintenance Finishes, Industrial Enamels.

PECORA PAINT COMPANY, INC.
—SINCE 1862—
315 W. VENANGO ST., PHILA. 40, PA.
solar controls

We are building a one-story home in Allentown, Pa., with large windows facing south. Do you have any information on the proper roof overhang for this latitude to shade these windows from the summer sun. The house actually faces 20 degrees toward the east.

B. W., Allentown, Pa.

The twist of the house facing to the east makes it impractical to completely shadow the window during the entire day.

For a protection period of April 11 to September 1, the following overhangs would afford complete shadow after the hour given. Partial protection, obviously, is afforded before the hour noted.

<table>
<thead>
<tr>
<th>OVERHANG</th>
<th>HOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'-3&quot;</td>
<td>9:20 a.m.</td>
</tr>
<tr>
<td>5'-8&quot;</td>
<td>10:20 a.m.</td>
</tr>
<tr>
<td>4'-3&quot;</td>
<td>11:00 a.m.</td>
</tr>
<tr>
<td>3'-8&quot;</td>
<td>noon</td>
</tr>
</tbody>
</table>

Extension of the north-south end wall on the east side is desirable.

Small Homes Council
University of Illinois

overcoming heat loss

Before insulating and re-siding a house, I would like advice on the following questions:

1. Can the insulation be put in with the vapor barrier "out?"
2. Should a special type of insulation be used?
3. Should some sort of thin board (1/4-inch hardboard) be used as "sheathing," or would a heavy paper (Sisalkraft) over the studs be enough?

A. R., Jr., Easton, Pa.

"Dusting" my concrete floor was installed in sections. As a result, portions of the floor create a dust which is tracked into other rooms. What can I do to overcome this?

Small Homes Council
University of Illinois

While there are several solutions to this problem, if I had to do it, I would use a blanket-type insulation, and wood sheathing and replace the siding. I would take precautions to investigate the desirability of installing a vapor barrier on the warm side of the wall. With the house already plastered, I assume that something in the way of aluminum paint or paper on the interior walls would be the only possibility. The general character of the house, its location, type of fuel and sources of humidity are all factors and problems relating to condensation and have to be analyzed independently. It may not be necessary to provide vapor barriers, but it should certainly be investigated.

(Continued on page 159)
You can't help but profit when you sell these Dexter key-in-knob sets, with rugged, lifetime service and striking beauty at popular prices. And installation is simplicity itself. Illustrated above: No. 600 Pin Tumbler cylinder set for the ultimate in security; and (below) No. 300 Disk Tumbler cylinder set, for dependable security where price is a factor... now available Master Keyed. Write for a Dexter factory representative to call on you.
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Easy to Apply. Upson All Weather Panels are applied direct to framing. Left natural or painted.

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Please send me booklet and information on Upson All Weather Panels.

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Address
Name of Jobber
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FACTORY USES: gatehouses • watchman's sheds • storage buildings • garages • utility buildings • construction sheds • loading platform shelters • tool cribs

HOME USES: garages • playhouses • utility sheds • plus a multitude of summer cottage uses

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AMERICAN BUILDER
limits of perimeter heat

How far can you force warm air efficiently when using perimeter-type heating? Is it recommended to use only registers for return air in a six-room house?

O.J.S., Oslo, Minn.

There are several different types of perimeter heating systems.

The type for a concrete slab house is the perimeter loop system in which a loop duct is embedded in the slab around its entire perimeter. Warm air from the furnace is carried out through feeder ducts and delivered into this loop. Registers receive the air from the loop and discharge it upward across the cold surfaces of the rooms. For this type of system the length of perimeter loop duct supplied by one furnace should not exceed 210 running feet. This type of system, which uses 6-, 7-, or 8-inch pipes, may have a trunk duct supplying several feeders. In this case, the association recommendation is that the trunk should be insulated and that it should not be more than 50 feet long. The feeders which are not insulated should be not more than 30 feet long. Hence, if you had an uninsulated feeder duct connecting to the end of an insulated trunk, the total distance from the furnace out to the loop measured along the trunk and feeder should not exceed 80 feet.

Regarding the use of only one return air duct in a six-room house, this is quite common practice with perimeter heating when the floor itself is warm. The floor is considered to be properly warmed if it is a concrete slab floor with warm air ducts embedded in slab. The floor of a house built over a crawl space is considered a warm floor if the ventilator openings in foundation walls are closed during winter and crawl space is warmed to temperature of about 70 degrees. Floor of house with a basement is considered warm if temperature of air at ceiling line of basement is approximately 70 degrees.

National Warm Air Heating and Air Conditioning Assn.

cause of paint failure

I have been building some houses with insulation sheathing and cedar clapboards and have been having trouble with paint peeling.

If I used furring strips under clapboards, would this help?

R. J. M., Weedsport, N.Y.

There are several reasons which may cause paint failure. One is due to the moisture within the building transmitted through the sheathing where it condenses on the interior surface of the siding. Others may be improper application of paint or use of improper primers and paint.

Your difficulty is due to the moisture within the structure. The correct method is to apply a good vapor barrier directly underneath the interior finish. This should be applied upon the inside surface of the studs, and should be carefully lapped at the top and bottom plate and on the studs. The vapor barrier should be some type of duplex paper with a layer of asphalt between.

I do not recommend furring out the siding as this provides an air space between the sheathing and the siding which must be open at the top for breathing to be beneficial.

For houses that have been constructed and are now in service which have this difficulty, I would recommend that the interior surfaces of all exterior walls be painted with a vapor sealer-type paint. A rubber base paint or a paint with a high varnish vehicle will provide a good vapor barrier. Two coats are recommended in order to insure a good seal plus the interior finish.

Prof. C. E. Lund, University of Minnesota

(Continued on page 162)
"With excessive abuse and constant use, SKIL tools require less maintenance..."

says Thomas O'Donnell, field superintendent, Construction Company of Maryland, Baltimore, Md.

"Our work really puts tools to the test," claims Mr. O'Donnell. "We have projects going all over the nation—dam tunnels, city water tunnels and underwater tunnels, for example. We give SKIL tools excessive abuse, and they're going all the time. Yet we have a minimum of service needs with them.

"We use SKIL Grinders, SKIL Drills and SKIL Saws. And I've used SKIL tools for 20 years. They outlast and outperform all other makes.

"Our current project is a housing project for low income groups," Superintendent O'Donnell concludes, "and I estimate we've cut at least 2,000,000 board feet on this job, using SKIL Saws. In my book, that's performance!"

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For complete information on SKIL tools, see your SKIL Distributor

or call your nearby SKIL Factory Branch
L. W. Griffin, foreman, cross-cuts with a Model 77 SKIL Saw. "You can see the cut with a SKIL Saw," Griffin states, "and that's all-important for greatest accuracy. SKIL balance, power, design make any cut an easy cut. And with SKIL special blades, it's no trick to cut metal, stone, concrete and many other tough materials."

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Here’s Why It Pays To Panelyte

Install It On-The-Job—New, heavier Panelyte plastic laminate does not require gluing to plywood—cuts easily with simple hand and electric tools.

Faster Production—Less than 2 hours to fit and install tub alcove (illustrated). Panelyte lends itself to mass production of sink tops as well.

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Women Like It—They like its beautiful colors and patterns—its pleasant touch—the way it resists stains, heat and abrasions. They like it because it is easier to clean. Panelyte is the ideal bathroom surface—it is not harmed by water, soap or detergents.

Men Like It—Panelyte won’t chip, crack or peel—never needs painting—lasts a lifetime. Prove to yourself “It Pays to Panelyte.” Contact your Panelyte dealer, or use coupon below.

Panelyte is made by St. Regis Paper Company famous for paper and plastic products of highest quality.

To make a gravity circulation system work properly, it is necessary that the horizontal piping be sloped to aid in the movement of water. At the same time, squarehead adjusting cocks are provided so that circulation will not be too rapid, and so that it will be even in the two loops. My suggestion is that you run a ½-inch return line and pitch both supply and return ½-inch to the foot—the supply lines pitched upward and the return lines downward. All pipe should be smooth and clean on the inside.

Particular attention should be given to the method of connecting the return line to the tank, as it is a common source of trouble. It should always be brought into the cold water as shown. Use a swing check valve mounted horizontally.

A. O. Smith Corporation

a lift for patients

The auditorium of our church is about 12 feet off the ground so we have a lot of steps. There is a side entrance which has a porch four feet by seven feet. I would like to install some kind of a lift for wheelchair patients. Maybe you can refer me to someone who handles such.

F. G., Bowie, Texas

Shepard Elevator Co.
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It doesn’t matter how many houses you’re building—or how many DeWals you own—mass-production methods save you time and money! That’s because the De Walt® is such a flexible machine, it adapts to your cutting purposes easily—in seconds. You can use one De Walt to make many different cuts in a few minutes. Or you can set up many DeWals—each of which makes one cut continuously. Either way, you get all the famous De Walt advantages.

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ACCURACY—De Walt cuts to within hundreds-of-an-inch tolerances!

SAFETY—De Walt Safety Guard gives maximum protection at all times.

Find out today how you economize in dozens of different ways...with De Walt mass-production building methods. See your De Walt dealer or mail coupon.

Available in 5 fine models from $20 to 10 H.P.

SEPTEMBER 1953
FLEETLITE double hung windows on each side of FLEETLITE matching picture window.

Double windows weather stripped with pile mohair give most complete protection against winter cold, summer heat or dust storms.

Block rain, adjust air flow for inside pleasure by centering the two middle sash.

Sash easily and quickly removed for washing.

The asphalt shingles, being flexible and of low resistance, are easily pulled or pushed out of shape, and they merely reflect the changes in size and in position that take place in the sheathing boards to which they are firmly secured. There is no other possible explanation to fit the evident facts.

Asphalt Roofing Industry Bureau

what is best?

1. We are planning on painting Sheetrock walls of shower stall in color, and then finishing with a coat or two of some type of waterproof varnish. What type paint and varnish would you recommend?

2. We are putting plywood paneling on walls. What type varnish would you recommend over the color-toned Rez?

J. P. R., Sheridan, Mont.

1. We recommend an enamel finish without final coats of varnish, for the Sheetrock in the shower stall. First apply a primer, then an enamel undercoat and two coats of enamel. Sand lightly after the first coat of enamel. High-grade interior enamels designed for bathrooms and kitchens do not need protection with spar varnish. Besides, the varnish would impart a more or less amber color to the finish.

2. You can put a coat of dull varnish over the color-toned Rez on the plywood.

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  - Standard cabinet sizes 12" to 72"
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  - STANDARD cabinets in COLORS

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SEPTEMBER 1953

AVAILABLE IN THESE COLORS AND GRAINS
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- spring yellow  umber oak
- elf green  natural birch
- bonnie blue  knotty pine
- mist grey  colonial maple
- favorite white  grey oak

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

Check your needs now!

FLOOR SANDERS
Five models, a machine for every purpose.
Super 9" drum, 8" drum; Standard 12"; 10"; 11"; 12" drum; Little American 9" drum.

ABRASIVE PAPER
New improved American Black Demon and American Combination high quality papers scientifically improved to give longer life, faster cutting.

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American Finishes are finest quality—complete line for all floors... seals, finishes, waxes, cleaners.

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American Deluxe, for all floors—polishing, waxing, steel wooling, disc sanding, grinding; 19", 16" and 14" sizes.

BELT SANDERS
Portable... saves time... speeds to final finish...eder is ten times faster than hand plane.

PORTABLE ELECTRIC SAW
8 1/2" blade cuts 1 1/2" plank at 45° or 90° straight cut. Motor develops 2 1/4 H.P. Cuts fast, and precision, one-hand operation.

ESTO SAW
Portable electric jig or saber saw for scroll work, dovetailing, cutting, openings, etc. Two models 5" and 7" capacity. Sold and serviced by American.

The American Floor Surfacing Machine Co., 511 So. St. Clair St., Toledo 3, Ohio

Please send latest catalog on the following, without obligation:

- Floor Sanders
- Floor Edgers
- Abrasive Paper
- Portable Electric Saw
- Belt Sanders
- Leasto Saw

Name: ____________________________
Street: ____________________________
City: ____________________________ State: ____________________________

(Continued from page 164)

framing the roof

I would like your opinion about a problem in roof framing, in particular, ridge pole for a simple roof.

I contend that after the sheathing is on a roof, the strength contributed by the ridge pole is negligible. To my mind the ridge pole is only a convenience while framing the roof. However, other carpenters differ with me on this question and say that the ridge pole is an important factor in the strength of the roof.

H. B. P., Langhorne, Pa.

Regarding your inquiry about the use of a ridge pole in framing a roof, obviously its use is a matter of convenience while framing the rafters. However, while the sheathing does add to the strength of the roof, it is my personal opinion that the ridge pole tends to insure the straightness of the ridge of the roof, and, in the case of long spans, this becomes increasingly important.

In my mind there would be less tendency for a roof to sag on the ridge line where a ridge pole was used. For this reason, it is better to use a two-inch member in lieu of a one-inch member which is sometimes used for this purpose. The additional cost is justified by the added stiffness and straightness given to the roof framing.

truss member sizes

I am planning on building a store size 40x60 feet with a flat built up roof. I would appreciate information on the sizes of members for a truss to span the 40 feet. Can you recommend a good text on truss design?

M. A. B., Mentor, Ohio

Your problem, being a common one would be covered in one of the publications put out by companies that fabricate roof trusses. The Teco Timber Company, Washington, D.C. is recommended.
...has a simple, sound assembly for maximum strength and durability yet is made to meet the price market.

This adaptation of the hollow-core principle meets the demand for high quality and low cost. This is another engineering achievement by HASKO for the builder who needs better flush doors. It is truly an economy door of outstanding quality.

LOW COST The HASKO "MOBILE" FLUSH DOOR is priced competitively, and is made and backed by a responsible manufacturer.

QUALITY GUARANTEED The HASKO "MOBILE" FLUSH DOOR carries the same guarantee and responsibility as the famous Hasko Arch-Kor Flush Door. It features "balanced" construction, and the warp-resistant, sound deadening and proper ventilation characteristics engineered into all Hasko Flush Doors. Its frame is constructed of selected kiln dried lumber and allows a generous amount of stock for trimming, plus sturdy 3/16" thick face panels.

8-WAY HANGING SPEEDS INSTALLATION Large 3x25 (5x25 including frame) double lock-blocks provide for fast, easy 8-way hanging of the HASKO "MOBILE" FLUSH DOOR.

FLEX-CORE INCREASES LIFE, ASSURES PERMANENT BEAUTY The entire core construction provides complete support of the sturdy (3/16" thick) face panels. An additional feature of the door is in the use of the "Flex Core" core ribs. These provide a resiliency and flexibility that give the face panels an unusually high degree of resistance to denting from heavy impacts, or damage from warping, and assure great durability.

TESTED Thorough tests prove durability. The HASKO "MOBILE" FLUSH DOOR has withstood kiln tests of as high as 48 hours at 170 degrees. The Hasko name means sound construction, high quality, expert design and craftsmanship.

WRITE today for the special HASKO "MOBILE" FLUSH DOOR Bulletin. Orders will be filled in the sequence in which they are received.
DON'T INSTALL ANY MORE LOCKS!

UNTIL YOU'VE SEEN THE GREAT NEW LOW COST CORBIN Guardian
No matter what locksets you're installing now, you owe it to yourself and your customers to see the new Corbin Guardian locks. These locks are unbeatable for economy and ease of installation... unmatched in their price class for beauty, for trouble-free operation, for the prestige that the name "Corbin" means on a lock.

Inside and out, the Corbin Guardian was designed and built to bring a standard of quality never before known in the low-price field.

We know your time is valuable. But... it's worth your while to visit your Corbin dealer and see these new Corbin Guardian locks. We firmly believe they are the best value in the low price class... and we back up that statement with a guarantee of our workmanship.

See your Corbin dealer... soon!

- It's in the lowest price class!
- 2-hole installation — easy, economical!
- Guaranteed by Corbin, makers of the world's most widely-used builders' hardware!
- It's a trade name your customers know and trust!

No other low-cost lock offers so many quality features:

- Solid brass, bronze or aluminum finish
- Handle set from either side... no screws to mar finish
- Fully reversible to fit any door
- Fine-ground, self-aligning installation
- Can be keyed alike or master-dropped
- Fits all doors 1 3/8" to 1 3/4" thick

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

Corbin also makes DEFENDER standard duty cylindrical locks, heavy duty cylindrical locks, Unit locks, mortise locks, and a complete line of builders' hardware.
Dura-seal's one piece jamb member has a concave back surface, providing a desirable flexibility which maintains a constant air seal and smooth window operation even when the sash expands or contracts due to changeable atmospheric conditions.

Send now for a free copy of "Facts On Weatherstripping!" It clearly analyzes two important weatherstrip tests, one by the University of Minnesota for the Weatherstrip Research Institute; the other by Hunt Laboratories for Zegers, Incorporated. It gives actual figures on fuel savings in various sections of the country...compares various types of weatherstripping...shows you why Zegers Dura-seal reduces air infiltration more than any other equipment. It's a folder that will be of interest to all...home owners, prospective home owners, builders, sash and door jobbers, retail lumber dealers, architects and weatherstrip contractors. Write for your copy today!

Zegers Incorporated,
8096 South Chicago Ave., Chicago 17, Illinois.

ZEGERS
Dura-seal
COMBINATION METAL WEATHERSTRIP + SASH BALANCE

A storage cabinet placed at right angles to the kitchen wall provides partial separation of dinette from kitchen in the Trendmaker house built by William Blackwell of San Francisco in his Bel-Aire Estates project.

The cabinet is composed of three units: a lower cupboard which stands counter-high; a 17-inch pass-through; an upper cabinet which is literally free-standing except for end support. The storage facilities of the floor cabinet face the dinette, and the upper cabinet, the kitchen. Each is equipped with plywood doors with metal pulls on the surface and concealed butts at top and bottom of sides. The unit complements both kitchen and dinette.
NO. D-104 KITCHEN CABINET DETAILS...

Section 1...

Section 2...

Elevation...

Section 3...
NOW! Have the Sales Advantage of a Quality Folding Door yet actually Cut Construction Costs! with "SPACEMASTER" folding door

Now you can be one of the hundreds of builders who spark house sales with folding doors—and actually cut your construction costs at the same time. With "Spacemaster," by the makers of famous "Modernfold" doors, you save on initial cost, because "Spacemaster" usually costs less than wood doors and necessary extras... you save on preparation costs because you can eliminate trim and wood casing... you save on installation time, because "Spacemaster" goes up with 8 screws in 10 minutes... and you save on labor costs, because you can eliminate fitting, mortising, planing, sanding and painting. With "Spacemaster" you get all these advantages—and quality too.

check these quality features!

1. Shallow metal track, covered when door is closed, almost invisible when door is open.
2. Quiet, "sure stop" slides.
3. Balanced Hinge Construction, both top and bottom for smooth operation.
4. Vinyl-coated, heavy-textured fabric covering. Durable, fade resistant, easy to wash with soap and water.
5. More folds per opening for better appearance.

No. G-47 store and apartment work to mutual advantage of both

In the new office and apartment building for the Klarich Construction Company, Chicago, Illinois, the designer laid out the building, especially the second floor, with particular consideration for the physical surroundings. In order to take advantage of the grass and trees on the golf course across the street, the designer planned a large, open balcony across the front of the building. He further enhanced the view by making the front rail solid with the cap approximately three feet four inches above the finished second-story line. This gives the owner, who occupies the second-floor apartment, a measure of privacy and effectively screens the heavy traffic on the street below.

Front wall of the balcony, which splays out, is finished with smooth stucco and trimmed at top and sides with wood facing. Soffit of the balcony extends about six inches out from building line, with the front wall of the two stores and entrance to the third below set back three feet eight inches from the sidewalk line. Thus the balcony overhang provides generous shelter or shade.

The store fronts are a continuous expanse of metal trim, moldings and doors, with Roman brick, stone and wood used as surrounding materials. Large planter in front of the show window provides a contrasting accent to the store-front detail.
AMERICAN BUILDER'S STORE FRONT DETAILS

No. G-47 Office Entrance Details...

Plan...

Section 1-1...

Elevation...

Detail A...
contractors and builders tell us...

the Greatest Feature in Locksets!

KEY SLOT CLAMP PLATE

Assures much faster, easier installation

Aids doing a workmanlike job

Provides pre-positioned screws

Eliminates nuisance of lost parts

Holds lockset firmly

available in both series "440" and series "410"

NATIONAL LOCKset

Patent Applied

Popular Key Slot Clamp Plate is one of the novel features of NATIONAL LOCKset which saves so much valuable time "on the job." Ask your wholesaler for an installation demonstration. It will prove to you that NATIONAL LOCKset provides a much faster, easier installation. Sell Series "410" as your deluxe line for discriminating people. Sell Series "440" as your budget-priced lock for every home in the block.

distinctive hardware . . . all from 1 source

NATIONAL LOCK COMPANY

ROCKFORD, ILLINOIS

MERCHANT SALES DIVISION
MAKE MORE Profits
WITH Challenger
STAINLESS STEEL
Combination SCREEN and STORM DOORS

- Because Challenger doors create a better first impression ... and longer lasting satisfaction
- Completely equipped with heavy duty door check
- Over 200 welded points in Stainless Steel frame for extra strength
- TUFFLEX soundproof insulation
- Expanding channels for custom fitting
- Mortise Stainless Steel lock, Stainless Steel hinges and reinforced push-bar

Announcing! Challenger Aluminum Combination SCREEN and STORM WINDOWS ...“

- Featuring Stainless Steel Triple Channels for smooth, friction-free sliding of glass and screen inserts
- Self-Storing — Easy Cleaning
- Draft-free ventilation
- Beauty — Savings

Write for complete information on the Challenger line

Challenger PRODUCTS, INC. PITTSBURGH 22, PA.

Challenger Products, Inc. A8-1
Pittsburgh 22, Pa.

Please send me all the facts about the Challenger line.

Name ____________________________
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City _____________________________ Zone ___ State ___

☐ Contractor ☐ Distributor ☐ Dealer
Could the postwar housing shortage have been relieved in the short time that was required if home builders had been limited to the use of tools available to them 35 years ago—that is, after World War I?

The unanimous opinion of builders to whom this question was asked is “No.” If they had had to balance mounting postwar labor costs against jobs that were “done by hand” in 1918, there would have been inordinately high costs and no fast production-line schedules.

Here is a picture-graph showing how portable power tools save time and money on the Gen-Mor project in Niles, Illinois. All of the tools are owned by H. Morton Robbins, the builder, who is also vice president of the Chicago Metropolitan Home Builders Association. The project consists of 225 ranch-type, two- and three-bedroom homes which sell for $15,950 to $18,905. The photographs were taken by the Skil Corporation, manufacturers of power tools. They bring into focus the important role electric powered saws, sanders, drills, tuck pointers, shears and hammers play in today’s building.
Carpenter is using power saw to trim roof sheathing, reducing operation time from hours to minutes. The same saw, with its straight cut depth of 2½ inches and 2½-inch depth cut at 45 degrees, is powered to cut masonry, metal, all types of composition material.

The same portable power saw used for wood cutting is now equipped with a cutoff abrasive disc for cutting building stone. Resinoid bonded abrasive discs, reinforced with interwoven nylon cord, will "give" but not shatter. When cutting stone, saw offers a wet or dry cut, having a water-feed attachment for use where dust is a hazard.

Portable power saw is also a handy tool for making quick and accurate pocket cuts in flooring for chimney, heating, ventilation or plumbing ducts.

Time, of course, is always a factor, but the power saw also minimizes worker fatigue. This carpenter is expending little physical effort as he cuts fire stops for insertion between studs.

Electric edge-and-surface plane is particularly suitable for fitting doors and for work on other jobs where accurate fitting is required. This 3-inch plane is adjustable during operation with a click lever which makes 1/64-inch adjustments from zero to a maximum of ¼ inch. It bevels right or left at 45 degrees. Reinforced, non-slip cog-belt drive minimizes shock load on the cutter head.

This short, "stubby" drill will allow work in restricted areas, such as between studs. With a ½-inch (steel) capacity, this close-coupled tool permits the attachment of 2-inch special auger to spindle after chuck is removed. Drill pictured is only 11½ inches in over-all length and is only 3½ inches wide.

All-purpose, close-coupled drill, driving long. 1¼-inch diameter auger bit bores holes for plumbing and electrical installations (Continued on page 178)
Lumber Dealers Everywhere...
Add A Successful READY MIX BUSINESS to your yard the WINSLOW BINANBATCH

* power tools (Continued from page 177)

Portable electric shear speeds up work on metal chimney flashing. Shear is used for straight and contour cutting, and cuts on radius as small as one inch. It cuts metals up to 16-gauge.

Oscillating sander is being used here to smooth taped gypsum wallboard joints. This tool is also used in wood finishing operations, and, equipped with a felt pad, speeds rubbing, polishing.

Three-inch portable electric-powered belt sander quickly sands kitchen counter-top into a smooth, level surface, free from sanding marks or ridges. Sander is equipped with vacuum dust collector.

Equipped with a wire cup brush, the powered disc sander makes short work of mortar splashings and other dirt or debris.

A powered floor sander is readying a new home for occupancy. Builders have wide use for tool, too, in home remodelling work.

Portable electric hammer speeds boring of holes in concrete porch for installation of ornamental railing. Equipped with turning wrench and handling drills from ¼ inch to 1½ inch. Tool is plugged into rectifier box which changes AC current to DC for magnetic-type hammer. It strikes 3,600 blows a minute.

---

GRAND HAVEN STAMPED PRODUCTS CO.
GRAND HAVEN, MICH.
These glass "whiskers"

GIVE YOU A NEW AND IMPORTANT REASON FOR USING

BESTWALL® WALLBOARD and

WEATHER-SHIELD SHEATHING

NOW—the best gypsum wallboard and sheathing has glass "whiskers"—long, strong, incombustible threads of Fiberglas in the gypsum core that mean better nailing qualities, greater resistance to cracking, shattering and breakage in use, handling and service. An exclusive Certain-teed development, this Fiberglas reinforcing acts on the principle used in reinforcing concrete. It has 3 specific advantages:

1. BETTER NAILING
The new, improved Certain-teed gypsum boards nail better—and hold the nails better. Less brittle than ordinary gypsum board, they do not shatter under heavy hammering.

2. GREATER FLEXURAL STRENGTH
The increased resilience provided by the glass fibers means greater resistance to stresses and strains of handling in transit and in use. Laboratory tests show up to 80 percent greater resistance to shock.

3. EASIER HANDLING AND APPLICATION
These panels can be quickly scored and snapped, or sawed, and always break clean—especially important when trimming out for electrical outlets, etc. This means better, faster construction for builders . . . more satisfied customers.

Remember, only Certain-teed gypsum wallboard and sheathing are reinforced with Fiberglas. It's another "first" by the company that gave you famous Firestop Bestwall, the first gypsum wallboard with a 1-hour fire resistance rating in single-layer application. Write now for full details on this important new development.

Building and zoning ordinances, obtaining information about them and procuring variations thereof, always have presented problems to builders.

These ordinances divide municipalities into districts and specify the types of use for each district. They are sustained by the courts if they bear some reasonable relation to the public welfare, health, safety and morals. The courts repeatedly have said, on questions of building and zoning, that they will not substitute their judgment for that of a city council or zoning commission, and will not act where the only difference is a varying opinion on the merits of a particular matter. In other words, the courts will set aside a building or zoning ordinance only where the ordinance is arbitrary and unreasonable.

For some time, urban communities have had the problem of traffic congestion and parking. This has become more serious since the close of World War II, as the number of vehicles on the street has increased substantially. Some cities have attempted to solve this problem by requiring that newly constructed or converted buildings make provision for off-street parking. The Building and Zoning Committee of the City Council of Chicago, after a study by its staff of experts, has just approved and recommended that the council pass such an ordinance.

This proposed ordinance applies to all types of new construction and all types of conversions, either those increasing the number of units, offices or apartments, or those increasing the capacity or use. The proposal requires a private garage or an open area, adequately improved, on the same lot as, or in close proximity to the building to be served. The ordinance contains a detailed schedule of the parking facilities required for each type of construction. The following are a few examples:

1. For dwellings not over two stories in height for one, two and three or more families, one parking space for each family dwelling unit.
2. For apartment buildings not over three stories in height, parking spaces equal to 75 per cent of the dwelling units containing one or more bedrooms and equal to 50 per cent of the units without bedrooms.
3. For apartment buildings over three stories in height, parking spaces equal to 60 per cent of the dwelling units containing one or more bedrooms and equal to 40 per cent of the units without bedrooms.
4. For tourist homes, cabins, motels and trailer courts, one parking space for each sleeping room or suite or each trailer space.
5. For retail stores, one parking space for each 300 square feet of retail sales floor area over 2,000 square feet.
6. For industrial and manufacturing uses, one parking space for each four employees and for each vehicle used in conduct of business.

A few days ago, a builder was telling a story of how he almost bought a large tract of vacant land for development on which he could have built only a fence. The answer is that the local building and zoning ordinances had reserved that property for conservation purposes, but the builder did not know it until he had almost completed his deal.

Building, zoning and parking ordinances are necessary, but builders will continue to have problems with them. The requirements which they impose will continue to add to builders' costs and prices.
High on a heavily wooded hill overlooking the valleys of Peachtree and Nancy Creeks in suburban Atlanta, the Georgian Village Corporation built these beautiful Ridgewood Heights homes—as a development of Etheridge & Vanneman Inc.

At a price of $16,790, these 1475 square foot homes are completely air-conditioned, and include such features as Rusco steel windows, Ratox ventilated closet closures, recessed lighting fixtures, and Reynolds reflective insulation. But above all, the feature that created the extraordinary buying interest was the built-in Hotpoint Automatic Dishwasher.

Like hundreds of other builders all over America, the builders of Ridgewood Heights grasped the merchandising opportunity provided by Hotpoint Dishwashers, and offered their buyers real freedom from the most disliked household task—dishwashing. No woman...or man...likes to wash dishes. So these smart builders are eliminating this distasteful chore by installing Hotpoint...the world’s finest dishwasher. No wonder their homes sold so rapidly!

Additional optional equipment included the world’s finest Hotpoint refrigerator, electric range, automatic washer, and automatic dryer. The homes were adequately wired to accommodate these modern labor-saving appliances.

Today’s buyers are demanding better living in the homes they buy...modern living, electrically. You can provide it—thus enhancing your reputation as a builder of quality homes—with Hotpoint all-electric kitchens and home laundries.
Crossett's New Oak Flooring Mill Demonstrates Efficiency and Economy of Wood Truss Construction

Crossett is taking its own recommendation by using wood construction exclusively in the new Crossett oak flooring mill. Construction shown above adequately meets load specifications and at a substantial saving.

Architects, engineers and contractors find that timbers fit today’s needs. 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 are engineered to specific stress values. Augmented with Teco ring connectors and grids, load bearings provide excess safety factors. Available in untreated, WOLMANIZED® treated and creosoted stock, they qualify under Southern Pine Inspection Bureau standards as well as Federal Specifications MLM75b.

FOR FURTHER DETAILS, write Crossett to obtain specific information regarding your own design problems. See for yourself how timber construction can answer many of your difficult design and building problems today.

CROSSETT LUMBER COMPANY
CROSSETT, ARKANSAS

FOR MORE INFORMATION USE COUPON, PAGE 218

AMERICAN BUILDER
BUILDING BUY-WORDS by Herb Wilson

An Advertising Page.

IF YOU ARE LOOKING for added sales appeal for your low cost housing, don’t miss Cermak’s Budget Bevel plastic wall tile! I find it hard to believe that this good looking tile is available at such a reasonable price and in a full range of colors. True, they are not in the same class as Cermak’s quality line of Cleveland Bevel Edge tile, but once installed their appearance is identical. These 4½ x 4½” Budget Bevel Tiles are available in 24 plain and marbled colors. Their surface is entirely opaque. I’m sure you'll find that Cermak’s Budget Bevel tiles will add many times their cost to the value of your new homes. For complete information, write to Cermak Tile Company, Inc., 4001 Brookpark Rd., Cleveland 29, Ohio.

SOON TO BE ANNOUNCED is a new kitchen cabinetry “natural” finish... French Provincial. It’s an exciting new concept brought to your market by the cabinetry manufacturer, MUTSCHLER, who sells only complete custom-designed kitchens. And here’s some momentum: manufacturers, the passing interest to builders and suppliers: The MUTSCHLER dealer organization works in cooperation with Associate Dealers... paying commissions on sold referrals, while doing all the “dirty work”—planning, installation and decoration. Some of their territories also are open for direct franchise, with training school for your personnel. Write MUTSCHLER BROTHERS CO., Nappanee 13, Indiana, for information and details.

IN-SINK-ERATOR has just announced a new model food waste disposer made particularly for builders. It has all the famous, nationally advertised features that have made IN-SINK-ERATOR so popular with the ladies; continuous feed, automatic reversing action, simple self-service and a host of others. The Model 33 has a simple arrangement for installation in new buildings where rough-ins may be controlled. It’s a money saving advantage that lets you feature a brand name, house selling product. The women I know really go for the time saving, step saving convenience of the IN-SINK-ERATOR. I’ve found that it has a magical way of helping builders to sell houses fast. For complete information write In-Sink-Erator Mfg. Co., Racine, Wisconsin.

THERE’S MORE THAN MEETS THE EYE in kitchen quality, I learned from a trip through the plant of GENEVA MODERN KITCHENS. I saw how GENEVA doors and drawer fronts are sound deadened and painted both inside and out to prevent rust... drawers glide smoothly, quietly... cabinet shelves are wire and adjustable... finish is chip proof. And GENEVA manufactures the largest variety of stock size wall and base cabinets in the industry... special cabinets on request. Learn now how you can profit by selling GENEVA quality. For complete information write Dept. BG 2, GENEVA MODERN KITCHENS, Geneva, Illinois.

BUILDERS HAVE TOLD ME that in many home selling situations these days, it takes an added “Pinch of Spice” to make a quick sale. By using Fremont Rubber Tile as one of your special feature items, you’ve created a floor that not only adds a colorful, luxurious appointment to dens, hallways, kitchens, baths, playrooms but “points up” the permanent beauty of the home. Fremont Rubber Tile installs quickly, is easy and inexpensive to clean, gives noise-free walking comfort, lasts many years. Available in 6” x 6” and 9” x 9” sizes, 3/32” or 5/32” gauge, in a wide selection of decorator colors. See your local dealer or write Fremont Rubber Company, Fremont, Ohio.

YOU DON’T HAVE TO SPEND a lot of money for an ACCURATE level! Take the David White light construction Model 8020 for example: RUGGED and EASY TO READ, this plain-type level comes complete with tripod, carrying case, rod, etc., for only $38.00. Or, for a convertible-type level that accurately plumbs vertical lines, there’s the David White Model 8022 (shown), which sells for $74.00 complete. Write for FREE descriptive leaflet. Address requests to the DAVID WHITE COMPANY, 318 W. Court St., Milwaukee 12, Wisconsin.

NEW FOR THE CONSTRUCTION BUSINESS, this SAFWAY light-duty material hoist accessory kit enables you to assemble a hoist from standard SAFWAY tubular steel scaffolding. Scaffolding forms the framework. The kit supplies the rest... cathead pulley assembly, platform guide and platform. Handles a maximum load of 2000 lbs. Can be built to height of 150 ft. when guyed. Sectional guides are furnished to fit either 5 ft. or 6 ft. 4 in. high end frames. Either the kit or scaffolding can be rented or bought from one of the 129 SAFWAY distributors near you. Write today for more facts. SAFWAY STEEL PRODUCTS, INC., 6246 W. State Street, Milwau-kee, Wis.

F.H.A. MAKES A CHANGE. A new directive, M.P.R., Revision No. 41, Para-graph 14-D, Sub-paragraph 5, provides that external corners of dry wall construction be finished with rust-resistant metal angles or other material acceptable to the underwriters. I am reminded that The Richkraft Company complied with M.P.R. even before it was issued. Their aluminum Richbead goes even farther with a Richbead for both exterior and interior corners. It’s easy to install on new or old construction and it comes in 1/2” and 5/8” sizes—8-ft. lengths, 25 pieces to the box. Ask The Richkraft Co., Room 928, 510 N. Dearborn St., Chicago 10, Ill.
106 — DRILL ATTACHMENT—four-page color folder gives complete step-by-step line drawing description of new “Korner King” right angle drill attachment. Unit attaches to standard %-inch electric drill, makes holes in hardest wood up to 2\(\frac{3}{4}\) inches in diameter. Permits drilling in otherwise inaccessible spots. Two-speed drive triples drill range, allows conversion to slower r.p.m. High-speed bits reduce torque and thrust. R.C.S. Tool Sales Corp., Dept. AB, Joliet, Ill.

107—FIBER TUBES—“Sonovoid” laminated fiber tubes, used to form concrete floor, roof, wall and bridge deck are presented in this eight-page folder. Tubes are made in 27 sizes, 2 to 36.9 inches o.d., and in lengths up to 24 feet or longer. Product is stated to reduce dead weight by displacing concrete at neutral axis of construction. Slab design tables, using varying diameter tubes, give details using different length spans. Sonoco Products Co., Dept. AB, Hartsville, S.C.

108 — FOLDING DOORS—vinyl-coated, fabric-covered units for homes and commercial establishments are pictured and described in four-page folder. Examples of how “Foldoor” adds flexibility to rooms and puts wasted floor space to work are cited. Units serve as a door closure or movable wall and are installed in new or existing buildings. Covering fabrics, available in wide color range, are washable, fire-resistant. Holcomb & Hoke Mfg. Co., Dept. AB, 1545 Van Buren St., Indianapolis 7, Ind.


FOLLANSBEE STEEL CORPORATION

GENERAL OFFICES, PITTSBURGH 30, PA.
Cold Rolled Strip Seamless Terne 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

PROTECT THAT ROOF with FOLLANSBEE TERNE METAL

The roofs of the homes you are building need the protection of metal—Follansbee Terne Metal—at all critical points. Valleys, flashings, gutters, coping, gravel stops are better—last longer—with Follansbee Terne Metal, the metal best suited for all weather-sealing jobs. Here's why:

It's Easy to Work—Ductile, Terne forms a tight bead... coating can't crack or peel... the tin and lead coating makes it easier to solder. Contraction or expansion are never serious problems with Terne!

Easy to Handle—Terne comes in convenient 50 ft. rolls without cross seams. Can be cut to any length.

Versatile—Terne can be used with any type of roofing material... flashes safely with other metals.

Permanent—Terne will outlast the life of the building, as proved by complete roofs of Terne still in good condition after 75 or more years!

Follansbee Terne Metal is tough, easily-worked, copper-bearing steel, hot-dip coated with a lead-tin alloy... supplied in 50-ft. continuous, seamless rolls, in widths of 4", 6", 7", 8", 10", 12", 14", 20", 24", or 28", and in 8, 20 or 40 lb. coating weights. Carried nationally by all leading sheet metal distributors.

REMEMBER... every roof needs Follansbee Terne Metal at the points of wear. See your sheet metal contractor today!
Buyers find all they want in

"Century"

NU-GRAIN

asbestos-cement

siding shingles

"Century" sided homes give more than full
measure! These tough, durable shingles combine
the appearance of old-fashioned split wood shingles
and the lasting qualities of stone. They are
virtually maintenance-free, and never need
protective paint. They won't burn, rot, or rust
—or tempt termites.

And home buyers and remodelers are really
enthusiastic about the three attractive, lasting
colors in which NU-GRAIN shingles are made:
NU-GRAIN Brown, NU-GRAIN Gray, and
NU-GRAIN Green (illustrated). When the
shingles are applied, the vertical joints between
them disappear in the continuous grain pattern,
and their straight-butt shadow lines are
clear and pronounced.

Home-conscious people by the millions have
seen and admired "Century" NU-GRAIN
shingles on actual homes and in K&M
advertisements (in color) in Better Homes &
Gardens magazine. Get the complete story
from your K&M Distributor or write
directly to us.

Nature made Asbestos...
Keasbey & Mattison has made it
serve mankind since 1873

America's first maker of asbestos-cement shingles

KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA
FEATURES that add up to SALES

THE HEART OF THE “400”

The metal sash guides and the spring tension units make the “400” an outstanding, fast selling prime window. The sash guides give all weather protection.

REMOVABLE

Easily removed for washing or repairing.

EASILY INSTALLED

Takes no more time nor effort than ordinary prime windows.

QUICKLY ADJUSTED

Two minutes with a screw driver and the window slides as desired.

METALS

AMERICAN BUILDER

Catalogs

410 — ARCHITECTURAL PORCELAIN — emphasizing the acceptance of porcelain parts by architects and builders, 12-page booklet shows standard product applications. Structural drawings and information on “Seaporclad” laminated sandwich-type curtain wall and ashlar material are included. Characteristics, advantages, construction detail drawings utilizing the material are given. Seaporcel Metals, Inc., Dept. AB, 28-20 Borden Ave., Long Island City 1, N.Y.

411—ELECTRIC TYPEWRITER—speed and ease in statistical typing through the use of the 10-key Tabulator Electric Typewriter is the subject of this four-page folder. A faster way to perform columnar tabulation for builders’ billing and statistical work is given. Typist can tabulate accurately from column to column or to any desired position in relation to the decimal point by setting one stop for each column, using only one key for each tabulation. Remington Rand Inc., Dept. AB, 315 Fourth Ave., New York 10, N.Y.

412—GARAGE DOORS—new models of sectional and one-piece overhead-type doors with easy opening and closing action are featured in this 12-page catalog. Sectional doors are shown in a range from eight feet wide, seven feet high to 10x10 feet, single width, and up to 16 feet wide by seven feet high for double-width openings. Rigid types in 8x7-foot to 16x7-foot dimensions are also offered. Frantz Manufacturing Co., Dept. AB, Sterling, Ill.

413—BONDING AGENT—a permanent bond between gypsum and acoustical plasters or Portland cement to nearly any interior surface including concrete and cinder blocks, stone, brick, glass, plywood and painted and unpainted plaster walls is represented by “Plaster-Weld,” described in this eight-page folder. Possessing great tensile and shear strength, unaffected by humidity or condensation, resistant to most acids and alkalis, it is easy to apply, dries in 40 minutes. Larsen Products Corp., Dept. AB, 4934 Elm St., Bethesda, Md.

There's no problem in making a profit when you profit from the solutions that Capitol Kitchens offer you. Here's why — Capitol builds such a wide line of steel kitchen cabinets and sinks that you can build or modernize any kitchen — large or small — with standard Capitol cabinets.

**LOOK AT THIS FLEXIBILITY!**
1. More than 40 different sizes and types are standard.
2. Two types of corner base cabinets — stationary or Roto-base.
3. Two types and three sizes of sink fronts.
4. Ten different sizes and types of sink cabinets.
5. All of the “most-needed” fillers.
6. Sink tops of porcelain, linoleum or Formica.

Large or small kitchens — L-shaped, U-shaped or straight — you'll find Capitol's flexibility will do the job — and profitably for you, too.

Write for information about the nationally advertised, nationally accepted, complete Capitol line.

The Capitol Line
STEEL KITCHEN CABINETS AND SINKS
CAPITOL KITCHENS
Roselle, N. J.

FOR MORE INFORMATION USE COUPON, PAGE 218

SEPTEMBER 1953

187
1. Plywood subfloors

Fir plywood subflooring can be applied in less than half the time required for lumber. Big panels cover large areas quickly . . . fit standard joist spacing without wasteful cutting and fitting.

Plywood subfloors are solid. Won't cup, squeak, swell or shrink . . . protect against drafts and air infiltration. Rigid plate-like action gives added protection against windstorms or earthquakes.

Specify PlyScord for Subfloors

"PlyScord is the economical unsanded construction grade of interior-type fir plywood. Glue is highly water-resistant (but not waterproof) and will withstand occasional wetting on the job.

2. Plywood underlay

Tile, linoleum or wall-to-wall carpeting lays flat, stays flat over smooth, flat fir plywood. Large, smooth panels do away with "humps" and ridges which mar beauty, offer points of wear.

Fir plywood underlay cuts costs, too. Saves time and labor. No felt needed; coverings can be placed directly on the plywood. No pre-drilling or special fastenings needed with plywood underlayment.

Specify PlyPanel for Underlay

"PlyPanel is the versatile "one-side" grade of interior-type fir plywood. For underlayment, for paneling, cabinet work and other indoor jobs where only one smooth side is required.

3. Plywood combined

Here's a real cost-cutter. Use a single thickness of fir plywood for both subfloor and underlay. Because plywood gives great structural strength plus smooth, flat surface, you save two ways: you save on materials, you save on labor.

Combined subfloor-underlay of fir plywood gives entirely adequate construction for any finish floor including tile, linoleum or carpeting.

Specify PlyPanel for Subfloor-Underlay

"PlyPanel is the versatile "one-side" grade of interior-type fir plywood. Use it for combined subfloor-underlay, for paneling, cabinet work, and other indoor uses where only one smooth side is required.
go down fast, cut labor costs in half

APPLICATION: Apply with face grain across joists. Usual installation is over joists 16" o.c., but spacing up to 24" o.c. satisfactory with 25/32" strip flooring. Use 8d com. nails for 5/8" plywood, 6d for 1/2"; nail 6" o.c. at panel edges, 10" o.c. on other bearings.

faster floor construction

makes floor coverings look better, last longer

APPLICATION: Preferable to place panels with face grain running across joists, breaking joints over joists. Nail approximately 6" o.c. on panel edges, 8-10" o.c. elsewhere. Ringed nails hold better.

subfloor-underlay gives really big savings

APPLICATION: Apply panels and nail as for subfloors above. Note blocking along panel edges at right angles to joists.
Why Clients are quick to approve BASE-RAY heating

1 BASE-RAY® is the outstanding way to provide your clients with the Magic of Radiant Hot Water Heating. They're quick to grasp the fact that it's "like heating their homes with the sun."

2 BASE-RAY gives maximum personal comfort, blankets outside walls and windows with a shield of heated air - an effective guard against cold infiltration. Floor-to-ceiling temperatures practically constant, even in coldest weather. No cold feet and no cold corners.

3 BASE-RAY, served by a sturdy cast-iron Burnham boiler, costs little more than a forced air system...only a dollar or two added to monthly payments carries the difference, and value-wise there's just no comparison!

4 BASE-RAY's rugged cast-iron construction withstands hardest knocks, will not dent, resists corrosion for a lifetime, provides real long range economy.

5 BASE-RAY with its low sweeping lines fits inconspicuously into any room. Saves space, promotes smart, uncluttered interior decor...can be painted to blend with any color scheme.

6 BASE-RAY delivers true radiant heat. Since there are no false fronts or grilles the warm surface of BASE-RAY is exposed directly to the room, thus giving unobstructed radiant heat.

7 BASE-RAY is fully waterbacked. This, plus the excellent heat retaining properties of cast iron, means BASE-RAY continues to deliver radiant heat long after the burner shuts off.

8 BASE-RAY offers a unique low cost installation procedure called the "series loop" system, making big savings possible. Readily installed in new or modification jobs.

Burnham is the pioneer in the manufacture of Radiant Hot Water Baseboard heating. Homeowners who have BURNHAM BASE-RAY say they'd never want any other heating method. Why don't you investigate its possibilities?

Mail coupon today for the complete story.

Burnham Corporation
BOILER DIVISION
IRVINGTON, NEW YORK
FIRST IN THE MANUFACTURE OF BASEBOARD HEATING

Catalogs

414 — GYPSUM WALL BOARD—14-page booklet in full color contains suggestions for remodeling basements, attic rooms for children, attic apartments and installation of interior partitions, of interest to designers and builders. Instructions on selection and installation, specification tables and drawings, application pictures, methods of wallboard joint concealment are included.

National Gypsum Co., Dept. AB, 325 Delaware Ave., Buffalo 2, N.Y.

415 — CONSTRUCTION INSULATIONS — 20-page booklet includes design and application data on Fiberglas roll and batt blankets, pouring wool, perimeter insulation and utility batts. Information on advantages of insulation in general, condensation, ventilation and other insulation design considerations are given. Photographs illustrate approved product-installation methods in homes and other buildings in the light construction category. Owens-Corning Fiberglas Corp., Dept. AB, Toledo 1, Ohio.

416 — PELRITE AGGREGATE—said by its makers to form a better lightweight aggregate in place of sand in plaster and concrete for all types of domestic and commercial construction, "Permalyte" is described in this eight-page folder. Its advantages for a base coat plaster for structural steel fireproofing and in concrete for lightweight roofs and curtain walls are detailed. Great Lakes Carbon Corp., Perlite Div., Dept. AB, 612 S. Flower St., Los Angeles 17, Calif.

417 — BATHROOM SPRAY—four-page folder presents the "Lifetime" shampoo spray, giving complete installation instructions, suggested layouts with various standard bathroom fixtures. Unit is installed on bathroom wall; the water feed is controlled by a standard diverter-valve arrangement on the tub. Wide range of applications included in folder. Made of stainless steel with brass spray head. T & S Brass & Bronze Works, Inc., Dept. AB, 32 Urban Ave., Westbury, Long Island, N.Y.
"We keep our Berger Convertible busy on all kinds of construction—from the ground up," says Frank Murphy, Project Director of A. Lowe Co., Building Contractors, Newark, N. J.

"One day you'll see it at work laying out a new factory site, marking batter boards, checking elevations for excavating and grading. Or it's measuring elevation of concrete piers for the steel columns of an office building, setting lintels, aligning and plumbing structural steel. On another job, we'll have it picking up elevations for finished floors, measuring hung ceiling heights, setting door bucks, and checking all other stages of construction."

That's the kind of a "good day's work" you can expect from a Berger Convertible Transit-Level because it's built for builders...designed to be consistently accurate, simple to set up for quick readings, easy to level up, rigid and sturdy enough to take the bumps in the field and stay on the job without time lost for repair.

The table below shows some of the reasons why—compares the Berger with the other two leading instruments. Note the bronze and brass construction—the materials used in fine engineers' transits. Note the plate level...the 60 second sensitivity of its telescope level vial. They prove the accuracy with which the Berger is made. See why it's considered the best buy at any price!

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Take a Berger into the field—see its accuracy in action. Write for literature on this and other Berger Instruments—12" Dumpy Level, Service Transit-Level and Hand Level. And ask about our Engineers' Instruments.

C. L. Berger & Sons, Inc., 39 Williams St., Boston 19, Mass. 344 Madison Ave., N. Y. 17, N. Y.
This plan glorifies a roomy porch built across the rear. Indoor planting makes it an outdoor room with indoor comfort. Large sliding glass doors connect it with the living room, and doors also open onto it directly from kitchen and one of the bedrooms. This arrangement makes possible an outdoor dining and living room or even a sleeping porch.

Used successfully as a house type in a subdivision near St. Petersburg, Florida, by Welbilt Homes, Inc., the plan has real possibilities for any locale. Welbilt decorated its model in modern colors: deep Chinese green and brown in the living room; a yellow kitchen, with cabinets painted Chinese green on the inside, and tile in brown and yellow; one bedroom in tangerine with a beige wall; the guest bedroom in oyster grey and dark grey.

Lot size is 59 by 111 feet. Floor plan shows how porch becomes integral part of living area in house.

Built-in! Beautiful! Budget-priced!

- the New Idea in Kitchens!

PRESTELINE Built-In Electric Range

INDIVIDUALIZED COOKING TOPS
As many burners as you want, arranged any way you want them.
Exclusive Presteline stainless steel counter tops complete with burners.

BUILT-IN EYE-LEVEL OVEN
No stooping! No bending! Enjoy carefree cooking in a full size, fully automatic oven installed at exactly the right height.

GLEAMING COPPER OR SATIN SILVER
Non-tarnish metal finishes brighten your kitchen... wipe spotlessly clean with a damp cloth.

GLOWING DECORATOR COLORS
Five lovely pastel shades in both ovens and range tops make complete color planning possible!

POPULAR PRICES—Presteline units cost no more than an ordinary range!

FITS STANDARD KITCHEN CABINETS—Exclusive with Presteline! No costly special cabinet or counter work is necessary for installation.

Take the TIME—See...
Presteline

George T. Stevens & Associates
612 N. Michigan Avenue, Chicago 11, Illinois
Please send me complete information including sizes and prices for Presteline built-in ovens and range tops.

NAME
ADDRESS
CITY STATE

Lot size is 59 by 111 feet. Floor plan shows how porch becomes integral part of living area in house.

View of living room showing dining end. Curtained sliding glass doors to porch are at extreme left.

AMERICAN BUILDER
Gold Bond announces
SURFASEAL

New “armor” on shingles resists
dirt, stain, and weather!

New Gold Bond Chroma-Tex Asbestos Siding Shingles
give your houses the freshest colors... the richest
graining... of any asbestos siding shingle. Now
this beauty has brilliant extra life added to it by
the exclusive Gold Bond Surfaseal Finish.

Surfaseal is a transparent protective coating—a tough
“armor” that makes Chroma-Tex extra-resistant to
moisture and staining... helps maintain Chroma-
Tex's famous color freshness! You give houses
tremendous added sales appeal... assure yourself
of client satisfaction... when you specify Gold Bond
Chroma-Tex.

Maintenance-free! Rugged Chroma-Tex just never
wears out. The homeowner never has to paint for
preservation!

Fireproof! Chroma-Tex absolutely will not burn. It
banishes fire hazard from sparks and flying embers.

Call Your Local Gold Bond dealer and tell him you
want to see Chroma-Tex... the freshest-colored, most
beautiful asbestos siding shingles on the market!
JOIST SPlicer, Support AB95301

This metal splicer eliminates the need for specifying long joists on construction jobs. The manufacturer states that its application saves up to $30 in actual joist costs on an average small home. It is made of heavy gauge steel plate, formed and punched for use with 2x4, 2x6, 2x8, 2x10 and 2x12 joists.

The splicer’s appearance permits exposed beam construction and eliminates lapping of short joists which decreases joist center space, often interfering with placement of 14-inch heating ducts. After splicers are placed on center beams, joists can quickly be dropped from side-to-center and nailed. Gee Mig. Co., Dept. AB, 2600 W. 79th St., Chicago 29, Ill.

NATURAL REDWOOD FINISH AB95309

A new product which permits Redwood to retain its natural kiln-dried appearance is called “Dry-Redwood Liquid Raw-Hole Color-Fix No. 9.” Field tests have indicated that, when applied according to directions, no variance from the original color of Redwood occurs, even though heretofore the application of any substance to Redwood has tended to change its color to some degree.

According to the manufacturer, the treatment consists of one coat of the new product followed by one or more coats of the company’s “Liquid Raw-Hole Clear Finish.” The latter, a resin-free product, has been accepted as a standard finish for Redwood manufactured by the Behr process. Number of finish coats following the application of the color fix is dependent on the climatic condition to which the Redwood is to be subjected. Linseed Oil Products Co., Dept. AB, 1107 S. Fremont Ave., Alhambra, Calif.

REDESIGNED BATHROOM FIXTURES

Bathroom fixtures of functional design have been introduced. The line includes six lavatories and two water closets of vitreous china. The washing area of the lavatories is large and roomy, wider at the front, gradually narrowing towards the back. Wide overflows are hidden under front apron. Styles feature two- and four-inch shelf-back and slab-type models in wall-hung or pedestal and legs installations.

Front apron styling of lavatories is accomplished by the use of jamb liners, furring strips and reversible blind-step extensions. Frame sizes are available in modular and in some picture window openings. The side weather stripping is full jamb, one-piece aluminum, extruded to form the sash paths.

The removable feature consists of a hinged clip which hooks over a recessed finger in the weather stripping. By pulling the clip down and raising the sash slightly, tension is automatically released; pushing the sash against the spring-tensioned weather stripping releases the sash from the run on the opposite side of the window, and the unit slides from its frame. Dierks Lumber & Coal Co., Dept. AB, 700 Dierks Bldg., Kansas City, Mo.

REMOVABLE WINDOW UNIT AB95313

This unit, including frame, weather stripping and glazed 1¼-inch checkrail sash, is adjustable for wall thicknesses of from 4 ⅝ to 5 ¼ inches. The adjustment is repeated on tank cover of the water closets. Rectangular base of one unit makes it easier to clean. Siphon jet unit is available with round or elongated bowl. Close-coupled tanks of both units give appearance of a one-piece fixture. Fittings and all exposed metal parts of these fixtures are finished in Chromard. Units are made in white and several colors. American Radiator & Standard Sanitary Corp., Dept. AB, P.O. Box 1226, Pittsburgh 30, Pa.

OIL-FIRED HEATING UNIT AB95316

An oil-fired, factory-assembled, “packaged” automatic heating unit, 36 inches high, is designed for installation in the smaller one-bathroom home, motel, apartment unit or other structure with a minimum heating load and restrained hot water demand. It is shipped with insulation, combustion chamber, tankless water heater, oil burner, controls and accessories in place. A white enameled cabinet with front access panel is shipped separately. Overall width is 30 inches, depth is 26 inches.

Tankless heater is rated at three gallons per minute, providing an adequate supply of hot water for normal requirements. Control system assures adequately heated water available at all times while maintaining a predetermined maximum temperature in the radiation, especially applicable to radiant-panel heating. Plant has a gross output of 99,000 Btu’s with a firing rate of one gallon of oil per hour. The National Radiator Co., Dept. AB, 221 Central Ave., Johnstown, Pa.
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 miters 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.
When the quantity of lumber items that are chronically in short supply is increased, that’s welcome news for builders . . . because the increased supply offers a means of satisfying more customers.

Weyerhaeuser 4-Square Glued-Up Lumber is increasing the supply of wide lumber items. Edge-glued lumber is helping builders to meet the needs of their customers for more wide lumber.

Weyerhaeuser supplies two types of edge-glued lumber, one an exterior type, and the other an interior type.

Exterior type edge-glued lumber is a general purpose lumber. It may be used as exposure lumber, or for interior application. It is designed to be equal to, and interchangeable with, regular stock in species, grades, patterns and uses. It is available in bungalow siding, finish, stepping, selects and in wide items.

Exterior Type: BUNGALOW SIDING of Western Red Cedar: SELECTS of Idaho White Pine, Engelmann Spruce and Inland Red Cedar: FINISH, STEPPING and WIDE CLEARS of Douglas Fir and West Coast Hemlock.


Interior type edge-glued lumber is designed for interior construction purposes, industrial uses, and any application where water-proofness is not a use factor. It equals or excells regular lumber in the above interior uses. The light color of the glue line makes interior type edge-glued ideal for natural interior finishes. Industrial clears and other grades of wide interior type edge-glued lumber are available in a variety of widths up to 30".

More and more builders are ordering Weyerhaeuser 4-Square Edge-Glued Lumber in an ever increasing variety of items because they have found that it gives them a greater volume of needed wide lumber items.

The edge-gluing of lumber is a proved Weyerhaeuser development. If you are not now enjoying the advantages of glued-up lumber, ask your Weyerhaeuser 4-Square Lumber Dealer about it—or write for details.

Weyerhaeuser Sales Company
ST. PAUL 1, MINNESOTA
Windows in this home add beauty, color and value. Come winter, the owner won’t have to move back from these windows to avoid chilliness—they are Thermopane insulating glass.

Two Pones of Glass
Blanket of dry air insulates window
Bondermatic (metal-to-glass) seal keeps air dry and clean

When Arthur V. Hansen, Architectural Editor of American Builder, planned his own home he based his window treatment on the sun, the site and its views, and a natural desire for comfort. Result—a mighty livable house.

Windows are placed to take in winter sun for solar heat and are shaded by a 3-foot overhang to keep out the high, hot sun of summer. And they’re Thermopane* insulating glass. That means, of course, more comfort for the owner and his family. It makes areas near the windows warmer, more usable in winter. It means lower fuel costs and less chance of condensation on windows.

Thermopane keeps rooms cooler in summer, too, and quieter year ’round.

These are real values—salable values. After all, houses are bought for living. Doesn’t it make sense, then, that adding livability adds salability? Ample windows, well-placed windows, insulated windows do just that.

Thermopane insulating glass is made in more than 90 standard sizes so you can use it economically in almost any type of sash. Your L.O.F Glass Distributor or Dealer can provide a list of these sizes and sash for low-cost installation of Thermopane. Or mail the coupon.

Libbey-Owens-Ford Glass Company
393 Nicholas Building, Toledo 3, Ohio
Please send me complete information on installation methods for low-cost windows of Thermopane.

Name ____________________________ (Please Print)
Address ____________________________
City ____________________________ Zone ______ State ______
new products

CHEST-TYPE FREEZER  AB95319
New freezer offers seven cubic feet of storage space in a cabinet of essentially same exterior dimensions as former six-foot models by use of space-saving wrapper-type condenser and high-density insulation. Lock-type latch, with key;

NIGHT! Keynote opens the door to real push button value. Excellent in design. Low in price. Enduring and dependable . . with the outstanding, famous quality of all Edwards products.

GOOD DESIGN! Smart classic simplicity that complements all types of architecture. Slim and streamlined for narrow door trims.

PIANO ACTION! Instant positive contact at feather touch.

NEVER TARNISHES OR CORRODES! Lifetime finish needs no polishing. All exposed parts heavy plastic . . always in working order . . never rusts or stains outside of house.

EASY MOUNTING! Convenient surface mounting . . with just two screws. Covers old doorbell opening. Not necessary to drill or ream special hole for wires.

SMART COLORS! Brown, ivory, chrome*, brass*, with contrasting push-key. Blends with all exterior finishes.

FINE QUALITY . . LOW COST! Outstanding push button in the economy class. Exceptional good looks. Finest performance. Just 26¢ to 52¢ each, depending on color.

interior trim of colonial blue; rear-mounted spring-action hinges that act as a counter-balance to offset the lid weight; and a compressor unit of internally spring-mounted design, assuring quiet operation, are among the unit's features.

A high-speed freezing section is separated from the frozen food storage compartment by a metal grid. Over-all food capacity is 245 pounds. Dimensions are 36 inches high, 39 inches wide and 253/4 inches deep. Kelvinator Division, Nash-Kelvinator Corp., Dept. AB, 14250 Plymouth Road, Detroit 32, Mich.

COLOR FOR FOLDING DOORS  AB95307
Cocoa Brown has been added as a standard finish to the nine other standard lacquers for Ra-Tox folding doors (illustrated) and room dividers.

These products are made of narrow slats of basswood woven into fabric by a warp of strong seine twine. Doors and room dividers are suspended from the top, and open and close to the sides. They are delivered complete, ready to install. Hough Shade Corp., Dept. AB, 1041 Jackson St., Janesville, Wis.

ASK YOUR ELECTRICAL SUPPLIER ABOUT KEYNOTE!

EDWARDS
EDWARDS COMPANY, INC., NORWALK, CONN.
In Canada: Edwards of Canada, Ltd.

FOR MORE INFORMATION
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Tips on Selling Homes... remember—

House Buyers are Fuss Budgets!

Rheem Imperial Gas & Electric Water Heaters carry a 10-year guarantee backed by the World’s Largest Manufacturer of Automatic Storage Water Heaters.

Rheem Winter Air Conditioners provide safe, care-free, economical heating—automatically.

They may not say so, but when they’re looking for a house they’re thinking of its upkeep. Show them a Rheem Gas Furnace and a Rheem Water Heater and they’ll know that here’s a house built for their comfort—and their budget.

Rheem appliances are made for fussy budgets, are built to serve and last. Only Rheem’s exclusive method of Fire-Testing every Furnace at the factory, of Pressure-Proving every Water Heater can assure such economical, trouble-free service.

Let Rheem help you sell the budget-minded buyer on your home. See your Rheem contractors today. They can prove that Rheem is the best buy for builders.

RHEEM MANUFACTURING COMPANY

Plants in 22 Cities Around the World
HERE'S WHY PELLA WOOD CASEMENTS ARE EASY TO INSTALL... When received on the job, they are simply set into rough wall openings, caulked and secured in place by steel interlocking fins. Pella Wood Casements are completely assembled and prefitted at the factory — cut installation costs to a minimum. Stock-size units can be combined into hundreds of custom-like effects.

HERE'S WHY PELLA WOOD CASEMENTS ARE POPULAR WITH BUYERS... Permanent inside ROLSCREENS roll up and down like window shades — require no painting, storing, putting up or taking down. DUAL GLAZING insulates against winter cold and summer heat. Stainless steel spring-type WEATHERSTRIPPING eliminates drafts. Pella's PATENTED HINGE design and construction assure easy operation.

ROLSCREEN COMPANY, Dept. E35, Pella, Iowa
Please send me without obligation "PELLA CASEMENT Installation Instructions in Full Size Casement Details No. 1050M."
NAME
FIRM
ADDRESS
CITY STATE

new products

SHINGLE CUTTER

Redesigned asbestos shingle cutter is engineered for greater portability and efficiency. A weight reduction of 43 per cent is accomplished by the use of heat-treated aluminum alloy for the knife bars. Alloy is sufficiently rigid and tough to withstand heavy impacts and rough handling.

Knife blades are made of high-carbon tool steel, accurately ground and heat-treated. A front-end punch with a fixed gauge for aligning nail holes, and a notching attachment for making all-angle and irregular cuts are standard equipment. Numerous designs, sizes and thicknesses of asbestos shingles can be cut efficiently with this device, the makers say. Specialty Tool Manufacturers, Dept. AB, 732 S. Illinois St., Belleville, Ill.

HORIZONTAL SEPTIC TANK

This unit carries a guarantee protecting the owner against tank failure due to corrosion or structural failure for 20 years after installation. The guarantee is made possible by the tank’s construction and protective, corrosion-resistant coating inside and out. A bituminous emulsion is also applied to the inside of the tank for extra protection against sewage acids.

Horizontal design assures thorough digestion of sewage and a clearer effluent for drainage into the ground.

Tanks are available in 300-, 500- and 600-gallon sizes; those of 500- and 600-gallon capacity meet FHA, VA and U.S. Public Health Service standards. San-Equip Inc., Dept. AB, E. Brighton and Glen Aves., Syracuse 5, N.Y.

FOR MORE INFORMATION USE COUPON, PAGE 218

AMERICAN BUILDER
“Fire completely destroyed this new house, in Roanoke County, Va., but the builder was able to use all the ALWINTITE aluminum windows again,” reports Alton N. Lowe, Sales Mgr., C. Grady Cates, Inc., prominent Roanoke building materials dealer. "The only alterations necessary were the replacement of a few muntin bars, cleaning and adjusting the balances."

That's the story, exactly as we received it, and it's just one more good reason why builders everywhere are featuring ALWINTITE in more and more of their new construction.

The complete ALWINTITE line includes double-hung, horizontal sliding, picture sliding and VIEWall windows. All are precision engineered, and designed for easy time-saving installation. Let us show you how ALWINTITE can help add to the attractiveness and salability of any house—regardless of its style, color, size or location.

Write today for complete information. Address Dept. AB-539.
This wall decorates two rooms

Instead of wondering how to decorate a wall, what about this...

Let the wall itself decorate the room. Build it with a few panes of patterned glass and a simple wood frame.

There you are—a translucent partition that decorates two rooms. It appeals to people's desire to be different. That means a quick nod of approval when they see this idea in your houses.

Blue Ridge Patterned Glass lets light pass from room to room. That helps brighten rooms with windows on one or two sides. A wonderful answer to the dark hall problem.

The beautiful Blue Ridge patterns give light, but with privacy. You can suit your decorating scheme by choosing from linear, checkered or over-all patterns—in plain, textured or Satinol® finish. Your L·O·F Distributor or Dealer can show you samples. And mail the coupon for our book of decorating ideas.

BOOK OF 42 DECORATING IDEAS. "New Adventures in Decorating" shows how leading architects and decorators have used this lovely glass to add light and distinction to home interiors. Send coupon for free copy.

Libbey-Owens-Ford Glass Company
Patterned & Wire Glass Sales
8-193 Nicholas Building, Toledo 3, Ohio

Please send me my free copy of "New Adventures in Decorating".

Name (please print) ____________________________
Address ____________________________
City ____________________________ State ________

BLUE RIDGE Patterned GLASS

ARCHITECT: Roche & Roche, New York

NEW PRODUCTS

AUTOMATIC SAW SETTER

Both rows of teeth on both sides of the saw are given a uniform set in one fast run through this automatic setter. A 26-inch, eight-point hand saw can be set in 32 seconds, it is claimed. This speed and precision results from the "twin-hammer" action, both hammers being powered by a single spring. Only three adjustments are needed for automatic operation: insert the saw, select the points per inch (from four to 16), and adjust the depth of set. No special skill is needed for accurate operation.

Setting speed for band saws ranges from 6½ to 15 seconds per foot, for saws with four to eight points per inch up to 1½ inches wide. Hardened steel anvils and hammers, precision bushings and lifetime lubricated bearings where needed assure long life. Unit is equipped with motor and pedal switch. Foley Manufacturing Co., Dept. AB, 3300 Fifth St. N.E., Minneapolis 18, Minn.

SOLDERING-CUTTING GUN

Curves, holes, angles, straight lines or diagonals can be cut with the "Quick-Hot" electronic, portable soldering gun. Equipped with a special cutting tip, the gun will cut, perforate or trim a standard plastic tile or an odd-shaped mitre, cap outcorner or curved base piece. The gun is claimed to make smooth-finished cuts exactly to a pattern penciled on the back of the tile which is placed face down on flat metal or glass surface. Manufacturer states that tool will also cut asphalt and rubber tile, linoleum and like materials.

The gun is also effective as a soldering device; fitted with a long-reach soldering tip, it is stated to handle all soldering requirements within its 250-watt rating. Built-in spotlight automatically illuminates the work. Wen Products Co., Dept. AB, 5808 Northwest Highway, Chicago 31, Ill.

FOR MORE INFORMATION

USE COUPON, PAGE 218

AMERICAN BUILDER
Now, a low-cost dishwasher to help sell your homes!

Offer your prospects sensational push-button dishwashing—at an amazingly low cost to you! Watch Dishmaster help sell your homes!

Just look at these advantages:

- **Saves cost of faucets!**
- **Takes place of faucets!**
- **Fits any sink?**
- **Needs no special piping!**
- **Quickly, easily installed!**
- **Requires no floor space!**

You'll hardly notice Dishmaster in the cost of your homes—but you will in the ease and speed of selling!

Dishmaster gives you the perfect answer to the builder's dishwasher problem

Dishmaster is a complete, permanent sink fixture, finished in gleaming chrome. It replaces conventional sink faucets. Dishmaster is a dishwasher and swing-spout mixing faucet. Concealed tank holds sufficient detergent solution for full day's dishwashing. Aerated suds flow from nylon brush at push of button. Release button for clear rinse water. Both wall-type and table models available.

Here's why: Because Dishmaster does a complete job of washing dishes, glassware, silver, pots and pans—in just the time it takes to get dishes READY for washing in high-priced "automatics!" What's more, you can prove it to any prospect in a minute! Cash in on these exclusive sales features and on the powerful national magazine advertising that's pre-selling Dishmaster for you. Send coupon for the facts!

**Dishmaster Deal**

Send Coupon for Details on Dishmaster Deal!

**The Push-button Dishwasher**

**GERITY-MICHIGAN CORPORATION**

Dept. W-2, Builder Division, 10 S. Superior Street, Toledo 4, Ohio

Send me details of the Dishmaster Deal for Builders.

Name_________________________
Firm_________________________
Street________________________
City___________________________
Zone___________State___________

**Sensational Dishmaster WASHES dishes in SCRAPING time!**

Requires no floor space!
Installed in minutes, even by inexperienced workers!
This man knows where he's going... in New Construction!

He's a contractor who uses Dodge Reports. They keep him posted daily on every phase of the new construction market in his territory. Dodge Reports tell him who and where his best prospects are—what and when they're going to build and when action should be taken to get the business.

Most of the leading firms in new construction have long relied on Dodge Reports. This 62-year-old business service pinpoints active prospects—gives you the names and addresses of people who definitely need your services. Dodge Reports cover any territory you name—local or widespread anywhere east of the Rockies—to bring you complete and detailed information every day on your part of the rich construction market.

Let Dodge Reports help you get the contracts you want. They'll keep you ahead of competition... keep you alert to golden opportunities that might otherwise be missed—among old customers and new—stand you in good stead during the days ahead. More than 900 Dodge field men constantly comb the new construction market to report what's going on and what's coming up—being planned—out for bids—who gets the contracts. Put these men to work discovering business leads for you!

Write today for free book on "Dodge Reports — How to Use Them Effectively." It explains in detail how Dodge Reports can take the all-important first step to business for you.

DODGE REPORTS
Dept. AB9, 119 W. 40th St., New York 18, N. Y.
Timely, accurate, comprehensive construction news service
THE FIRST STEP IN EVERY SALE
Flintkote Color-Line

gives you insulating siding that
blends perfectly with modern
architectural style

Get ready to make yourself some extra profits...and some good friends...with Flintkote's beautiful new line of insulating siding.

COLOR-LINE is loaded with new eye-appeal, new buy appeal, and is made-to-order for color-seeking prospects.

You can offer pastel color freshness that customers have never seen before in insulating sidings...dewy green, warm red, rich brown and dignified gray. And new striations, that do not pattern on the wall!

A new, beautifully grained texture surface enhances the Flintkote practical advantages you know so well.

Apply smart-looking Flintkote COLOR-LINE Sidings on your new houses, as well as for fall modernization. They'll go over big with home-owners.

Sign on THIS COLOR-LINE! You never had such siding value to sell!

*Now available in the West in gray, green, brown and red (Narro-Lap). In the East, in gray and green...
Shake design.

THE FLINTKOTE COMPANY, Building Materials Division
30 Rockefeller Plaza
New York 20, N.Y.
Roly-Doors Help Sell Any Price Home...

MORRISON

Roly-Doors
STEEL SECTIONAL
GARAGE DOORS

READ THE FACTS...
ACTUAL STATEMENTS OF PROMINENT BUILDERS

Here's what Norman Kaye of Kaye Manor says:
"There is no doubt in the minds of our sales force that Roly-Door has been beneficial in the sale of many of our homes."

Let Harold G. Shipp, G. S. Shipp and Son, Ltd., tell you:
"Because both our prospects and purchasers have been so favorably impressed by their modern styling and ease of operation, we are sure that Roly-Doors have been a real help in selling many of our homes."

A. Sidney Roth, of Rothrock Builders explains it this way:
"We have found that the Roly-Door meets our high standards of performance and has given us trouble free service in over 200 installations."

HERE IS PROOF that successful builders everywhere are increasing the "sales appeal" of their new homes...regardless of price class...by installing Roly-Doors. Sell your new homes faster...easier. Let Roly-Doors give your homes the extra value that turns quality-conscious prospects into enthusiastic buyers.

For complete information, see your Roly-Door Distributor or

MAIL THIS COUPON TODAY!

ROLY-DOOR DIVISION, Morrison Steel Products, Inc.
644 Amherst Street, Buffalo 7, N. Y.
Gentlemen: We need more information on Roly-Doors for Quality Homes.

Firm Name
Address
City Zone State

In Canada, Roly-Door Distributors, Ltd., 1330 Bloor, W., Toronto 4.
new products

STRUCTURAL STEEL SECTIONS  AB95308
“Lightsteel” units are stated to be ideal for homes, industrial and commercial structures. A complete range of studs, joists and accessories is available. Sections are made from cold rolled strip steel and feature a double trussed, scientifically proportioned, open web design.

By their use, plus modern welding methods, architects find they are unhampered by many design restrictions.

Supplementary structural track and bridging for use as top and bottom plates, bracing and sills are also in production. Track sections are made slightly oversize to fit around the standard sections; bridging is slightly undersize to fit within the flange of standard sections. Penn Metal Co., Inc., Dept. AB, 205 E. 42nd St., New York 17, N. Y.

DOUBLE-GLAZED WINDOW  AB95315
The first all-glass double-glazed insulating window, called “TwindoWeld,” edges of which are electrically fused to provide a glass-to-glass seal having no metals, bonding materials or other assembled parts in its construction, is in manufacture. It is designed for residential glazing and other building applications where quantities of relatively small-size insulating units can be used. The glass comes in sizes up to 50x62 inches. TwindoWeld consists of two layers of 1/4-inch-thick glass separated by a 5/16-inch air space. Air between the panes is removed in the manufacturing process and replaced by specially dried air (see illustration). Internal air pressures are adjusted to enable the units to withstand atmospheric pressures in altitudes up to 3,000 feet. Constituting an efficient thermal insulating unit, this glass is also claimed to reduce condensation problems.

Pittsburgh Plate Glass Co., Dept. AB, 632 Duquesne Way, Pittsburgh 22, Pa.

A NEW MAGAZINE

...Serving the nation-wide swing to PREFABRICATION

PF, the Magazine of Prefabrication, answers the need for a publication to keep you posted on the sensational swing to prefabricated housing taking place in all parts of the country. It’s the new official journal of the industry, serving some 12,000 dealer-builders in 47 states, manufacturers, realtors, mortgage lenders, suppliers, housing officials, and others seeking information about the opportunities this expanding field offers.

Subscribe to PF now. Keep fully informed on the new business opportunities which prefabrication is creating for all who build, sell or finance homes.

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KIND OF BUSINESS

FOR MORE INFORMATION
USE COUPON, PAGE 218

SEPTEMBER 1953
MONARCH
GIVES YOU THE EDGE WITH
- EASE OF OPERATION
- DEPENDABILITY
- LONG LIFE
Applying asbestos siding and shingles is simple with the Monarch Cutter. Can be operated by anyone — quickly, easily and accurately. Monarch's malleable casting have greater toughness, higher resistance to corrosion and will stand up under the heaviest service.
27" and 32"
MODELS AVAILABLE FOR IMMEDIATE DELIVERY
Check these Features:
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Write today for full information and name of your nearest distributor.
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POWERFUL TRIP-HAMMER ACTION MAKES HANSEN
"Best for Builders"
HANSEN tacks
- CEILING TILE
- INSULATION
- SCREENS
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- HYDRON
- BUILDING PAPER

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5059 RAVENSWOOD AVE., CHICAGO 40, ILL.

new products

DRILL ATTACHMENT AND BITS AB95305
The "Korner King" is a new right-angle drill attachment offered in a kit with ten high-speed bits. The right-angle drive triples the range of heavy-duty electric drills by adding two more speeds to their operation. The unit converts 1/4-inch capacity drills of 2,000 r.p.m. to 1,000 r.p.m. with 80 per cent more power;

it reverses this gear ratio simply by snapping the switch off and on for high-speed drilling of sheet metal.
The drive's compact design allows drilling in otherwise inaccessible locations, as between joists and studs or in tight corners. Special shaft extensions for the high-speed bits permit penetration of any thickness and alignment of holes through any series of obstructions, it is stated. The ten bits of 1/4-inch to 21/4-inch diameters have curved cutting blades, requiring less thrust, developing less torque. R.C.S. Tool Sales Corp., Dept. AB, Joliet, Ill.

ACOUSTICAL TILEBOARD AB95304
With noise reduction coefficients of .60 to .75, these perforated acoustical tileboards are available in 1/2- and 3/4-inch thicknesses. They are made in 12-inch squares and have a beveled butt edge. Recommended application is with adhesive over solid backing or nails over furring strips. Three holes in each corner are shallow-drilled for application with collar or flat-head nails.
Tiles feature a light-color base stock and smooth white surface which gives high light reflection. They are easily cleaned with a brush or other dry cleaning methods, or with a damp cloth. Tiles may be repainted without affecting their sound absorption qualities. Minnesota and Ontario Paper Co., Insulite Division, Dept. AB, 500 Baker Arcade Bldg., Minneapolis 2, Minn.

* FOR MORE INFORMATION
* USE COUPON, PAGE 218

AMERICAN BUILDER
Alert builders and architects are giving modern homes more "face value" by making the garage door an important part of exterior design. Barcol OVERdoors in a wide variety of individual "stylized" designs have proved convincingly that they add "buy appeal" to any home. And their beauty is more than skin deep—it is backed up by quality workmanship and durable hardware of heavy-gauge quality. Barcol's patented cam-closing action assures a weather-tight fit without sticking or jamming. Twin torsion springs give perfect counterbalancing—and ball-bearing rollers help door open and close easily. Two price lines fit every home requirement. Sold, installed and guaranteed by your factory-trained Barcol distributor.
Like so many others...

The builders of Place Homes* are SOLD on...

GLIDE-ALL Sliding Doors

"They Save Us Time and Money"

... Says Mr. Robert B. Place, President, Place Homes, Inc.

"In our business time is really money, so one of the first things that interested us in Glide-All Sliding Doors was the fast, easy installation.

"The extra, easily accessible closet space these durable, trouble-free doors provide gives our homes an important plus feature at relatively low cost."

You and your customers will applaud the advantages of Glide-All Sliding Doors, too. They are available in overhead hanging roller or bottom roller types. 8' floor-to-ceiling or 6'/8' standard heights.

Write us today for the complete details and literature.

*Place Homes Inc., South Bend, Indiana, are manufacturers of pre-cut, packaged houses sold through franchised builder-dealers throughout the middlewest.

Glide-All Sliding Doors are
Easiest to Install - As Easy as
A Top track is easily mounted on ceiling with screws.
B Aluminum bottom channel is simply screwed to floor.
C Doors are mounted on tracks by engaging top rollers in steel top track - then engaging bottom door guide in aluminum floor channel.

...and so are their customers

They provide easier-to-use closet space
They complement the design and beauty of any home
They're well named for they glide smoothly and easily

4 Woodall Plants Coast-to-Coast Save You Shipping Time and Costs!

Write to Plant nearest you
Chicago, 3004 Oakton St. Skokie, Il. - LAUREL, Miss. P. O. Box 673 - NEW YORK, Glen Cove Rd., Mineola, N. Y. - SAN FRANCISCO, 1970 Carroll Ave.

new products

RADIAL SAW AB95310
The improved "Uni-Point™ radial power saw is designed with a blade which cuts exactly at the same point in the table, whether adjusted for a bevel, miter or compound miter cross cut angle. This feature eliminates many machine adjustments and reduces set-up time on others.

The technique of "one point cutting" on general shop work, manufacturers claim, will save up to 25 per cent in production man hours.

Steel construction is used throughout the housing and ram assemblies. Steel ladder bearings ride on hardened steel bearing ways. Unit generally uses a five h.p. motor and uses a 16 inch saw blade, giving a five inch depth of cut. Telescoping ram design provides a 25 inch cross cut capacity. American Woodworking Mach'y Co., Dept. AB, Hackettstown, N.J.

SINK COMBINATION AB95312
This 54 inch standard sink combination has two drawers, one with built-in cutlery tray. Sizeable shelves behind the right and left hand cupboard doors provide ample storage space.

The acid-resistant porcelain sink has one bowl and a double drainboard. Unit comes equipped with a chrome swing spout faucet, stainless steel cup strainers and chrome handles on drawers and doors. Unit is also available in a 66 inch model, the sink having two bowls and a double drainboard. Capitol Kitchens, Division of Hubeny Brothers, Inc., Dept. AB, Roselle, N.J.

FOR MORE INFORMATION USE COUPON, PAGE 218

AMERICAN BUILDER
Here's a list of the BILT-WELL LINE:
* Superior Unit Wood Windows
* Nu-Style & Multiple-Use Cabinets
* Carr-dor Garage Doors + Sectional Overhead Garage Doors + Combination Doors + Screens & Storm Sash + Basement Unit Windows + Shutters
* Exterior Doors + interior Doors + Entrances + Louvers & Gable Sash + Corner Chute Cabinets + Ironing Board Cabinets
* Mantels + Telephone Cabinets + Stair Parts

Manufactured by CARR, ADAMS & COLLIER COMPANY
1068 JACKSON STREET, DUBUQUE, IOWA
SEPTEMBER 1953

Absolutely the best double hung window... there's never been another window of equal simplicity for assembling and snug fitting qualities. Here's a KD, banded, semi-assembled, counterbalanced window—ready to assemble at your own home. Write for a free copy of the new Superior Window Booklet.

See our products in Sweets Architectural & Builders Catalogs, pages 313/CA and 163/CA.
new products

MOTOR-DRIVEN SANDER  AB95332

A rotary motor-driven sander with straight-line reciprocating action and the power to do a professional finishing job has been placed into production. This new model "53" is the first motor-driven sander of its kind to offer straight-line action, according to the maker, who says it will not gouge, leave lap marks, cut orbital swirls, or other hard-to-cover abrasive patterns.

The sander also features a unique paper-holder assembly that detaches from the machine at the flick of a finger.

An extra paper-holder unit is furnished so that grits can be switched quickly without bothersome paper change. It is designed for rugged duty on construction work. Compact in construction, it weighs approximately 53 pounds, uses standard size 3½x9-inch abrasive sheets. It has a polished aluminum housing, lifetime sealed ball bearings and is driven by a 110-120 volt, 60 cycle a.c. rotary motor. Dremel Mfg. Co., 2109 18th St., Racine, Wis.

AIR DIFFUSER-LIGHT FIXTURE  AB95326

Combined air diffuser and recessed conical lens lighting fixture for use in any room in the house is furnished complete in several sizes or neck diameters, accommodating 100- to 200-watt bulbs. As an overhead heater, the unit is connected with heating duct in the ceiling, gently forcing warm air downward and outward in a circular pattern above the heads of room's occupants. Supply air and room air are mixed within a few inches of the diffuser. Its heating capacity ranges from 7,000 to 25,000 Btu's per hour, and its cooling power from 80 to 350 cubic feet of air per minute. Connor Engineering Corp., Dept. AB, 500 Fifth Ave., New York 36, N.Y.

VITROLINER CHIMNEY

Vitroliner, the pioneer prefabricated chimney, is a complete packaged chimney ready for assembly on the job in one hour or less. Vitroliner is pre-cut at the factory with a tailor-made roof flashing and flue housing that eliminates cutting or fitting on the job.

COMPARE ALL COSTS BEFORE YOU BUY

Reduced installation time makes Vitroliner the highest quality prefabricated chimney available at the lowest installed price. That's why they are nationally accepted and the choice of many leading home builders, prefabricators and single contractors as well. Vitroliner is a quality product, engineered and constructed for long life. It is designed to harmonize with the architectural lines of ranch houses and today's modern homes, and can be finished in any architectural color scheme.

The standard flue housing illustrated is 19"x19" square and 21"x21" on the top. The Deluxe flue housing for larger homes is 19¾x24¾" and 21¾x36¾" on the top.

Approved by F.H.A. and listed by Underwriters Laboratories for ALL FUELS. Also approved by local building authorities and State Insurance Rating Bureaus.

LOW INITIAL COST

LIGHTWEIGHT—10 TO 15 LBS. PER FT.

HIGH HEATING PLANT EFFICIENCY

MANUFACTURED IN 6", 7", 8" AND 10" DIA.

WRITE FOR CIRCULAR TODAY

CONDENSATION ENGINEERING CORPORATION
3511 W. POTOMAC AVE., CHICAGO 51 ILL.

FOR MORE INFORMATION USE COUPON, PAGE 218

AMERICAN BUILDER
Enameled Iron Corner Bath

Mayflower corner bath, with Niedecken mixer fitting and multi-spray shower head.

KOHLER MAYFLOWER
New styling for fine bathrooms

The Mayflower offers opportunities for many interesting new bathroom arrangements plus new individuality and beauty in plumbing fixture design. The distinctive oval bathing and showering area is wide and roomy. Access is safe and easy over the low front. Integral seat is added safety feature, convenient for foot or sponge bathing.

The sparkling, easy-to-clean Kohler enamel is protected from strain because it is fused to a strong rigid base of cast iron. Available in popular Kohler white and six colors.

Kohler Co., Kohler, Wisconsin. Established 1873

KOHLER OF KOHLER
PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS • AIR-COOLED ENGINES • PRECISION CONTROLS
SEPTEMBER 1953
HOW TO BUILD MORE SALEABLE SPACE INTO HOMES

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

IMMEDIATE DELIVERY assured on all models!
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1900 East Market Street, Akron 5, Ohio

MESKER BOWSTRING STEEL ROOF TRUSSES
Above you see 30,000 square feet of obstructed floor area—not a single support column—and the most practical type of factory construction, as well as the most economical too.

Send us your plans and specifications for quotations.
GEO. L. MESKER STEEL CORP.
Fabricators — Evansville, Indiana — Engineers

new products

COMPACT HEATING UNIT AB95331
Deleo Appliance Division announces the newest addition to its Delco-Heat product line, OBC-75H. The new unit is priced low. The new design features wrap-around casing, simplified construction.

The OBC-75H is engineered for maximum operational economy. It features a pressure-atomizing oil burner, 16-gauge heat transfer unit (seam-welded), stainless steel combustion chamber, heavy-duty steel cabinet, large-capacity blower, spun glass air filter, Delco-built coordinated controls, and is designed for application in closet, utility room or basement. Delco Appliance Division, General Motors Corp., Lyell and Whitney Sts., Rochester 1, N.Y.

DOOR LOCK-PULL AB95311
A lock for screen, storm and combination doors is now being produced in heavy-gauge aluminum. Its pivot-hinged handles provide positive locking action. The unit is said to lock even badly warped doors effectively.

Simple construction of the latching catch makes it possible for the lock to serve both as door lock and door pull.

By engaging the lock with the latch in the retracted position, it will allow the door to swing free, and the lock will then serve as a door pull. The unit is completely reversible for right- or left-hand doors. Schlage Lock Co., Dept. AB, 2201 Bayshore Blvd., San Francisco, Calif.

FOR MORE INFORMATION
USE COUPON, PAGE 218
These are the Columbia-matic features home buyers go for:

Save time — Easy to put up and take down from inside. Anyone can do it in seconds.

Save work — No more struggling with clumsy wooden frames or ladders. Columbia-matics have top and bottom rails only. Roll up for compact storage.

Save money — All rustproof aluminum. No drip stains on house. No painting, maintenance. Full-length aluminum mesh gives complete insect protection.

with Columbia-matic TENSION SCREENS

Give your homes the plus sales advantages of Columbia-matic Tension Screens. Columbia-matics are the only screens on the market offering automatic tension. Wherever they have been introduced, Columbia-matics have made a hit with both builders and buyers. They are the perfect way to screen a double-hung window... the perfect complement to modern double-glazed windows.

Precut to your specifications. Perfect fit assured. No fitting. Can't swell, stick, warp.

Easily installed. Ready to mount from inside. Only 7 screws. No template.

Cost less than ordinary, full-length screens. Installation time is cut to a fraction of that required for wooden screens. Takes an inexperienced man less than 5 minutes. No painting.

Only Columbia-matic gives AUTOMATIC TENSION

Patented bottom rail is spring-loaded... automatically puts right amount of tension on screening. Keeps it drum-tight to blind stops at all times... automatically compensates for unevenness in sill; temperature changes. Screen can't sag or ripple. Easy-open tension locks anchor screen firmly, flip up to open. Side-mounted, no hardware on sill to snag clothing. Another Columbia-matic exclusive.
NEW
DRIVE-IT 320
with
BREAK-OPEN ACTION

MAKES SPLIT-SECOND FASTENING
TO CONCRETE OR STEEL... 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.

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POWDER POWER TOOL CORP.
7526 S. W. Macadam Portland 1, Oregon
□ We would like a demonstration of DRIVE-IT.
□ Please send literature on new DRIVE-IT 320.
NAME.
ADDRESS.
CITY. STATE.

DRIVE-IT
the original
POWDER ACTUATED TOOL

new products

GLASS JALOUSIES AB95317
Louver windows and doors for porches, breezeways and rooms have movable glass panels that slope outward like louver boards, admitting air and light, excluding air and wind. The units provide unobstructed visibility at all times, whether panels are open or closed.

With extruded aluminum frames, sealed aluminum casings and welded metal corners, the jalousies are watertight and vibrationless. All units are equipped with plastic weatherstripping at the head and sill where the top and bottom glass louvers compress it to a complete seal when vanes are tightly closed. Precision adjustment and exact balance assure easy operation, with free action of up to 30 vanes on a single control. Recessed inside screens of aluminum frames and mesh are held in place by easily-turned clips. All Weather Jalousies, Inc. Dept. AB, State Highway 48, Teterboro, N.J.

CEDAR CLOSET LININGS AB95325
Cedar closet linings can be installed directly over open stud walls, eliminating closet plastering and requiring no painting. Southern juniper, known commercially as "Tennessee Aromatic Red Cedar," is impregnated with the natural cedar oil. Since it retains its fragrance through the years, this wood maintains its reputation as a practical closet lining, as well as being a selected wood for chests and cabinets.

This cedar is %4-inch thick, tongue-and-grooved and end-matched for easy erection and air-tight construction. It is factory packed and sealed in four- and eight-foot bundles for small and large installations, with minimum waste. Geo. C. Brown & Co., Inc., Dept. AB, Greensboro, N.C.
AN OPEN INVITATION TO EVERY HOME BUILDER:

Visit National Homes' New 1954 "PACEMAKER" Open House Nearest You ... and Compare!

NATION-WIDE SHOWING STARTS OCT. 3rd

Soon you will have an opportunity to compare the all-new 1954 "PACEMAKERS" by National Homes with what you now offer prospective buyers in the term-selling field. Go to the Open House nearest you when our nation-wide showing starts October 3rd. Check variety, beauty, value. You'll see the lowest-cost home, feature for feature, in National's history ... AND the most saleable! If you'd prefer a private viewing, visit our Lafayette or Horseheads plant. You can then visualize the opportunities that will be yours as a National Homes builder. Save the date ... October 3rd ... and inspect the house that will set the pace for 1954, National Homes' all-new "PACEMAKER!"

BETTER HOMES BUILD A BETTER AMERICA

1954 "PACEMAKERS" by National Homes will be advertised in full color in Saturday Evening Post, Life, Better Homes & Gardens, This Week, Parade, Good Housekeeping and other leading magazines. Think what such promotional backing could mean to YOU!

NATIONAL HOMES CORPORATION

Better Homes Build a Better America

LAFAYETTE, INDIANA • HORSEHEADS, N. Y.
new products

**AIR CONDITIONER** AB95323

A two-package, summer air conditioning system for the low- and medium-price home building field is introduced. According to its manufacturer, its cost will add less than three per cent to the cost of a modern medium-sized house. The unit lends itself to installation in existing homes as well as new ones. Its design is stated to reduce duct work to a minimum.

The unit’s capacity, as designed for a large housing project, is 15,700 Btu’s per hour. It requires no water and is installed independently of the heating system. The generator unit is 32x13½-x27 inches and, for exposed installations, is furnished with a weatherproof cover. Conditioner unit is 28x21x23 ¾ inches, including air filter, twin fans and cooling coil. York-Shipley, Inc., Dept. AB, P.O. Box 349, York, Pa.

**STAPLING TACKER** AB95318

This gun-type tacker shoots patented wedge-pointed carbon steel wire staples up to “one-inch length. It can be used for applying all types of insulation materials, building papers, batt and foil, canvas, roofing felt, shingles, siding, ceiling tile, wiring and similar building applications.

The tool’s spring action works on the principle of double leverage for smooth action and power. It is designed to fit the hand comfortably. A non-clogging mechanism prevents jamming of staples, permitting only one staple at a time to be ejected from the staple track. Stapler holds 125 staples for fast continuous tacking. Arrow Fastener Co., Inc., Dept. AB, 1 Junius St., Brooklyn 12, N.Y.

**MORTISING TOOL, MARKER** AB95329

Two carpenter tools, a butt marker and a mortising tool, are being introduced under the trade name of “Gohm.” The first is used to mark position in one operation for all butts on doors and jambs; it is claimed to eliminate guesswork and adjustments. It folds to fit in any standard tool box.

The mortising tool (illustrated) is constructed to fit a standard ¾-inch electric drill. Simple to operate, its makers state that doors and jambs for a five-room house can be mortised in less than one hour. Its use eliminates the possibility of errors in exacting cuts; no templates are needed. Knight Mfg. Co., Dept. AB, 914 Citizens Bank Bldg., Flint 3, Mich.

**SKYLIGHT GLASS BLOCK** AB95321

A new glass block called “Skytrol” is designed for use in skylights, both structurally and optically. The normal insulating value of the glass block has been increased by the addition of a fibrous glass screen sealed in the block, creating a double cavity. This screen gives a better insulating characteristic to the block and offers better daylighting control by diffusing the light, the manufacturers say.

Panels of the block can be used in new buildings and to replace existing skylights. Construction specifications are adaptable to all types of buildings. Special supervision in construction is not necessary. The block is 12 inches square, four inches thick, Pittsburgh Corning Corp., Dept. AB, 307 Fourth Ave., Pittsburgh 22, Pa.

**BUILT-IN CLOCK** AB95322

A built-in electric clock designed to give new houses added sales appeal serves as a timepiece, provides two outlets for other electric appliances and has a night light. The unit is installed over a standard 4-inch wall box and shows no cord of its own. Its two outlets can supply current simultaneously to a heater, electric razor or other electric appliance.

The seven watt bulb gives light to save stumbling during the night. The “Tel-in-Wall” is designed of white plastic. It measures 7¼x3¾ inches; white dial has black characters and red hour dots; black hour and minute hands and a red sweep second hand; night light is controlled by a red switch below the dial. General Electric Co., Apparatus Dept., Dept AB, 1 River Road, Schenectady, N.Y.

USE THIS COUPON FOR MORE INFORMATION ON NEW PRODUCTS AND CATALOGS IN THIS ISSUE

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To offset rising costs, General Motors Delco-Heat now offers you top-quality, top-performance heating units at new, low prices for truly profitable installation. The new economy OBC75-H oil-fired Conditionair is compact—only 25x25x66⅞ in size—for use in closets or other small out-of-the-way spots. 75,000 Btu/hr. output. Has new wrap-around steel cabinet with Delco Green enamel finish. The 16 ga. steel heat transfer unit is seam welded to eliminate combustion leaks. The Circle-Air Radiator adds an extra heating surface—improves efficiency. Other great Delco features are the Quik-Action stainless steel combustion chamber; Delco-Heat Pressure Oil Burner powered by the vibration-free Rigidframe Motor; centrifugal blower; replaceable air filter; wrap-around wipe sheets; knockouts in side panels that permit installation of filter at either position; and base pan with knockout for floor return.

Similar in every detail, the new Model GBC90-H answers all your needs for an economy Gas-Fired Conditionair. Both models shipped assembled.

For warm air, hot water or steam installations—gas- or oil-fired—for every kind of heating problem, contact your Delco-Heat Distributor. Or write Delco-Heat, Dept. ABH, Rochester 1, N.Y. In Canada, Toronto 13, Ontario.

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a complete line of automatic oil- and gas-fired conversion burners, Conditionair forced warm air furnaces, boilers, and electric water systems.
The block walls are painted with two coats on the outside (one with sealer), an oil-base paint on the inside. Ridge is 4x12-inch beam projecting beyond walls of the house. Plywood pieces set into upper corners of end elevation are design accents.

The economical rectangular shape with its uniform wall openings and unbroken roof lines encloses 1,176 square feet of living space, plus 427 square feet more in garage and carport.

Using lightweight concrete blocks for walls and partitions, aluminum doors and windows, architects Frederick E. Emmons and A. Quincy Jones have designed a house which is speedy to build and easy to maintain.
Block wall screens living room terrace from front entrance approach. Roof of house covers carport and garage.

Openings for doors and windows are left in block walls. Aluminum doors and windows go in without trim. Grooves in the blocks receive flanges on the windows. Mastic is applied for waterproofing. Sash have sills attached.

The house was developed for mass production in the building program of the Pardee-Phillips Construction Co., in the Los Angeles area. It won an award of merit from the National Association of Home Builders.

Stock flush metal doors complete with frames and hardware are ready to install. Sash, both casement and fixed, are aluminum, and an 8-foot glazed door is used for the opening from living room to terrace.

Wardrobes have fitted stock sliding doors complete with tracks. The garage door is upward acting. Heating is by dual forced air gas-fired wall furnace centrally located. Floor is of double slab concrete construction, finished with asphalt tile.

The house is selling for $12,000 on a lot 60x110 feet.

**BRAND NAME PRODUCTS USED**

- Alcasco aluminum windows
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commercial...for store fronts, office partitions, luminous ceilings, decorative effects, signs.

industrial...for unlimited daylighting...skylights, side walls, etc. No framing needed.

The fireplace with raised hearth makes a strong point of interest and attraction in any living room. The job looks even better if the hearth is cantilevered out to make a generous ledge which can be used in a variety of ways. These two fireplaces were built by Alfred L. Tank, a Los Angeles architect, for store fronts, office partitions, luminous ceilings, decorative effects, signs.

In this fireplace the hearth slab is 50 inches deep and protrudes beyond the plane of the wall 20 inches. The steel goes the entire depth of the hearth slab and also crosswise between ends of the brick. The weight of the brick and steel supports the cantilevered portion, so that three or four persons could jump on it without damaging it.
Angeles mason contractor. The hearth slabs are made in one piece, with 5/8-inch steel reinforcement in the mortar joints, then set in place.

HEARTH

Building the hearth slab... Units must be wet until a small dry egg is left in center when the brick is cut in two. In using common brick, submerge it totally for from two to five minutes.

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SEPTEMBER 1953
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- Incense Cedar
- Red Cedar
- Lodgepole Pine
- White Fir

Michael Stoltz, president of the Seneca Construction Co. of Spokane, has designed a special frame which he uses with the Truscon steel ranch window using Thermo-pane. The frame is built of 2x6's with a 2x10 sill. This sill takes the place of the two or three separate members often used. Double 2x12 headers rest directly on the window.

Key points in this construction are: (1) headers are not recessed into brick but rest on the 2x6 frame; (2) frame is of exactly the right width, so no cutting of brick is necessary; (3) instead of using two separate window units, which would require masons to make corners, one big frame is used and the space between the two windows is filled in with redwood paneling.
THE TREND IS TO STEEL DOOR FRAMES in SMALL HOMES

What's good for the skyscraper-office building, modern factory, school or hospital is good for John Q. Public. This is a fact recognized more and more by architects, merchant builders, individual home-builders and home buyers.

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SEPTEMBER 1953
Among the many problems which have confronted residential all-year air conditioning has been that of proper sizing of the machine for a given house.

It has been generally recognized that calculating cooling loads for houses by the methods used for commercial installations results in oversized units. This in turns means higher costs and less actual comfort, since an oversized unit will operate intermittently and thus not keep the humidity line as constantly as will be the case with a unit which operates continuously.

Latest progress in methods of sizing takes into precise account the capacity of the house to store cooling at night, as well as factors outside the house, such as roof overhangs, size of windows, design and construction of roofs and walls, trees and other shading features— in short, anything that has a measurable effect on the amount of cooling needed. An example of this new type of sizing method is Carrier's "24-Hour Load Calculation Method."

The earlier methods have attempted to determine the maximum heat gain during the hottest part of the day and size the air conditioning equipment to handle this. But Carrier's new system recognizes that in a home, wide fluctuations in temperature are not a problem. The major problem is to determine the amount of cooling required to establish an average temperature within the comfort range.

So this new approach to sizing is based on calculating the average heat gain over a 24-hour period, taking into account the storage effect of walls and furnishings, and calculating wall, window, roof design and shade factors. Simple tables are used to determine the exact 24-hour cooling requirement for walls and windows oriented in any direction, with roof overhang, wall color and construction, and roof design and construction included.

As a result, the equipment required can be of smaller capacity than was once believed possible, at the same time providing more efficient operation. Amounts of air handled are lowered, resulting in less expensive air distribution systems. Operation of the system sized in this way will be fairly constant throughout the day, resulting in a constant control of humidity and hence more comfort.

\[\text{lower cost, more comfort from proper sizing of air conditioning units}\]

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For individuality the "built-in" beauty of the Raynor Carved Raised Panel Door invites comparison!

With the design carved in 1" thick panel blanks (especially constructed by dielectrically gluing together narrow strips, for maximum strength) only the rugged durable construction and smooth performance of the Carved Raised Panel Door can match its beauty.

Equipped with "Meter-Balanced" springs and Patented Graduated Seal, a Raynor Carved Raised Panel Wood Sectional Overhead Door can be operated by a woman or small child with ease.

Carved Raised Panels for these doors are available in two sizes—square, approximately 16" x 16" and long, narrow or streamlined, approximately 41" x 16".

See our catalog in Sweets. Check your telephone directory for the name of the Raynor Representative nearest you.
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SEPTEMBER 1953
Colonial touch characterizes houses of this community

Generous rooms are a feature in the ranch-style homes of the new community of West Avondale in Canton, Ohio, of which the subject house is a part.

All of the houses, built by Dougherty Homes, Inc., are basically six-room units of frame, brick, stone or a combination of each. Plans are arranged for two or three bedrooms with preference given to size and quality of rooms rather than quantity. Each house has one-and-one-half baths.

Located on lots that vary in size and contour, the homes cost from $18,000 up. They are insulated through-

(Continued on page 230)
When quality concrete is a matter of reputation

...you can't take a chance on a "cure all"!

Construction men throughout southwestern Illinois will tell you about Charley Lybarger. How he built an outstanding ready-mixed and block concrete business on reputation... and how his five sons are today continuing the Lybarger tradition.

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That's why the Lybarger Material Company of Granite City, Illinois, never takes chances on "cure alls"... when it's safe, simple and sure to follow the "prescription" technique.

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If you have any problems or questions on the use and mixing of air-entrained concrete, the Marquette Service Engineer will be glad to help and advise you—contact any Marquette office.
Large rooms are a feature in the layout of all houses out; have forced-air gas furnaces, automatic heaters and laundry facilities in the basements where the walls are finished in a semi-glazed tile.

When completed, the community will contain 94 homes located on a 40 acre tract. All of the homes will be ranch-type but none will be alike.
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Randomwood is exquisite wood paneling in flexible form; hence it hugs straight or curved walls beautifully.

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1. Ruberoid Color-Grained asbestos-cement Siding* has skyrocketed in popularity for one reason you can't ignore. It means money in your pocket. It insures substantial savings on sidewall construction and eliminates initial painting costs. Take this typical cost comparison, for example, of a Long Island home requiring approximately 15 squares (1500 sq. ft.):

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<tr>
<th>Material</th>
<th>Applied Cost per Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood Shakes</td>
<td>$35 x 15 sqs. = $525</td>
</tr>
<tr>
<td>Clapboard Siding (Including painting)</td>
<td>$32 x 15 sqs. = $480</td>
</tr>
<tr>
<td>Color-Grained Siding</td>
<td>$19.50 x 15 sqs. = $293</td>
</tr>
</tbody>
</table>

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With bedroom level raised six steps, garage and den are provided at ground level

Privacy and accessibility are provided between the various sections of a split-level-type home

Sketch of the “Riverside,” typical split-level home of three-bedroom design, built on five levels
Offering the compactness of a five-room apartment, yet possessing a potential of eight rooms plus garage, this house, built on five different levels, is a typical example of the extra living area and space economies which can be realized by split-level homes. The integration of different levels presents considerable flexibility in the division and arrangement of rooms, and enables families to subdivide living areas according to their own convenience.

This home, called the “Riverside,” contains 1,078 square feet of space in the main living area. A six-step stairway leads up to the bedroom-bathroom wing: by descending six steps from the living area, one is on the den and garage level. The basement is six more steps below the den.

An extra bedroom, 18x13 feet in area, can be made of the space at the top of the six-step stair leading up from the bedroom-bath wing.

The house was designed by Samuel Paul, AIA, and was selected from his book “New Split-Level Homes.”

The new Service-way makes a basement handy for quick, easy storage of lawn mowers, garden tools, bicycles and storm windows. The extra-wide Service-way opening gives plenty of clearance for freezers, ping-pong tables, and hobby shop equipment. Clothes can be carried directly from laundry to clothesline with fewer steps—fewer stairs to climb. A real help to busy housewives.

Add value to home—worth many times it’s moderate cost. The Service-way is one of the most desirable features you can add to a modern home. It simplifies dozens of household jobs. Repairmen, meter readers and children with muddy feet can go direct to the basement from outdoors.

Rugged! The Service-way is made of heavy-gauge steel, yet the door can be opened with one finger. Overlapping flanges assure snug fit, keep out rain, snow and wind. Slide bolts lock door securely from inside. Comes fully assembled, ready to install. Made by the makers of the famous Heatilator Fireplace.

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NEW SERVICE-WAY gives direct access to basement!
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PLASTER...reinforced

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This network of multi-directional galvanized reinforcing wire adds greatly to the strength of ceilings. It also helps assure a uniformly full thickness of plaster over the entire ceiling. It guards against cracking. And, where radiant heating is installed in ceilings, Keymesh helps give more uniform heat distribution, as well as accelerating it.

Some architects and builders want this same strength and quality on walls as well as ceilings. Others find that Keycorner applied to inside corners, wall-ceiling junctures and points of weakness, and Keybead at outside corners, give them the quality they require.

That’s why the Keystone system of plaster reinforcement is called—3 Keys to Stronger Plaster.

3 KEYS TO STRONGER PLASTER

**Keymesh** has been proved through the years as a superior reinforcement for stucco. Now plasterers are recommending it for ceilings to increase strength and protect against cracking.

**Keycorner** is preformed to fit accurately and snugly in corners and at wall and ceiling junctures. It also is ideal where strip lath is required...doesn't rust...eliminates waste.

**Keybead** combines open-mesh reinforcement with a precision-formed bead. It assures a solid plaster corner, reinforced with a network of galvanized wire, preventing rust streaks.

KEYSTONE STEEL & WIRE COMPANY

Peoria 7, Illinois

KEYMESH • KEYCORNER • KEYBEAD • KEYSTONE NAILS • KEYSTONE TIE WIRE • KEYSTONE NON-CLIMBABLE FENCE • KEYSTONE ORNAMENTAL FENCE
what power tools do you need for a remodeling business?

This shop was set up by Henry and George Bertch, who operate a repairing and remodeling business in the Pasadena area in California. The shop is equipped with the items listed on page 240.

This complement of tools enables the Bertches to make anything they need when they need it, and so gives them precise control over the time factor in job costs.

The builders maintain quite a stock of fast-moving items such as framing lumber, cabinet lumber, plywood, nails, paints, etc. This inventory is carried in a shed adjacent to the tool shop.

(Continued on page 240)
Vinylflex is so easy on the feet... and it's high slip resistance is a real safety factor. Quiet and warm underfoot.

Vinylflex is easy and inexpensive to install. It is non-shrinking and non-curving.

Vinylflex flexibility permits it to snug into floor irregularities. Can be installed on almost any subfloor... on or below grade.

Vinylflex is resistant to greases, fats, oils, acids, alkanes, gasoline and naphtha.

Ease of cleaning makes for low maintenance costs. It retains its colorful beauty with minimum care.

Vinylflex has exceptional resistance to furniture and other indentations.

Has been subjected to practically every condition possible for a floor covering to encounter and has always stood the test with a better than needed safety margin. VINYLFLUX is ideal for residential, commercial and institutional installations. It is colorful, sanitary, durable, and economical! Everywhere, builders who have installed VINYLFLUX are acclaiming this HAKO floor tile because it combines all the best characteristics desired in a floor tile... it is really the floor of floors!
Seamless drawn stainless steel sinks and sink bowls for every purpose.

These are lifetime products—no costly replacements.

Legion has the largest assortment of seamless drawn stainless steel sink bowls in the United States.

Single, double and triple flat rim bowls in assorted sizes can be used with all types of tops—formica tile, linoleum, plastic or stainless steel. Hard wearing sink tops—designed for homes and apartments. Solid stainless steel or stainless steel over 3/4" plywood base (Pat.)

Write for catalogues.

LEGGION STAINLESS SINK CORP.
40th Avenue and 21st Street, Long Island City 1, N.Y.
Branch offices: 21 E. Van Buren St., Chicago, Ill.; 420 Market St., San Francisco, Calif.

power tools for remodeling

(Continued from page 238)

CHECK LIST OF POWER TOOLS

CONCRETE MIXERS
Jaeger concrete mixer

DRILLS
Craftsman drill press
Mall 1/2-inch drill
Milwaukee 1/2-inch

JOINTERS
Boice-Crane 6-inch jointer
Union 6-inch jointer

ROUTERS
Stanley Router

SANDERS
Clarke 5-inch disc sander
Porter-Cable 3-inch belt sander
Craftsman 6-inch belt sander
A vibrator sander

SAWS
Boice-Crane 10-inch tilting arbor saw
Comet Jr. trailer-mounted saw
Mooradian swing saw
Delta 8-inch tilting arbor saw
2 Speedomatic hand saws
Delta 8-inch table saw
A 14-inch band saw

STAPLE GUNS
Bostitch staple gun
Dual-fast staple gun

STUD DRIVERS
Remington stud driver

CHROMEDGE® Weatherstrip Thresholds

Left: Highly durable Chromedge weatherstrips, in three popular widths, for mounting on standard wood threshold. Interlocking hook, concealed in mortised door edge, combines rigidity with enough "spring" for a snug fit. Drilled and countersunk for screws.

Below: Heavy-duty, reinforced Chromedge threshold No. 1298. Concealed weatherstrip fits in mortised edge of door, forms wide interlock that bars dirt, drafts, or moisture. For either inside or outside doors. Drilled and countersunk for screws.

Stock lengths: 36, 37 and 49 inches; 6 feet and 12 feet.
ONLY 220 LBS.
Dual Voltage 115/230v.

New HOMELITE 5KW GENERATOR for OPERATING POWER TOOLS

Here is a new Homelite Generator that measures up to all the requirements for greatest efficiency with power tool operations. It's small, compact . . . light enough for two or four men to carry . . . and it gives you both 115 and 230 volt current up to its conservatively rated 5,000 watt capacity. With this new generator you can have all the power you need to operate light or heavy power tools any place you need it. You can operate 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, high-powered Homelite Generator, today.
Sote Board's basic qualities give it unlimited applications. Sote Board may be worked with ordinary wood tools, nailed or screwed without pre-punching, without fear of breakage. Its high asbestos content makes it ideal for heater rooms, garages, as well as ordinary finishing inside or out. For more details, send coupon.

Picture window beauty with full ventilation... Yours with Nova Jalousie! Installed on doors, an added source of ventilation, even through a locked door! The worm gear adjustment locks in any position. Fully opened, Nova Jalousies keep prowlers out, children in... Closed, they present a positive weather-seal. For full details, send coupon.

This handy box is a standard item in the equipment of the Henry Bertch company, building contractor in South Pasadena, California. Saws can be removed without breaking their teeth; the level has a place near the (Continued on page 244)
6. Satin-smooth wooden cabinets can be finished naturally or enameled in decorator colors!

2. Designs are constantly added to allow use of the latest kitchen appliances!

3. Special cabinets allow making use of space formerly wasted!

4. Wooden cabinets will not rust, create no special maintenance problems!

5. Long-Bell cabinets are engineered on a 3" module, make it easy to fit the wall space in any kitchen!

6. Long-Bell cabinets are available in a variety of shapes and sizes to meet standard or special requirements!

Priced for Profits, Long-Bell Kitchen Cabinets meet the demand for a high quality, low cost installation. Door and drawer fronts are of rift grain Douglas Fir — perfect for popular natural finishes or fashionable enamel colors. And, Long-Bell Cabinets are constantly being improved for use with new kitchen appliances, such as high-level ovens, dishwashers, cabinet-top ranges, etc.

Easy to Install in new or old homes, Long-Bell Kitchen Cabinets build repeat sales. Extra units can be added to kitchens at any time! What's more, Long-Bell's precision manufacturing methods pay off in uniform appearance... insure customer satisfaction! Join the many other successful dealers who have learned to "Look to Long-Bell" for kitchen cabinets that build sales... boost profits!

West Coast Fir • West Coast Hemlock and Cedar • Ponderosa Pine • Douglas and White Fir • Southern Pine and Hardwoods • Oak Flooring • Plywood • Timber Fabricators • Long-Bell Factory Products • Treated Products

The Long-Bell Lumber Company

Established 1875 — Kansas City 6, Mo.

DIVISIONAL SALES OFFICES

EASTERN DIVISION — KANSAS CITY, MO. WESTERN DIVISION — LONGVIEW, WASH.

SEPTEMBER 1953
here are new methods which mean substantial savings in labor and materials for modern construction in both new building and modernization.

write today for recommended specifications on:
1. setting genuine clay tile. 2. insulating ducts. 3. insulating walls and ceilings either by direct adhesion or in conjunction with surface anchors. 4. installing floor runners; bonding furring strips.

1.
today it is normal procedure to install tile in hotel bathrooms without losing a night's revenue. This illustration shows one of the 343 rooms in the white plaza hotel, Dallas, Texas, in which miracle adhesive was used to do the job from the time the guest left his room in the morning until he returned that afternoon.

2.
Plaster applied over wire and cork which has been attached to aluminum ducts using miracle adhesive and miracle spindle anchors by john rummik mutual life insurance co. building, Boston, Mass.

architect: cream and ferguson. builder: turner construction co.

3.
FIBERGLAS Insulation Type: PF-613 on "2" thick - bonded to concrete ceilings using miracle pronged anchors at radio city studio 68, new york, N.Y.

CONTRACTOR: william J. scally, inc., new york, N.Y.

4.
W OOD RUNNERS installed on concrete floors with miracle adhesive and miracle anchor nails to support "2" solid partitions.

Washington Circle Apartments, Washington, D.C.

general contractor: Charles H. Tompkins Company.

visit miracle exhibit at architects samples corp.
101 park ave., new york city

model portable tool box

(continued from page 242)

top where it won't be broken; there is plenty of room to keep the small tools handy especially for remodeling and repair work. Every new carpenter who joins up with bertch makes his own box. builder supplies the tools.
To the builder who is building 15 homes or less in 1953...

Chances are, you could be building more homes, or building homes more profitably, or both. That is, if you build P & H prefabricated homes for the $8,000 to $15,000 price range. Here's why.

P & H Homes sell easier and faster than any others in their price range. They are more attractively designed, have a higher grade of materials, better construction, and more “extras” than any homes in their class. The handsome design, open planning, broad window areas, and ample storage space give you plenty to talk about when you sell P & H Homes. And they're nationally advertised. Many builders have doubled, even tripled their sales by switching to P & H.

The architect-designed 2 and 3 bedroom P & H Homes meet all code and financing requirements.

You'll cut your costs, too. You can have a P & H Home under roof in a day. No delays, no waiting for materials to arrive. Homes arrive, complete with hardware, glazing, millwork, and trim, ready for erection. You can gear construction to sales, and schedule sub-contractors without worrying about costly delays. Your buyers get their homes faster, always on time.

And because you build and sell all year around, you can get more favorable sub-contracts.

There's extra financing help available, too, when you build P & H Homes. You can get construction loans from the Builders Acceptance Company, a P & H subsidiary, when local sources are limited.

Risk, for P & H builders, is about as low as it can be in home building. You can break ground for each home after the buyer makes his down payment, order the P & H Home after his credit has been approved. A P & H construction loan can be opened before you make any big layouts for labor or sub-contracts. You are ready for final payout 30 to 45 days after you start.

How else could you operate with less risk?

You'll have plenty of help in your P & H Home building operation... land planning, supervising construction, holding open houses, advertising, selling, financing.

Start building and profiting the P & H way now! Write or wire for complete details on P & H Home building today.

P & H HOMES
HARNISCHFEGGER CORPORATION
19 Spring St., Port Washington, Wis.
Phone Port Washington 611

SEPTEMBER 1953
General Electric Water Heaters
install anywhere in your houses—in a matter of minutes!

YOU SAVE TIME and money because new G-E Table-top Water Heaters are top-connecting. They install in minutes...an easy top installation that eliminates hours of high-cost labor.

They install anywhere in your house!
Upstairs, downstairs, basement or attic. A flue-less G-E Water Heater installs easily, economically. For under-counter installation, G-E Table-top Water Heaters are available without tops... (and at lower cost).

Why General Electric?
Because a recent survey shows that 53 out of every 100 people interviewed are pre-sold on G.E.! They can depend on G.E. Water Heaters to deliver constant, plentiful hot water! Install a water heater that will help sell your house...a reliable, well-known General Electric Water Heater.

For the best in water heaters...call your G-E wholesale distributor or your plumbing jobber.

You can put your confidence in—

GENERAL ELECTRIC

IN REMODELING...profit is a matter of fighting hidden costs

Estimating remodeling jobs is a tricky business. Nothing can be taken for granted. The floor under the linoleum in the kitchen or bathroom may have rotted away, for example; or in adding even a single new electrical outlet, it may be legally mandatory to bring the whole electrical service up to the requirements of a new code for the town.

One of the best devices to use in coping with the problem of hidden costs is an alteration-remodeling check list. This one was developed by Henry and George Bertch, remodeling specialists in South Pasadena, California. If there is any doubt in their minds about any of the points covered here, they make every effort to clear it up before casting up their estimate.

ALTERATION—REMODELING CHECK LIST

LEGAL
1. Does ceiling height of affected room meet minimum requirements?
2. Do front set-back, side and rear yard clearances comply with code?
3. Will or are distances between structures on lot sufficient to comply with code?
4. Will zoning ordinance allow additional units if proposed?
5. Will any windows required by code be blocked off by new construction?
6. Are there and will there be two doors between bathroom and any room where food is prepared or served?
7. Is either a vent or forced ventilation provided for over kitchen range?
8. Will extra living unit require additional garage or off-street parking area?
9. Is percentage of lot covered by buildings within legal limits?
10. Do existing structures conform with code or must they, before adding to?

CARPENTRY (Structure)
1. Are walls and ceilings in close alignment between rooms where partitions are to be removed, or must one wall be furred?
2. Will ceiling joist or roof loads bear on partition to be removed?
3. Do existing ceiling joists show deflection and need "strong-backs" or other support?
4. What are the probable locations of studs (cutting doors, windows, etc.)?
5. Are termite or dry rot conditions evident (around toilet, etc.)?
6. Will direction of second-story floor joists allow rearrangement of upstairs bath if proposed (to allow easy routing of drain pipes)?

CARPENTRY (General)
1. Will any special mill sets be required to match existing moldings, casings, base, etc.?
2. Are floor boards under linoleum cupped so that plywood will be needed under new linoleum?
3. Will surface condition and thickness of hardwood floors allow refinishing without replacement?

PLUMBING
1. Will lead waste on plumbing need replacement?
2. Does sink drain enter wall low enough to accommodate garbage disposer or double sink?
3. Will any walls to be moved involve rerouting of pipes?
4. Are any drain or water supply pipes under large paved areas affected?
5. Will there be sufficient fall to drain pipes for plumbing units installed toward rear of structure?
6. Is existing water heater of sufficient size to carry additional needs (dishwasher, additional bath, etc.)?

(Continued on page 248)
Here's new economy... new speed in construction fastening! The Remington Stud Driver joins wood or steel sections to concrete or steel surfaces in seconds... easily sets as high as 5 studs a minute. Powerful 32 caliber charges drive studs arrow-straight. The tool's light weight—only 5 1/2 pounds—simplifies handling wherever studs are needed.

New guards for specific uses now make the self-powered Remington Stud Driver more versatile than ever. These attachments take all the guesswork out of stud location... assure fast, accurate fastening for every job. Illustrated are just 4 of these special guards. For full information about the complete line and about the Remington Stud Driver, send the coupon below.

**A complete line of guards for special applications**

Guard for "Unistrut" Sections
Guard for Structural Channel
Guard for Switch, Utility and Outlet Boxes

Listed & Approved by Underwriters' Laboratories, Inc.

**MAIL THIS COUPON TODAY**

Industrial Sales Division, Dept. AB-9
Remington Arms Company, Inc.
939 Barnum Ave., Bridgeport 2, Connecticut

Please send me my free copies of the new booklets showing how I can cut my fastening costs.

Name: ____________________________
Position: _________________________
Firm: ____________________________
Address: _________________________
City: _____________________________
State: ____________________________
hidden remodeling costs
(Continued from page 246)

7. Will additional or larger septic tank be needed for additional plumbing loads?

ELECTRICAL
1. Will existing electrical service comply with code and be of sufficient size to accommodate additional lights or convenience outlets?
2. Will any ceiling lights have to be recentered where partitions are moved?

PAINTING-DECORATING
1. In rooms to be repapered, will old layers of paper have to be steamed off? What is the condition of plaster underneath?
2. Will minor changes (cutting or closing of door or window) require complete redecoration of room?

HEATING
1. Is existing furnace of sufficient size to service additional floor area or rooms?
2. Can vent be installed easily on installation of new floor furnace?

MISCELLANEOUS
1. Can finish hardware be matched?
2. Are walls plastered behind built-ins that are to be removed?
3. Will difficulty be experienced in removing old linoleum?
4. Is foundation of sufficient size to carry second story if proposed?
5. Is there sufficient clearance under house for accessibility?
6. Is structure settled or out of level?
7. Can required roof vents be cut easily? (Tile or slate roof?)
8. Is area of proposed work readily accessible for delivery of materials, etc.?
9. Can preassembled plastic laminate counter tops be carried into structure without difficulty?
10. Will driveway support heavy trucks (ready-mix concrete) without damage?
11. Can proposed new structures close to property line be painted, plastered, etc.? Is there sufficient clearance between proposed and adjacent buildings?

DISTINCTIVE ORNAMENTS
...for the HOME

WEATHER VANES
Several sizes with a wide choice of ornaments for every taste and purse.

POST MARKERS

POST LANTERNS

These distinctive ornaments add charm and individuality to the home. IPC Line is complete with interchangeable ornaments for your customers to choose from. Made of durable cast aluminum of high quality. Write for complete Dealer's Wall Hanger Catalog today. There's a good profit in these ornaments.

FOR BETTER LIGHTNING PROTECTION
INSTALL

COMPLETE PROTECTION
Be safe. IPC Complete Protection safeguards life and property. Cost is nominal for protection offered. Write for FREE booklet that tells how IPC really protects.

INDEPENDENT PROTECTION CO.
1605-07 South Main Street * Goshen, Indiana

Sisalation—the toughest vapor barrier and reflective insulation—gives you:

1. 2-way reflective insulation—equivalent value of about 1 inch of bulk type insulation.
2. Dependable prevention against costly condensation damages—paint peeling, wood rotting, interior wall staining.
3. Protection against entry of drafts, dust, etc.
4. The unequalled strength of rugged fibre reinforcement needed for unbroken application.

All for 1 low material and labor cost!

Because of its amazing strength, Sisalation is easily stapled in place without rips or tears. For the average 5-room house, Sisalation costs only about $25 to $30. Available in 36" and 48" widths at your Lumber or Building Supply Dealer. For further information write Dept. AB-D.
Now! a twin bonus for builders

Famous Westinghouse Laundry Twins

...available At New Low Prices

Now you can add the proved “buy appeal” of a Westinghouse Laundromat® and Clothes Dryer to even the lowest priced home... because these famous laundry twins are now available in new models at attractive builder prices.

The new Laundromat and Clothes Dryer still give you Westinghouse quality. The Laundromat, model LS-7, is completely automatic. Its cycle can be stopped, started, or repeated, by the flexible single-dial control. Its patented Agi-Tumble action washes regular loads and delicate fabrics thoroughly, gently, and safely.

The Clothes Dryer, model DS-7, is full sized, and fully automatic, too! Its time control dial, together with direct air flow drying, offers faster drying for all types of clothes.

There's simply no comparison with any other low-priced laundry equipment. In every way, the Westinghouse Laundromat and Dryer are truly “America's Favorite Laundry Twins”.

Ask us for full details.

WESTINGHOUSE ELECTRIC CORPORATION
Electric Appliance Division • Mansfield, Ohio


YOU CAN BE SURE...IF IT'S Westinghouse

EXCLUSIVE SLANTING FRONT

on each of the twins permits easy access into basket. Large door makes extremely handy loading and unloading platform.

LARGE-SIZE LOADS

Laundromat will wash up to 9 lbs. of clothes, dry weight. Clothes Dryer will dry same load.

DE LUXE MODELS FOR EXTRA APPEAL

Model LB-6 Laundromat has extra convenience features, such as Weigh-to-Save Door and Water Saver, D-6 Clothes Dryer has 3-Way Dry Dial and Singing Signal.
FRANTZ GARAGE DOORS AND HARDWARE

"Sells" Itself because—
it "OPENS" itself!

FEATURING

"POWERMATIC" ACTION

- Just release the latch — door swings open!
- Fits standard 8' x 7' single-width openings. Other models available to fit 8' x 6'/6", 9' x 7' and 16' wide by 7' high.
- Torsion springs on arms start door open, then "Powermatic" takes over—a remarkable extra-value feature that clinches the sale.

Sell the door that sells itself! The Frantz No. 10 does the selling job for you because it has everything you could want in a one-piece door, plus "Powermatic" Action that clinches the sale every time! Needs only 2" headroom, and is as beautiful in looks as in operation. Pre-fitted at the factory for easy installation, designed to give years of trouble-free service, you can show this door with pride. Check up on the No. 10 and other Frantz Overhead Door models. Write for a copy of Catalog No. 302, which gives full details of the beauty and easy operation of FRANTZ line of Overhead Garage Doors.

SELL FRANTZ • AMERICA'S BEST ENGINEERED OVERHEAD DOOR

GARAGE DOORS AND HARDWARE

FRANTZ MANUFACTURING CO., STERLING, ILL.

bow string trusses

Bow string trusses afford economical and practical support for clear spans up to 100 feet and even more where the load bearing level is above required headroom and where truss farming may be concealed or is not objectionable if left visible.

uniformly distributed design load tables for bow string trusses

<table>
<thead>
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<th>Pattern</th>
<th>Length Out to Out</th>
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<th>Minimum Span (inches)</th>
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FOR TODAY'S
“SHOW ME” BUYERS... THIS
MONEY-BACK
GUARANTEE!

It's nothing new with us—this Balsam-Wool guarantee. For years it has stood unchallenged as one of the most comprehensive guarantees ever offered by an insulation manufacturer. Today, when so many prospective home buyers want definite evidence of quality materials, this guarantee can be more useful to you than ever.

The Balsam-Wool guarantee is additional evidence, too, of the important SECOND value which an insulation should offer. The first value, of course, is insulation's primary job of reducing fuel bills and increasing comfort. The second value is the ability to keep re-sale value of the house high.

Balsam-Wool offers this important SECOND value because it resists settling or packing—because it has an efficient vapor barrier—because it is windproof. That's why Balsam-Wool has been known for years as a lifetime insulation. WOOD CONVERSION COMPANY, Dept. 119-93 First National Bank Bldg., St. Paul 1, Minnesota.
the magic of remodeling —inside and out

Baths, kitchens, powder rooms of Vikon Metal Tile sell on sight! They're the center of attraction in any of their 26 fade-resistant decorator colors, gently rounded bevel, and sparkling glossy finish.

This transformation of an Arkansas farm shack won a state-wide home remodeling contest.

By rebuilding a dilapidated four-room shack into an attractive, modern house with five rooms and bath, an Arkansas farm family effected the transformation shown in the photographs and won first prize in a state-wide home remodeling contest. Exterior walls were covered with light green asbestos-cement siding shingles. Pine paneling was used for the porch wall. The structure was

(Continued on page 254)

Top—original one-story section of the house and the two-story addition made about 50 years ago. Below—the house today, with a new wing and asbestos-cement shingles for siding and roof
Beautiful, modern Roddiscraft Panawall adds to the sales value of the home you build. Panawall is permanent...easy-to-install. Once installed, maintenance costs are practically eliminated—a feature your customers will appreciate.

Roddiscraft Panawall is 1/4" hardwood plywood made of random-width veneers V-grooved at the joints. No matching problems...takes less labor to install.

See your Roddiscraft dealer or write for complete information on Panawall and other Roddiscraft decorative paneling items—Craftwall, Parquetwall, Cedrela, Plyweave.

RODDIS PLYWOOD CORPORATION
MARSHFIELD, WISCONSIN

NATIONWIDE WAREHOUSE SERVICE

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Cincinnati 4, Ohio 836 Depot St.
Cleveland 4, Ohio 217 E. 75th St.
Dallas 10, Texas 2900 Medill St.
Detroit 14, Mich. 1185 S. Jefferson St.
Houston 10, Texas 2403 Sabine St.
Kansas City 3, Kan. 33 Southwest Blvd.
Los Angeles 58, Calif. 2620 E. Vernon Ave.
Louisville 10, Ky. 1201 S. 15th St.
Marshfield, Wis. 115 S. Palmetto St.
Miami 38, Fla. 355-315 N.E. 73rd St.
Milwaukee 8, Wis. 4601 W. State St.
New Hyde Park, L.I., N.Y. 1756 Plaza Ave.
New York 55, N.Y. 920 E. 149th St.
Port Newark 5, N.J. 103 Marsh St.
Philadelphia 34, Pa., 1039 S. 14th St.
San Antonio A, Texas 727 N. Cherry St.
St. Louis 16, Mo. 3344 Morningside Rd.
San Francisco 24, Cal. 345 Williams Ave.
San Leandro, Cal. 720 Williams St.
Combine insulation, quiet and mildew protection with “one-piece” wall or ceiling construction! Homasote “Big Sheets” range in sizes up to 8’ x 14’—eliminate unnecessary battens and joints, ½ stronger than diagonal wood sheathing, they are permanently crackproof and do not flake—provide a perfect base for paint and wallpaper. For complete specifications, send coupon.

Eye-appealing, space saving; they fold to 10% of their full expanse. They give ventilated full closure as closet doors, space dividers and window drapes. Available in endless combinations of sizes, shapes and colors. Built of the finest mildew-proof, warp-proof, inner core bamboo—wth specially designed hardware for long life, easy operation. Send coupon for illustrated booklet.

Weatherproof Homasote in sizes up to 8’ x 14’

For complete specifications, send coupon.

Decorative fir plywood, known as Sea Swirl, used for paneled walls and built-in bookcase in a modernization plan.

given a concrete pier foundation, a fireplace and new asphalt roofing.

Transformation No. 2—the two-story house shown in the photographs—is a farm house in Illinois which is beginning a third cycle of service. Originally, some 80 years ago, it was merely a one-story cottage (seen as the “ell” in the “before” photo). Stage two began about 50 years ago with the two-story addition on the left. Now the original part of the house has given way to a new wing which includes a basement playroom, a combined living-dining room, a second-floor hobby room and a porch. White asbestos-cement shingles were used for siding for the entire building, and the roof was covered with the same material in red.

The two interior photographs show the use of fir plywood in home modernization. This versatile material comes in 4x8-foot panels, is effective in ceiling applications as well as for wall finish.

Decorative plywood used on the ceiling of a bedroom. The material is produced by Associated Plywood Mills of Eugene, Oregon.
If there's a Porter-Cable tool around, trust the foreman or one of the older hands to reach for it first.

Why? Because for more than 20 years these tools have led the field in handling ease. Weight is evenly distributed so they're easier on the muscles, easier to guide. Naturally, less strain and more control means greater accuracy on the job.

Handling ease is one of the qualities responsible for Porter-Cable's leadership in electric tool design. It's an in-built feature that makes these fine tools first choice among experienced craftsmen.

Latest Porter-Cable Belt Sander shown above. Model 503—$135.
Send for free catalog describing complete line.

PORTER-CABLE MACHINE CO. 1009 N. Salina St., Syracuse 8, N.Y.
SQUEEZE-IN SPECIALIST

For trenching, pit digging, and other specialized excavating, the all-hydraulic Hydrohoe is the stand-out performer, especially when the work requires squeezing into tight places. Here's why:

1. Hydraulic outriggers provide outstanding stability.

2. Extremely short tail swing permits maneuvering in narrow alleys, small lots, congested plants... work under almost impossible conditions.

3. Hydraulic ejector pushes dirt out of 12 or 18-inch dipper quickly, cleanly without even hoisting dipper to full dump position.

4. Telescoping boom makes it easy to duck under wires or tree branches — reach into confined spots and bring out big loads.

5. Can be converted to crane in amazingly short time — right in the field.

Here is the builder's answer for a fast, compact, labor saving crane-dragshovel. Your Hydrocrane distributor will be happy to give a convincing demonstration.

BUCYRUS-ERIE CO.  SOUTH MILWAUKEE, WIS.

141553
As fundamental as proper lighting...

Planned outlets—whether for lamps or telephones—help make the houses you build more livable. Better looking, too, in the case of telephone outlets.

Telephone outlets and raceways are your only guarantee of concealed telephone wiring.

It's good practice to include telephone raceways in all your new homes. You protect the appearance of walls and woodwork. You impress prospects and make your homes more saleable. And you enhance your own good reputation.

Your Bell Telephone Company will be glad to help in planning economical raceway installations. Just call your nearest Business Office.

BELL TELEPHONE SYSTEM

SEPTEMBER 1953
century of service for
Paine Lumber Company

Paine Lumber Company, Ltd., Oshkosh, Wisconsin, is celebrating its centennial this year culminating 100 years of service in the millwork industry. Paine Lumber Company is, today, the world's largest mill devoted exclusively to the production of hollow-core flush doors, incorporating the ventilated air-cell principle. The manufacture and sale of doors, however, was not originally the company's primary activity, but became its premium product after a unique history of pioneering and originality in the fields of lumbering and millwork.

Paine Lumber Company began its long history when Edward L. Paine of New York, founder of the company, stood on the banks of the Fox River, Wisconsin, in the fall of 1853. The westward movement was in full swing, urged and prompted by Horace Greeley's advice to all young men that they "go west." Paine, encouraged by the general trend, went west to see for himself. A lumberman by profession, Paine was quick to see the possibilities of the west timberland that he viewed in the Fox River valley. He moved his family and his business interests to the vast new and rich timberland, and the Paine Lumber Company was born. Oshkosh became a center for lumbering and milling and Edward L. Paine was one of the few who pioneered the upper Mississippi region in this capacity. There were twelve mills operating in Oshkosh in 1854. Paine met competition by introducing the first circular saw into his new steam mill, Twenty years later C. N. Paine & Company entered into the field of sash, door, and blind manufacture. By 1883, C. N. Paine & Company had become known as "Sawdust City."

From 1853 to 1883, C. N. Paine & Company was a producer of lumber. By the 1870's the timber lines had receded sufficiently to cause many saw mills to shut down or to turn to other activities. C. N. Paine & Company entered into the field of sash, door and blind manufacture. (Continued on page 260)
SAVED $500 per SCHOOLROOM with RILCO BEAMS

"We were able to give the best bids for the Webster Grade School at Pella, Iowa and the West Side Grade School at Eagle Grove, Iowa," says Gene Hurley, "because we knew Rilco Beams, Purlins, Columns and Decking cost less than other types of heavy construction material.

"Besides saving the cost of hard to get material, Rilco cut our erection costs. The natural beauty of the wood allowed us to leave the beams exposed. No furring for a ceiling was necessary; we just nailed the Rilco decking directly to the top of the beams and purlins.

"Beams arrived on the job ready for erection; we didn't have to touch them with a saw or drill. The heavy paper covering prevented marring or scratching during erection. Another factor that kept construction costs down—we didn't have to hire a specialized crew. The carpenters on the job did all the erection easily with the connectors furnished by Rilco."

"Take it from contractors like Mr. Hurley. They know that Rilco glued laminated wood structural members with their availability, easy erection and natural wood beauty can save up to $500 per schoolroom. The next project you have that calls for glued laminated wood arches, beams or trusses—get a quote from Rilco. Rilco's engineers are pleased to consult with you about your requirements and give "on the job" cooperation."
Paine centennial

(Continued from page 258)

was reorganized as a corporation and took the title it now bears.

The plan to produce sash and doors required more logs at a time when timber was getting more inaccessible. The foresight of George M. Paine, president of the company in 1885, was evidenced when he convinced the Chicago & North Western Railway that some of the "inaccessible" pine timber could be transported by railroad.

But the consumption of pine continued at such a rate that by the end of the 19th century, the pines of the Midwest were greatly depleted. West coast lumber was able to compete with the pine markets of the Midwest. It was then that the Paine Lumber Company was the first to use Wisconsin birch as a hardwood substitute for pine.

From 1899 to 1934, the company produced the hardwood door, made possible by the use of tools like the Shimer bit and the use of the Lindemann dovetailer. Conservation of wood became more necessary as time went on. By using veneers and insert panels, the amount of lumber needed for a door was markedly reduced.

The continuing battle between production of quality doors, rising lumber costs and timber reserve depletion demanded a very revolutionary approach in the manufacture of doors during the 1930's. The economic crisis of 1929, and subsequent years, also urged the use of an idea unusual in approach. It was then that the company decided to use an idea patented by Nathan Paine in 1910. His idea was the production of a hollow-core door that would save lumber.

Extensive research was carried on to find a suitable construction method for a hollow-core door. The research finally led to a type of door developed in France and used extensively aboard ships. The French liners used the Rezo door because it was light in weight and virtually warp-proof.

The Paine Lumber Company purchased the American patent rights and began to test the Paine-Rezo door in 1935. Since then the Paine Lumber Company has turned out

(Continued on page 262)
Kencork helps sell homes faster

YET COSTS NO MORE

Kencork is nature's most adaptable flooring for any size home

Home buyers know all about Kencork...want it because they've seen it and read about it month after month in their favorite magazines...in colorful advertisements as well as impartial news stories. That's why it's smart selling to remind every prospect about the exclusive advantages of Kencork Floors and Walls. Explain that the preferred random tones are perfect with any color scheme, period plan or decor. Yes, Kencork in one or more rooms takes your houses out of the ordinary class with conventional floors and makes them easier to sell.

*KENCORK COSTS NO MORE THAN HARDWOOD WHEN INSTALLED OVER CONCRETE!

Install Kencork over any interior surface...even over concrete in contact with the earth where drainage is away from installation and sub-floor is 12" above grade.

Kencork installed prices are surprisingly low. Your Kentile Flooring Contractor will gladly furnish you with an estimate...he is listed under FLOORS in your Classified Phone Directory.

SEPTMBER 1953
Paine centennial
(Continued from page 260)

more than 6,000,000 Paine-Rezo hollow-core doors.

Now, in its 100th year, the Paine Lumber Company can take pride in its long period of achievement and can well be grateful for the foresight of its founder who went west and found that opportunity in America needs only ingenuity and fair-dealing to become a success.

Trane air conditioning manual has new edition

A newly revised 380-page edition of “Trane Air Conditioning Manual” has been issued by the Trane Co., La Crosse, Wisconsin for $5. A new chapter has been added to cover fan application and selection, basic fan laws and duct design data. The manual opens with a simplified presentation of the physical laws governing heat and cold and applies these laws to practical problems of air conditioning. A chapter on the physiology of the human heat control mechanism explains comfort standards. Other chapters discuss heat gain and loss, properties of air and the psychrometric chart, refrigeration and calculations for the conditioned air supply.

GET HIGH EARLY STRENGTH WINTER CONCRETE

with Standard Cement plus Solvay Calcium Chloride

- Provides Additional Cold Weather Protection
- Permits Positive Control of All Temperatures
- Assures High Ultimate Strength
- Avoids the Need for Special Cement
- Includes “Built-in” Curing
- Lowering Your Costs

To speed up operations and permit use of concrete in shorter time—especially in cold weather—add Solvay Calcium Chloride to your Portland Cement concrete mixes. Works equally well with all Portland Cements, including standard, high early, air entrained and low heat cements. It helps lengthen the pouring day and cuts costly protection time in half. For full details write to Dept. 24-3 for free book, “The Effects of Calcium Chloride on Concrete.”

SOLVAY PROCESS DIVISION
ALLIED CHEMICAL & DYE CORP.
61 Broadway, New York 6, N. Y.

When Ordering ready mixed concrete—In Cold Weather—Be Sure to Specify Concrete with CALCIUM CHLORIDE. DEALER INQUIRY INVITED

To get the details on the complete White line of instruments for Engineers, Surveyors and Builders, write for Bulletin 1053, DAVID WHITE COMPANY, 311 W. Court Street, Milwaukee 12, Wisconsin.
How to install sliding doors in as little as 6 minutes

1. Mount track to header, keeping face of track flush with opening. (35 seconds)

2. Use template to position carriers, attach with single screw. Mount guidestrip on bottom rear. (2 minutes)

3. Hold rear door at angle and engage rollers on bottom of track. Let hang. Do same with front door. (30 seconds)

4. Bottom clearance should be %'. Loosen screw, raise or lower door, tighten. Insert other screw. (100 secs)

5. Open doors. Place floor guide halfway under doors, screw to floor. Move doors and secure other side. (35 secs)

That's all! Time, less than 6 minutes for a pair of by-passing doors! Rocket Sliding Door Hardware goes up fast!

You save twice when you use Rocket Sliding Door Hardware. First on the cash-cost of the hardware, then on the time-cost of installing it.

You get fine features in the Rocket. The handsome self-facing track mounts flush, needs no facia plate. Headroom is low, nylon rollers are quiet and construction is absolutely sturdy.

Pre-Packaging brings Rocket Hardware to the job complete, protected and cut to standard size. (4', 5', 6' or 8' openings. for single, bi-parting or bypassing doors). Also special sizes.

It all adds up! Low cost, easy handling, fast installation and excellent operation make the Rocket the top seller in its field. See your supplier or write us for full information. Grant Pulley & Hardware Company, 31-63 Whitestone Parkway, Flushing, New York.

Grant Pulley & Hardware Company manufacturers of Sliding Door Hardware, Drawer Slides, Sheaves & Track, Curtain and Drapery Hardware, Industrial Slides.
low-cost, air conditioned subdivision for Memphis

Sam N. Inman, Inc., Memphis builder, has opened a project comprising 76 houses, all of which are air conditioned. Homes in the subdivision, Park Manor, sell for $11,400 to $13,000. This is the first all air conditioned project in Memphis, and 28 homes were sold in the first two months of its opening.

The houses are two- and three-bedroom brick, with carport. Two-ton refrigerated water-cooled Mayfair air conditioning units, including Marley water tower, have been installed in each dwelling.

Under GI loan, down payment is $800 for three-bedroom unit, $715 for two-bedroom; under FHA loan, down payment is $3,700 for three- and $3,200 for two-bedroom home.
Now! A new "break" for the driver

...is a "break" for your delivery costs! The world's most comfortable truck cab cuts driver fatigue!

Keeping the driver happy by reducing driver fatigue is not the only virtue of the new Ford Truck DRIVERIZED CAB.

Easier driving, for example, means safer driving! Easier driving means greater efficiency in terms of more trips, more stops, more deliveries per day—which means a more profitable operation.

The new Ford Truck DRIVERIZED CAB is just one of many new time-saving features that help get jobs done fast!

For sustained speed travel, Ford provides new LOW-FRICTION power in V-8 or Six. For faster, easier handling, Ford provides Synchro-Silent transmissions in every model—and new "short-turn" front axles.

Both Standard and Deluxe DRIVERIZED CABS offer all the features mentioned on this page. See your Ford Dealer for full details.

World's most powerful Pickup truck with the world's most comfortable cab. 6½-ft. box, over 4 ft. wide. Clamp-tight tailgate. Choice of V-8 or Six engine.
THE BIG LINE IS GROWING BIGGER!

to give you greater window selection! ... to help you standardize on highest quality products!

HERE'S TRUSCON'S NEWEST!

Aluminum Awning Windows

The window advances are coming from Truscon! Last summer Truscon announced the Ranch Window that set new standards in steel windows for popular one-story homes. This spring Truscon introduced its sensational aluminum casement in modular sizes. Now ... Truscon offers you what the trade has been waiting for ... its customary quality design and sturdy construction in a brilliantly new aluminum awning window.

Truscon Aluminum Windows feature modular sizes to match standard masonry dimensions. Approximately 80% more light and ventilation per window opening. Heavy extruded aluminum sections with a minimum frame depth of 1 5/8". Weathertight construction with vinyl plastic weatherstripping. Protected operating mechanism. Many more features you'll want to know about. Write Truscon for latest bulletins. Watch the big line for the big news. When Truscon offers a new product you can bank on its satisfactory performance.

TRUSCON STEEL DIVISION
REPUBLIC STEEL CORPORATION
1050 ALBERT STREET • YOUNGSTOWN 1, OHIO
Export Department: Chrysler Building, New York 17, N.Y.

TRUSCON®
a name you can build on

266 AMERICAN BUILDER
These Preferred Power Saws

Do Better Work For You!

SINCE 1912
Protection for Masonry

STOP Leaks

WATERPLUG
STOPS THE LEAKS
In every type usable below-grade room, tunnel, dome, water-supply system and cellar. Ask for Circular No. 14.

THOROSEAL
SEALS THE SURFACE
Against entrance of moisture into masonry, prevents mildew, which causes sour odors in interior rooms. Ask for Circular No. 16.

QUICKSEAL
FOR BEAUTIFUL FINISH
In paste! shades for finish coat over THORO-SEAL base applications. Ask for Circular No. 15 and Color Card 32-A.

Write for Pictorially described literature "HOW TO DO IT"

This ultra-modern structure, completed in May, houses the Daytona Beach Federal Savings and Loan Association. Built by the Carlson Construction Co., all workmanship on the structure was done by members of the Building and Construction Trades Council of Daytona Beach. They spent 135 working days on the job, handled 30 tons of steel, 400 yards of concrete, 1,400 square feet of glass. Corrugated Transite was used for one entire wall to give the effect of a hanging drape. The facade features glass and stainless steel doors.

Design of the building was done by the Bank Building Equipment Corporation. Cost of the structure was around $200,000.

Part of lobby and waiting space showing Transite wall

THE BRADFORD MACHINE TOOL CO.
654 Evans St. Cincinnati, O. Precision Since 1840

SEPTEMBER 1953
"$1.63 a day buys this home"

Full page ads in a Florida newspaper carrying the above headline bring into sharp focus the importance of installment selling, not only to the prospective buyer but to all others concerned in the transaction. It is selling the easy way, as compared with the hard way when the total price is mentioned.

A prospective home buyer can be frightened away by telling him that the total price of a house is so many thousand dollars. Even if he believes that he can swing the deal, he doesn't like to think in terms of thousands, especially when it is a case of obligating himself for a long period of years to repay this substantial sum.

The realtor who advertises two-bedroom homes for $1.63 a day has the right merchandising approach. By putting the price of a home, garage, or other structure, within the imaginative powers of the prospect, the seller prepares a far more favorable sales approach than if he featured the total sale price.

CUT BUILDING COSTS!

“easy...better

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.

Details of the quickly-adjustable “Trouble Saver” Steel Trestle.

Sizes — Specifications, Etc.

<table>
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THE STEEL SCAFFOLDING CO., INC. Dept. AB
856 Humboldt St., Brooklyn 22, New York Telephone: Evergreen 4-3002

MANUFACTURING CO. LANCASTER 12, PENNA.

AMERICAN BUILDER
"Show-House," the new model home advertising feature, selects a

Barrett Asphalt Shingle Roof!

On October 10th the second of a unique series of two-page ads devoted to new homes will call for the attention of The Saturday Evening Post's 10,000,000 readers. This editorial-style ad presents an unusual model home or "SHOW-HOUSE" designed by experts and packed full of ideas. Close-ups of all features including the Barrett Roof are illustrated in full color.

Barrett has the distinction of being the first roofing manufacturer to be represented. On the basis of beauty, practicability and cost, Show-House designers selected Barrett Dublecote* Multi-Shingles* in pastel blue for the roof of this modern home. Copy will describe the selling points of Barrett Shingles—their unusual range of colors—their good looks, economy, durability, long-lasting weather protection and fire-resistance.

Here is a low-cost opportunity for you to build sales. Keep in mind that a large percentage of the Post's readers are homeowners, many of whom are in the market for a new roof. Get a few copies of the October 10th issue of the Post. Display the Show-House feature in your window and inside your store. Arrange a showing of Barrett Shingles around the ad. Use it as a sales argument.

We believe you will find Barrett's participation in Show-House a source of direct sales. This is in keeping with our policy that—building your business ... is good business for Barrett.
... 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.

Supreme Quality Since 1901

In Atkinson's houses, the pipe insulation flues are self-supporting and rise from the top of prefabricated metal fireplaces about 11 1/2 feet to the chimney. Chimneys are wood with a fireproof stucco lining.

The W. P. "Bill" Atkinson Lumber and Manufacturing Company is making a better than 50 per cent reduction in the cost of building fireplaces in the company's new 1,500-home development in Midwest City, Oklahoma. By using prefabricated high-temperature pipe insulation instead of conventional materials for flues, the cost of the fireplaces has been cut from about $600 each to less than $300.

Tested for nine hours in a maximum wood flame without ill effects, the pipe insulation flue has been approved by the VA and FHA. It is called Kaylo, and is a hydrous calcium silicate material produced by the Kaylo Division of the Owens-Illinois Glass Company. Designed by O. J. Olsson, Atkinson designer, and Kaylo engineers, flue material costs about $50 per installation.

Two layers of Kaylo, both 1 1/2 inches thick, are used for the flue. The sections of material are bound together with wire and the joints sealed with fireproof cement. A rectangular piece of the material is used for the adaptor to make the transition from the 12 1/4 by 14 1/4-inch opening at the top of the fireplace to the 12-inch diameter of the first layer of Kaylo.
timber trusses, precast concrete walls speed warehouse erection

More than 770 Arch-Teco bow-string timber roof trusses, each with a span of 71 feet, three inches, cover the million and one-quarter square feet of floor space in this building, said to be the largest engineered timber structure of its type in the nation. Precast concrete panels are 20x26 feet. Begun last December, the project is scheduled for completion in August.

Contractor is Barrett & Hilp, Inc., San Francisco, California. All timber trusses are fabricated by Timber Structures, Inc., Portland, Oregon, shipped to the job site where they are assembled with Teco wedge-fit ring connectors by a TSI foreman and crew of seven local laborers.

Material courtesy of Timber Engineering Co.

Don’t miss “Winter Building” in October. Renew your subscription now.

more batches per day with

Jaeger “Speedline” Mixers

Seconds saved at both ends of every mixing cycle add up to more batches per day for Jaeger owners. Famous “Skip Shaker” loader speeds the batch into the drum in 5 to 7 seconds. Batch discharge is just as fast because bigger bucket and flight blades carry more concrete to discharge spoon. Free from break-down over many years: machined steel drum tracks, Timken bearing carwheel-type drum rollers, heavy-duty automotive transmission. Sizes 6, 11 and 16S. Ask for Catalog M-10.

THE JAEGER MACHINE COMPANY
521 Dublin Ave. Columbus 16, Ohio

Distributors in 150 Cities in the U. S. and Canada

PUMPS • COMPRESSORS • HOISTS • TOWERS • PAVING EQUIPMENT
conventional 10-year financing

"Non existent," was Lyn Boyd, Pampa, Texas lumber dealer's answer to Title I financing. Boyd has turned to conventional sources for loans in moving his low-cost houses. Actually, the 10 year, 7 per cent loan saves buyers money over the 20-year, 5 per cent standard amortizations.

In reality the system operates very simply. For Boyd's lowest cost $4,550, two-bedroom house the lender will issue a $3,400 mortgage. The buyer pays $550 down and the lumber dealer carries $600 on a second mortgage arrangement.

The loans differ from standard second mortgage transactions as the lumber dealer's equity comes second to that of the lending institution. The mortgage firm, however, collects the lumber dealer's equity monthly for 40 months. A charge of 1 per cent is made for this.

At the end of 40 months, the monthly payment drops from $65 to $50. Monthly payments include a reserve for insurance and taxes.

The 7 per cent financing is looked upon favorably by banking circles and was used by the lumber dealer to encourage the lender to hold closing costs to $90. Boyd pointed out that a mortgage of 10 years at 7 per cent interest would cost the buyer less than a 20-year, 5 per cent loan. For instance, $3,400 at 7 per cent for 10 years is $1,190 cost to the buyer while $3,400 at 5 per cent for 20 years is $1,700 cost to the buyer.

Other advantages besides the low closing costs are the non-penalty for closing the loan before the end of its amortized period, and the speed
answers tight mortgage situation

with which the buyer can build up an equity in his investment.

These flat-top contemporaries were shown for the first time during National Home Week by Lynn Boyd, Pampa, Texas lumber dealer. The result: 10 sales. The designs are the outgrowth of the San Angelo plan that intrigued Boyd when it first gained national publicity. (See American Builder, Oct. 1952.) Boyd produced three of these houses in his quest for low-cost units. Familiar with the economies that could be achieved with slab construction and flat-top roofs, he did some redesigning, and came up with this present two-bedroom unit containing 792 square feet and selling for $4,550. His design differs from the San Angelo plan in that he includes many items which the San Angelo house omitted. Ventilating windows in the living room, an outside entrance to the kitchen, a furnace, back-to-back plumbing, and weather stripping are a few.

A garage, driveway, hardwood flooring, when included, cost extra. Top price for a three-bedroom unit with garage, concrete drive, hardwood floors on a $1,000 lot is $7,500.

Kitchens receive his special attention as they are the work centers of most homes. Mr. Cox says that when women inspect a new house “kitchens are the first thing they look at!” Thermador – the original bilt-in range – permits unusual flexibility of arrangement: saves steps and bending over, allows additional storage space, and fits into any kitchen decor more beautifully.

Innovations in multiple house building—angular arrangement of rooms, elimination of most full height walls, and work-saving electric kitchens with Thermador—make Henry C. Cox a leading Southern California builder.

For literature write:

THERMADOR ELECTRICAL MANUFACTURING CO.
5119 District Boulevard
Los Angeles 22, California
Some 9,500 people were in South Amboy, N.J., that drizzly evening in 1950. At the waterfront, longshoremen were transferring the last of 12 freight cars of ammunition to lighters that would carry it to a waiting vessel in Raritan Bay.

But the City Hall clock never got to 7:27—and the freighter's deadly cargo never got loaded. Explosions shattered windows over a radius of 12 miles; and hundreds of people looked at their arms and legs and saw that flying daggers of glass had stabbed them.

At dawn, 312 of the injured had been counted. Such disasters have happened many times before in America. They could happen again. And if they do—and when they do—there must be blood plasma on hand to take care of the injured. For blood saves lives!

But blood cannot be mined or manufactured. It must come from the veins of healthy men and women. Men and women who feel concern for a suffering neighbor. So give blood—now! Whether your blood goes for Civil Defense needs, to a combat area, or to a local hospital—this priceless, painless gift will some day save an American life!

---

**Business Executives!**

**Check These Questions!**

If you can answer "yes" to most of them, you—and your company—are doing a needed job for the National Blood Program.

- Have you given your employees time off to make blood donations?
- Do you have a Blood Donor Honor Roll in your company?
- Have you set up a list of volunteers so that efficient plans can be made for scheduling donors?
- Have you arranged to have a Bloodmobile make regular visits?
- Has your management endorsed the local Blood Donor Program?
- Have you informed employees of your company's plan of co-operation?
- Was this information given through Plant Bulletin or House Magazine?
- Has your company given any recognition to donors?
- Have you conducted a Donor Pledge Campaign in your company?

Remember, as long as a single pint of blood may mean the difference between life and death for any American... the need for blood is urgent!
conventional financing
(Continued from page 273)

500. Costs over and above the base price of the house are:
Garage with concrete floor $550
Oak Flooring ............. $350
Duplex Heater ............ $ 50
Concrete Driveway ....... $100

CONSTRUCTION

Ready-mixed concrete is poured into the forms which were set by Boyd's carpenters. A concrete finisher is paid hourly to finish slab.
Framing members are precut at the yard and hauled to the site. Ceiling rafters are 2x12's cut on a diagonal from 6%\(^{\circ}\) to 4%\(^{\circ}\) inches. The diagonal cut produces low rafters for the slightly pitched roof.
Carpenters lay the asphalt tile. Oak flooring, which can be had at additional cost, is laid on 1x4 screeds laid in mastic.
Carpenter crews install the wallboard. Painters tape the joints.
Boyd's carpenters do most of the work. Only the plumbing and wiring jobs are subcontracted. Another economy that the lumber dealer can pass on to the buyer results from precutting a house in the yard.

COST BREAKDOWN

<table>
<thead>
<tr>
<th>Kind of Siding</th>
<th>Asbestos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decca Wall</td>
<td>$ 20.01</td>
</tr>
<tr>
<td>Bath Accessories</td>
<td>14.70</td>
</tr>
<tr>
<td>Heating</td>
<td>138.50</td>
</tr>
<tr>
<td>Frame Lumber</td>
<td>513.74</td>
</tr>
<tr>
<td>Siding</td>
<td>116.60</td>
</tr>
<tr>
<td>Nails</td>
<td>23.16</td>
</tr>
<tr>
<td>Hardware</td>
<td>53.45</td>
</tr>
<tr>
<td>Reinforcing</td>
<td>42.96</td>
</tr>
<tr>
<td>Roofing</td>
<td>85.60</td>
</tr>
<tr>
<td>Sheetrock</td>
<td>156.16</td>
</tr>
<tr>
<td>Insulation</td>
<td>83.50</td>
</tr>
<tr>
<td>Doors—Complete</td>
<td>184.15</td>
</tr>
<tr>
<td>Windows—Complete</td>
<td>227.75</td>
</tr>
<tr>
<td>Casing and Base</td>
<td>52.30</td>
</tr>
<tr>
<td>Paint and Wallpaper</td>
<td>77.46</td>
</tr>
<tr>
<td>Asphalt Tile or Oak Flooring</td>
<td>83.10</td>
</tr>
<tr>
<td>Molding</td>
<td>10.04</td>
</tr>
<tr>
<td></td>
<td><strong>1,883.18</strong></td>
</tr>
</tbody>
</table>

Carpenter Labor 761.41
Paint Labor 225.00
Plumbing 625.00
Dray 22.50
Concrete Slab 145.24
Sidewalks 100.90
Wiring 100.00
Kitchen Cabinet 99.95
Miscellaneous Items 9.38
Window Shades 10.17
Weatherstrip 9.00

2,108.55

Lot Cost 225.00
Lot Profit 275.00
Total 4,491.73
Sales Price 4,550.00
Gain on Contract 58.27
Estimated Profit on Material 532.87
Lot Profit 275.00
Total Profit $ 866.14

BUILDERS have proved that kitchens equipped with genuine Trade-Wind Clipper Ventilators are far easier to sell. There's a double reason for this. The quality construction and honest performance are features you instinctively "talk up." That makes the sales job easier. Furthermore, the use of a Trade-Wind implies that fine quality items have been selected elsewhere for the house.

Next time when you specify a kitchen ventilator remember this—Trade-Wind is built only to the highest quality standard—never down to a price.

DEPENDABLE AS THE TRADE WINDS
Inside story on the "extras" in Arrow's new cylindrical lockset line

THESE ARE THE FEATURES YOU WANT IN LOCKSETS

1. Arrow's solid brass exteriors are coated with durable weather-resistant lacquer that preserves their handsome appearance.

2. Heavy gauge metal is used for internal working parts of new Arrow locksets.

3. New rose attachment eliminates unsightly rose screws, holds rose firmly under spring tension.

4. Arrow's 3-pin tumbler construction is widely recognized as a locking unit that gives users maximum security.

These outstanding features plus simple modern styling and easy installation, without special tools or gadgets, make these the right locksets for you.

Easily reversible, 10\% heavier than competitive lines, Arrow's moderate prices will surprise you. Arrow has been able to minimize manufacturing costs by concentrating on a complete line of cylindrical locks and ignoring costly slow-moving specialties.

ASK YOUR DEALER TO SHOW YOU THE FACTS AND FIGURES ON THIS LINE

ARROW LOCK COMPANY
395 BROADWAY, NEW YORK 13, N.Y.

stop sign halts house hunters

STOP! Do you realize what you've seen?

This notice confronts all visitors at Ho-Ho-Kus Park Estates in Ho-Ho-Kus, New Jersey, as they leave a model home, George Washburn, salesman manager for George H. Beckmann, Inc., devised this reminder, reasoning that while today's house hunters are choosy and shop around, few carry notebooks and can remember all they have seen.

His "bulletin" begins with a list: "full three-coat plaster, guaranteed dry cellar, full insulation, ceramic tile bath..." and 16 other items. In case the visitor may still be uncertain whether he can afford all this, the notice adds a breakdown of down payments and monthly installments.

"If you are a veteran," it reads, "with $1,200 cash and making $95 a week; with $2,000 cash and mak-
WE SAW AMERICA'S FIRST AND FINEST RECIPROCAL ACTION SAW

WHIZ-SAW, #2, one of the most versatile cutting tools ever invented, cuts with amazing speed... wood, formica, micarta, bone, plastic, fibre, asbestos board, pressed wood, hard rubber, etc., up to 2 inch thicknesses. Ideal for all craftsmen. The original WHIZ-SAW Model #1 cuts up to 1 inch thickness. ($55.00) WHIRL-SAW, Model #3, 4½ inch circular blade, cuts up to 1¼ inch thickness. ($49.00)

If not available at your dealer, write to:

THE Forsberg MFG. CO., BRIDGEPORT, CONN.

Makers of the Famous Whale & Viking Tools

NEW

AMERICA'S FIRST AND FINEST RECIPROCAL ACTION SAW

Bamboofold Doors cost you 40% less money, consider these doors for walk-in closets, room dividers, kitchenette screens... Also for drapes on every type and size of window.

We import only the finest Japanese bamboo, then process it, using only the inner core—mildew-proof, warp-proof. This is then made up with special cord and specially designed, top quality, American hardware. Nylon slides (self-lubricating) operate on a rust-proof, enamel top track—assure accordion folding and major space saving. Exhaustive laboratory tests—with more than 82,000 opening and closing cycles—show no visual wearing or weakening of any parts. The dimensions can vary from 2' to 16' in width and from 18' to 12' in height. “Bamboofold” is available in natural and nine standard colors; other colors to order.

When used in new construction, you save the cost of furring, trim, roughing and extra hardware.

We invite you to let us show you samples, to quote prices, to give you the names of distinguished, satisfied users. Also to tell you about many attractive woven woods imported by us from other parts of the world. Kindly address your inquiry to Dept. 14.

AMERICAN BAMBOO CORPORATION
171-06 Jamaica Avenue • Jamaica 32, N.Y.
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Prefinished to reduce floor costs up to $150 on every home you build.

Prefinished to give owners more beautiful floors with a longer-lasting finish.

For literature and complete data, write
E. L. BRUCE CO., MEMPHIS 1, TENN.
See Our Catalog in Sweet's Builder File

Prefinished Bruce Strip Floors

Nationally advertised—a recognized "Plus Value" that helps sell homes
Valuable live stock, machinery and personal property is always safeguarded against the ravages of seasonal storms and the destruction which usually follows in its path.

Sliding doors equipped with Storm-Proof hardware glide open and closed with friction-free precision on steel, roller-bearing hangers operating on a fully enclosed and protected rail.

Your trade appreciates the urgent need to prepare now, for storms ahead—bringing rain, hail, sleet and snow.