FARM BUILDING
the great hidden market . . . . for building products
Not 1 or 2, nor 10 or 20 uses for Roddiscraft Douglas Fir Plywood—but 1,000—uses for this Plywood Jack-of-all-trades—. That spells opportunity for you.

Roddiscraft Douglas Fir Plywood can prove a steady source of profits. Home owners and farmers, carpenters, basement contractors, residential builders, industrial builders, store builders, need Douglas Fir Plywood for scores of jobs.

Roddiscraft Douglas Fir Plywood will do a better building job for them and a better profit-building job for you. Roddiscraft makes its own Fir Plywood in its own fir mill in the California Douglas Fir country. When you stock Roddiscraft, you get quality you can count on—Roddiscraft from timber tract to you.

Ask the Roddiscraft representative to show you the 1,000 uses for Douglas Fir Plywood. See for yourself the profit opportunities in this Plywood Jack-of-all-trades.
How to build a combination ceiling and floor in a single, simple operation

Joists, bridging and subflooring have now been streamlined into one economical, time-saving package . . . Fenestra® "D" Building Panels. For example, it took only 45 minutes for three men to lay the entire first floor of a Maryland house.

"D" Panels lock together simply and compactly . . . without special skills or special tools. The bottom surface forms an attractive basement ceiling. The flat-top surface is a strong floor ready for finished flooring.

Now you have a strong ceiling and floor that are attractive and fire-resistant . . . and a way to build better, faster, more economically. One of our engineering representatives will be glad to discuss the versatility of these Panels with you. For further information, please mail the coupon. Also ask about Insulated "C" Wall Panels and famous Holorib Roof Deck.

Here's how to build it:

1. Interlock the Panels as you lay them. Use the channels in the ceiling to carry wiring.
2. This space is big enough for large pipes and ducts.
3. This flat-top surface is already primered, ready for finished flooring.
4. Lay flooring of your choice.
How to CRACK the CRACKED CEILING MARKET with UPSON LAMINATED PANELS

LOOK AROUND YOU! Cracked Ceilings Are Everywhere!

There are hundreds right in your community!

And you can make good money re-covering them with Upson Kuver-Krak Panels—just as thousands of carpenters are doing right now!

It’s easy, pleasant, inside work. And it’s work which belongs to you. For Upson Kuver-Krak Panels place all these jobs right in your hands.

You furr right over the old ceiling. Then apply Upson Kuver-Krak Panels with Upson Floating Fasteners and finish the job with mouldings. You produce ceilings with real decorative interest. With patterns! With attractive shadow-lines! Ceilings without a nail head showing anywhere. Ceilings that will remain permanently crackproof!

We can help you get started! Upson Kuver-Krak Panels are sold at lumber yards where quality is featured. Let your dealer know that you want Upson Ceiling jobs.

SEND THIS COUPON TODAY AND GET STARTED!

THE UPSON COMPANY 517 Upson Point, Lockport, New York. I am interested in getting more Upson Ceiling jobs. Please send me your Instruction Sheet.

NAME

STREET

CITY

STATE

SEND THIS COUPON TODAY AND GET STARTED!
Volume 71  JULY, 1949  Number 7

In This Issue

Publisher's Page ........................................................................ 7
The Changing American

Monthly Review of NAHB .......................................................... 61

Editorial .................................................................................... 67
The Outlook Is Good

FEATURES

Form Building ............................................................................ 68
Special Techniques Needed to Plan and Build Farm Structures

Electric Service for the Farm .................................................... 71
Knowledge of Basic Principles of an Installation Essential to Builder of Farm Buildings

All Electric Kitchens for Farm Homes ...................................... 72
Differences Between City and Country Living Rapidly Disappearing with Modern Appliances

"New Freedom Gas Kitchens" Planned for Farm Home Efficiency ................................................................. 73
Rural Kitchen May Now Be As Modern As That In Best Urban Home

Farm Construction is Big Business .......................................... 74
Firm Discovers Volume and Variety of Farm Building a Profitable Adjunct to Urban Projects

City Conveniences Available Beyond the Gas Mains ............ 78
Availability of LP Gas Attracts Thousand to Farm and Suburban Areas

Cash Markets for Builders and Dealers in Variety of Farm Buildings ................................................................. 79
Every Farmers an Opportunity for Increasing Business

Farm or Urban Home—That Can Grow .................................... 82
Blueprint House Designed by National Plan Service

Modern Equipment Helps Sell Farm Homes ......................... 87
Farmers Like Everyone Else Turn to Builder Who Gives Them the Most for Their Money

Not So Hidden After All! ........................................................... 88
R. E. Saberson Reports Mammoth Farm Market for Building Materials Is Being Overlooked

From Two Plans a Residential Community Grows .............. 90
Variety of Luxury Homes Produced from Two Basic Floor Plans

Ellinor Village .......................................................................... 93
Faz. Builder Develops Community of Modern Apartments to Rent to Vacationers

Tomorrow's Craftsmen .............................................................. 96
High School Boys Learn Construction Techniques by Building a House in Highland Park, Ill.

Fighting for the Right to Build ................................................ 99
Pittsburgh Builder Overcomes Zoning Restrictions Against Apartment Buildings

133 Individual Houses That Are Not For Sale ....................... 102
Acceptance of Children and Pets Makes Village of Rental Units Profitable Investment

New Store Offers Special Services to Builders ...................... 104
Materials Firm Added Special Services and Tripled Drop-in Trade

Pioneer Master Woodwork Merchandiser Retires .................... 106
H. H. (Hal) Hobart of Curtis Companies Retires After 40 Years Association with Firm

How Contractors and Dealers Influence Wholesale Prices .... 108
Economies of Mass Production Can Only Be Realized through High Volume of Sales

Model Home Stimulates Sales ................................................. 110
Model Home Advertised in Local Paper Attracts Throng of Potential Buyers

New Products .......................................................................... 118
Latest in Materials and Equipment

DEPARTMENTS

Trends ...................................................................................... 49

On and Off the Record ............................................................. 51

Editors' Round Table .............................................................. 53

Technical Guide, How-To-Do-It and Better Detail Plate ........ 111

Dealer Review ......................................................................... 116

Catalogs ................................................................................. 124

Index to Advertisers ............................................................... 198
Mack says... FOR EASY SALES... BIG PROFITS...

DISPLAY

NU-ART and NU-LUME HOUSE NUMBERS!

3 SIZES
3 3/4", 2 1/4", 1 1/4"

**Nu-ART HOUSE NUMBERS STAINLESS STEEL OR BRONZE**

These beautiful, ever-lasting house numbers are always in style. That's why they sell like hot cakes all year 'round. They take little space... and make big profits! Nu-ART Numbers come in extra heavy bronze that is highly polished and heavily lacquered... or in extra heavy stainless steel. You get the attractive display case FREE with introductory order of complete assortment of 12 of each number.

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Nu-ART Letters in stainless steel or bronze are also available in all three sizes—3 3/4", 2 1/4", 1 1/4". They make a beautiful sign of everlasting beauty.

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These brilliant Nu-LUME Reflecting House Numbers sell on sight! Positively won't rust or tarnish. Hand-hammered effect finish makes them illuminate from flashlight, auto and street lights. FREE display case given with introductory order of complete assortment of 12 of each number. Nu-LUME Reflecting Letters are also available in three standard sizes.

**Nu-ART MOUNTING BOARDS**

These unique, attractive mounting boards are furnished in solid walnut or other high quality wood. With Nu-ART or Nu-LUME numbers they make a handsome sign—and a very nice profit for you.

Order Yours Now... We Pay Postage!

**YOUR ORDER WILL BE SHIPPED SAME DAY RECEIVED**

MACKLANBURG-DUNCAN CO.
Oklahoma City 1, Oklahoma
EVERYBODY is discussing whether the mild recession we have been having is going to develop into a real depression. If it does, this will be because the American people have asked for it. They—or most of them—deserve no credit for the prosperity we have had since the war ended. And they will deserve no credit for it if in the near future we escape a bad depression. For they have put into important offices—especially the presidency—men who have favored, and now favor, policies which if all were adopted would not only soon cause a ruinous depression but would make depression permanent by destroying the only kind of economy that ever in the history of the world created real and prolonged prosperity.

Whether depression comes or not, and especially if it actually has started, the 604 question the American people should be asking themselves is: "What has caused such a great change in the American people in the last third of a century?"

For that they have greatly changed there can be no serious question. How and how much they have changed can be realized only by those who are old enough to have lived a large part of their lives before World War I.

This nation entered World War I thirty-two years ago. The third of a century before that included the depression of the 90's and the recovery from it, all of which this writer remembers from having experienced them. Everybody suffered from the depression of the 90's, and with especial severity in the territory where this writer lived, and it did seem then that every quack means of restoring prosperity that could be invented by cracked minds was proposed. But whether the people realized it or not, in that period the political and economic philosophy of individualism prevailed and could not be shaken. Two laws of great importance that were passed—the Interstate Commerce Act in 1887 and the Anti-Trust in 1890—forbiddently illustrate this. Both of them were aimed at assuring the people opportunity to practice individualism by protecting them from private monopoly—the former being intended to prevent abuse of the power of railroad monopoly and the latter to destroy and prevent monopoly in naturally competitive industries. They were in no sense paternalistic; and no paternalistic legislation was passed to alleviate or end the depression of the 90's. The most serious threat offered the economy was the promotion of "free silver" to inflate and depreciate the currency, and thereby rob creditors for the benefit of debtors, but it was defeated after the greatest political battle in American history. The briefly interrupted prosperity and progress during the three decades before World War I were due to the hard work and thrift of the people as a whole, to the enterprise shown and the "venture capital" invested by business men in large and small business and to a virtually complete avoidance of paternalism in government.

As the outstanding characteristics of the American people for the three decades before we entered World War I were individualism, industry, thrift and venturesomeness in pioneering and making investments, so their outstanding economic characteristics since then have been and still are desires to do less work for more pay, and to have government provide them with subsidies and "security."

The 20's were marked less by productive investment than by a huge stock market speculation the purpose of which was to enable the participants to get rich quick by taking other people's money without painful effort. The depression that followed was marked by a rash of legislation, which has continued up to the present time, and has been intended ostensibly to use the power of government to tax everybody for the benefit of everybody while having the real intention of buying for the party in power the votes of everybody largely or mainly with their own money.

The most amazing fact about what has occurred is that so many of the middle class people who have been most injured by the paternalistic policies adopted and proposed have allowed themselves to be fooled, bought and corrupted by these policies. In contrast to the people of the generation who in 1896 rejected the offer of "free silver" to reduce their debts by inflating their currency, they have accepted most of the legislation which has been offered to spend and tax them ostensibly into affluence and security but actually into ruin.
GETTING DOWN TO DETAILS—TELEPHONE RACEWAYS ARE IMPORTANT

The smaller a home is, the more it makes little refinements stand out. Well up on the list with today’s homeowners are the neatness and convenience of built-in telephone facilities.

If you select locations for telephone outlets in advance, you can avoid exposed telephone wires on walls and woodwork. A few lengths of pipe or flexible tubing, placed inside the walls during construction, will carry the wires to the outlets.

For homes of any size, your Bell Telephone Company will be glad to help you plan modern telephone arrangements. Just call your Telephone Business Office and ask for “Architects and Builders Service.”
Here it is!
THE NEW, LOW-COST
PORTABLE SAW-SHOP
you've waited for!

This new, low-cost DeWalt is easy to carry from job to job. When you put it to work you actually have a "saw-shop" on the job, because every time you change the cutting tool, you have another machine.

Light in weight (about 200 lbs. net), this DeWalt is nevertheless perfectly balanced. It is equipped with the entirely new and exclusive DeWalt-built, voltage-relay capacitor motor which operates on either 110 or 220 volts—a motor which develops 2½ to 3 times the horsepower it's rated for. It is a motor you can depend on for continuous, trouble-free service.

What's more, this DeWalt can be equipped with legs for inside shop use. With this DeWalt, your men will help you set new standards of performance and quality in building your houses better, faster and at lower costs.

Order now for immediate delivery. Write for catalog. DeWalt, Inc., 17 Fountain Avenue, Lancaster, Penna.

De WALT
THE SAW THAT'S FIRST WITH BUILDERS
“Preferred for Workability, Yield and Color... Atlas Mortar Cement Gave Us a Fine Job”

says Mr. Theodore G. Clatts, Contractor, Wrightstown, N. J.

More and more, masons agree with Mr. Clatts on the buttery plasticity of Atlas Mortar Cement. They like the smooth, even way it responds to the trowel. Contractors like the satisfactory yield, the strength and color of Atlas Mortar. Its outstanding durability is proved by rigid laboratory tests.

Backed by years of research, Atlas Mortar Cement complies with ASTM and Federal Specifications for masonry cement. For further information, write to Universal Atlas Cement Company (United States Steel Corporation Subsidiary,) Chrysler Bldg., New York 17, N. Y.
Open the Beautiful MENGEL DOOR to SALES APPEAL ...LABOR SAVINGS!

The Original Mengel Flush Door with the Patented "INSULOK" GRID CORE — offers you 8 Big Sales Points

MORE beauty ... less upkeep ... that's what you open up to your customers through the Mengel Flush Door!

Here's an engineered door that means durability plus ... a door that won't stick ... that's easy to hang ... easy to paint ... easy to clean ... that harmonizes with any setting ... modern or traditional. And it's backed by years of national advertising.

Why you offer more through the Mengel Flush Door

1. 40% Lighter in Weight ... than standard panel hardwood doors.
2. Patented "Insulok" Core* ... gives stronger bond between core and faces; keeps faces flat; provides flame resistance.
3. Solid Hardwood Stiles and Rails* ... provide maximum screw-holding power.
4. Key-lock Dovetails* ... keep stiles and rails permanently tight.
5. Slam tested* ... 25,000 times ... proves long life.
6. Extra Guard Against Warpage* ... provided by special mill-curing process.
7. Broad Selection of Hardwood Faces ... individually belt-sanded to satin smoothness ... permits wide range of finishes ... reduces finishing costs.

8. Engineered Construction ... assures maximum dimensional stability.

Built Like Fine Furniture

Mengel Flush Doors are built by skilled craftsmen. Their patented "Insulok" grid core is made of sturdy insulation board strips halved together. This prevents swelling and shrinking. And it means an extra-strong, extra-light, easy swinging door.

Framing is hard, even-textured poplar. Faces are securely bonded to frame and core with moisture-resistant glue.

Easy cleaning is another important reason for the popularity of Mengel Flush Doors. Their smooth, unbroken surfaces offer no place for dust to cling. And they stay beautiful ... no panels to shrink ... no moldings to come apart.

Mengel Flush Doors are now available faced with veneers of Birch, Mahogany, Oak, Walnut, Gumwood ... other hardwoods to order.

For easy painting, the Mengel Flush Door faced with Gumwood offers a satin-smooth surface that never shows a grain raise.

So, for new construction or remodeling jobs, be sure to install Mengel Flush Doors ... the Famous Flush Door with the Patented Core! For full information call your regular supplier or mail the coupon today!

MENGEL Flush DOORS
THE FAMOUS FLUSH DOOR WITH THE PATENTED CORE

Mengel Hollow Core Flush Doors are subject to the standard guarantee established by the National Door Manufacturers Association.

* Mengel exclusive

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Mail Coupon Today!

THE MENGEL COMPANY
Plywood Division, Dept. AB-2, Louisville 1, Ky.

Please send me complete information about the Mengel Flush Door and name of my supplier.

Name
Street
City
Zip
State
Insulux Set-in-Wood*... uses no mortar!

EASY TO INSTALL:
The new Insulux "Random Clear" Glass Block is pictured (left) in a Set-in-Wood interior partition, which needs no mortar, but uses only glass block and prefabricated wood parts. Drawing above illustrates ease of installation, which can be scheduled any time during construction.

* For interior use only. While erection is easy and disassembly may be made with 100% parts salvage, this system does not have either the high sound reduction, insulation or fire-resisting properties of set-in-mortar construction.

SEND COUPON NOW!

New Insulux "Random Clear" (No. 331) varies slightly in design from block to block—about the same amount of variation one would expect from handmade glass. Ingenious use of automatic equipment produces more than 80 different face designs. Yet, all are similar.

Photograph by Suter, Hedrich-Blessing, Ltd.
BRADLEY introduces a New Member of its Distinguished Line . . .

UNIT WOOD BLOCK FLOORING

Acceptance has been immediate and in volume, confirming again Bradley's long established creed of constant effort towards turning out a better product. No less than their well known, well liked companion product, Straight-Line Hardwood Flooring, Bradley Unit Wood Blocks fully qualify on their merit as the STANDARD OF COMPARISON.

Bradley Unit Wood Blocks are produced in standard sizes and grades in Oak, Beech, and Pecan. Available through local distributors from coast to coast.

BRADLEY LUMBER COMPANY of Arkansas
WARREN, ARKANSAS
Builders are praising the new Revere Home Flashing system... for the simple reason that never before has flashing been so easy to buy, so easy to install!

Revere Copper Home Flashing is competitively priced... and your installation of Revere copper indicates quality on any job. Revere flashing is the perfect seal for any valley or joint. It will not rust or rot... doesn't need paint... has special temper and gauge... is easily cut and bent to shape.

Revere Copper Home Flashing is easy to buy. It's "packaged"... 10 sheets cut to 18″ x 48″ in one easily handled carton... plus 200 bronze nails with a step-by-step instruction booklet to guide you on expert installation.

Revere Copper Flashing is designed for low cost homes. It adds an important selling point to any home you build, enhances your reputation for quality.

Before you start your next house or development, ask your building supply dealer about Revere Copper Home Flashing. He has it in stock... or can get it for you promptly.
The new **Type 150 Suspended Unit Heater**

Range of Sizes — 60,000, 90,000, 120,000, and 150,000 Btu input cap.; for natural, manufactured, butane-air, LP Gas.

Compact design for extra headroom — only 31” high, including diverter and flue vent on 60,000 and 90,000 Btu sizes. Larger sizes 35 1/2” high. Horizontal flue-outlet on diveters.

All-welded steel heat-exchanger — horizontal tubular design with high crown sheet, no impingement of flame. Completely cleanable from bottom without lowering unit.

Aerated flame burner — cast iron with drilled ports. Single-opening shutter prevents clogging. Burner size increases proportionately with exchanger, for uniform heat distribution.

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**NEW! With unique design features**

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**fuel-thrifty Mueller Climatrol suspended gas-fired unit heater**

— helps you save space and headroom, and still provide adequate, economical heat

It's surprising how much this small, compact unit-heater will do. It makes every cubic inch of space count. That's why architects and builders everywhere specify it on their store and shop jobs. And it's a natural for garages, small plants, and similar projects where space and headroom are at a premium — and where a fuel-thrifty Mueller Climatrol unit heater supplies the most economical comfort.

Your clients will appreciate the efficient service they get from this new Mueller Climatrol unit. Be sure your next jobs get the advantages of its special features. Write for complete details on the Type 150 Suspended Unit Heater today! L. J. Mueller Furnace Co., 2016 West Oklahoma Ave., Milwaukee 7, Wis.
GOOD profits for yourself and economical installations for your customers—these are the opportunities offered by the new line of AllianceWare sinks.

Here's what the AllianceWare line gives you:

(a) Sinks formed from 14 gauge steel and finished with superior wet-process porcelain enamel, noted for its smooth, chip-resisting, stain-proof surface.

(b) Single-bowl and double-bowl types in the popular sizes, with or without faucet ledge.

(c) All bowls full 8" depth.

(d) Design permits continuous tile or linoleum drainboard to run flush with edges of rim.

(e) Sinks with faucet ledge provide added convenience of shelf for soaps and other cleaning equipment as well as provision for spray connection if desired.

Make AllianceWare sinks your profit and prestige builders. Write for catalog sheets giving complete details and dimensions.

ALLIANCEWARE, INC. • Alliance, Ohio
Bathtubs • Lavatories • Sinks
Now! Get SKILSaws at these new, LOWER PRICES!

America's Leading Portable Electric Saw!
America's Best Value Feature for Feature!
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SKIL Saw... the better buy at any price...
is today's best buy at these new low prices. You get famous SKIL Saw features! Famous SKIL Saw quality! Famous SKIL Saw power and performance... stamina and speed... at prices you'd expect to pay for ordinary saws. Order SKIL Saw from your SKIL Tools Distributor today!

6 in. (Model 67).............. Now only $85.00
7¼ in. (Model 77)........... Now only $115.00
8½ in. (Model 825)......... Now only $135.00
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9 in. (Model 87)............ Now only $155.00
10 in. (Model 107).......... Now only $175.00
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SKIL SAW IS FAST!
Oversize motors supply extra power to handle every job quicker—easier!

SKIL SAW IS EASY TO HANDLE!
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SKIL SAW STANDS UP!
Extra strong shafts, smooth-running gears, ball bearing construction and die-cast housings mean lasting dependability, unusual ability to take any shock load.

SKIL SAW IS FLEXIBLE!
Quickly adjusts for bevel and depth of cut. Cross-cuts, rips, miters. Handles every sawing job from cellar to roof in far less time.
Fewer pieces
to handle...
cost less to
apply

K&M
"Century" No. 5
American Method Type

ASBESTOS-CEMENT ROOFING SHINGLES

Here's the perfect roofing shingle for builders who want to speed up work and cut their costs. Units are large... only 90 required per square... and only 2 nails per shingle. They're self-aligning... punched and notched for fast, even application. And the results: a good-looking, neatly-finished job plus important savings of time and money.

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Original manufacturers of Asbestos-Cement Shingles in this country

K & M
COMPANY • AMBLER • PENNSYLVANIA
BRUCE HARDWOOD FLOORS

Used throughout more homes than any other floor!

Give your homes this popular floor
When you tell a prospect a home has Bruce Hardwood Floors, he knows immediately that means quality construction. For over 25 years Bruce has been the most popular and widely used of all floors for living and dining rooms, bedrooms and hallways. Today there are more Bruce Hardwood Floors than any other make of floor in homes and apartments all over the United States. And this preference is being solidly backed by a powerful consumer advertising campaign in leading magazines.

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For free copy of "A Life Saver for Builders," write E. L. Bruce Co., Memphis (1), Tenn.

Advertised in Leading Magazines

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Low cost, easy 2-hole installation, save up to 20%...

...and with Kwikset's unconditional guarantee, builders can't go wrong!

—Says RAY HOMMES, president of Rayart Construction Company, developers of Norwalk Gardens and other Southern California housing projects.

Kwikset Locks are a credit to the home—and to the builder or contractor who puts them there. Cleanly designed, handsomely hand-finished in polished or satin brass, bronze or chrome, more than 4,000,000 of them now are in use in American residences!

Cost is low...engineered craftsmanship makes volume production practical...and easy 2-hole installation cuts labor and time to a minimum on the job.

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Authentic design for every traditional or modern residence. Available for all standard installations and in all popular U.S. finishes. Deadlatch optional. Write for file-size catalogue.

Manufactured by Kwikset Locks, Inc., Anaheim, California

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Please send me complete information on Kwikset locksets and name of my nearest dealer. NOTE: Openings distributors are still available in a few select territories. Write for details.

Name
Company
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City
State

*Tensile strength, 45,400 lbs./sq. in.; compression strength, 87,000 lbs./sq. in.; impact strength, 18 ft. lb.
Now, when every second counts—now, when every construction dollar must produce full value—methods of cutting costs without sacrificing quality take on new importance. That's why General Electric PVX® nonmetallic sheathed cable has become such a favorite.

PVX goes in fast—goes in to last. The tough, smooth, moisture- and flame-retardant braid covering makes for easy pulling. Its light weight makes PVX easy to handle. Its small over-all diameter permits installation in tight spots. And PVX strips freely, quickly, leaving a clean conductor for fast connection.

To get the rest of the money-saving facts on PVX and many other items in the General Electric wire and cable line, send for a free copy of the 42-page book Building Wires, Cables, and Cords for every purpose. Address Section W23-72, Construction Materials Department, General Electric Company, Bridgeport 2, Connecticut.
Johns-Manville PANELS and PLANK are better because they have these unique advantages:

**Improved Glazecoat finish...**

For years the Glazecoat finish on Johns-Manville Ceiling Panels and Wall Plank has helped to make these Insulating Board products pre-eminent in their field. Now, through research and development, J-M Panels and Plank are available with a new and improved Glazecoat finish that is smoother, harder, and more beautiful than ever. Accidental smudges easily removed with an ordinary art gum eraser.

**Pre-decorated in soft pastel colors...**

Beautifully finished at the factory in a variety of soft pastel colors, the materials require no further decoration. They are ready-to-use when installed, but may be painted if desired, with either oil or water paint. The Glazecoat finish eliminates the need of a primer.

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This J-M feature speeds alignment and offers the important advantage of concealed nailing. No exposed nailheads to mar the beauty of wall or ceiling. Beveled edges provide a neat "V" groove at the joints. Write for new brochure on J-M Decorative Insulating Board. Johns-Manville, Box 290, N. Y. 16, N.Y.
Another Housing Development Picks

Silent Servel!

1500 noise-free, longer-lasting Gas Refrigerators are installed in Chicago's Altgeld Gardens

Satisfying 1500 tenant-families is quite a job. But the Chicago Housing Authority found that when it comes to refrigerators, the job is easy with Servel. Like all Gas Refrigerators, the Servels installed in Altgeld Gardens offer tenants modern features plus the only freezing system with no moving parts.

This story is typical of the experience of owners and builders nationwide. They find that Servel pays off in tenant satisfaction because it's the only refrigerator that provides silent, worry-free service year after year. And tenants welcome Servel's many up-to-date features, including spacious frozen food compartment, moist-cold and dry-cold sections, and big flexible interior.

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the one bookkeeping machine for modern builders
designed to speed and save on every accounting record...

and here's why... The alert executive today is most conscious of reducing all costs, and this new Remington Rand machine has been geared to eliminate administrative waste-holes. It produces all the accounting records needed by builders and contractors more efficiently and more economically than ever before. Here is how:

Faster results...every feature of this bookkeeping machine has been electrified. Balances are computed and printed automatically, and improved tabulation and high speed timing eliminate operator-strain — increase operator worktime.

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New functional design...many new, special features guarantee operator-owner appeal. This streamlined beauty has new organ type, finger-grooved keys — and uniform printing impressions are assured. The writing line is completely visible, and register totals are magnified for even easier reading. Yes, in every way it's designed to speed and save in your accounting administration.

But see for yourself. Call your nearby Remington Rand representative, or write for free booklet, "Fashioned for Business Administration." Remington Rand Inc., Dept. AU-7, 315 Fourth Ave., New York 10, N. Y.
Where low cost, sturdy, enduring walls, are desirable, more and more leading architects and designers are specifying and planning in terms of STEEL.

One of the big reasons for this trend is **GALVANITE**, a rust and corrosion resisting, high quality, zinc coated steel.

Wall tile, doors and door frames, decking, exterior walls—in fact, entire buildings are being fabricated of this inexpensive steel.

See for yourself the many advantages found in products made of Galvanite.

**GALVANITE**—inexpensive, rust resistant, zinc coated steel manufactured by the **SHARON STEEL CORPORATION**.

**SHARON STEEL CORPORATION **- SHARON, PENNSYLVANIA

 PRODUCTS OF SHARON STEEL CORPORATION AND SUBSIDIARIES: THE NILES ROLLING MILL COMPANY, NILES, OHIO; DETROIT TUBE AND STEEL DIVISION, DETROIT, MICHIGAN; BRAINARD STEEL COMPANY, WASEN, OHIO; SHARON-STEEL PRODUCTS COMPANY, DETROIT, MICHIGAN, AND FARRELL, PENNSYLVANIA; CARPENTER-TOWN COM & CORE COMPANY, JET, PEASANT, PENNSYLVANIA; FAIRMONT CORE WORKS, FAIRMONT, WEST VIRGINIA; MORGANTOWN CORE WORKS, MORGANTOWN, WEST VIRGINIA; JOA-HIKE COAL COMPANY, RACHIE, W. VA.

SHIPPING AND MANUFACTURING DIVISIONS: HOT ROLLED AND COLD ROLLED STEEL, SWEPT AND ROLLED STEEL, FORGE, SHEET Steel, ROD Steel, WIRE, HAMMERED STEEL, FORGED STEEL, WROUGHT IRON, STEEL FORGINGS, WIRE STEEL, BARS AND RODS, MACHINERY, MACHINE PARTS, STEEL RAILS, SHAFTING, SHEET STEEL, SEAMLESS STEEL, ROLLED ALLOYS, STEEL STRAPPING, TOOLS AND ACCESSORIES.

**DISTRICT SALES OFFICES:** Chicago, Illinois; Cincinnati, Ohio; Cleveland, Ohio; Dayton, Ohio; Detroit, Michigan; Indianapolis, Indiana; Milwaukee, Wisconsin; New York, N. Y.; Philadelphia, Pennsylvania; Baltimore, New York, Los Angeles, California; San Francisco, California; St. Louis, Missouri; Montreal, Quebec, Toronto, Ontario.
YOU CAN OPERATE BOTH
HIGH CYCLE AND STANDARD
110 VOLT TOOLS

with this
HOMELITE

Carryable Gasoline-Engine-
Driven Generator

...A WIDE-OPEN FIELD FOR GREATER SAVINGS

Because they do more work and weigh less... because
maintenance costs are cut in half... high-cycle tools are
being used on more and more construction jobs... con-
crete vibrators, grinders, impact wrenches, chain saws,
electric paving breakers and an ever-increasing number of
others. They are indeed the last word in greater efficiency.

And here is Homelite's answer to those who want to cash
in on the advantages of high cycle tool operation. It's a
compact gasoline-engine-driven dual-purpose generator...
the first and only one of its kind... a complete power unit
you can pick up and carry to operate your high cycle tools
any place you want.

NO LOSS ON PAST INVESTMENTS

Even though you have made substantial investments in
standard 110 volt tools, you have nothing to lose. For this
Homelite Generator operates both high cycle and standard
universal tools with equal efficiency.

Look into this new Homelite Dual Purpose Generator... the Carry-
able Power Plant of the Future. Send for bulletin... or, better... let
us give you a free on-the-job demonstration. Write, today.

HOMELITE CORPORATION
CARRYABLE PUMPS • GENERATORS • BLOWERS
507 RIVERDALE AVENUE, PORT CHESTER, NEW YORK
CECO covers the construction field

With metal products for every building purpose, Ceco indeed covers the field . . . providing you with the finest in engineered steel products for monumental buildings, for institutional buildings, for commercial buildings. Ceco metal products also fit economically into the small home—cut fire hazards—increase building strength—reduce installation costs. For Ceco builds small with the same engineering precision they build big. Years of pioneering . . . years of on-the-job experience in the construction field have given Ceco engineers a sure grasp of all building problems. Ceco's plants, too, are strategically located to give fast coast to coast service.

CECO STEEL PRODUCTS CORPORATION
General Offices: 5601 West 26th Street, Chicago 50, Illinois
Offices, warehouses and fabricating plants in principal cities

In construction products CECO ENGINEERING makes the big difference
THE NEW Anthra-Flo
FOR NEW HOMES

LOW COST
—competitively priced ... meets all requirements for low cost housing.

BURNS CHEAPER SIZES OF ANTHRACITE
—pays for itself in fuel savings. Built-in tankless coil supplies low cost hot water.

FULLY AUTOMATIC
—coal feeds direct from bin ... ashes discharge by gravity into container within unit.

RATINGS
—Model C-1, Steam 325 sq. ft., Hot Water 515 sq. ft.
Model C-2, Steam 550 sq. ft., Hot Water 880 sq. ft.

ATTRACTIVE APPEARANCE
—jacket finished gleaming white and red enamel on steel.

NEW PRINCIPLE
—featuring a new method of feeding and burning anthracite across a single, stationary, perforated plate. Burner and mechanism is attached by two bolts and all working parts are outside boiler.

Dealerships Available—Write to Anthracite Institute for complete information about the "ANTHRA-FLO" and the names of the manufacturers who now have units available. Get details of the attractive dealer franchise plan for this exclusive type, low priced automatic heating unit.

Anthracite Institute
101 Park Avenue • New York 17, New York
Built by BLACK & DECKER

world's largest electric tool makers

Hundreds of Other Uses: Sawing lumber to construction length. Fitting interior trim and moulding. Cutting out plywood and wallboard panels. Preparing concrete forms, etc.


See Your Hardware, Electrical or Building Supply Dealer for FREE DEMONSTRATION!

Makes pocket cuts in walls for built-in cabinets.

Easy to handle: Perfectly balanced, compact, light weight (only 9½ lbs.), eliminates fatigue. Comfortable handle close to blade for easy one-hand control.

Saws stair stringers in fraction of hand sawing time.


Trims stock size windows, doors, screens to fit.

Easy to follow: Cutting guide line is always visible. Sawdust blown clear of cutting action.

Completely portable: Operates from any standard power line (A.C. or D.C.) or portable generator.

Products of The BLACK & DECKER Mfg. Co., Dept. 666, Towson 4, Md.
All the facts of value favor

CHEVROLET ADVANCE-DESIGN TRUCKS

America's truck operators are wise buyers. They know the value of prime power with economy ... of massive load capacity ... of outstanding quality, durability and handling ease. They know the advantages of the latest and finest features and of greater driver comfort and convenience. And they know that all the facts of value favor Chevrolet trucks to an overwhelming degree ... that they cost less to operate, less to maintain, and have the lowest list prices in the entire truck field. That's why they use Chevrolet trucks more than any other make!

CHEVROLET MOTOR DIVISION, General Motors Corporation, DETROIT 2, MICHIGAN

TOP-VOLUME PRODUCTION BRINGS YOU TOP-VALUE FEATURES!

Chevrolet's new 4-SPEED SYNCHRO-MESH TRANSMISSION offers quicker, quieter and easier operation. Double clutching is eliminated because the gears are always in mesh. Faster shifting maintains speed and momentum on grades. Available in series 3800 and heavier duty models.

Chevrolet’s power-packed VALVE-IN-HEAD ENGINES provide improved durability and efficiency as well as the world's greatest economy for their size.

Chevrolet trucks have the famous CAB THAT “BREATHES”!! Outside air is drawn in and used air forced out! Heated in cold weather.

Chevrolet Advance-Design brings you the FLEXI-MOUNTED CAB, cushioned on rubber against road shocks, torsion and vibration.

Chevrolet's exclusive SPUNED REAR AXLE HUB CONNECTION adds greater strength and durability to heavy-duty models.

Uniweld, All-Steel Cab Construction • Large, Durable, Fully-Adjustable Seat • All-Round Visibility with Rear-Corner Windows* • Heavier Springs • Super-Strength Frames • Full-Floating Hypoid Rear Axles in the 3600 Series and Heavier Duty Models • Double-Articulated Brake Shoe Linkage • Hydrazvac Power Brakes in Series 5000 and 6000 Models • Multiple Color Options.

*Heating and ventilating system and rear-corner windows with deluxe equipment optional at extra cost.

CHOOSE CHEVROLET TRUCKS FOR TRANSPORTATION UNLIMITED!
"Mansion Heating" Comfort For Low-Cost Houses! -- With

Coleman DUAL-WALL Floor Furnaces

Franklin L. Burns, President
Burns Realty and Trust Co., Denver, Colorado
Mr. Burns' slogan is "Burns Better-Built Bungalows" -- and Coleman Floor Furnaces help him build better!

This Fine Floor Plan Shows How Franklin Burns Uses These Coleman Installations To Uphold Quality

He uses Coleman's dual-wall models which set under the walls to heat separated rooms. Each provides powerful automatic heating for from two to five large rooms. They hold down building costs and bring real comfort — even in Colorado's rigorous mountain winter climate. As Franklin Burns says: "Coleman Dual-Wall Floor Furnaces fit in with our plans — they are a definite part of better building!"

Find Out How They Help You Uphold Quality, Hold Down Price, And Make A Profit

Now, contractors everywhere are using Coleman Floor Furnaces, to help give better homes for the money. You, too, can get either dual-wall or flat-register models in sizes from 25,000 to 70,000 BTU; you can have gas, oil, or LP gas burners. Meet building code and FHA requirements; give finest automatic heating with any floor plan. And you'll have no duct cost, low installation time charges. See your Coleman dealer now for the right Coleman Floor Furnaces for you.

Available For Gas, Oil or LP Gas, Full Depth or Shallowflow

Yes, we have floor furnaces, flat-register or dual-wall, to meet every requirement of local fuel situations and building codes! Ask your Coleman dealer, or mail us the coupon.

THE COLEMAN COMPANY, INC.
Wichita 1, Kansas

Gas, Oil or LP-Gas
DUAL-WALL Floor Furnace
HOW TO SELL
with the General Electric

• General Electric’s Home-Builders Advertising Plan gets you...

ATTENTION!
Quick as a flash, hard-hitting ads like these tell a story every home hunter is deeply interested in—a story that builds desire for an all-electric kitchen!

YOU CAN HAVE A
"G-E Dream Kitchen Package"
IN YOUR NEW HOME

WHICH HOUSE IS THE BETTER BUY FOR YOU?

How to get this G-E "Dream Kitchen Package" in your new home for only $0.00 extra each month!

INSIST ON A HOME WITH THE G-E WAY OF LIVING!
YOUR HOMES FASTER—

“Complete Kitchen Package”!

DESIRE!

For better living—all-electric living in a G-E equipped home. Thousands of new homeowners are enjoying this leisurely, modern way of living now—and millions more are learning about it through General Electric advertising, insisting on it when they build or buy new homes!

Of course, your prospect wants a complete General Electric Kitchen—but can he afford it? That’s where the G-E Home-Builder Advertising Plan completes the selling job by adding the conviction of the “packaged mortgage.”

—adding only a few extra dollars (usually averaging $4.90) each month to the regular mortgage payments.*

“Packaged mortgages” make it so much easier for the prospect to buy—so much easier for you to sell your homes! Look at these sales-clinching arguments—

Small payments over the years instead of big short-term installment payments! No installation costs! A complete kitchen right from the start—ready to live in!

And best of all—the homeowner often saves enough on his economical G-E appliances to make up the slight extra monthly cost of his G-E “Complete Kitchen Package”!

So put this merchandising program to work—quick! Get together with your G-E distributor in planning and merchandising G-E equipped homes. He has complete information on the Home-Builder Advertising Plan for you that will do a lot to help sell homes faster.

CONVICTION!

Under this easy-paying mortgage plan, the price of the G-E “Complete Kitchen Package” is part of the price of the house

ACTION!

Call your distributor today. If not listed in local telephone directory, write to Home Bureau, Appliance and Merchandise Department, General Electric Company, Bridgeport 2, Conn.

GENERAL ELECTRIC HOME BUREAU
SUCCESS STORY OF THE MONTH


“We have incorporated General Electric Kitchens—including Refrigerator, Range, Dishwasher and Disposall.** We firmly believe these items are necessities—and also help sell our homes!”

Make your next project a fast-selling, prestige-building success! Let your G-E distributor help you in planning and merchandising G-E equipped homes.

*When equipment is included in a long-term mortgage.
**General Electric's registered trade-mark for its food-waste disposal appliance.

You can put your confidence in—

GENERAL ELECTRIC
Builder of 150 Homes Reports:

"25% Labor Savings with Plyscord Sheathing"

"Plywood Sheathing and Subflooring is Stronger," says Fred P. Tosch, Buffalo, New York

"It helps meet the demand for better homes at lower prices!"

"We have used Douglas fir plywood Plyscord for wall and roof sheathing and for subflooring in about 150 houses built during the past two years," says Fred P. Tosch, housing developer of Buffalo, New York. "Cost records show that we have effected a 25% saving in labor. Construction has been speeded too, making it possible to eliminate many of the problems arising from a partially completed building being open to the weather.

"Plywood is stronger, it eliminates the need for corner bracing, further cutting costs. Our crews like plywood because it is real wood, easily worked.

"I am firmly convinced that the use of Douglas fir plywood results in a superior structure. When I built my own home, I used plywood for sheathing, roof decking and subfloors. It is one of the outstanding new homes in Buffalo."

American Builder, July 1949.
You can’t beat 100%!

10,000 roofs in Levittown... and every one is ASPHALT!

There’s simple logic in the fact that Levitt and Sons chose asphalt shingles, 100%, for their homes in Levittown, Long Island. “If asphalt shingles are the best buy for one house, why not for a thousand?”

The advantages of asphalt shingles are basic, one house or a thousand. Asphalt shingles are economical — low in first cost, low in cost per year. They’re easy to apply, easy to maintain. They’re colorful — available in a variety of tasteful colors that complement the colors of each individual house and contrast pleasingly with its neighbors. Asphalt shingles are attractive — with clean lines and patterns, at home with any style, any size home. They’re weather resistant — built to take the punishment of sun, wind, rain, and sleet. They’re fire-resistant — coated with mineral granules that will resist sparks and flying embers.

Make a chart of the qualities you want in a roof. You’ll find that asphalt shingles score high on all counts. That’s why developers like Levitt and Sons prefer asphalt shingles — 100%!

ALFRED S. LEVITT
Vice-president of Levitt and Sons, who designed all buildings in Levittown.

Combine the genius of Alfred S. Levitt, and the dreams of 10,000 home owners — and you have Levittown, a Long Island dream city that’s no longer a dream — it’s a reality. Mr. Levitt believes in “dream homes”... but they’ve got to be practical. That’s one reason why every home in Levittown is roofed with asphalt shingles. “You can’t beat 100%!”

WRITE FOR THIS NEW FREE BOOKLET
“Good Application Makes a Good Roof Better” contains 24 pages of step-by-step information on good application practices — with diagrams. Get free copies from a member company, or write direct.

ASPHALT SHINGLES
Construction’s Biggest Dollar’s Worth
Public Acceptance

American Standard
First in heating ... first in plumbing
Another reason why it pays to specify or buy American-Standard Heating Equipment and Plumbing Fixtures

More American homes have heating and plumbing by American-Standard than by any other single company. And our big advertising program in leading national magazines is creating a still greater demand.

When you recommend American-Standard products for the homes you're designing... or install them in the homes you are building or modernizing, you can be sure of client approval and lasting customer satisfaction. For no heating equipment and plumbing fixtures are better made... none are more favorably known.

And, remember, the American-Standard line covers products for every type of installation... for any size budget. Your Heating and Plumbing Contractor will be glad to give you details. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.
in Philadelphia
WE MADE A HIT!

The Home Show in Philadelphia's large Commercial Museum drew home towners by the tens of thousands. We were elated by the Oh's and Ah's of the admiring folks at the Universal-Rundle booth. And, Philadelphians have good taste in home appointments. It proved to us that the extra effort we make to achieve good design is a feature that appeals to modern public taste.

You, too, can win prospect approval when you show Universal-Rundle ware. Let folks see the beauty of the Vitreous China and Enameled Cast Iron fixtures in exclusive U-R patterns. You can easily sell the U-R line that wraps up quality, beauty and economy in one profitable package.

UNIVERSAL-RUNDLE CORPORATION
NEW CASTLE, PENNSYLVANIA
PLANTS IN New Castle, Pa.; Camden, N. J.; Milwaukee, Wis.; Redlands, Calif.

What is roofing value?

Long life, rich beauty, ease of application ... and economy without sacrifice of quality: they are all important in determining roofing value.

When you specify Bird Master-Bilt® Shingles, you can be sure of a roof which contains all these elements. Master-Bilt's are an investment ... an investment your customers can make at an economical price ... and that is becoming more and more important as time goes on.

Master-Bilt Shingles offer more than economy. Thick-butt construction, heavy shadowlines, narrow cut-outs all reflect Bird experience since 1795. Every material is processed by Bird, another reason for the balanced composition and quality of Bird Master-Bilt Shingles. A roof of Master-Bilts adds inimitable beauty and texture, as well as protection, for they are available in a wide range of colors and blends, in more variety than is found in any other roofing material. Write us today for information about Master-Bilt and Master-Bilt Weather-Tex designs. Bird & Son, inc., 16 High Street, East Walpole, Mass.

BIRD Master-Bilt SHINGLES

East Walpole, Mass.
New York
Chicago
Shreveport, La.
HELP MAKE UP THE BUYER'S MIND

with BIGGER WINDOWS and THIS

You can clinch a sale quickly by giving home buyers what they want...more and bigger windows. This desire for larger glass areas is only natural. More windows add cheer and sunshine to any home...bring outdoor beauty inside...help make a house a home.

Naturally you want your prospects to know that you use only quality materials. We needn’t tell you what a quality story the Libbey-Owens-Ford label gives your customers. It’s the recognized symbol of top-quality window glass...a silent salesman for all the other material in your construction.

Now’s the time to capitalize on the trend to larger window areas...with L-O-F Quality Window Glass and the L-O-F label to tell your quality story to the buyer. Libbey-Owens-Ford Glass Company, 4379 Nicholas Building, Toledo 3, Ohio.

L-O-F also makes polished plate glass, safety glass, colorful Vitrolite® glass facing, Tuf-flex® tempered plate glass and other flat glasses. Only Libbey-Owens-Ford makes Thermopane®—the first mass-produced insulating windowpane.

LIBBEY • OWENS • FORD
a Great Name in GLASS
SOMETHING TO TALK ABOUT TO THE HARD-TO-SELL PROSPECT!

CERTIFIED INSL-COTTON INSULATION has more selling points than any other type of insulation

When it's hard to make the sale — Insl-Cotton may tip the scale your way! It gives homes double the sales appeal, double the comfort value. To the homeowner it means greater comfort winter and summer. It means less upkeep and lower fuel bills. To the builder and contractor it means quicker sales and more satisfied customers.

HERE ARE SOME OF INSL-COTTON'S TALKING POINTS THAT CAN HELP YOU MAKE THE SALES...

- Ease of Installation — Insl-Cotton is quickly and simply installed. Packaged in blankets that unroll like a rug, it goes up fast — is extremely lightweight and easy to handle.
- Lower Installation Costs — requires no special tools, no expensive blowers or spreaders. New labor can easily do the job at a cost of approximately 1.5¢ per sq. foot in open attics.
- Harmless to Handle — contains no shot, silica or fine glass-like particles to injure skin, lungs or eyes.

SPECIFY INSL-COTTON WITH CONFIDENCE — It exceeds government requirements for specifications. Readily available in open face type with heavy vapor barrier, in fully enclosed type and in the reflective aluminum type.

ALL COTTON INSULATION IS NOT INSL-COTTON... INSIST ON THE ORIGINAL AND GENUINE INSL-COTTON

INSL-COTTON DIVISION
TAYLOR BEDDING MFG. CO., TAYLOR, TEXAS • BELTON, TEXAS
Originators of Flame-Proof, Fire-Retarding Cotton Insulation

MAIL THIS COUPON TODAY!

TAYLOR BEDDING MFG. CO., Taylor, Texas

Gentlemen: Please send specifications and full information on Insl-Cotton.

Name:
Address:
City and State:
Check Here:

Distributor  D Dealer  D Architect  D Building Contractor

ASSOCIATED Plywood Mills, Inc.

GENERAL OFFICE — EUGENE, OREGON
MILLS: Eugene, Oregon, and Willamina, Oregon

BRANCH WAREHOUSES: Eugene and Willamina, Oregon; 925 Toland St., San Francisco 24, Calif.; 4814 Bengal St., Dallas 9, Tex.; 4258 Utah St., St. Louis 16, Mo.

SALES WAREHOUSES: Bossenette & Eckstrom, 2719 S. Compton, Los Angeles 11, Calif.; Pacific Mutual Door Co., 626 Tacoma Bldg. (Head Office), Tacoma, Wn.; 1407 Fleet St., Baltimore 31, Md.; 2141 Throop St., Chicago 8, Ill.; 516 South Ave., Garwood, N. J.; Adams and Shawnee Sts., Kanon City; 2235 Territorial Road, St. Paul 4, Minn.
STRONGER, MORE DURABLE
GARAGE DOORS AT LOW COST

...Installed by
Thousands of
Builders Every
Month

Save Money
3 ways!

1. LOW FIRST COST—the result of
standardization on 3 models—and
large scale production concen-
trated in one plant. Strand is
America's greatest garage door
value.

2. LOW INSTALLATION COST—one
piece construction and packaged
hardware make this the easiest
of all doors to install. No "fac-
tory-trained expert" needed.

3. LOW MAINTENANCE COST—as
the result of rugged all-steel con-
struction, galvannealing, and
Strand dependability. Your cus-
tomer will be happy with their
Strand Door!

Your customers are quick to appreciate the advantages
of this "best seller" among garage doors:

The strength and durability of steel—that can't sag, warp,
rot or shrink. Uniform steel sheets are milled to exact
specifications—there's no absorption of moisture as with
some other materials; the weight remains the same in
wet or dry weather; this assures uniformly easy operation.

Strand Doors are sturdily built to meet conditions of
shipping, delivery and handling. Welded construction is
a feature—no screws or bolts to work loose.

These doors are galvannealed for rust resistance with a
heavy galvanized zinc coat, plus high-temperature heat-
treating that assures an excellent base for paint, without
special priming coat.

There are 2 types of Strand Doors for 8' x 7' opening—
Receding (track) and Canopy. Also a Double-Garage
Door (Receding type only) that fits 16' x 7' opening,
unobstructed by center post. Order from your dealer, or

MAIL COUPON FOR INFORMATION AND DEALER'S NAME

ALL-STEEL + GALVANNEALED + OVERHEAD

STRAND
GARAGE DOORS

FOR SINGLE AND DOUBLE GARAGES

Please rush detailed description of Strand all-steel Garage Doors,
for 8' x 7' and 10' x 7' garage openings.

I am a [ ] Builder [ ] Dealer [ ] Prospective Owner [ ] Other

Name

Address

City...

State...
Truscon Series 31

Industrial Steel Doors are made of carefully formed heavy gauge tubular steel members, reinforced at the corners and electrically welded at the joints. The stiles and rails are made from No. 16 gauge steel tube, 5" x 1 3/4". The corners are welded solidly and ground smooth. Stock types are in sash panel design only. Solid panel doors will be furnished for shipment from Youngstown at same price.

Doors can be equipped with lever latch or cylinder lock hardware. Slide doors have hasp and staple hardware.

NOTES

Sizes shown are door leaf sizes. See table for door opening and masonry opening sizes. Doors No. 2868, 3070 & 3870 may have muntins omitted or have solid panels in place of sash panels. Solid panel doors are not stocked. Doors No. 4080 & 50-100 are furnished only with sash panels as shown. Single doors shown are combined to make double doors.

WRITE FOR FREE ILLUSTRATED LITERATURE. New folder containing complete specifications, sizes, details and hardware now available.

**Truscon Steel Company**

YOUNGSTOWN, OHIO

Subsidiary of Republic Steel Corporation

Warehouses and sales offices in principal cities

Manufacturers of a Complete Line of Steel Windows and Mechanical Operators • Steel Joists • Metal Lath • Steeldeck

Roofs • Reinforcing Steel • Industrial and Hangar Steel Doors • Bank Vault Reinforcing • Radio Towers • Bridge Floors.
NOW...a doorway that has everything!

EVERYTHING IN ONE PACKAGE
Pittsburgh Doorways reach the job, ready for bolting into the opening. Twelve standard designs are available which, singly or in combination, will fit any job.

STURDY, HANDSOME FRAME
Fabricated of extra-heavy extruded aluminum, highly polished and anodized. It's reinforced with steel channel and tie rods, as partially shown here.

PITTCO CHECKING FLOOR HINGE
Only 6¼ x 6¼", it is an engineering marvel, has positive door-speed control, separate checking control, built-in hold-open feature. It's sealed in oil for life.

WITH the new Pittsburgh Doorway you don't even need a screw driver; there's no drilling of holes in the frame. And there's nothing to assemble. You just unpack the frame, bolt it into the building opening, and hang the massive Herculite Tempered Plate Glass Doors—for which the frame is especially engineered. Everything is in one "package"—the famous Pitco Checking Floor Hinge, moldings for transom glass, supports for sidelights, strikes for locks, sockets for bolts, everything! No time-consuming calculations. No worries about setting and fitting. But this is only a small part of the story. For complete information, why not fill in and return the coupon? There's no obligation.
Yes, every builder can afford to use Youngstown Kitchens

DOLLARS-AND-CENTS-MINDED builders all over the country are finding it's good business to use the famous Youngstown Kitchens of white-enameled steel.

It's good business for you—because you save!

You save the costs and delays of laborious installations, (Youngstown Kitchens go in fast!)

You save the costs of painting, touching up, special fitting of doors and drawers...and repairs after the job is completed. (Youngstown Kitchens need no finishing...no extras. They're complete, and ready for use!)

You save the headaches of hidden and inexact costs. (Youngstown Kitchens are sold as a package...complete!)

Yes, with Youngstown Kitchens you can give the buyer a beautiful, work-saving kitchen with a brand name known from coast to coast—without increasing the cost of the house!

Our representative would like to prove that statement to you. Why not let him go over your plans and tell you exactly how little these white-enameled steel kitchens will cost? There will be no hidden costs in his price!

"...regularly advertising...Youngstown Kitchens!"

Charles H. Reis, Reis Homes, Demarest, N. J.

Read what Charles H. Reis, successful New Jersey builder, has to say about Youngstown Kitchens: "We are regularly advertising our personalized homes as equipped with Youngstown Kitchens! This is in line with our policy of using the finest everywhere from cellar to roof."

Youngstown Kitchens
BY MULLINS
MULLINS MANUFACTURING CORPORATION • WARREN, OHIO
World's Largest Makers of Steel Kitchens
ES-nails really work now we can use gypsum siding for sheathing purposes instead of boarding.

"This will cut more than $250,000 from our construction costs."

Levitt & Sons... internationally famous for their organization, volume and quality construction... spend millions of dollars looking for new products, new methods for getting small houses to buyers—Better and Faster.

Their complete acceptance of ES-nails, the first POSITIVE"LOCKING" nail to let them take full advantage of all savings and construction traits of non-wood sheathing—Lower unit cost... faster application... less waste... absolute weather tightness—more than proves ES-nails' value as an outstanding building tool.

Other practical reasons they had for turning to ES-nails for attaching wood or asbestos shingles DIRECTLY to gypsum or insulation sheathing were: ES-nails' ease of application—no special tools are required, a regular shingling hatchet or hammer is used... ES-nails are self-clinching... and ES-nails can be driven at any convenient point—no need to locate studs.

Use this modern construction method on your next job—a method that thousands of other builders, as well as Levitt & Sons, find affords unquestionable strength and enduring safety—at a saving.

For more information about the value of ES-nail construction—and the savings it will mean to you—call your supplier, or write: Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, New Jersey.

Accepted on E. H. A. Insured Houses

A finished house, built with ES-nails, which require NO special technique to apply. Standard building practice was used.
No basement! No excavating!

a

TEMPCO
GAS FLOOR FURNACE
fits right into the floor

All you do is make a floor opening the exact dimension of the outer jacket of the Temco and lower the furnace in! No excavation needed!

Temco Floor Furnaces are only 25\(\frac{1}{2}\) deep (overall construction) and are built with a recessed control assembly for additional installation convenience.

NATIONALLY ADVERTISED
SMART HOME BUILDERS FROM COAST TO COAST ARE TAKING ADVANTAGE OF THIS MODERN, LOW COST AUTOMATIC GAS HEAT. FOR COMPLETE DETAILS MAIL THIS COUPON NOW . . . .

I would like to know how I can save money while getting efficient heat with a Tempco Gas Floor Furnace.

Name ____________________________
Address ____________________________
City ____________________________ State ______

WHITE FIR
is good for
low cost paneling

As manufactured by member mills of the Western Pine Association, it comes to you carefully graded and well seasoned. Ask your dealer about it and write for our White Fir Species Book which describes fully White Fir's qualities, grades and uses.
Richmond’s at home in any Bathroom!

WATER CLOSETS — Illustrated is the Claremont, plate G-210—a fine vitreous china fixture available in four colors plus Richmond’s Whiter-White. A two piece close-coupled reverse trap combination with self-draining jet, shelf type cover and chrome plated trim.

Below is the Phoenix, plate G-217, a syphon action close-coupled combination. Also available in four colors or Whiter-White vitreous china.

LAVATORIES—The Lavella, plate 717 shown above, one of Richmond’s de luxe enamelled cast iron units, features special combination supply and drain fitting, rear outlet, front overflow and is available in color and Richmond’s Whiter-White. Chrome-plated legs and towel bars, optional.

The Bromley, below, plate G-132—a shelf back vitreous china fixture with the same features as the Lavella is also available in color and with legs and towel bars.

BATHS—Richmond has either recess or corner enamelled cast iron baths—in color or Richmond’s Whiter-White. Illustrated is the Breslin, plate 225—an attractive recess bath of modern design—has wide rim seat, flat bottom and is available with either left or right hand outlets.

Below is the Blake, plate 219, for right or left corner installations. It has wide rim, flat bottom and straight tilting line.

Variety in design and color—Constant Uniformity in quality

You can be sure of a job well done when you specify or install Richmond. The wide range of modern design insures a fixture to meet your every space and style need. Richmond’s four beautiful pastel colors—Bermuda Coral, Azure Blue, Fern Green and Oriental Ivory—give you colors that will fit in with any decorative plan. This variety of design, rich pastel colors and guaranteed uniformity of quality make Richmond a plumbing line that is sure to be at home in any bathroom.

Look for this guarantee—it’s on every Richmond vitreous china or cast iron plumbing fixture.
MORE and MORE Builders
are getting in on these cost-saving
AETNA FRAMES...

HOW ABOUT YOU?

Get in line for big dollar savings and cut building time with the original 1-piece Aetna Steel Door Frames which can save you as much as $5.00 per "inside opening."

Because they arrive completely built and prime-coated, you can easily erect many times the number of these Aetna bother-free frames in a fraction of the time required to set up one multiple unit or "knockdown" frame.

Aetna Frames won't crack or warp, and the mitres won't open. The size won't change because they neither absorb moisture nor swell.

Available in quantity and all standard sizes at your building supply or lumber dealer.

AETNA FRAMES
AETNA STEEL PRODUCTS CORPORATION
EXECUTIVE OFFICES: 61 BROADWAY, NEW YORK 6, N. Y.
MANUFACTURERS OF STANDARDIZED STEEL DOORS AND FRAMES FOR HOUSING UNITS.
FABRICATORS OF QUALITY HOLLOW METAL PRODUCTS FOR SCHOOLS, HOSPITALS, OFFICE BUILDINGS, ETC.
The Possibilities for Rental Housing

Housing starts, like most indicators of business activity, show a decrease as compared with peaks reached last year. In April a total of 86,000 new dwellings were started as compared with 99,500 last year, a decrease of 16 per cent. It is likely the comparison with last year will begin to get better this summer and fall. According to an American Builder survey (now in the process of completion) most builders plan to build more dwelling units this year than last year. This is particularly true of those who build from 3 to 15 dwellings a year. A total of 712 builders said that they built 9,136 dwellings in 1948 and plan to build 9,488 in 1949, while this is only a slight increase, it is nevertheless an indication that there will be no drastic slump this year.

The best insurance that a builder can have against a slump in his community is a set of well conceived plans for modern rental units. Although there are more home owners in the United States at present than at any time in history, they represent only 53 per cent of the population while the remaining 47 per cent are renters. Circumstances force many of the latter to move frequently and home ownership is unwise.

Of course, the principal reason why more building for rent is not being done is rent control. The other reasons are high construction costs and the reluctance of investors to put money in projects where the prospect of a continued satisfactory rate of return is so dim.

Rent control won't last forever, and there are indications of lower construction costs, yet the prospect of profitable investments seems to diminish with the years. In 1929, bonds of the best grade could be bought to yield 5 per cent. Bond yields on the average are now only 2.99 per cent, having decreased from 3.01 a year ago.

Investors in stocks are at the mercy of boards of directors who, in spite of record profits after taxes, are paying dividends in inflated dollars in about the same amounts that were paid twenty years ago.

More than half the national wealth of the United States is in land and buildings. Residential building is by a wide margin the most important form of non-farm real estate. Well planned investments in residential real estate can absorb several billion dollars of investment money.

Most rental units in cities are in congested areas, planned inside and out to make use of every inch of valuable real estate. This was necessary because a prime requisite of all apartments built prior to 1930 was that they be placed within one-half mile of public transportation. Increased use of automobiles and buses has changed all that. Multiple dwelling units can be built in the suburbs surrounding or adjacent to acres of open space. Play yards for children can be placed nearby.

Many renters can be attracted by attached dwelling units of two stories with or without basements, placed in courtyards instead of row houses or the conventional three-story apartment. Park Forest, developed by American Community Builders in a suburb of Chicago, is an example of this. A total of 800 attached houses have been built and promptly rented in the last three years; 2,200 more are under construction.

To most builders the combination of rent control and high building costs make construction of rental units seemingly impossible. Nevertheless, about one out of every seven starts during the last three years has been a rental unit.
CONTRACTORS:

Dollars Are Important to You

Dollars saved are dollars earned. So why shouldn’t you save every dollar you can . . . on delivery costs? Dodge “Job-Rated” trucks are built to do just that.

They’re priced with the lowest. They’re built to fit your particular hauling needs. They stay out of the repair shop and on the job . . . saving money every mile you drive them.

For example, your Dodge truck will have the right one of 7 “Job-Rated” truck engines. You will pay only for the power you need . . . on your job.

Your Dodge will have the right clutch, transmission, rear axle, and every other unit . . . “Job-Rated” for maximum dependability; minimum upkeep expense.

So, if dollars still count in your business, see your Dodge dealer. Ask him to recommend the right “Job-Rated” truck for your business. Remember . . . only Dodge builds “Job-Rated” trucks.
GEORGE MILLER—He has built more than 10,000 houses in the Detroit area in the past 30 years. The 1949 program calls for more than 1,000 small homes requiring monthly payments of $40 to $50 in an area where the average factory worker's pay is $66 per week.

GIVE-AWAYS—Wonder how prevalent the "give-away" practice is becoming. Noticed a February advertisement by a builder in his local newspaper. The advertisement simply stated that no down payment was required. In May the same builder advertised the same houses at the same price—still no down payment—but in May he added, at no extra cost to the buyer, an electric refrigerator, electric washer, electric range, or, if the buyer has all of these, a television set. Buyer also gets at no extra cost a 5-foot fence to enclose the entire rear yard and a garbage disposer. The offer moved 80 houses within a few days after the appearance of the advertisement. It's one way of moving unsold housing.

H.R. 4009—That is the House public housing bill. It could be disposed of one way or the other by the time this gets in print. At mid-June the 27th of the month appeared to be the critical date. At that time, if President Truman and Congressman Sabbath had been unable to get the bill out of the rules committee by vote, House debate would begin on the validity of forcing the bill out of committee. At this writing, the rules committee was voting every few days, and was deadlocked at 7-5 against committing.

OUTLOOK HOPEFUL—Despite the Senate vote of 53-13 for public housing, there was no reason to give up the fight in the House at the mid-June mark. At that time it looked like a very close decision when the House vote finally is taken, probably early in July.

ILLINOIS—The law-makers in that State, hard pressed to find something to tax, looked at building, and drafted bills that, if passed, will add more than 2 per cent tax on every home built. One tax would be on all materials, and another on all contracts, general and sub. In Chicago, all building trades were granted a straight 10 cent an hour increase. That, added to the new tax plan for building, certainly will defeat attempts to reduce home building prices.

OIL BURNERS—It's interesting to note that in the face of declining sales of some building materials, oil burner sales for 1949 will be 20 per cent above sales for 1948. The industry expects to sell 540,000 power-driven units, and 1,000,000 space heaters. It didn't just happen. It's being accomplished with aggressive advertising and sales.

LOCAL ADVERTISING—C. W. Chapman, retail lumber dealer of Waterloo, Iowa, recently ran a newspaper ad headed, "Stop! More and More Taxes." He then detailed the amount of tax increase that will come if the public housing bill is passed. It was effective.

BACK END TO—NAHB's technical director, Carl Lans, says that the typical American home is turning in its tracks. That is, the contemporary home is being oriented toward the rear or garden section of the lot. The old fashioned back yard is giving way to a planned garden. Larger windows enable fuller enjoyment of the garden, and make use of the sun as a booster to the heating plant.

COMMUNISM—It costs the American public at least 21 billion dollars a year to arm and equip America in case of war with Communism. Other billions, of course, are going to build or sustain the morale of threatened European countries, and to help protect them from Communism.
HOME BUYERS CAN GET THEIR BACKS UP, TOO!

When customers are about to sign the contract, they can "get their backs up" if you don't offer them the kind of cooking equipment more people want—modern Electric Ranges!

The trend to Electric Cooking is proved by the fact that another million American families switched to it last year. Conservative estimates indicate that the same thing will happen again this year.

So build houses that are modern today and will stay modern for years to come. During construction, include wiring for an Electric Range, leading to a range outlet in the kitchen. An Electric Range, like electricity itself, is now a "must" in every modern home!

Follow the trend... WICO FOR ELECTRIC RANGES

Another 1,000,000 American families switched to Electric Cooking last year
THE PASSING of Don Montgomery, late secretary of the Wisconsin Retail Lumbermen's Association, marks the removal of a great figure from the building industry. Many men command respect. Many others are universally liked in the spheres in which they operate. To only a few are given the talents that command both respect and liking. Don was one of those. He was a man of firm and unyielding convictions. No one ever had to guess where he stood or why he stood there. He knew and wanted everyone else to know. Those characteristics are the products of innate and unflagging honesty, the characteristics that won him respect. With them was a deep understanding of human frailties and readiness to make allowances for them. These qualities and a rich sense of humor won him a host of friends and admirers. While these friends and admirers were legion, Don chose his own friends sparingly from among those who met his own rigid moral and ethical standards. Toward those few to whom he gave true friendship there was no limit to his loyalty. For those who knew him well there will be lonesomeness. But there will also be a continuing solace in the fact that each of them, through association with him, has absorbed and forever will use and pass on to others, some of the qualities for which he was respected, admired and revered. Perhaps that is real immortality, and if it is, Don Montgomery merely has come home to live eternally in the hearts and minds of those who loved him.

LISTS probably are the bane of editors' lives. Many readers, when reading a story of a given building operation, like to have a list of the materials and equipment used on the job or project. Our editors try, as far as possible, to obtain and publish these lists. And right there is where trouble is likely to start. A few months ago a building operation on Long Island was reported in one of these issues, and the fact that Bennett-Ireland fireplaces were used was omitted. Probably everyone on this staff knows Russell Dean, and knew that his Bennett-Ireland fireplaces were used on the particular job. Russell was very nice about it, and merely asked if it was editorial policy to omit the names of products manufactured by our good friends. It is easy to

(Continued on page 55)
KEEP POSTED—read the American Builder every month. The highly competitive building business demands that you keep abreast of the times. Be informed on the latest techniques of building—keep posted on the new and improved products, materials and equipment—get the benefit of tried and proven methods of selling homes, new ideas on financing and land development.

Special information on small commercial and industrial structures—stores—motels—shopping centers and farm buildings.

In addition you get the latest in home designs—pictures and plans of the best sellers from coast to coast.

AND EVERY MONTH a complete blueprint of a selected home drawn to 1/4-inch scale, plans, elevations and details.

Read the monthly review of the National Association of Home Builders—items directly from local association headquarters. Study the better detail plates and “How-To-Do-It” features contained in every issue.

DON’T MISS A SINGLE COPY. Start your personal file of this valuable building magazine NOW!

If you are already a subscriber, renew your subscription to make sure of receiving your issue each month. The coupon below is for your convenience.

MAIL THIS COUPON TODAY

SUBSCRIPTION ORDER

AMERICAN BUILDER, 30 CHURCH STREET, NEW YORK 7, N. Y.

☐ Enter my subscription to American Builder for THREE YEARS (36 issues) at your money-saving rate of $5. My remittance of $5 is enclosed.

☐ Enter my subscription to American Builder for ONE YEAR at your regular price of $3. My remittance of $3 is enclosed.

Your Name ____________________________

Street _____________________________ Postal ___

City ___________________________ Zone ___ State ______

NAME OF YOUR FIRM ____________________________

Please indicate your position in the above named firm:

☐ If Owner of Business, please state ____________________________

☐ If not, give Title or Position ____________________________

Subscriptions accepted only from those directly connected with the building industry. (Good only in United States, Possessions and Canada)
understand how red the editors' faces got. If we had been bawled out properly we might not have felt so badly about it. Anyway, we appreciated the way it was called to our attention, and everybody is more conscious of completeness in lists than before.

IN SPITE OF THAT, however, only a few months passed when, in the May issue, a list of manufacturers of portable tools was carried. There were other lists, too. As soon as the first copies were received at the office, a check for accuracy was made, and red faces were evident again. This time the name of Sterling Tool Products Co. of Chicago was omitted.

Before we had a chance to write, there arrived at the office a letter from J. M. Warnimont, sales promotion and advertising manager of Sterling. It was a very polite, gentlemanly letter. It merely asked why the names of all portable tool manufacturers were not included. The fact is that the list had been checked and re-checked by both editors and members of the advertising department. The only thing we could tell Mr. Warnimont was that we had checked and re-checked, and that for no explainable reason Sterling Tool Products Co. was omitted. The only thing anybody really knew was that the omission was unintentional. May we say here, in embarrassment, that the Sterling Tool Products Company of Chicago makes a line of portable tools, and that everybody on the staff knows it, and has known it. We'll go a step further, and say that we now know it so well we'll bet a hat the omission does not occur again.

OUTLOOK for business was pretty thoroughly delineated at a recent meeting of the Industrial Advertisers Association in Buffalo when a panel of editors, each taking seven minutes, outlined current conditions and trends in the fields served by their respective magazines. At the conclusion, the opinion was voiced that perhaps the editors, who traditionally should be on the pessimistic side, might be leaning too far toward an optimistic view.

RECESSION was variously forecast, recognized as current, or said to be about over in the several industries. The editors who recognized re- (Continued on page 57)
TEXOAK FLOORING
...lays straight, stays straight

BUILDERS PREFER BEAUTIFUL TEXOAK FLOORING FOR THESE REASONS:
1. TEXOAK FLOORING is scientifically kiln dried.
2. TEXOAK FLOORING is precision machined in one of the nation's most modern flooring plants.
3. TEXOAK FLOORING is carefully and accurately graded.
4. TEXOAK FLOORING makes the ideal flooring whether you are building one house or a thousand.

For further information, see your distributor or write for our free booklet.

TEXOAK PARQUET FLOORING
Interlocking tongued and grooved floor blocks of beautiful kiln dried oak, 9" x 9" x 25/32". Write for free sample. No obligation.

TEXOAK STAIR TREADS
These beautiful glued warp-proof Texoak stair treads and risers are of fine quality. All your customers will like the rich texture of the wood.

TEXOAK THRESHOLDS
Scientifically kiln dried and machined to a beautiful finish, Texoak thresholds are made under some specifications as our Texoak Flooring.

TEXOAK FLOORING COMPANY
CROCKETT, TEXAS

Please send me the complete story of Texoak Flooring including the new booklet on how to make flooring profits through proper storage and grading.

Name
Address
City
State

POWER PACKED and VERSATILE

Makes all the cuts—with extra power and accuracy. Perfectly engineered for easy operation. Minimum replacement cost. Maximum service. Many outstanding superiorities. Actual tests indicate up to 20% more cutting per 8 hour shift. There is no use owning another saw when you can have a Comet. All models immediately available. Contact your nearest Comet dealer or write direct.

TEXOAK PARQUET FLOORING
Interlocking tongued and grooved floor blocks of beautiful kiln dried oak, 9" x 9" x 25/32". Write for free sample. No obligation.

TEXOAK STAIR TREADS
These beautiful glued warp-proof Texoak stair treads and risers are of fine quality. All your customers will like the rich texture of the wood.

TEXOAK THRESHOLDS
Scientifically kiln dried and machined to a beautiful finish, Texoak thresholds are made under some specifications as our Texoak Flooring.

TEXOAK FLOORING

American Builder, July 1949.
cession or predicted it varied in their estimates of the duration from three months to a full year. No one would concede that there is anything like a prolonged depression in the foreseeable future.

BUYING, generally, was said to be on something approximating a hand-to-mouth basis because of the reluctance to pile up inventory in the face of possible price declines.

SEVERAL of the editors stated that in their judgments, prices had about reached a long-term postwar level, and that what was needed more than anything else is some good old fashioned selling at all levels.

AS ONE OF THEM put it, the time has come to separate the allocators from the sales managers. It's a buyers' market and will continue to be, and the sales manager who has become so steeped in the business of allocating short supplies among insistent customers that he has forgotten how to sell, will have to change fast.

RUSS PRATER, largest home builder in Wichita, and one of the largest in Kansas, was killed on June 13 while piloting his own airplane. Prater was a veteran pilot who used his plane most of the time to fly between his various home building operations.

THE CRASH which cost Prater his life occurred just after his take-off from the Wichita airport, and when the plane had attained an altitude of about 100 feet. With him were two guests, a local judge and his wife, the three on their way to an outing in Colorado. All were killed.

LAST OCTOBER Prater gave Bernie Wambolt a thrill when he took the American Builder's senior associate editor from Wichita to Oklahoma City after the two had spent several days preparing an article on Prater's building operations. The article was published in the March issue. Prater's death removes one of the most successful home builders in the west from the industry.

National Home Week
September 11-17

"MOST POWERFUL SAW I EVER USED"

"BEATS 'EM ALL FOR FAST CUTTING"

"EASY HANDLING ... ANY POSITION"

"BEST FOR ALL-AROUND USE!"

Here's the sweetest handling Saw you've ever used—the sensational new American! See it—try it—compare! Big capacity—8 1/2" blade. Big power 2 1/2 H.P. Top speed cutting, any position...for wood, stone, tile, sheet metal, compositions. No jolt—no twist when starting—balanced torque principle. Saves time, saves labor, cuts costs! Send coupon for details and FREE demonstration.
You’ll build or remodel better with Gold Bond

CUT COSTS AND IMPROVE QUALITY WITH FIREPROOF GOLD BOND GYPSUM SHEATHING

TODAY builders use everything short of magic to keep down mounting costs. That’s why so many are switching to Gold Bond Gypsum Sheathing. It not only saves money but offers these advantages:

5 quality advantages with Gold Bond:
1. Fireproof—a real plus for resale.
2. Asphalt treated core—can be stack-piled outside.
5. Adds greater structural strength.

Cut costs 4 ways with Gold Bond:
1. Costs about 1/3 less than wood sheathing.
2. Can be applied in half the time.
3. About 50% fewer nails required.

Try it on your next job and keep a close check of these savings.

NATIONAL GYPSUM COMPANY, BUFFALO 2, N.Y.
Over 150 Gold Bond Products, including gypsum lath, plaster, lime, wallboards, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.
ANSWERING YOUR QUESTIONS ABOUT MODULAR SIZE WOODWORK

Q. WHAT IS MODULAR SIZE WOODWORK?

Modular size woodwork consists of windows, window frames, sash, screens, etc., sized on a 4-inch unit of measurement. With modular sizes, all types of check-rail windows, whether 2-light, 4-light, 8-light, 12-light, top divided or other type, are built to the same standard 2-light opening size.

Q. HOW DO MODULAR SIZES CUT BUILDING COSTS?

By reducing cutting and trimming on the job. Modular size woodwork, used with a modular plan, means that units go together quickly and easily on the job—that construction time is materially reduced—that labor costs are considerably lower.

Q. ARE MODULAR PRODUCTS GENERALLY AVAILABLE?

In woodwork such as windows, window frames, sash and screens, modular sizes are available in all standard designs, including the leading pre-fit or pre-assembled units. Other modular products are now available for the entire exterior shell of a building.

Q. IS MODULAR DESIGN SUITABLE FOR ALL TYPES OF BUILDINGS?

Yes, the planning of any building on the 4-inch modular system is easy and convenient. Modular design imposes no limitation or restriction on free architectural expression.

GET ALL THE ANSWERS—MAIL THE COUPON!

Your lumber dealer will gladly explain all the details of modular size woodwork—show you how it can save you time and money. Or, mail the coupon for our free folder.
SELL THESE FEATURES...WIN CUSTOMER SATISFACTION

Your customers can easily see why the construction of Eljer Water Closet Tanks is the finest available.

The Eljer integral china overflow and ground-in valve seat are made of real vitreous china...a part of the tank itself. This eliminates thin metal tubes and metal seats that wear and corrode. The construction is foolproof...built to last the life of the closet. Vitreous china cannot corrode. An Eljer Fixture with this extra quality costs no more than an ordinary fixture...even less, considering the resulting savings in maintenance expense.

Any plumber who points out these extra values to homeowners will make extra sales...and have satisfied customers. To have quality customers, sell quality plumbing fixtures. Sell Eljer...see your Eljer Distributor or write Eljer Co., Box 192, Ford City, Pa.

It pays you, it pays us—because we specialize in Plumbing Fixtures and Brass
National Home Week Survey Indicates Wide Chapter Participation

A large number of NAHB chapters throughout the country are planning active unit participation in National Home Week, Sept. 11-17, according to a recent survey made by the American Builder. More than 25 local chapters have already made preliminary plans, which indicate that several thousand participating builders will place homes on display, many of them completely furnished. A large percentage of these homes are already in various stages of construction.

At least half of the reporting groups are making arrangements with local newspapers for the publication of special editions to coincide with national promotion of Home Week. Most will use the National Home Week theme in their individual advertising prior to the event. A few chapters are not taking part collectively, but are urging members to take active parts.

Several associations have arranged outstanding functions which will call wide attention to observation of the national event. The Home Builders Association of Greater Boston will sponsor an industry-wide and state-wide banquet at which the governor will read his proclamation. Mayors of leading cities will also be present.

The Associated Home Builders of San Francisco will use a publicity tie-in with the California Centennial Celebration, the admission day of the state falling on Sept. 9. In Sacramento, the Associated Home Builders are preparing an outstanding home ownership exhibit at the California State Fair, which is being held in that city at the time of National Home Week.

The Home Builders Institute, Inc., of Los Angeles has made plans to utilize the week as an occasion for improvement of producer-consumer relations. A publicity and advertising campaign will stress the “security” of home ownership; will enlighten the public on current home costs and values and on improved workmanship and materials.

Home shows of some of the local chapters have been scheduled for the week, but most of these shows were planned for other times. Publicity features, such as contests to select “Miss National Home Week,” erection of homes in public places (such as city squares, public parks or other places near large crowds), will be sponsored by a few of the chapters.

Chairmen of National Home Week arrangements have been appointed by practically all of the chapters that have indicated an intention to participate. Sub-committees are being appointed and noteworthy interest is being shown.

102 Exhibits Feature Dayton Home Show

VIEW of exhibition hall at 1949 Builders Show of Montgomery County Builders Association, Inc., Dayton, Ohio. The event, held April 16-22 at the Dayton Fairground Coliseum, had 102 exhibit spaces, was attended by more than 20,000 persons. Merchandise prizes with a value of approximately $2,500 all purchased by the Association, were awarded. Special events included an “Easter Parade” and daily “Grandmothers Teas.” Lois F. Zeiger, chairman of show and E. Clarke King, secretary, were in charge.

Lockwood Tells Facts At House Hearing

MEMBERS of the House banking and currency committee in Washington learned details about economy houses throughout the nation from Rodney M. Lockwood, NAHB president. In his recent appearance before the committee, Lockwood showed samples of a number of projects.

Talk on Citizenship Heard by Utah Group

A recent dinner meeting of the Utah Home Builders Association in the Temple Square Hotel, Salt Lake City, was attended by 85 members.

The program featured a ten minute talk by George B. Earl of the Utah Power and Light Co. on “Be a Good Citizen.” A movie, “Of This Be Proud,” was shown. George B. Earl arranged the program.

Patrick J. Callan, Long Island Builder, Dies at 45

Patrick J. Callan of Munsey Park, Manhasset, L.I., active in building circles for more than 25 years, died of a heart attack May 30. His age was 45.

Mr. Callan, who began his career in the building business when he was 20 years old, had worked as a carpenter before he organized his own company at the age of 25. He had built hundreds of homes and apartment units in many sections of Long Island’s North Shore.

Just before his death, he had perfected and patented a method of constructing a low-cost masonry house and had begun mass-scale production on Manhasset Island in Port Washington, L.I.

He was vice president of the Long Island Home Builders Institute, a trustee of the Flushings Savings Bank, and a member of the North Hempstead Golf Club and Manhasset Bay Yacht Club.
American Builder Editor Honored
At Dallas Association Meeting

EDWARD G. GAVIN (center), American Builder editor, who was honoree at Home Builders Association of Dallas dinner, chats with Avery Mays (left), president of the Dallas group, and E. P. Lamberth, Texas State Association president, in penthouse of Mercantile Bank building.

Edward G. Gavin, American Builder editor, was guest of honor of the Home Builders’ Association of Dallas at a dinner in the Adolphus Hotel May 18. Gavin, introduced by Avery Mays, association president, spoke on the outlook for building in 1949 and the factors likely to determine the volume of home building for the next decade.

The meeting was attended by a representative group of Dallas home builders, distributors, realtors and others.

Unusual Model Homes Displayed
At Los Angeles Exposition

Three model homes, two of them built by the exposition’s sponsors and the third by an exhibitor, were outstanding features of the 1949 National Home and Building Exposition at the Pan-Pacific Auditorium, Los Angeles, June 2-12.

Thirteen major Southern California building trade associations sponsored the event in cooperation with the Los Angeles Chamber of Commerce.

The exhibition houses sponsored by the exposition management were built by Laurence Hawthorne Construction Co., and Ray Conners and Co. Alan G. Siple, prominent Southern California architect, designed both. Kaiser Community Homes constructed the third model house.

The Hawthorne house, containing 450 square feet, is designed for a single person or a family of two. It includes a living room with sleeping alcove, full kitchen and bath, a large, open porch and outdoor patio at rear. Exposed beam ceilings and natural brick, along with an unusual fireplace, are featured in this "apartment-type" home.

The Comers model house, called the "1949 National Show Home," covers 1,134 square feet. It is a full scale brick dwelling with living room, dining area, two bedrooms, kitchen and bath. Natural Simons grout-lock reinforced rough brick is used extensively; in every room the brick is used in its natural coloring or painted directly. A large fireplace has a copper hood from fire area to ceiling. The inside of the fireplace is designed to provide a reflection of heat off the copper hooding sufficient to solve the entire heating problem.

Another highlight of the program was the presentation to Robert Furman of a traveling bag in recognition of his work as director of a bricklayers’ apprentice training school. Don Ginty, Montgomery County director of the Association, made the award.

Edward R. Carr, NAHB past president, was in charge of entertainment. Assisting President Banks in arrangement of the program were Ginty, T. Girard Lee and other Montgomery County sub-chapter members.

Maryland Statesmen
Dinner Guests of Washington Builders

Top-ranking Maryland statesmen were guests of honor at a recent dinner-dance sponsored by the Home Builders Association of Washington, Association members from Montgomery and Prince Charles counties, Maryland, shared the spotlight.

Honorees at the event, held at the Congressional Country Club, included Gov. Preston E. Lane of Maryland, U.S. Senator Millard F. Tydings, State Senator Harold Southern and Commissioner E. Brooke Lee.

Governor Lane, the featured speaker, paid a tribute to home builders in Maryland as well as throughout the nation and discussed plans for highways and other improvements in the state. He was followed by Senator Tydings who spoke briefly on national and international affairs.

A talk by Commissioner Lee stressed the large amount of home building which is being done in the District of Columbia as well as in Montgomery County. State Senator Southern, who represents St. Georges County and is majority leader of the Maryland Senate, also spoke briefly. Speakers were introduced by President William E. Banks of the Washington Association.

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PATIO of "1949 National Show Home (top), one of two model homes built for the Los Angeles exposition by sponsors. Above, "apartment type" home, a small, compact house designed for one person or a family of two.

American Builder, July 1949.
NAHB Launches Special Land Planning Study

Special studies in land planning and site arrangement have been undertaken by NAHB, under the direction of the National group’s land planning committee. The committee’s goal is to determine the best possible physical environment for America’s homes. David D. Bohannon of San Francisco, Calif., nationally known builder and developer, has been named chairman of the land planning group.

Bohannon emphasizes the point that the old pattern of “buy a lot and build a house on it” no longer prevails. He points out that careful engineering, mapping, location, transportation and other studies precede home construction today. “The modern developer,” Bohannon stated, “thinks in terms of creating better neighborhoods, rather than merely building a given number of homes.”

Although large projects now are planned as integrated units with proper facilities, it is still essential that sound land planning be applied to even the smallest development of only a block or more, according to Bohannon. Proper site arrangement must be attained for each individual house and lot, if the most satisfactory results are to be achieved.

Thirty prominent home builders from all parts of the country make up the committee. They plan, through consultation and study, to make the latest techniques of land use and development available to builders.

Dallas Publication Has New Manager

Mike Michelow has been appointed to the post of publisher of the “Dallas Home Builder,” official publication of the Home Builders Association of Dallas.

J. C. Grimes, publisher of the magazine since its origin in 1947, left June 1 to take a public relations position in New York City.

Cortright’s Column

By Frank W. Cortright

Executive Vice President, National Association of Home Builders of the United States

COMMUNISTS REJECT PUBLIC HOUSING IN POLAND!

Weird as the above statement sounds, it is almost literally true. Here is the story:

With the end of the war, the urgency of the need for housing rehabilitation and construction in Warsaw was beyond the imagination of anyone who has not seen such ruined cities as Rotterdam, Berlin, Warsaw and Munich.

Although behind the iron curtain, the Kremlin-trained and dominated government did not nationalize the construction industry when the general law of September 1946 was enacted nationalizing the entire economy.

Why was this done? Simply because the Commissaries realized that unless a big construction job was done fast, even a reasonably good economy could not be rebuilt.

In permitting home builders and general contractors to go to work on a private enterprise basis, the Communist Commissars, of course, set up rigid regulations. They required competitive bidding and stipulated that most of the profits earned must be ploughed back into further construction activities.

However, they permitted a reasonable salary to be drawn by contractors and the result has been a higher percentage, relatively, of rebuilt and new structures than anywhere in Eastern Europe. During the summer of 1948 some 2,650 buildings were erected in Warsaw alone, a total of 3,000,000 cubic meters, of which 1,875,000 were residential.

During that year, the total investment outlay for housing exceeded 17 billion zlotys, an increase of 10 per cent over preceding years. (And 17 billion zlotys is a lot of money behind the iron curtain!)

It must also be said that the government supplements private construction by authorizing the building of a large number of workmen’s housing units for rental. But in Communist Poland these are not ordinary public housing units.

The fact is that servants’ rooms are provided to the immediate accomodation of the political favorites who gain possession of these accommodations. Quite unlike the rigid austerity program of England, and the pure Marxist theory of leveling all classes and sharing the wealth, the Polish Communist believes in enjoying the comforts of life.

Although the industry suffers from a deficiency in manpower, there is no lack of materials for construction. The procedure is as follows: the prospective home owner selects a ruin, generally consisting of a pile of rubble, and purchases it from the owner. Although the government holds title to all the land, the prewar owner is permitted to sell the ruin at the best price he can secure. Engineers then survey the ruin to see how much can be saved structurally; the balance is removed and all usable materials are salvaged.

Generally there is enough brick standing on the site to reconstruct the building and, since a large part of the city is demolished, there is plenty more available in the neighborhood.

Amazingly enough, there is no problem in securing hardwood flooring and other materials and equipment necessary to modern construction. Electric refrigerators are one of the few exceptions; these must be imported from the United States.

One very interesting development, which is general in the devastated cities of Eastern Europe, is the establishment of immumerable small plants to clean and renovate damaged building materials and equipment. Lumber, brick, block and stone are cleaned up and re-used. Tile is reglazed, bathtubs and plumbing fixtures renovated for continued use.

We have said many times that home builders in every part of the world are distinguished by their skill, ingenuity and enterprise.

The builders of Poland, tackling the endless piles of rubble and shell facades of their indescribably war-torn cities, are doing an amazing job—not for the salary allowed them but because of their irrepressible desire for activity.

So, although private enterprise is still functioning in modified form in this one European nation, it may be presumed that when the most critical housing need has been met Nationalization will be their reward. As in England, they will then work directly for a government agency and will become merely a capable tool of a bureaucrat or Commissar boss.
Featured Homes at Cleveland Show

THE "House of Ideas" (top) was feature home of the 1949 Greater Cleveland Home and Flower Show, sponsored recently by the Home Builders Association of Greater Cleveland. A home designed especially for paraplegics (left) was one of the most popular exhibits. At right is front view of Cleveland's "Economy House," a low-cost home.

Long Island Builders Conduct Interesting Panel On Heating Problems

About 140 members and guests of the Long Island Home Builders Institute gathered in the Stewart Manor Country Club on the evening of May 18 to hear a panel of experts discuss home heating problems and some of the systems now used.

Members of the panel were: Dareniss I. Mills, manager of the pipe and tube section, research department, Revere Copper & Brass Co., Rome, N.Y.; John Hart, heating engineer with FHA, Washington, D.C.; John Dillon, consulting heating engineer, New York City; C. L. Grandstaff, application engineer, C. A. Olsen Mig. Co., Elyria, Ohio, and Keith Davis, chief engineer, Bryant Heating Co.

Following the discussion by panel members, questions came thick and fast from the floor so that the meeting ran considerably past the regular adjournment time and then was adjourned only after those builders in the audience whose questions had not been answered were promised that the panel members would answer them by mail.

Montgomery County Group Host To Ohio Membership Meeting

A state-wide membership meeting of the Ohio Home Builders Association was held June 8 in the Biltmore Hotel, Dayton, Ohio, with the Montgomery County Home Builders Association, Inc., Dayton, serving as hosts.

Robert Gerholz, Flint, Mich., past NAHB president, was principal speaker. The meeting included a special luncheon and dinner and an inspection tour of homes.

The Montgomery County association staged its annual picnic June 22 at Circle Park, Dayton.

Student Contest Feature of Chicago Show Attracts Wide Interest

A display of the winning entries in the "Chicagoland Homes and Household Convenience Design Competition" for high school students was one of the outstanding features of the Chicagoland Home Show, held at the Chicago Coliseum May 14-22. Student interest in the contest was high, and prizes were awarded in three divisions—home design, construction of scale model homes, and the invention of household utility devices.

There were more than 150 exhibits at the show. These represented most of the leading manufacturers of home products, and a number of Chicago area dealers. Included in the displays were late developments in home design, building materials, home equipment and appliances.

The Chicago Metropolitan Home Builders Association, sponsors of the exhibition, conducted a "Home Seekers' Super Mart" where visitors obtained information about home projects and houses for sale in the Chicago area and saw photographs, mounted on easels, of new houses in all price ranges. A builders' representative was on hand at all times to consult with persons interested in building or purchasing homes.

Representatives of the Veterans Administration and FHA were also present and furnished information about financing. Other exhibits also provided data on home purchase methods, financing and insurance.

A number of products were given their first public showing at the exhibition. These included two heating systems—a simplified, low-cost radiant heating method, and a system making use of prefabricated air ducts and a new type of air register.

Another exhibit which attracted considerable interest was a two story scale model home, six feet long and four feet wide, which could be disassembled automatically from the roof to the first floor, exposing all the framing members of the home. Showing the advantages of proper insulation, it also illustrated the construction details of a home.

The comprehensive exhibits of major appliances included more than a dozen custom-built kitchens. Free kitchen designs and layout services were given by exhibitors.

Other highlights of the show were demonstrations of painting and wallpapering; a display of model homes designed by nationally known architects; and a number of acts by professional entertainers.

(LEFT), NATHAN MANILOW, president of the Chicago Metropolitan Home Builders Association, congratulates top winners in the "Chicagoland Homes and Household Convenience Design Competition," a feature of the Chicagoland Home Show. Three hundred and thirty-four students from 20 Chicago high schools entered the three divisions of the contest, with 27 winning prizes amounting to $1,500.
WHEN YOU COMPARE THE \textbf{Total Costs} OF MATERIALS AND APPLICATION —

\textbf{Your best buy is} *BILDRITE INSULITE SHEATHING*

To get the \textit{real} story about sheathing costs you have to figure the total applied costs . . . not just the cost of materials alone. It's the \textit{total} cost that the customer pays for.

LOOK AT THESE FACTS: The things that make up the total applied cost of any sheathing are the labor scale, man hours needed for application, waste of material, insurance, and cost of materials used. You can figure these for yourself.

FOR EXAMPLE: Standard handbooks for estimating building construction state that—

Wood sheathing horizontally applied has a 12\% waste. \textit{But BILDRITE has less than 1\% waste.}

Wood sheathing requires 15 man hours to apply 1,000 feet. \textit{But BILDRITE takes only 8 man hours per 1,000 feet.}

See how these savings begin to mount up?

\begin{center}
\begin{tabular}{|c|c|c|}
\hline
\textbf{ITEM AND QUANTITY} & \textbf{RATE} & \textbf{TOTAL} \\
\hline
1,000 sq. ft. 8" wood sheathing (horizontal) & & \\
Waste, 12\% (120 sq. ft.) & & \\
Carpenter labor, 15 hours & & \\
Insurance, 10\% of carpenter costs & & \\
2.8 rolls building paper & & \\
Carpenter helper to apply paper & & \\
Insurance, 10\% of helper costs & & \\
\hline
\textbf{TOTAL APPLIED COST, WOOD SHEATHING} & & \\
\hline
\end{tabular}
\end{center}

That puts a different light on it... doesn't it? And in addition, BILDRITE provides 2½ times the insulating value and more than twice the bracing strength of wood sheathing horizontally applied! You can't get around the facts. The best buy in sheathing today is INSULITE (BILDRITE) Sheathing!
Kitchen plans amazingly flexible with ONE-WIDTH KELVINATORS!

EXCLUSIVE! Architects and builders the country over are finding kitchen planning easier than ever—with one-width Kelvinators. It's insurance against costly changes—for whatever Kelvinator model is chosen, according to the client's budget—it fits the floor-plan exactly.

Only Kelvinator offers the flexibility of uniform-widths for easier kitchen planning. Simplify and save—by specifying Kelvinator!

GET MORE . . .

"Space-Saver" Package for apartments and low-cost homes! Get Kelvinator's 1949 "Space-Saver" refrigerator. It is full 6 cu. ft., but only 24 in. wide. Range is only 21 in. wide, with advanced design permitting installation flush against wall. Top-of-the-line quality throughout.

For information, write Kelvinator Division, Nash-Kelvinator Corporation, Detroit 32, Michigan.
The Outlook Is Good

Some manufacturers and distributors of some classes of building materials are disturbed because sales during the first four months of 1949 have not maintained the levels established in the same months of 1948. A glance at the facts underlying the building outlook indicates that fear or anxiety about the immediate future is unwarranted. The facts indicate that curtailment of sales and sales promotion efforts and expenses, and withdrawal from or curtailment of support to the research and public relations programs of trade associations can be harmful to the general economy. They indicate that quite certainly the producers and distributors who curtail their activities now will suffer continued sales declines in the later months of this year.

The facts underlying the situation are that individual savings accounts and bond holdings are higher and more numerous than at any time in history; that therefore, potential purchasing power is almost unlimited; that unfulfilled desires for home ownership and home modernization have been whetted to unprecedented heights; that new housing units to be built in 1949 will not be more than ten per cent less than the 1948 total; that remodeling and modernization work in 1949 will far surpass the figures for any recent year; and that, as a result of all this, the actual and potential markets for building materials are at an all-time high. Accepting these facts, some producers ask, "Why, then, are some classes of building materials bottle-necked in the factory warehouses?"

There are many answers. In the first place, with material shortages resolved, and the critical phase of the housing shortage behind, distributors do not buy in any quantity offered. Secondly, due to unsound publicity given the cost and price structure of home building operations, both distributors and the public have slowed their buying to await a levelling of a price market that has declined from 10 to 15 per cent. The level has been reached, but buyers have required time to test the fact before going back into the market. They are coming back, and the last half of the year will see materials moving, and distributors’ inventories climbing. These are only a few of the answers, but instead of a paradox existing between the fact of a sound building outlook and the fact of slow sales in the spring months of this year, accelerated movement of materials was merely retarded during the price levelling period and distributor and consumer acceptance of the fact that the level had been reached.

This is not the time for curtailment of sales effort or sales expense. There is neither a depression nor a prospect of one. There has been an adjustment recession, the kind that always has to occur sometime after a war to establish a new post-war economy. This is a time for full sales and advertising campaigns, and for all-out trade association public relations programs to convince a home buying public that now is the time to build. It is the time. The market is good. It can be much better with aggressive and intelligent selling.
THE farm market for building materials has changed tremendously in the past 20 years but most contractors and dealers serving farm areas have lived so close to the market that they do not realize the full importance nor the extent of all the changes. During these years electric lines have reached the bulk of farms in the principal farming areas, not only to provide a dependable source of good light, but also to furnish power with which to do many chores. New machines have made farm work easier and released more labor to work additional acreage. These new machines are expensive and must be well housed when not in use. A well-equipped shop where minor adjustments and repairs can be made is required.

More important than any of the physical changes that have come to the farm is the increased cost of labor that affects every type of farming enterprise. In 1938, when $45 a month hired a mature man from dawn to dusk, there was little incentive for any farmer to spend time or money on ways of saving labor. Today, when that same man must be paid $142 a month for a 10-hour day, there is plenty of justification for farmers to spend money on machinery and buildings that will conserve manpower and increase output. Under present conditions it is only with correct construction and efficient layout of service buildings that farmers will be able to show continued maximum profit on investments.

Farm buildings, from a construction standpoint, fall into two categories: they are either portable or permanent. Portable buildings are used in two ways: (1) as a regular part of the day-to-day operation of the farm; or (2) as supplemental structures to house excessive crops or animals in years of high yields. When the buildings are a regular part of the year-to-year operation, they are moved to different locations on the farm. Permanent buildings are the regular structures that form the fixed plant of the farm. These structures are located on a central site, usually around the service yard so that the relationship of one building to another provides efficient operation.

The most important decision that must be made in selecting a design for a portable building is whether it will be used from year to year as part of the normal farm operation or for only a short period of time. If it is to be a permanent part of the operation it must be well built of quality materials that will assure long life and low upkeep. If it is to serve only one, two or three years, it should be designed and built as inexpensively as possible consistent with safeguards for animal health and shelter. In either case, the size of the unit will be primarily determined by the width of the narrowest gate through which it will have to pass. Skids should be selected carefully and if possible, should be treated to give long life in contact with the ground. Skids should be attached in such a manner that they can be replaced without disturbing the construction of the building. They should be long enough to make pulling easy and should be cross-braced firmly. Sidewalls and roofs of portable buildings should be well-braced and wall finishes should be durable and strong enough to con-
Fine the animals and withstand serious damage by them. Doors are an important factor in portable buildings. They should be of simple, sturdy construction and hardware must be strong enough to hold them under all conditions. It is best to have small doors pull or swing up to prevent wind damage and minimize destruction by animals.

The major, or permanent buildings on a farm are expected to last at least a lifetime—barring fires, floods or tornadoes. The only protection against obsolescence is the design of the structure. If the width is such that it will serve a number of farm uses reasonably efficiently, if it is simple to add to and if the frame is such that the interior can be rearranged without major cost, the structure will be adaptable to a farmstead.

Footings and foundations are as important as any part of a structure yet footings are generally carelessly built in farm construction. Foundation walls for dairy barns, general barns, houses and similar structures may be built with concrete blocks. However, foundation walls for storage buildings, or any structure that will carry excessive loads should be of reinforced concrete. Many experts recommend that foundation walls of all permanent farm service buildings be built to a height of eight feet above the finished floor level. Anchor bolts should be included in all foundations. Minimum recommended length of anchor bolts is 18 inches long and one-half inch thick, placed on six-foot centers for large buildings.

The conditions to be met should be of prime consideration in designing the floors for farm buildings. In some cases rodent protection is the first and most important problem; in others a dry, warm surface for animals is essential. Ease of cleaning and disease control, as well as permanence in the presence of destructive silage and uric acids, must often be considered first in design. Concrete, with various aggregates, is used for floors in practically all types of farm buildings, and is generally considered most satisfactory.

The life of a farm building depends on the quality of the framing and the manner in which it is assembled. Braces are essential in sidewall construction and when placed should be used as a tie or in connection with other structural members to form triangles which will prevent distortion of the structure. There has been a vast amount of carelessly framed roofs put on farm buildings. Regardless of the type of roof used, it must be braced diagonally to prevent racking. It is simple and economical to nail a 1x6 board diagonally to the underside of rafters.

Unsightly sagging doors are common on farms. All doors must fit tightly and must be hung with hardware that is strong enough for rough daily operation. In northern climates insulated doors are needed for those buildings housing dairy cows or young stock. In poultry houses a double door is usually installed, with the door on the inner face of the stud made of wire and raised six or seven inches from the floor by a removable board. The outside door is often the dutch type.

GOOD bracing is essential in farm building construction. Flooring and siding nailed diagonally add to building's rigidity.

The advent of new types of machines, plus research on hay treatment by universities and colleges is lowering considerably the requirements for hay mow capacity in dairy barns. As a result, latest dairy barn designs show from one-fourth to one-third less hay mow capacity than formerly. Baled hay, which is becoming increasingly popular with farmers, permits storage of the same quantities in much more compact space and this has also been an important factor in reducing the requirements for hay storage space.

The high cost of farm help brought about stock feeding methods that conserve manpower. Newest feeding structures are designed so they will not only hold hay and other feeds in large quantities, but also permit the stock to get it out themselves.

Changes in methods of handling dairy cattle and milk have brought about major changes in design of barns, with the addition of milking parlors and milk houses.
COLLAR beams should be used to tie the roof frame together at the ridge. This is shown at left above. Rafters must be well anchored to side walls, with ties at every third rafter as shown in center drawing. Toe nailing is not sufficient. Even where cross ties are used in structures at the plate line, the roof must be anchored as shown in drawing at right.

Much of this data on farm buildings and farm wiring was obtained from Johns-Manville’s "Farm Handbook and Building Reference Guide," just published, and to be distributed to J-M dealers. Drawings are from the Better Farm Buildings Association.

This detail shows how to construct the newest type of fresh air intake system for mechanically ventilated barns. The flue takes fresh air from the mow space instead of from outdoors and releases it into the space between the barn ceiling and the mow floor. The cross furring under the ceiling joists allows the incoming air to fill the space between the joists so that the entire unobstructed area between the joists becomes a reservoir for still air. In this reservoir the fresh air is pre-heated by heat that escapes from the barn through the ceiling finish. Because the fresh air is tempered in this reservoir, it does not chill the barn like cold outside air does when it is released into the barn. Side walls require thick insulation in such a structure.
Electric Service
For the Farm

Electricity is such a large factor in farm operation that builders of farm structures must have knowledge of the principles of an installation.

Electricity has become such an important factor in farming that builders and dealers who assist farmers in planning new structures and remodeling others must have a basic knowledge of correct wiring techniques for farms. Machines operated by electricity are important to today's farmer, but they will not function safely, efficiently nor economically if the farmstead is not adequately wired.

Service wires must be large enough to deliver the necessary amount of current to each piece of equipment. The electrical service entrance must have ample capacity to carry the entire load for the farm. It is most efficient when installed as near as possible to the center of the load. Generally, it should contain three wires not smaller than No. 4. It is good practice to install a disconnected switch at this point so the entire farm system can be cut off if necessary.

Feeder lines that run from the service entrance to the various buildings must be of adequate size, preferably three No. 6 wires. It is important that branch circuits be protected by the right type of fuses or circuit breakers. There are three common types of branch circuits:

One is the general purpose circuit, intended only for the attachment of small appliances such as radios and lamps. One such circuit will serve up to ten light and convenience outlets. A No. 12 wire is satisfactory when protected by a 15-ampere fuse or circuit breaker.

The second is the appliance circuit which is intended for attaching portable appliances commonly used in outbuildings and barns—such equipment as smoothing irons, refrigerators, brooders and devices with motors no larger than one-third horse power. Here a No. 10 wire is needed, but in some instances a No. 12 wire can be used. Either wire should be protected with a 20-ampere fuse or circuit breaker.

The third type of circuit is intended for use where only one piece of equipment can be operated on the circuit. Hot water heaters, five horse power motors, ranges and that type of equipment require separate circuits. Power companies in the various communities can give specific recommendations on circuit breakers and wire sizes for all special equipment. Many farmers equip portable motors with 50 or 100 feet of heavy-duty power cable to permit free movement of the motors from one location to another to eliminate the expense of providing several separate large power outlets. These outlets supply 220-230 volts.

The number of circuits in each building depends entirely on the load inside the building so that no firm or fixed rules can be given. The addition of spare circuits will make any installation more flexible and provide for future needs.

At each building the wiring system must be grounded. This is in addition to the ground at the power pole. Grounds must be established at each point of entrance to each building and if possible, all of these grounds should be tied together on driven grounds. Also, for added safety, the farm water system should be tied at each building to the driven ground for that building. This is important. A well-grounded wiring system adds to the safety of the entire installation.
ALL ELECTRIC Kitchens for Farm Homes

A LARGE potential market in new and remodeled farm structures exists within the various rural communities throughout the country. This is a phase of construction work that has been neglected for a long period of time.

This potential market has reference to barns and all the other sundry farm buildings, but it primarily refers to the farmer’s own house. The bulk of the remodeling work on the rural home revolves around the kitchen. This is the room in which effective changes can be made with the minimum amount of alterations to the structural elements of the house. Remodeling is well adapted to the average farm kitchen because of its generous size and its adaptability to the installation of new cupboards, cabinets, sinks, electric dishwashers, stoves, refrigerators and frozen storage units. However, before the new equipment is added to an existing line it is a good idea to refer to the local electric company for up-to-the-minute data on proper wiring for every type of farm remodeling.

Converting an old fashioned farm kitchen into a convenient modern electric one requires careful thought and planning, especially when a number of old doors and windows and perhaps a pantry must be considered in the change. If kitchen is located in the corner of the house then cross ventilation should be arranged by providing windows on two walls. The U-shaped kitchen is the most practical for a farm home. Second choice is the L-shaped kitchen which adapts itself better to a wider room. In this type room ample space is available for informal dining and for all equipment and cupboards in this large remodeled farm kitchen

The universal use of modern appliances have changed planning methods so that the age old difference between rural and urban living is disappearing.

In addition to the normal kitchen requirements of an urban home, the kitchen of the farm or rural home must contain adequate storage for every day coats. It also should contain a convenient “wash-up” place for men, or a separate room. Approximately 20 per cent more cupboard space should be provided. If space permits, a frozen storage locker should be located adjacent to the other fixtures. Preparation of canned foods is still a requirement on the farm; therefore, additional counter space should be arranged. A feature, often neglected due to lack of space but very essential, is a place for sitting comfortably while working. This would be a good spot for an old fashioned rocking chair.

The arrangement of the appliances such as sink, and refrigerator should follow the routine recommended by the manufacturers of kitchen equipment and appliances.
"New Freedom Gas Kitchens" Planned for Farm Home Efficiency

WHETHER it be a new or remodeled house the "rural" kitchen may now be as modern as that of the best urban home. This is made possible beyond the city gas distribution systems through the availability of a complete fuel service provided by liquefied petroleum gases—butane and propane.

Practically all appliances used in the home which are operated by LP gas are equipped with features that provide automatic operation. These are the gas range, refrigerator, water heater and house heating appliances.

Remodeling of old kitchens and the installation of new equipment are factors not to be discounted in current or future market potentialities. The equipment in a kitchen and its arrangement usually date a house. Women as a rule are zealous of its appearance and usefulness and are anxious to keep their workshop in as up-to-date and modern condition as their finances will permit. When a kitchen in an old home is remodeled and re-equipped, the same serious, detailed planning should go into that job that goes into a similar kitchen designed for a new home.

Complete kitchen remodeling jobs are usually inspired by the need for new major appliances to replace old worn out units that have also gone out of style. Frequently at the same time appliances need to be replaced, cabinets and other components of the kitchen need also to be replaced. In such cases, it is considerably cheaper to do the entire job in one undertaking and thus deliver a brand new kitchen to the home owner.

When structural changes in kitchens are desirable, such as moving or enlarging windows or doors, the builder should follow the sound policy of planning such changes around the equipment to be installed. This will permit the use of standard units thereby reducing costs and obtaining for the owner a more attractive room.

The importance of good lighting, adequate wiring and plumbing facilities should never be discounted in remodeling or new work. A completely remodeled or new kitchen with ample area for good circulation can become the most used room in the home—a room the owner will delight to own and be proud to show.
Farm Construction is BIG BUSINESS

For this Dealer-Builder

FARM construction is a specialty with this dealer-builder firm, although both speculative and contract home building is done. Rich farm land is abundant around Crown Point, Ind., where the Henderlong Lumber Co., is located. Large scale dairy farming creates a consistent demand for modern feed storage facilities, milk barns, and machine sheds. During the past few prosperous years for farmers the demand for construction has been active.

Besides building and supplying materials for about 60 homes last year, the Henderlong Co. did a large volume and variety of farm building. In the words of Arnold Henderlong, who handles the farm construction, they “built everything from dog kennels for canine farms to complete dairy farms.”

On one job, all buildings on a large farm were moved to another farm a mile-and-a-half away, where they were remodeled and put into service. At another farm, a modern four-room apartment was added to a new dairy barn. The firm completed three residential subdivisions and one resort subdivision at nearby Cedar Lake, Ind. Homes were built in all price ranges.

To meet both town and country demands for new construction and remodeling, Henderlong Co. has a staff of about 40 men for the office and yards which occupy 4½ acres. The retail lumber shed, one of the largest in the United States, can hold enough materials to build 75 homes.

Fully equipped to meet the growing demand for farm construction, the firm offers one-stop buying service to home-buyers as well. A prospective home owner can get
expert attention from an architect or an engineer employed by the firm, or from one of several contractors. A farmer may have his building completely planned and constructed by the farm service department.

Arnold Henderlong, who takes his job of managing farm construction seriously, is the son of Arthur J. Henderlong, president of the firm. He is acquainted with farmers throughout the area, and keeps posted on their needs and the latest in modern farm construction.

The barn-apartment combination illustrated with this story was his solution, in one case, to the need for extra housing for farm workers. One section of this 38x136 foot barn was already constructed for the milk house when the owner decided he needed extra living quarters; Arnold drew a rough floor plan to show how the area above the milk house could be converted into an apartment.

The barn is typical of the firm's modern farm construction. It contains the latest in insulation, ventilation and lighting equipment, as well as facilities for healthful sanitation for dairy herds. It is built on a 5-inch concrete slab. A poured concrete foundation is placed under the outer perimeter of the slab. Twelve-inch piers spaced about 12 feet apart support the slab. The piers are placed under the entire slab, and rest on footings 12-inches thick, 2 feet 8 inches square. Interior footings are 24 inches below grade; exterior, about 42 inches below grade.

The 12-inch masonry walls, which extend to the mow floor joists, consist of two courses of concrete block alternated with two courses of brick. The roof is covered with 250-pound asphalt shingles over building paper and sheathing. The ceiling is insulated with four inches of mineral wool with 25/32-inch Johns-Manville insulating wall board over Flexboard for the finished ceiling. A 2x8-inch plate is bolted to the top of the masonry wall. Half-inch insulation is placed between the plate and the wall. All windows are glass block. Doors at each end of the barn are upward acting.

Ventilation is provided by six large power ventilators, two controlled by thermostat, and 17 fresh air intakes.

INTERIOR finish of living room in this barn apartment is knotty pine. Since the barn is well ventilated and the living quarters wall insulated, residents in the apartment are not bothered by barn odors. Floor dimensions are 30x23 feet

UPWARD acting doors are provided at each end of barn. Machines run through cleaners
Gutters in the barn are kept clean by electrically operated chain conveyors. Fresh water is piped to each stanchion. Two large hay driers are conveniently situated on one side of the barn, and feed from a large silo is easily accessible at the other. A modern cooling tank is installed in the 30x29-foot milk house. Drying racks and wash tanks for milk cans are also located there. Ceiling lights throughout are fluorescent.

The apartment above the milk house is fully insulated with mineral wool in the ceiling and balsam wool in the side walls. Flooring is finished yellow pine. Since the dairy barn is kept immaculately clean and well-ventilated, residents in the apartment are not disturbed by barn odors.

Along with this barn, which represents one of the most modern of its kind in the country, the Henderson Co. had the job of converting a large chicken house into a modern calf barn. To do this, they added insulation and power ventilators, built in a system of interior board fences which form partitions, and provided feed racks.

This firm, in business 50 years, has built up a good reputation for both farm and residential construction. Although they consistently advertise in local newspapers, they realize that the most effective advertising is in the many houses and

![Typical Cross Section](image)

![Floor Plan](image)

CALF shed was converted from chicken house. Cross section of dairy barn, left
ALL windows in dairy barn are glass block. Steel columns support beams built by bolting five 2x12's together. Lights are fluorescent.

farm buildings they have already completed. Their completed homes number in the hundreds. The company in 1942 built a mile of dwellings in one subdivision north of Crown Point. Currently they are building a house to sell for $4,800, without lot, and other homes in various price ranges. They are able to offer low cost construction mainly because of their facilities to buy and store large quantities of materials and thus effect some savings.

Arthur Henderlong and four of his sons, Paul, Edward, Clarence and Arnold, manage the company. Besides their sales manager, Henry O. Newman, seven outside salesmen and four counter salesmen are employed. The office building is departmentalized to better serve the needs of clients.

Whether material is demanded for a lone house or for ten, the firm can insure prompt delivery with a part of their fleet of 20 trucks. It is becoming a common expression in Crown Point that “you can’t go anywhere in the area without seeing a Henderlong truck.” The firm realizes, also, the value of this as an advertising means. People are always quick to notice a firm that is constantly on the job, doing a good job.

SIX large ventilators, made by Starline, Inc., provide fresh air for the dairy barn. Two ventilators are thermostatically controlled.

APARTMENT window is shown, upper left. Ventilator is same one shown in photo above. Barn is typical of modern farm construction that is done by the Henderlong firm.
LP gas service makes this farm home near Dallas, Texas, modern in every respect, including a New Freedom Gas Kitchen

City Conveniences Available
Beyond the Gas Mains

THOUSANDS of homes are springing up in farm and suburban areas beyond city gas distribution systems due to the availability of a complete fuel service provided by liquefied petroleum gases— butane and propane.

Incentive for this fast-growing exodus has been furnished by the LP-gas industry itself in making gas available in quantities sufficient to assure a fuel supply the year round.

Practically all appliances operated by LP-gas are equipped with features that provide automatic operation. These are the gas range, refrigerator, water heater, house heating appliances, and the Servel gas air-conditioner that provides either cooling or heating.

The rural kitchen may now be as modern as that of its city cousin that uses pipe line gas. This is made possible through the colorful and efficient cabinets that help make up the "New Freedom Gas Kitchen" which can be applied to the liquefied petroleum gases.

The C. P. Nevill farm home, located on the north edge of Dallas, Texas, is an outstanding example of the comfort, efficiency and convenience provided by liquefied petroleum gas service. The Nevills use butane gas furnished by the Dallas Division of Distribution of Lone Star Gas Co. Although this public service company is primarily a distributor of natural gas through pipe lines in 337 cities and towns in Texas and Oklahoma, it also furnishes tank gas to thousands of suburban and rural homes in portions of the area covered by its pipe line system.

The Nevill household depends on LP-gas for all fuel requirements—cooking, house heating, water heating and refrigeration. The Nevills use an automatically controlled, central heating system. The heating unit, located in a closet just off the garage, distributes warm air throughout the house by means of a duct system that opens into each room.

The other appliances using LP-gas go to make up the all-gas kitchen. These are a gas range with automatic features, a Servel gas refrigerator with silent operation in the freezing unit, and a 30-gallon automatic water heater that furnishes all the hot water needs for the family of three. In addition, the servants' quarters are equipped with butane gas for cooking and heating.

(Continued on page 148)
Iowa Contractor Designs and Erects a Model Hog House

There is an air-conditioned hog house near New Hampton, Iowa, that is a model of its kind. It incorporates 30 years of experience in farm building construction by its contractor-owner, R. A. Stoltz.

The structure is 22 feet wide and 48 feet long. The double (cavity) walls are ten inches thick, made of variegated, mat-faced tile. Insulation was provided by filling the 2½-inch void with vermiculite insulating concrete, 1:16 mix. An asphalt paint moisture barrier was applied to the cavity side of the interior wall during construction.

Plates in this hog house are anchored by placing pieces of steel four inches long and two inches wide in the mortar joint four tile courses from the top of the wall. A ¾-inch hole through the steel plates accommodates a bolt which extends above the top of the wall through the 2x8 plates to hold them firmly to the top of the wall.

A 7-foot false ceiling is finished with waterproofed gypsum board. Above this four inches of vermiculite insulating fill is placed and covered with flooring so straw can be stored in the loft. Eight windows, four 9x12 lights, face south. These can be opened and tilted in. By placing all the windows on one side, Stoltz eliminated the possibility of cross currents of air when the windows are open. There are two windows at the west end.

The ventilating system represents years of thought and experience by Stoltz. Swine are peculiarly sensitive to drafts, so it is designed to eliminate all drafts and at the same time keep the interior fresh and dry. There are eight air intakes, 4x14 inches, extending along the roof about two feet above the side walls. These intakes are screened and each is equipped with an adjustable shutter for regulation according to temperature, wind direction, velocity, and number of hogs in the building.

From the interior of the house the intakes have the appearance of small boxes hanging from the ceiling openings which are 12 inches square. A plywood baffle the size of each opening is suspended on 2x2's three inches below the opening so that air coming in from the outside is broken and diffused instead of falling in a cold stream on the animals. There are eight outlet flues, 16x16 inches, insulated to avoid chill. These carry off odors and moisture.

Warm, sanitary, comfortable quarters for hogs cut losses.
RADIANT HEAT
A New Trend in Animal Shelters
Advantages of hot water in slabs outweigh initial high cost

ONE of the newest developments in animal shelter construction is the radiant heated floor. A successful installation of this system is one by Wallace E. Wright, a turkey raiser in Mitchell County, Iowa. Foth & Sons, heating contractors, Osage, Iowa, made the installation.

The building is a two-story double quonset of 24-gauge steel, 60x220 feet. The ground floor area was filled with gravel to within four inches of the top of the footings. The fill was covered with a vapor barrier of two layers of glossy-surfaced, asphalt-impregnated paper with the edges lapped four inches and sealed. Above this a three-inch slab of vermiculite aggregate concrete was poured, 1:6 mix. Copper tubing, one inch in diameter, was laid 18 inches on centers on top of the vermiculite concrete slab after it had cured. The floor was then finished with three inches of ordinary sand-and-gravel concrete. Insulation was placed between this top slab and the foundation to stop heat loss. The vermiculite insulating concrete slab retards heat loss to the ground, accelerates heat flow through the top slab, and prevents condensation in summer months. This floor can be carried at any reasonable temperature but Wright keeps it between 50 and 70 degrees in winter.

Four unit heaters attached to columns supplement the radiant heat during extreme weather conditions. The second floor of the turkey house is heated entirely with unit heaters when heat is required.

The radiant heated floor is divided into quarters, each zoned so it may be heated or shut off separately. Water drains and automatic air vents are also provided for each quarter. Controls for heat are located both inside and outside. Water for the system is heated by an oil-burning boiler located in a room in the center of the south side of the structure. About 3,500 breeder hens or 20,000 poults can be housed in the building and can be cared for by three men.

Remodeling Salvages Poultry House

EMPHASIS of old farm service buildings is a lucrative source of business volume for contractors and dealers. The 30-year-old poultry house shown here was so flimsy that it swayed in the breeze and in winter inside temperatures fell well below freezing. Wright plumbed, the two old doors removed and a battery of new windows installed on the south side. A new door was cut in the west end nearest the dwelling. The dirt floor was excavated to a lower depth, lined with clay floor tile and finished with two inches of 1:6 vermiculite insulating concrete. A vapor barrier was tacked to the inside studs, and walls filled with fill insulation. The walls were boarded with sheathing to a height of 27 inches from the floor, and the balance finished with gypsum board treated to resist moisture. Four inches of vermiculite fill insulation was put in the ceiling and the loft floored with rough boards so it could be used as storage space for litter. A slot ventilating system, manually operated, was installed, which directs cold air from the outside so it mixes with the warm inside air to avoid dangerous drafts on the poultry.

AFTER remodeling, the 30-year-old poultry house shown here has inside temperatures as much as 50 degrees warmer than the outside in extremely cold winter weather. Walls do not frost or sweat.

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Wisconsin Dealer Promotes Milk Houses

EMPHASIS on Grade A milk production means a nice volume of business in milk house construction for both the building material dealer and the contractor. In many areas, a farmer cannot qualify for Grade A premiums unless he has a separate milk house. Even without this incentive, farmers have learned that a milk house is a decided advantage.

Walter A. Hassemer, sales-minded manager of Inland Lumber Co., Bloomer, Wis., foresaw the possibilities in milk houses several years ago. His first step was to consult with the field supervisor of the local creamery, who was working under the state dairy improvement program, and who was very anxious to get insulated milk houses erected. Together they drafted a basic plan that could be adapted either to on-site construction or to a portable house that could be built in Inland's yard and sold like any other prefab. A test milk house and cooling tank, embodying these plans, were then installed on an operating dairy farm for observation under working conditions. Accurate temperature records, kept by the farmer for an entire year, showed results so good that in only 15 months Inland Lumber sold more than 150 milk houses and tanks.

The portable houses are built in three sizes: 10x12, 8x10 and 7x8 feet. Stationary houses approximate these sizes. Six-inch drop siding is used on the exterior and asbestos cement board for the lining. Heavy felt paper, the seams calked with calking cement, forms the vapor barrier. Walls are insulated with 3½ inches of vermiculite insulating fill, with four inches in the ceiling. When walls are of masonry block construction, they are insulated by filling the cores of the blocks with vermiculite concrete.

There is one 10x12-inch ventilator flue. Two 9x12, 6-light windows, two lights wide, are set directly across the center of one side wall. The exterior door is also insulated and equipped with three hinges and a refrigerator door handle. The gable roof has a louver at each end, and is built at about a 4½ pitch. Narrow-line roof trim with 3½-inch crown molding and asphalt shingles complete the roof. The house is primed, painted and wired for electricity.

A portable weighs from one to one-and-a-half tons, and is mounted on skids. Footings, foundation, floor and milk cooling tank are all placed and cured before the house is delivered. The house is set into asphalt mastic on the foundation, and fastened to bolts embedded in the concrete.

An original feature of all Inland's milk houses is the draftless, filtered ventilation provided by a box window, the pattern for which was made in Inland's shop. It provides a minimum of one square foot of window light and one square inch of ventilation for every ten feet of floor area. The window has side ears, and tilts in from the top. Inside, cheese cloth screening is fastened with thumb tacks to the top of the casing and to the top of the window frame. This can be easily removed, washed and replaced. Outside screening is not needed, but is furnished if desired. Farmers in the area prefer the cheese cloth, however, because outside screening catches snow, has a tendency to discourage washing the windows, and eventually rots. A 6-light window has a 12-inch tilt; a four-light, slightly less.

The milk cooling tank developed by Hassemer is made of vermiculite insulating concrete, 1:5 mix. It is six inches thick, reinforced at the bottom and through the sides with 3/4-inch rods spaced six inches apart. The rods on the bottom of the tank are bent upwards. After the vermiculite concrete has set, two or three inches of ordinary concrete is placed over the bottom of the tank to provide a wearing surface. The buoyancy of the water aids in keeping the cans from bumping and damaging the tank floor. The tank is 27 inches deep, 18 inches above the floor and 9 inches below, to facilitate lifting cans in and out.

Like the milk house, the size of the tank varies with the size of the dairy herd. A 16-can tank is 34 inches wide and 96 inches long, inside measurements. There is very little piping in the tank. The overflow pipe, when unscrewed, acts also as a drain to empty the tank for cleaning. When the farmer has a pressure water system, the water can be brought in through this pipe.

The efficiency of the insulated milk house and cooling tank was shown in the year's temperature record. Outside temperatures varied from 20 degrees below zero in winter to 91 degrees above in the summer, morning readings. Temperature of the tank water varied only from 47 degrees in winter to 58 degrees in summer. This is remarkable temperature stability for a concrete cooling tank dependent only on running water. The temperature of well water in the area runs from 46 degrees to 50 degrees.

Bruce Kanpton, the creamery's field supervisor, summed up the case for the milk house as follows: "The need for such a house should not have to be argued at all," he said. "Here is a dairy farmer with a valuable barn and farm and $5,000 or $6,000 worth of milk cows. The milk house and cooling facilities are the one little step he needs to handle a perishable commodity and finish the product properly. The cost is a fraction of his product investment."
Farm or Urban Home—
That Can Grow

TODAY a fine line is drawn between the requirements of a farm and urban home. It is found that the needs of both are similar in that the two types perform the same functions in a general way. This similarity has come about primarily through the widespread usage of electricity which has simplified farm work, particularly as it applies to the home.

The planning of the farm home with the exception of a few fundamental features such as the work room (or mud room as it is often times called) and the kitchen, follow the lines of the basic planning of the urban house. The position of the work room with relation to the balance of the house is important. This should be easily accessible for clean-up purposes by the occupants as they return from the field.

The home described on this and the adjoining pages shows this plan arrangement. The work room has a close relationship to the kitchen and bathroom through an adjoining hall. In planning, the work room can be increased in length if necessary without making any appreciable change in the exterior design.

The basic plan containing one bedroom can easily be expanded when the need arises by adding two bedrooms and bath on the living room end of the house, as indicated on the plans. The large kitchen in the basic house is equipped with sufficient cupboards to provide for the needs when house is expanded.

The exterior design of this house is an architectural expression of the plan. The house has more than just an attractive "front." All views are pleasing. On the large sites available for farm houses this "all around" attractiveness is desirable.
MODERN kitchen in farm home built by George Moore contains the latest in planning and equipment. Equipment of this kind helps sell, according to Moore, "to a market that is still virtually untapped."

Moore uses Cessna plane, below, to fly to the building jobs in scattered areas.

GEORGE M. MOORE, 26 year old ex-GI and builder of Spokane, Wash., recently discovered that he had tapped a large and profitable new market. When he built a good $35,000 house with the latest modern equipment for a farmer in Wilbur, Wash., he gave full value, and became the farmer's friend. Within the next few weeks, Moore had the job of constructing six more houses for farmers in the surrounding territory.

He has found that most farmers "are funny that way." They don't like to be sold—they like to sell themselves. And they like to go where they are well treated. That was Moore's experience. Additional jobs came to him without previous solicitation.

This year Moore's program is to build about a dozen low cost houses in Spokane to sell for $7,000, but his real effort will be in building contract houses for farmers. In addition to the jobs now in hand, he has many leads and finds that each new job brings about others.

He is finding that the market for farm homes is extremely rich and as yet virtually untapped. Up to now, most farmers have been building and remodeling barns and other service buildings. Many farmers have now completed their programs of plant improvement and are ready to consider homes for themselves, and frequently for their married sons and daughters. Some of Moore's customers are retired farmers.

In the past, many farmers in the Spokane area have gone to California and other warmer climates when they retire. Now that farm homes can be made as modern and comfortable as city homes, however, more and more farmers are building new homes where they can be with their children who carry on the farm work.

Many large farmers now have their own airplanes and have landing strips on their farms. One of the reasons why George Moore fits into the farm picture in the way that he does is that he, too, has his own airplane and finds it invaluable in handling widely scattered jobs.

He says he was somewhat surprised at first to find that most of his customers want nothing but the best. With many, cost is no consideration. Many farmers want all the modern improvements, and some have spent as much as $60,000 for their homes.

The home pictured here was built for George Kunz, retired farmer, in Wilbur. It is located in town about four miles from his farm. The home contains a 14x18 foot kitchen, a complete automatic laundry, a home freezer, two large bathrooms, Thermopane glass in the front window, and forced warm air heating.

One of the youngest builders in Spokane, Moore believes he is keeping up with the times by using an airplane in covering his jobs in the Inland Empire.
Not So Hidden After All!

By R. E. Saberson

All you have to do is take a trip through the farming areas, and you can see for yourself the vast opportunities offered by this neglected market.

STICK a pencil and a pad of note paper in your pocket. Grab your hat. Polish off your specks. Crank up the Chevy. Let's take a trip back to the farm where we were born... or perhaps to the old homestead where we used to spend the summers with Grandma.

This imaginary trip is taken in the interests of the farm buildings... a sales opportunity referred to invariably as a "hidden market." Let's take a look and see, if we can, where and how and why it is hiding.

We roll along wide, smooth paved highways at express train speed in an automobile that runs day in and day out for month upon month with little or no attention. We give its dependable performance little thought. For years now it has been taken pretty much for granted and has become a part of our daily activities to such an extent that we merely jump in and hie away to wherever we want to go with nary a comment concerning the invention that demolished distance and banished remoteness.

"What wonders God hath wrought" in the meantime includes giant ships that fly through the skies, pictures that travel invisibly and noiselessly over the air waves from where the action originates to the television set which adorns the living room. We pick up an innocent-looking gadget someone in any city of our choice. An internationally-known symphony orchestra will come eye-witness to a mammoth unsung market for building materials... the need for the rebuilding or the modernization of the millions of farm buildings of the world's greatest agricultural nation in order to make them conform to the present-day methods of farming and the commonly accepted standards of comfort, convenience, and health now enjoyed by families who do not live on farms.

We are not naive enough to claim that the long arm of progress has not extended to agriculture, especially as it pertains to the raising, harvesting and storing of crops and to a lesser extent livestock. Farm mechanization has taken over more and more of the routine activities. Machines now do in the twinkling of an eye what sweating, hired-hands used to accomplish in an hour of grueling toil. Electricity has brought relief from the disheartening drudgery that used to dog the footsteps of the weary farmer and his wife. All these, and many more things, have taken place to accelerate the changing scene on the farm.

It is in these changes that we find the point of our story. While this transition has been taking place it has not been possible for the great majority of American farmers to change their buildings to conform to the revolutionary advances that have taken place in farming methods.

You'll appreciate this all the more as we take our imaginary trip back to the farm of our childhood days where we'll have no difficulty in recognizing the barns and the houses that were there when we used to trudge a mile to the little white schoolhouse which constituted the seat of learning for the township. In later years, the consolidated school was built and buses gathered up the pupils from far and near. But the barns and the houses along the route failed to keep up with the procession.

It will be a simple matter for any critical reader to point to the spectacular changes that have taken place, structurally speaking, on innumerable farms with which they are familiar. Granted! But once again we sit back stubbornly on our haunches and insist that the rebuilding and modernizing of America's giant farm plant, in order to make it conform to modern farming methods, constitutes the nation's largest market for building materials and that it is so huge it is beyond the ken of most manufacturers. To more fully appreciate its size is necessary in order to adopt ways and means for the wider application of their products to its immediate needs.

Nor is this huge market so hidden. It is plainly visible for mile on mile on every highway and railroad in the country. The trouble is we view it with unseeing eyes.

As we journey on our imaginary tour across country, let us pause here and there and cast an appraising eye at what we see on the farms we pass. Suppose this particular farmer, for
example, were to decide to relocate his farm buildings on a more suitable site and erect a set of farm structures, planned to conform accurately to today's farming methods. Furthermore, that, in the construction of his home, he would take advantage of the many conveniences and comforts made possible through the intelligent use of today's attractive, economical, labor-saving materials and equipment.

When the new buildings were completed, they would have little resemblance to the old structures in appearance, number or functions.

**Modern Structures Needed**

Now take your pencil and paper, adjust your bifocals and do a bit of figuring. Multiply the cost of bringing these farm structures up-to-date functionally, by the number of farms there are in the United States which need such treatment.

What? You haven't enough paper? Certainly not!

So let's do a little trimming down in order to be able to get the figures a bit more under control. Furthermore it's incorrect to assume that all existing farm buildings will ever be replaced, modernized or even repaired. Consider the number of tenant farms alone. Does anyone assume that absentee owners will be as inclined to revamp their structures as if they lived on the premises?

Certainly not!

So let's cut our estimates in half or even more. Even when we carve them into comparatively small segments we still find ourselves engulfed in a wilderness of figures.

Take the modernizing of the farm homes alone, and the application of only a few of the step-saving, comfort-giving conveniences now available. Or turn horse barns into utility buildings. Or convert old-fashioned dairy barns into low-cost shelters adjacent to a small, sanitary milking parlor which can be made to conform to the requirements of the milk area which serves the nearby city. Or revamp the pork-raising and the poultry-raising facilities. Put in a new plumbing system. Re-arrange the fence lines. Repaint the structures.

What a job it is on a single farm. Now start multiplying again!

But what's the use! The market actually is so big that the figures promptly seem fantastic.

No one imagines for a single moment that such a job or any substantial segment of it will ever be done in any short period of time. It will only be accomplished in an orderly, evolutionary manner. But the process can be accelerated by those who dream out, develop, manufacture and distribute the materials and equipment that enable farmers to do things better, easier and more economically.

To date the equipment people are miles and miles ahead of the building material manufacturers... so far in fact that no cloud of dust on the horizon marks the direction in which they went.

There is something more or less ludicrous... or shall we say tragic... in the appearance of a $3,000 tractor standing out in the open beside an empty twenty-stall horse barn!

Perhaps this is the opportune time for the far-flung building material industry to quit peering around the corner in search of a depression and turn its attention upon the world's greatest market for its materials.

**Farmers Have Money**

And while we are on the subject, perhaps we should pause for station announcement to call attention to the cash position of said market. For a long succession of years the farmers of this fair land of ours have enjoyed unprecedented prosperity due to bountiful yields, high prices of farm products and the ever-increasing demand for farm products. Or turn its attention upon the world's greatest market for its materials. And while we are on the subject, perhaps we should pause for station announcement to call attention to the cash position of said market. For a long succession of years the farmers of this fair land of ours have enjoyed unprecedented prosperity due to bountiful yields, high prices of farm products and the ever-increasing demand for farm products. Perhaps this is the opportune time for the far-flung building material industry to quit peering around the corner in search of a depression and turn its attention upon the world's greatest market for its materials.
THE two houses shown here were built from the same floor plan. This builder has achieved many savings in luxury houses by using the same plans with good exterior and interior variations.

BASE price on these houses is $32,700, including a large porch. Minimum lot width in the subdivision is 70 feet with most of the lots wider. Houses in project designed by Architect E. Wenge.
Community Grows

Judicious variations in exterior treatment and interior appointments result in many fine variations for these luxury houses from two basic floor plans.

INSIDE spread of large folder shows layout of Green Hill Farms

FLOOR plans for houses on opposite page. Poured foundations with full basements, waterproofed, are standard practice.

Using standard basic plans for the speculative erection of high-priced houses is always dangerous. It is dangerous because purchasers of houses in the $30,000 to $40,000 price range are usually particular about individuality in both exterior and interior appointments.

In his Green Hill Farms project in Overbrook, near Philadelphia, John H. McClatchy is successfully using only two basic floor plans for the erection of fifty-five $30,000 to $40,000 houses. Excellent variation in setbacks, window arrangements, roof lines, garage locations and entrances plus fine taste in the use of brick, stone and wood combinations has resulted in the creation of a community of luxury houses that, to the inexperienced, appears as though each home were individually designed.

One of the basic plans is termed the "large house" and the other is the "small house." They are entirely different, both inside and out, but all houses in the project are built from one or the other of the basic plans. The larger house lends itself to more exterior variation than the smaller because of the attached garage and a wing on the other side which can be attached in different ways. Although the small house is a conventional rectangular plan, by changing the position of a side porch, adding bay windows, different entrances and changing roof lines, a wide variety in appearance is achieved.

The fact that the project is laid out with curvilinear streets and large lots also makes it easy to achieve varying effects in appearance with only the two basic floor plans. Interior variation in each of the two plans is necessarily limited but judicious choice of different types of stair rails, doors and trim, fireplace mantles, kitchen arrangements, lighting fixtures and built-ins add individuality to each house. Home purchasers are permitted to choose interior decoration items such as wallpaper, light fixtures and linoleum for the kitchen. If homes are sold far enough in advance of completion, purchasers are also permitted to choose colored bathroom fixtures, and tile colors for the bathrooms.

Lots in the Green Hill Farms project are 70 to 150 feet in width and 165 feet in depth. Basic shrubs and landscaping are included in the price of each house. Foundations are poured concrete, coated with Thoroseal on the inside. Basement floors are covered with asphalt tile as a standard feature. Floors are all 13/16 select oak and interior walls are plastered over gypsum lath. All bathrooms are completely tiled and glass enclosures for shower stalls and tubs and showers are standard equipment. Each bathroom is also equipped with infra-red and ultra-violet lamps.

Kitchen equipment includes adequate cabinets with a Formica counter top, an automatic dishwasher and a gas range.

McClatchy is a firm believer in installing quality equipment and using only the best materials in his houses. He has found that when he does this he can advertise and promote his special features to prospects and materially reduce sales resistance. One of the features of all his houses which he gives a great deal of attention to in his promotion is Webster baseboard heating. Although he freely admits that the original installation cost on this type of heat is substantially more than it would be for some other systems, he has been able to capitalize on it as another of the major features of McClatchy houses. His advertisements refer to it as "perimeter heating," a term which inspires curiosity in the minds of interested home seekers. Water for the
Webster baseboard heat in McClatchy houses is heated with G.E. gas-fired boilers.

Other special features which receive much attention in advertising are exhaust fans in kitchens and powder rooms, mirrored panels over marble and tile fireplaces, mirrored doors on master bedroom closets, door chimes and recreation room facilities.

After describing environment, layout and location of the Green Hill Farms project in one of his large newspaper display advertisements, McClatchy discusses his houses as follows: "Quite as important, we think, are those added features built into these homes—features which you will not find—in total—in any homes at comparable prices. We invite you, just as we have invited the happy families who have already selected their homes in Green Hill Farms in Overbrook—to visit all other four bedroom two-bath houses and then compare their features with the check list below." A detailed list of the special features of McClatchy houses then follows. Closing line in the advertisement is usually: "Comparison proves that McClatchy gives more value for your home dollar—always has and always will."

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<tr>
<th>Branded Products Used in McClatchy Houses</th>
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<tr>
<td>American Standard plumbing fixtures</td>
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<td>Anderson gas ranges</td>
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<td>Armstrong linoleum</td>
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<tr>
<td>Bradford 40-gallon gas-fired hot water heaters</td>
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<td>Briggs bathtubs</td>
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<td>Donley area walls</td>
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<td>Edwards door chimes</td>
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<td>Eljer plumbing fixtures</td>
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<td>G. E. dishwaher-sink combinations</td>
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<td>G. E. kitchen cabinets</td>
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<td>G. E. gas-fired hot water boilers</td>
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<td>J-M asbestos cement shingles</td>
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<td>J-M insulating board sheathing</td>
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<td>Keystone shower stall doors</td>
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<td>and bath tub enclosures</td>
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<td>Leigh metal shutters</td>
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<td>McKee garage doors</td>
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<td>Sanitas wallpaper</td>
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<td>Sargent hardware</td>
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<td>Thorne aluminum double-hung windows</td>
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<tr>
<td>USG lath</td>
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<tr>
<td>Voigt bathroom cabinets</td>
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<td>Voigt exhaust fans in kitchens and powder rooms</td>
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<td>Webster baseboard heating systems</td>
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THE second or "small" basic house being built in this well-planned subdivision. Base price on this model is $28,900

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<th>Plan</th>
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<td>FIRST FLOOR PLAN</td>
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<td>SECOND FLOOR PLAN</td>
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THIS house is offered with four different stages of interior completion. Base price is for four bedrooms, 2 baths and a powder room. Highest price of $32,700 includes four bedrooms, three baths, powder room, finished den, and a double deck porch.
WHEN a great deal of promotional literature announced the projected $5,000,000 Ellinor Village development, the residents of the surrounding Florida communities assumed that it was just another paper project and that nothing more would be done. They had seen many projects of this type fall by the wayside in the past. However, they failed to take into consideration the drive and enthusiasm of the promoter of the Village, Merrill F. Ellinor of the building firm of Shelfer & Ellinor, who is carrying out this project to a successful conclusion.

Long a resident of Florida, Ellinor never could find an ideal place for his family to spend a southern vacation where there would be bathing, fishing, various recreational activities and luxurious living at a cost that the average American could afford. He felt there was a crying need for just such a vacationist's paradise and determined that some day he would create this Utopia. The result of this decision is Ellinor Village, an actual city composed of 650 modern home-apartments where every-day persons—Mr. Average Man and his family—can afford to spend a few weeks, a few months, or the remainder of his life.

Ellinor Village is situated between Ormond and Daytona Beach with the ocean on one side and the Halifax river on the other. It is one of the largest FHA 603 apartment operations in the South. The development consists of 283 ranch type buildings containing duplex, triplex and single family rental units. Each building is placed on a large landscaped lot with ample provision for each occupant to enjoy the maximum of outdoor living. A great deal of thought was given to the planning of the Village by the architects and builders before any actual work was started. The number of plan variations was held to a minimum in order to produce the greatest economy in production. One- and two-bedroom plans were established for the duplexes, and a one-bedroom arrangement for the triplex.
AERIAL view of a portion of the Village showing the wide streets and the generous spacing of each individual building, thus permitting ample space for outdoor living. Two-bedroom duplex unit shown at right. This is a compact arrangement with open front porch.

The single family house is a combination of two one-bedroom apartments, with a large plaster opening cut through the wall separating the two units; thus one of the living rooms becomes a dining room, and one of the kitchens is used as a third bedroom making in all a six room house with two baths, two porches and a one car garage. The three basic units are arranged in relation to each other in a manner to provide a large number of variations in the exterior designs. This has been done to give the impression each building is individually designed.

Coloring of the buildings is carried out in the traditional Florida manner with pale pinks, blues, greens, yellows and white being employed on both walls and tile roofs. Furnishings are in keeping with the character of the apartments and are co-ordinated with the interior color schemes. Every unit is entirely modern, complete with an electric refrigerator, stove and hot water heater. An oil space heater is provided in the closet. Venetian blinds are furnished on all windows. Ample wall cabinets are installed in the kitchens.

A convenient schedule of rents has been established for all units. They are arranged to meet the requirements of every possible type of tenant. Based on a yearly rental the triplex apartment (which is the smallest of the group) containing living-dining room, kitchen, bedroom, bathroom and porch, rents for $82.50 per month furnished, or $57.50 unfurnished. The du-

MATERIALS AND EQUIPMENT USED

A. B. C. aluminum casement windows
A. B. C. aluminum screens
Briggs plumbing fixtures and trim
Hynes & Cox Red Crown water heaters
Peaslee Gaulbert paints
National Gypsum plaster base
Schlage & Dexter hardware
National Gypsum insulation
David E. Kennedy asphalt tile (Kentile)
A-B electric ranges
Globe American Safeway space heaters
R. G. Coffman ornamental iron
General Switch no-fuse load centers
G. E. refrigerators

VIEW of typical kitchen with complete facilities and equipment. Hot water heater at end of sink is encased in plywood cabinet.
THIS attractive duplex contains two one-bedroom apartments, one having an attached garage and breezeway, the other a porch.

The plan of building above containing two one-bedroom apartments. All rooms are generous in size with ample closet space for storage. The same room arrangement prevails for the individual house except that one kitchen becomes a bedroom and a plaster opening is cut between the two living rooms, making one into a dining room.

PLEX apartment with one bedroom and garage, furnished, $94.50; unfurnished, $69.50. The same unit without garage, furnished, $89.50; unfurnished, $65.00 per month. The duplex apartment with two bedrooms, without garage, furnished, $99.50; unfurnished, $69.50. The individual house containing three bedrooms, two baths, dining room, kitchen, screened breezeway, porch and garage, furnished, $195.00; unfurnished, $135.00.

Houses are basementless with a concrete slab over the entire first floor and with asphalt tile cemented to slab. Exterior walls are frame with brick veneer facing. Roof areas are covered with clay tiles. All windows throughout are aluminum casement type. The building firm has employed the latest labor-saving devices and power equipment in all construction work. Precutting and site assembly methods are used to reduce costs and speed up operations. The original schedule accomplished in less than one year, attests to the success of these methods.
Building Trades course offered by non-vocational school is paving the way to better training and background for—

**Tomorrow's**

BY ACTUALLY working on a house from foundation to finished trim, teen-age boys at the Deerfield-Shields Township High School, Highland Park, Ill., are learning construction techniques from skilled workmen on the job.

Though the school is non-vocational, the increasing need for more and better trained craftsmen in all the building trades is recognized by authorities of the school, and young men who care to enter the industry are provided with the best facilities available for learning. Supplied with modern tools and equipment, they work with skilled tradesmen on the job, and receive instruction from Walter E. Durbahn, head of the Building Trades course, who has been a builder for about 30 years.

Durbahn, chairman of vocational training for the school, helped organize the course in 1925. At that time there was only one other school in the state with a similar course. Now there are about 25 schools in Illinois that offer this kind of training to students.

Since the organization of the course, students under Durbahn have completed eight homes, a large auto shop and bus garage for the school. This year 23 students finished a six-room stone front Pennsylvania Dutch Colonial house, and, as in the case of homes completed in the past, it will be sold to the highest bidder. Proceeds will go into public school funds.

Main requirements for entrants in the class is that they have mechanical aptitude, sufficient interest in construction work, and that they have satisfactorily completed two years of regular high school work. Additional requirements are that the students enroll with the intention of completing two years in the building trades course.
Craftsmen

The objective of the course is to prepare the students for entrance into a building trade as an apprentice. Though most boys in Durbahn's class this year expressed the desire to go into a particular trade, some of them ultimately hope to be home builders in their own right. This latter attitude was expressed by one student, 17-year-old Don Coleman, whose father has been a mason for about 30 years.

"I'll be qualified as an apprentice mason when I graduate," he said, "and I suppose that will eventually be my trade. But if I go to college I'd like to study architecture and later go into home building."

Finishing his first year in the building trades course, Coleman had a typical background of courses as preparatory work. Courses included mechanical drawing, shop work, auto mechanics, principles of electricity, science and mathematics.

Durbahn times work on the homes so that they are finished, as nearly as possible, by the end of the school year. This gives the students the feeling of having actually completed the building from the ground up. "The ideal project," says Durbahn, "is the building of a two-bedroom house, a dwelling of about 15,000 to 20,000 cubic feet." He believes there should not be more than 16 students in a class, so each may get more individual instruction from him and a craftsman representative from each trade. He recommends that home plans selected for the project require the use of varied materials throughout.
of many different types of materials and a variety of construction methods. "The frame house with shingle and siding exterior wall covering and possible asphalt or slate roof shingles are good," he says. The students do all the millwork for the house in the school's shop.

In addition to a building trades course, Deerfield-Shields High School offers a Carpenter Apprentice training course which young men out of high school may take. This year 22 apprentices graduated from this course. Enrollment for this phase of the school's training has steadily increased since 1946. That year there were 22 apprentices in training. In 1947 there were 51, and last year there were 75. This fall, the school expects even a larger enrollment in the course.

Apprentice training in all the trades is at present growing by leaps and bounds, and schools such as Deerfield-Shields are doing an important job for the building industry. The need for highly skilled craftsmen who are prepared and willing to do a good day's work is constant. Schools can play a significant role by supplying these technically trained men, and by adding more prestige to the position in the industry that these men actually occupy. For schools that are helping, the building industry is grateful.
BUILDERS of large developments will concede the fact that the greatest amount of time and energy expended in a project is devoted to the multiplicity of details involved in financing and obtaining permission from local authorities before a shovelful of dirt is turned.

This proved to be true in the case of Kovach and Benson, builders of Prospect Park, a $5½ million development of single and multiple units in Whitehall Borough, a suburb of Pittsburgh, Pa.

Up until 1946 this area was composed primarily of individual home owners who did not want the sanctity of their domain invaded by renters.

When Lt. Col. Stephen Kovach, Jr., who was a builder prewar, took off his uniform and put on his "work clothes", so to speak, he found himself involved in a battle of wits greater than any experienced in the service. Having purchased a site that was ideal for apartment house development because of its accessibility to the business area of Pittsburgh, he was not inclined to give up when his request for a change in zoning was refused by the local zoning commission. Rather it encouraged this builder to continue his efforts untringly for a period of two years until he finally broke down all resistance.

To successfully carry out this large project, Kovach teamed up with J. C. Benson, a veteran realtor. A large part of the 95 acres is a plateau providing several near-level tracts. Concrete streets with curbs were laid and are being expanded as building proceeds. On the plateau, which commands an unexcelled view, three story apartments have been completed. These total 274 units of from one to five rooms each. Most of these buildings are of the garden type with large courts and ample space for recreation.

Surrounding the center plateau at a lower level are a series of twostory two apartment buildings. These are built on sloping terrain thus permitting garages to be built in the basements. A group of single family dwellings are built on approximately the same level as the three story apartments. The pattern of placement is not arranged in any uniform method. It avoids the stereotype effect which results when regularity is emphasized, and yet there is a distinct orderliness with regard to the entire development.

Prospect Park is composed of individual homes for sale and rental duplexes and apartments. At present 53 acres out of a total of 95 are completely developed. Eight acres of the 53 are used for recreational facilities such as children's playgrounds, mush ball field, and a picnic grove. The buildings com-
pleted in Prospect Park include 35 single family dwellings at $11,000, 5 singles at $18,000, 32 half-doubles at $9,500, 12 half-doubles at $10,500.

The apartment and rental unit program is as follows: Prospect Terrace, 75 units; Parkline Courts, 41 units; Parkline Dwellings and Prospect Gardens (garden type 608’s), 72 units; Sky-View apartments, 29 units; Skyline Courts, 44 units; Whitehall Dwellings, 105 units; new 608’s now under construction to be completed in 1949—total 273 units. The rental scale for the 639 units range from $55 to $125 per month, depending upon their size. At the main entrance to Prospect Park there is now under construction a shopping center and office building costing $150,000.

The entire building program is broken down by builder Kovach into six major building projects, each one of which has its own type of architecture and design. The single family dwellings and duplexes were completed first. The large apartment buildings located on the plateau were just recently finished. The shopping center which is the last of these projects is now in the course of construction.

Architect Clarence V. Blezard of Pittsburgh in designing all of the structures in Prospect Park has adhered to a general pattern of design throughout. The buildings are referred to as a modified adaptation of the Georgian Colonial style. This is typical of the Pittsburgh area where adherence to the traditional is implanted in the hearts and minds of the people.

No attempt has been made by Kovach or his architect to over-emphasize the exteriors, the primary thought being one of economy with the maximum square foot area devoted to living space. Slight variations are made in the appearance of the individual homes and duplexes by changing the roof lines, entrances, window treatment and color schemes.

All of the buildings in Prospect Park are of masonry or masonry veneer construction. The single family houses and duplexes are of frame with four inch face brick exterior. The exterior walls of the apartments are of four inch face brick and eight inch backup block. Dividing walls between apartments are of cinder block (eight inches thick). All framing throughout is of wood construction; steel sash are used for all window openings, stairways are enclosed.

The apartments are among the most modern and best equipped in the Pittsburgh area. Floors are hardwood, doors are flush type, bathrooms have tile floors and wainscot, and each building has its own incinerator. Kitchens are completely electrical containing General Electric ranges, refrigerators and dishwashers. In the single-dwelling units, a Bendix automatic laundry is also included. In commenting on this phase of his program, Kovach said, "Electric kitchens are good business. When people want something, it's a good idea to give it to them."

The apartment units range in size from the small living room, bedroom, kitchen and bath unit to the five room apartment with two bedrooms. Special emphasis is placed on large roomy, closets, adequate storage space and convenience in layout.
THE 42 units of the Parkline Court buildings consist of one- and two-bedroom apartments that rent for $70 and $95 per month.

All the latest labor saving methods in construction work were employed by Kovach and Benson in this project. This included site fabrication, precutting of materials and the extensive use of power equipment. Dirt moving machines were required because of the hilly nature of the building site.

**BRANDED PRODUCTS USED**
- J-M asbestos shingles
- Fenestra steel windows
- J-M Rockwool insulation
- General Electric refrigerator
- G. E. stove
- General Electric dishwashers
- Bendix automatic laundry
- American-Standard gas-fired boiler
- Overhead garage doors
- American-Standard bathroom fixtures
- Kohler bathroom fixtures
- Armstrong linoleum
- Armstrong linoleum
- First Floor Plan

TYPICAL floor plan of one of the Parkline Court apartments. The other building is identical. A large center parking area surrounded on the open ends with an ornamental brick and concrete wall, except for the entrance and exit openings, is located between these two buildings.

THIS typical single family dwelling with six rooms and basement garage, $10,500

THE two apartment building with garage and 50x130 foot lot sells for $9,500 a side
133 Individual Houses that are Not For Sale

Tenants enthusiastically approve these rental units where there are no restrictions against children, and conveniences of private homes are offered.

Two-bedroom homes in this project rent for $75 per month; three-bedroom houses for $85. Full basements are provided.

Homes in Wellesley Village, a 133-house project completed by Western Builders, Inc., Spokane, Wash., are not for sale. They are for rent only, and there are several reasons why they are finding ready tenant approval.

First, there are no restrictions against children or pets, and second, the rentals are reasonable. The two-bedroom houses rent for $75 a month, and the three-bedroom homes for $85. If a tenant wants a garage, it is built for him at a rental of $6.50 a month. Corner dwellings carry higher rents than the other units. Ranges and refrigerators, included in the homes, are charged for at a monthly rate of $5 a unit.

Most of the tenants in the homes average one child per family, and the average income per family is $400. Many of the tenants are military personnel.

The curved streets of the Village discourage fast, through traffic, making it an ideal place for children to live and play. The homes are well designed and have plate glass picture windows in the living rooms and high windows in the bedrooms for privacy and convenient placement of furniture. The living room picture windows are fixed with vents underneath for ventilation.

Full basements are provided in the houses, with coal burning furnaces and laundry trays. Exteriors are machine-grooved shakes or plywood, in combination with some brick veneer. Roofs are cedar shingles.

Hardwood floors, storage wall cabinets, linoleum counter tops, showers over tubs, clothes poles and lines are attractive features to tenants. Lawns and trees are planted.

R. Kline Hillman is president of Western Builders, Inc., and Leo Higbee and Wells Huntley are vice-presidents. Seventy homes in the project were built with a prefab technique, using plywood in stressed skin construction on both sides of studs. The other 63 homes were built conventionally. Gypsum board is used for interior dry wall finish. The company does its own carpentry and concrete work and sublets all the other jobs.

The company takes care of general maintenance of the dwellings, but the renters tend the furnaces and shovel snow.

Leases are on a 12-month basis. Huntley points out that since the houses are individually financed, they can be sold. If they were to be sold now, the price would be around $8,500 for the two-bedroom homes.
CURVILINEAR streets discourage fast through traffic in Wellesley Village

VENTS are provided under the large plate glass picture windows in the living rooms

EXTERIORS are machine-grooved shakes or plywood. Here, brick veneer is used.
CREASED volume of business in a short period of time has proved to this building materials firm that special services make a hit with builders and contractors.

Since the dealers, Laws & Yaeger Co., moved into their new Santa Rosa, Calif. store, drop-in trade has tripled. The volume of paint, hardware, and miscellaneous items sold has increased more than 300 per cent.

Special services offered builders by the firm include leads on prospective home owners, assistance in the arrangement of financing, advice on construction, and information on the latest materials. Moreover, a builder or contractor does not have to look through a maze of disorganized counters to find what he wants; nor does he have to wait long for delivery.

Provisions for these numerous services are credited mainly to the advantages of a well-designed store. Ample floor space is devoted to eye-catching display counters and islands, and to conveniently arranged offices which are departmentalized. Several small offices are at the disposal of contractors and prospects, and may be used for the discussion of building plans or for the transaction of other business. Ceilings of the offices, which are located at the back of the store, are furred down and lined with attractive tile. Translucent glass windows let in light but shield the offices from the view of customers. Glass brick are used in some of the walls along the back of the store for the same purpose. Sound-insulating partitions are used where toilet walls adjoin offices.

All merchandise in the store is displayed in an orderly manner. The main displays are on 4x7-foot islands, 32 inches high; others are on numerous 3x3 and 4x8-foot platforms, 12 inches high. These islands and platforms are in the forepart of the store. Display room is invaluable as a means of providing information on new materials,” says Steve Yaeger, store manager. “It is surprising how many people just browse around to get ideas for use in their contemplated building.” Well-organized, the displays offer the builder convenience in selecting materials.

Walls and ceiling of the display room are plastered. The floor is asphalt tile. Light is provided by four rows of fluorescent tubing.

Another special service is a plan book department from which the firm sells and loans books displaying stock plans. These plans are ordered from agencies at nominal cost, and are delivered usually in three or four days after they are ordered. A table and chairs are available, and often, according to Yaeger, prospects will spend hours in this section, going over house plans at their leisure.

Facilities in the firm’s lumber yard
**FLOOR PLAN** is designed for customer-convenience. Small offices at rear of store are for use of builders and home buyers who wish to discuss building plans. Cash-counters are placed at rear so that clients must first pass display counters

are equally as efficient as those in the store for offering convenient service to clients. A new type life-truck enables the dealers to make up unit loads in advance of orders. These loads may be lifted on a truck within a few minutes after being ordered. The exact amounts that will be needed for a job cannot be anticipated, but the loaders can estimate closely enough so that only the adding or unloading of a few pieces is needed to make the order come out right.

For example, units of 300 2x4 eight foot studs are made up, as well as 1,000 board feet of plate stock, and 2,000 foot loads of 1x6 boards. These units are usually fairly close to the amount required for the average house, Yaeger says. No matter how small or how large an order may be, immediate delivery is given. For contractors who haul their own material, a staff or yard clerks are on duty to offer quick service.

**Run Weekly Ads**

Additional stimulus to business has been through advertising. The firm advertises weekly in newspapers, and, in addition, sponsor a five minute radio program each week. Because of the many calls which come as a result of advertising, they have installed a switchboard. The operator refers calls to the proper department of the store, and thus saves time for the customer as well as for the company.

The operator also is receptionist. In addition to the lumber yard, the company operates its own planning mill and has a separate building for the sale of glass. Laws & Yaeger have had an office and warehouse on the site for a generation. After the war, with the greatly increased building activity, they wanted a "one-stop" store where home owners doing repair work and builders could get almost anything they needed, quickly and conveniently. They gave their ideas to C. A. Caulkine, Jr., architect of Santa Rosa, and he came up with plans for the present store. The store was constructed by Robert R. Todd, who is a local contractor.

Builders and contractors are not unique from any other clients, in that they react favorably toward good salesmanship. That is the essence of the Laws-Yaeger business — expert use of sales techniques. And they have started emphasizing sales without waiting for competition to tighten.

"Lumber from Laws—You'll be Satisfied"—has long been a slogan of the Laws & Yaeger Co. From the appearance of their new store, and from the way clients are accepting it, an additional slogan might well be written about satisfaction through special services.
A PIONEER, who leaves in his wake an ever-broadening 40-year record of contributions to high standards and ethical promotion in the woodwork industry, retired July 1, 1910. H. H. (Hal) Hobart, with his enthusiasm for progress and intense loyalty to ideals, has played no small part in making Curtis Companies Incorporated, Clinton, Iowa, one of the world's largest woodwork manufacturing firms. He is known to thousands of retail lumber dealers and other industry personnel in all sections of the United States.

Drawing on an accurate memory, Hobart can recite many interesting facts about the industry during the period he has been associated with it. He has always been extremely interested in new processes and new products. His present age and the many years he has been merchandising woodwork have not in the least dulled his enthusiasm for the very latest in sales techniques or the newest of products.

Sending young Hobart "on the road" in March, 1910, was an experiment for the Curtis brothers. There were a few complete catalogs at that time and very few stock items, nor any stable price lists as we know them today. Woodwork was sold to dealers for specific jobs and made in specific sizes to fit requirements of the jobs.

It was often the salesmen's wits against those of the buyer which became the determining factor in the size of the net for the woodwork manufacturer.

The first territory Hobart traveled was west from Clinton, Iowa to Des Moines and south to Kansas City on the Milwaukee line with the return trip on the Rock Island. All travel was by rail and the salesman's time was guided entirely by train schedules. If he was on a good railroad line and budgeted his time properly he was able to make a maximum of about three towns a day. Frequent over night stops were made in small towns with limited hotel facilities.

"There was nothing wrong with the retail lumber dealer then any more than there is now," says Hobart. "The dealer did very little merchandising because the training he received from most manufacturers was about as bad as his merchandising, if judged by today's standards. There was little help from lumber or millwork manufacturers."

The mail order firms, however, were selling hard on the idea of home ownership to the consumers. These same firms were also selling ready-cut houses to tie in with the home ownership sales theme.

Shortly after Hobart went on the road as a salesman, a mail order firm issued a price book which, at a casual glance, seemed to drastically underprice all other firms, including Curtis and similar manufacturers. It took a good salesman and a good mathematically-minded dealer to figure the true total costs from this catalog. It lacked full and complete information on just what the prices did include. When prices were featured on frames, for example, the price was on the smallest frame made and one which was seldom used in a house. The price did not include pockets, pulleys and many other items that gave the true price of the frame. When these extras were added, the so-called low price disappeared entirely.

Early in 1913, G. L. Curtis, president of the firm and now chairman of the board, wanted to do more to help dealers combat mail order competition and to improve their sales methods so they might become better merchandisers. He gave Hobart his choice of taking a job as assistant sales manager, or managing a new department—which later became known as the Curtis Companies Service Bureau. Hobart chose the latter job because he felt that if he made good it would lead him back into sales work—with a much wider experience. This new department—the Curtis Companies Service Bureau—was established and was one of the first moves by a manufacturer to help lumber retailers merchandise a manu-
Woodwork Merchandiser Retires

IT was another phase of the merchandising program, it was announced to the dealers in preparation of attractive and other components of millwork, was standardized by Curtis. This later led to the establishment of a stock line of architectural woodwork —also a first and pioneer effort. Columns, doors in several styles, and other items were manufactured and put in stock so shipment on the standard items could be made promptly. Previous to this time most woodwork was made to order, with the attendant delays in making shipment.

Standardizing items for pricing and stock production made it possible to issue a catalog for woodwork—a catalog with illustrations, specifications and list prices. In 1914, Hobart completed and published one of the first complete woodwork catalogs. He had handled all preparation on the catalog, correspondence and details incident to standardizing and pricing all the items. It was a monumental task at that time but it proved extremely popular with dealers and all buyers of woodwork. Hobart recalls that it took an unprecedented amount of nerve for a manufacturer in those times to print prices with pictures and specifications on his products. The principal tool used by most salesmen then was price—the lowest price usually got the order.

Despite these circumstances, however, this early catalog issued by Curtis was a tremendous help in sales volume. About the same time the catalog was issued, Curtis announced the publishing of two plan books called "Attractive Bungalows" and "Home Like Homes." These offered a series of stock house plans for dealers to use in selling the communities. It was another phase of the plan to give more merchandising assistance to retailers. This led to a long series of plan books called "Better Built Homes," which were continued for 22 years. Dealers sent the names of new home prospects to Curtis and the firm then forwarded attractive booklets and literature to them. This program is considered a major factor in the growth of the Curtis business. It was supplemented by advertising in farm journals at the start. This proved successful so the advertising program for consumers was continued by other media. The trade press had always been included in the firm's advertising program. Since this program was started before World War I, Curtis has always been a consistent national advertiser. The first advertisements featured homes and not products. Shortly after the program was launched, however, policy was changed to promote specific Curtis products.

In 1917, Curtis was convinced that it was necessary to retain architects to obtain well-designed woodwork to maintain progress for the firm in the post World War I period. Up to this time, most products were of "planning mill design," limited by the machinery and tools immediately available. Architects were retained by Curtis and a new era of high standards in quality and design was started. Some of the designs in the 1920 catalog, which architects helped prepare, still lead in sales after almost 30 years.

Also during the World War I period, the firm was attracted by the large eastern market. Hobart then got back into sales work and was given the management of sales in all undeveloped territories which consisted mainly of states east of Ohio, south of the Mason-Dixon line, and the far west. In 1927, Hobart, was named vice-president in charge of sales and advertising on a nationwide basis. Since that time Curtis distribution has grown until it now is national in scope. Since 1939 there has been little broadening in the firm's distribution setup. The severe shortages following World War II forced the firm to open offices in those dealers who had been served before the war. This condition is changing now, of course.

Hobart attributes much of his success as a sales manager to a religious firm policy of fair play at all times and under all conditions. To this, he says, must be added the progressive-mindedness of the firm's management, particularly that of G. L. Curtis who was president during the time many of the "firsts" in merchandising practices were being inaugurated prior to and during the World War I period, and to E. J. Curtis, now company president.

When leading architects were retained to design architecturally correct woodwork in 1917, the basic thought was to make it possible for the small householder to buy attractive and well-designed woodwork at economical prices. Such a thing would add to the beauty of the small home and in time contribute to the appearance of all the homes in the country as well as add to the pleasure of the people who live in them.

"G. L. Curtis was emphatic," Hobart states, "in his idea of offering more value for the money in Curtis woodwork."

Hobart inaugurated the first sales course for lumber retailers and in 1922 the first perpetual inventory system for them. He also started the dealers in preparation of attractive office displays to help sell products. In the period from 1917 to 1949, Hobart has watched with keen interest the immense strides made by retailers in their merchandising techniques. He is proud of the fact that today some dealers have stores that equal or surpass the facilities for sales of department stores and mail order houses in their communities. He does not feel it is necessary to teach merchandising to today's dealers. He does feel, however, that it is necessary to constantly remind them that they must advertise and promote intensively and constructively.

For years Hobart says he has looked forward to the time when he could retire. Now that the time has arrived he reports that he does not know what he wants to do, although he is looking forward to the immediate future he will play golf, fish and take several extensive trips along the west coast of the United States.

The new general sales manager of Curtis Companies Incorporated, is I. H. Ramsey, who has been with the firm for 21 years. All of his experience with the firm has been under Hobart—from the time he started as a salesman in New England.
How Contractors and Dealers Influence Wholesale Prices

Selling is the key to production and production is the key to price

DEALERS and contractors play a significant but unrecognized role in the wholesale price structure.

When dealers and contractors maintain a high volume of sales through alert salesmanship, they help manufacturers sustain production, which is the only way to realize the economies of mass production.

In general, as production increases, unit costs drop; conversely, as production drops, unit costs increase; and unit costs necessarily are reflected in the wholesale price of any commodity.

Wholesale prices of building materials have followed a highly irregular pattern since 1941. All materials have increased in price, some spectacularly. A few materials have continued to sell at low wholesale prices in the face of sharply increasing manufacturing costs and despite a demand which would not have diminished even if prices had advanced sharply.

By and large, the increase in prices has been in keeping with the inflationary trend of the country's economy. Uninformed critics of the building industry to the contrary, it has not been reasonable to expect building materials to stay down while prices of goods in other categories have gone up.

Today, manufacturers of building materials face a buyer's market. The demand is for lower prices, and in recent months, moderate declines have occurred. The composite index for all building materials, as reported by the Bureau of Labor Statistics, shows a 7.5 per cent drop from the peak in September, 1948, to April, 1949.

While the insistent demand for lower prices continues, it would be foolhardy to think that prices of building materials will drop with any more uniformity than they increased. And certainly, prices will not return to prewar levels, any more than the price paid for pork chops, or for a day's labor.

As a matter of fact, it would not be surprising to see some building materials increase in price. A drop in production of any magnitude may make it impossible for manufacturers to continue to absorb the increases in unit costs which high volume has permitted them to do so far.

The record of the asphalt roofing industry is perhaps the best example to cite to prove that production is really the key to low price. Perhaps no dealer or contractor was able to get all the asphalt roofing he would like to have had or could have sold in recent years, but none failed to get more than he ever had before. Manufacturers had to take up the slack created by the virtual disappearance of other roofing materials, and meet the demand of a war economy.

How unparalleled demand affected shipments of asphalt strip shingles is shown by the solid line on Chart 1. Shipments in 1937 were slightly more than 7 million squares. They continued to increase year by year until they exceeded 28 million squares in 1947, an increase of 303 per cent in 11 years.

Unit costs also were setting new ceilings while the industry was establishing successively higher records of shipments, as shown by the broken line on the chart. At the end of 1948, a large multiple line manufacturer, generally recognized as an efficient, low-cost producer, reported that unit costs were 39 per cent higher than in 1937.

In the meantime, the wholesale price of asphalt strip shingles (shown by the dotted line), as reported by the Bureau of Labor Statistics, had advanced only 7.8 per cent, considering the 1937 price as 100 per cent. In relation to 1926, the year on which the Bureau computes the rise and fall of wholesale prices, strip shingles were up 5.7 per cent.

Unparalleled demand for asphalt roofing products and record shipments in recent years enabled asphalt roofing manufacturers to keep prices low, despite a sharp increase in the cost of raw materials, labor, taxes, and the many other factors which enter into unit costs. In other words, manufacturers were able to take a lower net per square of roofing shipped because volume was high.

But Chart 1 tells only a part of the story. It will be noted that shipments of asphalt strip shingles in 1948 were less than in 1947 by about 2 million squares. The seriousness with which manufacturers viewed this drop is not apparent until Chart 2 is studied. This chart shows shipments month-by-month from January, 1946, through the first quarter of 1949.

After setting a new monthly record of more than 3 million squares in August, shipments dropped precipitously until the "bottom fell out of the roofing business in November."

Figures tell a better story of the first quarter of 1949:

HOME building activity reached a new high in 1948.
In one year, first quarter shipments of asphalt strip shingles dropped 40 per cent. What happened to unit costs? Though many economies were effected, unit costs climbed to an all-time high, 44 per cent above 1937, and five per cent higher than the average for 1948. In part, this was due to the fact that dealers refused to stock roofing during the winter months, apparently in false expectation of a break in the price of an already low-priced commodity. However, the Bureau of Labor Statistics reported that the April price of asphalt strip shingles continued to be 5.7 per cent above 1926.

The answer to a continued low price for asphalt strip shingles is just what it is for other building materials that are low in price because of high volume. The answer, obviously, is continued high production. High production permits a manufacturer to take a lower net and absorb higher unit costs. Lower production means that it may be necessary to pass some of the cost on to the consumer through a higher wholesale price to the dealer.

The answer to high production is more aggressive, more enlightened salesmanship, and more teamwork between manufacturers, dealers, and contractors to earn a higher share of the consumer's dollar.

And a dealer or contractor doesn't earn a higher share of that dollar by waiting for the consumer to come to him. He earns a higher share as he calls on the consumer and sells a new roof before a new roof is a necessity, or sells new siding or insulation. The well organized, aggressive roofer, siding and insulating contractor has only one thing on a dealer or local contractor—he makes calls and sells harder to get the business. An aggressive roofer succeeds only where the dealer or the contractor fails to do an intelligent selling job.

The key to low price is high production. The key to high production is salesmanship. And salesmanship, high production, and low price are good answers to those who believe the solution to our problems is socialization of the building industry.

The American system of free enterprise cannot be healthy and prosperous if production is geared to a prewar, pre-depression plateau. Vigorous, intelligent salesm
PATIO is accessible from three rooms through sliding doors. Brick at entrance adds variation in lines of aluminum siding

**Model Home Stimulates Sales**

THREE advertisements in local newspapers, drew more than 10,000 visitors to the model house built by Platt & Goheen in Walnut Creek, Calif., a 30 minute drive from Oakland. The house was described as a "Home of Spacious Outdoor Living."

The exterior design of the house follows the general pattern established in the area for a one-story structure. Long, low roof lines give the effect of the house literally growing out of its site. Wide projecting roof eaves shelter the windows from the direct rays of the sun. Where there are no windows, such as in the garage, the roof line is cut back to the wall.

Aluminum siding was used on the exterior side walls; it provides a deep shadow line. Pattern brick comprise the walls surrounding the front entrance and break the monotony of the horizontal lines of the siding. The planting box below the kitchen window provides a colorful note to the entrance motif. The roof which is covered with a built-up surface has an imbedded aggregate that sparkles in the sunlight. The pitch of the roof is kept fairly flat to further reveal the characteristics of the house.

(Continued on page 150)
A study of the amount of cabinet space required in kitchens for urban family use, in terms of factory-built cabinets, has provided data which can be used as a primary step in establishing kitchen planning standards.

To permit flexibility in the study of storage, two representative lists of packaged foods, utensils and cleaning supplies were used—limited and liberal. The lists, based on previous research, are not minimum and maximum; either is sufficient for preparing and serving meals without waste of time or motion. The number of items has been set as follows: Packaged foods—limited, 100; liberal, 156. Fresh, non-refrigerated foods, 6 and 8. Utensils, 84 and 114. Cleaning supplies, 9 and 12.

### How to Figure Cabinet Space for Urban Kitchens

**Ample Space Requirements**

Ample space requirements are recommended for either the limited or liberal list. If minimum space requirements are used, provision should be made to increase space later.

Total storage allowance should always equal, or exceed, the standards given; specified totals should not be reduced.

In planning a house for an undesignated owner, space for a dinnerware service of eight should be allowed.

Whenever kitchen arrangement permits closely related centers to be adjacent, combined storage specifications for wall cabinets should be used.

To fulfill the storage specifications given in the charts: Count only wall cabinets which are at least 30 inches high. Do not count an over-refrigerator cabinet, usually 18 inches or 24 inches high.

Because they are more easily accessible, use drawers in preference to shelves for most base cabinet storage. These should be fitted with dividers where needed.

No shelf should be higher than 72 inches from the floor. To make this possible, wall cabinets should be placed not more than 15 inches above the counters of base cabinets.

The above material is reprinted by permission of the University of Illinois Small Homes Council from its circular C5.31, "Cabinet Space for the Kitchen." Other circulars available for 10 cents each. Write Small Homes Council, Mumford House, University of Illinois, Urbana, Ill.

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### Individual Centers

<table>
<thead>
<tr>
<th>Serve</th>
<th>Range</th>
<th>Sink</th>
<th>Mix</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ample Space</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Liberal Supplies</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Wall</td>
<td>27&quot;</td>
<td>21&quot;</td>
<td>15&quot; (1 shelf around)</td>
<td>30&quot;</td>
</tr>
<tr>
<td>Base</td>
<td>*30&quot;</td>
<td>18&quot;</td>
<td>78&quot;</td>
<td>*36&quot;</td>
</tr>
<tr>
<td><strong>Limited Supplies</strong></td>
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<tr>
<td>Wall</td>
<td>21&quot;</td>
<td>15&quot;</td>
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<tr>
<td>Base</td>
<td>*24&quot;</td>
<td>15&quot;</td>
<td>60&quot;</td>
<td>*33&quot;</td>
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<tr>
<td><strong>Minimum Space</strong></td>
<td></td>
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<tr>
<td><strong>Liberal Supplies</strong></td>
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<tr>
<td>Wall</td>
<td>21&quot;</td>
<td>15&quot;</td>
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<tr>
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<tr>
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<td>15&quot; (2 shelves around)</td>
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<tr>
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<td>*18&quot;</td>
<td>15&quot;</td>
<td>48&quot;</td>
<td>21&quot;</td>
</tr>
</tbody>
</table>

* Some space unused

Storage space is considered ample when supplies can be stored without crowding and with practically no stacking of unlike items. Minimum storage is defined as requiring the crowding together of some items and the stacking of some unlike items.

In conjunction with use of the charts, the following information should be considered:

For families of less than four, cabinet widths for the limited lists of supplies should be used; for larger families, four to six, the liberal list.
How to Square Boards with Folding Rule

In cases when no try square is available, narrow boards can be squared by using a folding rule in the following manner: Open rule and hold second section against edge of board. Then bring outside corner on end of first section in direct line with the 20 1/4 inch mark on the third section (see diagram). Mark along outside edge of first section to get a perfect right angle.

How to Make an Adjustable Clamping Jig

The Jig illustrated above is very useful for the planing of long work, and in cases where bench vises are not suitable for large work. In construction, one side of the cutout portion which is screwed to bench is beveled at a 25 degree angle to form a keyway in which the stepped insert, also beveled on back face will be held. The insert should be just wide enough so that, when advanced nearly to the apex of the inside cutout, it will hold narrow work securely. Steps are 3/4 inch wide and hold boards of various widths securely in place for working.

Removing Damaged Shingles With Notched Saw

A saw with a small notch filed on the back can be used to remove damaged wood shingles in a way which makes replacement simple. The notch is filed to only a size large enough to allow hooking over nail. Saw is forced under shingle. A quick pull or jerk on saw will slip off nail, permitting damaged shingle to be slipped out and another inserted in its place. Adjoining shingles are not damaged.
ALUMINUM siding may be applied to studs, or to sheathing made of wood, wallboard or equivalent where required by local building codes. Tar paper or building paper should be placed on the outside of the studs or sheathing. The siding is then applied directly over the building paper and nailed through to the studs or sheathing.

Window, door and gable end frieze flashings, inside corners and outside corners, are installed before the siding is applied. However, profile corners, when used, are applied after siding is in place. Likewise, the strip or trim used with window and door flashings is applied last. If wood trim is employed on inside and outside corners, it should be installed first, then flashed with the aluminum flashing in the same manner as used with window and door openings.

The siding should not fit too snugly at the ends. It should be cut from 1/16 inch to 1/8 inch short to allow for breathing of the wall. The trim strip will cover the gap. This also provides for easier installation of the siding. Butt joints in sections of the siding should all be cut with approximately a 1/16 inch gap to allow for expansion. The back-up plate will cover the back of this joint and make it weather-tight.

Aluminum siding is applied from the top down. To eliminate unnecessary cutting of siding over window and door openings, a reference line should be taken at the top of the openings which occur with the greatest frequency at one level. Measurement should be taken from this line to the starting point of the siding.

This distance should be divided by the covering width of the siding (6-15/16 inches) to determine the number of full width courses to or near the roof line.

If the top course then turns out to be less than 6-15/16 inches, up to four inches may be cut off the upper edge of the top course and a suitable wood molding nailed on to cover the top edge of this starting course. But, if it is necessary to cut away more than four inches, the wood molding should be of sufficient width to eliminate the top course and lap the upper part of the next (full) course down.
How to Sand Irregularly-shaped Turnings

LATHE turnings which are irregular in shape, such as table or chair legs, can be sanded by use of a strip of sandpaper in which several slits have been made. The slits should be spaced about one inch apart, ending about an inch from the edges of the paper. When the work rotates the slits in the sandpaper permit adjustment to the varying shapes and diameters. Herbert E. Fey, New Braunfels, Texas.

How to Protect Chimney Tops

DAMAGE to chimneys can be minimized if adequate protection is provided for the cement chimney cap. This can be accomplished by application of a good roof mastic over the tops of chimney cap surface, using an extra amount next to the flue, and covering the mastic with several plies of roofing felt. The roofing material will slow the drying process of the mastic. (Drawing right). Arthur N. Nelson, Kansas City, Mo.

How to Bend Metal Lath

DEVICE for bending metal lath can be made by nailing two 1-inch by 1-inch strips to a 2-inch by 8-inch by 6-foot plank. An 8d nail is then driven between strips at end of plank and its head removed. Lath is hooked over nail and a 90 degree bend creased in it with one stroke of lather's axe.—J. G. Caldwell, San Mateo, Calif.

Overhang Essential for Picture Window

PICTURE windows are a popular feature of today's houses. The windows can be arranged into a number of different types by combining fixed units with ventilating sash. The number of variations to be obtained are limited only by the ability of the designer.

While the subject window frame and sash are made of steel, they can also be produced in wood or aluminum with or without dividing muntins. Plate glass or double glazing is used depending on the size of each unit and the climatic condition prevailing in the area in which the house is built. A further suggestion for design would be the use of a large wood center sash with double-hung flanking windows, all with horizontal lights.

A picture window need not conform to the basic heights established for the other windows of the house. The window may start at the top of the house and extend to a point just below the ceiling line. Its character and size should be proportionately correct with the balance of the house.

A feature that is very necessary, but so often ignored when picture windows are used, is an appropriate overhang on the outside of the house to protect the room from the direct rays of the sun. This can be done in a number of different ways.

In the one-story house detailed on the opposite page an extension of the roof lines was found to be the simplest and most effective method for creating an overhang. This overhang is supported on either side by three diagonal braces secured to the wall of the house. While acting as structural members the braces also add to the appearance of the house.

Facia members of the roof overhang are few and simple. This is in keeping with the design of the house which follows the present day functional trends. A moulded gutter at the eave line, sloped to downspout at one end, takes care of roof drainage. Ceiling heights, which vary from nine feet in the living room to the standard eight feet for the balance of the house, make possible the projecting roof and a picture window of generous proportions.
American Builder's Better Detail Plate

No. D-56 - Picture Window with Overhanging Roof

Section Thru Wall: Overhang Detail at "F"

Section AA

Section B.B

Living Room Wall

Section C.C. Section EE. Section DD.

Main Wall: Section

Elev. of Entrance & Window.

Notes: See manufacturer's details for proper installation of steel sash and other adaptable windows; wood windows and sash; aluminum windows; Thermopan, etc.
Government Threat to Free Enterprise
Primary Topic at Directors Meeting

HIGH government spending and the threat of pending government legislation to the free enterprise system were the primary topics of discussion at the annual spring NRLDA Board of Directors' meeting, May 9-12, in the Shoreham Hotel, Washington. The directors also heard Senator Taft of Ohio discuss the overall legislative program of the 81st Congress.

The theme of the meeting was established by President C. B. Sweet, who said in his opening address, "If this threatened loss of freedom in almost every field of private endeavor and free enterprise is carried out, and that the improvement of housing and the clearing of slums is a state, local and industry responsibility. The point emphasized by all in attendance was that the real need in housing is for adequate financing of the low-cost home.

Joseph King, NRLDA legislative counsel, pointed out the clear (Continued on page 154)

Arizona Convention Attracts 3,000

Exhibits, included for the first time this year, attracted more than 3,000 persons to the annual convention of the Arizona Retail Lumber and Builders Supply Association, Inc. The meeting, held at the Gadsden Hotel, Douglas, set a new attendance record.


Fourteen resolutions were adopted at the convention, including a statement opposing public housing. Mesa was named convention city for the 1950 convention.

The President's Column

By C. B. SWEET
President, NRLDA

During the past few months I have had the opportunity to attend many regional association conventions. It has been a most enjoyable experience and I have gained much through my contacts with the fine and intelligent people who make up these associations.

Arizona Convention Attracts 3,000 (Continued on page 154)
President's Column, Cont'd

Indians and as a nation, continue in our present state of lassitude there will be no point from which to turn back. Our liberties, our right to do business unshackled by government controls are being jeopardized. We must forget personal gain and personal advantage, forget party allegiance, but work and fight for our right to sell our own merchandise to our own customers, to send our children to schools where there is no political influence, to choose our own medical services and to receive profitable returns on investments in rental properties.

STOP AND THINK. Contemplate an America without freedom! Make it your duty to see that the "AMERICAN WAY" is preserved.

Edward Libbey Named NRLDA Secretary

Edward H. Libbey, former NRLDA assistant secretary, was promoted to the post of secretary of the association at the May meeting of the board of directors in Washington. Libbey has been connected with the industry for the past eight years, serving the association as liaison man with government agencies.

Libbey has been lauded for his war time service to retail lumber dealers in interpreting changes in war orders issued by WPB, OPA and other control agencies. His knowledge of the war agencies was of high value to the association in the reconversion to peace time economy.

He has served recently as coordinator of the association's educational program, known as the 14-day short course, now being conducted in 14 major universities.

Libbey's appointment to the position of secretary follows the change of H. R. Northup's title to executive vice president of the national association.

Industry Mourns Don Montgomery

The building industry lost one of its best thinkers and most dynamic personalities in the death on May 19 of Donald S. Montgomery, 62, secretary of the Wisconsin Retail Lumbermen's Association. In poor health for more than a year, he had been seriously ill during the two months preceding his death. His last industry appearance was on March 28 when he attempted to conduct a training course for lumbermen at the University of Wisconsin, against the wishes of his physician and friends. He collapsed on the platform, thus retiring from public life in harness as he always had wished to do.

A native of Wausau, Wis., he attended the Wausau High School and graduated from Carroll College in 1908. For many years he served with distinction as a member of the board of trustees of Carroll College. He began his career working in lumber yards in Wisconsin and Minnesota for four years, and for six years after, sold lumber in his native State for the Virginia & Rainy Lake Co.

He was a founder of the Milwaukee Home Show, a member of the Milwaukee Board of Realtors, a member of the American Trade Association Executives, and a past Supreme Snark of the International Concatenated Order of Hoo Hoo. He was prominent in Masonic circles, and was a life member of Tripoli Temple of the Shrine.

Mr. Montgomery is survived by his widow, Louise; two daughters, Mrs. W. J. Iber, and Mrs. G. B. Nelson, Jr., and six grandchildren.

Contest Creates Good Will for Industry

The problem of how to create good will for the private home building industry was solved by one lumber dealers firm in a way which can be followed to good advantage by dealers anywhere in the country.

The dealer firm, William P. Proctor Co., North Chelmsford, Mass., was convinced that something concrete should be done in their community to demonstrate to the average citizen the value of private initiative in home building. Their solution was to sponsor in cooperation with the officials of the four local high schools, an essay contest on the subject, "Home Ownership Under the American Incentive System." The contest was open to all students of the junior and senior classes in each school. Writers of the best essays were awarded a trip to Washington with all expenses paid.

With the trip as an incentive—to Washington by plane and re-

(Continued on page 158)
NEW PRODUCTS
Offered by Manufacturers

STEP RAILINGS AB7913
Coffman "Seven by Twelve" step railings (for 7 inch riser by 12 inch tread), manufactured for two, three, four and five step masonry, use conventional ornamental iron construction throughout. Handrail is 3/4 inch x 1/4 inch bar stock terminating in a hand-wrought scroll finish at newel post. Pickets are one-half inch square. Horizontal straight rail sections are manufactured for use in conjunction with 7x12' rail section. Railing sections bolt together, using intermediate newel posts; will fit a number of masonry conditions. R. G. Coffman Co., Inc., 2809 N. Orange Ave., Orlando, Fla.

POWER SAW BLADE AB7940
New power saw blade cuts slate-surfaced insulating siding. Blade is used on Porter-Cable Model A-4 Guild Saw. Siding is cut from rear surface to depth which just avoids slate. Siding then breaks off clean. Teeth of new blade have no set, are ground to knife edge on periphery. Blade is installed on saw with slanting edge of teeth leading (opposite to wood cutting). Can be cleaned while running by holding to felt dipped in kerosene. Can be resharpenned by holding stone against it, also while running. Porter-Cable Machine Co., Syracuse 8, N.Y.

INSULATION BOARD AB7906
Nu-Wood Sta-Lite is a white matte finish board with long edges machined to provide a slightly chamfered edge. Board can be applied over framing, furring or old plastered surfaces. Surface has light reflection factor of 76 per cent. Manufactured in standard sizes 4 feet wide by 6, 7, 8, 9, 10 and 12 feet long. Standard thickness, one-half inch. Wood Conversion Co., First National Bank Bldg., St. Paul 1, Minn.

GLASS BLOCK WINDOW AB7923
Window has sliding vision strip sash, can be installed in conventional window openings of any type building. Has sufficient strength and rigidity to provide its own lintel. Glass block units may be used singly or in multiples. When installed in groups, jambs act as mullions, eliminating need for additional intermediate structures. American Structural Products Co., Toledo 1, Ohio.

INSULATING MATERIAL AB7917
Plastic foam made from synthetic phenolic resin expands to 100 times its original volume when baked. Material weighs from 10 to 20 times less than pie meringue, is resistant to fire, moisture, fungus growth, insects. Liquid resin can be foamed into place at site of use. Westinghouse Electric Corp., 306 Fourth Ave., Pittsburgh 30, Pa.

CORNER LAVATORY AB7910
"Vivian" vitreous china lavatory manufactured in white and colors is 18 inches by 18 inches over-all. Basin measures 16 inches by 11 inches, with a depth of six inches at outlet. Spout is of vitreous china, integral with body of fixture on bevel panel at back. Chromium-plated handles mounted on either side of spout operate controls which use water pressure to help shut off water flow. Equipped with positive action waste fitting. Designed to provide convenient use in rooms where space is at premium by fully utilizing corner space. Crane Co., 836 S. Michigan Ave., Chicago 5, Ill.

OUTSIDE WINDOW FAN AB7904
Chelsea Type AP is a belt driven fan for mounting on outside window frame. Manufactured with either hood or automatic shutter; equipped with cord and plug, and pull-chain switch. Two sizes available: a 24 inch fan with an air output of 4500 CFM, 1/4 HP motor, and single fan speed of 620 r.p.m.; and a 30 inch fan with an air delivery of 6500 CFM, 1/4 HP, single fan speed of 500 r.p.m. Chelsea Fan and Blower Co., Inc., Irvington, N.J.

REVOLVING SHELVES AB7931
Ames revolving shelves turn on ball bearing to bring all stored items to front of cabinet. Shelves are made of aluminum, adjustable to any desired vertical spacing. Shelves made in width of from 12 to 20 inches to fit standard base and wall cabinets and coolers; include from two to six shelves. Vegetable bin has cooler unit which is optional with base cabinet units. W. R. Ames Co., San Francisco, Calif.

(Continued on page 120)
Open... for Business!

Full clearance on all four sides

Any one of the thousands of busy industrial plants now equipped with Ro-Way Doors will tell you that when they are opened, they are really “open for business.”

No other type of door gives so much clearance on all four sides of the door opening. Big loads... wide loads... high loads roll in and out of Ro-Way equipped plants freely... easily... and safely.

Time is saved... tempers are spared... operating costs are lower all because Ro-Way Doors are designed and built completely in Ro-Way’s own plant to serve industry faster... better... and longer.

For name of Ro-Way authorized distributor near you consult the yellow pages of your telephone directory, or write us.

ROE MANUFACTURING COMPANY
753 Holton Street
Galesburg, Illinois, U.S.A.

There’s a Ro-Way for every Doorway!
PUTTY KNIFE AB7932
A dual-purpose tool, the blade end of "Duo-Fast" putty knife serves as scraper
or conventional type putty knife, and the V-shaped end acts as guide in completing putty job. Manufactured of plated hardened steel. Fastener Corp., 860-902 Fletcher St., Chicago 14, Ill.

SPINDLE SHAPER AB7938
Vertical spindle shaper has two speeds, 7,000 and 11,000 r.p.m., to provide correct speed with cutters of different size. Table area is 22 inches by 33 inches. Shaper has three inch vertical spindle travel, with bearing assembly moving as a unit. Elevating is controlled by hand wheel and graduated dial; independently adjustable guides are controlled by hand wheels. Motors are 1 HP single phase or 1 1/2 HP three phase. Walker-Turner Div., Kearney and Trecker Corp., Plainfield, N.J.

ROUND VENTILATING WINDOW AB7929
"Roundvent" window can be opened for ventilation, is built of western pine, dipped in Woodlife. Inner sash is a complete circle, with screen in upper half; sash rotates to provide ventilation. Operation is on a patented stainless steel weather-striped track. Webb Manufacturing Co., Conneaut, Ohio.

STORM SASH—SCREEN AB7933
"Bilt-well" unit consists of complete storm sash (upper and lower sections) and a screen section which interchanges with lower section of the storm sash. Has safety hook which does not rattle or re-lease until sash is extended beyond 45 degrees. One part of hardware, 3-in-1 Multi-Purpose Hanger, functions as upper sash support, lower sash hook and upper sash fastener. Made in 41 modular sizes of kiln-dried Ponderosa Pine. Carr, Adams and Collier Co., Dubuque, Iowa.

CLOTHES WASHER AB7914
Apex "Wash-A-Matic" deluxe model washer is fully automatic, does not require bolting down. Has recommended maximum load of eight pounds of dry clothes. Finished with white baked enamel skirt and top and white porcelain tub. Trim is polished stainless steel. Electric automatic timer controls wash-rinse-dry-fluff cycle. Two dial settings for wash—hot (tank temperature) and warm, 100 degrees F. Motor is heavy duty 110 volt, 60 cycle AC. Dimensions: 36 inches high, 26 1/4 inches deep, 26 inches wide. Apex Electrical Manufacturing Co., Cleveland, Ohio.

ELECTRIC DRILL AB7901
Model 24A 1/4 inch electric drill, built with surplus power for drilling in metal, wood and composition materials, has speed of 1800 r.p.m. with no load, 1100 r.p.m., full load. Can be used at full load for continuous drilling without stalling. Construction features include aluminum alloy die cast housing, helical gears, oil impregnated bronze bearings, three-jaw Jacobs chuck, trigger type switch with locking device. Stanley Electric Tools, New Britain, Conn.

AUTOMATIC TEMPLATE AB7909
This automatic template is especially designed for measuring between two surfaces or walls. Will scale from 32 to 42 inches. In measuring stair treads and risers, adjustments in length are made for the first stair only. Template will automatically adjust to the length and angle variations in other stairs with a slight turn of the handles. Eliason Tool Co., 2117 E. 56th St., Minneapolis 17, Minn.

MASONRY SAW AB7907
Eveready Briksaw with "Adjusta-Height" device can be quickly adjusted for different sized materials, such as quarry tile, brick, partition tile, concrete block. Saw may be operated for standard dry cutting or converted to wet cutting with simple installation of wet cutting kit. "Toe-Matic" control enables operator by upward tilt of foot treadle to reset cutting head to angle desired. Blades include abrasive, wet abrasive and diamond. Eveready Briksaw Co., 1509 S. Michigan Ave., Chicago 5, Ill.

FIRE ALARM SYSTEM AB7921
In "Detecto-Master" system, outbreak of fire causes critical temperature rise in any of "hot" thermostats, transmitting message to control unit which rings a bell, switches on a red light and designates at a meter dial location of the trouble. Equipment includes 15 master thermostats, with provision for auxiliaries where needed. System also is effective in giving warnings of cold damage. Lord-Taber, Inc., Canandaigua, N.Y.

(Continued on page 122)
Everybody in the building industry knows about Brixment for masonry. But do you know that Brixment also makes a very superior stucco?

When the new Central Public Library was built in Washington, D.C., stucco was specified for each of the building's tremendous ends (96' high by 120' and 140' wide). Materials and workmanship of the highest quality were of course required.

After due consideration and experimentation, Brixment was selected for the stucco. James Kane & Sons, Inc., the plastering contractors, report that the job is entirely satisfactory, that they have now used Brixment stucco with equally good results on several other jobs, and that they "do not hesitate to recommend Brixment as a completely satisfactory stucco mortar."

Brixment stucco is mixed and used exactly like portland cement stucco, except that no lime is required. It makes better stucco, however, because it is more plastic, has a more convenient hardening time, resists moisture and is less liable to hair-checking and crazing. And Brixment stucco costs less than any comparable mix of portland cement and lime. Ask your dealer for "Brixment for Stucco and Plaster"—or write us direct.

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY
GAS-FIRED BOILERS AB7939
Five models are included in York-Heat boiler line, all with baked green enamel housing. Boilers, manufactured for steam, hot water or vapor heating applications, range in capacity from 350 square feet of AGA rating of standing steam radiation, to 970 square feet. Boiler section is cast iron and built in accordance with A.S.M.E. code. Burner for boiler is furnished for manufactured, natural or mixed gas. York-Shipley, Inc., York, Pa.

PLASTIC WALL TILE AB7919
"Styron," plastic material from which wall tile is fabricated, is produced in eight new decorator colors—blue, gray, two soft blues, delicate peach, "greige" (gray and beige combination), yellow and orchid gray, with trims in complementary colors. Shades are more delicate than in previous years, with definite trend toward pastels for kitchen. Tile has been adapted for a variety of applications. Dow Chemical Co., Midland, Mich.

ALUMINUM SCREEN DOOR AB7905
All aluminum door is fabricated of hollow extruded aluminum sections. To install, door opening is first squared and adjusted to proper size with wood stripping. Then a special aluminum frame is used to cover wood stripping. Door is manufactured in all sizes, with one inch variations in width and height. Fractional sizes not needed as frame takes up to one inch variations. Alumatic Corp. of America, 1229 S. 41st St., Milwaukee 4, Wts.

ROCK DRILL AB7916
Medium-weight J-40 Jackhammer is capable of drilling in any kind of rock, is particularly adapted for general utility service in mines, quarries and road work. Has double-kicker port valve. Specially designed auxiliary port allows full line air pressure to pass through drill steel when blower valve is opened, providing blowing action for cleaning holes. Three-in-one backhead enables machine to be readily adjusted for wet, dry or blower-type drilling. Ingersoll-Rand Co., 11 Broadway, New York 4, N.Y.

REFRIGERATOR AB7925
Norge "Self-D-Froster" Model SR-849 has built-in automatic defrosting system. An eight cubic foot model, refrigerator has storage capacity of 27 pounds of frozen food, space on beverage shelf for more than a case of 12 ounce bottles and "fold-away" shelf for greater flexibility in food package arrangement. Norge Div., Borg-Warner Corp., Detroit 26, Mich.

ACCESS PANELS AB7922
Panels provide access to control points of plumbing, heating, ventilating, air-conditioning and refrigerating systems. Have removable type hinged door with automatic backout device. Manufactured in plain or grained finishes, in all types of metals, with or without expanded metal wings. Can be installed in metal lath, wood lath, marble, tile and plastered openings. Watson Manufacturing Co., Jamestown 1, N. Y.

GLASS BLOCKS AB7927
Designed to give appearance of melting ice, "Random Clear" glass block is adaptable for use in homes, theaters, stores and other places where decorative effects are desired. Random effect is achieved in production by use of several slightly dissimilar molds to form two halves of block, then using different combinations of halves. Designated as Insulux Glass Block No. 331, American Structural Products Co., Toledo, Ohio.

ELECTRIC WATER HEATER AB7918
"Saturn" water heater, designed for hot and cold water outlet installations, has galvanized storage tank. Easily connected with water supply system and can be attached to wall next to basin. Has Fiberglas wool insulation, spreader tube, blanket type heating elements. Models have capacities from one to five gallons, with 110 volt AC current. Widths from 8 inches to 13½ inches; heights from 19¼ inches to 35 inches. Barton Products Inc., Defiance, Ohio.

When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder.
Take any room in the house... a Sloane-Blabon floor covering will make it more livable! For Sloane Quality Linoleum Products mean added beauty through "better design and truer color"—less work for homeowners because these floors are easier to keep bright and clean. And, there's a Sloane-Blabon floor covering for every need and specification. Write for further information.

floor coverings for every specification

- Inlaid and Marbletone Linoleum
- Linoleum Tile
- Koroseal® Tile, Cove Base and Cove Molding
- Improved Asphalt Tile
- Resilient Enamel Floor Coverings
- Resilient Enamel Rugs
- Resilient Enamel Wall Coverings

For further information and samples, write Dept. AB-4.

SLOANE-BLABON CORPORATION
295 FIFTH AVENUE, NEW YORK 16, N. Y.

© B. F. Goodrich Company
Now you can get all of the advantages of Hidalift — the modern, 100% concealed sash balance — with the type of attaching bracket best suited to your own requirements. The new "L" type hinged bracket can be installed or removed with sash in frame. However, on installations with sash removed from frame you can use the cup type which eliminates rabbeting on bottom rail of lower sash necessary to receive "L" type hinged bracket. Either type can be adjusted without removing from sash. Mail coupon for complete information, or samples of Hidalift.

Catalogs and HOW-TO-DO-IT INFORMATION

589—HARDWOOD FLOORS—The Maple Flooring Manufacturers Association, 46 Washington Blvd., Oshkosh, Wis., has published an illustrated folder, "Finishing Northern Hard Maple Flooring the MFMA Way," which features information on many phases of hardwood floors and reviews MFMA research in the development of finishes.

590—MASONRY TOOLS—A new catalog issued by the Goldblatt Tool Co., 1515 Walnut St., Kansas City 8, Mo., contains information about the firm’s regular line of tools for the masonry trade and includes a number of items not available in recent years. Tool cases, scarifiers, feather-edges, pants, shirts, leveling instruments, mortar boxes and adjustable steel trestles are some of the items in the 80 page, illustrated catalog.

591—ELECTRIC TOOLS—A pamphlet illustrating the "Silver Line" of Thor portable electric tools has been published by the Independent Pneumatic Tool Co., 600 W. Jackson Blvd., Chicago 6, Ill. One of the featured tools is a 3/8 inch reversible impact wrench.

592—RADIAL SAWS—Action and feature illustrations, specifications and performance features are included in a six page folder, No. 1009, published by Walker-Turner division, Kearney and Trecker Corp., Plainfield, N.J. The catalog also shows standard components for setting up high speed production line cutting.

593—STEEL RESIDENTIAL BOILERS—Specifications, ratings, dimensions and engineering data pertinent to a line of hand-fired residential steel boilers are given in Catalog No. 538 issued recently by the National Radiator Co., Johnstown, Pa. Jacketed, unjacketed and cutaway views of the 26-inch, 29-inch and 39-inch boilers are shown.

594—"BLUEPRINT FOR BETTER KITCHENS"—is the title of a 12 page booklet for builders and architects published by Mullins Manufacturing Corp., Warren, Ohio. The booklet includes specifications, dimensional features, examples of installations and data on the full Youngstown kitchen line.

595—DOUGLAS FIR PLYWOOD—The 1949 basic catalog of the Douglas Fir Plywood Association, Tacoma 2, Wash., contains designations of new plywood grades, new grade-marking system and uses for the new and the established grades. Also listed are plywood's physical properties, including rigidity, insulation and condensation tables; and finishing data.

596—CONCRETE FORMING SYSTEM—A 32 page booklet on the "Uni-Form" system of forming concrete has recently been published by the Universal Form Clamp Co., Chicago 51, Ill. The booklet illustrates the operation of locking, tying and aligning devices and shows pictures of installations on a variety of buildings.

597—BATHROOM CABINETS—A new catalog issued by the Faries Manufacturing Co., Decatur, Ill., gives details about the firm's line of bathroom cabinets. In addition to illustrations of cabinet styles and features, the catalog includes installation charts and tables.

(Continued on page 126)
SCHLAGE...first name in cylindrical locks

The Schlage Lock illustrated is
Novo Design

Philadelphia's...Smith, Kline
and French Pharmaceutical
Laboratories,
a Schlage installation of heavy duty
cylindrical locks.
Architects: The Ballinger Company
Catalogs—

598—JOB STUDY NO. 83—published by Towmotor Corp., 1226 E. 152nd St., Cleveland 10, Ohio, features a survey of the handling operations of a specific company engaged in unloading, storing and loading materials and products, and transporting lime and sand from storage to hopper.

599—SLIDING DOOR—Facts about the “Gliding Door Unit,” including floor plans and diagrams of installation, are given in a well illustrated booklet published by the Huttig Sash and Door Co., Inc., St. Louis 10, Mo. One section of the booklet is devoted to technical information about sliding doors and another to descriptions of finish hardware.

600—“BETTER HOMES BY BETTER METHODS”—is a 16 page illustrated booklet prepared and distributed by the Prefabricated Home Manufacturers Institute, 908 20th St., N.W., Washington 6, D.C. The booklet explains the construction, erection, financing and distribution of prefabricated homes. Photographs of typical houses manufactured by 34 different companies are shown.

601—“DISTINCTIVE DOORS”—A pamphlet published by Newman Brothers, Inc., 660 W. Fourth St., Cincinnati 3, Ohio, gives diagrams and photographs of some of the firm’s special metal installations in storefronts and public buildings are also included.

602—“INSULATING SIDING FOR YOUR FARM”—is intended as a sales creating, consumer type booklet. Illustrations show in detail application techniques and characteristics of the product. This 16-page 4-color booklet is available from the Insulating Siding Association, 530 Echo Lane, Glenview, Ill.

603—“ALUMINUM STRUCTURAL DESIGN”—is title of 124-page handbook on how to design load-carrying aluminum structures. Available by writing directly to Reynolds Metals Co., Louisville 1, Ky. The purpose of the book is to enable engineers familiar with mechanics of materials to design an original structure of aluminum, or to convert existing structural design from other materials to aluminum.
You know that it takes modern features to sell a home today—and you work hard to see that the houses you build are up-to-the-minute. But what about their heating plants? Do you know that comfort comes first, that a modern heating plant and a well-heated home will make firm friends faster than any number of gadgets?

new HEIL units give you the

LAST WORD in heating

New Heil units have every modern heating feature—uniform heating, higher efficiency, quieter operation, better looks. Heil means quality to the millions of people in over 50 major industries regularly supplied by the Heil Co., with its diversified line of products. When you install a Heil Winter Air Conditioner, or a Heil Boiler-Burner Unit you can be sure of a delighted buyer. You know that the house will be comfortable, that there will be no complaints about high fuel bills. It’s a sure way to satisfied owners, and satisfied owners are your best prospect-getters.

There’s a HEIL unit for every house

You can select from a complete size range in Heil Oil-Fired Boiler-Burner Units, and Oil-Fired or Gas-Fired Winter Air Conditioners. There’s no need for an oversize unit. Factory wiring and pre-assembled units cut installation time, to save money on the job. Any way you look at it, your homes will be better—and better buys—with Heil Automatic Heat.

You’ll be interested to know about two special propositions Heil has for builders. For more details, write Dept. 8279, today.
HOW TO
SCREEN a Porch
in Combination with
ORNAMENTAL
IRON

2x2 Framing with
Screen - build in be-
hind Corner Porch Post

Corner Porch Post

COFFMAN Blue Print Service will help you
screen a porch, whether ornamental iron
panels or posts are already installed—or
whether you plan to build a porch combining
screen and ornamental iron. See how simple
to paint after the glazing material has set.

The most important point in new
industrial installation is to be sure
avoid sweating on the lights
until after the glazing has set and
has dried.

Application of Glazing Materials

(Continued from page 114)

Some important rules for all
glazing jobs follow:

Dust and dirt should be removed
from sash.
The sash should be dry.
Wood sash must be primed,
made from rust.
Clips must be suitably installed.
Use of thinners should be
avoided.

Glazing material should be fresh
and mixed with all the oil.
Lights should be protected from condensation until glazing material
is set and painted.

Sash frames should not be jarred
or handled until glazing material
has set.

The most important point in new

Kohler

Enameled Iron Lavatories

in types and sizes to meet every need

Does your customer wish a modern lavatory for a home bathroom or washroom? Whatever the need—you can win approval with one of these eight lavatories. All have practical features that satisfy important requirements—and the name "Kohler" assures a sound investment in first quality.

These lavatories have surfaces of lustrous, durable, glass-hard, easy-to-clean Kohler enamel which resists cracking or crazing because it is applied to iron cast for rigidity. The chrome plated brass fittings are engineered to provide highest efficiency. Kohler Co., Dept. 9-H, Kohler, Wisconsin.
GIANT INFRA-RED OVEN
BAKES NEW BEAUTY IN

A harder, more durable protective finish.
A more beautiful, more uniform coating.
Available in all greys.

NEW PRODUCTS
(Continued from page 122)

ALUMINUM SHUTTERS, WINDOWS
AB7937
Ornamental aluminum shutters, in nine different sizes, are individually packaged and ready to install. Offered in ten modern colors. Picture windows designed for use with Metalart double hung windows are available, glazed or unglazed, in 20 different sizes. Custom-built extruded aluminum frame screens also available, as well as aluminum louvers, zinc chromated, ready for painting, in three popular sizes. Metal Arts Manufacturing Co., Inc., P. O. Box 4144, Atlanta 2, Ga.

TRUCK BODY LIFT
AB7915
"Dumpcrete" body is especially designed for hauling and placing air-entrained concrete, also used for hauling premium concrete, aggregate, stone, coal, earth and ready-mix lime mortar. Has four cubic yard capacity. High discharge point allows use of long, fully adjustable chute. Vertical dumping angle and rounded interior corners aid clean discharge. Dumpcrete Div., Mason Construction Co., 131 N. Ludlow St., Dayton, Ohio.

(Continued on page 134)
YOU CAN BE SURE...IF IT'S
Westinghouse

THERE'S Magic IN THE NAME Westinghouse
You'll Sell Houses Faster When It Appears in Your Kitchens

Most of the trademarks of the quality materials you use in building houses are covered with plaster and paint. So, when prospects see the Westinghouse name, it indicates that throughout the house you are giving them the best.

New Westinghouse Refrigerators have glamour galore and, of course, they're ELECTRIC. Your prospects have seen them advertised. They want the Colder Cold made possible by the exclusive Automatic HOLD-

COLD CONTROL. They want the better, safer, surer food-keeping built into Westinghouse Electric Refrigerators. Make it easy for them to have it and you'll be getting the jump on your competition. Write for full particulars.

Westinghouse Electric Corporation
Appliance Division—Mansfield, Ohio

Please send me your booklet “How to Sell Houses Faster”.
Name
Address
City & State
NEW, NEW, NEW! A complete line of vitreous china lavatories by Briggs to add to the already outstanding line of Briggs Beautyware plumbing fixtures and brass fittings!

SMART, SMART, SMART! A wide variety of fixtures and fittings to harmonize with any decorative scheme for new homes or modernization work! DIFFERENT, DIFFERENT, DIFFERENT!

Yes . . . full of design features you'll find in no other lavatories! COLOR,

COLOR, COLOR! Sandstone . . . sky blue . . . sea green . . . ivory. FOUR exciting colors, plus white, moderately priced to fit every building budget.

The new Briggs Beautyware lavatories are:

1 THE WHITTIER (B-3210 HT), 19" x 17", shelf back, wall pattern, with chromium towel bars. Also available with chromium plated legs.

2 THE WHITMAN (B-3310 HT), 20" x 18", ledge back, wall pattern, with chromium towel bars and soap depression. Also available with chromium plated legs.

3 THE LONGFELLOW (B-3280 H), 22" x 14", shelf back, wall pattern, with soap depression. A great space saver due to its narrow front-to-back dimensions.

4 THE WHITMAN (B-3370 H), 24" x 20", ledge back, with chromium legs and towel bars, soap depression.

5 THE WHITTIER (B-3270 HT), 22" x 18", shelf back, chromium legs and towel bars, soap depression.
LINE OF

Beautyware

CHINA LAVATORIES

Low Prices!

Points of superiority in Briggs Beautyware vitreous china lavatories:

- Ample shelf space—"beaded ends and back"—prevent side soiling.
- Double front corner concealed overflows with smooth underbowl front—no unsightly bulge—installation made easier—no cramped quarters.
- Deep anti-splash rim—non-splash with valves open.
- Deep bowl—greater water capacity.
- Special safety-wall-locking feature—"fixture cannot come off hangers".
- No-slip hexagonal towel bars—attached to lavatory, front and back.
- Special easy-fastening methods for towel bars and legs.
- Attractive fittings—hug the back—black index supply handles—quick opening valves.
- Priced right—smaller premium for color.

Write for complete details to
BRIGGS MANUFACTURING CO.
3025-g Miller Avenue, Detroit 11, Mich.
THE HARDWOOD BLOCK FLOOR

BEAUTY — The rich brilliance and natural beauty of fine northern oak provides, in Hasko block floors, a fitting setting for modern or period furnishings. 12-inch square Hasko Blocks create a floor with fewer joints. Each block has a smooth, unbroken surface — no unsanitary dirt-catching crevices. The blocks, laid with their grains running in alternate directions create an unusually attractive patterned effect. Hasko Floors are available in golden oak or the new dark oak . . . the two finishes may be combined to make a unique checkerboard pattern.

PERMANENCE — Each Hasko block is laminated of three plies of veneer permanently bonded with phenolic resins . . . they are guaranteed not to delaminate. There are no butt joints in a Hasko floor. Instead, Hasko’s exclusive tongue-and-groove feature interlocks each block with adjacent blocks. This assures floor flatness, prevents buckling, and forms a tight seam that eliminates the danger of mastic extrusion. Hasko blocks are factory finished with an exclusive process which impregnates the wood fiber with varnish, forming a scratch and mar resistant surface. They are thoroughly waxed and polished before shipment.

LOW-COST INSTALLATION — Factory-finished Hasko blocks are designed for laying with a minimum of labor, waste and cost. They may be set in Mastic over concrete without the use of costly screeds or wood subfloors. Over old wood floors or new subfloors they may be blind nailed in the conventional manner. They are ready for use as soon as laid since all sanding, sealing, varnishing and waxing is done at the factory.

For full information regarding Hasko block flooring write for complete bulletin or see Sweet’s Architectural File.

ADVERTISED IN LEADING NATIONAL MAGAZINES

NEW PRODUCTS
(Continued from page 130)

RAFTER DIAL AB7930
Quick, accurate calculation of lengths and cuts of all roof rafters can be made with this instrument of Vinylite plastic. Two dial settings indicate the length of common rafters, length of shortest jack rafter (16 inches or 24 inches apart), top and bottom cuts of common rafters, and bottom cuts of hips and valleys, side cut of hip against ridge board and side cuts of jack against hip. Instrument also an aid in roof design. Edward Weyer, 40 W. 77th St., New York 24, N.Y.

VERTICAL SLIDE WINDOWS AB7935
Rusco all-metal prime window is packaged as completely assembled unit, including glazing and screen panel. It is fully paint-ed and ready for installation. Designed to permit inclusion of storm sash. Available in wide range of sizes. Window is added to firm’s present line of combination windows and related products for attachment to existing construction. The F. C. Russell Co., Cleveland 1, Ohio.

(Continued on page 136)
Still Another Major Builder Selects

American Kitchens
STYLED IN STEEL

One of 270 luxury homes built by Newell and Daniel in the exclusive Lake Success region of Long Island. Architects and builders specializing in low-cost homes are also large users of American Kitchens. For despite their custom appearance, American Kitchens actually cost less than good-grade wood cabinets!

A corner of the American Kitchen of the handsome ranch house pictured above. Note the absence of dirt-catching handles on drawers and well-cubited doors and the efficient beauty of the curved backsplash and front edge of counter. These are just two of many plus-features found in these famed Raymon Loewy-designed units.

American Kitchens Are the Favorite of Architects and Builders the Country Over!

More houses in the recent Chicagoland Home Festival were equipped with American Kitchens than any other kind, wood or steel! And they’re the first choice of architects and builders in every other section of the country, too—for the simple reason that American Kitchens are demonstrably superior. All other so-called "modern" kitchens are old-fashioned by comparison. And none other has American Kitchens’ many easy-to-see added conveniences. Yet, experience has proved time and again that American Kitchens are really more economical than quality wood cabinets! See our catalog in Sweet’s for illustrations and specifications on all units.
Nationwide...

Hydrocranes Step Up Building Pace

SETTING STEEL TRUSSES AND COLUMNS — OKLAHOMA

"We travel over a 150-mile radius and handle steel erection with our Hydrocrane. For fast placing and accurate spotting of steel members, the Hydrocrane far outclasses the old winch truck — there's no comparison." — Patterson Steel Co., Tulsa, Oklahoma.

HOISTING CONCRETE — WISCONSIN

"We use our Hydrocrane to hoist concrete for pillar and beam construction. It sure beats hand pulley hoists on overhead work — both in speed and manpower savings." — Minervino Brothers, Milwaukee, Wisconsin.

SETTING STONE — MICHIGAN

"We set costly stone sills and facings on a recent job with the Hydrocrane. Its precision control was a real cost saver as the slightest bump would chip the stone. In addition, the Hydrocrane saved 15 man hours." — Thomas M. Casey & Co., Buchanan, Michigan.

LIFTING ROOF SLABS — FLORIDA

"On one job our Hydrocrane raised 240 roof slabs in 2 hours. With a hand winch it took 3 men 5 days to do the same work. The Hydrocrane saved 118 man hours!" — J. P. Driver Company, Tampa, Florida.

Builders throughout the country are speeding up home and commercial construction with the fully hydraulic, truck-mounted Hydrocrane. It travels up to 50 m.p.h. on good open highways. Simple to operate, hand levers only. Fill in the coupon for full information.

BUCYRUS-ERIE HYDROCRANE DIVISION, South Milwaukee, Wis.

NEW PRODUCTS

(Continued from page 134)

KITCHEN CABINETS

Marvel "Custom Kitchen" line of wall cabinets are manufactured in standard cabinet sizes of heavy gauge metal. Doors are flush type, fully insulated, with concealed hinges. Refrigerator type baked-on enamel and chrome hardware are used. Base cabinets have mother-of-pearl grey plastic tops with metal molding. Sides of cabinets are flush for placing against each other or against stoves or sinks. Height and depth of cabinets match stoves and sinks. Cabinets have recessed black kickplate. Marvel Metal Products Co., 1100 S. Central Park Ave., Chicago 24, III.

ELECTRICAL TAPE

Made with plastic backing, "Scotch" Electrical Tape No. 33 is listed by Underwriters Laboratories, Inc., for temperatures up to 176 degree F. Tape is seven mils thick, has dielectric strength of more than 7,000 volts, adheres to plastic wires. Resistant to abrasion and affords protection against electrolysis and corrosion. Minnesota Mining and Manufacturing Co., 900 Fauquier St., St. Paul 6, Minn.

ELECTRIC WALL HEATER

Self-contained thermostat for Electromode Model WA-12 built-in wall heater provides automatic control of room temperature. Thermostat comprised of heavy duty switch combined with sensitive bulb. Bulb influenced by changes in room temperature only; switch operated by hydraulic pressure changes in bulb. Specifications: 1500 to 4000 watts, 115 to 230 volts, 5122 to 13,660 B.T.U., 42 pounds in weight. All model WA-12 heaters fit same wall opening: 14½ inches wide, 18½ inches high, front plate 17 inches wide, 21 inches high, 5¾ inches deep and extending one inch from wall. Electromode Corp., 45 Crouch St., Rochester 3, N.Y.

(Continued on page 138)
These are the Grade Trade-Marks that appear on all Douglas fir doors officially inspected by the Fir Door Institute!

Look for the FDI OFFICIAL STAMP of inspection and certification on every Douglas fir door you buy. It's your assurance of the right door for the right job every time.

FDI inspection means controlled uniformity in workmanship, appearance and grade. To you that means superior quality doors that enter trade specifications. The standards are those officially promulgated by the U. S. Department of Commerce.

Always look for the FDI Grade Trade-Mark. Be sure it says "FDI" on every fir door you buy!

FIR DOOR INSTITUTE
Tacoma 2, Washington
ENTERPRISING ERNIE SEES MONEY-MAKING LIKE MAGIC!

by Your Local DODGE MAN

IF HE PullS SOME JUICY BUILDING SUPPLY SALES out of that hat—then I'd say he's a REAL MAGICIAN!

THOSE LITTLE SLIPS of PAPER ARE DODGE REPORTS—YOU'LL SEE SOME MAGIC NOW, ERNIE.

THOSE DODGE REPORTS TELL YOU, EVERY DAY, WHO IS BUILDING WHAT AND WHEN... AND WHERE!

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NOW WATCH ME PILE UP PROFITS LIKE MAGIC WITH DODGE REPORTS!

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Without cost or obligation, let me see some current Dodge Reports.

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FIRM...

ADDRESS...

F. W. DODGE DODGE REPORTS CONSTRUCTION NEWS DIVISION F. W. DODGE CORPORATION 119 W. 40th Street—New York 18, N.Y.

NEW PRODUCTS (Continued from page 136)

STEEL DOOR FRAME AB7941

Interior-exterior door frame for residential and commercial construction is a one-piece, all welded steel unit. Requires no additional trim. Made with extra reinforcement in all four corners of the mitered joint, using a universal adjustable brass strike plate, an enclosed dust box, and hinges applied at factory. Shipped in single unit. Designed for 1 3/4" and 1 1/2" foot doors. Where required, exterior frames are provided with screen door hinges. The Steelcraft Manufacturing Co., 9137 Blue Ash Road, Rosmoyne, Ohio.

GAS-OIL FURNACES AB7923

Three automatic warm air heating plants especially designed for small homes and...
low-cost feature that helps sell houses!

REYNOLDS Lifetime ALUMINUM

Gutters and Downspouts

- **Rustproof Permanence**
  at about half the cost of other rustproof materials

- **Non-Staining**

- **New Reynolds Stipple-Embossed Finish**

A sales feature that prospective homeowners can see and you can advertise, for very little more than the cheapest gutters. No painting, ever. No staining of walls. Simple slip joints, no soldering. Complete fittings. Half-round also available in plain finish. See your dealer or write for folder. Reynolds Metals Company, Building Products Division, Louisville 1, Ky. Offices in 32 principal cities.

Reynolds Metals Co., Building Products Div.,
2003 So. Ninth St., Louisville 1, Ky.

Check here for free sample of Aluminum Nails

Check here for literature on:

- *Corrugated*
- *Snap-Seed Roofing*
- *Industrial Corrugated*
- *Built-up Roofing*
- *Reflective Insulation*
- *S-V Crimp*
- *Weatherboard Siding*
- *Gutters and Downspouts*
- *Flashing*
- *Stipple-embossed finials*

Company Name............................
Address.................................
NEW PRODUCTS
(Continued from page 138)

OUTDOOR GRILL AB7901
Charco-Grill is designed for cooking over
lump charcoal or charcoal briquets. Built
of grey cast iron with ten-bar malleable
iron top grill; finished with aluminum
paint. Unit has two hinged grills, lower
close to coals for fast cooking, upper for
broiling. Measures 19¾ inches wide, 17½
inches deep, 13¼ inches high; weighs 84
pounds. Char-co Grill Senior is 18 inches
by 22¾ inches by 13 inches, weighs 134
pounds. American Brake Co., 75 E. 45th
St., New York 17, N.Y.

DECORATIVE PLYWOOD AB7920
Fir plywood, "Plytex," is wire-brushed to
smooth surface which accentuates raised
casey grain figure of wood. Decorative effects
include plain lacquers or wax for natural
finish; oil or water stains; blond finish; and
two-tone effects with paint. Two grades:
"A" for natural finishing; No. 1 for paint-
ing. Produced in 5/16 inch three-ply pan-
els, 48 inches wide by 96 inches long. Davis
Plywood Corp., 12555 Berea Rd., Cleveland
11, Ohio.

CONCRETE BUCKET AB7936
One-half cubic yard concrete bucket fits
on frame manufactured by this firm, and
is interchangeable with the 5 feet 6 inch
by 5 feet 9 inch material platform which
has been standard equipment for the
tower now in service. Bucket is roll-over
type and will hold full load of 11.5 mixer.
Descends to low level to permit loading
directly from concrete mixer at ground
level, or from truck mixers. Automatic dis-
charge regulated in 3-inch increments of
any point from 10 feet above ground to
within 5 feet 6 inches of tower top. Jaeger
Machine Co., Columbus 16, Ohio.

(Continued on page 144)
new! modern! free!
a "silent salesman" to work for you!

"HELL" WORK THE CLOCK-AROUND... HELP YOU SELL THE "BATHROOM BEAUTIFUL" WITH PROFIT-MAKING RESULTS

Yes—this beautiful, compact "silent salesman" display board costs you nothing! It's given to you at no cost when you purchase the Miami-Carey bathroom accessories displayed—at your regular discount!

This handsome display is shipped to you F.O.B. Middletown, Ohio. Accessories are mounted as illustrated. Single items and ensembles are effectively grouped for ready identification. You simply add (in space cut out) a Miami-Carey bathroom cabinet with fluorescent lighting that fits a 14" x 20" wall opening. (For example: #2030)

Your next move? Put your display in a window or on your floor—and watch sales and profits move your way!

the deal!

It's simple! A profit-making display can be yours in no time at all—just ask your Miami-Carey representative to make the arrangements, or return the coupon today.

Please tell me how I can increase my sales with your new cabinet and accessory display.

NAME ________________________________
FIRM ________________________________
ADDRESS ______________________________
CITY ________________________________

MIAMI CABINET DIVISION, THE PHILIP CAREY MFG. CO., MIDDLETOWN, OHIO.
(In Canada: The Philip Carey Mfg. Co., Ltd., 1557 Mackay Street, Montreal 25, P. Q.)
Hotpoint round models range from 30- to 50-gallon sizes in the new "Builder's Special" line. One or two Calrod Units may be specified for any size.

Hotpoint table-top models are available in 30- and 40-gallon sizes. One or two Calrod Units may be specified for 40-gallon size only.
Low Cost Line Of Famous

WATER HEATERS

Our Name Is Right... Our Price Is Right... And Your Profit Is Wonderful!

Now you can equip your new building projects with America's most famous electric water heaters at the same low cost and for the same high mark-up formerly offered only by less desirable makes!

Yes, Hotpoint—America's leading manufacturer of electric water heaters—presents a new line made expressly for builders. Called "Builder's Specials," they combine Hotpoint's traditional quality with new manufacturing economies which in no way affect performance. The resulting savings mean more profits for you!

All nine "Builder's Special" models offer Hotpoint's famous "Magic Circle Heat" of pressurized Calrod® Units, automatic thermostat, heavy-duty tank, thick Fiberglas® insulation plus all the other features which have made Hotpoint America's largest-selling electric water heater. See your Hotpoint dealer for all the money-making details.

Hotpoint Inc. (A General Electric Affiliate), 5600 West Taylor Street, Chicago 44, Illinois.
SPEED CONSTRUCTION

with new

SPEED-WALL

FOR FASTER AND BETTER BUILDING

Increases Builder Profits
Offers More Beauty
Is More Economical
Has Greater Durability
For Any Floor Plan

Reduces construction time 50 to 60%!

Actual building records show this astounding fact, where Speed-Wall was used, and other factors were normal. Exterior and partition Speed-Wall, the new, practical materials-method approach to building, offers sparkling opportunities for multiplying profits . . . immediately! . . . to builders, contractors. With Speed-Wall substantial time and material savings are made. Studding, diagonal bracing, fire-blocking, insulation, plaster and stucco are unnecessary. Made from No. 1 and better air dry Douglas Fir (o. p.), precision cut Speed-Wall is exceptionally fire resistant, provides 25 to 34% more insulation. Interior surfaces may be stained, varnished, calcimined or paneled. Bathrooms, kitchens may be tiled. . . . Everywhere builders and contractors will find using Speed-Wall eliminates many heretofore accepted construction difficulties. Learn ALL the important facts about completely new Speed-Wall. Today! write or wire for free literature.

FREE LIFT MST

AB7945

A total lift of 130 inches is reached with mast for Towmotor models LT-40, LT-48 and LT-48. Free lift is 65 inches, lowered mast height 83 inches. Machine is simple in design and construction; maintains standard capacity ratings. Towmotor Corp., 1228 E. 152nd St., Cleveland 10, Ohio.

VENTILATING FANS

AB7942

Two new models added to Challenger ventilating fan line are the V-520 with 20-inch blade and V-524 with 24-inch blade. Light in weight, models are easy to install. Two-speed split-phase motor, enclosed and featuring porous bronze self-lubricating bearings, is designed for vibration-free continuous fan duty. Signal Electric Manufacturing Co., Menominee, Mich.

LADDER STILT

AB7943

Primary purpose of safety stilt is to maintain ladder in a plumb position on inclined surface, irregular terrain, stairways, etc. Device is comprised of aluminum channel and indexing lock-pin assembly. Channel envelopes lower end of ladder rail and permits extension of rail from 11/16 inch to 16 inches. By extension of both rails, ladder's reach may be increased 1 1/2 inches. Busse Products, 217 E. Peace St., Canton, Miss.

(Continued on page 146)
Gracious living begins in the basement...

With the Spencer "C" Steel Heating Boiler

It's a pleasant feeling to know that your plans fit your clients' every need—especially when clients have the kind of heating they can depend upon all year round. For more than fifty years the name "Spencer" has meant the finest in clean, economical, efficient heating.

Today you can combine beauty and efficiency in every type of residential heating by installing a Spencer "C" Steel Heating Boiler. Just a few of the many fine features—

- Nine different sizes, with capacities ranging from 700 to 3000 square feet (steam)
- Available with a handsome two-tone jacket, styled for grace and beauty
- Steel integral door frames with gas-tight doors
- Easily adaptable to either oil burner, automatic stoker, or hand firing
- All tube surfaces easily and quickly cleaned through front flue door
- Patented Spencer service water heating method, with coils hidden inside the boiler—rear connections

How easily you can plan attractive basement work rooms like the one pictured here in the beautiful home of Michael Pinto, Tuckahoe, N. Y. Heating Contractor: Costello Brothers Fuel and Heating Company, Inc., Tuckahoe, N. Y.
NEW PRODUCTS (Continued from page 144)

**DOOR SCREEN**

A flexible-type door screen for use in homes and offices, the "Vudor" is produced in several colors. Construction is of lightweight wood slats; screen can be adjusted to number of positions. Used as partition, shield for nursery crib, concealment for radiator, etc. Hough Shade Corp., Janesville, Wis.

**FLOOR POLISHER**

FP1 floor polisher has cast iron base with motor centered directly over brush. The 10 inch brush with 11 inch bristle spread revolves at 300 r.p.m. Polisher cable holds cord taut, releasing cord as needed. Has bicycle type handle bars, pistol grip switch, white rubber bumper. Detachable base can be used for polishing small areas. Operates on AC or DC, weighs 30 pounds. Red Devil Tools, Irvington, N.J.

**SECTIONAL SCAFFOLDING**

Waco tubular type sectional scaffolding includes basic fixed types with adaptability and rolling towers. Locking device eliminates wing nuts and threaded bolts, permitting rapid assembly. Connector pins are riveted to each frame. Ladders are welded into each frame, provide planking every 15 inches. Wilson-Albrecht Co., Inc., 3565 Wooddale Ave., Minneapolis 16, Minn.

**BUILD NEW BUSINESS AND FAST PROFITS**

Here's a virtually untapped market ready and waiting for you. Low cost, exceptionally attractive real log homes in 30 days—approved for FHA financing. Walls 3 to 3½" thick of healthy, precision-cut Douglas fir logs, treated to prevent dis-coloration and deterioration—ample insulation—no studding required. Adoptable to any floor plan, residential or commercial—hundreds of attractive designs already built!

*Distributors in Principal Cities*

**A FEW CHOICE DEALER TERRITORIES STILL OPEN**

Write or wire for complete information

**LOG STRUCTURES OF THE SOUTHWEST, INC.**

344 W. Colorado Street, Glendale 4, Calif.

**NEW PRODUCTS**

**DOOR SCREEN**

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*Distributors in Principal Cities*

**A FEW CHOICE DEALER TERRITORIES STILL OPEN**

Write or wire for complete information

**LOG STRUCTURES OF THE SOUTHWEST, INC.**

344 W. Colorado Street, Glendale 4, Calif.
Every Builder Should Know These Facts

About Stained Shingles and Shakes...

Most roof and wall materials must be applied in one particular way. Not so with stained cedar shingles and shakes! Builders apply them at the exposure that is just right for the job. Note from the table below that walls of shakes can have exposures as narrow as 6"...as wide as 16".

For economy, and for best roofing results, each different roof pitch requires a different "coverage" value. Stained shingles can be applied at exactly the right exposure to suit the pitch. Pre-staining preserves shingles—saves building costs.

<table>
<thead>
<tr>
<th>Roof Pitch</th>
<th>16&quot; Shingles Exposure</th>
<th>18&quot; Shingles Exposure</th>
<th>24&quot; Shingles Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 to 1/4</td>
<td>3 1/2&quot;</td>
<td>4 1/2&quot;</td>
<td>5 1/4&quot;</td>
</tr>
<tr>
<td>1/4 to 3/4</td>
<td>5&quot;</td>
<td>5 1/2&quot;</td>
<td>7 1/2&quot;</td>
</tr>
</tbody>
</table>

Pre-staining impregnates all surfaces with preservative oils...adds surface "seal" to the excellent weather resistance of cedar shingles.

Double-coursing extends exposure maximums. Economical use of second grade shingles, covered by exterior courses of stained cedar shakes, permits 15-inch exposure of 16" shake length. 18" shakes are similarly applied on 14-inch exposures.

Shake edges are machined parallel and vertical to butts, insuring straight horizontal course-lines. Parallel edges permit tight joints which blend with processed grooves, eliminating the "shingled" vertical breaks.

Edge view illustrates double-coursing application. First course is tripled, eliminating costly drip-cap. Corners are mitered. Application is simple, rapid, economical. Rabeted shiplap strip guides both under and outer courses for butt-nailing.

Complete application instructions and specifications for all shingle and shake products in Sweet's File 7a.

ASSOCIATED MANUFACTURERS

* Wood Beautifiers, Seattle, Washington
* Colonial Cedar Co., Inc., Seattle, Washington
* M. R. Smith Lumber & Shingle Co., Seattle, Washington
* Canadian Forest Products, Ltd., Vancouver, British Columbia
* The Robert McNair Shingle Co., Ltd., Vancouver, British Columbia
* Creo-Dipt Company, Inc., North Tonawanda, New York
* Everett Shingle & Shake Company, Everett, Washington
* Capilano Timber Company, Ltd., Vancouver, British Columbia
* Perma-Products Company, Cleveland, Ohio
* West Coast Stained Shingle Co., Seattle, Washington
* Portland Shingle Company, Portland, Oregon
ParaUSE "Type RR" Cables are made with a high grade heat and moisture resisting insulation protected by a tough neoprene sheath over the conductor insulation. This jacket provides an armor for the conductors which is resistant to heat, even to flame, oils, acids, alkalis, and moisture. Sunlight, air or exposure to weather has little or no effect on its life. ParaUSE Cables are designed for direct burial in the earth, or for installation in street ducts or on overhead pole lines.

PARANITE "ParaUSE" CABLE "Type RR"

NON-METALLIC—NEOPRENE SHEATH

ParaUSE "Type RR" Parkway Wire and Cable provides economical permanent underground installation from power line to meter and for connecting several buildings from the same service. Examples of its application are on farms, estates and institutions, and for lighting streets, airports, ball parks, drive-in-theatres and many other outdoor lighting and power circuits.

It eliminates the trouble from sleet, windstorms and weathering. Unwithstanding outside wire is also done away with. You save labor. You save time. Simply dig a trench and cover; no other protection necessary.

IF IT'S PARANITE IT'S RIGHT!

DISTRIBUTED THROUGH WHOLESALERS

PARANITE WIRE AND CABLE
Division of Esser Wire Corporation
FORT WAYNE 6, INDIANA

City Conveniences
(Continued from page 78)

The Nevills have their own water system. The water supply comes from a spring located about 1,800 feet from the water tank of 7,500 gallon capacity. The water system provides forty pounds pressure at all outlets in the house. An irrigating system connects with the tank and the water flows by gravity through 4-inch removable aluminum pipes to the garden and orchard.

The Nevill home consists of three bedrooms, two tile baths, a long hall, living room and dining room combination, kitchen and breakfast room combination, and a two-car garage and laundry room.

During recent years the growth of the liquefied petroleum gas industry has been extensive, making it possible for many householders like the Nevills to take up residence in suburban and rural areas.

The LP-gas industry is meeting these demands by earmarking millions of dollars for continuous expansion of facilities to provide complete fuel service and more comfortable living conditions for thousands of homes not reached by distribution mains. While some of these homes represent new construction, many are homes that have converted to LP-gas.

All liquefied petroleum gas tanks are installed out in the open and require little space for installation. Once set up, the system is the source of supply of all gas used by the householder. The gas flows from the yard tank to appliances through the house piping system.

Engineers point out that handling liquefied petroleum gas is less hazardous than handling other liquid fuels because LP-gas tanks are closed and are designed to prevent release of vapors into the air. With proper piping and appliances, and with a system installed and maintained in proper condition, liquefied petroleum gas service is as safe as any other fuel used in the home and safer than many fuels in general use.

The customer may choose one of two methods of getting LP-gas service. He may purchase and maintain his own system, or he may obtain a system on a lease basis. Lone Star Gas Co. and many other LP-gas distributors use the latter method of supplying butane or propane.

In addition to homes, there are hundreds of industrial and commercial users of LP-gas—restaurants, cotton gins, hospitals, feed mills, and schools. Some railroads have butane or propane drums under dining cars and coaches to provide fuel for the heating devices.
Recommend and Relax

The builder or contractor who recommends Fairbanks-Morse heating equipment does so confidently. The high quality of materials and construction in every Fairbanks-Morse product is assurance of dependable performance and trouble-free service — of harmonious relationship with customers for the lifetime of the equipment. Recommend Fairbanks-Morse heating equipment...and relax. For full information, write Fairbanks, Morse & Co., Chicago 5, Ill.

FAIRBANKS-MORSE,
a name worth remembering

COMBUSTION • DIESEL ENGINES • PUMPS • SCALES • MOTORS • GENERATORS • RAILROAD MOTOR CARS and STANDPIPES • FARM EQUIPMENT • MAGNETOS

Model ZB self-feed bituminous stoker. In coal burning capacities of 15, 30 and 50 pounds per hour.

Model B-15 hopper type bituminous stoker. Features high and low feeds for houses up to 5 rooms.

Model Z hopper type bituminous stoker. For houses of 6-12 rooms.

Model 550C—Coal-fired boiler. Convertible to gas or oil fuel.

Model 510-OW—Oil or gas-fired packaged unit boiler.

Model 90CG—Square case gravity furnace.

Model 70-OW—Oil-fired package unit utility furnace.

Model 900 hopper type anthracite stoker, with automatic ash removal.

Model 120CF—Forced air-conditioning furnace.

Model FM2—Conversion oil burner.

Model 80-GH—Gas-fired package utility furnace.

Model AH 400 hopper type anthracite stoker, with automatic ash removal.
Installation of AZPHLEX Asphalt Tile Flooring adds a lot to the beauty, value and "livability" of any home — and the modest price tag on this premium-quality tile makes it perfectly in line for low and medium priced home construction! AZPHLEX goes in fast and with minimum difficulty ... it has a protective, factory-applied wax finish that makes initial polishing easy ... it is colorful and attractive ... and it offers maximum resistance to the effects of animal, mineral or vegetable greases, alkalis, alcohol and mild acid solutions. It will take a very high polish — and keep it for an exceptionally long time; and its resistance to denting and marring is unsurpassed.

City Conveniences
(Continued from page 148)
for cooking, water heating and air conditioning.

Industrial engineers are studying closely the LP-gas boom, foreseeing that many small industries, too far away from gas mains, may arise as a result of the availability of this clean, convenient and dependable fuel.

The most important application of this all-purpose fuel however is for the comfort, convenience and safety of the millions of persons living beyond city gas mains. In the years to come it will serve the vast majority of rural and suburban households not reached by gas distribution systems.

LP-gas can give every remote farm and suburban home a kitchen that will please the most exacting householder. This "tank" gas is making a definite and enormous contribution to better living in the United States.

Gypsum Animated Film
JAUNTY The Flame, a new animated movie character in color originated by the Gypsum Association, is making a nationwide hit on movie and television screens. Jaunty was invented to dramatize the fact that gypsum is fireproof, but he has been winning friends on personal appeal. He tells a "believe-it-or-not" story of gypsum. Starring in "White Magic," he is assisted by top Hollywood performers in two other 16 mm. sound-color shorts produced for builders and dealers by Jerry Fairbanks, several-time winner of Academy Awards. These films are available for any showings to dealers or builders by the Gypsum Association, Civic Opera Building, Chicago 6, Ill.

Fiat Names Sales Manager
THE appointment of Hugh A. White as sales manager of its Shower Cabinet division has been announced by Fiat Manufacturing Co., Chicago, Ill.

For more than ten years White has been a member of the sales staff of Fiat's Long Island City, N.Y., plant. He will be located in Chicago.

Model Home
(Continued from page 110)
The arrangement of rooms is distinctly different from the ordinary. All service units which include the garage, kitchen, utility room and service porch are located on the street front. The bedrooms and bath are lined up alongside of each other at the rear, thus forming a quiet zone away from the service end. Living room, dining room, porch and master bedroom occupy the center portion of house. In this manner an inside patio which is the open side with a grapestake fence. A series of sliding doors open up one wall of the living and dining room to the porch adjacent to the patio.

One of the features of this model house is the use of Kaiser Aluminum siding for the exterior wall finish. Platt says that the public reaction to this material was very good. The people were impressed with the practicability of the concave surface of the siding when they were shown that it could withstand blows and normal rough usage that an exterior surface material would have to bear.

This house, which is priced at $31,500 including landscaping and draperies, is part of a 65-home project that is currently under construction by Platt & Goheen.
THERE'S A RIGHT WAY TO DO EVERYTHING!

...and there's a RIGHT GRADE of WEST COAST WOODS for every building use

Sound lumber construction at lower cost...every builder's goal...is possible by specifying the least expensive grade that fulfills the requirements suitable for the purpose. Time-tested WEST COAST WOODS are graded to meet your requirements through every phase of construction...and cut costs at the same time.

The market for low-cost housing is limitless. An important factor in supplying this market is proper use of the lower-grades of lumber.

Timber is a crop...and grows on tree farms. Lumber, properly used, represents less than 20% of the cost of the average home.

FREE BOOKLET!

This illustrated booklet "How to Build Well and Save Money," is being offered to your prospective customers through national advertisements. You'll want to get a copy for your own information.

SEND THE COUPON TODAY FOR YOUR FREE COPY!

IT'S SMART TO BUILD WITH THESE WEST COAST WOODS

[Address information]

WEST COAST WOODS
1410 S.W. Morrison, Room No. 644
Portland 5, Oregon

Please send me your booklet "How to Build Well and Save Money."

Name:
Address:
City:
State:

DEER PARK PUBLIC LIBRARY
The Rusco Prime Window represents an adaptation of the basic engineering principles that have made Rusco all metal, self-storing combination windows today's most widely accepted unit of its kind.

The highly successful and proven features of the Rusco Combination Window have been altered slightly to meet the requirements of new construction. The result is a trim appearing, efficient, prime window unit that is extremely practical, durable and trouble free... simple to install, low field costs, and provides year 'round protection, comfort and convenience for the homeowner.
ALL WORKING PARTS OF STURDY, TUBULAR, GALVANIZED STEEL... ALL INSTALLATION MEMBERS OF TOXIC TREATED WOOD...

The Rusco Prime Window Unit is made of finest quality galvanized steel—bonderized for perfect paint adherence—treated with rust-resisting zinc chromate—and finished with baked-on, outdoor, aluminum enamel—REQUIRES NO FURTHER PAINTING IN THE FIELD—except wood surround. Its tubular construction gives maximum strength and rigidity with minimum weight. Glass is bedded in mastic and held in place by removable, stainless steel spline...simplifies glass replacement...NO UNSIGHTLY PUTTY IS USED. Lumite plastic screen cloth is standard...will not rust, rot, corrode or bulge...can be left in place the year 'round...never needs painting.

Long life waterproof felt weather stripping assures a completely weather-tight window, and ease in operation without sticking or rattling. Steel is used where strength, ease of operation, permanence and beauty are desired...wood is used where ease of installation and architectural harmony are essential.

AVAILABLE WITH STORM PANELS

Rusco Prime Windows may be had in conjunction with inside-adjustable, self-storing, storm panels...factory fitted...complete in frost-break frame. This affords all of the benefits of the famous Rusco Combination Window...the leader in the field since 1937.

SLIDES FREELY—LOCKS IN ANY VENTILATING POSITION

No weights, balances or cords are used in the Rusco Prime Window...the light steel frames never swell or bind...always slide easily. Locking mechanism is simple and positive, nothing to get out of order...Slight pressure with thumb on side of handle releases lock so that panel can be moved to position desired. Release of pressure locks window.

LIGHTWEIGHT, STREAMLINED GLASS PANELS ARE EASILY REMOVED FROM INSIDE...MAKES WINDOW CLEANING EASY

Housewives can now clean windows and screens from the inside. Just slip out the panels—it's as easy as that—takes only a second or two.

SEND COUPON FOR COMPLETE CATALOG. Valuable Franchise Territories Still Available.

THE F. C. RUSSELL COMPANY
DEPT. 7-AB79, CLEVELAND 1, OHIO

Gentlemen: Please send me catalog of informative data and specifications on Rusco Prime Windows.

(Please check) I am [ ] Architect [ ] Building Contractor [ ] Building Supply Dealer

NAME

COMPANY

ADDRESS

CITY

ZONE

STATE

THE RUSCO PRIME WINDOW
(VERTICAL SLIDE)

...the most complete, practical, package unit ever developed.

THE F. C. RUSSELL COMPANY
DEPT. 7-AB79, CLEVELAND 1, OHIO
HOW TO GIVE VARIETY TO MASS PRODUCTION HOMES!

Arch. HAROLD SPITZNAHL

CABOT'S CREOSOTE STAINS...

Cabot's Creosote Stains are available in a wide range of colors... from brilliant lasting hues to weathering browns and grays. Rotate and combine these sixteen colors... vary the wood surface... siding, clapboard and shingles! You'll find unlimited and distinctive variations for a group of single blue-print homes!

Easy to apply... won't peel or blister. Practical and inexpensive... cost only one-third as much as good paint. High proportion (60-90%) of refined creosote oil gives years of protection against decay!

Write today for free color card and complete information.

Samuel Cabot, Inc.
724 Oliver Building,
Boston 9, Mass.

CABOT'S CREOSOTE STAINS

VARIETY TO MASS PRODUCTION HOMES!

Arch. HAROLD SPITZNAHL

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Samuel Cabot, Inc.
724 Oliver Building,
Boston 9, Mass.

CABOT'S CREOSOTE STAINS

Dealer Review

(Continued from page 116)

intent of Congress in its original bill to exempt retail dealers from the wage-hour law. It is on this intent that the industry bases its opposition to the present proposal, which places the industry within the provisions of the law.

A report was made on NRLDA's activity in developing the farm grain storage market for the retail lumber dealer. The association has prepared a folder, "The Farmer's Forties," for distribution by dealers to farmers in the grain states.

The educational committee reported on the successful operation of seventy-two 30-day short courses at 16 universities in the country. Plans were made for training lecturers to direct these courses, to make wider use of visual aids, and to reduce the number of product hours while increasing the emphasis on salesmanship and merchandising.

It was suggested that the national association plan a series of regional meetings for members of the national affairs committee early in 1950, in order to provide the industry with more complete information about the pending legislative program. A tentative schedule will be presented at the annual NRLDA convention to be held November 6-11 in San Francisco.

Charles Price, of Scott, MacLeish and Falk, emphasized the competitive aspect of today's market. He also outlined the types of services which could be rendered by state and regional associations to their members without infringing in any way upon legal restrictions placed by government on the industry.

In his report Philip Creeden, chairman of the public relations committee, emphasized the premise that sound public relations must be based on actual industry performance. The committee is preparing a public relations "primer" for distribution to the entire NRLDA membership. In addition, the committee has made plans for the organization of a group of dealers known as "minute men," who will be on call for public relations assignments. These men will be acquainted with all facts about the industry, public housing, etc., and will be provided with material for newspaper releases and for talks before civic organizations.

The dealers agreed there is a need for selling and educating the public.

SUMMER at Deer Trail Lodge

DEER TRAIL LODGE

- Summertime is most delightful at Deer Trail Lodge — warm days and cool nights.

There are thrills of horseback riding along beautiful trails, to say nothing of boating on Lake Nokomis with its 45 miles of shoreline. In fact, there is not a dull moment any time of the year for old and young.

Tennis courts, shuffle board, badminton courts, horseshoe courts, archery ranges, swimming — pool and beach, baseball, croquet, bicycling, bowling, trapshooting—all in the midst of Wisconsin’s pine country.

American plan. Distinguished clientele.

SEND FOR ILLUSTRATED BOOKLET

DEER TRAIL LODGE

HFAFFORD JUNCTION, WISCONSIN
IMAGINE! such a home...

It's a bigger home — with 35 square feet more living space than ordinary houses of the same dimensions. And it's packed with sure-fire selling features — features that appeal to customers and make them buyers. No wonder builders have been so quick to recognize its big profit opportunities!

P&H ECONOMY HOMES

Six beautiful models of P&H Economy Homes with perfect planning — 24 ft. wide by 32 ft. long. Your choice of three attractive floor plans — 2 or 3 bedrooms — with or without basement.

at such a price!

$6,995! That's the price of this well-constructed P&H Economy Home, complete, ready to move into. Builders say it's the home they've been waiting for — the home that's designed to tap the heretofore unserved mass market!

Erected in a Single Day!

One day, not weeks or months! P&H Economy Homes come from the factory 83% complete. Quick erection really pays off — ties up your money for a shorter time—eliminates months of waiting for your customers.

Sound Construction — Durable

They're sound basic dwellings. No unnecessary or costly frills but true charm, beauty and generous space for living. Strong and durable, too — because amazing strength and rigidity are built into permanent wall sections that are 14 times stronger than customary construction!

Make More Profit in '49

Builders! Write, wire or phone us concerning the P&H Franchise in your territory. It's a big profit opportunity! Speedy erection means—quicker occupancy — quicker sales — more houses — more profit. Get in step now.

P&H HOMES

301 Spring Street
Port Washington, Wis.
LOOK!
Balance Sash and Weatherstrip with One Enclosed Unit

MAKE IT EASY FOR YOURSELF. Give your client a better installation and better sash control by using this combination Sash Balance and Weatherstrip Unit. The ALLMETAL Sash Balance is rolled from one piece of metal and new engineering principles have been applied to give true two-way balance action—making use of both spring tension and metal tension—thus gaining stability. In raising and lowering sash, spring housing (in itself the most effective weatherstrip) compresses against groove, yet does not hinder vertical movement. Hemmed side ribbing against the stops gives additional weatherstrip protection. Spring never shows. It is completely enclosed.

Heavy duty, well-engineered garage door hardware. Result: a quickly installed, easily operated, overhead door. Designed to insure customer satisfaction.

Standard set fits any opening up to 9' wide x 7'6" high when doors do not exceed 275 lbs. Other sets available for openings up to 10' wide x 10' high.

1. Spring for vertical tension.
2. Enclosed housing for lateral stability and neater appearance.
3. Complete metal runway coverage.
4. One-piece tubular housing conceals spring.
5. Specially designed sash clip for secure spring holding.
6. Full 1/4" x 1/4" sash groove (after fitting).

Write today for complete details about this new, better, economical window equipment which saves so much in labor and time.

ALLMETAL WEATHERSTRIP COMPANY
2243 North Knox Avenue • Chicago 39, Illinois

ALLMETAL WEATHERSTRIP CO.
2243 North Knox Avenue, Chicago 39, Illinois

Gentlemen: Please send me complete information and prices.

Name
Address
City
Zone
State

WRITE NOW for NEW 20 page brochure with 4 pages of specifications pictorially described. No. 144

STANDARD DRY WALL PRODUCTS
BOX X. NEW EAGLE, PENNSYLVANIA
Columbia’s room-darkening window shades revolutionize light control. They’re decorative and functional, too. Sturdy, long-wearing...with the additional special talent of shielding a room from light.

Look for room-darkening shades in Columbia’s REGAL grade. Made of high-count cambric, with a truly beautiful “hand” and a smooth, dust-shedding surface. Economically priced...and easily washable for thrifty maintenance. In light as well as dark colors.

See Columbia’s VELLOMO, too, a super quality grade, so completely lightproof that it’s standard for such uses as X-ray rooms. And here’s the surprise...VELLMO boasts high-style pastels and dazzling white. Any size you need up to 150 inches wide!

PERFECT FOR

- hotel rooms.
- hospital rooms.
- housing projects.
- school rest rooms, auditoriums.
- recreation and convention rooms with television sets.

Columbia Window Shades and Venetian Blinds are sold only in leading department and furniture stores and shade shops designated as Columbia Authorized Dealers. May we send you samples of our room-darkening shades and the name of the Columbia Authorized Dealer nearest you? Write today.

Ask a Columbia Authorized Dealer.

Columbia Window Shades and Venetian Blinds

THE COLUMBIA MILLS, INC., • 428 SOUTH WARREN STREET, SYRACUSE 2, N. Y.
How to catch a client's interest... and build greater satisfaction into homes

For years home buyers have wanted just such a convenience. Watch your clients' interest mount when you point out the advantages of the Stanley No. 23 Roller Catch—how smoothly and silently the catch rolls into the strike pocket... holds door securely in closed position, and eliminates rattling. It's the ideal catch for any interior house door (closet, wardrobe, communicating) that does not require a lock. Case is of steel with rust-resistant finish. The strike and faceplate are furnished to match hardware finishes. Recommend and install the No. 23 Roller Catch, made by Stanley, a name your clients know and trust. The Stanley Works, New Britain, Connecticut.

New Stanley ROLLER CATCH for Interior Doors

EASY TO ADJUST
No tools needed. For variance in distance between edge of door and casing, simply pull roller-plunger forward and turn with fingers. Each half-turn provides a 1/64" adjustment. Maximum adjustment 3/8".

EASY TO APPLY—Simply bore a 3/8" hole, 2 1/2" deep, at desired location on the door.
This Cost-cutting Building Combination Helps You Sell More Houses

Low-cost, modern reinforced concrete stucco construction, plus the Keystone System of Stucco Application meets today's market requirements.

The combination of modern stucco and the Keystone System of Stucco Application boosts the building business two ways:

First, modern stucco means lower cost construction—to produce homes that appeal to buyers price-wise. In most areas stucco siding costs only about ½ the cost of equivalent siding material.

Second, the Keystone System of Stucco Application produces stronger, more durable stucco—for lasting crack-resistance and permanent beauty.

So, take advantage of the cost reduction and quality construction you achieve with this sales-stimulating building combination now. Build with stucco—the Keystone way.

For complete information, see your building materials dealer or write direct. Find out all about the Keystone System of Stucco Application, and use Keymesh Reinforcing in easy-to-handle 3' x 150' rolls.

Keystone Steel & Wire Company
PEORIA 7, ILLINOIS
Manufacturers of Keymesh Reinforcing, Welded Fabric, Tie Wire and Nails

Durable, Low-Cost Stucco Calls for KEYMESH
HOPE'S WINDOWS, INC., Jamestown, N. Y.
THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS

For the greatest satisfaction with a picture window, select Hope's standard (Holford) steel frames and casements. Hope's picture windows are made to receive standard sizes of nominal 1" thick double glass such as "Twindow" or "Thermopane", or they can be glazed with single panes of sheet or plate glass. The low cost and ease of installation will surprise you. Write for leaflets Nos. 102E and 116.

HOPE'S WINDOWS, INC., Jamestown, N. Y.
THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS

ACCURACY!
CONVENIENCE!
BEAUTY!

Next time you're near your hardware or building supply dealer, try MASTER STREAMLINE. You'll know you're handling a superbly precise measuring instrument...worthy of the professional man and the highly skilled craftsman!

Note the extra-long 7 1/2" tip. STAYS PUT ALMOST ANYWHERE!. . . the positive Lever Tape Lock. HOLDS READING AUTOMATICALLY!. . . fine tempered steel blade graduated on both sides. ALWAYS RIGHT FOR ANY MEASUREMENT!. . . direct reading inside measure. QUICK AND EASY TO USE!. . . mirror-chromed case. STREAMLINE'S FUNCTIONAL BEAUTY LASTS!

MASTER STREAMLINE HAS EVERYTHING!
See, try and buy one now. If you prefer, mail coupon with remittance for your STREAMLINE today!

MASTER STREAMLINE
WOOD AND STEEL TAPE RULES

Master Rule Mfg. Co., Inc., 201 Main Street, White Plains, N. Y.
I enclose $2.25 for the 6 ft. STREAMLINE
$3.50 for the 8 ft. STREAMLINE
Engrave my name (75c extra). Please print clearly.
NAME
ADDRESS
CITY
STATE

A NATURAL
VAN-PACKER CHIMNEY

CEILING SUSPENDED FOR SPACE HEATER
FLOOR SUSPENDED FOR FLOOR FURNACE AND BASEMENT HEATER

- FHA and Underwriters approved for gas, oil, coal, wood, etc.
- SHIPPED complete—all parts for the entire installation—packaged and illustrated installation instructions.
- CEILING or floor suspended—no foundation.
- INSTALLED in 4 man hours or less—summer or winter.
- IMMEDIATE shipment—one or a carload.
- 20% to 50% less than brick.
- LIBERAL discounts to project builders.

VAN-PACKER CORPORATION
136 S. Clark St., Chicago 3, Ill.
Phone: Randolph 6-1848
It's the H.C. Little Oil Floor Furnace!

Tell a prospective buyer that your house offers heavenly, healthful warmth all winter—guarantee him an end forever to furnace tending—cater to his 10-room tastes and 5-room pocketbook—and you've sold a house!

FOR 10-ROOM TASTES

H.C. Little is the ONLY Oil Floor Furnace that Automatically LIGHTS ITSELF by means of exclusive H.C. Little Electric Ignition. No pilot light to waste oil or cause soot and smoke. Just carefree comfort around the clock, around the calendar.

Exclusive H.C. Little Electric Igniter. The Furnace LIGHTS ITSELF.

H.C. Little floor furnaces distribute heat to every room by convection. No ducts or sheet metal to install.

H.C. Little dual wall register floor furnaces stimulate natural heat flow and cool air return without ducts.

OTHER LUXURY FEATURES

Uniform warm air circulation and ample heat in the coldest weather... silent operation... cleanliness that means less housework, more leisure... all ordinary service performed below floor.

FOR 5-ROOM POCKETBOOKS

The H. C. Little Oil Floor Furnace Burns Low Cost Catalytic Oil. The provable saving in fuel bills is an important factor to today's budget-minded buyers.

Catalytic oils cost the least, give the most heat and are in the best supply.

CONDENSED SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>Standard</th>
<th>Dual</th>
<th>Standard</th>
<th>Dual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Capacity, oil per hr.</td>
<td>1.85 qts</td>
<td>2.7 qts</td>
<td>2 qts</td>
<td>3.15 qts</td>
</tr>
<tr>
<td>BTU per hour Input to furnace</td>
<td>64,750</td>
<td>95,000</td>
<td>70,000</td>
<td>110,000</td>
</tr>
<tr>
<td>BTU per hour Output from furnace</td>
<td>50,000</td>
<td>75,000</td>
<td>55,000</td>
<td>80,000</td>
</tr>
<tr>
<td>Dimensions of floor opening to receive furnace</td>
<td>22½&quot;x 28½&quot;</td>
<td>22½&quot;x 40½&quot;</td>
<td>22½&quot;x 28½&quot;</td>
<td>40½&quot;</td>
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<tr>
<td>Distance floor level to bottom of unit</td>
<td>44½&quot;</td>
<td>44½&quot;</td>
<td>44½&quot;</td>
<td>44½&quot;</td>
</tr>
<tr>
<td>Size of stack connection</td>
<td>6&quot;</td>
<td>6&quot;</td>
<td>6&quot;</td>
<td>6&quot;</td>
</tr>
<tr>
<td>Distance center line of stack connection below floor level</td>
<td>27¼&quot;</td>
<td>27¼&quot;</td>
<td>27¼&quot;</td>
<td>27¼&quot;</td>
</tr>
<tr>
<td>Dual Register, width and height</td>
<td>31½&quot;x 15½&quot;</td>
<td>43½&quot;x 15½&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wall opening, width and height</td>
<td>30&quot;x13½&quot;</td>
<td>42&quot;x13½&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For full details write

H.C. Little Burner Company

Dept. AB 7

SAN RAFAEL, CALIFORNIA

Or consult 'phone directory for offices in:


Andersen Window Has New Weather Strip Principle

A NEW double hung wood window unit employing a weather stripping principle that eliminates the need for conventional weather stripping at the sides is being produced by the Andersen Corp., Bayport, Minn. The window, called the “Pressure-Seal,” uses no weights.

1. REMOVABLE sash for easy cleaning springs or balances to hold sash in place; and sash-holding and crack-sealing mechanism is hidden in the sash stiles.

When levers are not depressed, the pressure strip “wedges” the sash against the parting stop, thereby sealing the crack on the sides. Depression of levers completely frees sash in sash runs, permitting lifting or lowering to any desired position. Sash not attached to cords, balances, or springs are easily removed.

2. TIGHT pressure is maintained except when lever is depressed to free sash for moving

Installation of the unit is simplified by inclusion of inside stops as part of the jambs and by the “built-in” weather stripping and operating mechanism. It is manufactured in commonly used modular sizes.
FAST-MOVING LINES FOR SUMMER SELLING

ORDRE FROM YOUR JOBBER

CABINET HARDWARE

Chromium Plated

Get it NOW! Get it from your jobber. Feature this distinctively-styled, Deluxe cabinet hardware that will breathe new life into any kitchen. It will sell FAST... at an excellent profit to you.

- Envelope Packaged
- Free Counter Display Boards
- Four Matched Sets
- Order from Open Stock if Desired

PERIOD FURNITURE TRIM

Authentically correct, traditionally faithful furniture trim, ideal for use on furniture, old or new. French Gilt and Antique English finishes. Easy to apply. A popular, profitable item. Get it now.

- Envelope Packaged
- Free Counter Display Board
- Consists of only 10 Items

DISTINCTIVE HARDWARE

ALL FROM 1 SOURCE

NATIONAL LOCK COMPANY

ROCKFORD - ILLINOIS

MERCHANT SALES DIVISION
More and more home owners are discovering how easily and economically troublesome swinging garage doors can be remodeled into smooth operating overhead doors. And dealers are enjoying fast, profitable sales on the Coburn #500 Overhead Hardware Set.

Adaptable to practically all types of garages, the Coburn #500 Set requires little headroom; does not interfere with passageway or floor space.

For FREE CATALOG and name of your nearest Manufacturer's Agent, write to New York Sales Office.

Other Coburn Products include fire door hardware, overhead trolleys and conveying systems for carrying loads up to 3,000 lbs.

COBURN PRODUCTS DEPARTMENT
WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL AND IRON CORP.

Sales Office — 500 Fifth Avenue, New York 18, N. Y.
Sales Engineering — 56 Sterling Street, Clinton, Mass.
Just try to MATCH

This GREAT 1949 Roofing Advertising!

It's the pacemaker for the roofing business! A grand total of 19,800,000 forceful, hard-hitting sales messages in America's top magazines, reaching most responsive roofing audience in America!

Smashing full-color advertising in The Saturday Evening Post! More color advertisements in the highly influential home-service magazines, Better Homes & Gardens and the American Home. Plus powerful half-pages in Country Gentleman, telling the advantages of Barrett® roofings to millions of the most progressive and prosperous farm families.

Advertising like this is the most exciting sales cooperation offered by any roofing manufacturer. And remember: It's backed by Barrett's unmatched reputation for top-quality, sales-tested products. Put it all together and it adds up to your best profit opportunity for 1949.
BUILDERS:

Get This Tested Plan To Help YOU Sell Houses

General Electric and successful builders developed this plan together. It sells houses—fast! It has been used with amazing success in every section. Use it to sell your houses. Whether you build one or a thousand, this is a sure-fire "home-merchandising" idea. It helps sell more homes—in all price ranges—easier, faster, and more profitably. Clip this coupon. Mail it today. A General Electric Heating Distributor will give you complete facts.

Act now!

GENERAL ELECTRIC COMPANY
Automatic Heating Division
Bloomfield, New Jersey

I'd like full information about how your tested plan can help me sell houses.

Name
Company
Street
City
State
Tel.

You can put your confidence in—

GENERAL ELECTRIC

Complete Wall Provided By New Lumber Product

A NEW material for exterior and interior wall construction which provides a complete wall in itself, without studding, diagonal bracing, fire blocking, insulation, plaster or stucco, is attracting considerable interest in the building industry.

The material, "Speed-Wall," manufactured by Speedwall, Inc., Beverly Hills, Calif., is engineered and designed for any floor plan and is made in standard lengths.

The Speed-Wall units are milled from No. 1 or better 4 by 8 inch or 4 by 12 inch air dry Douglas Fir lumber in 8 feet to 20 feet or longer lengths. The material lays up for eight, nine or ten foot ceilings without notching for standard doors or windows. Window openings up to ten feet may be spanned without additional structural provisions.

The finish of both exterior and interior surfaces may be natural, stained, painted or enameled; and interior surfaces may be papered, calicimined or paneled.

New Directory of West Coast Sawmills Now Available

The West Coast Lumbermen's Association has published another edition of "Where to Buy". This directory of the members of WCLA is revised yearly and the information it contains is designed to help the lumber buyer. In addition to listings of lumber and wood pipe manufacturers, loggers, timber fabricators and treaters, there is also shown detailed information as to capacity, facilities, species and lumber items manufactured plus a growing list of wood-conserving by-products. The publication also lists 37 WCLA lumber promoting publications that are available in quantity to dealers for distribution to their customers. Only four of these carry a nominal charge; the rest are free.

Art in Iron

Artcraft produces the finest, most exacting custom-made ornamental iron work from specifications at amazingly low cost. This is in addition to our regular, low-priced, stock ornamental work. Write today for more information, or send specifications direct.

Delivery: Two weeks for custom work.
Immediate delivery for stock items.

Terms: Payment with order or C.O.D.

Artcraft Ornamental Iron Co.
710 E. Hudson Street, Columbus 11, Ohio

Artcraft manufactures:
Fireplace Equipment, Railings, Grills, Balconies, Marquees, Theatre Lighting, Steel Stairs, Gates, Fire Escapes, Hood, Drapery Rods, Metal Furniture, Church Lighting, Sign Brackets, plus all kinds of architectural metal work. Write for information.

FREE: New 40-page catalog "ART IN IRON" showing Artcraft's talent in custom and stock work, with complete price lists. Write for your copy today. Write the name of your nearest branch in attached coupon and mail today.
Nu-Style Cabinets were selected for these apartments because of their many outstanding features. They are being selected daily for thousands of homes, both large and small.

It will pay you to learn what Nu-Style Cabinets offer! Actually, there are important reasons for Nu-Style Cabinets being in such big demand.

Nu-Style's modern design is in perfect harmony with the latest models of ranges and refrigerators... their rounded edges "line-up" perfectly with those of the range and refrigerator. And... being made of thoroughly kiln-dried Ponderosa Pine, they can be enameled any color or finished natural.

 Builders find that Nu-Style Cabinets are easy to install and Dealers find them easy to supply.

See Nu-Style Cabinets and other Bilt-Well Products shown in Sweet's Architects' and Builders' Files or write us today for more complete information.

CARR, ADAMS & COLLIER CO.
Dubuque, Iowa

Typical of the Fifty Installations

The Bilt-Well Line

Basement Windows • Breakfast Nooks •
Bilt-Well Storm Sash & Screen Unit •
Carr-dor Garage Doors • Closet Contenents •
Combination Doors & Storm Sash •
Corner Cabinets • Corner Cabinets for
Single Homes • Doors with Tempered
Preswood Panels • Front Entrances for
the Smaller Type of Home • Front
Entrances • Exterior Doors • Gable Sash &
Louvers • Gl-nor Kitchen Cabinets •
Interior Doors • Ironing Board Cabinets •
Linen Cabinets • Medicine Cabinets •
Mantels • Nu-Style Kitchen Cabinets •
Screen Doors & Window Screens • Shutters •
Stair Parts • Superior Windows •
Telephone Cabinets • Utility Windows

July 1949.

50 Apartments
on Luckahho Road
Yonkers, N.Y. and...

NU-STYLE CABINETS
in every one
Your sales advantages go up when you install an ALUMAROLL Roll-Up Patio Cover. Yet your building costs are down with this one simple, low cost installation. Just think — you provide much needed protection indoors — the final touch to modern living outdoors.

And home-seekers will appreciate that you considered them in your plans. Almost immediately they feel the cooling comfort and restful relaxation of their dream home. They have two good reasons for feeling this way...

**FIRST**—You've added that extra liveable outdoor space to their home. And it's the space they need to rest weary nerves and muscles. They have a clear, unobstructed view, too.

**SECOND**—They get 100% enjoyment and comfort from their living room with the large window-wall. That's because the direct rays of the sun are completely blocked out by their ALUMAROLL Roll-Up Patio Cover.

When you tell them that their ALUMAROLL Roll-Up patio cover is made of strong, durable aluminum, they'll thank you again for a sound investment. And they won't overlook the selection of attractive colors of baked enamel finishes, either!

So make an ALUMAROLL Roll-Up Patio Cover a MUST in your plans for them.

---

Edison Electric Institute Promotion Drive Features 'Kitchen-izer's Digest'

A COMPREHENSIVE promotional campaign for all-electric kitchens, to be carried on by electric utility companies in their respective territories, has been prepared by the Edison Electric Institute, 420 Madison Ave., New York 17, N.Y., as the initial step in a long range electric utility consumer campaign.

The program is centered on a recently published 40-page booklet, the "Kitchen-izer's Digest," which contains ten articles on kitchen planning by staff writers of outstanding consumer and trade magazines. The articles provide thorough coverage of kitchen planning, including arrangements that have proved adaptable in different situations, planning techniques, essential items and other important facts.

Tying-in with the booklet, which will be distributed free to consumers, will be newspaper, radio, outdoor and display room advertising, and kitchen planning kits.

The newspaper program makes available all sizes of advertisements, with a number of copy slants, all featuring the "Kitchen-izer's Digest." They are prepared either in mat form or in complete electrotypes.

For radio there are complete sets of professionally transcribed spot announcements. Each record contains thirteen announcements, from fifteen seconds to one minute in length. Space is left for local announcers to invite listeners to showrooms for copies of the planning booklet.

Cardboard kits enable planners to make a scale model of kitchens at home. The kit contains model floors, walls, doors, windows, closets, and cabinets.

Another feature of the campaign is a color and sound movie, "The Constant Bride," produced by Wilding Picture Products, Inc., which gives details about electrical installations in both new and existing homes. Two 15 minute movies, both with color and sound, are also being made available by the Edison Institute—"Five Days in the Cooler," concerning electric refrigerator and range kitchen; and a film on the electric dishwasher.

The promotional program is designed to supplement electric appliance manufacturers' national advertising featuring brands, and the National Electric Manufacturers Association's industry promotion at trade level. The Institute also recommends that appliance retailers, department stores, and electric wholesalers key their advertising to the program.
ON JULY 1

Armstrong's Cushiontone...

FOR SALE BY LUMBER DEALERS

On July first, Armstrong's Cushiontone—a perforated, fibrous acoustical tile—was made available for sale by retail lumber dealers. Now, for the first time, you can take advantage of the large and growing market for attractive, low-cost ceilings that stop noise effectively.

The need for sound conditioning is recognized today in thousands of stores, restaurants, offices, and other places where noise causes inefficiency and discomfort. Years of Armstrong advertising in Time, Newsweek, and Business Week magazines have helped bring this about. And, as more and more Cushiontone is installed, this demand grows even larger. Each new job promotes the idea of acoustical treatment.

For you, this is an opportunity for profitable new business. Cushiontone is economical and easy to install. No special tools or skills are needed on most jobs. Tiles are nailed to wood furring or cemented to any solid, level surface with Armstrong's Acoustic Cement. Cushiontone is a practical ceiling material for both new construction and remodeling.

Made of strong, lightweight fiberboard, Cushiontone is factory painted white both on surface and bevels. Each square foot is perforated with 484 cleanly drilled holes. These holes absorb up to 75% of the sound that strikes the ceiling. Cushiontone ceilings are easy to maintain and can be repainted without loss of acoustical efficiency. For complete information about Armstrong's Cushiontone, see your lumber dealer or write Armstrong Cork Company, 1607 Stevens St., Lancaster, Pa.
The Milwaukee Combination
Sash Balance
and Weatherstrip

PERMITS REMOVAL
OF SASH WEIGHTS,
INSULATION OF
MULLIONS

WRITE FOR DETAILS TODAY!

Weatherstrip Contractors Take Notice—Dealers Wanted
Simple installation slashes labor cost! One man easily installs 30 or more windows in 8 hours. NO high-priced, skilled labor needed. Get more satisfied customers at lower cost...higher profit!

Available with or without bronze covers that completely hide springs, as shown above.

Mail this coupon today!

TESTED...APPROVED...ACCEPTED!

For Trouble-Free
Specify
Bath Tub Edges
LUCKE

Leak-Proof Bath-Tub Hangers
No Leaks • No Cracks • No Repair Expenses

The Modern Way to Prevent Leaks
There is no excuse for cracks or leaks or repair expense in good buildings. Leading architects specify LUCKE to overcome this problem. Lucke Hangers build tubs into wall.

Sold by Leading Plumbing
Supply Houses
MANUFACTURED BY

W. B. LUCKE, Inc.
Wilmette, Illinois

American Builder Wins
Two Editorial Citations

American Builder, July 1949.

The Milwaukee Combination
Sash Balance and Weatherstrip

PERMITS REMOVAL
OF SASH WEIGHTS,
INSULATION OF
MULLIONS

WRITE FOR DETAILS TODAY!

Weatherstrip Contractors Take Notice—Dealers Wanted
Simple installation slashes labor cost! One man easily installs 30 or more windows in 8 hours. NO high-priced, skilled labor needed. Get more satisfied customers at lower cost...higher profit!

Available with or without bronze covers that completely hide springs, as shown above.

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TESTED...APPROVED...ACCEPTED!

For Trouble-Free
Specify
Bath Tub Edges
LUCKE

Leak-Proof Bath-Tub Hangers
No Leaks • No Cracks • No Repair Expenses

The Modern Way to Prevent Leaks
There is no excuse for cracks or leaks or repair expense in good buildings. Leading architects specify LUCKE to overcome this problem. Lucke Hangers build tubs into wall.

Sold by Leading Plumbing
Supply Houses
MANUFACTURED BY

W. B. LUCKE, Inc.
Wilmette, Illinois
HOUSE CONSTRUCTION DETAILS

By NELSON L. BURBANK

Practical builders find this book very helpful when making alterations in a set of stock plans or drawing up a complete set of plans for a house or small building. The details shown in clear line drawings and in photographs conform with standardizations recommended by housing authorities wherever such have been established.

The chapters are in construction sequence and as such serve as a guide in detailing each step in the construction of a dwelling, from foundation to finish. Just enough description is included to explain general principles.

Many of the new materials such as plywood are shown in application. Various systems of pre-fabrication are shown in addition to traditional methods of house carpentry. Chapters on painting, wiring, insulation and sound proofing, and on heating and air conditioning show modern methods. Graphic and factual information from widely scattered sources is brought together and cross-indexed for quick reference.

Look over the table of contents below and see the wide scope of its information. Then send for a copy on our money back guarantee and give it a five days working tryout.

Contents

Floor Plans; Sets of House Plans—Excavations; Foundations Forms; Foundations—Sills; Girders; Joists; Sub-Flooring—Outside Walls—Inside Walls; Wall Sheathing; Ceiling Joists—Roof Construction; Bay Construction; Roofing—Cornices and Porches—Exterior Wall Construction—Interior Wall Coverings; Interior Trim—Stair Construction—Windows—Doors—Hardware—Closets; Shelves; Built-in Equipment—Finished Flooring—Chimneys and Fireplaces—Scaffolds—Garages—Wiring for Modern Homes—Insulation; Sound Proofing—Gates; Garden Furniture—Camps: Cabins; Cottages—Farm Buildings—Painting and Finishing—Modern Homes—Modern Building Materials—Heating; Air Conditioning—Pre-Fabrication.
Crossett Siding Holds Paint

That's because it's produced from soft textured Arkansas Soft Pine which is free from pitch, absorbs primer and finish coats uniformly and does not bleed through.

These are the most generally used patterns of drop siding. Other standard patterns are available.

CENTER & END-MATCHED SHEATHING


Crossett siding and sheathing bear the Arkansas Soft Pine trade-mark. Ask your lumber dealer.

CROSSETT LUMBER COMPANY
CROSSETT, ARKANSAS

Staff Promotions Announced
By Editor Ed Gavin

ANNOUNCEMENT of the promotion of B. H. Wambolt, associate editor, to the position of senior associate and eastern editor with headquarters in New York was made June 1 by E. G. Gavin, editor of American Builder. Mr. Wambolt will be permanently established with his family in their new home at Scarsdale, N.Y., early in July, and will assume his new duties in the office at 30 Church St. on July 15.

Mr. Wambolt brings a rich experience in business magazine and newspaper journalism to his new position. Born and reared in a northern Minnesota lumber town near what then was one of the nation's largest sawmills, he began work in a newspaper office at the age of ten. He earned the expenses of a college education in journalism at the University of Minnesota by working as a linotyper on Minneapolis newspapers. Following his graduation from the university he worked on several country newspapers. In 1929 he joined the editorial staff of the Mississippi Valley Lumberman, Minneapolis, and served as its editor from 1942 until 1945 when he was named field editor of American Lumberman. A year later he joined the staff of American Builder as associate editor. He has a wide acquaintance in all sections of the country with home builders, distributors of building materials, architects, association executives and manufacturing executives. He is a recognized authority on building economics and in several technical fields.

With the announcement of Mr. Wambolt's elevation to his new important position came the appointment of Robert Charles as field editor, Ray Stein as assistant editor and Margaret Carroll as production editor. Mr. Charles, who worked part time on the editorial staff during the final year of his course in journalism at Northwestern University, became a full time staff member upon graduation. A native of Pitcher, Okla., he was reared in Kansas, and upon graduation from high school, entered the United States Marine Corps at the beginning of the war. As a combat Marine

(Continued on page 176)
• 14 beautiful solid and marbleized fade-resistant colors permit an endless variety of patterns. It is easy to select or originate a pattern which takes into consideration the elements of room size, location, temperature, lighting, traffic, furnishings, business aims and desired psychological effects.

• Colors go all the way through, can't show wear.

• Extremely long wearing. Withstands heaviest traffic, resists denting and scuffing. Here's distinctive, lasting beauty.

• Fire-resistant. Even burning cigarettes leave no blemish.

• Cushions every step. Suppresses sound. Lessens fatigue.

• Ease of application. Lies flat. Cut accurately. Uniform thickness.

• Easy to keep spotlessly clean.

• Slip-resistant.

In addition to squares in various sizes, Fremont Rubber Tile is also available with DUO-CUTS (9" x 9" tile die cut so that the center may be removed and a 6" x 6" tile of another color inserted). DIAGONALS .. . POLKA DOTS .. . STARS.

FREMONT Grease-Resistant TILE
Impervious to all types of grease, oil, gasoline, vegetable and animal fats, citrus juice, alcohol, glucose, ink and paint. Ideal for restaurants, industry, auto showrooms, bakeries, filling stations, etc.
WHY **Blo-Fan**

**IS SUPERIOR**

A BLOWER draws a smaller amount of air into the vortex, discharging it with great velocity, thus overcoming resistance. A blower delivers power, but it lacks volume.

**FAN**—75% of the air moved by a breeze fan is thrown from the blade tips. The center is weak when it meets resistance. A fan delivers volume, but it lacks power.

Blo-Fan combines the volume of a fan with the power of a blower. The fan blades supercharge the vortex of the blower so the vanes are fully loaded. That's why Blo-Fan delivers more air with more power.

**SPOT VENTILATION AT THE POINT OF AIR POLLUTION**

**IN THE KITCHEN, BATHROOM, DEN, OR LAUNDRY**

---

**Mix 12 to 15 more yards a day with JAEGER 3½" "AUTO-LOADER"**

- Accurate metering water tank measures exact amount for each batch.
- "Dual-Mix" drum—short mixing, fast discharging!
- Gated hopper loads while previous batch mixes—big time savings!
- Machined steel drum tracks ride on car-wheel rollers.
- Open the gate and hopper automatically shakes load into drum—fast, clean!

You cut costs and boost profits when you mix 12 to 15 more yards a day with no more manpower. And, you can do that with the Jaeger 3½" "Auto-Loader."

It's the fastest half-bag mixer mode. Catalog M-8 tells why—shows the complete Jaeger line. Write for it.

**THE JAEGER MACHINE COMPANY**

Columbus 16, Ohio
Leading Distributors in 130 cities sell and service Jaeger equipment.

---

**Keystone**

**ALL ALUMINUM Frameless Tension Screen**

- New all aluminum Keystone Frameless Tension Screens will be an attractive and profitable item to add to your line. Available in standard sizes for double hung windows, these full length screens have loads of customer appeal that can easily and quickly be turned into profits for you.

**HANDY FOR HOUSEWIFE**

**KEYSTONE WIRE CLOTH CO.**

HANOVER, PENN.
Learning the alphabet is tough at first but once mastered it becomes so easy that it gives rise to the saying, "Simple as A, B, C."

Making quality concrete is like that. Once the basic principles and procedures are mastered it is as simple as A, B, C.

By applying these easy-to-follow principles and procedures any builder can produce:

1. Concrete of great durability
2. Concrete that will resist severe wear
3. Concrete with a compressive strength of $3,000, 5,000$ or more lbs. per sq. in.

Quality concrete is good business, for a good job is your best salesman. It builds your reputation and sells more jobs for you.

If concrete fails to give good service—if floors dust, driveways check, walls leak—some one did not follow good concrete construction practice. Often new men are at fault.

If you want help in teaching such men the ABC's of quality concrete, have them write for the free, 48-page booklet, "Concrete Facts for Concrete Contractors," distributed only in the U. S. and Canada. It contains practical instructions about the essentials of making quality concrete.
Staff Promotions
(Continued from page 172)
with the rank of Sergeant, his distinguished service earned him several medals and citations for valor in action, and the Order of the Purple Heart.

Mr. Stein is a native of Little Rock, Ark., who was graduated from Earle High School in eastern Arkansas, and received an A.B. degree from Indiana University. Prior to the war he had six years of experience with newspapers in northern Indiana and Chicago. For four years he served as a public relations and administrative officer in the Army of the United States. He resumed newspaper work at the close of the war, and came to the American Builder on a temporary basis in February.

Miss Carroll, a former journalism student at Northwestern University evening school, joined the American Builder as assistant-to-the-editor three years ago. In that capacity she found time to help with and learn production work. When staff changes opened the position of production editor she succeeded to it.

New General Sales Manager of Skilsaw Announced

THE appointment of Paul Watts as general sales manager of Skilsaw, Inc., has been announced by Bolton Sullivan, president.

Watts, a veteran of 25 years in the electric tool field, has been with Skilsaw, Inc. for nine years and has been Pacific Coast manager since 1947. He will shortly move his headquarters to the company’s recently enlarged plant and main offices in Chicago after 22 years in the San Francisco territory.

Mr. Watts will direct the activities of 53 men operating out of 26 branch offices throughout the country.
**NEW ADDITION TO THE TUTTLE & BAILEY LINE!**

**TYPE S WALL HUNG COPPER CONVECTORS**

Designed for installation in schools, hospitals and institutions, offices, dormitories — the NEW Tuttle & Bailey Type S Wall Hung Copper Convectors offer outstanding features of construction, efficient performance, attractive appearance ... **plus important cost savings**!

An addition to the widely accepted line of T & B Standardized convector types, the Type S is the ideal choice of heat distribution equipment where frequent cleaning of the floor area is essential ... slanted top prevents use as “table” or “ladder.” All-steel construction, fronts are furnished in 18 gauge, bodies 20 gauge ... for applications where extra strength is required, heavier gauges are available.

**An added feature** — the new Type S Units are packaged as complete units, ready for quick installation.

**ASK YOUR JOBBER**

Write today for detailed facts ... Bulletin 500.
On any basis—durability, beauty or dollars

NORTHERN HARD MAPLE is a "buy" for Residential Floors!

- These days, with pressure for lower residential costs, look to MFMA Northern Hard Maple for economy that makes sense!

Northern Hard Maple has been preferred by generations of home-owners for its warm beauty, its tough durability, its easy maintenance. And MFMA strict grading regulations bring you not only "First Grade" Northern Hard Maple Flooring, for the cream of the business, but MFMA "Second Grade," "Second-and-Better Grade" and "Third Grade" at very savings, with no sacrifice of quality.

The ability of Northern Hard Maple to take stain is amazing. Thus, the varying grain and color patterns of these economical MFMA grades blend into beautiful tones with great sales appeal.

Figure these grades competitively on lower-cost housing and you can provide floors of top quality at prices hard to match.

School and institution jobs, too, and grain storage construction, make MFMA Northern Hard Maple the ideal flooring to stock and sell today.

Write for free folders: "Where Second Grade Means ExcelIent," "Use Third Grade for Economy" and "Finishing Northern Hard Maple the MFMA Way." See Sweet's, sec. 11/3, for full grading data.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Room 386—46 Washington Boulevard
OSHKOSH, WISCONSIN

FLOOR WITH NORTHERN HARD MAPLE
BEECH AND BIRCH

Nothing Like it For the Money...

MODEL 60

Mall Saw 6" Blade, 2" Capacity

Now Available with Bevel-Depth Attachment

A powerful, handy, light-weight electric saw with 6" blade. Of highest quality—ball bearing and roller bearing throughout. Widely used by contractors, carpenters and builders. It rips, crosscuts, miter cuts and dressed lumber up to 2 inches. With Bevel-Depth attachment it will make straight cuts from 5/16" to 1-31/32" deep; and bevel cuts up to 45 degrees from 1/4" to 1-11/32" deep.

It will also cut metal, cut and score tile, concrete, aggregate compositions, and grooves mortar joints. When mounted in Mall Saw Table it will serve (with attachments) as a shaper, disc and drum sander, wire brush and table saw. Furnished for 115-volt AC:DC or 230-volt AC:DC. For 220-volt battery lighting systems without Bevel-Depth Attachment, $58.95. Other models with 2½", 2¼", 3¼" and 4½" capacities. Write for literature and name of nearest dealer.
Here’s what people are saying about the NEW Modine Convector

"It's beautifully styled . . . yet so unobtrusive. And what superb heating comfort. I don't blame our friends for insisting on the new Modine Convectors, too."

"Seeing a sample sold me on the new Modine Convectors. Here's a product I can specify with confidence for my finest jobs because it's quality all the way."

"Since I began installing the new Modine Convectors, I've learned what satisfied customers really are. Every job I've put in has sold others for me."

NEW . . . Convenient Air Venting that's out of sight, yet instantly accessible.

NEW . . . Optional Dual-Purpose Damper—for finger-touch temperature control—conceals outlet grille when closed.

NEW . . . Convenient temperature control—conceals outlet grille when closed.

NEW . . . Optional Dual-Purpose Damper—for finger-touch temperature control—conceals outlet grille when closed.

NEW . . . S-Sec-ond 16-Gauge Removable Front for faster installation, easier cleaning.

NEW . . . Snap-in Lower Grille conceals piping, simplifies floor and carpeting treatment, Optional.

YES — investigate, and you'll see why architects, contractors and owners everywhere are saying, "The new MODINE Convector is my first choice!" Examine a sample . . . compare it . . . and you'll agree that Modine Convectors the best way to heat modern apartments, homes, schools, offices or hospitals.

Send for new Modine Convector Catalog Today! Special 1-Pipe Steam Convector Bulletin also Available

Design and Mechanical Patents Pending
A PORTABLE SAW-JOINTER
FOR DOING FINISHING WORK
ON THE JOB

Also doubles as a production machine in year shop. Particularly useful in finishing cupboard, bookcases and special casements.

Only Boice-Crane makes this popular unit, in which the TABLE not the BLADE tilts. Features improved saw performance by unique drive which permits mounting motor rigidly and separate from machine.

This "complete workshop" rips, cuts off, makes compound miters, planes, rabbets, grooves and miters. Longer table and fence equipment on our jointer permits mounting motor rigidly and separate from machine.

Longer table and fence equipment on our jointer permits mounting motor rigidly and separate from machine.

BOICE-CRANE COMPANY
966 Central Ave., Toledo 6, Ohio

Power tools and machinery for the carpenter and builder.

JOHNS-MANVILLE LAUNCHES HUGE FARM SALES PROMOTION PROGRAM FOR DEALERS

A COMPREHENSIVE program of promotion and sales aids for dealers catering to the farm market is being launched by Johns-Manville. It is predicated on the conviction that the greatest service J-M can render its dealers and their builder customers is to help them establish themselves as an authoritative source of information about farm building problems.

Reginald L. Johnson, J-M advertising manager, describes the promotion as a three-way program consisting of: (1) A 140-page "Farm Hand-Product Building Reference Guide," just off the press, containing basic information about farm building problems. It is designed as a comprehensive reference source for the dealers. (2) A book of efficient farm building plans, detailed so the dealer can discuss specifically with each farmer customer. (3) A bi-monthly magazine about farm buildings. This is mailed by J-M to a list of names supplied by each dealer to enable the dealer to maintain regular contact with the farmers in his area. Each issue contains one of its features, an article about one of the new farm buildings included in the plan book. The only advertisement in the magazine is that of the J-M dealer who subscribes to the service. He uses a stock ad or prepares one of his own.

The new "Farm Handbook" is priced at $1.50 a copy. It combines in one volume, the result of research and study by the U.S.D.A., various state agricultural colleges, the American Society of Agricultural Engineers and others on the construction requirements of different types of farm buildings. It covers such subjects as floor plan layouts for maximum efficiency, anchoring and bracing of farm buildings for maximum wind resistance, ventilation and insulation, types of structures necessary for various types of farming, and other subjects.

The farm building plan book contains 19 different farm buildings, each with a separate perspective and brief description of the structure. The bill of materials is completely detailed and one-quarter size reproductions of the actual working drawings are included. The plans in this book are prepared by the Better Farm Buildings Association of which J-M is a member. This association was formed to serve as a clearing house to study all available research data on efficient farm buildings and then to prepare plans to cover the needs of the various members. Each plan bears the seal of the association.

LITH-1-BLOCK

HEAVY-DUTY HALF BAGGER with Power Loader and Tank

THIS mixer gives the smaller contractor every production advantage found on larger mixers. Output is increased because high shoveling is eliminated. Automatic water measurement, rapid discharge, and Briggs & Stratton air-cooled engine insure perfect performance. Capacity 31/4 cu. ft. mixed concrete, plus 10% overload.

Write for prices and specifications
MULLER MACHINERY CO., INC.
780 NAVY AVE., METUCHEN, NEW JERSEY
Tillers, Non-tillers, Planter Mixers, Concrete Carts, Mortar Boxes
today's lowest price long-lasting floor.....

Dollar-for-dollar, MA·TI·CO asphalt tile will cost you less than that of any other applied type of flooring. Just shop . . . compare!

MA·TI·CO
ASPHALT TILE
FLOORING

MASTIC TILES
Corporation of America

FACTORIES: NEWBURGH, N. Y. • LONG BEACH, CALIF.

Sold by: MASTIC TILES SALES CORP., 153 West 37th Street, New York 19, N. Y.

WRITE for full-color literature showing complete sample line and design patterns to:
MASTIC TILES SALES CORP., Dept. E, 153 W. 37th St., New York 19, N. Y.

SAVE in Maintenance
Daily dusting and an occasional mopping and waxing is all you need to keep your MA·TI·CO floor clean and beautiful. MA·TI·CO is odorless, sanitary, safe . . . will not wear slippery with use.

SAVE in Long Wear
Because it is made to federal specifications, MA·TI·CO tile must be right! In close to 200 million sq. ft. of installations, MA·TI·CO is proving its endurance to wear under the most rugged conditions.

SAVE in Replacement
Should undue abuse or accident necessitate repairs, new MA·TI·CO tile units are easily inserted. Expansion of floor, as in remodeling, is just as simple with minimum disruption of normal store or plant operation.

QUALITY CONTROLLED

MA·TI·CO Asphalt Tile Flooring

• 27 beautiful colors, plain and marbled, including new pastel and decorator shades.
• Thru 'n' thru colors can't rub off.
• Unlimited design possibilities.
• Resists moisture. Ideal for use over concrete, when in contact with the ground.
A new self-supporting elevator has been designed to provide a low-cost, electric elevator installation for every type of business and institution that requires vertical freight transportation, but does not need heavy-duty freight elevators. It fills a long-felt need by making materials handling considerably easier and less costly for small business. The elevator is being made in three standard sizes of 1,500, 2,000 and 2,500 pounds capacity. Vertical rise is limited to 35 feet—sufficient for a three story building.

As illustrated, the elevator is installed as a complete unit in a new or existing hoistway. Only 11 feet of headroom is needed above the top floor landing. Expensive construction, such as a penthouse on top of the building for the electric motors and other operating machinery, overhead supports, roof alteration and building reinforcement, is eliminated. As the elevator supports itself, no heavy strain is placed on the building. The weight of car, load, hoist ropes and sheaves is carried by three guide rails in the hoistway and transferred to the bottom of the shaft. The elevator can be operated by any employee without special training. For complete details, write for Bulletin B-720H. Address: Otis Elevator Company, 260 11th Avenue, New York 1, N. Y.

Why The NORMAN SOUTHERNER Was Selected To Heat The First Revere Quality House

It was only natural that a new and better type home such as the first Revere Quality House built in Houston, Texas, would select a new and better type of heating equipment such as the new Norman Southerner horizontally designed forced air gas furnace.

This revolutionary method of forced air central heating was developed by Norman engineers for small space and low cost heating installations. It permits a minimum of heating space in new home construction because it can be installed in the attic, closet, under floor, ceiling or stairs, or on service porches. The Southerner meets all safety requirements of AGA for this type of installation. Ideal for replacement.

Operates on natural, mixed, manufactured or LP gas. Performance-proven in thousands of installations. Available in 30,000, 60,000, 80,000 and 100,000 BTU-in both Furnace and Unit Heater Models.
INSULATED GROUND LEVEL FLOORS CAN BE INSTALLED EASILY AND ECONOMICALLY with NEW INSULATING CONCRETE

Here's How ZONOLITE* Vermiculite Concrete Gives You EXTRA ADVANTAGES

Architects and contractors are discovering a new type of ground level floor that insulates against heat loss into the ground and is free from condensation the year around. This new floor is made of Zonolite Vermiculite Concrete, a revolutionary form of insulation.

Floors made with Zonolite Vermiculite are low in heat capacity, permitting better control of room temperature by minimizing heat lag—a real advantage when heating rooms. This advantage, combined with its insulating qualities, makes Zonolite Vermiculite Concrete the ideal base for radiant heat pipes installed in the floor.

Millions of square feet of Zonolite Concrete have been installed in large scale housing projects, industrial structures, college dormitories and many other type buildings. A fireproof Zonolite Concrete floor increases the building value and makes the property far more salable.

ZONOLITE COMPANY
135 South La Salle Street
Chicago 3, Illinois

MAIL COUPON FOR DETAILS

*Zonolite is a registered trademark of Zonolite Company
specify NORDAHL sliding door frames

When you incorporate NORDAHL sliding door frames into your construction specifications, you're opening the door to more spacious living. Each installation provides up to 12 1/2 square feet of usable floor space. And when you specify NORDAHL in the wall sliding door frames you get these PLUS features...ball bearing rollers—metal track—and metal-reinforced jamb. NORDAHL frames are trouble-free and assure quiet operation and long life. For the best, specify NORDAHL!

180 WEST ALAMEDA AVENUE — BURBANK, CALIFORNIA

ALSO SPECIFY NORDAHL WARDROBE HARDWARE

**KAUFMANN**

America's most complete line of ALUMINUM WINDOWS

- **DOUBLE HUNG**
  - No balances, no bulky frames.
  - Matching combination storm sash optional.

- **SCREENS**
  - Any size, any type.
  - Rigid frame, interlocked section design for very large screens.
  - For hotels, institutions and apartments.

- **DE LUXE STORM SASH**
  - Self-storing, floating frame, removable sill features.
  - For institutions, hotels and apartment buildings.

- **CUSTOM STORM SASH**
  - Narrow trim lines. Ideal for economy price field—very popular with home owners.

THE KAUFMANN MERCHANDISING PLAN

Makes it possible for a dealer or builder to be a fabricator—Earn two profits on every sale.

Write for complete details

KAUFMANN CORP.

17210 GABLE

DETOI, 12, MICH.
# Important Information

For Everyone Who Plans To Build or Remodel

**About Nichols Never-Stain Aluminum Nails**

**Here's What They Mean To You!**

1. **They Will Never Stain or Streak**
   painted wood siding or any other building material surface on which they are applied.

2. **They Hold Better**
   because they are etched from head to tip. They are solid aluminum through and through and are as clean as the aluminum utensils in your kitchen.

3. **They Cost Less To Apply**
   as they do not have to be countersunk and putted as in the case of ordinary nails... usually a $25 to $50 extra cost on the average five-room house.

4. **They Are Economical**
   they save costly repaint jobs often necessary because of unsightly stain from ordinary nails.

---

Other Popular Nichols Never-Stain Aluminum Building Products

- **Never-Stain Aluminum Roll Valley**
- **Never-Stain Aluminum Building Corners**

**Nichols Wire & Aluminum Co.**

General Offices and Plant — Davenport, Iowa

Branches: — Mason City, Iowa • Bottle Creek, Mich.

sell your trade the whitest white cement

A whiter white cement that gives greater beauty wherever used...widely and consistently advertised to your customers.

Trinity Portland Cement Division,
General Portland Cement Company
111 W. Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 West Fifth St., Los Angeles

The "ONE PACKAGE" WINDOW

Metalart
ALUMINUM WINDOWS

You receive a complete window when you buy Metalart Aluminum Windows. Metalart Windows arrive on your job completely glazed with DSB glass and with full length screens and anchors—ready to install. With extra heavy aluminum frame, complete weatherstripping, and lifetime Pullman type balances, Metalart Aluminum Windows reduce labor and installation costs, eliminate painting and maintenance. In full range of standard and modular sizes with 2, 4, 8, 12 or 16 lights. Send coupon for complete details on this and other aluminum building products.

METAL ARTS MFG. CO., Inc., P. O. Box 4144, Atlanta, Ga.

Please send me detailed information on your:
Aluminum Windows □ Ornamental Aluminum Shutters □ Storm Windows □ Artec Ventilators □ Casement Frenched Screens □ Tension Screens □ 1 and 2 Distributor □ Dealers’ Builder □ Architect □

NAME ____________________________
ST. & NO. ____________________________
CITY ____________________________ ZONE STATE ____________________________

Series 62 EXTRUDED ALUMINUM AWNING WINDOWS

The result of 30 years of research and experimentation

THE WORLD'S FINEST WINDOW—FOR THE WORLD'S FINEST BUILDINGS

Write today for descriptive literature.

CROFT STEEL PRODUCTS, INC.
14 MARKET STREET · JAMESTOWN, N. Y.
Why you build a better house with
ARKANSAS SOFT PINE

Satin-like Interior Trim takes paint and enamel without bleeding or raised grain.

Good taste in a simple panel design installed in clear Arkansas Soft Pine.

Every builder likes to work wood of soft texture that cuts easily. When you find such texture in a wood which takes paint without bleeding, discoloration or raised grain, you have the exact qualities needed for beautiful interior woodwork and paneling, and for well-groomed exterior trim. When you find such texture in framing lumber, plus adequate strength, protected by correct drying and seasoning, you have the exact qualities for a workmanlike structure that stays plumb, free from shrinking and swelling.

ARKANSAS SOFT PINE provides all these qualities! Inherent in its natural growth are soft texture for ease in working; tough resilient fiber for resistance to splitting and wear; freedom from pitch for taking enamel and paint uniformly and holding their life and lustre with no discoloration or raised grain; attractive figure for stained or natural woodwork or paneling...the sum of which is a superior wood of correctly balanced soft texture for framing, finishing and beautifying homes.

ARKANSAS SOFT PINE is sold by local retail lumber yards and planing mills east of the Rockies. For further information address:

ARKANSAS SOFT PINE BUREAU
148 BOYLE BUILDING LITTLE ROCK, ARKANSAS
A perfect lock mortise in 30 seconds from any light socket

with a Stanley-Carter LOCK MORTISER

Machine-perfect lock mortises made as easily and simply as a saw cut. Pick the size cutter for the width you want and set the Stanley-Carter Lock Mortiser for the depth and length. Two self-centering clamps automatically make sure that every mortise will be in the exact center of the door regardless of its thickness. Plug the extension cord into any house-lighting outlet and flip the switch. In 30 seconds the mortise is completed. Less than a minute to change adjustments from one size lock to another. After the first mortise is cut, height rods can be inserted in the machine so that subsequent mortises will be cut at the precise same point...from the top of the door. Use of heat-treated aluminum alloy makes this the lightest electric lock mortiser on the market...just 26 1/2 lbs. Sharpens its own cutters.

Here's a time-saving, money-making machine to help you get the most out of every contract. Write today for complete information. Stanley-Carter Sales Dept., 534 Myrtle Street, New Britain, Connecticut.

BUILDERS • CONTRACTORS

How to be Sure About Costs When You Estimate a Building Job

THE SIMPLE TAMBLYN SYSTEM OF ESTIMATING REDUCES BUILDING MATERIALS and LABOR COSTS TO EASY-TO-USE FACTORS!

Do you get that creepy feeling about your estimates? Why take a chance when you can be sure! Just multiply by our simple factors to determine your labor and material costs. The Tamblyn System is simple, fast, accurate, complete and dependable:

YOU MAY SAVE MANY TIMES ITS LOW COST IN ONE USE

In order to get your share of profitable building contracts, you must be able to figure jobs fast and accurately. You must be sure your estimate is just right—low enough to get the job—high enough to give you a reasonable profit.

USED BY SUCCESSFUL CONTRACTORS FOR OVER 40 YEARS!

Many of the largest and most successful contractors in the United States and Canada—thousands of these—have used the Tamblyn System of estimating. It is tried and tested—it has been used for more than 25 years. Forty years of experience in construction and building is behind it. And you can study the system for 10 days without cost.

TEST THE TAMBLYN SYSTEM IN YOUR OWN OFFICE WITHOUT OBLIGATION

Send the coupon below for your complete Tamblyn System. Examine it in the privacy of your own home or office for 10 days. Try it on new jobs—check it against completed jobs. There is no obligation unless you keep it.

SEND NO MONEY—TRY IT FOR 10 DAYS FREE!

THE TAMBLYN SYSTEM, 1115 So. Pearl St., A-31, DENVER, COLO.

THE TAMBLYN SYSTEM, 1115 So. Pearl St., A-31, DENVER, COLO.

Send me the complete Tamblyn System! Free 10 days trial! If I keep it I will pay $8.75 when 10 days trial is over. Otherwise I will return the system and pay nothing. This is no obligation unless you keep it.

NAME
ADDRESS
CITY
Here's Why TEL-O-POST

FOR HUNDREDS OF SUCCESSFUL DEALERS

New Low Prices Mean more profit

TEL-O-POST, the original all-steel adjustable jack-post, is offered at lowest prices ever—insuring higher sales—greater profits. Write for new rate card. State whether distributor or dealer.

Most Widely Advertised Post in the Field

Only TEL-O-POST carries regular advertising in the SATURDAY EVENING POST and BETTER HOMES and GARDENS. This concentrated, hard-hitting advertising reaches more than 6,000,000 potential buyers every month—creating a preference for TEL-O-POST. And plenty of merchandising aids, sales helps too, available upon request.

Patented Features, Higher Quality, Controlled from Ore to Post

The high quality inherent in TEL-O-POST is a result of constant supervision of the material from basic ore to finished product. And TEL-O-POST has many exclusive features found in no other post. It's truly a better post for the money.

Packaged Do-It-Yourself Item, Easily Stocked, Easier to Sell

TEL-O-POSTS are packaged individually in strong paperboard carry-home cartons clearly marked for instant identification. Easy to warehouse, store and sell. Full—easy to use—instructions enclosed in each carton.

For Any Construction, New or Old—A complete range of Sizes

There is an unlimited market for TEL-O-POST. Surveys prove 7 of every 10 homes need TEL-O-POST. Farmers, too, like the easy-to-install features, and the complete range of sizes from 12" to 8' 4". 
The Sensationally NEW Low-Priced

PARKS No. 20
20" PLANER

Here is a modernly designed, rugged, high-speed, low-priced planer that is ideally suited for every shop and industrial plant requiring a quality surfacer. The Parks No. 20 Planer has a four-knife cutterhead with a speed of 3600 R.P.M. and offers two feed speeds — 20 and 40 F.P.M., and 40 and 80 F.P.M. Write for complete descriptive literature.

The PARKS Heavy-Duty
12" x 4" Planer

A compact, sturdy, thickness planer that offers mill planer precision and ruggedness at a sensationally low price. Write for descriptive catalog sheet.

The PARKS WOODWORKING MACHINE CO., Dept. 30-88, 1546 Knowlton St., Cincinnati 23, O.

WHY FLUORESCENT LIGHTED MEDICINE CABINETS

Cost Less

Complete Bennett Bilt Fluorescent Lighted Medicine Cabinets cost less to buy and install than separate electrical wall fixtures and cabinets of equal quality. These cabinets increase the attractiveness of modern rooms by providing a more finished, self-contained, compact installation.

Nothing has been overlooked for convenience and quality. No other medicine cabinet has all 18 built-in premium features. That's why you should specify and buy Bennett Bilt Fluorescent Lighted Medicine Cabinets. It costs you nothing for the fully illustrated complete catalog — it may mean many dollars to you. Write today.

THE BENNETT MANUFACTURING CO., ALDEN, N. Y.
CUSTOM METAL CRAFTSMEN SINCE 1906

Nationally Known

Aluminum Building Products Manufacturer

now conducting a huge advertising campaign desires the services of a high type specialty Salesman with experience in the building material and hardware business. Location Metropolitan New York. Box 749, American Builder, 79 W. Monroe St., Chicago 3, Ill.

Figure Jobs Right—GET Walker’s New BUILDING ESTIMATOR’S REFERENCE BOOK

More than 75,000 copies of Walker’s have been sold during the past 30 years to contractors, estimators and builders in both the light and heavy construction fields. It is filled with dependable estimating and cost data on all phases of building construction. The new edition covers the new postwar materials now coming on the market and advises on the figuring of present labor costs.

1947. 1008 pages. 1,000 blocs, 1,000 tables, index. 4 1/2 x 6 1/2 x 2. Flexible (with Free copy of The Vest-Pocket Estimator) $10.00.

AMERICAN BUILDER and BUILDING AGE
SIMMONS-BORDMAN PUBLISHING CORPORATION
36 Church St., New York 7, N.Y.
A few PC Glass Blocks can help you make a lot of sales

This is not idle conjecture. Builders all over the country have found that the inclusion of a gay meeting place—like the one shown here—in some cases has actually been the determining factor in making the sale. And this is only one of the many ways in which PC Glass Blocks can be utilized in the homes you build—to give them greater "buy appeal"... more glamour... increased value.

But PC Glass Blocks also offer definite money-saving advantages to the home buyer. For instance, they're hollow—with a partially-evacuated dead-air space inside. This gives them twice the insulating value of single-glazing.

Heating bills are cut: there's a saving in air conditioning. They rarely, if ever, need repairs or replacements. There's no painting to worry about. Storm sash isn't required.

Include a few PC Glass Blocks in your homes. They'll help you make more sales with less effort. Meanwhile, why not send for our free booklet which gives detailed information on the many applications of PC Glass Blocks in all kinds of homes? It's free and there's no obligation.
DON'T FIGHT WITH YOUR CLIENTS
reduce your building costs with alumitile

HASTINGS alumitile, the modern wall covering of aircraft aluminum, enables you to cut costs in more ways than one. The first cost is small; its light weight makes it easy to handle; it can be quickly installed on any smooth surface—all combining for a big saving in both dollars and man hours of work. Your clients will also enjoy alumitile for its lasting beauty, its wide choice of decorator colors, its ability to withstand punishment without cracking, peeling or crazing.

For complete specifications see Sweet's Catalog.


Please send me complete data on Alumitile, including color watch book, without obligation.
Name
Business
Address
City
State

Metal Tile Products, Inc.

THE IMPROVED PEARSON ASBESTOS BOARD and SHINGLE CUTTER

A handy tool for contractors, carpenters, lumber dealers. Provides fast, clean cutting of all asbestos sheets or shingles of any kind. Provides fast, clean cutting of all asbestos sheets or shingles of any kind. No material, time or steps wasted. Easily handled on wall or floor. Five and one half inch wide blade gives years of service. Sturdy built, 24" long, weighs about 44 lbs. Equipped with punch for shingles.

A QUALITY TOOL AT A PRICE EVERYONE CAN AFFORD!

SEND YOUR ORDER TO
O. PEARSON MFG. CO.
LAKE VILLA, ILL.

INCREASES PRODUCTION 100% and CUTS COSTS 50% ON ALL BUILDING CORNERS

KEN Corner LEVEL

NEWEST, greatest time and money saving tool yet...12 ways better than ordinary tools! Simply levels corner in minutes; saves hours required to align. Ken Corner Level stores and squares 2 SIDES OF CORNER AT ONE TIME—on windows and doors plus four of each brick placed on mortar joint. Phantom 4 ways at once—the corner, 2 faces, and two surfaces—no need to tap brick on side, end or top. Two Aluminum "L" slots accurately line up corner in vertical glass liquid walls containing cellular blocks. Adjustible for plumbing a better, or facing, or sparing surfaces. Ken Corner Levels available in four sizes, 18", 24", 36" and 48" long. Priced to pay for itself in a few days—and continue savings for you every day thereafter; the Ken Corner Level saves 50% of the cost in building all corners.

WRITE TODAY for full details—Don't miss this opportunity to cut your man hours and material in building costs!

SINGER-KENNEDY CORP.
Dept. L—21 E. Van Buren St., Chicago 5, Ill.
LABOR-SAVING, COST-REDUCING PLANS FOR 20 MODERN HOMES!

Here's a brand new 56-page planbook to help you build better at less cost. Send for MODERN BRICK HOMES today! You'll get 20 economy engineered house plans, plus a wealth of worthwhile information on site selection, choice of plans, financing, interior arrangements and exterior beautification. Just enclose 50¢ with your name and address to the address below, Dept. AB-7.

TIPS ON GOOD MASONRY PRACTICE

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ALPHABETICAL INDEX TO ADVERTISERS, JULY, 1949

A
Arerna Steel Products Corporation 48
Alliance Wire, Inc. 16
Allied Chemical & Dye Corporation 165-194
Allied-Byrnty, Inc. 156
Allmetal Weatherstrip Co. 156
American Builder 54-164-171-199
American Central Division 135
American Floor Surfacing Machine Co., The 57
American Radiator & Standard Sanitary Corporation 36-37
American Roof Truss Co. 196
American Stained Sash Co. 130
American Structural Products Company 12
American Telephone & Telegraph Co. 8
Anthractite Institute 28
Arkansas Soft Pine Bureau 187
Armstrong Cork Company 169
Artcraft Ornamental Iron Co. 166
Asphalt Roofing Industry Bureau 35
Associated Plywood Mills, Inc. 40
Arco Manufacturing Company 135-145
B
Barber-Colman Company 140
Barrett Division, The 165
Bennett Manufacturing Co., The 199
Bird & Son, Inc. 218
Black & Decker Mfg. Co., The 29
Boe-Crane Company 180
Boston 194
Bostrom-Brady Mfg. Co. 196
Bradley Lumber Company of Arkansas 13
Brainerd Steel Co. 189
Brown Manufacturing Co. 123-131
Brown Company 55
Brown & Co., Geo. C. 148
Bruce Co., E. L. 19
Bucyrus-Erie Hydrocrane Division 136
C
Cabot, Inc., Samuel 154
Carey Manufacturing Co., The Philip 141
Carr, Adams & Collier Co. 167
Carter Div., R. L. 188
Ceo Steel Products Corporation 27
Chevrolet Motor Division 30
Chrysler Corporation 50
Clipper Manufacturing Co. 146
Coffman Co., Inc., The R. G. 128
Coleman Company, Inc., The 31
Colorado Fuel and Iron Corp., The 164
Columbia Mills, Inc., The 157
Commercial Trade Institute 194
Connor Lumber and Land Company 126
Consolidated Machinery & Supply Co., Ltd. 116
Craft Steel Products, Inc. 126
Crosset Lumber Company 172
D
Deer Trail Lodge 154
Detroit Steel Products Company 3-41
DrWalt, Inc. 9
Dodge Corporation, F. W. 138
Dodge Division, Chrysler Corporation 50
Douglas Fir Plywood Association 34
E
Elastic Strip Nut Corporation 43
Eliason Tool Company 196
Elder Co. 156
Essex Wire Corporation 148
F
Fairbanks, Morse & Co. 149
Fire Door Institute 127
Fluorescent Lighting Co. 162
Fremont Rubber Company 173
G
Garrett Manufacturing Co. 194
General Controls 148
General Electric Company 21-32-34-166
General Motors Corporation 30
General Portland Cement Company 186
Hall Enterprises 162
Hansen Mfg. Co., A. L. 182
Harnischfeger Corporation 155
Hasley Manufacturing Corporation 134
Heil Co., The 176
Homelite Corporation 26
Hope’s Windows, Inc. 160
Hotpoint Inc. 142-143
I
Incinerator Products Co. 150
Ind-Cotton Division 140
Insultile Division, Minnesota & Ontario Paper Co. 65
J
Jaeger Machine Company, The 174
Johns-Manville 22
K
Kaufmann Corp. 184
Keasby & Mattison Company 18
Kelvinator Division 66
Keystone Steel & Wire Company 159
Keystone Wire Cloth Co. 174
Kimball Brothers Company 194
Kohler Co. 129
Kwikset Locks, Inc. 21
L
La Belle Industries, Inc. 164
Lawson Co., The F. H. 196
Libbey Owens-Ford Glass Company 39
Lith-E-Bar Co. 180
Little Burner Company, H. C. 161
Log Structures of The Southwest, Inc. 146
Louisville Cement Company, Incorporated 121
Lucas, Inc., W. B. 179
M
Mackenzie-Duncan Co. 6
Mall Tool Company 178
Maple Flooring Manufacturers Association 178
Master Rule Mfg. Co., Inc. 160
Master Tile Corporation of America 181
Mengel Company, The 11
Metal Arts Mfg. Co., Inc. 186
Metal Products Corporation 197
Metal Tile Products, Inc. 192
Mead Chair bezier 144
Milwaukee Strip Service, Inc. 170
Modine Manufacturing Company 179
Mueller Furnace Co., L. J. 18
Mulkey Company, Sam 188
Muller Machinery Company, Inc. 180
Mullins Manufacturing Corporation 44
N
Nash-Kelvinator Corporation 66
National Electrical Manufacturers Association 52-53
National Gypsum Co. 58
National Lock Company 163
National Manufacturing Company 46 Cover
National Woodwork Manufacturers Association 59
Nichols Wire & Aluminium Co. 185
Nordia 184
Norman Products Co. 182
North, Inc. 195
O
Orchard Bros., Inc. 168
Otis Elevator Company 182
Overhead Door Corporation 3rd Cover
Owens-Illinois Glass Company 12
P
Parasite Wire and Cable Division 161
Parks Woodworking Machine Co., The 190
Pearson Mfg. Co., O. 192
Pentz and Burner Manufacturing Corp. 197
Peters Industries, Inc. 29
Pittsburgh Corning Corporation 133
Pittsburgh Plate Glass Company 41
Portland Cement Association 171
Pyne & Co., Inc. 174

R
Readymix Products Co., The 192
Red Devil Tools 124
Remington Rand Inc. 24
Republic Steel Corporation 42
Revere Copper and Brass Incorporated 14
Reynolds Metals Company 139
Richmond Radiator Company 47
Robbins Plywood Corporation 2
Rowe Manufacturing Company 119
Russell Company, The F. C. 152-153

S
Schaige Lock Company 125
Servel, Inc. 23
Sharon Steel Corporation 25
Singer-Kennedy Corp. 202
Skilawa, Inc. 17
Slone-Bushon Corporation 123
Solay Sales Division 194
Speed-Weld Inc. 144
Spencer Heater Division 145
Stained Shingle & Shakes Association 147
Standard Dry Wall Products, Inc. 156
Stanley Tools 51
Stanley Works, The 158
Steel Scaffolding Co., Inc., The 162
Strand Garage Door Division 41
Structural Clay Products Institute 193

T
Tamblyn System, The 138
Taylor Building Mfg. Co. 40
Tennessee Enamel Mfg. Co. 46
Texaco Flooring Company 56
Trinity Portland Cement Division 161
Truscon Steel Company 42
Turner & Seymour Mfg. Co., The 124
Tuttle & Bailey, Inc. 177

U
United States Steel Corporation Subsidiary 10
Universal Atlas Cement Company 67
Universal Manufacturing Corp. 176
Universal-Rundle Corporation 38
Upsom Company, The 4
Usable Rock Asphalt Co. 150

V
Van-Packer Corporation 169

W
Wallace & Co., J. D. 196
Wapiti, Inc., Fred W. 184
West Coast Woods 151
Western Fire Association 46
Westinghouse Electric Corporation 131
White Company, David 178
Wickwire Spencer Steel Division 164
Worlock Chemical Co. 176

Z
Zondline Company 183
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