

# AMERICAN BUILDER and BUILDING AGE

(A Simmons-Boardman Publication)  
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AMERICAN BUILDER  
and  
BUILDING AGE

IS THE BUSINESS  
JOURNAL OF THE  
ACTIVE MEN OF THE  
BUILDING INDUSTRY

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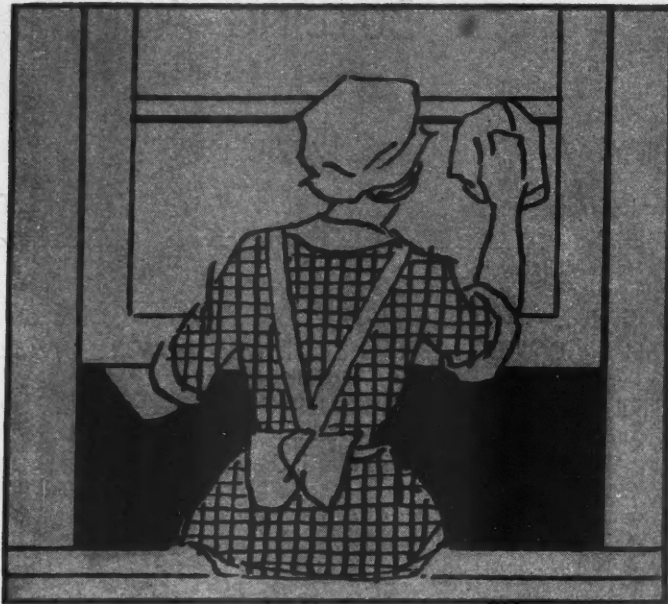
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AND OF THE ASSOCIATED BUSINESS PAPERS

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HOW  
WINDOWS  
HAVE  
CHANGED

## WHY Fenestra Casements are helping sell 1932 Home Buyers

Only those houses that are equipped throughout with the most modern building materials will attract home buyers in 1932. You will need every available selling help this year. And it is here that Fenestra Casements do a double job — they sell from the *outside* and *inside*.

Plainly seen from the outside, they stop the passer-by. They act as a selling magnet to bring in the prospects. They immediately stamp the house as modern.

And once inside, your prospects get a close-up of Fenestra Casements — see how they flood the rooms with daylight, open wide without touching the inside screens, close snug-tight against storms, never warp, stick or rattle, wash easily

from within — all advantages that sell.

And here are reasons why you can well afford to use Fenestra Casements. They reach the job **COMPLETE** — fitted, hinged, hung, painted, with Hardware and Screens fitted, ready to attach. As a result they save the builder the extra cost of hardware, sash cord and weights, weatherstrips, screen, etc. In addition, they save the cost of inside trim at head and jambs — no weight boxes to cover up. And they save the time and labor for fitting, hanging and installing windows, trim and screens, as well as priming and weatherstripping.

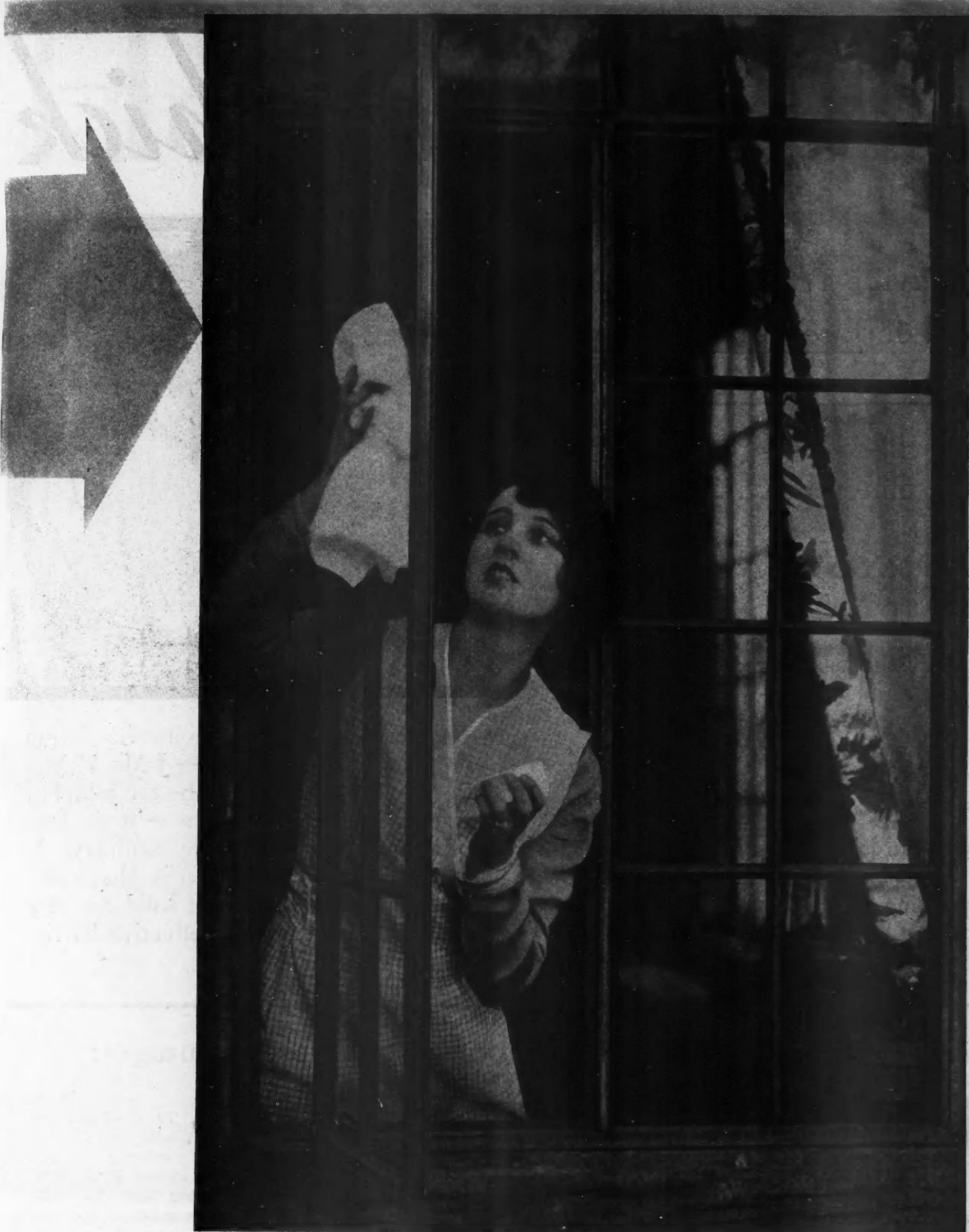
For complete information call "Fenestra Steel Window Company," in your own city, or write to:

DETROIT STEEL PRODUCTS COMPANY  
2281 East Grand Boulevard, Detroit, Michigan  
Factories: Detroit, Mich., and Oakland, Calif.  
Convenient Warehouse Stocks

# Fenestra

## FENWROUGHT CASEMENTS

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



DETROIT STEEL PRODUCTS COMPANY  
2281 East Grand Boulevard, Detroit, Michigan  
Factories: Detroit, Mich., and Oakland, Calif.  
*Convenient Warehouse Stocks*

# Fenestra

FENWROUGHT CASEMENTS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER AND BUILDING AGE

Johns-Manville  
Announces

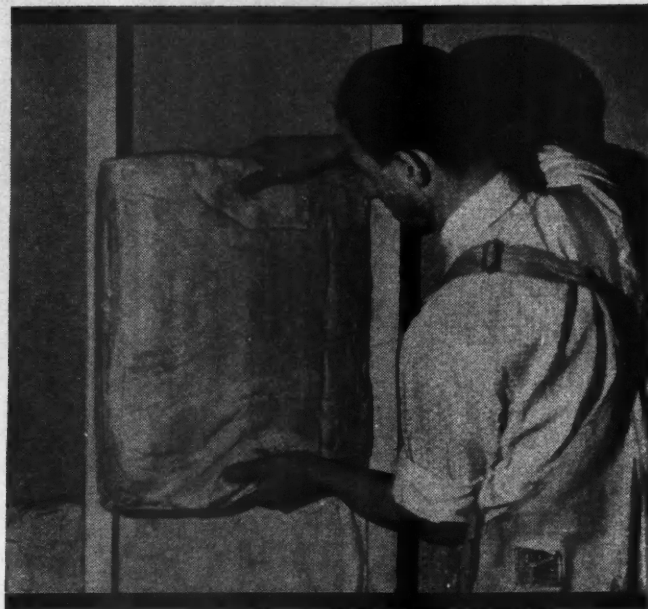
# Triple Thick

Johns-Manville *Triple-Thick* Home Insulation is three times as thick . . . has three times the insulating value of the average 1" blanket and quilt materials . . .

## AND COSTS NO MORE

FOR the past three years, the now famous Johns-Manville "Rock Wool" Home Insulation *pneumatically installed*—has created new standards of home comfort in thousands of American homes.

Now you can have this same superior insulation in "bat" form—convenient for hand packing. J-M *Triple-Thick* Home Insulation can be rapidly applied . . . requires no special tools or equipment.



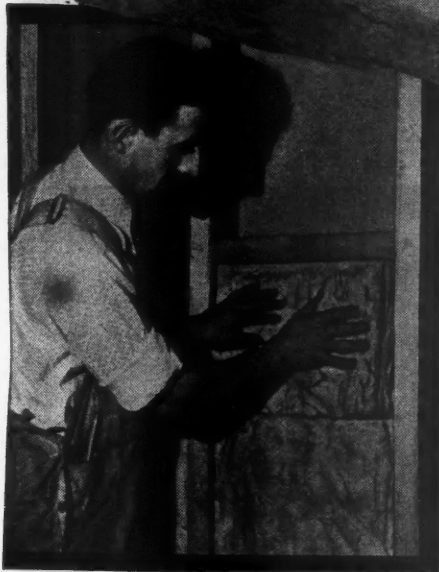
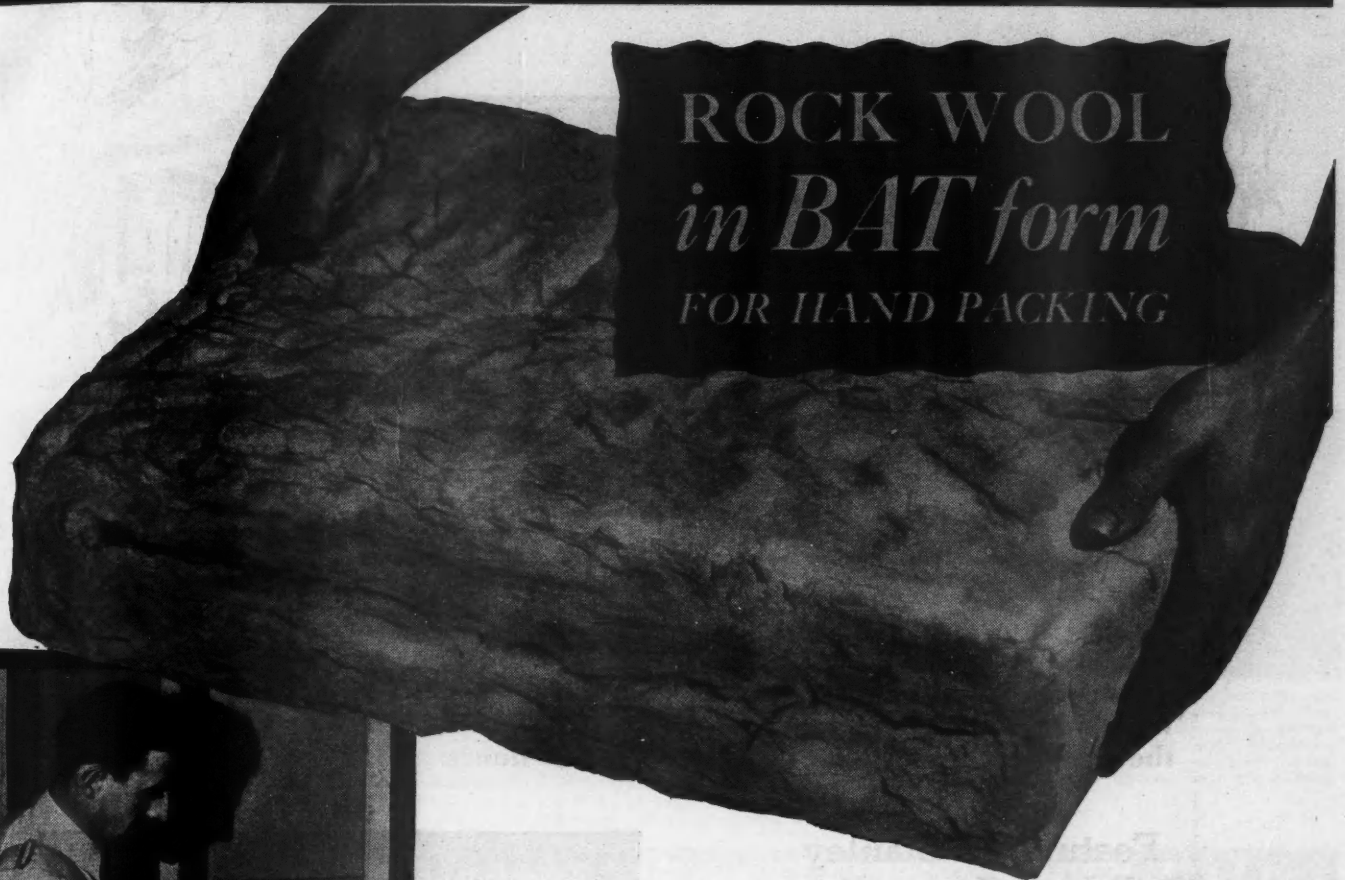
No matter what type of house insulation you're using at present—J-M *Triple-Thick* Insulation will do a better job. Far superior in insulating value—it is fire-proof, easier applied, more sanitary. It builds an invisible wall *within* the walls, with the insulating value of solid concrete 8 feet thick—is the most effective barrier against cold, against heat.

## J-M *Triple-Thick* Home Insulation has these Advantages:



- 1 It is not just fire-resistant — it positively will not burn.
- 2 It is absolutely vermin-proof.
- 3 *Triple-Thick* Insulation — a light, fluffy "wool" blown from rock — will not settle, deteriorate, or change its physical characteristics in any way . . . is as everlasting as the rock from which it is made.
- 4 The "bats" fit snugly against the studs, therefore, the actual net covering capacity of *Triple-Thick* Insulation is greater than blanket or quilt material applied with a turn up.
- 5 When installed, *Triple-Thick* Insulation makes a solid wall of insulation 3 in. thick from floor to ceiling. The fibrous nature of the Rock Wool forms a natural closed joint that seals itself against air infiltration.
- 6 And remember, *Triple-Thick* Insulation is a J-M product — backed by the reputation of the largest producers of insulation materials in the world. Before we offered it to you we made sure that it would do all we claim for it — and more.
- 7 Four years' testing in our laboratories and in actual applications has failed to find a major limitation in this superior home insulation.

# Home Insulation



*Here is the most efficient—most economical—  
Insulation for the home . . .*

**T**ODAY, home owners are demanding full wall and ceiling insulation . . . and rightly so. J-M Home Insulation is that kind of insulation. It is offered you in a new convenient form in *Triple-Thick* Insulation.

for these facts. Builders, architects, heating engineers, oil burner manufacturers and gas companies— all vitally interested in better house insulation— unite in testifying to this effect.

**JOHNS-MANVILLE** *Triple-Thick* bats are 15 inches wide, 18 inches long and 3 inches thick. Each covers approximately two square feet of wall or ceiling area. Installation is simple and much faster than with other insulating materials. The bats can be cut with a butcher's knife or saw or can be torn by hand to fit narrow studs or odd shaped places. They remain securely in place without a tie.

This insulation will cut fuel bills from 20 to 35%— will reduce summer temperatures, indoors, from 6 to 15 degrees F. Letters from hundreds of home owners who are now using J-M Home Insulation vouch

In terms of increased salability, alone, J-M *Triple-Thick* Insulation has a value that no progressive builder can afford to overlook. Send for complete details. The coupon attached makes it easy.

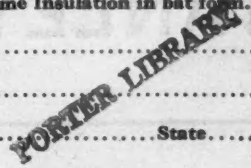
**Johns-Manville**  
*Triple-Thick* HOME INSULATION



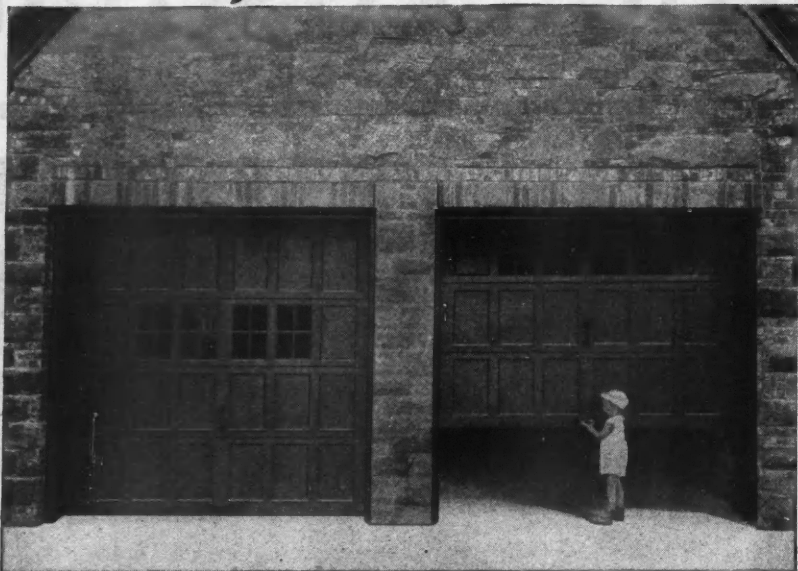
JOHNS-MANVILLE, 292 Madison Avenue,  
New York City. AB-4

Please send me full details of J-M *Triple-Thick* Home Insulation in bat form.

Name.....  
Address.....  
City..... State.....



# It's always Fair Weather



## to a "Roll-Up" Equipped Garage

Rain or snow, wind or sleet—it's all the same to Stanley "Roll-Up" Garage Door Equipment. All the working hardware is inside so the doors roll up smoothly and

easily regardless of the weather. And best of all — Stanley "Roll-Up" Doors can be installed in as little or less time than ordinary garage doors.

### Features of Stanley "Roll-Up" Garage Doors

The doors are of first quality, made in sections with rabbetted edges. Several styles are available in the popular 8' x 8', 8' x 7' 6" and 8' x 7' sizes. Other sizes made to order.

Doors are locked by a dead bolt which engages in a slot in the track. This dead bolt furnished with standard rim cylinder—doors can be keyed alike or master keyed with the house door.

Ball bearing rollers.

Sturdy overhead track is braced by turnbuckles which hold it firmly in alignment. Track is suspended by chains requiring no special supports and making installation easy, regardless of the height of the ceiling.

Doors are drilled and mortised at the factory for application of hardware.

### Advantages of "Roll-Up" Garage Doors

No hardware visible or exposed to weather  
Doors easily opened or closed  
No wasted space either in garage or driveway  
Operation of doors unaffected by wind or snow  
Full width of garage opening available

Stanley "Roll-Up" Equipment is sold **ONLY** through your local dealer. See your regular source of supply for good hardware.

Full description on Stanley "Roll-Up" Equipment will be sent upon request.

**THE STANLEY WORKS**  
New Britain, Conn.



## STANLEY GARAGE HARDWARE

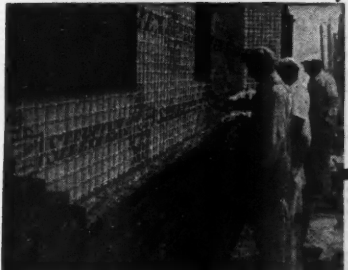
FOR EVERY TYPE OF DOOR



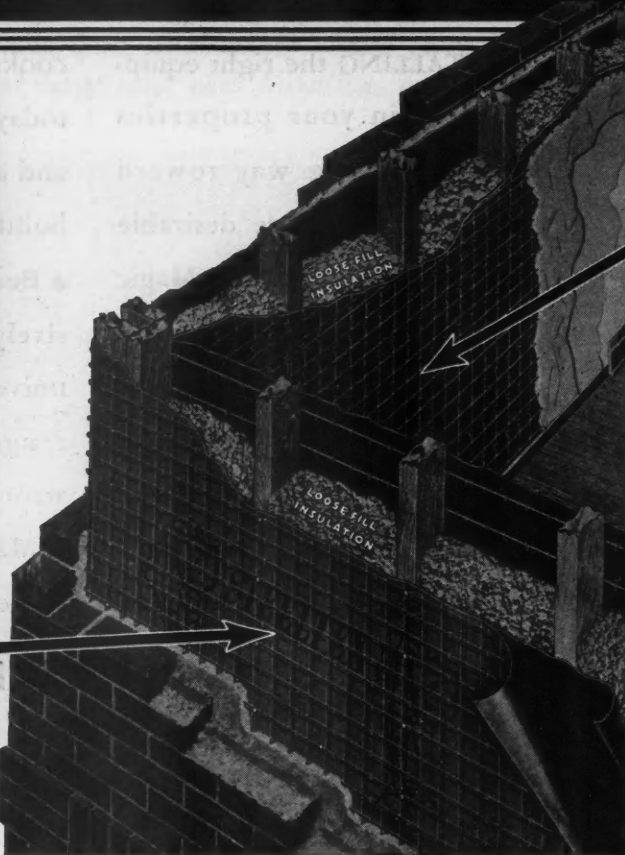
# IT TAKES *STEELTEX*...inside and outside TO BUILD THE *SUPER-WALL*



*STEELTEX 38-16 is wrapped around in shingle fashion, and nailed direct to wood studding. STEELTEX has three-ply water-proofed membrane backing integral with wire reinforcing mesh.*



*Bricks are laid one inch away from STEELTEX 38-16. This one-inch space is filled in with bricklayer's cement-mortar,—the galvanized, copper-bearing wire reinforcing mesh of STEELTEX becomes embedded in this back-up slab.*



*The STEELTEX SUPER-WALL is constructed with brick, stone, or stucco finish, or a combination of two or all three, as desired.*



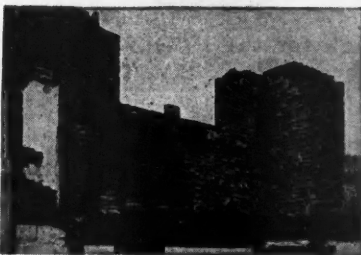
*Sheets of Ribbed STEELTEX Lath for interior plaster are nailed direct to the wood frame studding. Rib stiffeners, fibrous backing and wire reinforcing mesh give Ribbed STEELTEX board-like rigidity.*



*Ribbed STEELTEX Lath holds the wet plaster with instant bonding action. Plaster flows under and around the galvanized, copper-bearing wire reinforcing mesh which becomes completely embedded,—giving lifetime walls and ceilings.*

## Authorities agree that the *STEELTEX SUPER-WALL* is the latest development in BUILDING CONSTRUCTION

The *STEELTEX SUPER-WALL* gives reinforced brick construction for the outside walls and reinforced plaster construction for the inside walls,—and, in addition, provides insulation,—waterproofing,—damp-proofing,—is fire resistive,—has high sound resistance,—vermin proofness,—is economical in construction costs,—and yet only standard builders' methods and materials are employed.



*(At left) Ordinary brick veneer construction is drafty, hard to heat, damp; fire gains headway due to air spaces creating flue action between sheathing and unprotected studs.*

*(At left, below) STEELTEX Super-Wall withstood heavy stream for 48 hours without showing any water penetration on reverse side,—ordinary wall leaks almost immediately.*

*(Below) STEELTEX and one inch cement applied direct to studs is twice as strong as diagonal sheathing and siding.*



*STEELTEX 38-16* is used for the exterior sheathing and reinforcement, while Ribbed *STEELTEX* Lath is the base and reinforcement for interior plaster. Inside and outside walls are not only blanketed against heat and cold with efficient insulating materials, but encased with an embedded network of steel wire (square welded mesh) which acts to take up the stresses and strains in every direction,—giving the entire structure greater strength than is obtained through ordinary methods.

Permanent, non-combustible loose-fill insulation prevents heat leakage and also acts as a fire-stop by filling up all air spaces, and protects the wood frame studding from fire attack.

Progressive Architects, Builders and Contractors realize the outstanding merits of the *STEELTEX SUPER-WALL*. Investigate these known facts. Don't consider obsolete building systems when modern methods are available at the same costs. Write today for the illustrated folder about the *STEELTEX SUPER-WALL*. Mail the coupon below,—no obligation on your part.

NATIONAL STEEL FABRIC COMPANY, (Division of Pittsburgh Steel Co.) AB-4-32  
 Union Trust Building, Pittsburgh, Pennsylvania  
 Please send me your literature describing the *STEELTEX SUPER-WALL CONSTRUCTION* system.  
 COMPANY.....  
 INDIVIDUAL.....  
 STREET ADDRESS.....  
 CITY..... STATE.....

# Keep out of the **RED** with **MAGIC CHEF**



**I**NSTALLING the right equipment in your properties will go a long way toward making them more desirable and profitable. Because Magic Chef is the gas range of a woman's dreams, its installation may prove the deciding factor in favor of your properties.

- Magic Chef is right because it represents the most advanced

cooking appliance in the market today. It has a choice of models and a price range to meet every building requirement.

- Because Magic Chef is extensively advertised nationally, and universally accepted as the gas range of today, you can't go wrong on its selection.
- Magic Chef will do its part to keep you "out of the red."

## AMERICAN STOVE COMPANY

*World's Largest Manufacturer of Gas Ranges*

NEW YORK • PHILADELPHIA • ATLANTA • CLEVELAND  
CHICAGO • ST. LOUIS • SAN FRANCISCO • LOS ANGELES

Patented



MAGIC CHEF Series 500 in the new ARTYLE finish



Look for the **RED WHEEL**  
When you buy a **MAGIC CHEF**

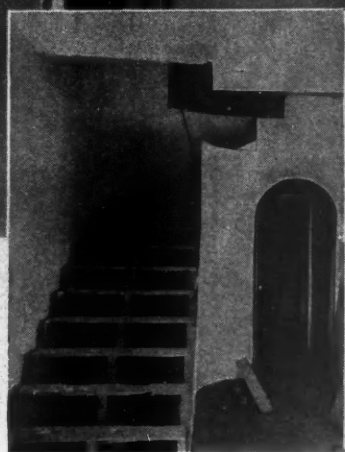
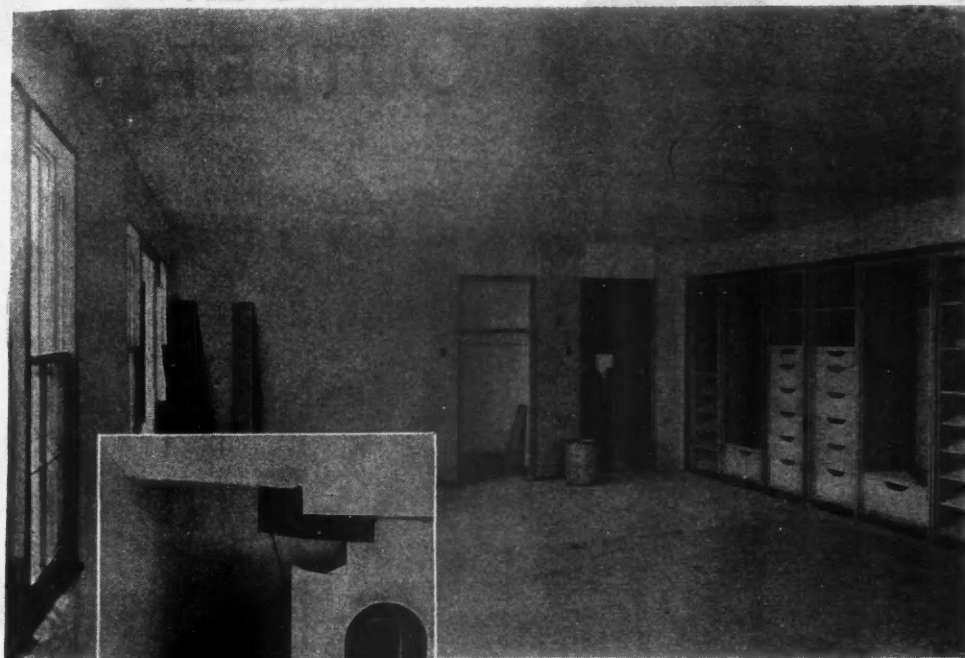
(Look for this Trade Mark)





# The wallboard problem solved at last...and by REAL LUMBER!

*This new 1/4" Douglas Fir Plywood Wallboard will not split, buckle, swell, crack, dent, or crumble — and gives you all the advantages of large size, easy handling, and low cost.*



*Note the flat, seamless Douglas Fir Plywood walls and ceilings. The built-in drawers to the right are also made of Douglas Fir Plywood, but of greater thickness. This room will remain crack-proof and sag-proof for the life of the building!*

*Thin panels of Douglas Fir Plywood can be bent to form the pleasing curves of a stair well. Once in place, Douglas Fir Plywood remains rigid—forever free from splitting or warping.*

**D**OUGLAS FIR PLYWOOD is now available for walls and ceilings—as well as for cabinets, built-ins, and fixtures.

This new wallboard is REAL LUMBER, built up in 3 plies. It comes as large as 4 by 8 feet, sanded satin-smooth, ready to nail to wall studding or over old plaster. Douglas Fir Plywood works quickly and easily—free from the dust and grit of gypsum and plaster boards. It can be bought at retail for around 5c to 7c a square foot, depending on freight costs to the dealer.

Other thicknesses of Douglas Fir Plywood—3/8", 1/2", 3/4"—are economical for shelving, tables, closets, file cases, modern furniture, cabinets, and similar jobs.

Both the 1/4" wallboard and the thicker cabinet grades are stocked by most progressive building supply dealers. Send the coupon today for free sample and new working plans for profitable jobs.



**\$5000.00**  
for IDEAS!

This is not a contest, but an outright purchase offer for practical woodworking designs using Douglas Fir Plywood. Entries must be post-marked not later than August 15, 1932. Here's what we want:

- 1** A sketch, or plan, with approximate dimensions, for just as many Douglas Fir Plywood uses as you care to submit. We will buy as many of your ideas as we can use.
- 2** You need not make finished or elaborate drawings. Clear "idea sketches" are enough—just so they indicate dimensions and show how your design is to be constructed.
- 3** You are not limited in the variety of uses you may suggest. For example, you may design Douglas Fir Plywood wall-treatments for a whole room—such as an attic bedroom, a maid's room, recreation room, dining room, kitchenette, kitchen, basement storage room, etc.—or you may design entrance ways, hallways, and stairways—or Douglas Fir Plywood fixtures and built-ins such as wardrobes, breakfast nooks, bookcases, shelving, bins, store displays, filing compartments, etc.
- 4** For every usable sketch employing Douglas Fir Plywood, we will pay you \$25.00 cash, otherwise returning your sketches if return-postage accompanies them. If, in addition to your sketch, or plan, you care to send us a photograph of your design as built, we will pay you \$5.00 extra, or a total of \$30.00 for each accepted "idea sketch." Each sketch purchased becomes the property of Douglas Fir Plywood Manufacturers with right to use it for advertising, publicity, or in any other way.

## DOUGLAS FIR PLYWOOD



DOUGLAS FIR PLYWOOD MFRS., Dept. 432-B,  
Sixth Floor, Skinner Bldg., Seattle, Wash.

Gentlemen: Please send me free working plans, helpful literature, and sample of Douglas Fir Plywood.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

Check here if you are a Contractor , Carpenter ,  
Building Supply Retailer , Architect , or Realtor ,  
and additional material will be sent you.

# ARROW



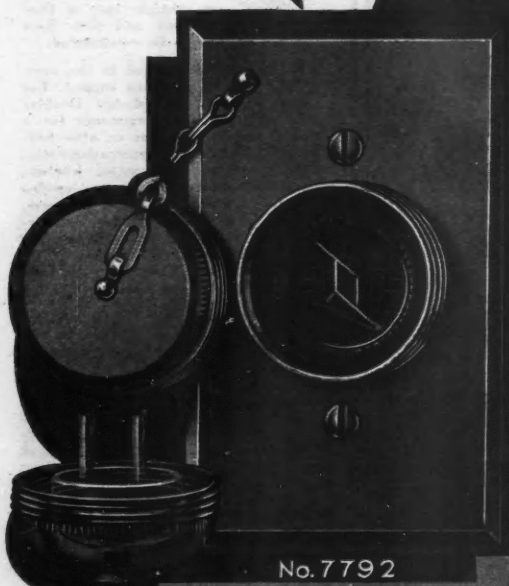
OUTDOOR  
FLUSH  
RECEPTACLE

CLOCK  
HANGER  
OUTLET

*for  
the*

SHOWPART

*of the  
wiring  
job*



No. 7792



No. 7707

Weatherproofed against action of rain, ice or continuing dampness. Cadmium finish on brass defies rust and corrosion. When not in use, metal cap screws over receptacle opening for further protection. When connected, the standard attachment plug cap is covered with separate metal cap (No. 7793) which screws onto flush plate. Rubber mat fitting under plate completes the weatherproofing. Specify No. 7792 for bringing lamps and electric conveniences OUTDOORS on porches, terraces etc. and for decorative lighting of lawns or Christmas trees. . . Data-sheet on request.

No. 7793 **CLOCK HANGER OUTLET** does away with straggling cord connections from clocks to nearest receptacles. At the same time gives firm support to the clock. . . Receptacle part is recessed, so plug cap is sunk flush with wall. This allows clock to hang flat over the outlet, with wire connection and receptacle wholly concealed. Increasing use of electric clocks makes this device most *timely* in your new buildings. Specify it for residences, modern offices, schools, hospitals and institutions wanting electric time. . . . Write for data-sheet with complete listings.

**THE ARROW-HART & HEGEMAN ELECTRIC CO.**

HARTFORD, CONNECTICUT, U. S. A.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

**Are you**



**selling profitable**



**jobs like**



**these?**



**CAREY SHINGLES**

Carey Shingles include both asbestos-cement and asphalt types in all colors, styles and weights. Only the Carey line includes shingles with such selling advantages as the "Weather-Age" surface for asbestos-cement shingles, the Duplex Asbestos-Cement Shingle and the famous Asfaltslate Shingle, known for 26 years as "the shingle that never curls."

**CAREY SIDINGS**

Careystone Siding is an asbestos-cement material, fire-proof and lasting as stone. It is supplied in gray, green, brown, red and blue-black colors and in a wide variety of styles.

Carey Asphalt Siding is made of stone cemented to waterproof felt. It is furnished in brick patterns—red, buff or blended tapestry in color.

Modernizing these houses, and thousands like them with Carey Siding and Carey Shingles, created profitable business for Carey dealers and builders last year. And this business didn't depend upon new construction, for old houses *must* be protected, good times or *bad*. This year, for every new frame or stucco house which is built, over 20 old houses will be prospects for Carey Siding. For every new house built, 5 houses will be re-roofed.

We have developed a successful plan which secures this business—a plan which begins with the solicitation of the order, and ends with the financing of the long payment terms extended to the owner—two years if desired. We will gladly send full information to builders or dealers who wish to increase their profits—write today.

**THE PHILIP CAREY COMPANY • Lockland, Cincinnati, Ohio**  
*Branches in Principal Cities*

BUILT-UP ROOFS  
 ASPHALT PRODUCTS  
 ELASTITE EXPANSION JOINT  
 WATERPROOFINGS  
 ROOF PAINTS



HEAT INSULATIONS  
 ASBESTOS MATERIALS  
 CORRUGATED ASBESTOS SIDING  
 ASFALTSLATE SHINGLES  
 ROLL ROOFINGS

# CADMIUM PLATING

## MAKES THESE SURER-GRIPPING NAILS EVEN BETTER

## THAN BEFORE!

To the 72% greater holding power of Reading Cut Nails, Reading now adds the outstanding advantages of CADMIUM PLATING — combining qualities of endurance and attractiveness unique in the nail industry!

Reading Cadmium Plated Cut Nails are available in sizes for every building need. Write us TODAY for quotations or further information.

**READING IRON CO.**  
PHILADELPHIA



# READING CUT NAILS

CUT FROM  
SOLID PLATE

# Frigidaire Announces

## NEW FOUR-WAY AIR CONDITIONING EQUIPMENT

**COOLS AND DEHUMIDIFIES  
IN SUMMER... HEATS AND  
HUMIDIFIES IN WINTER**



Today Frigidaire offers to the building industry a new development in air conditioning—the Four-Way Air Conditioner for homes, stores, offices, restaurants and other business places. It

affords entirely new advantages which the building contractor will readily appreciate.

In summer the Frigidaire Air Conditioner reduces the oppressive humidity and circulates cool, clean air... keeping the atmosphere delightfully fresh and comfortable on the hottest days. In winter this same unit, when con-



nected with the steam or hot water lines of the heating plant, functions just as a radiator. But in addition, it supplies the moisture so essential to health and comfort.

For years Frigidaire and General Motors engineers have been working to perfect this compact air conditioning unit. The experimental

Horizontal type, available in burl walnut lacquer on steel. Beautiful and compact in design. Equipped with spiral finned copper tubing cooling and heating coils... centrifugal fans. Air movement, 550 cu. ft. per minute. Separate fan and compressor switches. Thermostats optional.

★ ★ ★

Vertical type. Finished in burl walnut on steel. Coils, fan and switches same as V-3 model. Air movement, 450 cu. ft. per minute. Thermostats optional.

stage has been passed. The dream has become a reality. Frigidaire Air Conditioning Equipment is so efficient, so dependable, that each model carries a 3-year guarantee.

Write for literature and complete information today. Frigidaire Corporation, Subsidiary of General Motors Corporation, Dayton, Ohio.

# FRIGIDAIRE

## AIR CONDITIONING EQUIPMENT

**G U A R A N T E E D F O R T H R E E Y E A R S**

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER AND BUILDING AGE

# glass

## CREATES THE FIRST IMPRESSION



*Park Way Terrace, San Francisco, glazed with Libbey-Owens-Ford Quality Glass. Architects—Kent & Hass*

**T**HE first thing that strikes the eye of the prospect when he sees the house, is glass. Because first impressions have so great an influence upon sales, it is vastly important that the glass be *fine* glass and that its clear, cheerful sparkle reflect the underlying *quality* of the home you offer for sale. The unusual and lasting brilliance of L·O·F Quality Glass is,

therefore, a very tangible sales factor . . . doubly so because Libbey-Owens-Ford national advertising has emphasized the meaning of *quality glass* to the millions who form your market. Specify this fine glass in the homes you build to sell. For your protection the distinctive L·O·F label identifies each sheet of L·O·F "A" Quality Window Glass.

# LIBBEY · OWENS · FORD QUALITY GLASS



LIBBEY · OWENS · FORD GLASS COMPANY, TOLEDO, OHIO  
Manufacturers of Highest Quality Flat Drawn Window Glass,  
Polished Plate Glass and Safety Glass; also distributors of Figured  
and Wire Glass manufactured by the Blue Ridge Glass Corporation  
of Kingsport, Tennessee.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

# A MARBLE FINISH *that* WILL NOT *fade nor stain*

IN attempting to achieve the solid dignity which has been associated with marble for centuries past, a compromise is often necessary. Either you must accept certain undesirable qualities found in the marble obtainable today—or you must use materials with special advantages of color permanence—Micarta for instance.

Marble designs in Micarta so faithfully reproduce the most beautiful examples of the native stone that close examination is required to detect the difference—and those differences favor the Micarta. Micarta is warm to the touch; it deadens sound; it will not crack nor chip; it will not discolor nor fade with age, and being non-porous, it will not absorb stains.

Micarta patterns are not limited to marbles. More than forty designs present a wide selection. Some of these are frank reproductions of materials now being used, but with qualities found only in Micarta. Others open up entirely new possibilities in interior decoration.

Have the Westinghouse representative show you samples of all the Micarta finishes now developed, or, if you prefer, let us send you a sample of the verde-green marble finish shown in this advertisement.

## Westinghouse

### MAIL THE COUPON

Westinghouse Electric & Mfg. Company  
Room 2-N—East Pittsburgh, Pa.

- Please have your representative show me samples of all the Micarta finishes.
- Please send me a sample of Micarta in the verde-green marble finish.

Name .....

Company .....

Address .....

City .....

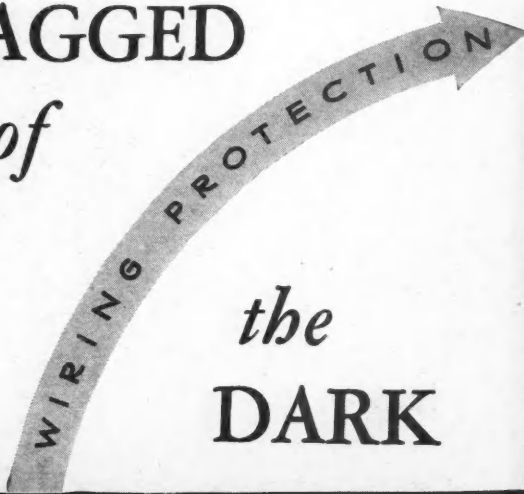
State .....

4-32

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DRAGGED  
out of



the  
DARK



and made into  
a SALESMAN!

THE old fashioned fuse box under the cellar steps is gone! Its job is taken by a neat panel set into the kitchen wall where it becomes one of the conveniences of the house—one of its selling points.

You can make your specifications distinctive and swing bids your way by talking the advantages of *fuseless home protection*.

Modern house wiring is protected by the Westinghouse Nofuze Load Center. When the lights go out, a flip of the handle instantly restores service. Briefly, here are the advantages your clients will enjoy:

**SAFETY**

Tinker-proof and unfailing protection for the wiring system and electric appliances.

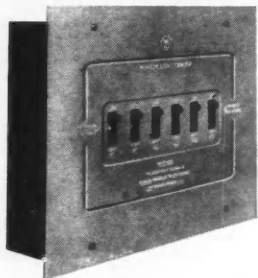
**CONVENIENCE**

No groping in the dark to find burned-out fuses. Service is instantly restored from the kitchen or other convenient spot by the flip of a handle.

**ECONOMY**

Shorter wire runs decrease wiring costs. No fuses to buy.

The coupon below will bring you complete information. Mail it today.



**NOFUZE LOAD CENTER**

*has banished fuse troubles from homes by eliminating fuses and safety disconnect switches from house wiring protection.*

**SEND FOR BOOKLET**

Westinghouse Electric & Manufacturing Company  
Room 2-N—East Pittsburgh, Pa.  
Gentlemen: Please send me a copy of Circular 1913.

Name.....  
Company.....  
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Quality workmanship guarantees every Westinghouse product





# The BARCOL OVERdoor



*This OVERdoor installation shows the desirability of one wide OVERdoor where the driveway approach to the garage has a sharp turn.*

Most customers would like to have this type of door — and will gladly pay for its extra quality and service.

A pleased customer for every installation —

*when you push doors that satisfy*



OPENING

CLOSED

**Y**OU know that in the long run you profit most when you furnish garage doors *that satisfy*. You can count on a pleased customer for every installation when you sell the BARCOL OVERdoor. This improved overhead type door embodies extra quality materials that your customers will like. The better construction used in making this door also will appeal to them. In design the OVERdoor is noticeably superior. It opens and closes easily, and is perfectly balanced at every point of its vertical travel. Its unique weatherproof-closing feature will not be found in any other upward-acting door.

These and the OVERdoor's several other advantages are well worth your study. In addition to its mechanical betterments the OVERdoor offers you a reasonably good profit on every sale. That also is of importance to you. We believe you will find in this product the *ideal* garage door—the door that will give your customers the utmost possible service and satisfaction and that will provide you with your own greatest ultimate profit. Why not write us today regarding the sale of the OVERdoor in your community?

**BARBER-COLMAN COMPANY**

General Offices and Plant: ROCKFORD, ILLINOIS, U. S. A.

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER AND BUILDING AGE

# FORMICA

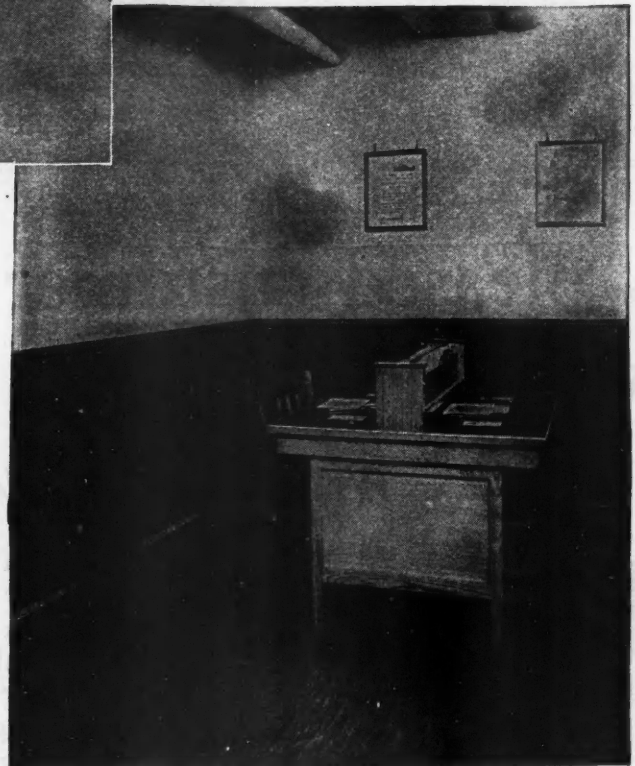


**WAINSCOT**  
 $\frac{1}{16}$  Sheet  
 Cemented  
 to Smooth  
 Plaster . . .

◀ **A** method is now available for cementing Formica sheet 1-16 thick direct to smooth plaster walls. With a cap molding and base this makes a most attractive treatment for wainscot.

First cost is moderate. No upkeep or refinishing need be anticipated. The material can be cleaned with soap and water or with an organic solvent. It is very easy to keep clean.

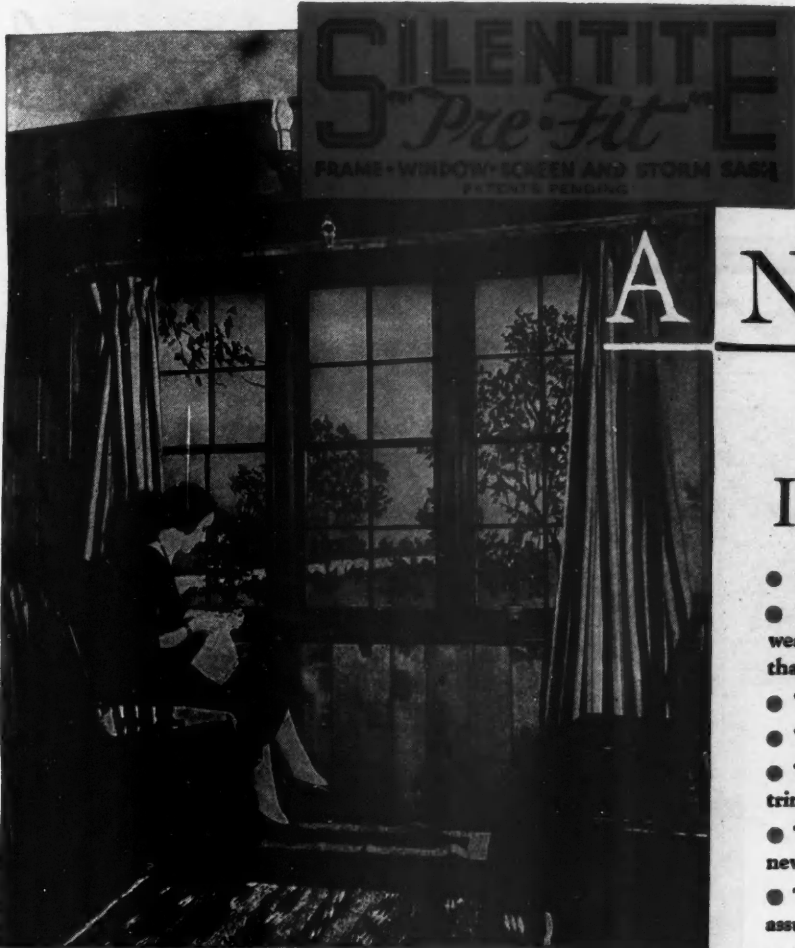
The picture shows walls that have been covered in this way. Ask for the facts.



THE FORMICA INSULATION COMPANY

4620 Spring Grove Avenue, Cincinnati, Ohio

**FORMICA**  
*for* **BUILDING PURPOSES**

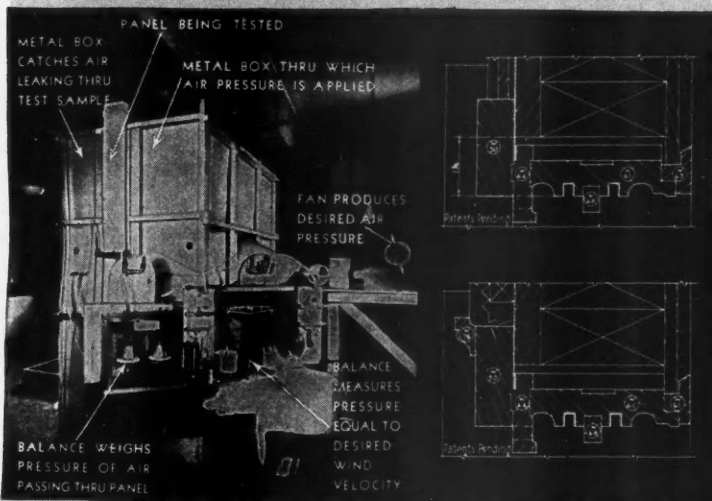


# A New Window

## That Reduces Installation Costs

- That does away with cords, pulleys, and weights.
- That is 5.26 times as weather-tight as the ordinary non-weather-stripped window, and at least 1/3 more weather-tight than the ordinary type of weather-stripped window.
- That is entirely *Pre-Fit* at the Factory.
- That is adaptable to any type of wall construction.
- That gives the added beauty and practicability of narrow trim and narrow mullions.
- That is complete with *Pre-Fit* storm sash (including the new Curtis Protectorvent) and *Pre-Fit* screen.
- That is shipped in weather-resisting, dust-proof cartons, assuring delivery of a bright, clean frame.
- That is low in price and high in quality.

**Beauty** Unusually narrow mullions and narrow trim conform to the best architectural standards of beauty, and permit more glass area or more wall surface, or both. And, in addition, the solid mullions prevent air leakage.



**Weather-Tight** Repeated tests made by the Pittsburgh Testing Laboratory prove that SILENTITE *Pre-Fit* Windows are 5.26 times as weather-tight as non-weather-stripped windows of standard design, and at least 1/3 more weather-tight than ordinary weather-stripped windows. Weather-tightness does not change with the seasons. Yet, SILENTITE Window Units are lower in price.

**Pre-Fit** SILENTITE Window Units fit any type wall. Above are siding and stucco wall details. Jamb, blind stop, and outside casing are same for all wall construction and are assembled in cartons. Sash are factory-fitted. Installation quick and inexpensive.

## SILENTITE Will Help You Sell Houses . . .

That's one of the big advantages of the SILENTITE *Pre-Fit* Window Units. It sells itself. It makes a real talking point out of windows. And you'll find a mighty receptive audience when you show home owners how unlikely it is for the SILENTITE *Pre-Fit* Window to stick or jamb, how it is free from rattles. And there's real selling talk in SILENTITE Weather-tightness, with all it means in comfort and fuel saving.

Contractors have already installed more than 2,500 SILENTITE Units in all parts of the country—they can tell you in terms of cold hard cash of the savings they've made in installation costs. If you would like some of these savings on your next job, get all the facts about SILENTITE now. Your Curtis dealer can give you complete information—or, if you prefer, just send us the coupon.

### A Product of the Curtis Companies

Curtis Bros. & Co.,  
Clinton, Iowa  
Curtis & Yale Co.,  
Wausau, Wis.  
Curtis Sash & Door Co.,  
Sioux City, Iowa  
Curtis, Towle & Paine Co.,  
Lincoln, Nebr.  
Topeka, Kansas

Curtis Door & Sash Co.,  
Chicago, Ill.  
Curtis-Yale-Purvis Co.,  
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Curtis Companies Inc.,  
Clinton, Iowa  
Curtis Woodwork Inc.,  
New York City  
(Empire State Bldg.)

1866  
**CURTIS**  
**WOODWORK**

### CURTIS COMPANIES SERVICE BUREAU 440 Curtis Building, Clinton, Iowa

Please send me full information about the Curtis SILENTITE *Pre-Fit* Window Unit and the savings that I can make in its use.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER AND BUILDING AGE

# Nature looks natural through Pennvernon windows

**H**ERE is one of the most important reasons why the popularity of Pennvernon Window Glass has increased so rapidly among architects, builders and home-owners: Through Pennvernon Glass, the scenes beyond it can be viewed clearly, with full definition of line, without distortion, and in true and natural colors. Briefly, Pennvernon Window Glass allows Nature to look like itself.

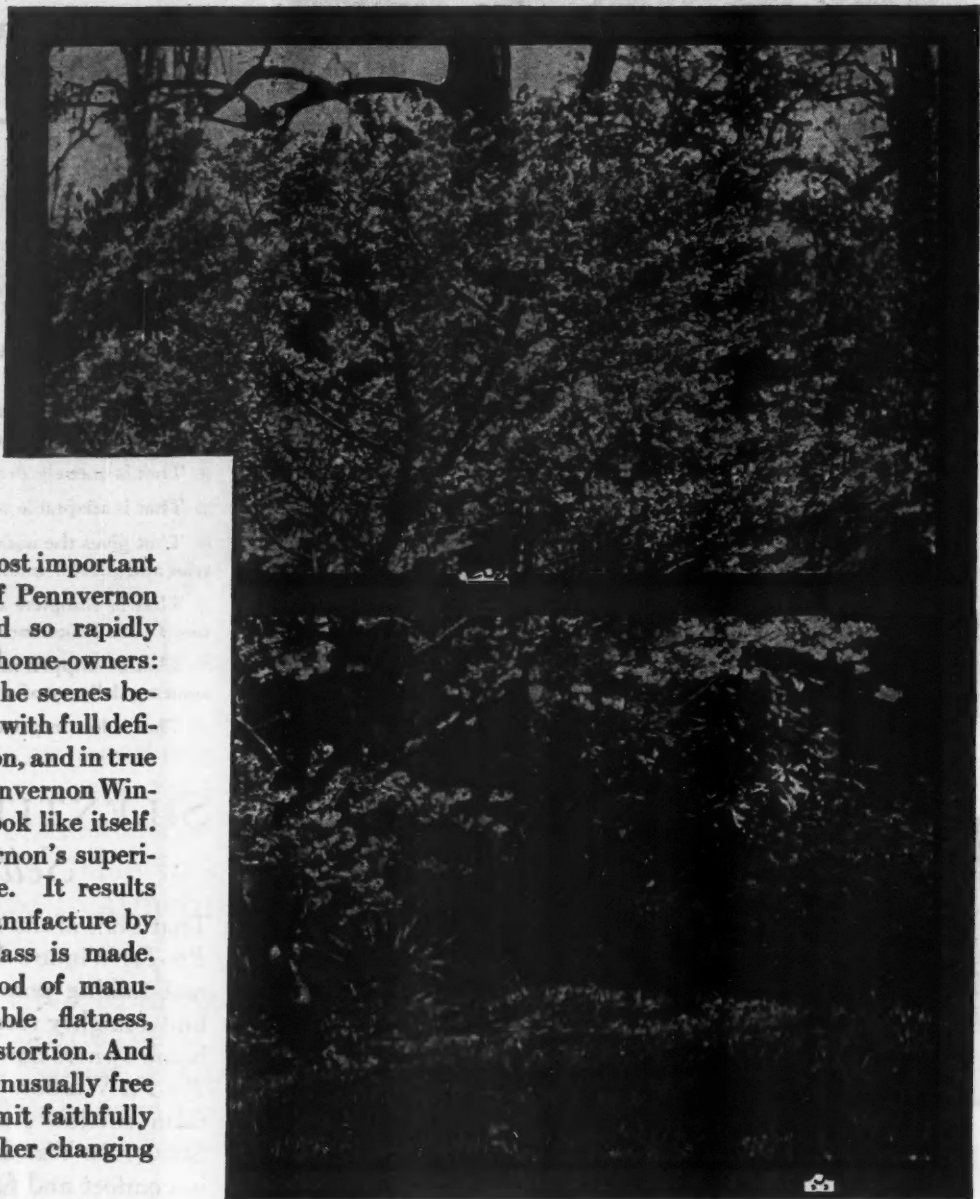
The explanation of Pennvernon's superiority in this respect is simple. It results from the special process of manufacture by which this better window glass is made. Pennvernon's exclusive method of manufacture gives it a remarkable flatness, clearness and freedom from distortion. And because Pennvernon is itself unusually free from color, it is able to transmit faithfully the true colors of Nature, neither changing nor dimming their brightness.

Sharper, clearer vision—but that's just one of Pennvernon's outstanding features. In addition, this glass has an extraordinary intrinsic beauty of its own—a brightness and brilliance of surface on both sides of the sheet that means much better reflection.

---

**PENNVERNON**  
*flat drawn*  
**WINDOW GLASS**

---



And these bright surfaces are so smooth and dense that they are highly impervious to wear and abrasion—giving Pennvernon longer life.

Investigate Pennvernon Window Glass. See for yourself what makes it such a fast selling, profitable glass to stock. It is available at the warehouses of the Pittsburgh Plate Glass Company in leading cities and through progressive glass jobbers. It can be had in single or double strength and in standard thicknesses up to  $\frac{3}{32}$ ". Write for samples and our booklet on Pennvernon. Address Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pa.



ALUMINUM PAINT—THE COAT OF METAL PROTECTION



## Primed at the mill with Aluminum Paint ... these products give your house added saleability

Use aluminum mill-primed lumber throughout your house and this is what you stand to gain. (1) All woodwork is protected against moisture damage—rain, cellar damp, sweating, wet plaster. Thus warping, checking and similar trouble is definitely retarded. (2) Paint top-coats anchor better. (3) You give today's hard-to-please buyers full value for every dollar to be spent. (4) Your reputation as a careful builder gets another boost.

Today you can buy siding, roof sheathing and sub-flooring, moulding, shingles, trim, window sash and frames, and built-in fixtures that have been primed and back-painted at the mill with aluminum paint, the pigment portion of which is Alcoa Albron Powder made by Aluminum Company of America.

If your dealer does not handle this ready-primed and back-painted material we will direct you to a source of supply. Address ALUMINUM COMPANY of AMERICA; 2420 Oliver Building, PITTSBURGH, PENNA.

ALCOA ALBRON  
POWDER FOR  
ALUMINUM PAINT

# INTERNATIONAL HARVESTER

*Announces a*

## new 6-cylinder truck



**1½**  
**TON**  
Two wheelbase lengths,  
136 and 160 inches

International Harvester takes particular pride in announcing this new truck. Even to an organization which has made quality trucks for nearly thirty years, the Model A-3 is an outstanding example of both design and construction.

The Harvester organization presents the Model A-3 as reflecting the century-old reputation for quality that is behind all International products. It offers this lasting quality in a truck of smooth 6-cylinder power at the remarkably low chassis price of \$795.

Look at this new truck... and do not hesitate to judge its value by what you see. For International appearance is an accurate indication of International performance... and the A-3 is no exception to this rule.

### Model A-3 Features

4-speeds forward and 1 reverse... powerful 6-cylinder, L-Head type engine, 3¼-inch bore x 4½-inch stroke... 11-inch single plate, vibration-dampened clutch... irreversible cam-and-lever steering gear... semi-elliptic auxiliary rear springs... 4-wheel, mechanical internal-expanding shoe type brakes... 2 wheelbases, 136 and 160-inch.



Here is a truck of great stamina... a fast truck... a powerful and dependable truck. It is beautiful both inside and out. And judged on whatever basis of cost-figuring you may use, you will find it decidedly economical.

**\$795**

for the 136-inch wheelbase chassis, standard equipment, f.o.b. factory

Go to a dealer's showroom, or to one of the 183 Company-owned branches in the United States and Canada. See the new Model A-3. Then test it in your own way on your own job. Then own it.

And remember that when you do own it, you can rely upon the famous Harvester Company service organization to make sure the Model A-3 will deliver the famous International service to you!

INTERNATIONAL HARVESTER COMPANY  
606 S. Michigan Ave. OF AMERICA Chicago, Ill.  
(INCORPORATED)

# INTERNATIONAL TRUCKS

# AMERICAN BUILDER AND BUILDING AGE

Name Registered U. S. Patent Office

## 1932 HOUSING STANDARDS AND UNEMPLOYMENT RELIEF

### A Challenge and an Opportunity

**D**URING the past winter in many communities the local contractors, carpenters and other building tradesmen have been treated to a convincing lesson on how to get business. The Rochester Plan, the Muncie Plan and the other community plan drives to relieve unemployment, insofar as they have succeeded, have been organized on the basis of a consistent and thorough house-to-house canvass of home owners to persuade them to take advantage of present low building costs—and, at the same time, put men to work—by making needed repairs and betterments to their homes and other buildings.

These campaigns have centered around home maintenance and remodeling as affecting the greatest number of families and as offering the most justifiable avenue of investment for "hoarded" or other funds. There has been strong public backing for these campaigns for employment on home improvements. Press and pulpit and all community organizations have taken up the cry until now home repairs have acquired such a standing that the man who has his back porch repaired or a new bath tub put in is almost regarded as a public benefactor.

The men of the building industry—carpenters, plumbers, roofers, the contractors, dealers, architects—find themselves right now in the path of this surge of public sentiment. It is their opportunity to stimulate general business and at the same time to help themselves. Yet, how many are taking advantage of this opportunity in the aggressive, sales-creative way which the automobile industry, for instance, would if the same public backing were given the proposition of new car buying and old car modernizing?

This publication has maintained that one of the causes of the present depression is that the men of the home building industry have permitted their commodity, the modern home, to be *outsold* by motor cars and radios and other luxury lines. The public has been led to spend its money for these non-essentials, leaving little or none for



Theodore Eicholz, Architect

investment in homes and in home improvements, until today America is economically out of balance. Many business leaders agree that community building and modernizing campaigns are needed as the surest means of re-establishing employment and normal prosperity.

This is a challenge to contractors and builders and to lumber and building material dealers to carry this work further. It is a rare opportunity to demonstrate leadership and sales ability. Contractors, builders and dealers are the men best qualified to plan and execute a community building drive; and a large part of the work will naturally fall to them. They should be in the forefront of the forces organizing in every locality to create sentiment for home improvements and they should immediately arrange to inspect and survey every house and every business building so as to determine what repairs and betterments are needed. This is work for men experienced in construction and competent to give owners sound advice as to what should be done.

Housing must be improved. The need is urgent. Dilapidated and insanitary houses cast a blight over many neighborhoods. Some call for condemnation proceedings and a wrecking crew, others justify extensive repairs. Every street has its examples of old style, outmoded architecture that no longer measures up to present day standards.

The new styles in homes and the many innovations in building materials and home equipment which 1932 offers the public also challenge builders to do a mighty job this year of bringing their communities up to date from a housing and architectural standpoint. Contractors and builders should use their organizing and selling ability. They are accustomed to seek out their clients and customers from among the general public, finding the man who will buy a home or will order one built, and the

home owner who needs his roof renewed or a sun porch built on; and this is the time of all times when they should be doing this. The present season calls for aggressive and creative selling of new homes and of home improvements. Architects and builders must redouble their efforts at planning and selling; and the supply men, also, must come out of their warehouses and help with this selling job if maximum results are to be secured.

The general business public is looking to the home building industry to get the money out of hiding and the men back to work. The 1932 models are ready, and the home-owning and home-seeking public is waiting. It is a challenging opportunity!

## TAXATION OF REAL ESTATE AND MOTOR VEHICLES

**A**N incident that occurred recently in the Chicago district emphasized a point that repeatedly has been made by the *AMERICAN BUILDER AND BUILDING AGE*—namely, that a larger part of the cost of building and maintaining highways should be paid with taxes collected from motor vehicles, and a smaller part with taxes collected from real estate.

Sheridan Road is the highway which begins at Lincoln Park in Chicago and runs northward along the beautiful shore of Lake Michigan through that city and through several of the finest residential suburbs in the country to Milwaukee. It was proposed by the Illinois state highway department partly to reconstruct Sheridan Road to make it safer and more suitable for through traffic. The village boards of five of the principal suburbs adopted resolutions opposing this plan. "We want to discourage, rather than to encourage, the use of Sheridan Road for through traffic," said their spokesman. This traffic, he said, should be diverted to routes some miles west of Lake Michigan. "The suburban home owners," he contended, "should be saved from the noise, fumes and hazards of through traffic."

Our governments have proceeded in the past upon the assumption that the construction of hard-surfaced highways benefits and increases the value of real estate, especially of that adjacent to them, and that therefore real estate should be taxed to provide funds for their construction and maintenance. Less than one-half of the money now spent upon the highways of the country is collected from motor vehicles in license fees and gasoline taxes, and more than one-half from general property; and taxes for highway purposes are among the most burdensome now borne by real estate. Thomas H. MacDonald, chief of the United States Bureau of Public Roads, in testifying recently before a Senate committee, contended that only 13,300 miles of "hard roads," or only about 15 per cent of the total mileage of important highways, should be supported by motor vehicle taxation. All other roads he classed as "land serving" and therefore as roads that should be provided and maintained by taxes on real estate—in other words,

by taxes on the already grossly overtaxed farms and residential property of the country. In the state of Pennsylvania, for example, the mileage of rural roads—those outside of cities—is about 90,000, of which 25,000 miles are surfaced, and Mr. MacDonald contended that only about one-half of even this hard-surfaced mileage should be provided and maintained from motor vehicle taxes—in other words, that 76,700 out of the total of 90,000 miles should be provided and maintained from real estate taxes.

### Destructive to Realty Values

Owners of real estate and all other persons who desire to see a revival of building construction, and especially of home building, should squarely and vigorously oppose the policy of taxation for highway purposes advocated by Mr. MacDonald, who evidently is much more anxious for the prosperity of the automobile industry than for a revival of the building industry. Throughout the country owners of real estate, including both farms and homes, are suffering severely from reckless government expenditures and the excessive taxation, especially of real estate, in which they have resulted. Sometimes real estate is benefited, but often it is actually injured, by highway development. Adjacent real estate consisting of homes is injured when the development of a highway results in a heavy traffic, consisting not only of pleasure vehicles but also of huge buses and trucks, passing by it constantly at all hours of the day and night. On the other hand, users of the highways are benefited, provided highway development is not carried to such an excess that even those who own motor vehicles cannot bear the taxes thereby made necessary.

### Only Those Benefited Should Pay

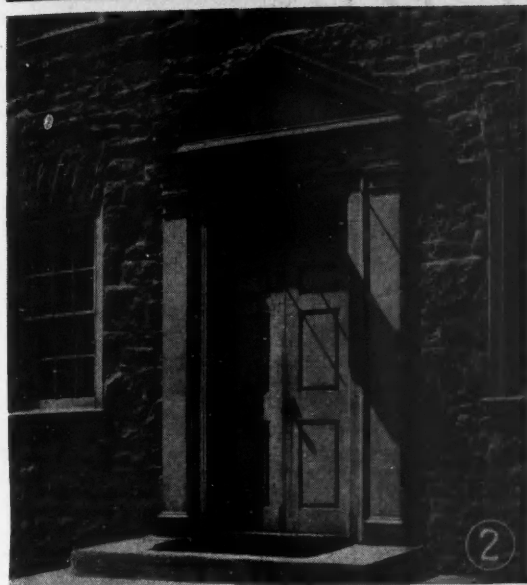
Those who benefit by any public expenditure should, as nearly as possible, be made to bear all the taxation in which it results. The highways being built and maintained throughout the country are being provided almost entirely for the use of motor vehicles, and the more expensive for the use of buses and trucks. Therefore, the entire cost of building and maintaining them should be imposed upon the users of motor vehicles; and, as total motor vehicle taxes are not now sufficient to pay the entire cost, either expenditures upon highways should be reduced or the amount of taxes collected from motor vehicles as a whole should be largely increased.

Most owners of real estate also own automobiles. When motor vehicle taxes are made high enough in proportion to highway expenses, the owners of real estate who also own automobiles will pay their share of them as automobile owners. Real estate should not continue to be so taxed that its owners will continue to pay much more than their share of highway expenses, in order that those who own motor vehicles, but who do not own real estate, may continue to escape paying a large part of their reasonable share of highway expenses.





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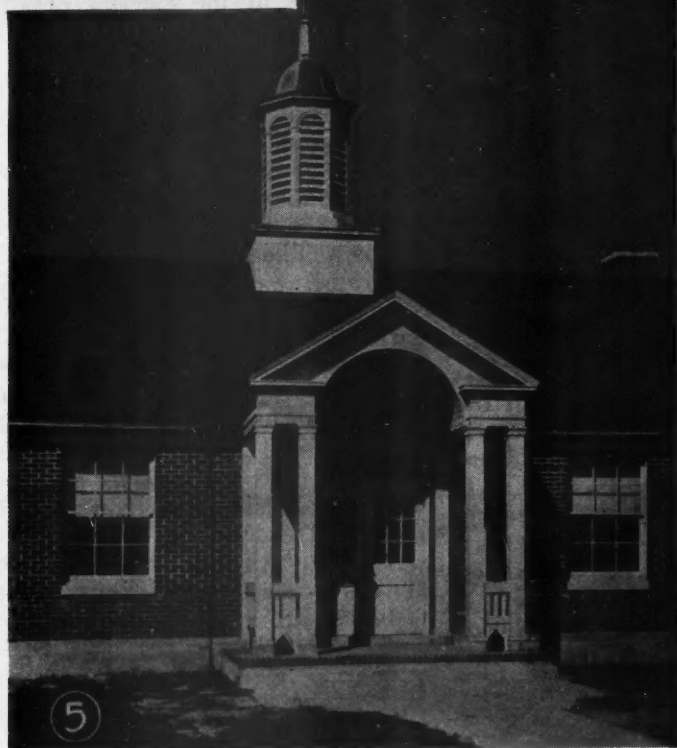
1—Tall pillars, fine Colonial details make this California home attractive. Photo by Mott.

2—Entrance detail of fire station and town hall at Mamaroneck, N. Y., showing careful design.

3—Illustrating the modern trend in city apartment design which emphasizes wide courts, trees, grass, sunshine.

4—Excellent treatment of small frame wing of house of Vincent Astor, New York. Aymar Embury II, architect.

5—Inviting entrance to public school at Hartly, Del., in which Colonial treatment is effective.



⑤



④

## Needed in 1932 . . .

Regardless of pessimists, there is a real need and a big market in the United States today for better small homes—modern apartments with courts and sunshine—healthful schools. Especially to the Modern Home—1932 Model, is this issue dedicated.

# An analysis of What the Well Dressed House Will Wear in 1932

## Design specialists say—

The interesting combination of several materials in one house is a popular trend.

The public is more "design conscious" than ever before; builders are giving them better architecture.

Exteriors tend to be more harmonious, simple; there is less "gingerbread" and unnecessary ornamentation.

The big market yet untouched lies in the \$1500 to \$4000 residential field.

## Regional types

Colonial architecture is most popular in the East with English a close second.

Middlewest builders still favor English, but also like Colonial and French.

Southwest and South still prefers the Spanish, modified to localities. English stucco houses growing more popular. Several new types, such as "Monterey" and "Pueblo" are attracting attention.

**W**HILE house construction in many parts of the United States has been practically at a standstill, ideas as to architecture, planning and use of materials have been developing rapidly.

A survey of the activities of builders and architects in the important geographical districts of the country shows how the public's ideas on architecture have been changing.

Builders report that the public is more "design conscious" than ever before and that clients appreciate and are demanding houses of architectural variety and merit.

This year, therefore, builders are taking advantage of low material prices and a plentifulness of good architectural talent available at low cost to provide style appeal of a high order, combined with low sales price.

The general trend everywhere is toward roomy and convenient interior layouts in which waste space has been eliminated. Exteriors tend to make use of one of the popular period styles, such as English, Colonial, Spanish or French adapted to the needs and customs of the local community.

There is a tendency toward more simplicity of exterior in which good use of mass and geometrical forms, spacing of windows, and good composition replace the former striving for effect by use of unnecessary orna-

ments or superficial gables, "gingerbread" trimming, etc.

Combinations of materials are growing in popularity. The variety and interest some builders formerly employed to catch the public eye by adding unnecessary and oftentimes grotesque exterior ornamentation is being achieved in a more permanently pleasing fashion by the intelligent and conservative combination of several materials.

By combining stone, brick, stucco, shingles, wide siding in various ways in keeping with the architectural style, monotony is avoided, and yet such work can be handled with very little increase in cost.

The survey of geographical sections shows certain types more popular than others. In the east and northeast, there is apparently a growing popular feeling among builders and their clients for the Colonial in its various forms, expressed by "Georgian," "Early American," "Dutch Colonial." The simplicity of Colonial, in which most of the exterior ornamentation is concentrated in one or two spots while the mass as a whole remains simple, is desirable.

The English type of architecture executed in brick and half-timber and also in combinations of brick, stucco and stone is a close runner-up to the Colonial in the east.

In the midwest and mid-north states, the English style continues to be most popular, although here, too, Colonial receives considerable attention. The French or Norman also is well liked.

Spanish and Spanish-Mexican types of architecture still predominate in the south and southwest; but a variety of English executed largely in stucco is growing in popularity in California. A more recent development that has great possibilities is the so-called "Monterey" type of architecture, in which the principal elements of both Colonial and Spanish are united in a pleasing fashion. This type allows an interesting combination of materials, such as whitewashed brick and stucco, or brick and wide siding, that seems to have caught the public eye. An overhanging bracketed second story balcony is a characteristic feature of the "Monterey."

In certain areas of the southwest where the Aztec influence is apparent, the Spanish-Mexican style of architecture is modified to harmonize with rolling plains and desert country. This is sometimes called the "Pueblo" style, which is very suitable for such regions.

Styles moderne are being used for demonstration and show houses in several instances. Some of these are logical and pleasing, others classify as novelties, not to say freaks. The public in general does not take to them except in curiosity; and it is doubtful if this modern European style, especially the type resembling a shoe box on stilts, will ever be adopted generally by home builders in this country, or approved by our home buyers. The current newspaper talk of revolutionary mass production home building, using strange and new materials, is usually illustrated by architectural drawings in this outlandish style, but this is evidently for publicity purposes only—public acceptance still favoring strongly



Designed and built by Ira C. Berns in Palos Verdes Estates, Calif., this house illustrates a Spanish type of good design and simple treatment that is very popular.

the traditional homey type of early American and English which for generations have pictured "home" to most of us.

There is a distinct trend everywhere toward larger use of pre-manufactured units, such as doors, windows, bookcases, trim, cupboards and other pre-cut units. This is an indication of better architectural style as such units are as a rule the result of the work of competent producers.

There is less deceit apparent in the use of materials, less attempt to disguise or misrepresent them. Wood and frame construction which continues to be most widely popular, is used frankly and simply, as are the other old standbys of brick, stucco and stone. New materials are being used without attempts to make them look like something they are not.

But no matter what style of architectural dress is adopted for the 1932 home, the interiors will be very completely supplied with accessories, appointments and items of mechanical equipment which will not only make these homes an interesting, convenient and comfortable place in which to live, but also will contribute definitely to their style and good appearance. Clean fuel heating plants, concealed radiation, air conditioning equipment, automatic refrigeration, artistic lighting, colored bathroom fixtures, convenient kitchens and dozens of other items of special equipment vie with each other for the attention of the home buyer. Each contributes to the desired end of achieving the really modern 1932 home.

**THE 1932 MODEL  
HOMELAND BUNGALOW  
at Homestead  
\$9500**

**THE HOME SEEKERS  
STARTING POINT**

**AND  
BOOKLET**

**99 Questions and Answers  
RELATIVE TO HOME BUILDING**

*Booklet on the latest  
plans, financing, building  
methods, etc. Request to  
get will bring you a copy.*

*an improved plot of restricted neighborhood to had ready built or with slight changes to a plot of your choice, with a bath and garage, and with the standard Homeland the best quality materials*

**FEATURES**  
*Bedroom closets  
 Improved tile bath  
 Hardwood floors  
 Armstrong's linoleum  
 Standard electric refrigerator*

*on Highway three miles to Odessa  
 Club. Turn right on Odessa Ave.  
 Homestead. Or go west on South  
 Ave. to the first street bridge on the  
 Parkway and over bridge to*

Emphasis on planning and design is laid by the Homeland Company of New York in the company's latest sales booklet. The public is interested when abstract theories are translated in this fashion into terms of its everyday needs, and made thoroughly practical and definite by such questions as these.



**DUTCH COLONIAL**

Six rooms, bath, downstairs lavatory and attached garage. Exterior materials and designs are authentic, genuine reproductions of the original houses built by Dutch settlers in Northern New Jersey. Pleasing combinations of brick and shingle or red stone, stucco and shingle.



**ENGLISH**

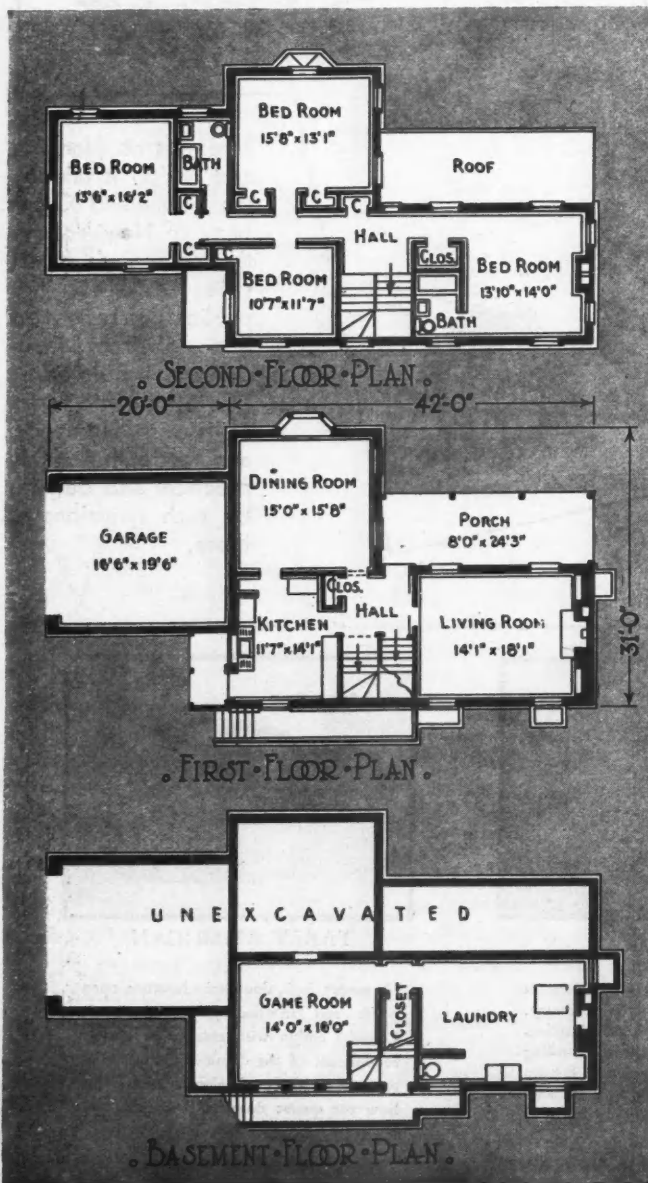
Six or seven rooms, two baths, downstairs lavatory, attached one or two-car garage. Houses of this design, with rich exteriors in textures of rough brick, rustic oak siding and stucco, are among the most famous examples of architecture in rural England. These houses are available on Avenue corners or park frontages.



**EARLY AMERICAN**

Six rooms, bath, downstairs lavatory, open porch and attached garage. Authentic Colonial design with exterior in shingle reminiscent of the dignified simplicity of some trim old New England village. Note how the quaint dormers break the roof line with pleasing effect.

These three popular styles of architecture are featured in a new series being offered by developers of Radburn, N. J. Authentic design is again emphasized. Houses are sold for \$10,800 with only 10 per cent down.



Typical Floor Plan, Detached Types.

## SKILLFUL PLANNING achieves LOW UNIT COSTS

THE charm and economy of group housing is being more and more recognized. Outstanding examples of residential communities of this type exist in a few cities and they have met with popular acceptance.

It is likely that the economy of construction of group housing, its easy adaptation for striking landscape and interior court effects, and the quaint charm of its varied, yet unified group design, will recommend it to residential builders and community developers as one of the best types for the new residential period.

One of the most recent outstanding achievements of this type is that of C. K. Wells, Jr., Baltimore builder, at Middleton Court. It consists of twelve detached and semi-detached homes, designed in Charleston Colonial style, commodiously planned inside and well constructed of brick, painted with weather resisting white cement paint and capped by slate roofs. The group has been attractively laid out around a central garden court. It is reported that these homes have made a strong appeal among families seeking a first-class environment and able to carry homes that are priced at \$14,250 to \$17,750. Eight of them were sold in ten weeks.

Skillful planning made it possible for the builder to reduce his unit costs while at the same time maintaining a high quality residential appearance.

The court was laid out on a plot of ground measuring roughly 230 by 300 feet. Twelve houses were erected on this site, two detached and the others semi-detached. The layout was planned to give as much free space as possible.

The detached houses have one-story porches, four bedrooms and two baths. The semi-detached have two-

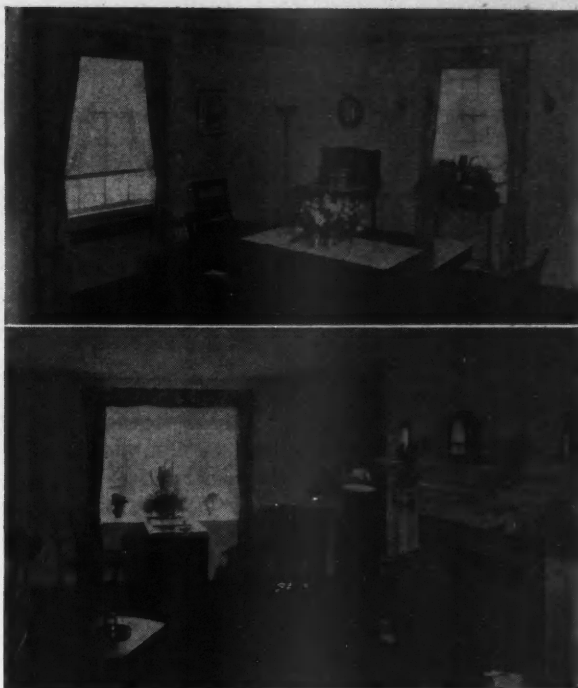
story porches, three bedrooms and two baths. Each house has a clubroom in basement and is provided with a two-car garage. Homes are equipped with ample closet space. Bathrooms are tiled and equipped with every convenience. Heat is supplied through concealed radiators by a two-pipe vapor system.

Year around comfort and economy are further insured by the thorough insulation of walls. Insulation is also used on ceilings and floors over garages. Each house is equipped with red oak hardwood floors throughout and there is an open fireplace in each living room. All exterior millwork is cypress. The doors are of simple Colonial design. Metal weatherstripping and copper screens are used. Plumbing fixtures are of high grade vitreous china, enamelware and brass.

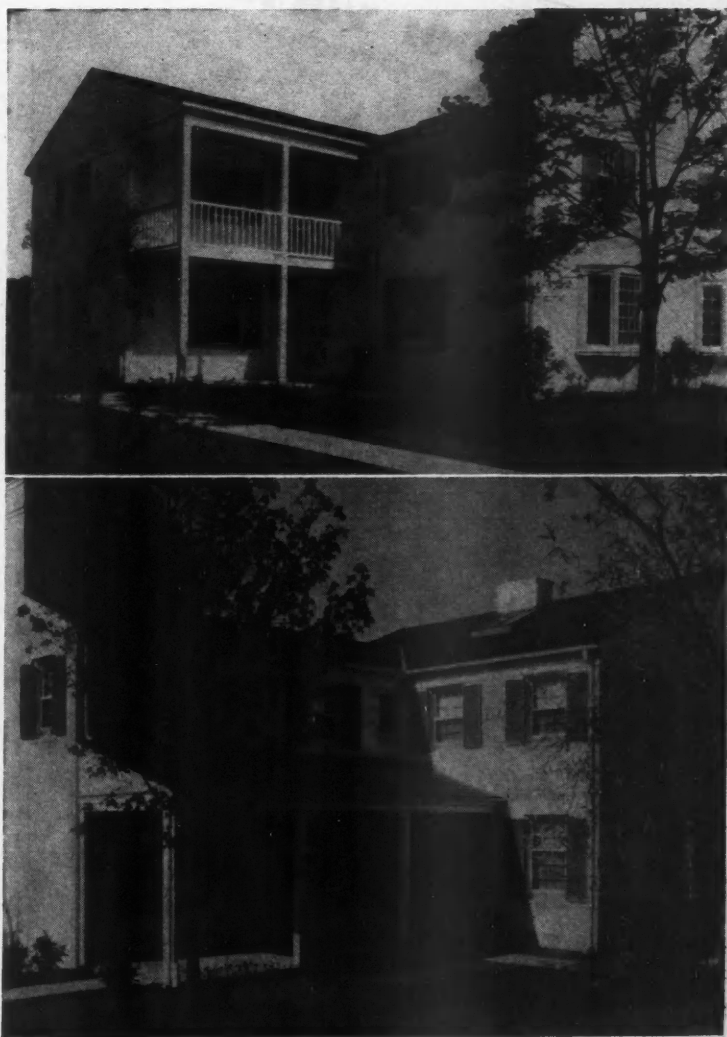
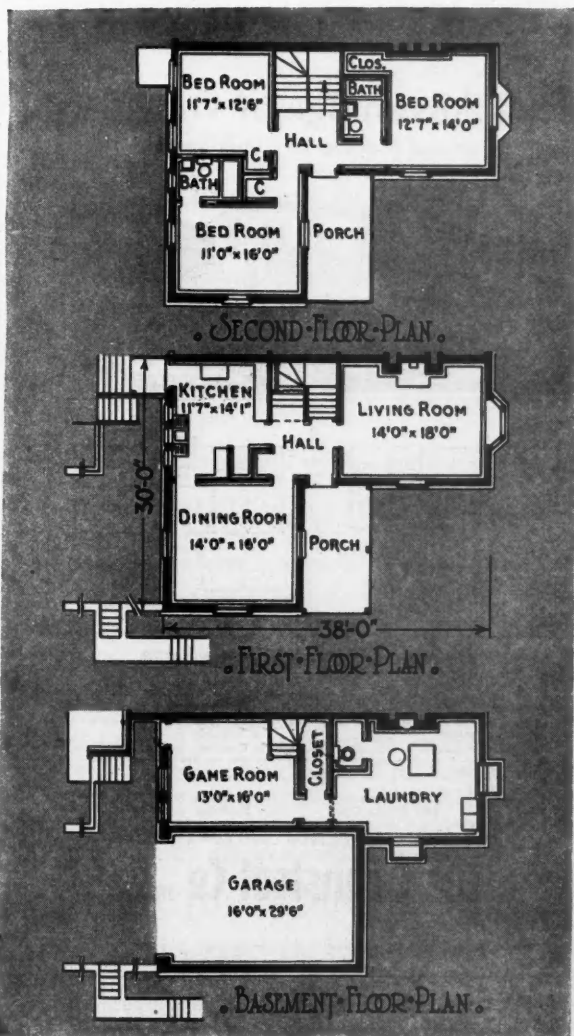
Rooms are unusually large, airy and well-lighted. Each home has a living-room fireplace and an attractive bay in the far end of the living room.

The provision of a comfortable basement room is made possible through the use of a gas-fired boiler. This extra room is a popular feature. It is not costly to fit up—linoleum makes an ideal floor material and wood paneling produces an attractive effect.

The semi-detached houses have two-story porches, providing additional room for outdoor living in the summertime. Large maple trees have been planted around the homes. Variations in design between units add materially to the attractiveness and desirability of this well conceived community development.



Rooms Are Unusually Large and Airy. Note the concealed radiators, charming fireplace, well chosen electrical fixtures.



Harmonious proportions, authentic Charleston Colonial architecture and efficient floor plans are features of Middleton Court homes. The porch is especially attractive. This type of group design lends privacy to each without sacrificing charm.

## WHY they did it

Building permits were falling off; the building outlook was bad. People said the community was overbuilt, that money could not be obtained for financing homes

## WHAT they did

Ran a convincing series of advertisements in the local newspapers; increased sales effort and reduced other expenses. Emphasized low costs, good design, fine equipment, pride of home ownership

## RESULTS . . .

Increased volume of business, an average of \$49,521 annually for the past four years. During the same period building permits for the city decreased 24 per cent

**DON'T FOOL YOURSELF!**  
YOU ARE JUDGED BY YOUR HOME



**This Attractive Home Can Be Yours for Only \$3300**

In your home a true reflection of your personality and your family's culture? It can be, no matter how small or simple it is, if you will avail yourself of the service our organization has to render in the financing, designing, and building of your new home.

The home shown above has all the conveniences generally found in more costly residences. The construction is distinctive in design, and will appeal to a progressive purchaser if you would care to call on any time. Meticulous attention with beautiful color best quality are used throughout. The bath and kitchen feature a beautiful color scheme. The living room has an open fireplace which retains a homelike character, and the doors are of genuine solid, quarter-sawn oak. In ample cash allowance is made for the finest wallpaper, lighted curtains, heating, insulation, and window shades.

**side now to own your own home! Thank you may decline to contribute prosperity, you cannot stop its growth—not while its leaders are while the whole country is awakening to our delightful offer. Bear in mind that our prices are remarkably low, but will soon increase. Bear in mind that our organization is able to help you with your building**

# How We Increase Sales In Hard Times

By C. A. DENNSTEDT  
Manager of advertising and selling, The Dennstedt Co. homebuilders of San Diego, California

**W**HEN one compares the small amount of money spent each year in advertising by contractors and builders and the millions invested annually in homes and business buildings, the percentage is small. The building industry could be increased at least thirty to forty per cent if a small amount of each builder's profit was spent in proper advertising.

I ask you how many automobiles and radios would be sold today were it not for their intensive advertising campaigns?

Our organization through persistent advertising, satisfied customers and hard work has been able to increase our volume of business an average of \$49,521 annually

**Take Advantage of Our Easy Financing Plan and Low building Cost**




FIRST FLOOR PLAN - SECOND FLOOR PLAN

**We Are Helping San Diego**

**HAVING** had \$51,350.00 worth of homes under construction in the past thirty days and with \$15,700.00 worth of new construction to be started in the next ten days.

**NEVER** has home ownership been more tempting than at the present time with the existing building material prices.

**MANY** have taken advantage of our liberal financing plans and are now living in their **OWN HOME**.

**REGARDLESS** of where you expect to build in San Diego County, our organization can save you **MONEY, TIME** and **WORRY**.

**WRITE, PHONE or CALL us at your convenience**

**The Dennstedt Co. Inc.**  
3761 Fifth Avenue Hillcrest 6204

**Constructed Complete for \$4750**

You who are desirous of building a real distinctive home, one that will reflect individuality and is more than attractive and in which has been incorporated three bedrooms with all conveniences, there here is just the plan you will appreciate.

Never have we been able to offer you such home with such large rooms; all tile roof and two-car garage for the same money.

The reasons for having so many homes under construction in our easy financing, ample funds; efficient drafting department, complete specifications; strict supervision and utmost of purchasing.

As your larger budget home of our homes under construction, located at:

4864 Edgewood 3612 Lotus	3327 Tennyson 4607 Norma Drive	577 Roscorans 4304 Randolph	810 Nahant Ct. 3745 Poinsettia
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**BETTER CONSTRUCTION AND LOWER PRICES**

**The Dennstedt Co. Inc.**  
11 Fifth Ave. Hillcrest 6204.

Samples of the aggressive newspaper advertising being used by Dennstedt to increase volume of business.

for the last four years. During the same period of time the building permits decreased about 24 per cent.

Our firm has in the past tried radio, magazine, direct mail, personal solicitation and newspaper advertising, and after giving each different kind credit for the inquiries received, our records disclose that newspaper display advertising, for the amount of money spent, produced the best results. We have had inquiries from practically every state in the Union.

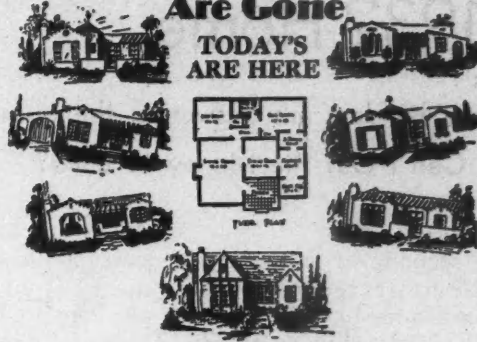
Just recently we designed and constructed a home in San Diego for a business man of Topeka, Kansas, which was paid for in cash when completed. This was all accomplished by correspondence—no member of our organization having met the owner until he and his family arrived here to take possession.

After a prospect calls at the office, the "ad" has accomplished its purpose, and it is then up to the salesman to make the sale on the merits of service, construction, material and workmanship. We find this is best accomplished by taking the clients to inspect some homes under construction—as seeing is believing.

I would like to see a display ad in the newspapers by every contractor or builder, for I know the results would help the whole industry. Don't put in an ad once and expect immediate results, as the only fair way is to advertise at regular intervals. If you follow this method you will not be disappointed.

To bring back prosperity and relieve unemployment each contractor and builder should have for his motto, "Early to bed, early to rise, work like hell and *advertise*."

## Yesterday's Opportunities Are Gone



Your choice of most elevations for \$3450

Prepare now for comfort and independence by saving part of your salary or business profits and invest it in a well constructed home, which will afford your loved ones pleasures never to be forgotten, and leave a permanent estate—*one that cannot be impaired, lost or stolen. 90% of all the millionaires become so by investing in real estate.*

Never in the history of our building operations have we been able to give you so much value for a dollar. How long this will continue no one can say, and from all indications prices are on the upgrade.

We have ample funds available to do your financing anywhere in San Diego County. Our organization has constructed homes in Carlsbad, Oceanside, Escondido, Vista, Alpine, Santee, La Mesa, Jamon Grove, Chula Vista, Encanto, National City, Cotonsado, La Jolla, Mission Beach, Pacific Beach, and in all parts of San Diego.

Our complete service includes the drawing of your plans, writing your specifications, strict supervision, and you will be interested in our 1931 financial plan.

We invite correspondence. Send in your sketch of the home you desire to build, and we will gladly draw same to scale with an elevation and quote you a complete price on your new home.

**The Dennstedt Co. Inc.**

3761 Fifth Ave

Hillcrest 6204

## Consider These 1932 Sales Methods

### HOME INSPECTION SERVICE

A "help for homebuilders" service in which builder offers to inspect houses and make recommendations to prevent obsolescence or disrepair. Sell the idea that to preserve value, a dwelling must be periodically examined and minor repairs taken care of. Such contacts will lead to bigger work

### HOUSE TO HOUSE SELLING

Every employee and member of the firm to spend at least one-half of each day making personal calls to promote building, using arguments of reconstruction drive to "put idle money back into circulation"

### CO-OPERATIVE COMMUNITY DRIVE

Organize or take part in a "Spend for the Home in 1932" campaign to arouse public interest in home building and improvement. See March American Builder and Building Age, page 26, for complete description of how such a drive may be successfully carried out

### MANUFACTURER AND DEALER HELPS

Many large manufacturers of building materials and equipment are offering planning, financing and selling helps for builders and dealers. Get in touch with your local representatives or write American Builder and Building Age

### NEWSPAPER ADVERTISING

Persistent advertising such as reported on this page by Dennstedt Co., accompanied by news articles and publicity

### DIRECT BY MAIL SELLING

Plan a series of short, plain-talk letters to rent payers covering subjects such as (1) build now while costs are low (2) new home designs (3) new home equipment (4) how building moves idle dollars (5) new inspection service (6) definite modernizing suggestions (7) a financial set up for one of your houses showing how rent pays for the home

### RADIO

Twice a week short programs interspersing music and brief talks on home building helps, to be broadcast from low cost local stations

### OTHER SELLING HELPS

Model homes, essay contests on home ownership, best house plan contests, photo contest, etc. Capitalize on the current federal, state and local drives to bring out idle dollars by starting a strong selling program. Work with local dealers, architects, realtors and others but remember that the builder is the ONE man fully qualified to do creative, successful selling of homes

# Financing the 1932 Home

How some builders are answering the question  
"Where Can I Get the Money to Build?"

IN some sections of the country, home builders have been able to secure first mortgage money from insurance companies or banks for 50 per cent to 60 per cent of the appraised value of jobs. These lucky builders are usually men of first-class reputation with projects of unusual merit, well-located, and usually with some extra feature of construction or value by which the lender has been prevailed upon to make the loan. Where first mortgage money is available in reasonable amounts, second mortgage money often becomes the most troublesome problem of the financial situation.

To overcome this difficulty, one leading builder in an Eastern town is endeavoring to organize a local home mortgage company composed of local business men interested in building construction, including lumber and building material dealers, mason supply dealers, realtors, insurance men and builders. It is planned to have this company make loans to bridge the gap between a first mortgage loan of 60 per cent and the owner's equity of 20 per cent. All mortgages would be drawn for a three-year period with provision for monthly payment of 2 per cent of the principal and interest at 6 per cent. Such mortgages would be purchased by the company at a discount of 10 per cent, that is, the contract price of the property at the time of sale would be increased by an amount equal to the 10 per cent discount on the second mortgage. This plan has been in successful operation for years in one city in New York State and the company has been doing effective work throughout the depression. This is one solution of the mortgage problem. One of its best features is the fact that it puts control of the situation in the hands of local building interests who understand local conditions and local borrowers.

Where financial interests fail to give support to legitimate building operations, the building industry itself and local building leaders must find some way to cooperatively meet acute financing needs. In some cases, this scheme is being successfully applied to second mortgage needs and where first mortgage financing is lacking, variations of this idea can be carefully worked out to provide much needed money.

In those localities where it has been impossible to negotiate even first mortgages on homes through local banks and building and loan associations, only two sources of financing are open:

- 1 Combination of builder and building material dealer.
- 2 Combination of local building interests as described above.

In one city of about 300,000 inhabitants, the leading building material dealer has been successfully cooperating with builders in making construction loans after ordinary financing methods failed. Through advertising, the public is informed that loans are available. When the prospect makes inquiry, complete data is secured as to location of lot, annual income, character, and bank references. An "Application for Credit" form is filled in. If the information is satisfactory, plan books

are furnished, a builder is selected and he gives a price on the house chosen. A meeting is arranged between builder, dealer, and owner; and plans and specifications are gone over. The owner is then advised that the matter will be decided and a date is set for the next meeting. A letter of agreement is then drawn up, containing the following stipulations: (1) Agreement is made to purchase materials from the particular dealer (2) contractor's total price and sub-contract prices are fixed (3) amount of construction loan is specified (4) definite understanding is reached that the difference between amount advanced and amount of completed contract will be put into the job or guaranteed before mortgage money is advanced (5) interest payments are fixed at 6 per cent for the estimated time to complete the job from date of agreement, usually four months (6) promissory note is signed by owner and wife, and at the same time, dealer takes a mortgage note on their real estate to hold as collateral security against the promissory note until job is completed. At that time, if permanent mortgage is not placed, they pay six months' interest in advance and start monthly payment toward liquidation of the loan. Every six months, monthly payments made are applied to principal and interest on new principal for the next six months. Builder is paid from proceeds of the above notes as the work progresses. Contractor and owner agree to have all rights of lien signed off before final payment is made. Mortgages are not carried after homes have been completed but are disposed of by the building material dealer in most cases. If owner places his own mortgage on or before completion date, he receives a cash discount equivalent to 5 per cent on list of materials. The builder waives his benefit on trade discounts, amounting on the average to about 5 per cent of list. This plan has been worked successfully without loss to owners where it has proven impossible to get financial assistance from local banks.

## Getting Money for Modernizing

Another scheme that works well for remodeling and repair work is to grant loans for a 12 months' period, or as long as 18 or 24 months. Six per cent interest is charged on the monthly balance. On a modernizing job of \$300, monthly payments amount to \$27.11 over a twelve-month period.

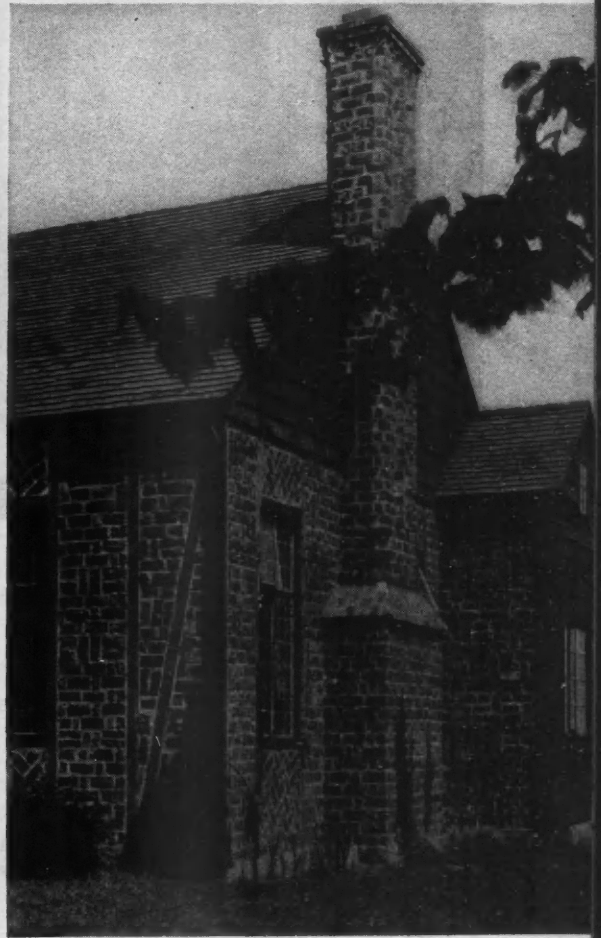
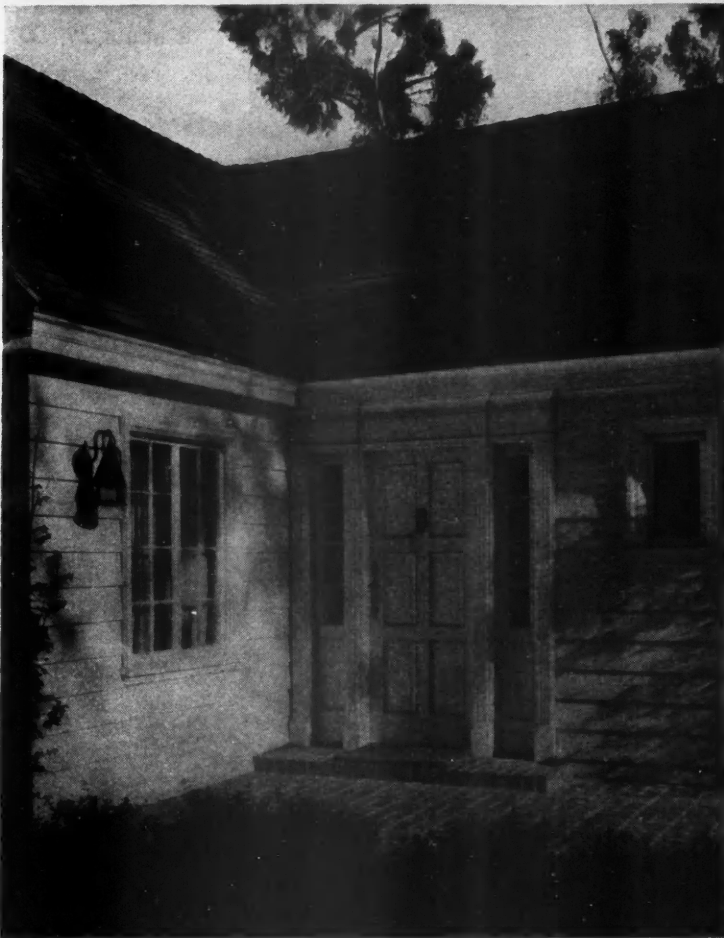
One local financing method that has proven effective is to organize independent financial companies, separate from the builder's or dealer's business, which permit the builder or dealer to clear a name through the company without arousing the antagonism of the prospect in case a loan must be refused.

With a small revolving fund of \$5,000 it is often possible to finance a great deal of remodeling and repair work. One man takes in more than \$350 a month with a small fund for financing such work. After a down payment, a note is taken for the balance and 1 per cent a month is charged on the unpaid balance for small jobs under \$1,000.

In another finance plan for remodeling, repair work, and small garage construction, the builder negotiates to make certain improvements not to exceed \$500. The builder's price, or the balance left after the down payment, is divided into eleven equal monthly payments. The builder goes to the dealer with the customer with specifications for the repair job. It is explained to the customer that 6 per cent interest will be charged on the amount of the loan on the 12th month. The builder then suggests that if the customer will pay cash for the job he will give them 5 per cent discount on his contract price. If the customer still desires credit, however,

(Continued to page 78)





Above—a California home by Architect Paul Williams. At left—good Colonial detailing, J. D. Atchinson, architect. At right—combination of materials, C. C. Merritt, architect and builder. Photos by Mott.

## **Home Designs Recommended for 1932**

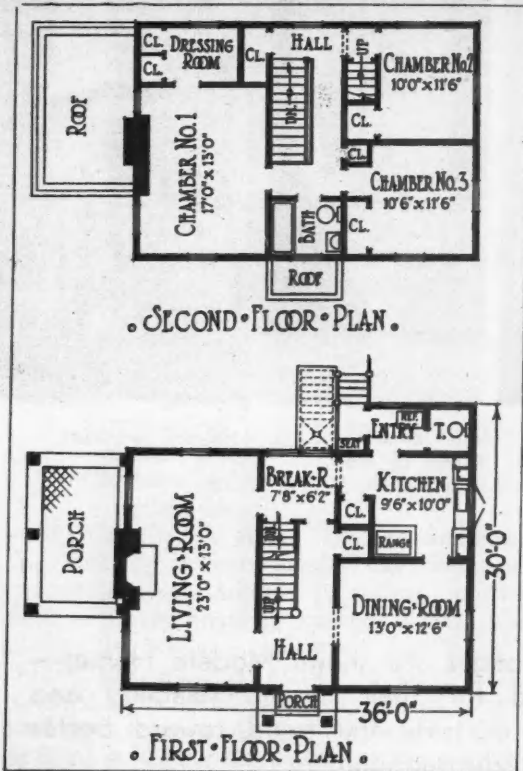
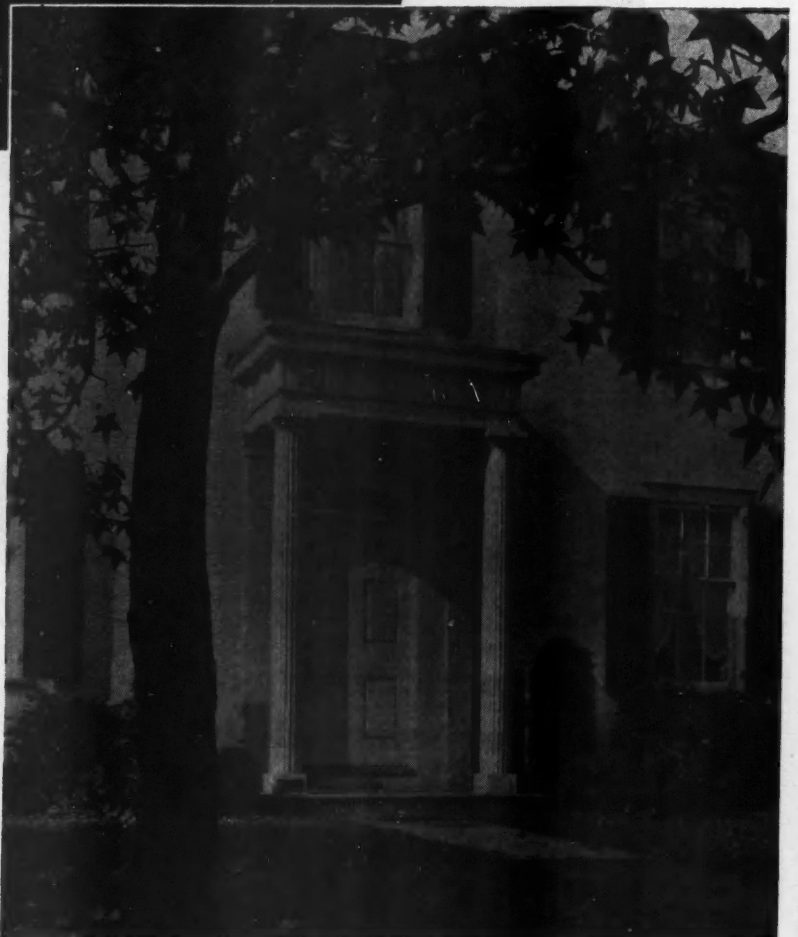
On this and following pages are shown Modern Homes—1932 Models, selected for their charm, salability and practical utility. They illustrate the trend toward better design as well as good construction.



## The Best Two Story House

First Prize Winner in Contest conducted by Better Homes in America for two-story dwellings erected in the United States between 1926 and 1930. Dwight James Baum, Architect; A. G. Wheeler Building Corp., Builder.

Simplicity, beauty of proportion, and meticulous attention to detail mark this as a design of outstanding merit. The front is of shiplap siding. Exterior trim is of white pine. Volume is about 29,500 cubic feet.





John S. Wright, builder

D. Wentworth Wright, architect

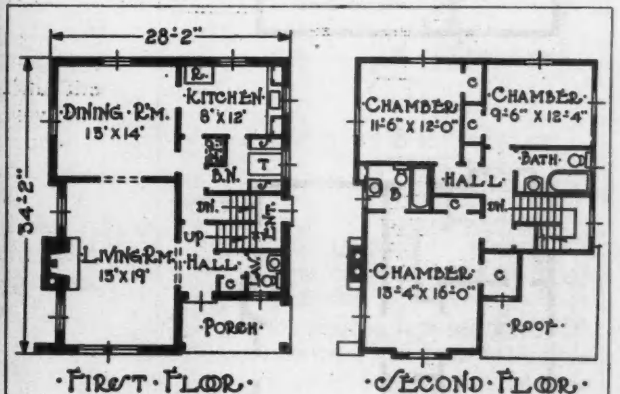
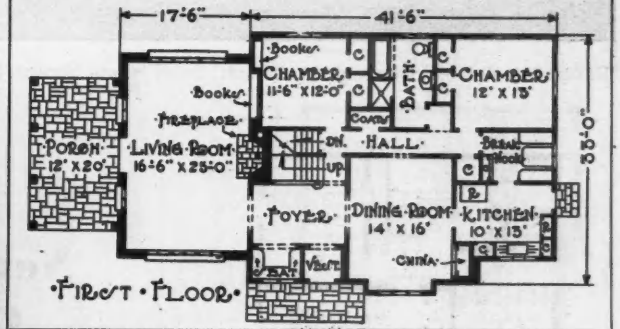
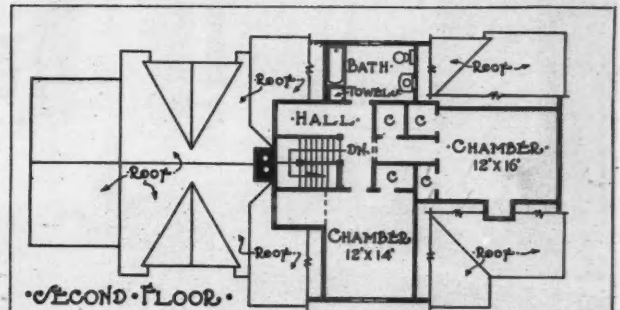
### Several Materials Combined

An appealing and harmonious assortment of materials such as is revealed in this English residence is all too rarely found. The nature of the site has permitted a long, low treatment of design.

The house below is suitable for narrow lot and is inexpensive to build, being easy to frame and of compact plan. Twenty houses of this type were erected in one locality by these New York builders.



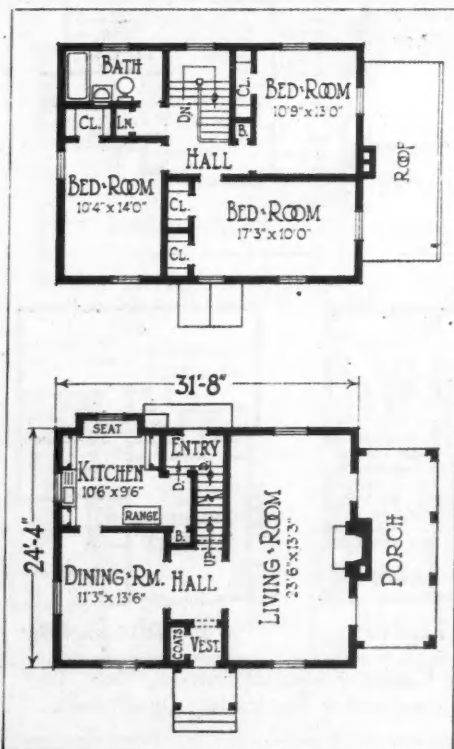
Conte & Zuccaro, Inc., Builders.



Residence at Cedar Knolls, Bronxville, New York.  
Maurice Goodman & Associates, Developers.

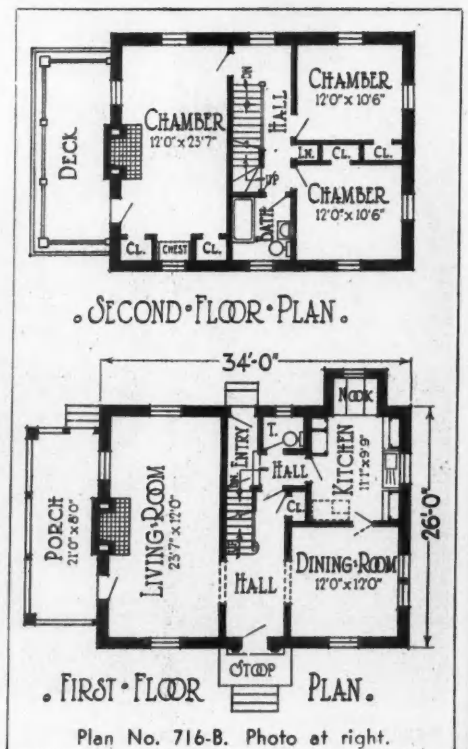


Design No. 6-A-66. Copyright Architects' Small House Service Bureau.



## New England Colonial

This is a design with a practical arrangement that is inexpensive and efficient; yet it is beautiful and well proportioned. Things to recommend it are the vestibule, coat closet, fireplace, porch, dining alcove, entrance to rear basement. The vaulted stoop and graceful arched porch give distinction without extravagance.



SECOND FLOOR PLAN.

FIRST FLOOR PLAN.

Plan No. 716-B. Photo at right.



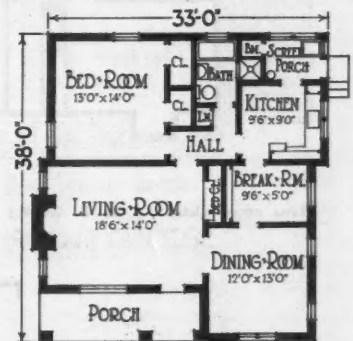
A popular stucco bungalow built by DeLuxe Building Co. in Los Angeles.

Photo by Mott.



West coast bungalow of white brick, DeLuxe Building Co.

**Brick and Stucco**



One of the best of small Colonials carried out in brick in pleasing fashion. The wide windows, shutters, attractive door give character. Reverse floor plan at left on opposite page.

National Plan Service No. 716-B. (Plans opposite to left.)

# Economy Homes for 1932

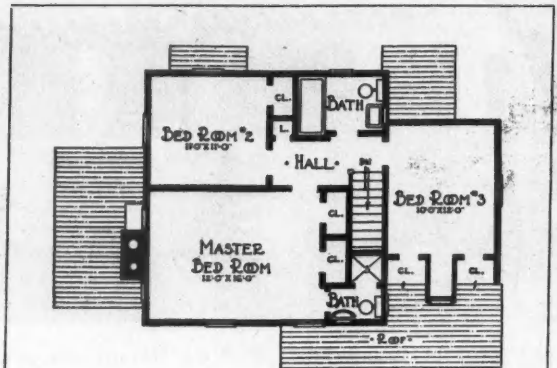
Specially Selected



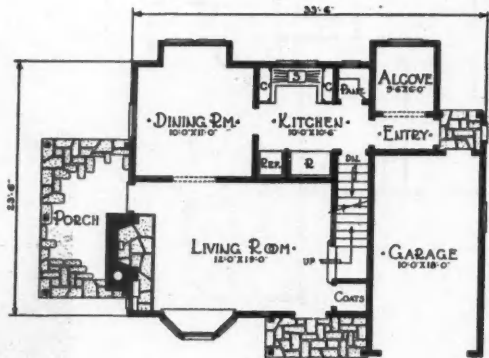
Three Bedrooms—Two Baths for \$7,000

D. WENTWORTH WRIGHT, Architect

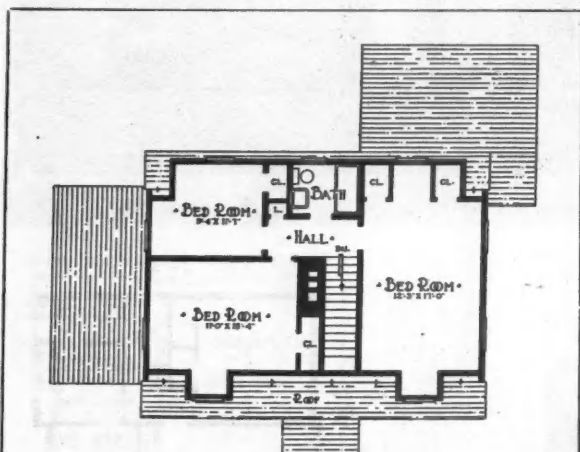
This Colonial cottage (floor plans on right) was specially designed for an Eastern speculative builder to provide a maximum of prospect appeal at a minimum of cost. It can be built for less than \$7,000. The chimney is of white-washed brick and the bay is roofed with copper. An overhead garage door is provided. If desired, the entrance can be enclosed to provide a vestibule. The foundation is square and is inexpensive to lay.



SECOND FLOOR PLAN

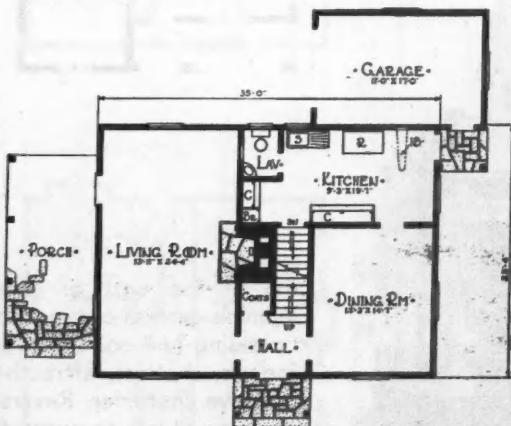


FIRST FLOOR PLAN



(Plans copyrighted by R. D. Ewell)

SECOND FLOOR PLAN



FIRST FLOOR PLAN

Commodious Cape Cod Cottage for \$6,500

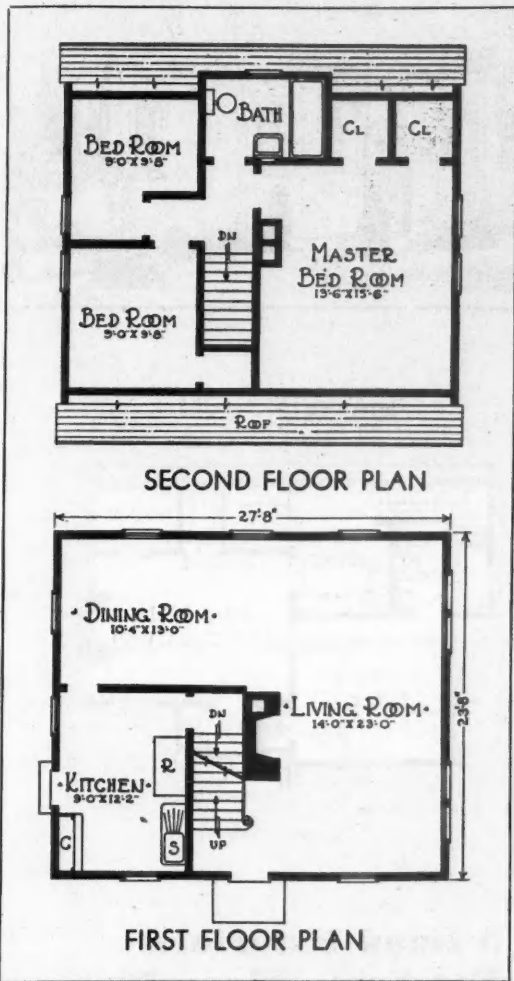
R. D. EWELL, Architect

The Cape Cod design presents an excellent style for the inexpensive small home. Porch and entrance lines can be varied, if desired. The central chimney is a good feature. A large living room, downstairs lavatory, three good bedrooms and ample closet space and attached garage make this an attractive cottage.



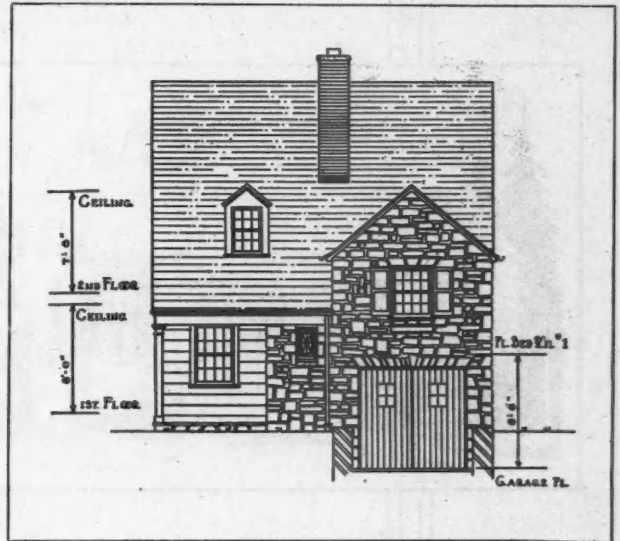
# in Popular Price Ranges •

for the Spring Market



**\$4,500 House Has Combined Living and Dining Room**  
KEENE BROTHERS, Designers and Builders

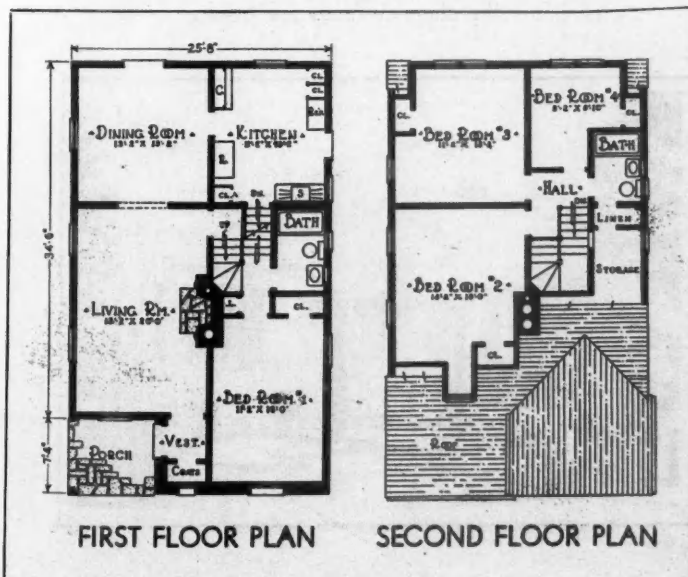
Plenty of interior space, with the utmost economy of construction, is provided in this simply framed Dutch cottage with garage in the cellar. The dining room can be partitioned off if desired. The above photo shows how attractive these little cottages can be.



**Compact Design for Narrow Lot**

Construction Cost About \$8,000

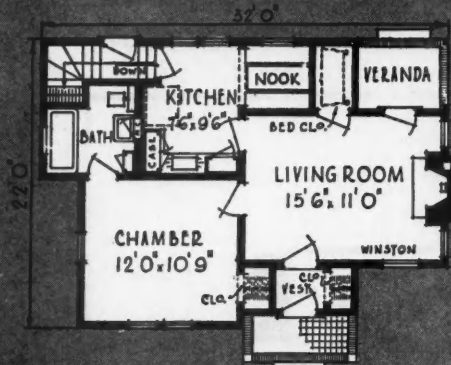
WILLIAM C. HALBERT, Architect



This house can easily be built on a lot no wider than 40'. The plan is unusually compact, with four bedrooms and two baths, and can be economically framed. Downstairs, a basement playroom is provided, 25' by 12'. Specifications include a 1-pipe steam system with jacketed boiler, brass pipe throughout, kitchen sink 60" x 22", bathroom shower, tile wainscote, built-in baths, oak flooring, knotty pine wall finish in dining room, and white pine finish over living room fireplace with stock mantel of special Colonial design. The garage is put in the cellar and the porch is included within the main block of the house.



The WINSTON



Size 32'0" x 22'0"

**5 Good Exteriors  
For Same Floor Plan**

Designed around a compact plan, these exteriors are inexpensive but attractive. Spanish, English, Colonial and French types are represented. They will fit either a wide or narrow lot. For a wide lot the front door should face the street; for the narrow lot the chimney faces the street.



National Plan Service Design





# A New "One Room" Apartment

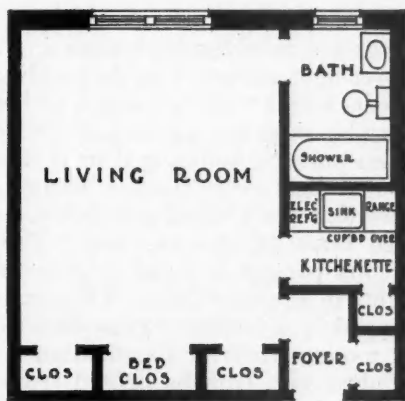
Of 179 Units, 170 Are Single Rooms

SHELTON APARTMENTS, Bridgeport, Conn.



WILLIAM F. CHATLOS, Builder and Owner

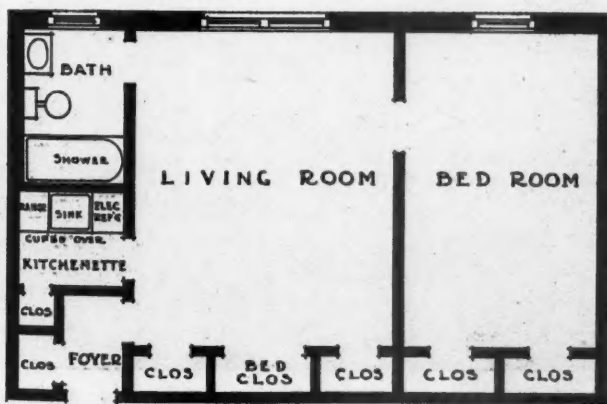
JOS. W. NORTHRUP, Architect



TYPICAL ONE-ROOM APARTMENT

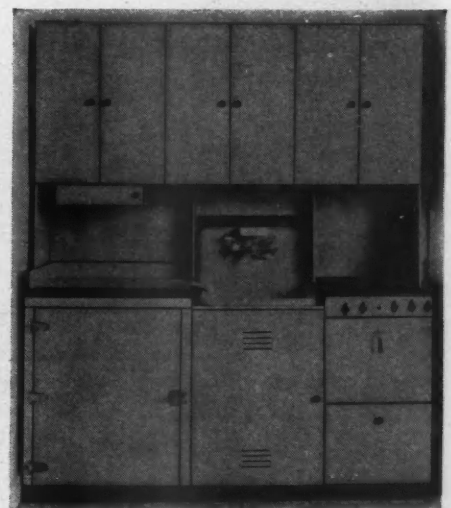
The one-room apartment consists of a large well-lighted, living room which is provided with comfortable, disappearing, double-size bed. Leading off this room is a kitchenette with complete cabinet and pantry. There is a large tiled bathroom and three clothes closets. Floors are of oak.

THIS apartment was designed and constructed in order to supply what was thought to be an existing demand for less expensive living quarters, hence the unusually high percentage of single-room rentals. It was opened on January 1st and the renting proceeded faster than was anticipated. At the end of the first six weeks, more than 70 units had been rented and additional rooms were being taken at the rate of five or six per week, it was said. Monthly rentals for single rooms range from \$30 to \$36, according to location, while two-room suites rent for \$47.50. The building has a frontage of 180 feet and covers a total of 28,000 square feet of ground. The construction is of brick and terra cotta with trimmings of white marble. This apartment is said to be one of the largest of its type in New England. A row of twenty-six brick garages has been built in the rear of the apartment and more units will be added in a short time. Individual storage rooms are provided in the basement. Garbage disposal is provided by means of modern incinerators installed in the building. The total cost of the Shelton Apartments was \$350,000.



TYPICAL TWO-ROOM APARTMENT

Without such a kitchen unit as this, a convenient one-room apartment would not be possible. In a compact space, it provides a complete kitchen cabinet, with enameled cupboards of generous size, an enameled drain-board, sink, gas range, and electric refrigerator.



# Making A

By

JOHN W. FLEMING



This Store of a Public Utility Company at Olean, N. Y., illustrates Use of Modern Principles and Materials in the Creation of a Store of Modern Design. Bley & Lyman, Architects.

**M**ODERN building materials and methods merged in modern architectural form is the formula for making a 1932 model store building, as applied by a Buffalo, New York, firm in building recently five new retail electrical homeware appliance stores and in altering sixteen leased and three system-owned stores for an electric power public utility system.

What are the modern building materials? They are such materials as aluminum, vitrolite, micarta, formica, flexwood, macotta, terrazzo, zenitherm, monel metal, opal glass, stainless steel, chrome-plated brass, structural glazed tile, black and silver coated, smooth finished exterior face brick.

The question as to how these materials are structurally used can best be answered by a trip to and through one of these modern store buildings. It is a one or two-story structure with basement. Structural framing is of steel beams, girders and columns, wall bearing. Basement span is of three bays, first and second floor spans clear, with skylights at the second floor.

Roof and floor construction are of concrete on bar joists. Roofing material is either 20-year-bonded tar and gravel or asphalt. Roofing insulation is cork, 1½ inches thick. Foundation walls are of concrete. Exterior walls are of black and silver coated, smooth finished face brick, with tile back-up.

The use of metal spandrels without brick backing, but instead utilizing insulation less than one inch thick, with the same insulating properties as a 12-inch masonry wall, effects a real structural economy in masonry work, with gains in structural efficiency and effectiveness. Spandrel panels are of black vitrolite and green marble.

The building's base is either of limestone or cut cast stone. Copings are of silver terra cotta and cornices of black and silver terra cotta. Thus the building's exterior surface presents a soft-toned yet colorful, lustrous, harmonious ensemble in grays, blacks and silvers.

Striping this surface, bringing it to glowing life, are vertical rows of lights concealed in flashed white opal glass pilasters that are framed and finned—either with chrome-plated brass or stainless steel. The black and silver terra cotta parapet is fluted to accommodate 150-watt floodlights in alternate flutes. The parapet's central section is capped by a luminous glass fixture.

The most modern exterior illumination is the use of polished stainless steel troughs lighted from a reflector trough set in front of the fixture. Lamps are offset in adjoining reflector troughs to achieve the effect of pyramided columns of light.

Show windows in this modern store are trimmed in black, framed in white metal, furred with wood, and



The Interior of a Typical Modern Store Building Reveals Beautiful Lighting Effects and Soft Color Schemes that Are Carried Out in Combination with Materials.



Display Alcoves, Built Into the Store's Interior, Are Used to Display Large Units Such as Ranges and Refrigerators and Release Valuable Floor Space for Showcases.

# Modern Store Building

paned with 1/4-inch plate glass. They are at least seven feet deep to accommodate such large display units as ranges and refrigerators.

What price the modern store building? Cost considerations must necessarily also take into consideration the size of the store. In standardizing their formula for the modern store building, Bley & Lyman, the architects, divide the structures into five sizes, as follows:

Type	Area	Height	Two Stories and Basement (Approximate Cubic Contents)	
A	4200	37'-2"	156,000	
B	3360	36'-8"	123,000	
C	2584	36'-2"	94,000	
D	1872	34'-8"	65,000	
E	1224	34'-2"	42,000	
D	1872	24'-2"	45,000	} Where built one story and Basement in height.
E	1224	23'-8"	29,000	

Based on building costs in August, 1931, the following tables record construction costs of these modern store buildings:

TRADES	A	B	C	D	E
*General Work	\$64,800	\$50,900	\$39,500	\$27,800	\$18,000
Plumbing and Heating Work	\$ 6,500	\$ 5,200	\$ 4,400	\$ 4,000	\$ 3,000
Electric Work	5,500	4,900	3,800	3,600	2,480
Elevator and Doors	3,000	2,800	2,380	300	300
Exterior and Interior Light Fixtures	6,000	5,000	3,500	2,000	1,000
<b>TOTAL SEPARATE CONTRACTS</b>	<b>\$21,000</b>	<b>\$17,900</b>	<b>\$14,080</b>	<b>\$ 9,900</b>	<b>\$ 6,780</b>
<b>TOTAL ESTIMATED COST OF BUILDING</b>	<b>85,800</b>	<b>68,800</b>	<b>53,580</b>	<b>37,700</b>	<b>24,780</b>
Architectural Services (6%)	5,148	4,128	3,214	2,262	1,486
Cost per sq. ft., two stories and basement	6.80	6.87	6.91	6.70	6.75
Cost per cu. ft., two stories and basement	.55	.56	.57	.58	.59
Cost per sq. ft., one story and basement				8.00	8.00
Cost per cu. ft., one story and basement				.63	.65

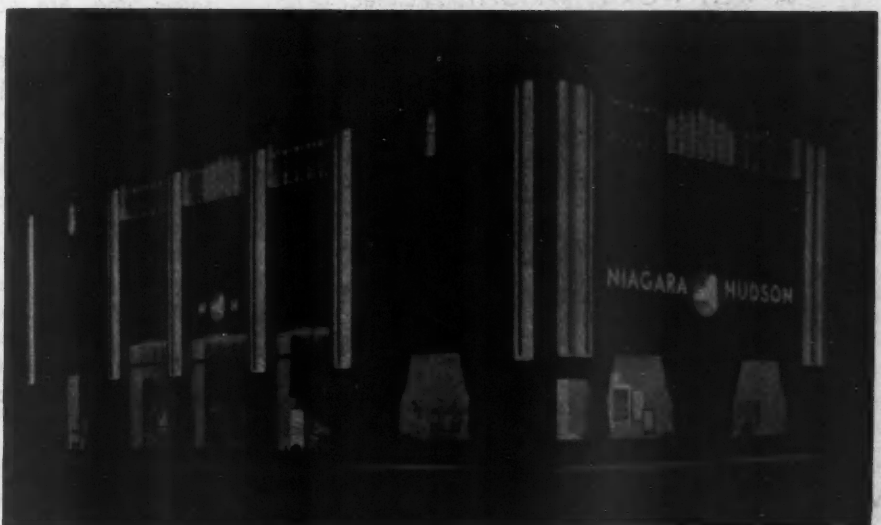
[\*TOTAL GENERAL WORK COSTS—Mason, Cut Stone, Terra Cotta, Lathing and Plastering, Structural Steel, Steel Joist, Light Iron, Roofing, Sheet Metal, Fire Doors, Carpenter, Metal Trim, Metal Windows, Parlock, Painting, Glazing, Tile, Terrazzo or Composition, Metal Office Partitions, Hardware, Metal Toilet, Vitrolite, Linoleum, Wire Partitions.]

In general, alterations to existing buildings, to permit adequate and satisfactory display of merchandise and to provide for cashier's counter, demonstration kitchen, salesmen's room, toilets for both sexes, and adequate storage facilities run from \$4,500 to \$7,500.

The Modern Store at Night Is Illuminated by Vertical Rows of Lights Concealed in Glass Pilasters Framed and Finned with Chrome-plated Brass or Stainless Steel. The terra cotta parapet is fluted to accommodate 150-watt floodlights.

## MATERIAL SCHEDULE FOR MODERN STORE

Exterior face brick	Gray smooth finish about \$32 per M Black smooth finish about \$90 per M
Exterior trim	
base	Indiana limestone or cut cast stone
window trim	Black vitrolite
coping	Silver terra cotta
spandrel panels	Black vitrolite and green marble
cornice	Black and silver terra cotta
light fixtures	Chrome nickel steel (KA25)
sign and map	Black glass, white letters
Hollow tile	Utility or simplex tile
Exterior foundation	
waterproofing	Durastone emulsified asphalt
Waterproofing interior of foundation walls	Ironite
Floor hardener	Hardenite
Main stairs	Channel iron strings, steel plate treads and risers, covered with terrazzo or travertine, chrome-plated steel rail
Service stairs (iron)	Channel iron strings, steel plate treads, cement or terrazzo-filled risers, pipe hand rail
Ash hoist	Ernst telescopic
Bar joist	Kalman, MacMar, G. F., or Macomber
Floor tile	Olean Tile Company's ceramic tile
Metal toilet partitions	Sanymetal, Mills or Weiss
Plaster bond and damp proofing	Parlock, Dens-Tect
Metal office partitions	Wright, Mills or Hyde-Murphy
Main entrance doors	Aluminum by Ellison Bronze Company
Interior metal trim	Dahlstrom Metallic Door Company Metal Door & Trim Company Jamestown Metal Desk Company
Roofing material	20-year-bonded tar and gravel, or asphalt roof
Flashings	16-ounce copper
Waterproofing under stone or terra cotta coping	Barrett's elasticum
Roof insulation	1 to 1 1/2 inches of cork
Show window setting	Kawneer No. 77 } White Zouri } Metal
Show case doors	Kawneer or Zouri brass, chrome-plated
Demonstration kitchen floor	6 M. M. plain color battleship linoleum
Office floors	3/16-inch Jaspe linoleum
Show window floors	Zenitherm in pattern or 6 M. M. linoleum in pattern
Steel sash	Browne type
Maple	to be clear white maple for staining
Whitewood	to be clear sap grade for painting
Walnut	to be clear American walnut for staining
Dumbwaiter	Sedgewick type
Paints	Pratt & Lambert or McDougal Butler





## THE HOUSE OF THE MONTH

A Modern Home of 1932 With All The Old Colonial Charm

D. WENTWORTH WRIGHT, Architect

THE widespread popularity of Colonial homes this year is the result of a nationwide swing back to those styles of design that are full of native charm and which, at the same time, are economical to erect, compact in interior layout, and easily added to when family needs require expansion. The house which we present this month is a good example of the Modern Home of 1932 and represents a very careful selection from a number of different designs. This Colonial cottage was chosen because it most adequately filled all the requirements of attractiveness, faithfulness of design, convenience and compactness of interior layout, and economy of construction. The design as a whole, as well as the details, such as the bay in the front, should be most pleasing to the homeseeker of today. The interior provides just those features, and all the features, that people are looking for this spring, including a dining alcove and downstairs lavatory. The cost analysis of this home shows it to be inexpensive and economical.

WORKING DRAWINGS AND COST ESTIMATES ON FOLLOWING PAGES

# Estimating the Cost of Our "House of the Month"

By G. William Bailey, Construction Manager, City Housing Corporation, New York

ALL of the following estimates include only bare costs of field labor and materials actually entering into the construction of a completed house built according to the plans of the April House of the Month. These estimates have been carefully prepared by me in all details and are based upon present labor and material prices within the suburban areas about New York City.

In all of these estimates proper allowance will have to be made to cover fees and permits, liability compensa-

tion and fire insurance, field supervision, overhead and profit to suit any particular set of conditions. Exterior grading, walks, driveways and planting have not been included. Quantities of work have been included for most items so that it will be easy for any builder or architect to compute a revised cost to suit any locality or set of conditions.

The various estimates, "A," "B," and "C" refer to detailed specifications listed and explained on the following page.

	ESTIMATE "A"		ESTIMATE "B"		ESTIMATE "C"	
	Labor	Material	Labor	Material	Labor	Material
<b>1. EXCAVATIONS</b>						
250 CY General Earth	\$ 150.00		\$ 95.00		\$ 115.00	
31 " Pier and trench	22.00		15.00		8.00	
56 " Backfilling	45.00				18.00	
<b>2. CEMENT WORK</b>						
438 CF Footings	44.00	110.00	35.00	87.00	3.00	6.00
1122 PCS 12" Blocks	202.00	202.00	93.00	285.00	100.00	200.00
500 " 8"	50.00	75.00			32.00	58.00
40 LF Area Coping	4.00	8.00			5.00	9.00
36 " Steps	11.00	7.00	11.00	7.00	9.00	5.00
800 SF Cellar Floor	80.00	80.00	64.00	64.00	48.00	48.00
146 " Rough Porch Slab	8.00	15.00	8.00	15.00	5.00	10.00
1 1/2 CY Firestops and Hearths	5.00	3.00	5.00	3.00	3.00	2.00
<b>3. MASONRY WORK</b>						
51 LF Brick Borders and Steps	41.00	10.00	30.00	10.00	25.00	8.00
150 SF Flagstone Paving	23.00	30.00	15.00	28.00	15.00	22.00
Brick and Stone Chimney and Fireplace	225.00	221.00	175.00	196.00	136.00	154.00
88 SF Brick Veneer	24.00	12.00	24.00	12.00	22.00	10.00
<b>4. CARPENTRY AND MILLWORK</b>						
Concrete Forms			125.00			
11400 FBM Framing and Grounds	291.00	354.00	285.00	282.00	175.00	222.00
5200 FBM Sheathing	130.00	130.00	130.00	110.00	56.00	76.00
16 SQS Stained Roof Shingles	80.00	160.00	64.00	144.00	48.00	112.00
List of Exterior Trim	83.00	290.00	68.00	259.00	54.00	170.00
" " Sash, Door and Frames	126.00	338.00	106.00	302.00	85.00	247.00
" " Rough Hardware		70.00		70.00		55.00
24 SQS Stained Shingle Siding	120.00	336.00	96.00	312.00	72.00	144.00
List of Interior Trim and Doors	220.00	509.00	186.00	435.00	151.00	382.00
Stairwork	95.00	110.00	75.00	95.00	40.00	80.00
1100 SF 7/8" No. 1 Oak Flooring	99.00	99.00	77.00	77.00	77.00	77.00
190 SF 7/8" Rift Pine Flooring	10.00	18.00	10.00	18.00		
<b>5. ELECTRIC WORK</b>						
76 Outlets, Wiring only	88.00	88.00	55.00	60.00	45.00	45.00
32 Pcs. Fixture and Hanging	24.00	168.00	20.00	60.00	15.00	35.00
<b>6. PLUMBING</b>						
Piping, Fixtures and Fittings	255.00	376.00	200.00	330.00	150.00	270.00
Gas, Water and Sewer Connections	85.00	70.00	85.00	70.00	85.00	70.00
180 LF Footing Drains	90.00	90.00				
<b>7. HEATING</b>						
Boiler, Piping and Radiation	170.00	325.00	135.00	250.00	110.00	190.00
Oil Burner Equipment	60.00	415.00	60.00	375.00	60.00	375.00
<b>8. SHEET METAL</b>						
Flashings, Gutters and Leaders	92.00	134.00	84.00	129.00	54.00	104.00
<b>9. LATHING AND PLASTERING</b>						
90 SY Scratch Coat on Wire	54.00	40.00	50.00	36.00	45.00	27.00
530 SY 3-Coat Plaster on Wood	325.00	240.00	290.00	240.00	230.00	155.00
300 LF Kornerite and Corner Bead	12.00	6.00	12.00	6.00		
<b>10. TILEWORK</b>	110.00	175.00	325.00	90.00	50.00	75.00
<b>11. PAINTING AND DECORATING</b>	325.00	175.00	325.00	175.00	180.00	120.00
<b>12. EQUIPMENT</b>						
Screens	36.00	168.00	16.00	88.00	15.00	74.00
Weatherstripping	40.00	40.00	26.00	26.00	26.00	26.00
Medicine Cabinets	2.00	24.00	2.00	20.00	2.00	20.00
Built-in Ironing Board	1.00	9.00	1.00	7.00	1.00	7.00
List of Finished Hardware		150.00		105.00		80.00
Gas Range		50.00		50.00		35.00
Refrigerator		325.00		275.00		275.00
Shower Curtain		15.00		10.00		10.00
Window Shades	7.00	26.00	6.00	14.00	6.00	14.00
Kitchen Linoleum	12.00	29.00	9.00	27.00	9.00	18.00
Insulation	60.00	300.00	60.00	240.00		
<b>TOTALS</b>	<b>\$4,036.00</b>	<b>\$6,600.00</b>	<b>\$3,298.00</b>	<b>\$5,494.00</b>	<b>\$2,385.00</b>	<b>\$4,122.00</b>
		4,036.00		3,298.00		2,385.00
<b>TOTAL—Labor and Material</b>		<b>\$10,636.00</b>		<b>\$8,792.00</b>		<b>\$6,507.00</b>
Approximate Cubic Footage: 25,300 cu. ft.						
Cost Per Cubic Foot		.42		.34%		.26

(For detailed specifications and explanation of estimates see following page)

## Materials and Equipment of High Quality Are Specified in the April "House of the Month" ●

ON the preceding page is presented the complete cost analysis of the April "House of the Month." There are shown three separate estimates. Between the first and third estimates there is a wide range in cost. This is because Estimate "A" represents the best type of construction and workmanship with a high quality of materials and adequate equipment throughout; it represents the April "House of the Month" as constructed for an owner under an architect's field inspection by a first-class builder. The complete specifications on which this estimate was based are shown below.

This is how the reputable and competent building contractor builds and it is the type of construction which financial institutions must learn to know and sponsor. A builder of this type of house, who has been studying these cost analyses, recently made a comparative analysis of different types of construction on a Colonial house. All of his cubic foot costs ran around 50 cents per cubic foot. Yet right in this man's neighborhood, jerry-built construction can be erected for less than 30 cents per cubic foot. "How can they do it?" is the question he asks and it is one that the honest builder often puts to himself.

To give a comparison of jerry construction costs with those of legitimate construction, Estimate "C" is pre-

sented on the preceding page; it shows low prices but the construction behind these prices is to be avoided. From the standard specification printed below, this estimate (C) is an unjustifiable departure. Cheap materials and careless labor have been used, footings have been left out, framing lumber sizes have been reduced, bridging is eliminated, shingles are of poor quality, flooring is of sub-quality, electric outlets are inadequate, the heating system is unsatisfactory, the painting has been skimmed. All along the line, from the start, the construction is fundamentally lacking in substance.

"But," some builders will say, "there is sometimes a happy medium between the high quality, expensive job and cheap construction. It is possible to save money and still put up a decent house." This is true. Many builders will be able to make legitimate changes in the standard specifications shown below, reduce costs and still retain quality. How this is done by the reputable speculative builder is shown in Estimate "B." Quantity buying, efficient management and quantity production account for lower costs. There are some changes in specifications such as a 10" poured concrete foundation; No. 3 oak flooring selected for color; fewer electric outlets and fixtures, and a one-pipe low pressure steam system with balanced over-sized piping.

### STANDARD SPECIFICATIONS FOR APRIL "HOUSE OF THE MONTH" (Estimate A)

**EXCAVATION:** Earth assumed 6'6" deep.

**FOUNDATION:** 12" concrete blocks. 12" poured concrete footings. Blocks waterproofed outside with mastic trowel coat and inside with hydrolithic cement full height. Basement frames and sills pointed and caulked.

**FRAMING:** 4"x6" sills and corner posts. Exterior and interior 2"x4" studs, 16" centers, doubled around all openings, bridged at least once in height. 6"x8" Y.P. girders. 2"x10" 1st and 2nd floor joists, 16" centers, double bridged with 1 1/4"x3". 2"x8" second floor ceiling beams, 16" centers and bridged. 2"x8" roof rafters, 16" centers, framed to 2" ridges and collar beamed. All trim throughout grounded. 4" thick dry fill or tuck-in insulation, or board insulation.

**EXTERIOR WALLS:** 24" first quality red cedar shake shingles dipped in creosote stain to paint, laid irregular. Lapped waterproof paper over 3/8"x8" N.C. pine shiplap siding laid diagonally.

**ROOFING:** 18" first quality red cedar shingles dipped in brown creosote stain laid 4 1/2" to weather over 1"x2" lath.

**GUTTERS, LEADERS, AND FLASHINGS:** Metal gutters. 16 oz. copper leaders and flashings at chimney, over louver frames, steps, and base flashings at porches.

**FLOORING:** All rooms and closets 3/8" clear No. 1 oak strip floorings laid over full 3/8"x6" square edged N.C. pine, lining floor laid diagonally. Rosin sized paper between flooring. Kitchen floor "A" grade inlaid linoleum over 3/8" rift pine.

**EXTERIOR TRIM:** Cypress or best quality clear white pine. Upward-acting type garage door.

**INTERIOR FINISH:** Knotty pine trim natural finish, in living room, entrance hall, dining room, and dining alcove. Doors to match. Whitewood trim in all other rooms with birch 6-panel doors stained or painted.

**PLUMBING:** 54" double porcelain wash tray in cellar with connections for water and drainage for washing machine. Stainless colored plumbing fixtures with chromium plated fittings. Storage gas water heater—30 gallon capacity connected to indirect heater for winter use. Shut-off valves on all fixtures and risers. Outside hose bibs.

**HEATING:** Hot water system. Oil burning boiler with oil burner—275 gallon inside tank equipment.

**ELECTRIC WORK:** Bx armored cable, oversized house service, no fuse circuit breakers, door bells, two radio outlets with built-in aerial.

**EXTERIOR PAINTING:** Three (3) coats of genuine lead and pure linseed oil. Shingles painted dull white—shutters, apple green.

**DECORATING:** Woodwork in living room, entrance hall dining room, and dining alcove finished natural and waxed. Three (3) coats oil paint and enamel finish on whitewood trim in other rooms. White coat plaster in all rooms painted 3 coats lead and oil paint stippled or wall papered. Ceilings kalsomined. Oak floors to receive 3 coats of floor wax. Cement plastered garage walls and ceiling painted.

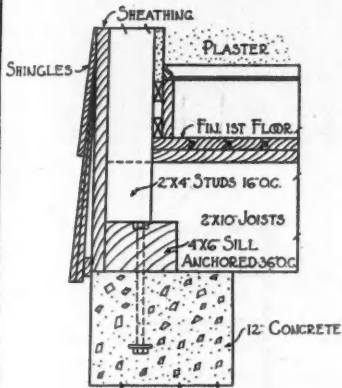
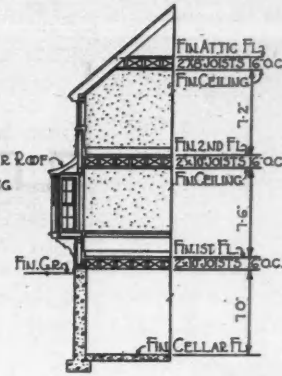
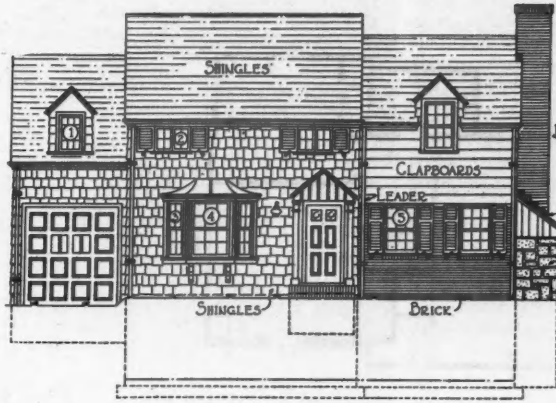
**LAVATORY:** Two-toned colored faience tile floor and base. White coat plastered walls painted or papered in washable fabric.

**BATHROOM:** Two-toned colored faience tile floor and wainscot 4'0" high—6'6" high over tub. Plastered walls over tile enameled, painted or papered in washable fabric. Ceiling enamel painted.

**BASEMENT:** Floor and walls and all piping painted.

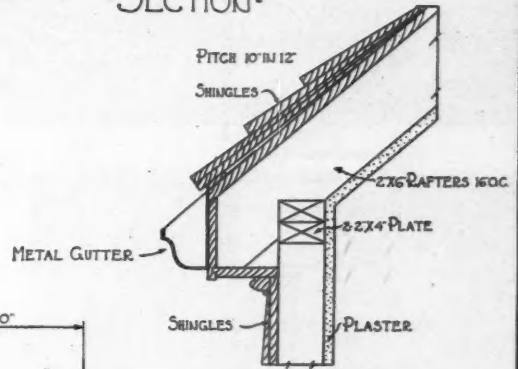
**EQUIPMENT:** 1 1/8" cypress screens, bronze copper or aluminum wire for all sash, doors and porch enclosure. All windows and doors weather-stripped. Wide brass saddles for exterior doors.

- WINDOW SCHEDULE •  
 ① 2-FX 3-5' CASEMENT  
 ② 1-FX 2-0'  
 ③ 1-FX 4-6' DN  
 ④ 3-0X 4-6' DN  
 ⑤ 2-6X 4-2' DN



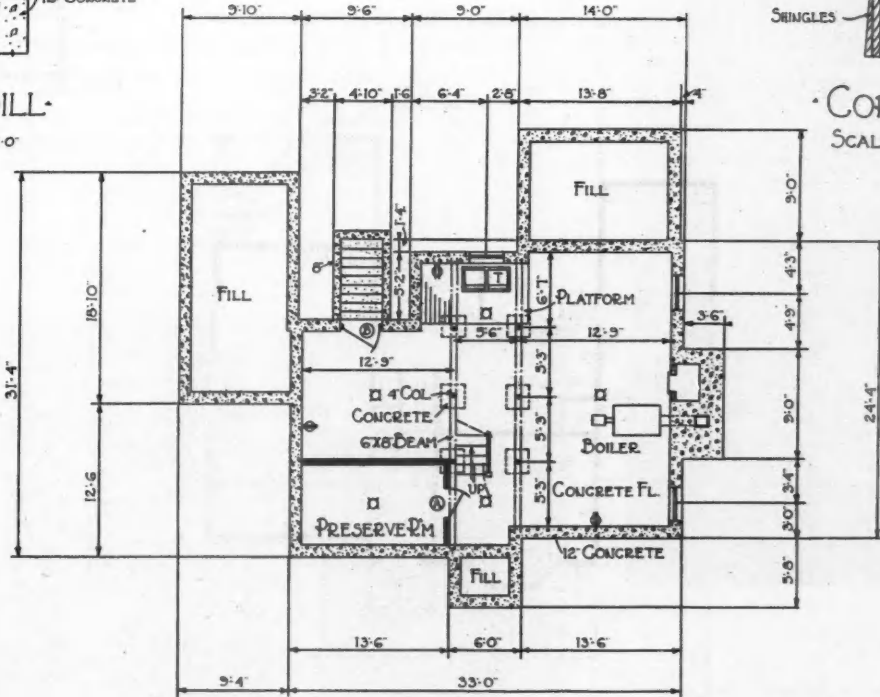
• FRONT ELEVATION •  
 SCALE 1/16" = 1'-0"

• SECTION •



• FRAME SILL •  
 SCALE 3/4" = 1'-0"

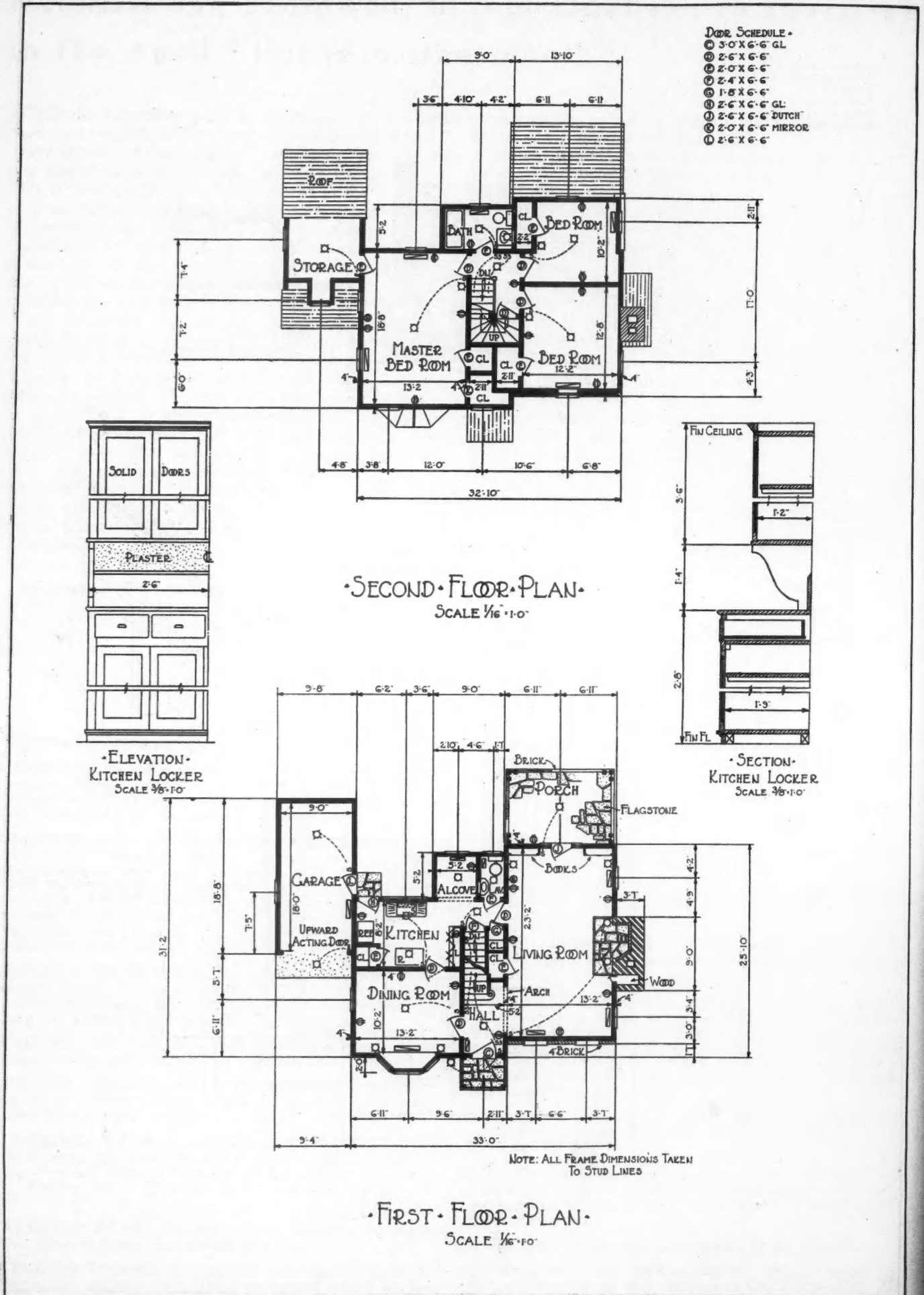
• CORNICE •  
 SCALE 3/4" = 1'-0"



- DOOR SCHEDULE •  
 ① 2-6X 6-6' BATTEN  
 ② 3-2X 6-6'

• CELLAR FLOOR PLAN •  
 SCALE 1/16" = 1'-0"

A complete set of drawings of the House of the Month is here presented in compact form. In addition to the usual section, construction details of sill and plate are shown. Note that the scale is 1/16" to the foot.



These floor plans of the House of the Month reveal a well-planned interior. The grouping around the central hall is nicely carried out and upstairs there is included a large storage space in addition to the three bedrooms and bath.





## Model 1932 Interiors

Bookcases and fireplaces such as these form the centers of interest of houses of today. On the next three pages are other interiors that will add salability to 1932 homes.



1—Corner fireplace with tile treatment; A. C. Leonard, builder. 2—Interesting paneling is backing for fireplace; Janss Investment Co., builders. 3—Simple fireplace and bookcase treatment, Paul Williams, architect. 4—Fine Colonial interior with careful wood detailing. 5—A friendly corner detail of fireplace, door and bookcase; C. E. McFayden, builder.





1—Inlaid linoleum, modern light, clever cupboard in a well planned kitchen. 2—Well lighted with pleasant nook. 3—Model electric kitchen, thoroughly equipped. 4—A kitchen featuring the modern insulated gas range with new type burner and heat control.

## The New Kitchens

**SIZE**, recommended minimum is 6'6" x 8'. Other popular sizes are 6'6" x 10'6", 7' x 12', 7' x 8'. Height of sink, 34". Drainboard at left, or on both sides of sink. Stove, table, sink to be closely grouped.

**FLOORS**, to be of linoleum, cork, rubber or composition supported by resilient mat. Must be quiet, durable, comfortable.

**WIRING**, must be thorough, including outlets at table height near refrigerator, cabinet, ironing

board, work table. Lights above sink, work table and in center of room. Outlets for clock, fan, dishwasher.

**EQUIPMENT AND SPECIALTIES**, should include modern gas or electric range, oven regulator, telephone, electric fan, broom closet, ironing board, incinerator, package receiver, dishwashing sink, mixing faucet, two kitchen cabinets, automatic refrigerator, breakfast nook, safety rear door, storage and vegetable bins, electric clock, concealed radiator.

# Bathrooms for 1932

**SIZE**, recommended minimum is 5' x 5' for single entry room, 5' x 7' for between two rooms, 4'6" x 7' for rectangular; 4' x 9' for narrowest possible arrangement. Outside window, adequate heat, colorful interior are important.

**LIGHTING**, should be especially good, with adjustable light fixture on either side of mirror. Several outlets at table height needed for electrical devices used in bathroom. Door switch is recommended.

**EQUIPMENT AND SPECIALTIES**, should include fixtures in colors, shower, special shower curtains or shower stall, medicine cabinet with mirror, towel and linen cabinet, towel bars, soap holder, paper holder, improved toilet seat, adequate water controls, tile floor and walls, hooks, swinging cabinet on back of door, concealed or recessed radiators.

**TWO** bathrooms are recommended for the modern home. The added sales appeal of the extra bathroom is large and usually justifies extra cost.



1—Attractive faience colored tile bathroom. 2—Compact arrangement with recessed shower, old ivory fixtures, blue tile floor. 3—Well lighted, well planned room; note outlet near cabinet. 4—Dressing table lavatory, octagonal chromium fixtures. 5—Recessed mirror with indirect lighting and convenient electric switch and plug.

# HOW TO MAKE DRY BASEMENTS

**B**ASEMENTS of 1932 homes must be dry. The growing use of this formerly wasted space for recreational and business purposes makes dryness a necessity.

Modern homes tend to be more compact, better planned and with every inch of space usable and livable. There is no room in a modern home for a basement that, because of unsightliness or dampness, cannot be used just as any other part of the house.

The subject of dry basements has been discussed for many years, but even to this day a great many active builders neglect the obvious necessities they should practice to secure a dry basement.

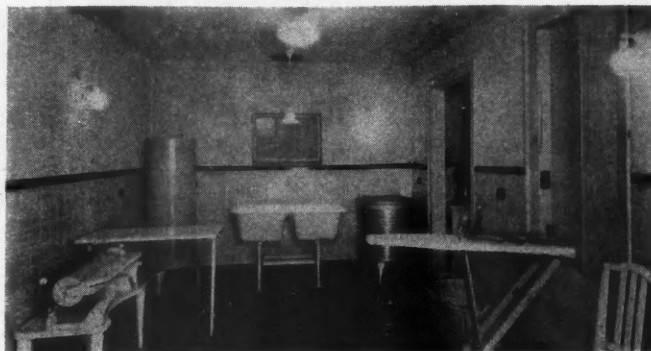
Because of the excellent quality obtainable in concrete by use of modern materials and modern scientific methods, dry watertight basements are so easy to produce that it is criminal neglect for any other kind to be allowed to slip by. Monolithic concrete produces the driest and best basements at reasonable cost. The secret of success lies in making the concrete thoroughly waterproof by use of waterproofed cement or good standard portland cement to which an integral waterproofing compound has been added.

Integral waterproofing compounds in the form of powder or paste are easy to secure, reasonable in cost and easy to use. They are mixed, in proper proportion recommended by the manufacturers, with standard portland cement on the job, and they produce a concrete that is thoroughly impervious to water.

It is now possible to secure also a highly satisfactory waterproofed portland cement into which the proper amount of integral waterproofing compound has been ground at the mill. This is especially good as mixing of the powder at the mill insures accuracy and proper distribution. It also eliminates one extra mixing operation on the job.

A good basement must start out with a satisfactory concrete footing. Where the footing is placed on soft or uneven subsoil, it may settle unless properly reinforced and produce cracks in the basement wall. An adequate footing, adequately strengthened with reinforcing rods, is therefore recommended as the first step in securing a dry basement.

Good concrete is of course the next important essential. Waterproofed cement or standard portland cement with waterproofing compound added is handled with the aggregate the same as any other portland cement. Each batch must be mixed a minimum of 1½ minutes, but other than this, there is no difference whatever in mixing. The waterproofing agent in cement builds up within the concrete a water-repellant force that is greater than the force of capillary attraction and makes absorption of water an impossibility. Thus, if good concrete properly placed, containing a well known, tested waterproofing agent, is used a dry basement is a certainty.



A good standard mix for residential basements is 1 part of waterproofed cement to 2 of clean, hard sand and 4 parts of coarse aggregate. Just enough water should be used in mixing to obtain a plastic, workable consistency which can be economically placed. An excess of water should be avoided.

Concrete should be thoroughly spaded into place well around reinforcing steel and against the forms, so as to secure maximum density by forcing out air and breaking up water and stone pockets, preventing honey-combed places.

Where two-course basement floors are to be used the slab should be thick enough and sufficiently reinforced to resist the upward pressure of any water that may gather under the floors. Concrete should be no leaner than a 1:2:4 proportion, mixed with a minimum amount of water and properly placed upon a well tamped cinder or rock fill which has been saturated before the concrete is poured.

Whether the 1-inch or 2-inch finished topping of a two-course floor should be waterproofed will depend upon the use the floor will have. Oftentimes it is sufficient to waterproof only the slab.

Richer mixes should be used where greater strength is required or where the exposure to water is quite severe such as sea water work, swimming pools, tanks or reservoirs.

Placing of drain tiles around the outside of foundation walls to take off water is an important item and should not be neglected. However, such tiles should connect with an adequate drain that will carry the water off, or their effectiveness is lost.

Gutters and leaders should not be placed so that they pour water during heavy rainstorms upon earth close to the basement wall. Care should be taken to see that leader drains connect to an adequate drainage system which discharges into the roadway or to a storm water drain.

How to make an old leaky cellar watertight will be told in the May Builder—The Editor.



# Inexpensive Wood Paneling Construction

By W. E. GRIFFEE

DEVELOPMENT of plywood and other new materials has greatly increased interest in paneling so that it plays an important part in the homes of 1932.

Paneling may be applied in several ways, the most economical being directly to wood stud walls and partitions. Application over matched boards is recommended for greater insulation.

Erection of grounds and furring for a base to nail paneling to and bring wall out to line is first step.

Time spent in setting the grounds so that they are in perfect alignment will be saved several times over when the stiles, rails, and mouldings are being fitted. Strips used for grounds and furring should be of 1 x 4 lumber, applied horizontally, and spaced according to the location of the rails in the paneling.

If plastering is to be used and the location and design of the paneling is determined before the room is plastered the strips can be applied directly to the studding or masonry with the plastering coming out almost flush with their surface. If the stripping is to be done over plaster the strips should be the same thickness as the door and window casings. Then the stiles of the paneling can be lapped over the outer edges of the casings, and the joints finished with or without a cove moulding as desired. This construction is shown in Figure 5. Figure 6 shows a section, below the cap, of paneling applied over lumber sheathing.

When the strips have been nailed directly to the studding the plywood panels can be laid right up to the door and window casings, and the joints finished with the same moulding which is used on the stiles and rails of the rest of the paneling.

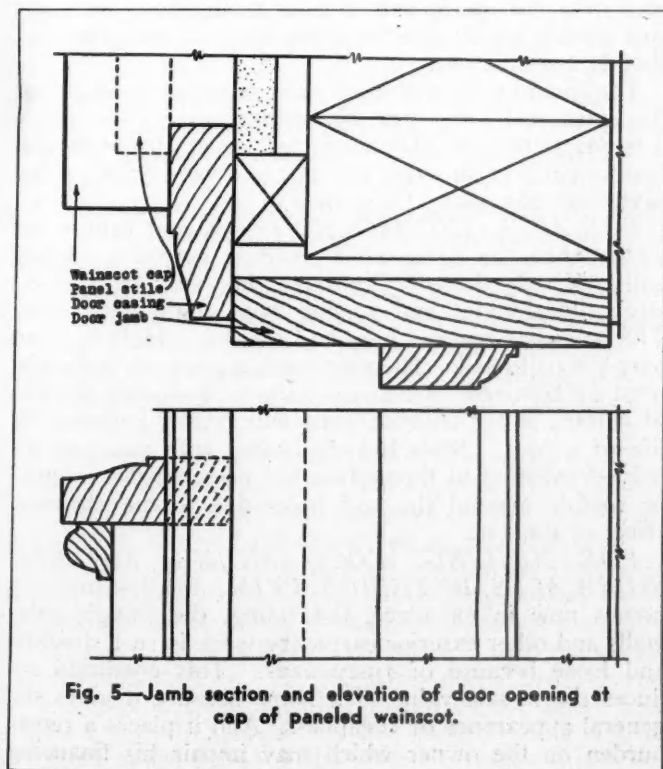
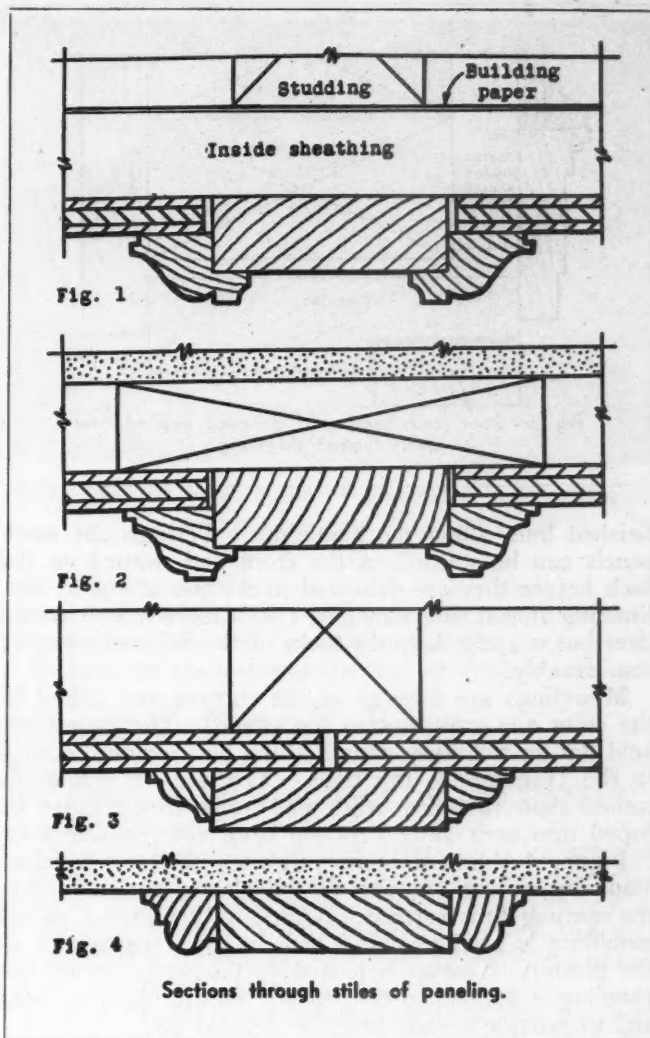


Fig. 5—Jamb section and elevation of door opening at cap of paneled wainscot.



The stiles and rails may be laid out either before or after the panels are applied, as shown in Figures 1, 2 and 3. The construction shown in Figures 1 and 2 is to be preferred as it allows the panels to swell or shrink slightly without distortion. Application of stiles and rails over the paneling, as in Figure 3, is recommended only for large panels which are to be nailed directly to the studding. The omission of sheathing or plaster is poor economy except in warm climates or cheaply constructed summer homes. In such cases the panels should be laid over a good grade of building paper to protect them from moisture.

A raised moulding with a shallow lip at the point where it meets the panel is shown in Figure 1. This is particularly desirable when a paint or enamel finish is to be used as it conceals the line which may show if painted paneling shrinks and opens up slightly.

Plain butt joints between the stiles and rails will stay in place if the lumber is dry and the joints are tightly fitted, though lapped joints are better. The latter are considerably more expensive to cut and fit, however. Nailing should be done so that the nails will be covered by the mouldings. This is easy when raised mouldings like those in Figures 1 and 2 are used.

After the framing has been nailed on, the panels are cut to fit loosely in the openings. The panels should be cut about 1/8" smaller in width and height than the openings so that slight expansion of the framing or panels will not cause buckling. For the same reason it is desirable to stain and fill the panels before they are fastened in so that shrinkage will not expose un-

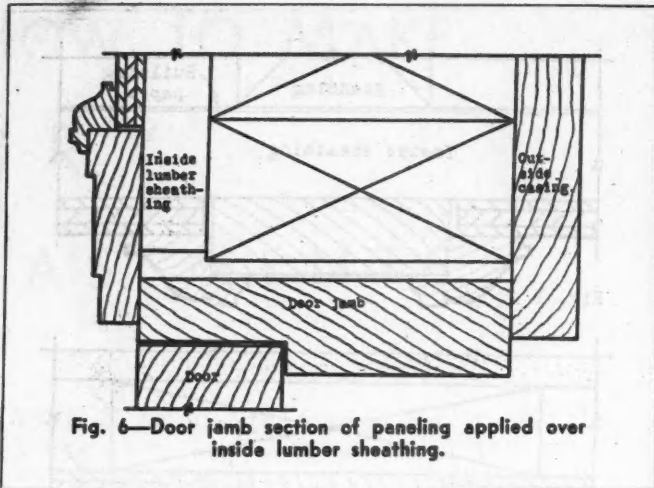


Fig. 6—Door jamb section of paneling applied over inside lumber sheathing.

finished lines along the mouldings. Perhaps the stock panels can be stained on the front and primed on the back before they are delivered to the job or cut to size. Staining at that time may cost a little more than it would later but is apt to help the looks of the finished paneling considerably.

Mouldings are mitered at the corners and nailed to the stiles and rails, not to the panels. The panels are held flat so that they cannot warp but are not secured to the framing by any nails. The use of mouldings rather than moulded stiles and rails which must be coped into each other cuts the labor cost considerably.

Figure 4 shows a section through skeleton paneling made by nailing framing to the plaster and moulding the opening thus formed. A flush rather than a raised moulding is used so that it will fit the irregularities in the plaster. Canvas is pasted to the walls before the paneling is applied to conceal any future plaster cracks and to provide a good base for decorations.

One of the most important precautions to take in building paneling on the job is to see that the walls and lumber are well dried so that swelling and shrinking caused by changes in the moisture content of the lumber will not cause the joints to open up. If the paneling is being put in a new building it will pay to prime the backs of panels and strips with a heavy coat of lead and oil or, better yet, an aluminum primer made by stirring two pounds of "varnish grade" aluminum bronze powder in a gallon of gloss oil. Careful protection from excess moisture will often mean the difference between really beautiful paneling and paneling which discourages a second glance.

## Advance Made in Improved Wall Construction

**N**EW materials—and improvement in the uses of old—have done much to improve wall construction of residences. Among these improvements may be mentioned increased use of braced frame, of structural insulation or wall board, of water proofed concrete masonry, better stucco and brick, and the new type steel reinforced walls.

Included in the last named is one that has made considerable progress during the past year which is known as the super-wall system, based on the use of a reinforced 2" x 2" electric welded wire mesh backed with heavy paper or insulation. This combination of wire and backing is nailed directly to studs as shown in the accompanying illustration. The stucco wall thus pro-

duced is very strong and permanent. The system is equally adaptable to brick veneer construction.

In this type of wall, plaster is laid on a reinforced 2 inch wire mesh backed with paper. The framework of the house is thus completely encased in a network of steel. This wall provides great structural strength, is water proof, fire and vermin proof. It provides also thorough insulation and sound deadening.

Perspective of super wall construction showing how studs are encased on both sides by reinforced steel and the space between filled with insulating material.

Stucco is in disrepute in many parts of the country, especially the north, due to poor and cheap construction in the past. This new reinforced wall method should give new impetus to its use.



## Rustproof Nails Important in Homes

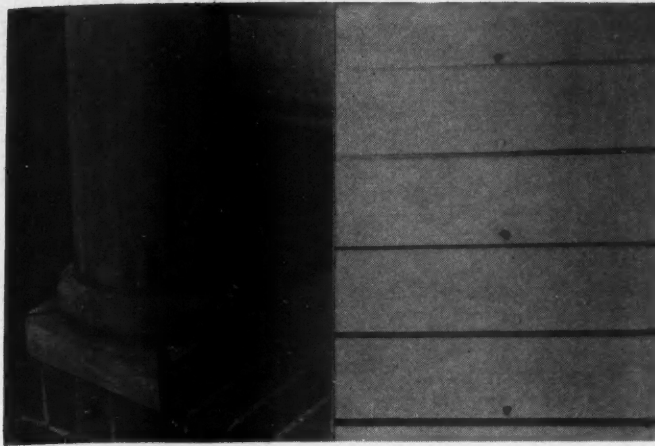
**A**MONG the outstanding new and improved nails now being offered builders are the zinc coated type, cut iron nails, aluminum nails and special non-splitting nails.

Rustproof nails, if used on the 1932 home wherever severe exposure is encountered, will reduce its upkeep cost over the years and free it from those unsightly rust streaks which give the appearance of cheapness and shoddy construction.

The quantity of rustproof nails required is small and the extra cost low. For an average seven room house it is estimated that 200 pounds will cover all the various requirements at an extra cost not to exceed \$5.00. They save their cost many times over.

**FOR APPLYING THE ROOF**—A roof cannot last longer than the nails which hold it in place. Rusty nails not only destroy themselves but also rot and destroy the shingles and roofing around the nail holes. The holes enlarge and here and there a shingle is lifted over the nail head. Then the roof is gone—it leaks and must be repaired. Ordinary nails will shorten the life of a roof. But rustproof nails will greatly increase the life of a roof. Nails heavily coated with zinc are not only everlasting in themselves but preserve the shingles or roofing around the nail holes due to the chemical effect of the zinc.

**FOR NAILING WOOD SIDING, SHINGLE SIDEWALLS, EXTERIOR TRIM, ETC.**—On many homes now in existence, the siding, the shingle sidewalls and other exterior carpentry work is rust streaked and loose because of rusty nails. This condition reduces the re-sale value of a home because it gives the general appearance of cheapness. And it places a repair burden on the owner which may impair his financing



Rusting nails destroyed column prematurely. At right: result of alternate plain steel and rustproof nails.



Rusty nails rot wood around them and shingles come out as they have on this roof.

plan. Rustproof nails can be used at very little extra cost for siding, shingles, mouldings, casings, metal corners, porch floors and trim, lattice work, garage doors, etc. Sash and door companies will also assemble mill-work with rustproof nails and dowels upon request.

**FOR NAILING METAL LATH**—Cracked stucco and pebble dash exteriors are often the result of using rustable nails to apply the metal lath. Moisture soaks through the stucco in long periods of wet weather and, having no quick means of evaporating, attacks the nails and weakens them. Then the combined weight of the lath and stucco, estimated at 7 to 10 pounds per nail, is sufficient to bend or break the nails. The lath then sags and the stucco cracks. Rustproof nails, the extra large head kind, are permanent and quick to use, both for exterior and interior metal lath.

Generally speaking, rust resisting nails fall into two classifications: First, those made entirely from some rust resisting metal such as copper, zinc or aluminum, or wrought iron; Second, those made from iron or steel and then coated on the outside with some rust resisting metal such as zinc.

Solid copper and solid zinc nails require no explanation. But when choosing a coated nail it is well to remember that the length of time a coated nail will resist rust depends upon the amount of coating on it, the kind of coating on it, and the character (meaning density, etc.) of the coating. It is well therefore to select a good grade having a heavy and satisfactory coating.

The Red Cedar Shingle Bureau of Seattle, Washington, has just completed a very thorough study of coated nails and solid-metal nails. Their recommendation is:

"Numerous experiments have conclusively proven the wisdom and economy of high grade nails; and maximum service may be assured by using hot-dipped zinc coated cut nails and hot-dipped zinc coated steel and copper nails and pure copper or zinc nails."

Rustproof nails are only one of the many ways to reduce the upkeep cost and to maintain the good appearance of the 1932 home. They have the very great advantage of doing a large amount of good at low cost.

The cut iron nail is playing an increasingly important part in building. It is especially popular for floor work.

As a cut nail is driven it cuts and depresses the fibers of the wood, automatically locking itself with the greatest possible tenacity. A cylindrical shape when driven into the wood spreads rather than cuts the fibers and makes for itself an aperture the diameter of which is the same at the top as at the bottom. Under expansion

and contraction stresses wire nails will work loose, their heads will protrude and being composed of less metal than the cut nail of the same pennyweight, they are less rigid and less apt to penetrate hard or semi-hard woods.

## Homes Need Bigger Better Equipped Garages

The 1932 home needs the best kind of a garage possible under modern construction methods and using the modern equipment available. This is one feature that in the past has been greatly neglected. The house with an adequate 2-car garage has a sales appeal and a selling value of increased extent.

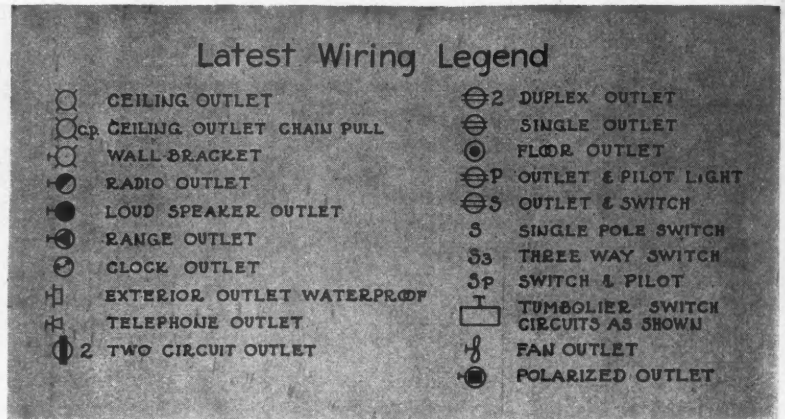
Greatest improvement during the past year has been made in garage doors. The old fashioned door that took several people a long time to open, and that never could be opened after a snow storm is being replaced.

Among the requirements of these new garage doors are included: to stay in any position placed; to operate quickly and easily; not to wedge or jam in ice or snow; must fit tightly at top, sides and bottom; must not twist, pull or sag out of shape; must not occupy valuable floor space; must provide adequately wide opening; may be locked or unlocked from either side; those upward acting to be counterbalanced or weighted to move easily in all positions; must harmonize architecturally.



A push of the button and the garage door quietly and quickly opens.

# Extensive Wiring Demanded by 1932 Electrical Homes



Electrical developments of the coming ten years are as rapid and revolutionary as those of the past decade, wiring requirements of houses will be greatly affected. Builders must therefore not only take care of the extensive needs of the present but plan for the future.

Great advance in concealed, indirect and tube lighting is to be expected. A host of new types of equipment and electrical devices are forecast.

One recent invention of much importance is the automatic circuit breaker unit intended to replace fuses and fuse plugs. It will eliminate inconvenience and a danger that has long been a menace.

A survey by the President's Conference on Home Building shows that most houses are inadequately wired. Overloading of circuits is common, as is shortage of convenience, lighting and switch outlets.

Cost data on wiring were assembled during the survey. The following average costs are suggested.

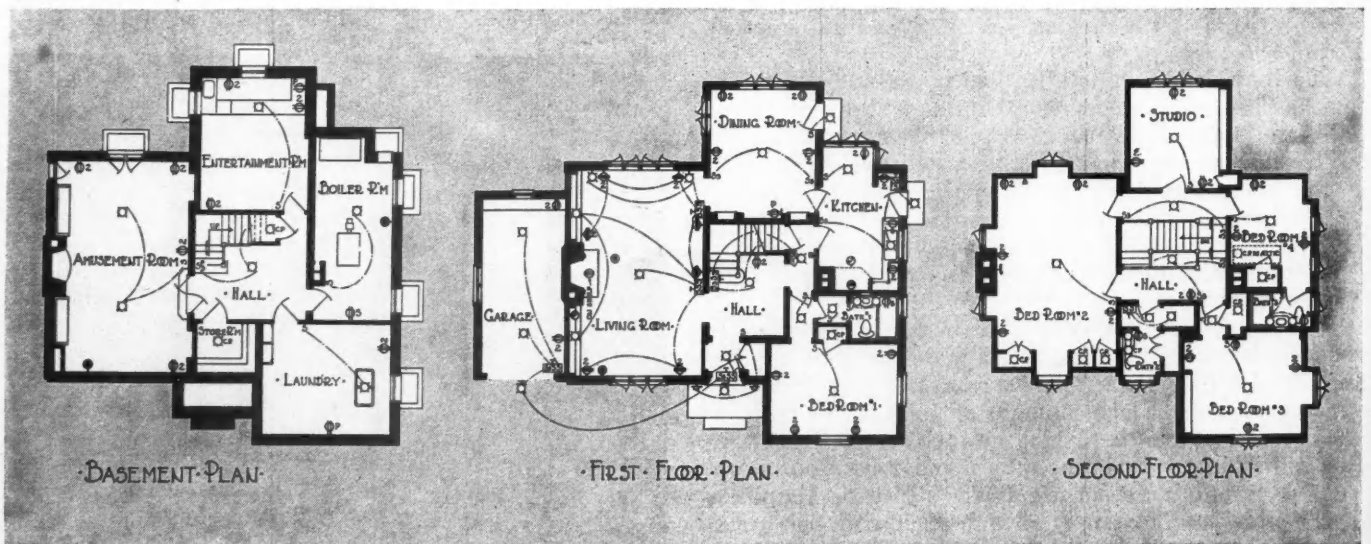
	Per Cent of Structure Cost for Wiring Installation and Average Costs per Outlet					
	\$3500 House		\$6000 House		\$8500 House	
	Per cent allowance	Cost per outlet	Per cent allowance	Cost per outlet	Per cent allowance	Cost per outlet
<b>Knob &amp; Tube Installation.</b>						
No. 14 wire branch circuits .....	2.3%	\$3.75	2.3%	\$2.85	2.6%	\$2.72
<b>Knob &amp; Tube Installation.</b>						
No. 12 wire branch circuits with 3 No. 6 service wires .....	2.5%	\$4.17	2.5%	\$3.10	2.8%	\$2.94
<b>Conduit Installation.</b>						
No. 14 wire branch circuits .....	3.5%	\$5.78	3.8%	\$4.69	4.3%	\$4.52
<b>Conduit Installation.</b>						
No. 12 wire branch circuits with 3 No. 5 service wires .....	3.8%	\$6.26	3.9%	\$5.13	4.5%	\$4.75

Greater advance planning, in which all possible electrical needs of the family are considered, is recommended. Suggested placing and planning of outlets follow.

**Front Entrance.** Two side outlets wherever architectural arrangement permits the use of two lighting-fixtures; otherwise one side or ceiling outlet. In the case of a single side outlet it is desirable to place it on the door-opening side. One single-pole switch for operating the lights. One or more convenience outlets, switch controlled. Also one outlet for an illuminated house number with its own switch control.

**Entrance Hall.** One ceiling outlet and one switch. If this is the only outlet in the ceiling of hall, a second switch to operate this outlet is to be placed in the second floor hall. At least one convenience outlet for 12 feet of baseboard for portable lamps, vacuum cleaner, floor polisher, etc.

**Living Room.** One ceiling outlet, controlled from at least one wall switch. Rooms having two important doorways more than 10 feet apart require two switches controlling the ceiling lights; one at each doorway. Unusually large rooms whose length is more than one and one-half times the width are equipped with two ceiling outlets. Wall brackets are primarily decorative unless semi-indirect or indirect lighting fixtures are to be used. Brackets usually create the most pleasing appearance when used in balanced pairs. Unless there is some very specific reason for doing so, it is usually advisable to



How a thoroughly modern electric home should be wired. Note complete basement and laundry installation, adequate number of new type two-circuit receptacles permitting individual as well as central switch lighting. Also radio plugs, electric clock hangar, fan and refrigerator outlet, garage wiring, etc.



keep wall brackets off of the center of wall spaces, for their monopoly of these positions usually interferes with the placing of furniture, pictures and hangings. It is advisable to have wall brackets collectively connected to a single wall switch. Convenience outlets should be located approximately every 12 feet apart, and to provide for radio sets, telephone tables, small tables, etc., at least one outlet should be provided in every wall space 3 feet or more in length. An outlet in the mantel is highly desirable for the electric clock, picture lighting, decorative mantel lamps or light ornaments.

**Dining Room.** One ceiling outlet, preferably with two circuits for multiple lighting effect fixtures. Rooms having two doorways more than 10 feet apart require switches at both doorways for controlling the central fixture. A minimum of two convenience outlets is recommended (an outlet in the floor may be considered as one of the two outlets) plus outlets for each additional wall space adaptable to the use of buffet or serving table. As in the case of the living room, wall-bracket fixtures are primarily for decorative or secondary lighting. Their use cannot be relied upon to replace the center fixtures unless the brackets selected are semi-indirect or indirect types.

**Breakfast Room.** One ceiling outlet placed over the center of the table operated by a single wall switch. When the breakfast room is located between two rooms and two doors occur, switches at each of these doors controlling the ceiling fixture are recommended when the doors are more than 10 feet apart. At least one convenience outlet is required. In rooms where the table is placed against the walls this outlet would be immediately above the table and in this wall.

**Kitchen.** One ceiling outlet for average kitchens; long narrow kitchens require two. Kitchens having two important doorways more than 10 feet apart require wall switches at each of these doorways controlling the ceiling outlet. Where there are more than two important doorways all separated by 10 feet or more, additional switches are installed at these doors for the control of the ceiling fixture. Ceiling outlets or brackets over sink, range and other important work spaces are important for the lighting of these areas. These outlets are controlled by wall switches or pull chain switches. Convenience outlets at sink, ironing board and other work areas. These are usually placed 3 to 4 feet above the floor. Convenience outlets for refrigerator, electric clock, dishwasher, and ventilating fan are also of first importance.

**Hallways and passageways** require at least one ceiling outlet. The placing of outlets for the lighting of stairways at both the bottom and top ends should be borne in mind. Additional outlets for every 15 feet of length of hall or passageway should be provided. Wall switches for these outlets so that passage can be made with light ahead at all times and also so that lights behind can be turned off without retracing steps to do so are important. Doorways more than 10 feet apart should have switches located at them for the controlling of hall lights.

**Bedrooms** require one ceiling light controlled by one wall switch. Provide one convenience outlet for every 12 feet of baseboard and not more than 12 feet apart.

**Bathrooms.** One ceiling outlet plus two wall outlets, one on each side of the mirror. The wall outlets at the mirror are to be approximately 60 inches above the floor. Two wall switches at the entrance door are to be provided; one for controlling the ceiling outlet and the other the wall outlets at the mirror. Shower stalls and recessed bathtub alcoves require ceiling outlets. The



Indirect lighting above the fireplace gives charm to this all-electric home. Note also the well placed outlets.

wall switches for the control of these outlets should be outside of the shower or tub compartment. An outlet for a built-in bathroom air-heater should be considered. A convenience outlet, 3 to 4 feet above the floor and to the right of the washstand should be included, where its installation is in accord with local ordinance.

**Closets** in practically every case require an outlet in the ceiling or over the doorway. Exceptions are primarily those where the closet is extremely shallow. The outlet may be controlled by a pull chain switch or automatic door switch.

**Basement** requirements are met by placing ceiling outlets at the foot of the steps, controlled by a wall switch at the head of the steps; ceiling outlets in each enclosed space such as the coal room, fruit, storage space, etc., controlled by wall switches at the entrance doors to these spaces or by pull chain switches when the outlets are within easy reach of the door; a single outlet in the ceiling about 3 feet from the wall over the work bench. If work benches are over 6 feet long, two such outlets are recommended. Outlets for heat regulating devices, for a trouble lamp, bell ringing transformer, for oil-burning furnaces, at the work bench for the electric soldering iron or glue-pot are all points of the installation to be considered.

**Laundry or laundry section** requires one ceiling outlet directly over the laundry trays, also one ceiling outlet or convenience outlet for the ironer. One ceiling outlet 3 feet in front of the center of laundry trays for clothes washer. This outlet should be equipped with a pendant type receptacle hung 5½ feet from the floor. One convenience outlet on a separate circuit of No. 12B and S gauge for heavier devices.

**Garage** requirements consist of one ceiling outlet over hood of car and one ceiling outlet at the rear of car controlled by wall switch at garage doors. In the case of double garages, one ceiling outlet over the hood of each car and one between and at the rear of the cars. One lighting outlet on the exterior of the garage with controlling wall switch at the garage entrance door and a second controlling switch at some point in the house, usually the kitchen. One convenience outlet on the center of the rear wall, 4 feet above the floor.



## Power Equipment Plays Important Role In Cutting Construction Costs



New hand saws are light but powerful and speed work such as this to a high degree.

ONE of the important recommendations of the recent President's Conference on Home Building was that contractors study costs and results of use of labor saving equipment. "Contrary to general opinion," it was reported, "portable forms, ready-mixed concrete, plaster mixers, power drills, paint spraying equipment, etc., are used comparatively little."

This was unfortunately too true at the time but it seems hardly possible that it is a condition that can continue into the future. To compete in the building market of 1932, extensive use of cost cutting, labor saving machinery cannot be avoided.

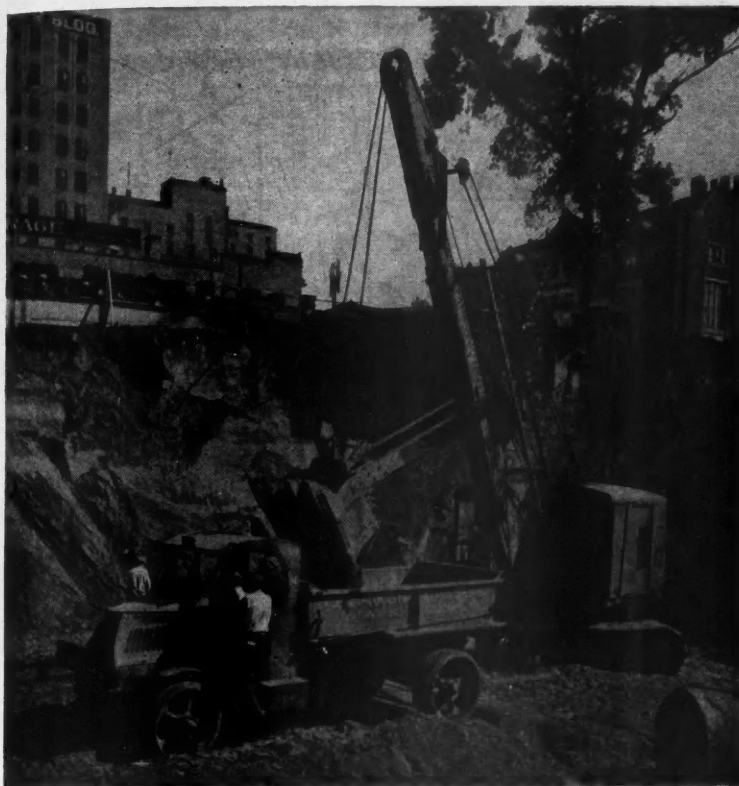
Recent improvements and developments in contractor's equipment have been extensive. Many new models of electric saws, sanders, drills, paint sprays and earth handling and hauling equipment have been announced.

There is a tendency toward fewer moving or breakable parts, greater ruggedness and strength, improved efficiency, speed, and, of high importance, lower costs.

Greatest improvements are shown in hand, table and portable saws, light weight sanding machines, and motor trucks. Some other new developments include electric hole cutters, or hole saws; complete compact home workshops that make the builder able to extend his activities during winter; lines of "unbreakable" hand tools, improved material lifts.

New combination power tools which are light and powerful and may be put to a variety of purposes with different attachments are important.

Interviews with builders who use or have used power



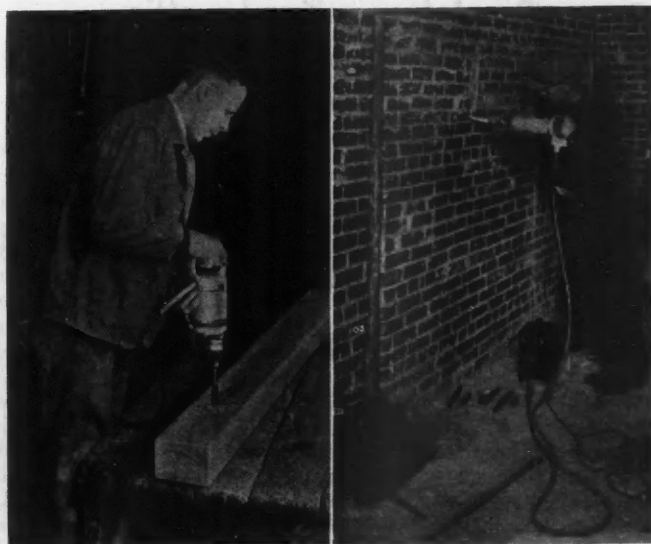
At left—advance in excavating and earth hauling equipment has been great. At right—using a hand power saw to cut tile quickly and accurately.

equipment are illuminating. A New Jersey contractor moved 185 yards of dirt per day at an average cost of 26 cents. A Chicago builder reports a saving of \$68 per day through using an electric saw; he also used an electric plane which permitted fitting and hanging 18 doors in 8 hours. By using an electric mortiser he cut 48 lock mortises in three hours, or a saving of 64 cents per lock. Another builder who put up 12 houses and four factories in a year estimated his saving through use of a power saw at \$2,000. Such figures as these merely re-emphasize the fact that savings can be achieved.

A field in which great technical progress has been made and which offers unexplored opportunities is that of sanding equipment. Probably no branch of craftsman's work is as little developed and encouraged as that most important one—the resurfacing and refinishing of old floors. An educational program to develop this field is needed. It is suggested that to further this business a more extensive rental service be built up by painters, paint dealers, lumber dealers and professional floor surface companies. The new machines, being light enough to make transportation easy, favor this development.



Notching joists for conduits with an electric hand saw.



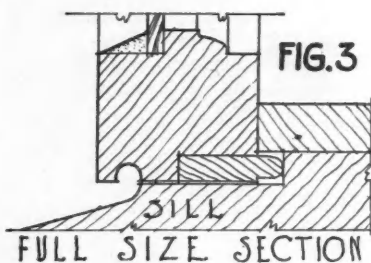
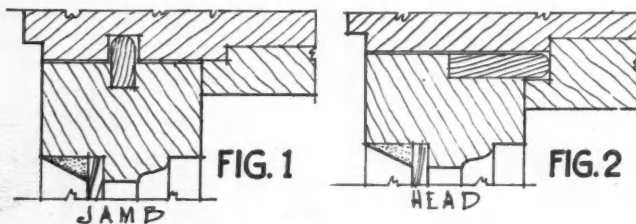
Above—electric drills and hammers are constantly useful. At left—how one contractor cuts curbs with a tractor.

# PRACTICAL JOB POINTERS

A reader's exchange of tested ideas and methods, taken from their own building experience. Two dollars will be paid for each contribution published in this department.

## Makes a tight window

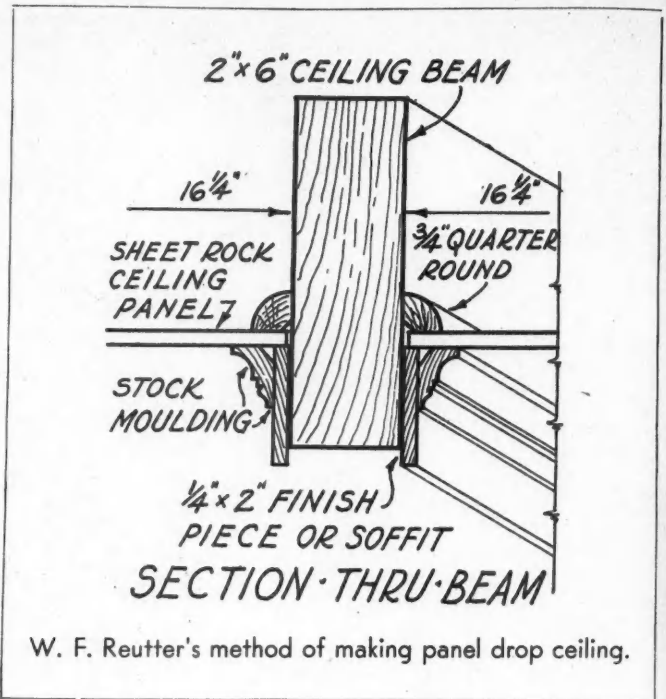
A HARDWOOD weatherstrip which has proven very effective in making wood casement windows weathertight is detailed herewith. It is set into the sash so as to touch the back of a plow in the frame, the plow being enough wider than the strip so as to provide space on each side in which air can circulate. Wind-driven rain will not penetrate past this strip because the moving air which gets to the space around it is caused to whirl backwards. The hinged side of the sash should have the strip set in the center of the sash as shown in Figure 1. The other three sides should be made as shown in Figures 2 and 3. Application of the weatherstrip to a new narrow-stile type of sash with dove-tailed corner construction developed by the millwork specialists of the West Coast Lumbermen's Association is shown.—S. H. EVANS, 404 E. Howell, Seattle, Wash.



How weatherstrip is applied to make wood casement tight.

## Panel drop ceiling for attic

WHEN one desires to have an extra room or two in the attic and has not sufficient head room to allow an 8 ft. ceiling without breaking into the wall surface, a good suggestion is to place beams below the tie beams, and at even or regular intervals. Place 2" by 4" beams (on spans less than 8'-0" or 2"x6" on spans 8'-0" to 10 ft.) endwise, so that the bottom will be the underside of the ceiling beam. Place each beam exactly 16 1/4" apart or between beams, so that the ceiling panels, (which are made of wall board) may be cut from a 48 inch unit. Cutting it into 3 equal parts, you will have each piece 16 inches by 8 ft. long. Nail the moulding, forming the panel at the bottom edge of the ceiling beam, so as to form the under side of the panel, then drop the 16" panel into place. It will be supported by the moulding as shown in illustration. The same operation is done for each panel and when complete the ceiling will have a series of panels 16" wide and 8 ft. or 9 ft. long. There are many pleasing effects which may be had by using different types of mouldings. A good moulding to use is one having a fillet then an ogee. If a soffit effect is desired, then nail a strip of wood 1/4 inch thick and 2 inches wide directly on the ceiling beam and then apply the moulding.—W. F. REUTTER, 524 Kipp, Teaneck, N. J.



W. F. Reutter's method of making panel drop ceiling.

## Handy nail pocket

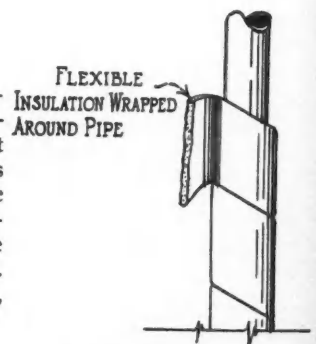
WHERE a worker must assume a bending position as when nailing flooring, a 2" by 3" space turned up on the trouser leg provides a good pocket for the nails, as it keeps them within easy reach. It is advisable of course to sew the cuffs in this position permanently, and it will be found convenient to form several narrow pockets instead of two or three wide ones, so that the nails will be held vertically and thus readily can be taken out. The height of the pockets should be less than the length of the nails.

Another practical idea I have found is as follows:

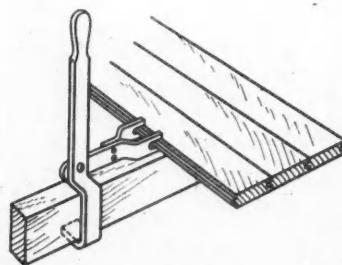
If a piece of rubber matting is nailed on the top of your step ladder, it will prevent small tools from falling off. The edges of course should be doubled under and tacked to form a tray. Such a mat will also reduce the risk of falling when you are standing on top of the ladder.—JOHN RICHARDS, 1318 First Ave., South, Payette, Idaho.

## Quiet soil pipes

ORDINARY flexible insulation wrapped around bathroom soil pipes eliminates about 80 per cent of the noise. This is a very desirable and inexpensive feature when the soil pipe happens to be located in one of the living room partitions.—T. M. BARTHEL, 2324 Dime Bank Bldg., Detroit, Mich.



## Flooring jack

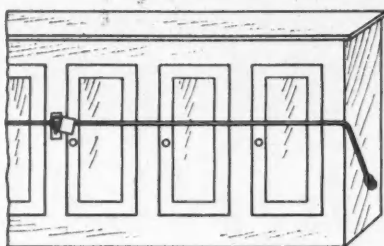


This simple jack gives tight fit.

FOR jacking flooring into place while nailing it, the simple device that I have sketched here is good. It is not hard to make but if one is unable to do so, have a local blacksmith make you one. Just clip the sketch out and take it to him. We find it indispensable in handling slightly curved flooring.—C. H. WILLEY, Penacook, N. M.

### From a carpenter's wife

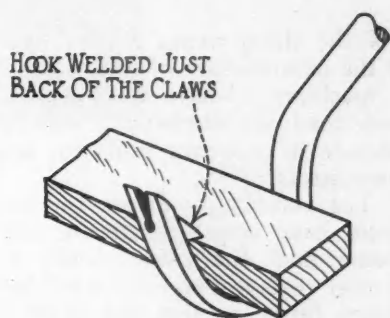
I AM a carpenter's daughter; also a carpenter's wife, and I am sending an idea I have used for years. Simply sew on two buttons, good and strong, to the carpenter's apron. To these attach the straps from an old pair of suspenders. This makes a really strong place for the hammer to go and it will outlast the apron. Perhaps bachelor readers can get their sweethearts to do this for them.—CELINA GARDNER, Stony Creek, N. Y.



At left — a home-made hammer holder. Above — locking simplified by bar.

### Handy hook

I AM sending in an idea which worked out very well for us. I had a blacksmith weld a hook just back of the claws of the round end of my wrecking bar, which may be used to straighten headers, or hold joist while nailing. It is used in many ways. In placing the hook, the size of the curve in the bar must be considered. For a large bar with a large curve, the hook should set farther back from claws. The hook may be  $\frac{3}{8}$  in. deep and as wide as the bar will permit.—AUGUST JURGENSEN, Zwingle, Iowa.

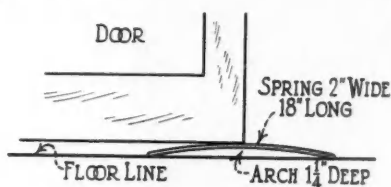


Hook improves bar's usefulness.

### Simple aid in lock-setting

THAT necessity is the mother of invention, seems to prove itself in the discovery that a useful and inexpensive tool may be made from an automobile spring. Take a thin leaf, 18 inches long 2 inches wide, with an arch of  $1\frac{1}{4}$  inches. Square and thin it at the end. To hold the door steady while setting a lock, place the spring on the floor beside the door. With the weight of the foot, flatten the spring and pull the door over it. When the spring is released, it holds the door fast while the work is being done.

This tool is very helpful in lifting mouldings of all kinds. They never split when so removed. It is also a help in tearing off old wooden shingles.—MYRON FLINTJER, Leavenworth, Kansas.



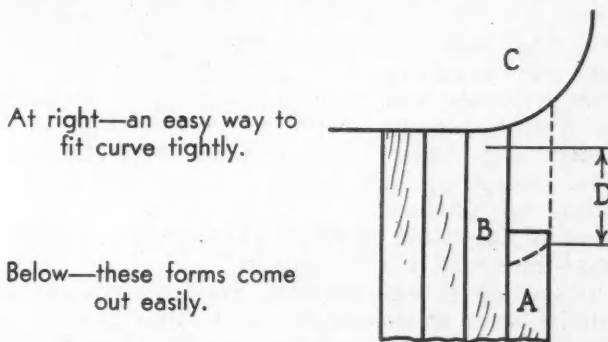
Auto spring keeps door open.

### One lock clothes cabinet

INSTEAD of locking each locker in a clothes cabinet, our firm locks all six to each cabinet with a single lock. This does away with individual keys that are so easily lost. As shown in the illustration, a steel bar is bent and swivelled on an eyebolt at each end. A hasp is placed in the center and when the bar is lifted a padlock locks the whole cabinet.—H. MOORE, Hamilton, Ont.

### To fit a curve

IN FITTING flooring to the curve of a bathtub or of a rounded stair riser, a perfect fit may easily be obtained by the following method. To fit board A to curve C: Lay the board several inches away from the curve and engage groove of A with tongue of B. Set compass at any convenient distance D, then scribe line as shown on A. Be careful to hold the compass always in the same plane as the line of the flooring, i. e. both contact points of the compass move simultaneously.—RICHARD B. FOX, Mt. Pleasant, Penna.

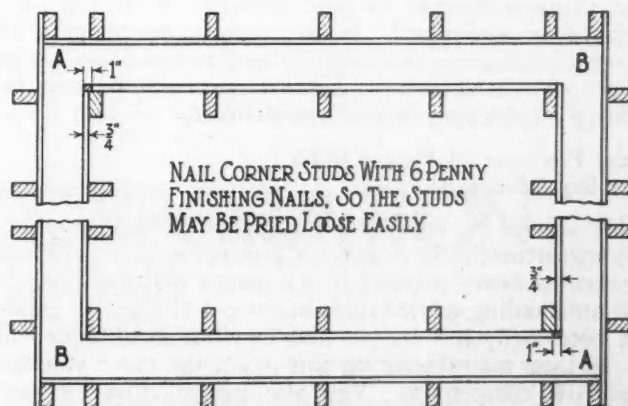


### Form for concrete tank

A METHOD of making a form that can be removed easily is shown at the right. The corner studs should be nailed with six penny finishing nails, and the end sections of the form should not be nailed to the corner studs at all. The end sections can be held in place by the interior bracing. The side sections are to be made with a vertical strip one-quarter inch wider than the thickness of the end sections, and tacked to the corner stud (but not to the end section) with just enough small nails to keep it in place. After the form is set up and thoroughly braced, it is ready for concreting.

To remove the form, first pry the corner studs loose and take them out. Then, at the corners marked "A" in the sketch, gently pull the side section inward. It will slip away from the corner strip without much trouble, and is lifted out. After removing the side sections, the end sections are removed in the same manner, by pulling them loose first at the "A" corners. The corner strips are then lifted out and the job is done. The forms are not damaged, and may be used over again if more than one structure is required.

In making a form of this kind, if an outside form is required, it is well to take care to space the studs on the outside form so they will come directly opposite the studs of the inside form, as shown in the sketch. The studs should be allowed to project above the top by at least six inches, so the outside and inside forms can be tied together by strips of wood nailed across near the top.—H. N. ROWLAND, Parkerford, Pa.



# Profits in Locally Produced Units

Conditions Today Favor  
Use of Masonry Units  
Manufactured Locally—  
Larger Markets Seen

By W. E. DUNN,

Veteran Concrete Products Man.

IN the thirty years I have been actively engaged in the manufacture of concrete products and production machinery, I have seen no time so favorable as right now for local enterprise to organize itself for the manufacture of masonry units to supply local building requirements.

The community drives for increasing local employment have strengthened the sentiment for trading at home and for using home produced commodities. Lower costs are now more interesting than in the recent boom times, so that the substantial saving in freight and haulage effected by the local production of heavy units is a great advantage. And, finally, the trend toward permanent and firesafe construction has greatly widened the market for the output of the local products plant.

Many, even among experienced builders, fail to realize the variety and the amount of concrete products that can be utilized in the construction and adornment of the modern home. Recently I checked over the fairly good sized job pictured in the accompanying photograph, and was myself surprised at the total which this job consumed. I have listed the items; they total \$2,202 delivered to the site! Their local production gave employment to ten local men for more than a month!

In line with the many community drives to increase local employment, no doubt builders and dealers will be considering the starting of products plants in places that in the past have had to depend on out-of-town materials, shipped in.

In starting a local industry, the essentials are low material cost, suitable local labor, and efficient machinery. All these are available almost everywhere. The primary market is the territory within trucking distance of the plant. Local manufacturing permits direct distribution from yard to job quickly. Large stocks are unnecessary because production can be quickly adjusted to supply any demand.

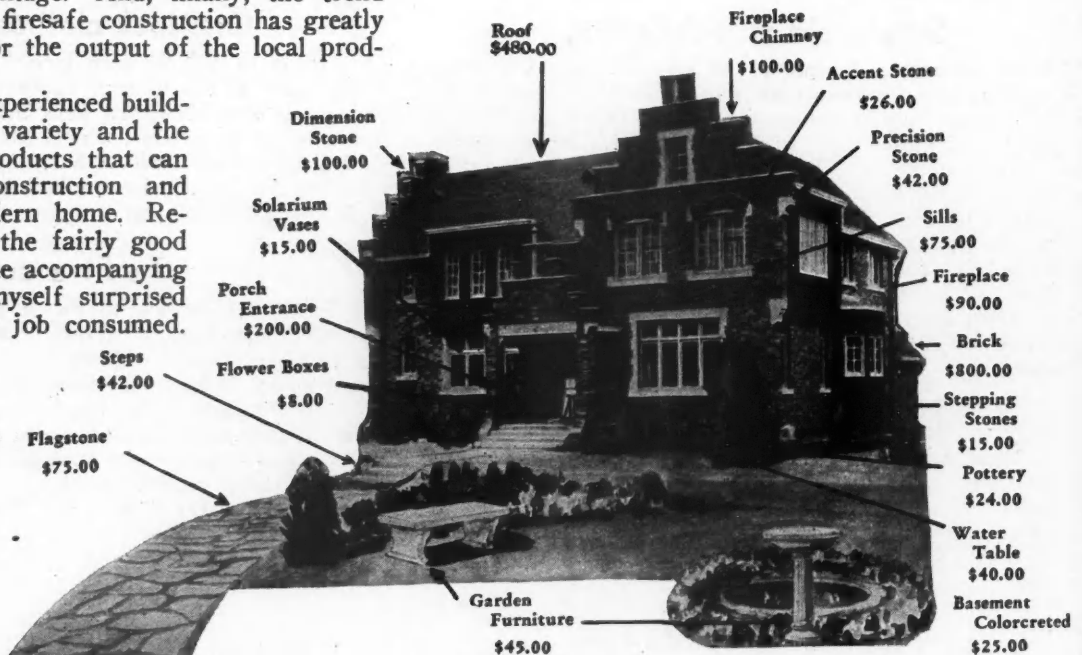
## Local Producer of Heavy Units Has Big Advantage

My advice to any local group considering present-day opportunities is to select a product with a sufficient market—a heavy product in the mason material line. It has outstanding advantages, because a shipped-in product necessarily has freight and handling costs added to it. In local manufacturing this is not the case; you can undersell competition. You also manufacture for less

in a small plant—less overhead and contingent expenses—as compared to a big factory. You are able to close all the gaps, as compared to the manufacturer working at a distance.

The perfecting of machinery for making building commodities places the local manufacturer on the same basis as the big producer having a large factory. Moreover, the maintenance of standard quality in his product is under his personal supervision.

The local manufacturing of building commodities will be welcomed by more individuals if they are assured of greater protection among themselves. Equipment



This one house utilizes over Two Thousand Dollars' worth of locally manufactured concrete products.

manufacturers should provide an arrangement whereby the respective local plants are given protection against the invasion of a competitive manufacturer making the same product. This can nicely be arranged by allotting certain territorial zones where the commodity manufacturer operates. It would mean an outstanding boom to such local manufacturer.

Some may have the mistaken idea that expensive buildings, large space, etc., are necessary to start a local enterprise. I can name many, many plants, now industries of prominence, that started making building commodities locally, having only such facilities as happened to be on their premises. They expanded from earnings. On the other hand, this field of activity is now of such a nature that more pretentious installations of equipment are justified, together with bigger housing facilities.

There is a worth while opportunity for the ambitious man or group of men in every locality in local manufacturing.

LOWEST PRICE IN HISTORY  
SIMPLEST SANDER EVER BUILT  
STURDY-EFFICIENT-FOOL PROOF

# REID-WAY FLOOR ACE

## \$9950

CASH

Here, Mr. Profit-Seeker, is the greatest floor sander value ever offered. A price that has never been paralleled—a floor sander that upsets all production and efficiency standards in the light floor sander field.

### ONLY ONE MOVING PART

The famous Reid-Way sanding drum motor is used in the Floor Ace. A simple fool-proof unit—so dependable that every machine carries an unqualified 12-months guarantee. It is light enough to be easily carried by one person. Heavy enough to hug the floor. Price is no longer a barrier. Write for specifications and an explanation of our easy purchase plan.



### PROFIT IN RENTALS

Twenty to thirty days' rental will pay for a Floor Ace. Every rental customer will require sandpaper, filler, varnish and wax—all sold at a profit. The Reid-Way Floor Ace is so simple a woman can operate it. Sturdy enough to stand the rough handling of rental service. Rental advertising material is furnished free to every purchaser. Don't miss this sure-hit proposition.

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# NEWS — building activities of the month

## Home Loan Bank Bill Making Progress

**P**ROSPECTS for the passage of the home loan mortgage bank bill have revived recently as the result of pressure from the Administration after a period of inaction in Congress which had seemed to forecast a triumph for the opposition.

As reported in last month's AMERICAN BUILDER AND BUILDING AGE, a sub-committee of the Senate committee on banking and currency had completed hearings on the bill in February and had taken no action toward a report to the full committee, while the House committee had not yet taken up consideration on the bill. But on March ninth, Secretary Lamont held an executive conference with the Senate sub-committee, at which he presented evidence as to the need for the bill, after which Senator Watson, chairman of the sub-committee, stated to the press that the sub-committee was "going to bring out some kind of a home loan bank bill." Later it was announced that a sub-committee of the House banking committee would conduct independent hearings on the bill.

### 2,000 Communities Need Housing

Further impetus was given on March 12 when Representative Steagall and the ranking members of the House banking and currency committee of both parties conferred with the president at the White House. The president called to the attention of the members a report just compiled by the department of commerce showing 2,000 communities in need of additional housing, which would benefit by the enactment of the proposed legislation. At the same time the president said, thousands of home owners who have mortgages on their homes will be saved from foreclosures if aided promptly.

With the statement "every day's delay in the passage of the home loan bank bill means additional homes lost to their owners", proponents of the bill closed their case March 21 at the House hearing.

Further arguments were presented to show value of the bill. It would stop growing foreclosures, stop rising interest rates for home financing funds. It would check demoralization of home values which continues now because, due to lack of refinancing, homes are offered for sale at first mortgage values.

L. T. Stevenson, President of the National Association of Real Estate Boards, listed permanent service which would be rendered by the home loan banks. They would:

(1) Bring better distribution for home financing funds.

INDEX NUMBERS of The American Appraisal Company Construction Costs for Industrial Buildings Compared with 1913 Costs				
Average Cost in U. S.	Frame	Brick Wood Frame	Brick Steel Frame	Reinforced Concrete
1913 monthly average...	100.0	100.0	100.0	100.0
1914 monthly average...	96.7	100.4	97.6	98.2
1915 monthly average...	98.5	102.9	101.1	101.7
1916 monthly average...	109.3	114.2	121.6	119.6
1917 monthly average...	133.7	139.5	155.1	147.4
1918 monthly average...	164.3	171.4	179.3	171.4
1919 monthly average...	212.1	218.7	209.2	209.7
1920 monthly average...	268.7	283.5	256.7	264.4
1921 monthly average...	395.9	215.7	201.2	207.4
1922 monthly average...	189.6	195.8	184.7	187.6
1923 monthly average...	208.9	218.9	212.1	209.6
1924 monthly average...	204.8	217.9	210.1	205.8
1925 monthly average...	202.0	210.2	201.7	199.9
1926 monthly average...	203.8	212.9	198.7	200.8
1927 monthly average...	204.3	213.7	199.6	200.0
1928 monthly average...	203.5	212.6	197.2	200.3
1929 monthly average...	204.3	213.6	197.3	201.0
1930 monthly average...	195.4	208.1	191.0	195.8
1931 monthly average...	165.6	180.1	167.5	169.6

District	Type of Construction	1932 Jan.	1931 Dec.	1931 Jan.
Pittsburgh District	Frame	158	160	184
	Brick, Wood Frame	174	176	203
	Brick, Steel Frame Reinforced Concrete	162	164	184
Central Western States	Frame	152	153	180
	Brick, Wood Frame	168	170	199
	Brick, Steel Frame Reinforced Concrete	157	159	181
Northwestern States	Frame	143	142	165
	Brick, Wood Frame	154	154	179
	Brick, Steel Frame Reinforced Concrete	150	150	168
Southeastern States	Frame	146	147	173
	Brick, Wood Frame	162	164	191
	Brick, Steel Frame Reinforced Concrete	148	149	171
Texas	Frame	147	147	172
	Brick, Wood Frame	160	160	185
	Brick, Steel Frame Reinforced Concrete	150	150	169
Pacific Coast States	Frame	141	142	167
	Brick, Wood Frame	148	150	171
	Brick, Steel Frame Reinforced Concrete	148	149	168
Average of Nine Districts	Frame	153	154	179
	Brick, Wood Frame	166	169	194
	Brick, Steel Frame Reinforced Concrete	158	159	178

(2) Create confidence in home financing institutions, thus encourage deposits.

(3) Stabilize these institutions and prevent recurring emergencies.

(4) Simplify problem of junior financing by establishing sound basis of first mortgage loans.

## New Wage Scale

**T**HE Building Trades Employers Association of Westchester County has published a revised wage scale on which the Association has voted to sign agreements to commence March 15th and to run until December 31st, 1933. The scale is as follows:

Carpenters .....	\$ 9.00
Carpenters—millwork in shops .....	7.00
Painters .....	9.00
Masons .....	11.00
Plasterers .....	11.00
Hodcarriers .....	6.50
Cement masons .....	11.00
Concrete laborers .....	6.50
Common laborers .....	5.00
Hoisting engineers .....	12.00
Metal lathers .....	10.00

## To Make New Window Device

**T**HE Heintz Manufacturing Company of Philadelphia has announced start of production of a window converter formerly made in Detroit under the name Car-Kra Windoware. The device attaches to new or old double hung windows, providing a tight window that operates up and down smoothly on metal slides and that tilts inward at a touch.

An efficient weatherstrip is included in the installation.

## Independent Lock Expands

**A**NNOUNCEMENT has been made of the purchase by Independent Lock company, Fitchburg, Mass., of the Lockwood Mfg. Co. of Norwalk, Conn. The name "Lockwood" will be retained and full line continued.

## Lumber Priming Shows Increase

**I**NCREASED interest in the protection of wood so that it is delivered to the customer with proper moisture content is indicated by the growing use of aluminum paint as a primer, according to recent data issued by Aluminum Company of America.

Among the companies which are utilizing aluminum paint for various patterns of siding and ceiling are:

Brooks Scanlon Corp., Foley, Florida.  
C. A. Mauk Lbr. Co., Toledo, Ohio.  
Seattle Cedar Lbr. Mfg. Co., Seattle, Wash.  
Stover Mfg. Co., Mobile, Ala.  
Weyerhaeuser Forest Prod. Co., St. Paul.

Lumber firms which are employing aluminum paint for frames, sash, and other miscellaneous items include:

Anderson Frame Corp., Bayport, Minn.  
Central Lbr. Co., Charlotte, N. C.  
Deer Park Lbr. Co., Deer Park, Wash.  
Frederick Kaiser Co., Philadelphia.  
Gate City Sash & Door Co., Ft. Lauderdale, Fla.  
Keystone Frame & Sash Co., Spokane, Wash.  
Mahoney Lbr. Co., Jacksonville, Fla.  
C. F. Mayrose Planing Mill, Terre Haute, Ind.  
Moss Mfg. Co., Athens, Georgia.  
Walter H. Schenk Co., Chicago, Ill.  
Segelke & Kolhaus Co., La Crosse, Wis.  
Spencer Lbr. Co., Gastonia, N. C.  
United Sash & Door Co., Wichita, Kansas.

Originally introduced as a priming coat for siding, the use of aluminum paint is now extended to priming at the mill such items as frames, sash, flooring, trim, etc.

Protection is afforded by a film of aluminum which is opaque to light and stops passage of the harmful ultra-violet rays which cause oxidation.

If left unprotected, lumber does not retain the proper moisture content. By coating all sides with aluminum paint immediately after seasoning, change in moisture content is prevented; in effect, the aluminum film "seals" the lumber, according to the report.



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production of commercial vehicles. This year, General Motors Truck passes on to you enormous savings made possible by the Company's strategic purchasing power—its great engineering resources—and its up-to-date manufacturing facilities. Be certain to investigate the new General Motors Truck values before you buy trucks or trailers.

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AND TRAILERS**

THE RIGHT TRUCK FOR EVERY RUN—1½ TO 20 TON

**THE BATTLE CREEK REALTY BOARD HOME-IMPROVEMENT INSPECTION REPORT**

Rec. No. \_\_\_\_\_ What used? \_\_\_\_\_ Name of Street \_\_\_\_\_ Dated \_\_\_\_\_ Day of \_\_\_\_\_ 1931 \_\_\_\_\_

Described as: \_\_\_\_\_ City of \_\_\_\_\_ No. \_\_\_\_\_

City of \_\_\_\_\_ No. \_\_\_\_\_

Front porch \_\_\_\_\_ Sidewalk to house \_\_\_\_\_ Needs \_\_\_\_\_ Shade \_\_\_\_\_ Shrubbery \_\_\_\_\_ Garden plot \_\_\_\_\_ Curb \_\_\_\_\_ Sidewalk \_\_\_\_\_

Driveway (kind) \_\_\_\_\_ Level \_\_\_\_\_ Turned \_\_\_\_\_ Lawn needs \_\_\_\_\_ Street graded \_\_\_\_\_ Street paved \_\_\_\_\_

Sever on street \_\_\_\_\_ Blocks to school \_\_\_\_\_ to playground \_\_\_\_\_ Would bus service be more convenient? \_\_\_\_\_

Unsanitary \_\_\_\_\_ What class of people near \_\_\_\_\_ Does it warrant modernizing and repairing? \_\_\_\_\_

or repairing? \_\_\_\_\_ Constructed of \_\_\_\_\_ Age \_\_\_\_\_ Do adjacent buildings need removing? \_\_\_\_\_

Sun room \_\_\_\_\_ Bath \_\_\_\_\_ No. rooms down \_\_\_\_\_ No. rooms up \_\_\_\_\_ Sun room \_\_\_\_\_ No. rooms \_\_\_\_\_

Breakfast nook \_\_\_\_\_ Sleeping porch \_\_\_\_\_ Bath where \_\_\_\_\_ Bath tiled \_\_\_\_\_ Double house \_\_\_\_\_

Duplex \_\_\_\_\_ Rooms down \_\_\_\_\_ Rooms up \_\_\_\_\_ Exterior needs \_\_\_\_\_ Rear porch \_\_\_\_\_

Front porch \_\_\_\_\_ Needs \_\_\_\_\_ Roof (kind) \_\_\_\_\_ Storm windows \_\_\_\_\_

Windows makes \_\_\_\_\_ need \_\_\_\_\_ No. broken glass \_\_\_\_\_ Storm windows \_\_\_\_\_ need \_\_\_\_\_

Screen \_\_\_\_\_ need \_\_\_\_\_ Awning \_\_\_\_\_ Garage \_\_\_\_\_ Double \_\_\_\_\_ Sewer connected \_\_\_\_\_

Should be \_\_\_\_\_ Septic tank \_\_\_\_\_ Can pool \_\_\_\_\_ Double \_\_\_\_\_

Other buildings \_\_\_\_\_ Full basement \_\_\_\_\_ Walls need \_\_\_\_\_ Floor needs \_\_\_\_\_ Gas \_\_\_\_\_ Water heater \_\_\_\_\_ Is heater vented \_\_\_\_\_

Laundry trays \_\_\_\_\_ City water \_\_\_\_\_ or what \_\_\_\_\_ Furnace \_\_\_\_\_ Boiler \_\_\_\_\_ Radiators \_\_\_\_\_

Chimney needs \_\_\_\_\_ Floor and wall registers \_\_\_\_\_ need \_\_\_\_\_ Fruit room \_\_\_\_\_ Recreation room \_\_\_\_\_ Fire hazards \_\_\_\_\_

Coal bin \_\_\_\_\_ needs \_\_\_\_\_ Milk bottles \_\_\_\_\_ Garbage can \_\_\_\_\_ Basement stairs need \_\_\_\_\_

Ashe \_\_\_\_\_ Rabbit \_\_\_\_\_ Electricity \_\_\_\_\_ Electric stove connection \_\_\_\_\_ Electric fixtures \_\_\_\_\_

Basement stairs need \_\_\_\_\_ Wall and base plugs \_\_\_\_\_ need \_\_\_\_\_ Interior trim down \_\_\_\_\_

need \_\_\_\_\_ up \_\_\_\_\_ need \_\_\_\_\_

Floors-down \_\_\_\_\_ need \_\_\_\_\_ Floors-up \_\_\_\_\_ need \_\_\_\_\_

Hall and stairs need \_\_\_\_\_ Kitchen floor needs \_\_\_\_\_

Bathroom floor needs \_\_\_\_\_ Shower \_\_\_\_\_

Toilet \_\_\_\_\_ Where \_\_\_\_\_ All plumbing needs \_\_\_\_\_ Fireplace \_\_\_\_\_ Hardware \_\_\_\_\_

Interior doors need \_\_\_\_\_ Front door needs \_\_\_\_\_

Rear doors need \_\_\_\_\_ Window shades need \_\_\_\_\_

Rooms need plastering \_\_\_\_\_ L. R. \_\_\_\_\_ D. R. \_\_\_\_\_ Sun room \_\_\_\_\_

D. R. \_\_\_\_\_ K. \_\_\_\_\_ Sun room \_\_\_\_\_ B. R. \_\_\_\_\_ Hall \_\_\_\_\_ Bath \_\_\_\_\_ Rooms need cleaning \_\_\_\_\_ L. R. \_\_\_\_\_

need decorating \_\_\_\_\_ L. R. \_\_\_\_\_ D. R. \_\_\_\_\_ K. \_\_\_\_\_ Sun room \_\_\_\_\_ B. R. \_\_\_\_\_ Hall \_\_\_\_\_ Bath \_\_\_\_\_ Rooms \_\_\_\_\_

Hall \_\_\_\_\_ Bath \_\_\_\_\_

What else would you suggest to improve this property? \_\_\_\_\_

What civic improvement needed in community? \_\_\_\_\_

Estimated value of lot, \$ \_\_\_\_\_ with house, \$ \_\_\_\_\_ For sale \_\_\_\_\_ Owner's price, \$ \_\_\_\_\_

For rent \_\_\_\_\_ Estimated rental, \$ \_\_\_\_\_ Owner's price, \$ \_\_\_\_\_ Last tenant \_\_\_\_\_

Rent raising \_\_\_\_\_ Would owner improve if costs were financed? \_\_\_\_\_ New vacant \_\_\_\_\_ How long \_\_\_\_\_

Dead holder \_\_\_\_\_ Address \_\_\_\_\_

Contract purchaser \_\_\_\_\_ Address \_\_\_\_\_

Mortgagee \_\_\_\_\_ Address \_\_\_\_\_

Their agent \_\_\_\_\_ Address \_\_\_\_\_

Phone numbers \_\_\_\_\_ D. H. \_\_\_\_\_ C. F. \_\_\_\_\_ M. \_\_\_\_\_ Agt. \_\_\_\_\_

Has the Board's certified card been placed? \_\_\_\_\_

This inspection made with \_\_\_\_\_ the owner's knowledge \_\_\_\_\_

By: Inspectors \_\_\_\_\_

Card used by Battle Creek workers in making inspection of vacant houses. Owner is then urged to modernize according to needs shown.

### Building Survey Stimulates Work

AN effective drive to stimulate building and modernizing is being carried on by the realty board, chamber of commerce, and building interests of Battle Creek, Michigan. First step was a thorough survey of vacant properties, conducted by teams of workers. This indicated that the city is not unduly overbuilt.

It was shown that in one section of 81 vacant houses listed more than 80 per cent were old and in extremely poor condition.

"Most of the houses that are not rented are poorly located or run down, cheap and out of date," one of the canvassers reported.

Following this survey inspection cards, illustrated above, were made. Owners of vacant houses were then interviewed, the property examined, and needed repairs and improvements listed on the cards.

Owners are urged to carry out recommended improvements, and as each house is reconditioned, an official card is posted on the property stating that it is in good condition and approved by the realty board.

The drive is expected to develop much new building and employment.

### Rehabilitation of Philadelphia Slum Areas Is Planned

BUILDERS, architects and realtors of Philadelphia are discussing the rehabilitation of slum areas on a business, as well as a sociological basis, according to recent announcement from that city. Leaders who have been active in considering the matter are Joseph J. Greenberg, member of the City Planning Commission; D. Knickerbocker Boyd, fellow of the American Institute of Architects; and Thomas F. Armstrong, president of the Master Builders and Employers Association.

The construction of large modern apartment buildings of concrete, three to five floors in height, with ramps be-

tween floors, is one proposal that has been looked upon with favor. The plan is to acquire a block at a time, then erect the new structure around the perimeter of the block with a large court in the center. It is believed that such apartments could be economically constructed at present material and labor costs for about \$1.50 per square foot. With abatements of taxes for a period of years allowed by the municipality, it should be possible to rent such apartments at extremely low rentals yet be able to pay financial backers 6 per cent on their investment, according to sponsors of plan.

### New Selling Company

MEDUSA Products Company has been organized as a subsidiary of the Medusa Portland Cement Company and will function as the selling company for Medusa Portland Cement Paint; Medusa Floor Coating and

Primer; as well as the entire line of Rust-proof coating and technical paints manufactured by the Studebaker Chemical Company of Elyria, Ohio, for which they will be exclusive distributors. These products include Rust-oy, Aluminoy, A. W. A. Paint, and a non-penetrating wall size for fresh plaster.

Executive and general offices of the Medusa Products Company will be located at 1002 Engineers Building, Cleveland, Ohio.

### Westchester Home Show

THE county of Westchester, New York, will hold its second annual home show from April 27 to May 3 in the Westchester County Center building in White Plains, N. Y. The County Society of Architects will display model houses and working drawings. Materials, building products and home equipment of all kinds will be on display.

## CURRENT CONSTRUCTION FIGURES

### Awards Increased in February

A gain of almost five per cent in construction awards over January was recorded during the month of February.

Six territories reporting gains were the Southeastern, Chicago, Central Northwest Kansas City, New Orleans and Texas.

Total construction volume as based on contracts awarded during February continued low however, and were less than in February, 1931.

AMERICAN BUILDER AND BUILDING AGE estimates for the month, based on F. W. Dodge reports modified to include all states as well as small work of \$5,000 or less, modernizing and repairs, are as follows:

Residential buildings .....	\$51,356,625
Non-residential buildings ..	39,982,470
Public works .....	17,196,740
Public Utilities .....	13,912,140

Total contracts awarded. \$122,437,975

Nine cities of the country showed better building prospects by register-

ing building permit advances over February, 1931 and 1930. These are reported by S. W. Straus & Co. as San Francisco, Cambridge, Ft. Wayne, Washington, Biloxi, Austin, Appleton, Jacksonville, San Jose. The 25 cities reporting largest volume of permits for February are as follows:

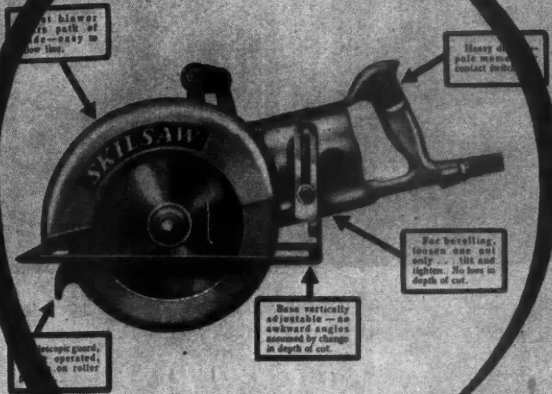
	Feb., 1932	Feb., 1931
1. New York, N. Y. ...	\$ 8,041,680	\$26,612,657
2. Cincinnati, Ohio ...	3,475,395	1,797,205
3. Los Angeles, Calif. ...	1,958,266	3,670,782
4. Cleveland, Ohio ...	1,934,175	2,416,875
5. Baltimore, Md. ...	1,251,720	2,757,480
6. San Francisco, Calif. ...	1,181,876	1,712,571
7. Cambridge, Mass. ...	1,051,520	87,519
8. Boston, Mass. ...	1,045,674	2,183,609
9. Ft. Wayne, Ind. ...	1,036,513	343,554
10. Washington, D. C. ...	1,015,620	5,159,315
11. Philadelphia, Pa. ...	1,003,280	1,343,455
12. Biloxi, Miss. ...	935,475	5,400
13. Chicago, Ill. ...	799,400	7,877,000
14. Long Beach, Calif. ...	657,380	355,845
15. Austin, Texas ...	636,577	524,061
16. Memphis, Tenn. ...	580,970	248,300
17. St. Louis, Mo. ...	432,061	1,688,340
18. Detroit, Mich. ...	427,195	2,021,060
19. Appleton, Wisc. ...	422,100	23,930
20. Jacksonville, Fla. ...	381,235	124,570
21. Denver, Colo. ...	292,275	509,500
22. Houston, Texas ...	290,587	1,327,767
23. Oakland, Calif. ...	269,399	1,000,035
24. Yonkers, N. Y. ...	260,525	1,795,175
25. San Jose, Calif. ...	260,655	127,655
<b>TOTALS .....</b>	<b>\$29,644,553</b>	<b>\$65,713,660</b>

# EXTRA THE NEWS OF 1932 EXTRA

VOLUME I - NUMBER I CHICAGO, ILLINOIS, APRIL 1, 1932 COPYRIGHT, 1932, SKILSAW, Inc.

## NEW SAW ANNOUNCED

THE NEW MODEL "S"



### SKILSAW PRODUCES GREATEST SAW IN HISTORY OF INDUSTRY

## Never Before Has There Been an Electric Saw Equal to This

Now SKILSAW has built the ideal saw for the building industry! The new Model "S" is exactly what every contractor has been waiting for! Here is extra POWER for the hardest kind of sawing work, yet Model "S" SKILSAW is lighter in weight, more compact in design! Here is extra SPEED, yet nothing has been sacrificed to maintain easy handling and easy control.

#### NEW PERFORMANCE

Most important of all is that the Model "S" offers a maximum cutting capacity of 2" rough lumber and will cross-cut 2 feet of...

#### More POWER

The NEW Model "S" SKILSAW develops from 20% to 40% greater cutting speed than any other electric saw on the market of comparable size.

#### Absolute Safety

SKILSAW Presents the Safest Electric Hand-Saw the Industry Has Ever Known. An automatic guard completely covers the blade of the Model "S" SKILSAW at all times. This new feature has received...

Here is a saw that will turn out more work at a faster rate than has ever been known for a machine anywhere near its size. The motor installed in this saw is of a type that has been tested in numerous laboratories and has been found to be of a class that is superior to any other. Not only is the motor of a high speed type, but the Model "S" SKILSAW is also of a type that is of a high class. The increased power and speed of the Model "S" SKILSAW, combined with its light weight, permits working in tight places, greater production of work, more economical use of power, and greater efficiency throughout the life of the saw. The Model "S" SKILSAW offers the most outstanding features that have ever been combined in a hand saw. Every workman knows the value of a saw that is easy to handle, that gives better performance, and greater efficiency throughout its life. In design, the Model "S" SKILSAW, the distributor of this saw, is so designed that it is easy to handle and controlled by the operator. A particular feature is an electric switch, yet so designed that the operator is protected from a point of efficiency and safety.

### MAIL THIS COUPON today!!

**Free**  
A demonstration and test of this remarkable new SKILSAW on your own work without charge or obligation.  
Before you start any work this Spring try new model "S" SKILSAW. We can show you how its amazing performance will mean EXTRA profits for you on every job. Mail this coupon NOW to SKILSAW INC., 3338 Elston Avenue, Chicago.

- Yes, I will watch a demonstration.
- No, just send me complete information about this Model "S" SKILSAW without obligation.

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CITY \_\_\_\_\_  
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**SKILSAW INC.**  
3338 ELSTON AVENUE  
CHICAGO ILLINOIS

# Many 1932 Home Improvements Announced

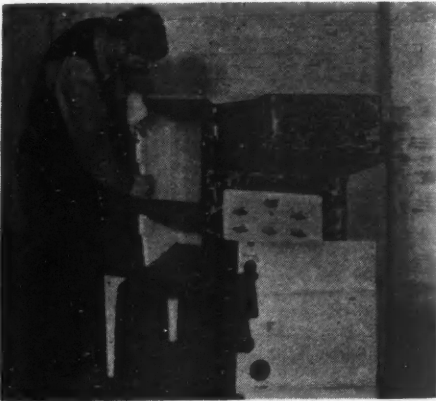
**New Products Give Added Sales Appeal, Better Service from Basement to Attic. For Further Data About These Items Write American Builder Information Exchange, 105 West Adams, Chicago.**

**DOOR CLOSET**—One of the most interesting of the recent products for the modern home is the new storage compartment shown at the right which fits on the back of any door. Made of steel, rigid, attractive, this door closet provides a new place for many special items. In the bathroom, in the kitchen, it is extremely handy. A buffet type provides storage for bottles, foods, etc. Closet fits any door, is 3½ to 4½" deep, 71" high. It will be a welcome addition to any home, and provides a new note in convenience, neatness and efficiency.

**INSULATED STOVE**—Gas stoves for the modern home should be selected not on a price but on a quality basis. A fully insulated, beautifully designed and improved gas range adds a tremendous lot to the salability of the house.

A new line of gas ranges has just been announced that is the last word in quality. In the first place these stoves are things of beauty. They are heavily insulated as shown in the accompanying illustration.

Other outstanding features include a new patented non-clog burner of aluminum alloy; a sanitary burner tray that protects against boil-overs; a clever automatic lighter that starts the burner simply by turning on the gas; smooth sanitary oven lining that is easy to keep clean; reversible broiler pan and roaster of heavy enameled ware; efficient oven heat regulator wheel which controls time and temperature—an especially popular feature with housewives.

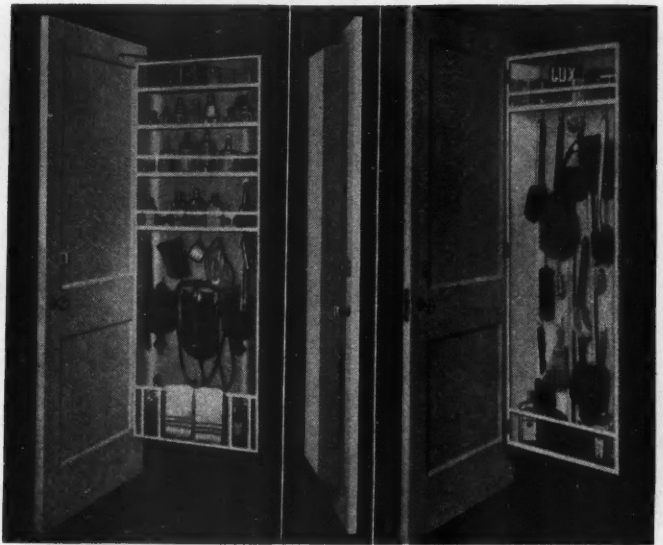


Heavy insulation built into stove adds to efficiency and comfort.

**COPPER PATINA**—Considering the many uses to which copper is put in the modern home, this recent discovery will be of great interest to homebuilders as well as contractors handling larger work. The copper industry has solved Nature's mysterious process for giving copper and its alloys the permanent green coloration or patina that is so attractive in long weathered pieces.

Over a long period of time many attempts have been made to duplicate by artificial means the pleasing green patina, without success. Science has triumphed and production methods for commercial utilization of the new treatment are being rapidly developed. The patina produced by the new process is identical with that produced by natural weathering which gives charm to ancient copper roofs, bronze statuary, etc.

**DOORS READY TO INSTALL**—An outstanding contribution to good homes is a new, permanently finished cabinet-wood veneer door, supplied ready to install. The result



This handy door cabinet provides valuable storage space where it is most needed.

of long scientific research, this is a new door using a new principle of veneered door construction and finishing. Exceptional durability is built into it, with many plies firmly welded together under tremendous pressure. It is thus proof against swelling, shrinking, warping or twisting.

High grade, cabinet veneers of mahogany or American walnut are welded to an improved core with a new waterproof cement and given a new finish which is said to be harder than varnish and as smooth as polished glass. The finish is waterproof and proof against heat or sun, acids, alcohol, salt water, etc.

Doors are available in a complete line of standard sizes, designs, woods, and finishes, and are unconditionally guaranteed by the manufacturer.

**CLOTHES CLOSET FIXTURES**—That important part of the home, the clothes closet, has received needed attention by a firm that has brought out a new line of convenience fixtures intended to meet needs of the modern wardrobe and provide for the tidiness of closets.

The clothes rack shown below is one of seven new devices including a roller bearing clothing carrier which can be pulled out of the closet into the light of the room. Included also are a clever shoe rack that provides a place for shoes to be kept off the floor; a tie rack; a trousers hanger that holds four pairs of trousers at one time and keeps them in press; a hat-holder with twin adjustable arms; and a stationary garment bracket that increases space for handling garments. Fixtures are strongly built, cadmium plated.



One of 7 clever new devices to improve the clothes closet and increase its neatness and utility.

W H E N Y O U B U I L D



R E M E M B E R

IT COSTS VERY LITTLE

• TO PREVENT •

A CONDITION LIKE

*this*

• A damp or wet basement is unsanitary, unhealthy and practically useless. To prevent wet walls and dampness below and above grade use Medusa *Waterproofed* Portland Cements for all concrete, mortar and stucco. The cost is negligible. Medusa *Waterproofed* Portland Cements, white and gray, contain Medusa Waterproofing Powder ground in at the mill. These Waterproofed Portland Cements have been *Successful for 22 Years*. For full information on waterproofing and damp-proofing old or new basements, write us for the book "*How To Make Good Waterproofed Concrete.*" It will be sent to you without obligation or cost.

MEDUSA PORTLAND CEMENT COMPANY  
1002 Engineers Bldg. Dept. Z Cleveland, Ohio



**MEDUSA**  
WATERPROOFED . PORTLAND CEMENTS

• *White and Gray* •

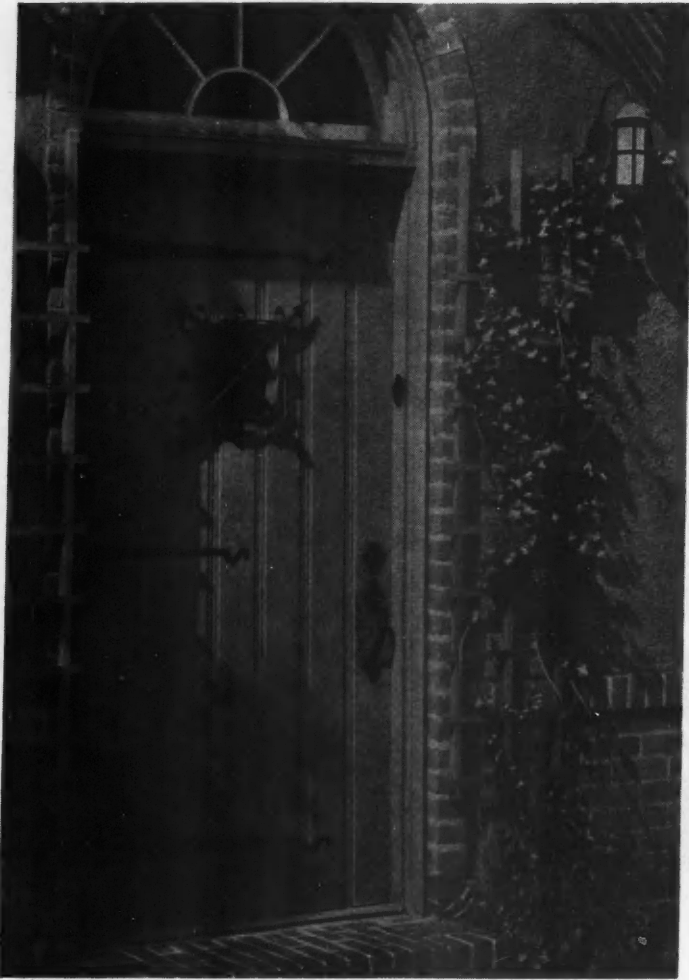


*Originated by Medusa—Proved by Time*

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER AND BUILDING AGE

# MCKINNEY

## Forged Iron



Will stamp your house as the 1932 model . . . Put style to work for you . . .

McKinney Forged Iron has been the hardware for the model homes. Now . . . re-priced to meet present market conditions . . . it offers so much style and beauty that you cannot afford to overlook its house-selling power when you are building or remodeling.

Complete Forged Iron hardware for a front door is now priced as low as \$13.75.

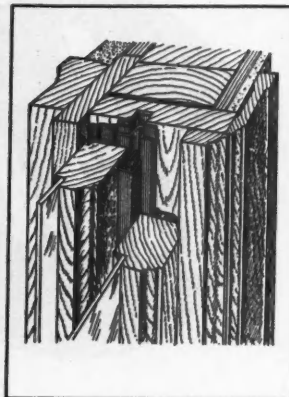
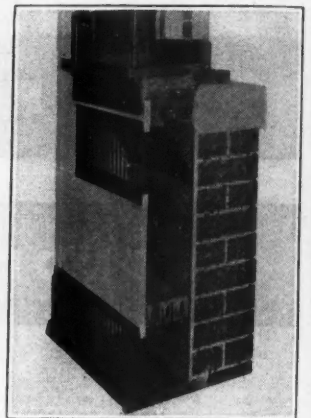
See your dealer, or write direct to McKinney Manufacturing Co., Pittsburgh, Pa.

## New and Improved Devices for Better Homes

**CONCEALED RADIATOR**—Radiators that are concealed, recessed, or produced in compact, good-looking form, are popular in modern homes. An interesting example of the improved, concealed type is the one shown in the accompanying illustration, which uses an elliptical copper tube in a convector form. This is a feature essential for one-pipe systems.

This radiator can be installed anywhere in the room and may be plastered in or placed under windows, which is a popular location. The illustration shows such an installation, having front grilles, damper, and access door. It is efficient and economical, both as to original cost and upkeep.

The concealed or recessed radiator is a big space saver and a strong selling point in the modern home.



This new specialty device for windows is designed to function as both sash holder and weather stripping.

**WEATHER-TIGHT WINDOWS**—A simple new device that combines the functions of sash-holder and weather stripping is one of the latest specialties for windows. Its manufacturers claim that it permanently eliminates rattles, leaks, or sticking under all weather conditions.

The device consists of three brass strips, one brass parting strip, and a few spring tension screws for each side of the sash. The tension spring screws are adjusted according to the weight of the sash when installed and assure permanently perfect friction control.

It is claimed that swelling and shrinking of sash and frame cannot affect window operation.

Elimination of weight boxes, fuel saving, low cost, and ease of installation in new or old homes are advantages pointed out.

**AIR CONDITIONING REGISTER**—Now we have registers, intakes and flush frames designed expressly for forced air heating of various kinds. Of pleasing design, these registers have a silent valve control which withstands forced air pressure.

A newly developed operating device holds the louver positive in any desired position or angle.

A special floor register with narrow mesh that will not admit French heels is also provided.

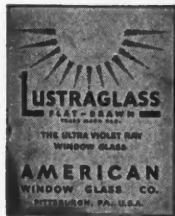
MORE  
**DAYLIGHT**  
 WITH  
**Lustraglass**  
FLAT-DRAWN



It takes a "whiter" glass to transmit more daylight and Lustraglass is the "whitest" of all glass made for windows.

Tests prove that Lustraglass transmits more daylight. It also transmits ultra-violet sun rays, yet it costs no more than any good window glass.

Lustraglass is a superior product in every respect... Flatter, clearer and more lustrous. It offers the contractor an opportunity to add new sales appeal to buildings... Our Lustraglass Booklet—A-430, containing a complete table of ultra-violet ray transmission, should be in your file—Write for it.



The label shown at the left appears on every light of genuine Lustraglass. Lustraglass is packed with paper between the lights to prevent scratching and marring the surface of the glass.

An unretouched, "end on" photo of four leading makes of glass. The white one is Lustraglass...

**AMERICAN WINDOW GLASS CO.**

Also Makers of Armor-Lite Scatter-Proof and Bullet-Proof Glass, Tintaglass, Picture Glass, Photographic Dry Plate Glass,  $\frac{1}{8}$ " and  $\frac{1}{4}$ " Crystal Sheet, Ground and Chipped Glass and Bulb Edge Glass.

1600 FARMERS BANK BUILDING - PITTSBURGH, PA.

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER AND BUILDING AGE

**INSULATE**  
*with*  
**U. S. MINERAL WOOL**

**COLD PROOF**

**HEAT PROOF**

•  
**FIRE PROOF**

•  
**SOUND PROOF**

•  
**VERMIN PROOF**



The added value of insulation in a home is recognized by every architect and builder. It assures draftless rooms, increased living comfort and actual savings on fuel expense every year.

When you use Mineral Wool, you obtain the most effective protection from cold, heat, fire and sound procurable in an insulating material.

Being entirely mineral vermin cannot burrow or live in Mineral Wool. No other insulating material offers a like protection from vermin and disease germs.

Sample and descriptive folder on request

**U. S. MINERAL WOOL COMPANY**  
 280 Madison Avenue New York

Western Connection  
 Columbia Mineral Wool Co., South Milwaukee, Wis.

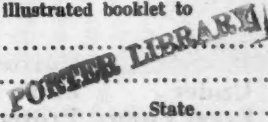
U. S. MINERAL WOOL CO., DEPT. B.  
 280 Madison Ave., New York

Send FREE sample and illustrated booklet to

Name.....

Address.....

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





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REG. U. S. PAT. OFFICE

*The Builder needs  
Sisalkraft  
on every job—*

1. **FOR SHEATHING.** Because its unbroken protection thoroughly insulates a house against cold, wind and dust. Because it goes in place with no waste, no rips or holes and with less labor than flimsy paper.
2. **FOR FLOORING.** Because its toughness and flexibility permit carrying it up under baseboards, providing a complete air and dust stop at the floor line. Because there is no creeping, bulging or tearing when crowding floor boards into place.
3. **FOR CONCRETE SLABS.** Because it is the one paper that can really protect newly laid floors, sidewalks, drives, etc., against too rapid drying and the consequent cracking and dusting.

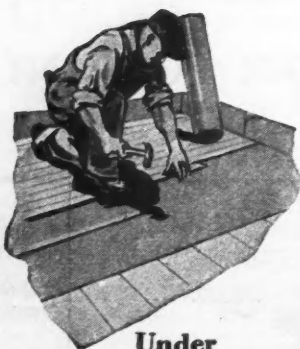
Stocked by dealers in rolls 3, 4, 5, 6 and 7 ft. wide. Its almost unbelievable strength and toughness make it ideal for literally hundreds of other uses. Ask your dealer for further information.

## THE SISALKRAFT CO.

205 W. Wacker Drive (Canal Station) Chicago, Ill.

55 W. 42nd St., New York City

55 New Montgomery St., San Francisco, Calif.



Under Every Floor

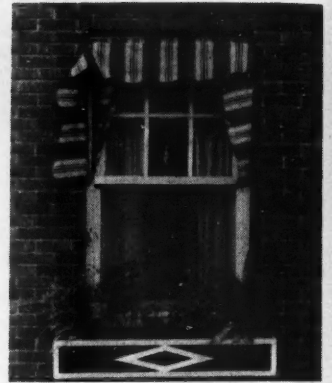
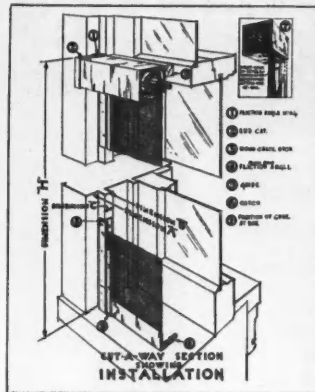


Curing and Protecting Concrete

AB4 Gray

## New Rolling Screen for Double Hung Windows

A NEW screen that rolls up out of the way and out of sight when not needed has been designed to screen the lower half of double-hung windows. Installed on the outside, the screen is a great improvement over the unsightly home-made frame type of the past and is a welcome addition to the 1932 home. The screen rolls up and down like a window shade. It eliminates difficulties of removing and putting up old-type screens, painting, repairing.



Details of new screen which rolls out of sight like a window-shade. Screens lower half of double-hung windows.

Patented features make these rolling screens thoroughly insect tight. Lugs fastened in the edges of the wire cloth slide in guides that lock the wire at the sides so that there is no sagging or bagging. Screens are rigid and permanent and are guaranteed for ten years.

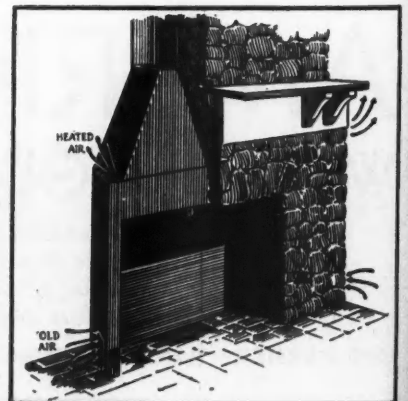
A floating roller eliminates dragging and wearing of wire cloth on the screen casing. A special feature permits the screens to adjust themselves to swelling or shrinking of the woodwork, insuring easy operation. The wire cloth is reinforced with triple selvages, and will out-live the ten-year guarantee.

Because of its convenience, permanence, and sightliness, this type of screen should be ranked as one of the foremost improvements available for the 1932 home.

**GUARANTEED FIRE-PLACE**—Because the fire-place plays such an important part in the modern home it must be very good. A correctly-operating and useful fire-place can be assured by the use of a scientifically designed, metal form around which the decorative masonry is built.

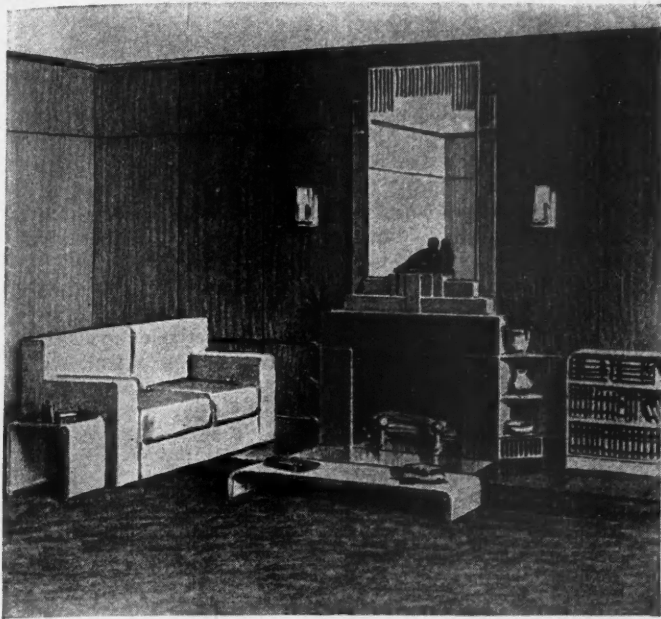
This is really a complete fire-place, ready to install, and includes correctly-designed fire-box, down draft shelf, damper, and smoke dome. Because it simplifies construction and saves material and labor costs, it is very inexpensive to install.

The outstanding feature of this fire-place is the method with which it circulates heat throughout the room. Heat that was previously wasted is conserved and used. Cold air is drawn from the floor, heated in the double-walled chamber surrounding the fire, and circulated out into the room.



Cold air enters double-walled heating chamber through opening at floor level, is heated and returned to room.





Designed by Roger H. Bullard, A.I.A.

Build a  
**Guaranteed Fireplace**  
 Smokeless  
*Circulates the Heat*

MAIL the coupon today and learn how you can guarantee the success of every fireplace you build. And at the same time add to the comfort and selling value of the home.

This new method of fireplace construction is made possible by the Heatilator—a double-walled metal form, around which any style of fireplace can easily be built. This unit takes cold air from the room, passes it around the fire, and sends it out warm and healthful, to circulate over the entire room. Saves furnace operation during cool spring and fall weather. Only heat required for homes in mild climates. Ideal for summer cottages, cabins and camps.

A perfect fireplace is guaranteed; there will be no disappointments, no smoking with the scientifically constructed Heatilator. The small additional investment is offset by savings in labor, materials, and fuel. We'll gladly send you full details of this modern fireplace. Just fill in and mail the coupon today. THE HEATILATOR CO., 634 East Brighton Ave., Syracuse, N. Y.



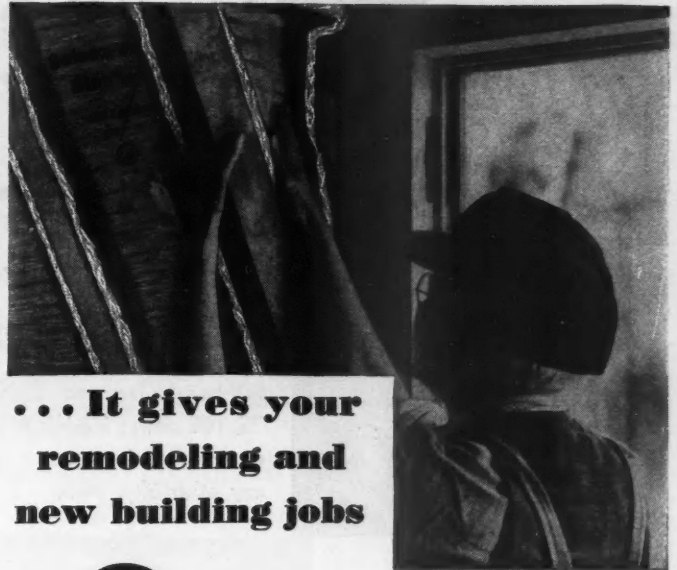
**Heatilator**  
 Fireplace

HEATILATOR COMPANY, 634 East Brighton Ave., Syracuse, N. Y.  
 Send me without obligation full details of how the Heatilator permits me to guarantee every fireplace I build.

Name..... Position.....  
 Company.....  
 Address.....

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER AND BUILDING AGE

**Jobs come easier  
 with this profit-making  
 material!**



... It gives your  
 remodeling and  
 new building jobs

**2 times the  
 VALUE**

of common "insulated" construction

WANT to cash in on some quick profits in remodeling and building—right now? Then—take the sure way that hundreds of live contractors and carpenters are using.

Go to your lumber dealer. Ask him to show you the way to line up house owners who must have remodeling or improvement work done on their homes—now—while waiting to build new ones.

They are remodeling because they want more comfort—added cozy rooms! Clinch these jobs for yourself! How? Simply show your customers how you'll give them double value—and real house comfort—with Balsam-Wool. That's what people want these days.

Tell your customers how Balsam-Wool gives—

- (a) 2 times the value of common "insulated" construction

- (b) Makes attics, sun rooms, new extensions several times as efficient as without insulation, against stifling summer heat and winter cold

Remember—your lumber dealer can and will help you land these jobs. Ask him—today. Learn how others are making profits, landing jobs, with Balsam-Wool. Fill in, mail the coupon below. Act now.

Wood Conversion Co.  
 Dept. H-3,  
 Cloquet, Minn.



Send me facts and figures on how I can land real money-making jobs.

Name.....

Address.....

It tucks in

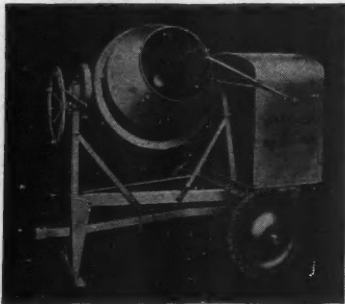
**Balsam-Wool**

**Blanket**

THICK... FLEXIBLE INSULATION... EFFICIENT

# JAEGER

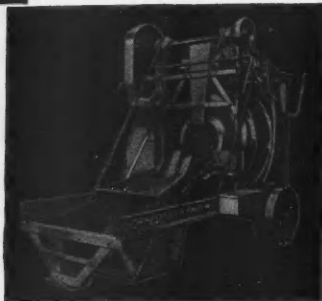
*offers MORE for YOUR MONEY---*



---in "Dual-Mix"  
Tilters at \$169 up:

half-bag trailers and 3½S,  
7S, 10S power loaders with  
double the mixing action of  
any other tilter made.

---in Non-Tilters  
that Outperform  
all Others: from SPEED  
KING 7S trailer to 56S, a size  
and type to fit your job and  
handle it to best advantage.



---and in Improved PUMPS  
at LOWER  
PRICES I

From the 2", 10,000 gallon  
SPEED BOY Self-Priming Cen-  
trifugal (\$181, f. o. b. Columbus),  
Jaeger Pumps offer improved  
performance at remarkably low  
prices—an opportunity to save  
real money on your drainage  
work this year.

Self-Priming Centrifugals, Con-  
vertible Diaphragms (at no extra  
cost), Plunger Lift and Force,  
Standard Centrifugals—all sizes.

Attractive prices on  
Hoists, Placing Equipment



2", 10,000 Gallon Speed Boy



Get this Catalog before Buying

THE JAEGER MACHINE COMPANY,  
521 Dublin Ave., Columbus, Ohio

Send latest catalogs and prices on Jaeger Mixers,  
 Pumps,  Hoists,  Jaeger Hardwood Placing  
Equipment,

Name \_\_\_\_\_

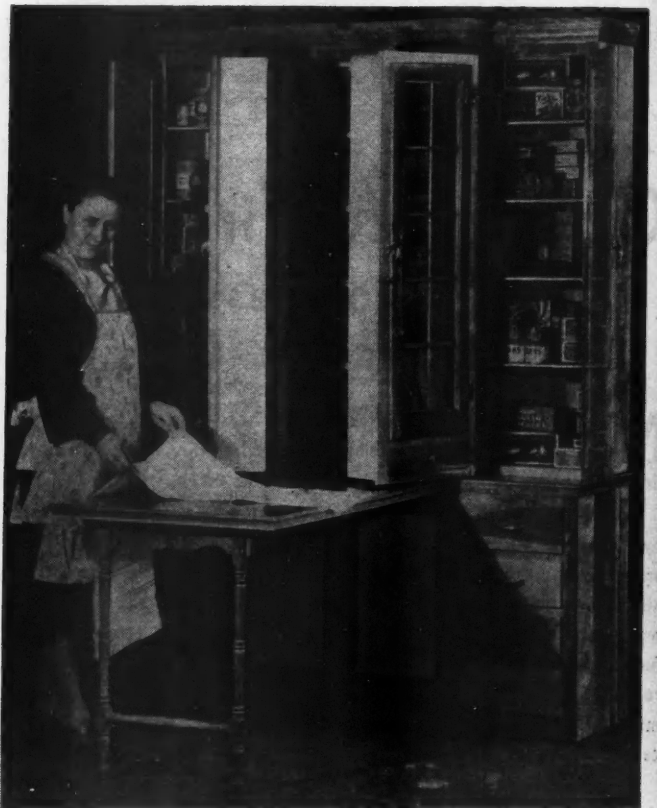
Address \_\_\_\_\_

## Kitchen Cabinet Saves Time and Steps

THE 1932 kitchens are more modern than ever, and here is a new cabinet that is the last word. As shown below, it provides a surprisingly large storage space combined with a table which will seat five people comfortably. When closed it is neat, attractive, and occupies very little space.

Getting down to figures, this new model offers 35 square feet of shelf storage space and 15 square feet of drawer space plus a dining unit table. It returns the equivalent of 50 square feet of floor space, while occupying a wall space of only 63 by 85 inches. When closed it is 18" deep.

Women will appreciate the space-saving and step-saving qualities of such a cabinet as this. Foodstuffs and other kitchen items are conveniently within reach and yet can be kept neatly out of sight.



Unusually large storage space, shelves within easy reach, and a table that folds out of sight.

## Financing the 1932 Home

(Continued from page 36)

the prospect gives a note. If the cost of the job is \$300.00, down payment is \$25.00, leaving a balance of \$275.00 which is paid for in eleven monthly payments of \$25.00 each. The twelfth payment is for \$16.50 to cover interest charges at 6 per cent on \$275.00. The note is discounted by the dealer through a finance corporation.

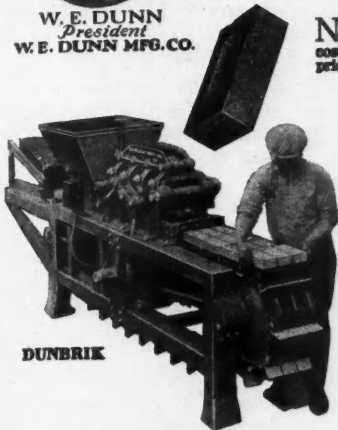
The final answer to the problem of financing homes must be a well regulated, central mortgage banking system. Until the day when this is achieved, the local builders who can obtain first mortgage money can best arrange their second mortgage financing through local companies organized by local building interests, as described.



W. E. DUNN  
President  
W. E. DUNN MFG. CO.

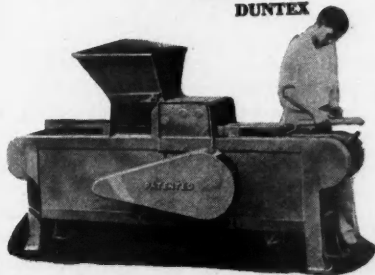
# PROSPER ...

## Thru LOCAL Manufacturing



DUNBRIK

DUNTEX



NOW, as never before, are opportunities offered you in profitable manufacturing activities. You have every advantage. You make locally the building commodities that are used in your territory. You use low-cost local materials and unskilled local labor. And—now—Dunn Line-Production Equipment at lowest prices ever.

### Make DUNBRIK for Less Than \$6.00 per Thousand

Brick is the most stable building unit of all time. You can now make DUNBRIK—a superior unit,—with Automatic Line-Production Machinery. Turn low-cost local materials and unskilled labor into a profit for yourself. You operate on an exclusive basis. Your low production cost gives you the "whip-hand" over competition. You undersell shipped-in common, tinted, and face brick. A modest investment now starts you, offering you leadership in a stable industry. Get complete facts today.

### Make DUNTEX—The World's Most Beautiful Roof

A very modest investment now starts you manufacturing DUNTEX Roof Tile. Machines now available—Line-Production—of various capacities that will fit your requirements. You produce roof tile in all colors and shades. Your locality will welcome the opportunity of being able to buy roof tile at a price within the reach of every builder. Get complete information on this profit-maker.

### Make COLORCRETE Ornamental Products

The beautification of homes, yards, gardens, cemeteries, etc., has become a recognized vogue—so widespread and popular that the local manufacture of urns, flower boxes, garden furniture, stepping stones, etc., offers outstanding opportunities. This is true for not only spare and part time, but an enterprise to which full time can be devoted. Now you can furnish charming pieces—in a range of over 40 designs—in innumerable colors, shades, and textures—made possible through the Colorceting Process. They sell themselves. Small investment in mold equipment starts you in a profitable and fascinating business. Get complete details.

### Other Local Manufacturing Opportunities

As equipment "headquarters" for local manufacturing, in many lines, we offer machinery for the making of Duntile, block, tile, brick, drain-tile, sewer pipe, culverts, trimstones, art novelties, etc., etc. Write us. It may mean your first step to prosperity.

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Sells for  
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Cost 1.03  
Sells for 6.00

Cost .75 Sells for 4.00

Cost .77 Sells for 3.00

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STEEL SHEETS for EVERY PURPOSE

High Grade Sheets and Terne Plates adapted to all modern Building Construction Uses—  
Roofing and Siding, Gutters, Spouts, Eaves Trough, Flashings, Ventilators, Terne Roofs,  
Heating and Ventilating Systems, and all general sheet metal work.

**KEYSTONE COPPER STEEL gives Maximum Service and Rust Resistance**

This Company manufactures a complete line of Black Sheets, APOLLO Best Bloom Galvanized Sheets, Galvannealed Sheets, Heavy-Coated Galvanized Sheets, and Sheets for Special Purposes; also KEYSTONE Rust Resisting Copper Steel Sheets.

**USS**  
**STAINLESS**  
Steel Sheets and Light Plates

AMERICAN Roofing Terne Plates and Long Terne Sheets are widely and favorably known to the building and roofing industries. Leading metal merchants sell these products, or can procure them for you. Write for literature and information.



## American Sheet and Tin Plate Company

GENERAL OFFICES; Frick Building, PITTSBURGH, PA.



SUBSIDIARY OF UNITED STATES STEEL CORPORATION

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| AMERICAN SHEET AND TIN PLATE COMPANY                                     | COLUMBIA STEEL COMPANY                        | THE LORAIN STEEL COMPANY  |
| AMERICAN STEEL & WIRE COMPANY  | CYCLONE FENCE COMPANY                         | TENNESSEE COAL, IRON & R.R. COMPANY                                       |
| CARNEGIE STEEL COMPANY   | FEDERAL SHIPB'LDG. & DRY DOCK CO.             | UNIVERSAL ATLAS CEMENT COMPANY  |
| Pacific Coast Distributors—Columbia Steel Company, San Francisco, Calif. | ILLINOIS STEEL COMPANY                        | Export Distributors—United States Steel Products Company, New York, N. Y. |
|  | MINNESOTA STEEL COMPANY                       |   |
|  | NATIONAL TUBE COMPANY                         |   |

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER AND BUILDING AGE

# SELL

Your Customers

## This Low Cost Lasting Beauty



Residence of Thomas S. Bubier, at Swampscott, Mass. Graves & Epps, Architects. Boston. Roof and Walls finished with Cabot's Creosote Shingle and Wood Stains.

**A**RE you building a house of Colonial type? Then give its shingled roof and sides the true seashore tones of weathered gray with Cabot's Creosote Shingle and Wood Stains. These real weathered grays are found only in Cabot's Stains.

Are you building a modern bungalow or cottage? These famous stains in bright colors will beautify and keep it beautiful, at low cost . . . Wood lasts years longer when Cabot Stains are used because genuine, refined creosote, "best wood preservative known," is the vehicle. A house at Cohasset, Mass., had shingle roof and sides stained with Cabot's Creosote Shingle and Wood Stains in 1892. At this time, all shingles are in good condition and all are in place. Cabot's Creosote Stains cost less than paint, and are quickly and easily put on.

Send for color card and full information.

# Cabot's

## Creosote Shingle and Wood Stains

Made by the makers of Cabot's Creosote Stained Shingles and Cabot's Collophane—Modern Scientific Colors for all Paint Uses.

*Samuel Cabot*  
Inc.

141 Milk St., Boston, Mass.

Gentlemen: Please send me Color card of Cabot's Creosote Shingle and Wood Stains.

Name .....

Address .....

Am.B. 4-32

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

## Have You Heard About—

A new *portable fireplace* that beautifies the home . . . . A new porcelain finish *roofing tile* made by fusing colorful porcelain to rust-resisting iron . . . . A glazing and *caulking gun* which makes it easy to apply a new non-staining caulking compound around tile, brick chimneys, coping and woodwork, etc. . . . .

A *remote control* for overhead type of garage door that opens when you sound your horn or touch an electric switch button . . . . A *copper radiator* with heating unit resembling an automobile radiator in construction, and operating on low steam pressure . . . . A *cushioned flooring* of tongue-and-groove construction which comes in reversible squares, which can be used as structural or top flooring . . . . A new *mortise lock* that can be installed with only one auger cut . . . . A new *garage door hinge* that holds doors open at 90 or 120 degrees and releases them by thumb latch on inside . . . . An improved *asbestos shingle cutter*, portable, light weight, low priced, with 27-inch cutter blade . . . . A new *wiring calculator* for instantly computing interior and conduit wiring problems, amperes, feet of wire, size of wire, percentage drop, and motor calculations . . . .

*Curb gutter blocks* which provide frostproof, attractive driveways . . . . A double-acting checking *floor hinge* which works when swung in two directions . . . . An automatic *garage door* that withstood the equivalent of 86 years of actual service . . . .

A *flush valve closet* that operates on 1/2-inch or 3/4-inch supply pipe, which is silent acting and uses only 2 1/2 gallons of water . . . . A new residence *boiler* of welded steel which is quick heating and uses little fuel . . . . An electric *garage door control* that unlocks, opens, closes, locks and lights garage at touch of a switch . . . . An improved *steel floor* of solid steel decking which is strong enough for builders to work upon before placing concrete . . . . A *cast iron boiler* exclusively built for oil burning heating systems for the home . . . . A new *sash cord saddle* that is installed by boring a 1-inch hole, driving saddle in and securing with a nail; noiseless and easy operating . . . .

A strength computing *slide-rule* which can solve any beam problem in 6 seconds.

**SWING SPOUT FAUCET**—To make it possible to fill and wash tall dishes under a kitchen faucet a new type has been developed which has a five-inch elevated swing spout that curves upward.

Designed especially for use on low back sinks, these faucets provide a clearance of 12", enough for the tallest pails or



Pails or dishes  
12" tall will slide  
easily under  
swinging faucet.

dishes. They are made of the best red brass, engineered for life-time service and finished with a heavy coating of chromium.

The self-draining, removable soap dish attached to the top of the fixture is of twice-fired vitreous china, easily cleaned and guaranteed not to craze or discolor. The fixtures are thoroughly modern in design, and properly enhance the stream-line beauty of the 1932 efficiency sinks.

## Edge Floors Faster

New Porter-Cable Dustless Edger revolutionizes floor edging. No longer necessary to hand scrape. Finishes right up to baseboard faster and leaves better finish. Varnish no handicap. One floor contractor says, "Very well satisfied with your E-7, for sturdiness and dependability it can't be beat. Every floor man ought to own one." (He is making money on jobs others won't touch.) This is what you have been looking for. Make us prove it by demonstrating. Write today.



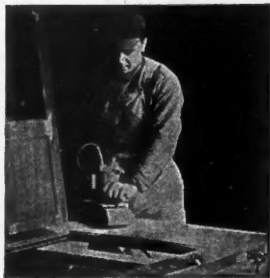
## Ten Electric Saws!



So compact can be used with one hand in any position.

Full line of hand power saws, Slide and Table saws to pick from. Some style will fit your needs and pay for itself on first job. \$85.00 and up. You'll never know what a hand power saw really can do until you've owned a Porter-Cable. Think of ripping 3" stock at rate of 14 ft. per min. or cross cutting a 2"x12" in two seconds! Our type K-9 guaranteed to cut that fast! Other exclusive features you will want to know about, so ask for a free bulletin—no obligation.

## Dustless Hand Sanding



New powerful Take-About Sander has vacuum dust system and perfect balance. Eliminates planing, scraping and sanding on doors, sash, trim, tables, edges of floors, closets, cabinets and built-in furniture. Just plug into wall socket, the belt does the work. Secures perfect finish 5-10 times faster. One owner says, "Two men sanded 1200 lineal feet of casing in 4 1/2 hours. I nearly paid for Sander on this job alone." 4 sizes to choose from. Ask for a no-obligation demonstration and double-check the savings yourself.

Manufacturers of 35 different machines for Builders and Woodworkers. Write for latest bulletin.

**PORTER-CABLE-HUTCHINSON CORP., 1721 N. Salina St., SYRACUSE, N. Y.**

## Beautiful Brick Effects



deserve  
**Anchor Brand  
Mortar Colors**  
—  
**C. K. Williams & Co.**  
634 No. 13th St.  
EASTON, PA.  
88 Kent Ave.  
BROOKLYN, N. Y.  
and  
1500 So. Western Ave.  
CHICAGO, ILL.

A treat to the eye and a treat to the check book!

# Edwards



## Metal Spanish Tile and Shingles

BEAUTY need not be expensive . . . Edwards Metal Spanish Tile offers gorgeous roofing effects . . . row upon row of graceful, undulating curves, massive and beautiful. Edwards Metal Shingles of ornate or simple design sweep in symmetrical lines across the expanse of roof. Far or near . . . Edwards tile or shingle roofs are always a treat to the eye and a treat to the check book.



No special roof structure is required for Edwards Metal Spanish Tile or Shingles. They have all the massive beauty of clay tile or slate at a fraction of the weight and cost. Easy to apply. Joints interlock assuring perfect alignment and leak-tite protection.

Made in Galvanized Steel, terne plate (tin) sheet zinc or pure copper. Proof against fire, lightning, wind and weather. Reduce upkeep and insurance.

## EDWARDS Embossed Metal CEILINGS and SIDEWALLS



Beautiful interior decorative treatment, easily applied. Heavy metal, deeply embossed with beautiful period and modern designs. Ideal for homes, in basements, attics, kitchens, etc., for Halls, Theatres, Hospitals, Stores, Hotels, etc. Fireproof, sanitary, economical, beautiful. Write for illustrated catalogue showing installations in all parts of the world.

Complete working instructions furnished from your measurements. Get our proposition.

**THE EDWARDS MANUFACTURING CO.**  
542-562 Eggleston Ave., Cincinnati, Ohio

World's largest manufacturers of sheet metal building materials

**SOLVED: AN AGE-OLD PROBLEM  
IN A MODERN WAY!**

# CLOSIDOR

A Closet on Your Door



Here's a  
**BRAND NEW**  
Source of  
**IMMEDIATE**  
**PROFITS**  
**FOR YOU**

**Every housewife wants CLOSIDOR on sight!**

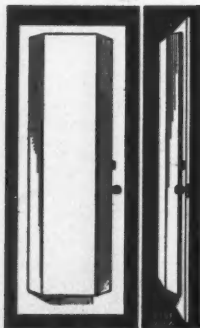
In every section of the country, CLOSIDOR takes—because no housewife ever did have enough closet space. CLOSIDOR solves the problem by providing a special place for special things. Creates order and efficiency hitherto unknown. CLOSIDOR—a closet on your door—is attached in a jiffy to either side of any standard door. Whether it's a home or an apartment—old or new—large or small, CLOSIDOR is a very minor item of expense, yet a dynamic factor for salability of your entire construction or repair contract. To the present home owner CLOSIDORS sell on presentation. As an independent item therefore, especially at these times, CLOSIDOR opens up a **NEW SOURCE** of IMMEDIATE PROFITS for YOU!

See CLOSIDORS Displayed in Leading Lumber Yards, Building Supply and Hardware Stores

● FIVE NEW MODELS FOR

Built to last a lifetime. FURNITURE STEEL throughout. Shelves, hooks, etc., permanently spot-welded. Chromium plated spring lock. Baked enamel finish inside and out. Ivory Color; easily painted over in any other color. 71" high, up to 4½" deep, widths for every standard door. LIST PRICE \$15. (Except Buffet: \$22.50) Slightly higher west of the Mississippi River.

Bathroom  
Kitchen  
Buffet  
Wardrobe  
All-Shelf



Manufactured exclusively by the SERVIDOR COMPANY, 101 Park Ave., New York  
Makers of SERVIDOR, since 1914 used and endorsed by world's leading hotels

Send for data on Introductory CLOSIDOR Deal and CLOSIDOR Promotion Plans

Servidor Company, 101 Park Ave., New York.

Send me without obligation data on Introductory CLOSIDOR Deal and details of CLOSIDOR Promotion Plans.

Name of Company.....

Address.....

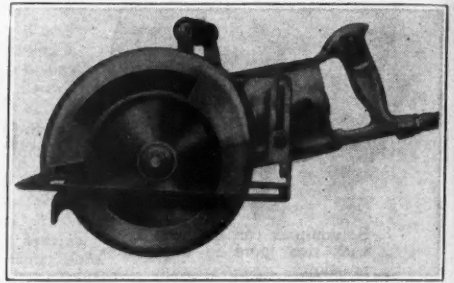
Buyers Name.....

## New Equipment Saves Building Time

These new devices indicate lower costs ahead. For further data on any item write American Builder Information Exchange, 105 West Adams, Chicago

**COMPACT SAW**—Power tools, and especially power saws and sanders, will play an important part in cutting building costs this year. A compact new saw measuring only 20" overall is attracting much attention. Expert engineering permits use of a ¾ horsepower motor developing a torque to a 9" saw blade, which will rip 12' of 12" lumber in 20 seconds, or cross-cut 2' of 2" lumber in 5 seconds.

The new saw has a cutting capacity 3" deep and is equipped with a tilting base that permits bevelling full 2" lumber at 45 degrees. It has perfect balance, which is so essential to easy handling and control. Features include die-cast aluminum frame, ball-bearings, easy adjustment, instant disposal of sawdust. Weight is only 24 lbs.



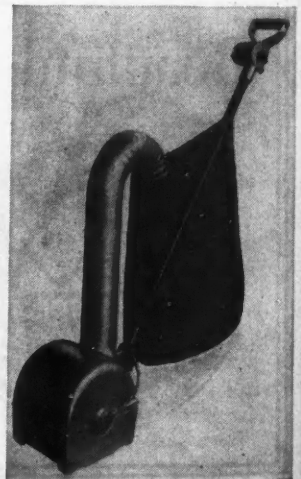
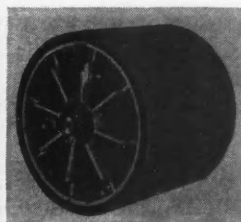
Compact new model that shows great advance in power saw design

**LOW-PRICED SANDER**—In answer to the growing demand for a low-priced floor sander, a prominent manufacturer has developed a simple one-moving-part machine. Probably the most interesting feature is the ingenious development of the self contained motor sanding drum. (See small illustration.) This is a very simple form of electric motor for single phase use. Yet, due to the entire absence of driving mechanism, 100 per cent of the power is available for productive work.

Operation of the sander drum is explained as follows: If you held the pulley of an ordinary motor stationary and the frame was free to move it would revolve around the armature. This is what happens in this new floor sander.

The armature carries all of the windings and is held stationary while the fields, which are of the well known squirrel cage construction and contain no windings, are built into

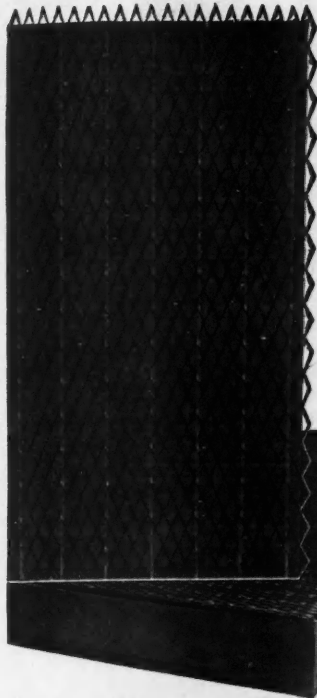
(Continued on page 84)



This floor surfacer has only one moving part. Low cost and efficient operation are featured.

# INSULMESH

**THE PLASTER BASE THAT DEADENS SOUND, INSULATES AND REINFORCES**



Quality plaster work can be obtained at low cost where Insulmesh is used. The overlapping steel mesh becomes imbedded in the plaster and prevents cracking. The corrugated board backing provides a perfect 3/8" air-cell insulation. The rigid Insulmesh sheets are easily handled, quickly installed and economically plastered.

*Write for sample and price.*

**TRUSCON STEEL COMPANY**  
Youngstown, Ohio

Warehouses and Offices in  
Principal Cities  
Dealers Everywhere

Shipping  
Packed 25  
sheets to carton

**TRUSCON The Most Complete Line**

## SUBMIT your sketch to Us!

We will gladly develop a design from your rough sketch and quote an interesting price. Remember we sell direct to you from our factory and save you money on balconies, grilles, stair rails, gates and iron fence.

## GUARANTEED Wrought Steel

Prices were never lower, quality never higher; all work guaranteed against defect or we replace without charge.

Our experienced counsel is at your service on any matters of design or construction in which you are interested. We invite your inquiry.

**SAVE the Difference—BUY DIRECT**

**Cincinnati Iron Fence Company Inc.**  
2034 Spring Grove Ave.  
CINCINNATI, OHIO



## MAKE BIG MONEY Finishing Floors

Thousands of dollars will be spent during Spring house-cleaning time for refinishing old floors. Why not get your share? With our tested plan—the popular American Method—this work is easy to get . . . and it pays well.

**Small Down Payment  
Secures This Light Eight Sander**

To get started in this profitable business requires no experience, extra help or office space. All you need is the well known "American" sander which can be secured with a small down payment. We even furnish FREE a complete set of advertising matter that gets the business. Right now is the best time to get started, so mail the coupon at once for complete details.



AMERICAN SANDERPLANE  
EDGER

### The AMERICAN FLOOR SURFACING MACHINE COMPANY

511 South St. Clair St. Toledo, Ohio

Please send complete information about:  Getting into the floor sanding business.  American Sanderplane Edger.

Name.....

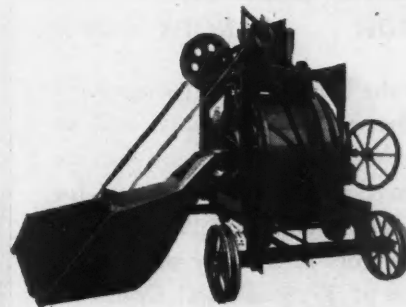
Street.....

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

## The NEW and IMPROVED

# Ransome

10-S  
**Standard Building  
MIXER**



**Improved  
Design—  
Simpler**

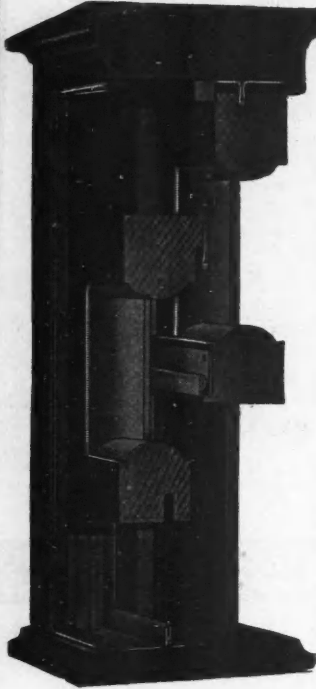
**More Portable**

**Send for Bulletin 118A**

**Ransome Concrete Machinery Co.**  
1850—Service for 82 Years—1932  
DUNELLEN NEW JERSEY



## Draftless Homes with Painless Fuel Bills!



No matter how well protected your home, you waste 25 to 40% of your fuel bill unless protected by weather stripping.

You can stop this heat leak, increase home comfort and actually save money every year as long as your building lasts by installing



**METAL WEATHER STRIPS**  
**NON-RUSTABLE and FULLY GUARANTEED**

For your protection every foot of the genuine is stamped with the name.

Send for our money saving folder.

**Accurate Metal Weather Strip Co.**  
208 East 26th Street,  
NEW YORK

Established Weather Strippers—There is an "Accurate" Strip for every opening, always dependable, easily installed and reasonably priced. Send for samples and prices.

## New Devices Make Builder's Work Easier

(Continued from page 82)

the form of a drum to carry the sandpaper and revolve at the rate of 1800 revolutions per minute around the stationary armature.

The drum is six inches in width and seven inches in diameter. The entire machine weighs only fifty pounds, making it heavy enough to hug the floor and yet light enough to be carried very easily by one person. It operates as easily as a vacuum cleaner, making it an ideal machine for rental purposes.

**LIGHT WEIGHT TAPE-RULE**—This new pocket-size rule, no larger than a watch, combines the utility of a rule with the convenience of a steel tape.

The  $\frac{1}{8}$ " wide blade can be projected unsupported to walls or into openings like a rule. It will also accurately measure circles in odd shapes. Tape is of super-quality tempered steel, stiffened by special forming. It has dark background with markings in sharp contrast, most readable. Inches are graduated to 16ths; and zero falls at inside of solid hook, which is a very handy feature. Accurate butt end measurements can be taken from the shoulders of the hook.

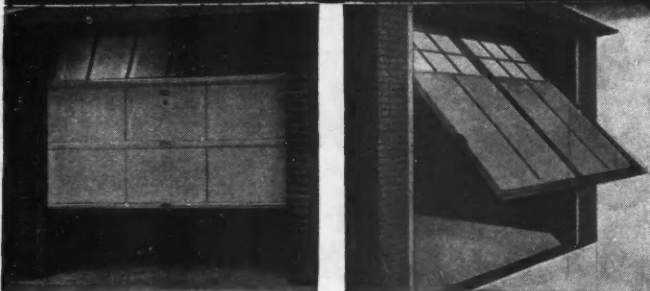
The case is chromium plated, has rounded edges, and is strong and compact. The blade is manually withdrawn and automatically returned by pressing a push button. Operation is rapid and safe. Weight 3 ounces.



New tape combines good qualities of rigid rule and steel tape. Is compact and light weight.

## NEW STEEL DOORS

For Garages, Service Stations and Other Buildings



### STEEL OVERDOOR CANOPY DOOR

Steel doors resist the hard usage of garage service. They are fireproof and durable, and do not swell, warp or stick. Overdoors and Canopy Doors, manufactured by Truscon, are ideal for easy operation and permanent satisfaction. They are completely out of the way when open. The complete line of Truscon Steel Doors includes types for every purpose.

Write for catalog and prices.

**TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO**  
Warehouses and Offices in Principal Cities

**TRUSCON The Most Complete Line**

**DUSTLESS PORTABLE SANDER**—A new machine is announced which will do its share to open up the increasingly great territory for sanding profits. This sander weighs only 48 pounds and is very easy to operate. The manufacturers state that it will sand from 800 to 1600 feet of floor in eight hours. Because of its light weight, easy portability and the fact that it operates from the ordinary electric outlet, it is reported to be very economical and convenient to use. Its small, compact size and special design also make it possible to sand right up to quarters.

Improvements have been made in the method of inserting new paper. The drum opening is extra large, permitting easy access and only three screws need be loosened and then tightened with a screwdriver in order to remove worn sheet and replace it with a new one.



Light weight and ease of operation are claimed for this new floor sander.



**A GOOD NAME...**

**NOW TAKES ON ADDED VALUE**

**VENTO**  
PUTTYLESS  
STEEL  
BASEMENT  
WINDOWS

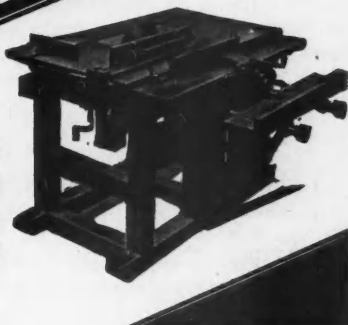
**A** LWAYS preferred—the use of VENTO Puttyless Steel Basement sash now becomes well nigh indispensable. To fully satisfy your critical buyers of today you need the extra quality and the numerous extra conveniences that Vento alone affords.

Write for Catalog and Prices

**VENTO STEEL SASH CO.**  
Puttyless Windows for Basements, Garages, Factories, Barns, etc. MUSKEGON MICHIGAN

**Variety WOODWORKER**

**4 men can use this one machine . . . . . at once!**



Four men can use the Variety Woodworker at one time . . . and turn out as much work and as good work as four machines! That's why users of this remarkable machine can bid lower and make more money. Cut-off Saw, Rip Saw with Boring Attachment, Mortiser and Jointer all in one. Made of better materials for longer service at lower maintenance cost. Every machine guaranteed. Write for literature and prices today. Ask, also, for booklets of other woodworking and saw mill machinery.

**AMERICAN SAW MILL MACHINERY CO.**  
60 Main Street Hackettstown, N. J.

**LOWER SCAFFOLD COSTS**



Now, savings in cost are more important than ever. Put your scaffolding lumber dollars into Steel Trouble-Saver Brackets and you'll save money two ways . . . (1) you'll save on labor, because Trouble-Savers go up quicker with less labor cost; (2) you'll save on material because these angle steel brackets never wear out in hard service. No other bracket can approach Trouble-Savers in safety, in simplicity of operation in long life. Three kinds to select from—Nail Attached Brackets that hook on four nails; Studding Brackets that hook around the studding; and Bolt Brackets that bolt on a 2 x 4 across studdings. We manufacture a complete line of steel scaffolding. Write today for new low prices.

**"TROUBLE SAVER"**  
Steel Scaffolding

The Steel Scaffolding Co., Inc.  
402 East Missouri St.  
Evansville, Indiana

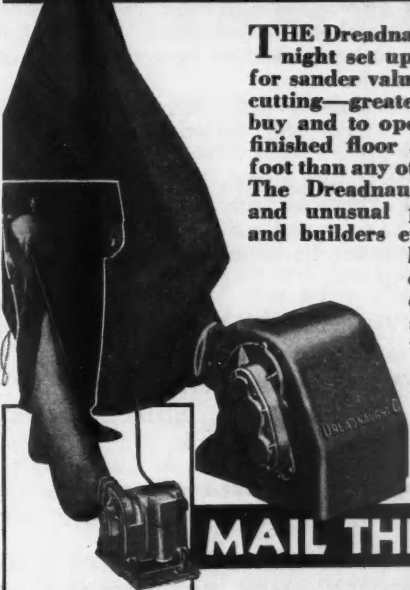
Send me by return mail, complete description, illustrations and new low prices on Trouble-Saver Scaffolding checked at right.

- Bolt Brackets
- Nail Attached Brackets
- Studding Brackets
- Ladder Jacks
- Roofing Brackets

Name.....  
St. and No.....  
City and State.....  
I am a ..... Contractor.  
(State kind)

**NEW LOW PRICES NOW IN EFFECT**

**the NEW DREADNAUGHT 6 DUSTLESS PORTABLE SANDER**



**T**HE Dreadnaught 6 has almost overnight set up a new measuring stick for sander value and efficiency. Faster cutting—greater power—less cost to buy and to operate—produces a finer finished floor at less cost per square foot than any other sander, big or little. The Dreadnaught 6 is making new and unusual profits for contractors and builders everywhere—you should know its story, see it out-perform on your own jobs. Ask us to send you complete details today!

**THE RESULT OF 16 YEARS OF ACKNOWLEDGED LEADERSHIP**

**MAIL THIS COUPON**

**CLARKE**  
Vacuum Portable SANDER

Light weight—low cost—high sanding production—thousands used in every kind of floor and bench sanding work. A tremendous profit maker.

Clarke Sanding Machine Co.  
Department A-64, Muskegon, Michigan

- Send me full details on the new Dreadnaught 6.
- Send details on Vacuum Portable Sander.

Name.....  
Address.....  
City..... State.....

# LETTERS

## from Our Readers

You are invited to write your views on any subject of interest to the building industry. 300 words should be enough!

### Condemns "Chicken Wire" Construction

St. Louis, Missouri.

To the Editor:

Referring to the article in your March issue, "Demonstrating Quality Work," I know from experience over a period of fifteen years in the stucco business that the type of construction described is generally referred to as "Jerry building."

In many sections of the country where chicken wire has been used in this manner the constructions have failed,—and the building departments no longer permit its use.

H. H. ROBINSON.  
With National Steel Fabric Co.

### Prohibited in Many Cities

Chicago, Illinois.

To the Editor:

In your March issue there is an illustrated article headed "Demonstrating Quality Work." These photographs show the use of chicken wire in stucco construction. I am surprised that a magazine with the reputation of the American Builder would publish such an article when an investigation of this type of construction will show that it is prohibited by many building ordinances throughout the country.

Even the temporary exhibition buildings that were contemplated in the east recently did not permit the use of chicken wire in stucco construction. The specifications for wire fabric definitely stated that it should be welded wire fabric.

H. M. WILSON.

### Wants Specifications

Lansdale, Pennsylvania.

To the Editor:

May I congratulate you on your excellent presentations of your feature "The House of the Month"?

Each issue certainly grows more in value to any builder who is interested in better home construction. Information of this kind cannot fail to be appreciated by your subscribers and the builders as a whole.

I am sure that a schedule of materials and a complete specification of them would very materially add to this feature.

People studying these feature homes, I feel, are interested in knowing what kind of interior trim is recommended and the specifications for the paint and stain work.

In this manner they indirectly educate themselves to better standards of building.

ROY W. SCHWEIKER,  
Vice President, Franklin Pottery, Inc.

### More on Labor Saving Machines

Slater, Missouri.

To the Editor:

I would like to refer to the article of E. A. Ludlam in the March issue concerning unemployment and machinery. His views as expressed in this article are by no means my views on this subject.

That many jobs have been created by labor saving machinery cannot be disputed because with machinery, the cost was not prohibitive, whereas it would have been without it. Take, for instance, the automobile. Do away with machinery, then try to produce an automobile and figure the cost of it. This would begin with the mining of the ore, and other products that go to make it, and extend to the producing of each and every piece until it would be complete. Who would be able to buy it after it was completed? Then can we not say that machinery has made possible this par-

ticular product. Take it away and you also take away the livelihood of the many that are selling these automobiles, those that are repairing them, those that keep the filling stations, those that drive the trucks and buses, those that build the highways, and many others. What an army are kept busy, because machinery made it possible that such a thing could be produced with reasonable cost.

E. E. CRUEA, Contractor and Builder.

### Educating to Better Building

St. Paul, Minnesota.

To the Editor:

We are very much interested in your March publication pertaining to the "House of the Month" and the estimates of costs. We are of the opinion that here is one way of bringing to the attention of the prospective home owner information which is really worth while and something he should have when he is considering the building or purchasing of an already built home.

We are of the opinion that this information could be put into the hands of the local newspapers to be printed on their building pages so as to impress the average buyer of a home and make him understand there is a decided difference in quality and that when he buys price and price alone he is only fooling himself. We are taking this up locally with our papers and will endeavor to have them print some information pertaining to this particular issue and information which you are giving.

Will you allow us to suggest that you continue with this kind of information, which also should get into the hands of the mortgage loan companies so as to overcome the one outstanding difficulty which the home building industry is in today—that of a fair loan with a proper basis of loan values. No doubt you are familiar that the large majority of the loan companies today are loaning on the basis of cubical content and figuring all of the values on the same cost per cubic foot. In other words, putting a premium on poor construction.

We want to congratulate you on the interest you are taking in this particular thing and know that a continuance of this kind of publication will be highly appreciated by all high class home building contractors and ultimately furnish the information so necessary for the prospective home owner.

CONRAD HAMM, Home Builder.

### Would Do Away with Sub-Contractor

Villa Park, Illinois.

To the Editor:

In order to get home building costs down where they should be to create demand, there must be a reduction in the labor cost. This can be done in two ways:

1. Either by reducing the time required to complete the job, or
2. By reducing wages.

It might be possible to get more work done per day per man; but speeding up is not consistent with good construction. However, in some trades, a certain amount of work is considered a day's work, regardless of the number of hours required to do it. What must be done in order to get residence construction costs down is to eliminate as far as possible the sub-contractor. The unions must give the general contractor the right to hire any mechanic he requires to complete the job. At present there are only two or three trades which allow the general contractor to hire direct.

A great deal of money could be saved in this way, although on larger work it would probably still be advisable to employ the sub-contractors.

A general contractor of small residences, or on alter-

(Continued on page 88)

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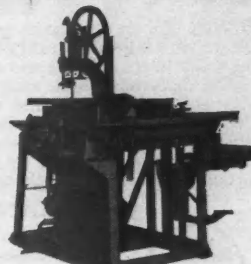
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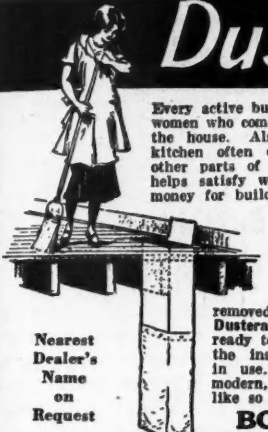
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A-4

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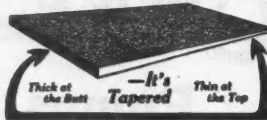
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## LETTERS

### from Our Readers

(Continued from page 86)

ation work, if he knows his business, should be able to handle all of the trades. He should know what any tradesman can do in a day and also know how it should be done. Why, then, give a profit to the sub-contractor? For years the general contractor, who is usually the carpenter contractor, has been the goat for the other trades. He takes the kicks and also pays for correcting them and usually has to wait for his money long after the sub-contractors are paid.

I would also like to suggest a radical change in the unions. I would suggest a national union of all trade mechanics. In addition to this, I believe any mechanic should do anything on the job that the contractor wants done. Naturally it would not pay to attempt to make a mason out of a carpenter, or vice versa, but there are occasions when much time is lost because the mechanics are bound by their union rules to stick strictly to their own line of work. This idea is revolutionary, but such ideas are the order of the day.

ROBERT L. MCKEE.

### Planning Factory Built House

Kansas City, Missouri.

To the Editor:

Will you kindly note in your publication that we are desirous of receiving full information and descriptive literature of any materials that may be included in the construction of homes? We are building a factory-fabricated, sectional house and as soon as several points at present in question are settled, we will have a very interesting announcement to make for the building industry.

EVERETT M. OXLEY.

With Universal Homes Corp.

### Wants Plans for Low-Cost Houses

Washington, New Jersey.

To the Editor:

I am foreman of a lumber yard. This question of cheaper houses is constantly coming up. You publish many fine plans; but the cost is too high. In our town of 5,000 people, lots can be purchased for \$300 on a fairly good street with all conveniences except gas. We have many men here earning \$25.00 a week and they have to live and pay rent not over \$25.00 per month. Now can you suggest plans for a house of five rooms and bath with light and furnace (pipeless) that can be built and sold for \$4,000, including \$300 for lot and \$75.00 for sidewalk?

HAROLD W. DAVIS.

### Mass Housing and Higher Standards

Cleveland, Ohio.

To the Editor:

The feeling that there is something radically wrong with home building has produced a number of valuable suggestions, also a large volume of uninformed criticism and generalizing comparisons that are not so good.

"When we build houses as we build autos," is the opening phrase of a popular curbstone speech, usually delivered by a man who never built either.

This comparison of home building with motor car manufacture needs a little de-bunking, much as we hate to disturb the mental picture of those who see a long assembly line of new homes, proceeding along a conveyor, while the successive trades do their stuff—an allowance of perhaps four minutes for the masonry, ten minutes for the carpentry, thirty seconds for the plumbing and so on.

A house a minute is a lovely goal to work toward and if houses could be delivered complete to lots perhaps 500 miles

(Continued to page 90)

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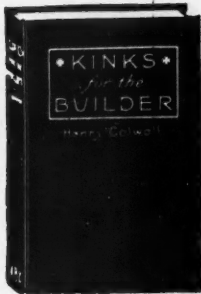
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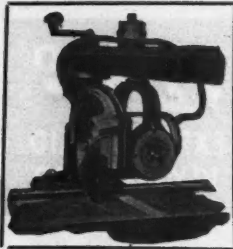
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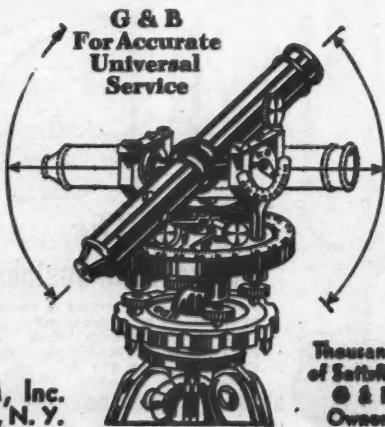
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G & B For Accurate Universal Service

Thousands of Satisfied G & B Owners

**LETTERS**

from Our Readers

(Continued from page 88)

away there would be nothing to interfere with its realization.

But houses cannot be considered nor constructed apart from the lots on which they stand. Such steps as may now be taken in quantity production are valuable only in developing new outlying areas—while the crying need is for the re-development of dilapidated central districts.

While economy is being rightly stressed, the solution of America's building problems lies in progressively better and more livable homes—not in learning to put up with lower standards.

Henry D. Thoreau in his cabin at Walden, Gandhi in his austere ashram, or Xenophon's ten thousand camping under the stars are examples of what men can do, in a spirit of sacrifice, rather than what men want to do. There is no more easily available, low cost habitation than a tent.

But in this day and country there is no reason why people should be compelled or expected to limit their desires to such humble standards. Some of the agitators for factory-built standards overlook this fact.

To argue for contentment with lower standards, rather than progressive improvement, is to reverse western psychology and thus further upset our economic system.

Building, we believe, will always be building—rather than mass production. Increase in factory fabrication of certain units, such as built-in devices is conceivable. Such things as stairways, fireplaces, partitions, roof and floor sections may, some day, come on the job in semi-completed shape. But recourse to new material and methods will be in the nature of evolution rather than revolution. Too many obvious improvements remain untried for us to see only sweeping innovations.

Better organization and a unified sense of responsibility toward the owner can do a great deal to give the latter what he has lacked—real consideration for his pocket book.

GEORGE DONLEY,  
General Manager, The Donley Bros. Co.

**Seven Questions**

New York City.

To the Editor:

The report of "committee this" and "committee that" for the increase of new and the remodeling of old construction, comes to our attention frequently. However, not in one instance do these various committee reports answer what the public desires to know:

- (1) Why should we build while radical fluctuations in market values exist?
- (2) What is being done to stabilize construction values?
- (3) What assurance do the buyer and investor have that they will receive the right economic value for the money if they do buy?
- (4) What is the sound basis on which to buy construction?
- (5) Is there a positive yard stick for the construction buyer and investor, and what neutral source of cost information concerning the relative value of construction work is available?
- (6) Will the taxes continue to soar to uneconomic heights?
- (7) Why can't we borrow money without being crucified with unreasonable guarantees and high finance rates if the construction involved has sound economic value?

These are some of the questions that should be answered to the public and there won't remain any depression to think about. May we have your answers to as many of these questions as possible? It will be appreciated, and your answers will enable us to help encourage construction activities.

By G. SZMAK, Managing Engineer,  
Construction Survey Co.

EDITOR'S NOTE: All these are thought provoking—has any one of our readers an answer?

# CLASSIFIED DIRECTORY AND BUYERS' GUIDE

**T**his list of manufacturers is presented so that readers of AMERICAN BUILDER AND BUILDING AGE may quickly identify and locate manufacturers of building products, specialties, and contractor's equipment. The arrangement is alphabetical, by product headings; under each product heading the manufacturer's names are listed alphabetically. At the right of each name will be found the

page number of the manufacturer's advertisement in this issue.

The manufacturers listed below will be pleased to furnish complete information regarding any products which they manufacture, in addition to the products advertised in this issue. Readers are urged to write these manufacturers for names and addresses of nearest dealers, catalogs and prices.

<b>ACCELERATORS—CEMENT</b>		<b>BASES—WRECKING</b>		<b>BOARDS—DRAWING</b>	
Anti-Hydro Waterproofing Co.....	87	The Stanley Rule & Level Plant.....	10	Warren-Knight Co.....	80
Lloyd Floor & Wall Tile Co.....	80			David White Co., Inc.....	87
Truscon Steel Co.....	83-84	<b>BASEBOARDS—MICARTA</b>		<b>BOARDS—FIBRE</b>	
<b>ACOUSTICAL TREATMENTS</b>		Westinghouse Electric and Mfg. Co....	19-20	Armstrong Cork & Insulation Co.....	
Armstrong Cork & Insulation Co.....		<b>BASE—COVE (SLATE)</b>		Farley & Loetscher Mfg. Co.....	88
Johns-Manville Sales Corp.....	8-9	Lloyd Floor & Wall Tile Co.....	80	General Timber Service, Inc.....	77
Pittsburgh Plate Glass Co.....	24	<b>BASE—INSULATING</b>		Weyerhaeuser Sales Co.....	77
Wood Conversion Co.....	77	The Formica Insulation Co.....	22	Wood Conversion Co.....	77
<b>AIR CONDITIONERS</b>		<b>BASE—PLASTER</b>		<b>BOARDS—GLASS CUTTING</b>	
Frigidaire Corp.....	17	Anti-Hydro Waterproofing Co.....	87	Pittsburgh Plate Glass Co.....	24
<b>ALUMINUM—ARCHITECTURAL (All Forms)</b>		Johns-Manville Sales Corp.....	8-9	<b>BOARDS—INSULATING</b>	
Aluminum Company of America.....	25	National Steel Fabric Co.....	11	Armstrong Cork & Insulation Co.....	
(The services of the Technical Staff of Aluminum Company of America is available for the assistance of those desiring to use Aluminum in Building Construction.)		Truscon Steel Co.....	83-84	Samuel Cabot, Inc.....	80
<b>ANCHORS—BUILDING</b>		<b>BASE—STUCCO</b>		The Philip Carey Co.....	15
Cincinnati Iron Fence Co., Inc.....	83	Medusa Portland Cement Co.....	73	General Timber Service, Inc.....	77
International Steel Co.....	102	National Steel Fabric Co.....	11	Hawaiian Cane Products, Ltd.....	
<b>ANCHORS—JOIST</b>		Truscon Steel Co.....	83-84	Johns-Manville Sales Corp.....	8-9
Cincinnati Iron Fence Co., Inc.....	83	<b>BASES—COLUMN</b>		The Ruberoid Co.....	
International Steel Co.....	102	The Majestic Co.....	90	Weyerhaeuser Sales Co.....	77
Kalman Steel Corp.....	108	<b>BASES—PORCH</b>		Wood Conversion Co.....	77
Truscon Steel Co.....	83-84	Curtis Companies.....	23	<b>BOARDS—IRONING, BUILT-IN</b>	
<b>ANCHORS SCREW (Expansive)</b>		The Majestic Co.....	90	Farley & Loetscher Mfg. Co.....	88
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<b>ANCHORS—SLEEPER</b>		The Majestic Co.....	90	Lloyd Floor & Wall Tile Co.....	80
Kalman Steel Corp.....	108	<b>BATTENS—WOOD</b>		<b>BOARDS—PLASTER</b>	
<b>ANCHORS—WALL</b>		Farley & Loetscher Mfg. Co.....	88	Armstrong Cork & Insulation Co.....	
Cincinnati Iron Fence Co., Inc.....	83	General Timber Service, Inc.....	77	Johns-Manville Sales Corp.....	8-9
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McKinney Mfg. Co.....	74	<b>CEMENT—ASBESTOS</b>		Johns-Manville Sales Corp. ....	8-9
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<b>BRUSHES—PAINT</b>		Beckman-Dawson Roofing Co. ....	88	The Edwards Mfg. Co. ....	81
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Douglas Fir Plywood Mfrs. .... 13  
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Farley & Loetscher Mfg. Co. .... 88  
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Douglas Fir Plywood Mfrs. .... 13  
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General Timber Service, Inc. .... 77  
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International Steel Co. .... 102  
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Curtis Companies .... 23  
Detroit Steel Products Co. .... 6-7  
Douglas Fir Plywood Mfrs. .... 13  
Farley & Loetscher Mfg. Co. .... 88  
International Steel Co. .... 102  
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- ACCELLO Anti-Freeze Solution, Anti-Hydro Waterproofing Co., Newark, N. J.
- ACCURATE Metal Weatherstrip, Accurate Metal Weather Strip Co., New York, N. Y.
- ALCO ALBRON—Aluminum bronze powder for aluminum paint, Aluminum Company of America, Pittsburgh, Pa.
- ALCOA ALUMINUM—in every commercial form, Aluminum Company of America, Pittsburgh, Pa.
- ALTA Electric Hand Saws, Lock Mortisers, Stair Routers, Electric Planes, Electric Hand Saws.
- AMERICAN Saw Mill Machinery, American Saw Mill Machinery Co., Hackettstown, N. J.
- AMERICAN Steel Sheets, Tin Plate, Roofing Terne Plates, USS Stainless Steel Sheets, American Sheet and Tin Plate Co., Pittsburgh, Pa.
- AMERICAN Universal Floor Sander, High Production Floor Sander, Light Eight Floor Sander, Handy Sander, Sanderplane, Floor Machines, Rapid Grinder, Handy Grinder, Single Disc Grinder, Swivel Base Machine, Base and Stair Machine, The American Floor Surfacing Machine Co., Toledo, Ohio.
- AMILITE Finish, Farley & Loetscher Mfg. Co., Dubuque, Iowa.
- AMURSEAL Asphaltic Dampproof-Coating, Anti-Hydro Waterproofing Co., Newark, N. J.
- ANCHOR BRAND Dry Colors and Fillers, C. K. Williams & Co., Easton, Pa.
- ANTI-HYDRO Waterproofing, Anti-Hydro Waterproofing Co., Newark, N. J.
- APOLLO-KEYSTONE Galvanized Sheets, American Sheet and Tin Plate Co., Pittsburgh, Pa.
- ARCHI Mine Clamps, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- ARIDITE Asphaltic Dampproof Coating, Anti-Hydro Waterproofing Co., Newark, N. J.
- ARMORLITE Bullet Glass for Banks, American Window Glass Co., Pittsburgh, Pa.
- ARMORTOP Concrete Floor Hardener, Anti-Hydro Waterproofing Co., Newark, N. J.
- ARMSTRONG'S Linoleum Floors, Armstrong Cork Co., Lancaster, Pa.
- ARROW Electric Pelts, Arrow-Hart & Hegeman Elec. Co., Hartford, Conn.
- ATLAS Waterproofed White Portland Cement, White Portland Cement, Portland Cement, Universal Atlas Cement Co., Chicago, Ill.
- AUSTRAL Sash Sustainers, Folding Partition, Multi-Unit School Wardrobe, Reversible-Ventilating, Austral Window Co., New York, N. Y.
- AUTOVALVE Lightning Arresters, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- BACK-OF-BOARD Knife Switches, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- BALSAM-WOOD Quietite (Acoustical), Wood Conversion Co., Cloquet, Minn.
- BALSAM-WOOL Blanket Insulation, Wood Conversion Co., Cloquet, Minn.
- BARCOL Electric Fans, Barber-Colman Co., Rockford, Ill.
- BARCOL Overdoor, Barber-Colman Co., Rockford, Ill.
- BAYONET Water Heaters, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- BAYONET HEBEL Reflector-Socket Fixtures, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- BEAVER Combination Woodworker, Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
- BEST BRAND Garnet and Artificial Sand Paper for use on Floor Surfacing Machines, Lincoln Schlueter Floor Machinery Co., Chicago, Ill.
- BI-FLAX—the Insulated Metal Lath, Flax-ii-num Insulating Co., St. Paul, Minn.
- BI-LUX Refractors, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- BOWSTRING Trusses, International Steel Co., Evansville, Ind.
- BRAIDK-NON-METALLIC Sheathed Cable, General Electric Co., Bridgeport, Conn.
- BRICKMENT Cement, Louisville Cement Co., Louisville, Ky.
- C. H. & E., Contractors' Equipment, C. H. & E. Mfg. Co., Milwaukee, Wis.
- CABOT Paints, Paper, Wood Preservatives, Shingle Stains, etc., Samuel Cabot, Inc., Boston, Mass.
- CANEK Structural Insulation Lath, Structural Insulation Tile, Low-Density Industrial Insulation, Structural Insulation Board, Hawaiian Cane Products, Ltd., San Francisco, Calif.
- CAREY Asfaltate Shingles, STONE-TEX Siding, Prepared Roofings, Asphalt Siding (Brick Effect), The Phillip Carey Co., Lockland, Cincinnati, Ohio.
- CAREYSTONE Asbestos-Cement Shingles, The Phillip Carey Co., Lockland, Cincinnati, Ohio.
- CARTER Bander and Fluter Machines, Routers, Special Purpose Machines, Shapers, Lock Mortisers, Planes, Weatherstrip Machines, Etc., The R. L. Carter Co., New Britain, Conn.
- CLARK JEWEL Gas Range, American Stove Co., St. Louis, Mo.
- CLINTON Metallic Paint, Mortar Colors and Cement Colors, Clinton Metallic Paint Co., Clinton, N. Y.
- CLOSIDORS (Steel), "A closet on Your Door," for homes, apartments, offices, schools, etc., The Servidor Co., New York, N. Y.
- COLORCRETE Ornamental Molds, W. E. Dunn Mfg. and Affiliated Co.'s, Holland, Mich.
- CONCRETE CLINCH, a liquid waterproofing for concrete or cement walls and floors, Lincoln Schlueter Floor Machinery Co., Chicago, Ill.
- CONSERVO Wood Preservatives, Samuel Cabot, Inc., Boston, Mass.
- CONTINENTAL Roofings & Building Products, The Ruberoid Co., New York, N. Y.
- CORDEX Building Paper, National Steel Fabric Co., Pittsburgh, Pa.
- COROX Tubular Heaters, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- COZY GLOW Radiators, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- CROMAR Factory Finished Oak Flooring, The Cromar Co., Williamsport, Pa.
- CRYSTALUX Lighting Units, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- CURTIS 1866 Woodwork, Curtis Companies Service Bureau, Clinton, Iowa.
- DAHLQUIST Turbo Aquatherm Boilers and Storage Systems, Super Aquatherm Automatic Gas and Electric Storage Systems, Aquatherm Copper Range Boilers, Gas and Electric Water Heating Combinations, Dahlquist Mfg. Co., So. Boston, Mass.
- DELCOGAS Gas Systems, Delco Appliance Corp., Rochester, N. Y.
- DELCO-LIGHT Electric Plants, Delco Appliance Corp., Rochester, N. Y.
- DELCO Vacuum Cleaners, Fans, Septic Tanks, Radio Heat (Oil Burners), Pumps, Delco Appliance Corp., Rochester, N. Y.
- DE LUXE Chests, Farley & Loetscher Mfg. Co., Dubuque, Iowa.
- DIRECT ACTION Gas Range, American Stove Co., St. Louis, Mo.
- DOUBLE-WHITE Paints, Samuel Cabot, Inc., Boston, Mass.
- DOUGLAS Fir Plywood, Douglas Fir Plywood Mfgs., Seattle, Wash.
- DREADNAUGHT Combination Sander, Dustless Six Floor Machine, Dustless Eight Floor Machine, Clarke Sanding Machine Co., Muskegon, Mich.
- DUNBRIK Brick, W. E. Dunn Mfg. and Affiliated Co.'s, Holland, Mich.
- DUNTEX Roof Tile, W. E. Dunn Mfg. and Affiliated Co.'s, Holland, Mich.
- DUNTILE Building Tile, W. E. Dunn Mfg. and Affiliated Co.'s, Holland, Mich.
- ECONOMY Kitchen Units, Farley & Loetscher Mfg. Co., Dubuque, Iowa.
- EDGE-LITE Bath Room Cabinets, Henkel "EDGE-LIGHT" Corp., Chicago, Ill.
- EDMANCO Metal Ceilings, Shingles, Rolling Doors, Shutters, Etc., Edwards Mfg. Co., Cincinnati, Ohio.
- EDWARDS Ceilings & Shingles, Iron Rails, Edwards Mfg. Co., Cincinnati, Ohio.
- ETERNIT Asbestos Shingles, Lumber, Corrugated Sheets, Eternit, Sales Division of the Ruberoid Co., New York, N. Y.
- ETERNIT Asbestos-Cement Products, The Ruberoid Co., New York, N. Y.
- EVER-READY Combination Woodworkers, Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
- FENESTRA Steel Windows, Steel Doors, Steel Trim, Steel Screens, Detroit Steel Products Co., Detroit, Mich.
- FERROCLAD Insulation, Truscon Steel Co., Youngstown, Ohio.
- FLAMEWELD Bonds, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- FLAXLIUM Keyboard Insulation, Thermal Insulation Flax-ii-num Insulating Co., St. Paul, Minn.
- FLUTED-CATCH Sockets and Receptacles, General Electric Co., Schenectady, N. Y.
- FORMICA Insulating Materials, Formica Insulation Co., Cincinnati, Ohio.
- FRIGIDAIRE Refrigerators & Ice Cream Cabinets, Frigidaire Corp., Dayton, Ohio.
- G & B Levels, Geler & Blum, Inc., Troy, N. Y.
- GENERAL ELECTRIC Heat Regulator for Oil Burners, Heat Regulator for Heating Systems other than Oil Burners, Heat Regulator (Double-Range) for Heating Systems other than Oil Burners, Penn Heat Control Co., Philadelphia, Pa.
- GREYHOUND Slide Saw, Woodworking Machinery Co., Inc., Philadelphia, Pa.
- H & A Woodworking Machinery, Heston & Anderson, Fairfield, Iowa.
- H & H Electric Switches & Radio Products, Arrow-Hart & Hegeman Elec. Co., Hartford, Conn.
- HEATILATOR Fireplace, Heatilator Co., Syracuse, N. Y.
- HI-SPEED Early Strength Cement, Louisville Cement Co., Louisville, Ky.
- HOLLOWSHAFT Vertical Motors, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- HOLLOWSPUN Piles, Poles, Distribution, Transmission and Trolley, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- HOLORIB Steel Roof Deck, Detroit Steel Products Co., Detroit, Mich.
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- INTERNATIONAL Motor Trucks, International Harvester Company of America, Chicago, Ill.
- IN-THE-DOOR Ironing Board, Farley & Loetscher Mfg. Co., Dubuque, Iowa.
- JAEGER LAKEWOOD Chutes, Mast Hoist, Hoppers, Towers, The Jaeger Machine Co., Columbus, Ohio.
- JAEGER Mixers, Hoists, Pumps, The Jaeger Machine Co., Columbus, Ohio.

(Continued on page 103)

# Recent Catalogs for Builders

## MASONRY MATERIALS

1—"How to Make Good Waterproofed Concrete," 28 pages of practical directions by the Medusa Portland Cement Co., Cleveland, O.

2—"Concrete Masonry Construction for Enduring and Firesafe Structures," 28 pages of facts illustrated with working details by the Portland Cement Assn., Chicago, Ill.

3—"Cutting the Traffic Knot," a 16-page digest of road building and traffic data by the Universal Atlas Cement Co., Chicago, Ill.

4—"If Your Cellar Leaks," information on correcting dampness in any cellar by repairing same on the inside; the Anti-Hydro Waterproofing Co., Newark, N. J.

5—"Kalmantruss Steel Joists"; handbook of engineering practice using the products of the Kalman Steel Corp., Bethlehem, Pa.

6—"Lime Mortar; Its Relation to Water-Tight Masonry," 36 pages of facts and recommendations by the National Lime Assn., Washington, D. C.

7—"Building Economy and the Modern Brickbuilder," instructive magazine published every other month by the Common Brick Manufacturers' Assn. of America, Cleveland, O.

8—"Beauty in Brick," a 60-page book of face brick house designs; 12 pages of color plates; The Finzer Bros. Clay Co., Sugarcreek, O.

9—"Anchor Brand Mortar Colors and Cement Colors and How to Use Them," by C. K. Williams & Co., Easton, Pa.

10—"Distinctive Homes of Ilco Ripstone," a 32-page de luxe plan book showing modern examples of limestone veneer construction, by the Indiana Lime-stone Co., Bedford, Ind.

## ROOFINGS

13—"Re-roofing as a Business," 32 pages on how to sell, estimate and finance re-roofing jobs, by Bird & Son, Inc., East Walpole, Mass.

14—"Ced-A-Roc Shingle Details," a portfolio of data on Winthrop asphalted cedar shingles and Winthrop tapered asphalt shingles, by Beckman-Dawson Roofing Co., Chicago, Ill.

15—"Copper; Its Effect upon Steel for Roofing Tin," vest pocket size compilation of metal roofing data and experience, by the American Sheet and Tin Plate Co., Pittsburgh, Pa.

16—"Follansbee Forge Roofing Specifications and Data" including numerous details of metal roof application, by Follansbee Bros. Co., Pittsburgh, Pa.

17—"Convincing Evidence of Advancement," 36 pages illustrating the numerous uses of Superior "Galvanealed" and Superior "Super-Metal," by The Superior Sheet Steel Co., Canton, O.

18—"The Life-time Roof—P. S. I. Certificate Slate," a portfolio of slate roof photographs and architectural suggestions, by the Pennsylvania Slate Institute, Pen Argyl, Pa.

19—"Imperial Roofing Tiles, Specifications and Details," 32 pages of design and estimating data by the Ludowici-Celadon Co., Chicago, Ill.

20—"Hood Kil-Kraft Tiles," a portfolio for architects and builders covering the roofing tile offered by the B. Miffin Hood Co., Daisy, Tenn.

21—"Eternit Dutch Lap Shingles," folder illustrating application of the Dutch lap asbestos cement shingles offered by the Eternit sales division of the Ruberoid Co., New York City.

## Catalogs For You

**P**UBLICATIONS listed on these pages may be secured by filling in their numbers on the coupon and sending to **AMERICAN BUILDER AND BUILDING AGE, 105 W. Adams St., Chicago.**

22—"Selling the Job Applied," how to get more remodeling business by organizing teamwork between dealers and contractors for promoting financing and selling new roofs, by the Johns-Manville Co., New York City.

23—"Carey Duplex Asbestos Cement Shingles," information on new random width double shingles of uniform size; The Philip Carey Co., Lockland, Cincinnati, O.

24—"Roofs of Blended Beauty," a portfolio of color plates showing Carey Asfaltslate shingles; The Philip Carey Co., Lockland, Cincinnati, O.

## STEEL PRODUCTS

25—"Truscon Ferroclad Structural Panels," details and specifications for use of insulated sheet metal panels; the Truscon Steel Co., Youngstown, O.

26—"Columns," featuring Union Metal columns for entrances, garden ornaments and street lighting; The Union Metal Manufacturing Co., Canton, O.

27—"Mesker Bowstring Steel Roof Trusses," presenting valuable design data for long span trusses; Geo. L. Mesker & Co., Evansville, Ind.

28—"Light Slab Construction," 32 pages of design data using Bostwick lath and reinforcing; The Bostwick Steel Lath Co., Niles, O.

29—"Wrought Steel Balconies, Rails and Grilles," intriguing designs in stock ornamental wrought iron work by the Cincinnati Iron Fence Co., Cincinnati, O.

30—"Protection from Fire and Theft," featuring the fireproof vault doors, vault construction and installation details of The Schwab Safe Co., Lafayette, Ind.

31—"The Donley Catalog, Fifteenth Edition," 32 pages of Donley devices including fireplace construction, garbage receivers, coal chutes, package receivers, etc., issued by The Donley Brothers Co., Cleveland, O.

32—"Covert Fireplace Construction," fireplace designs and complete instructions for satisfactory fireplace construction; The H. W. Covert Co., New York City.

33—"Heatilator Fireplace Details"; full details regarding the heat circulating fireplace perfected by The Heatilator Co., Syracuse, N. Y.

34—"Majestic Coal Windows and Access Units"; details of these important accessories offered by The Majestic Co., Huntington, Ind.

35—"Kawneer Store Fronts, Windows, Doors, Architectural Bronze," a condensed catalog of 24 pages giving details of the building products offered by The Kawneer Co., Niles, Mich.

36—"Monel Metal in Modern Architecture"; an illustrated pamphlet on ornamental metal work and kitchen fixtures of Monel Metal issued by the Architectural Service Department of The International Nickel Co., Inc., New York City.

37—"Specifications for Architectural Finishes Applied to Aluminum Alloy Sand Castings," issued by the Aluminum Company of America, Pittsburgh, Pa.

38—"Reading Puddled Iron Pipe"; where and how to use this pipe that lasts; the Reading Iron Co., Philadelphia, Pa.

39—"Fenestra Fenwrought Casements"; a 20-page sketch book full of details and architectural suggestions for window treatment, issued by the Detroit Steel Products Co., Detroit, Mich.

40—"Truscon Residence Casements with Casement Screens"; 28 pages of photographs and detailed drawings issued by the Truscon Steel Co., Youngstown, O.

41—"Vento Steel Windows—General Catalog"; complete line for basements, warehouses, garages, factories, barns and stores, issued by Vento Steel Sash Co., Muskegon, Mich.

42—"Sealair In-swinging Window"; details of the new window for homes, apartments and hotels developed by The Kawneer Co., Niles, Mich.

43—"Steel Windows by International," presenting the line of home, industrial and basement windows offered by the International Steel & Iron Co., Evansville, Ind.

44—"Milcor Fireproof Hollow Metal Windows"; folder illustrating the line of windows offered by the Milcor Steel Co., Milwaukee, Wis.

45—"Crittall Norman Casements"; a sketch book of designs issued by the Crittall Casement Window Co., Detroit, Mich.

46—"Lupton Steel Products"; a condensed catalog of the Lupton line of windows for homes and industrial plants issued by the David Lupton's Sons Co., Philadelphia, Pa.

47—"Boca Pivoted Windows and Steel Doors"; standard installation details of the windows and doors offered by The Bogert & Carrough Co., Paterson, N. J.

48—"Accurate Metal Weatherstrips" features the product of the Accurate Metal Weatherstrip Co., New York City.

## MILLWORK

49—"Curtis millwork is presented in four handy size catalogs: "Curtis Cabinet and Stair Work," "Curtis Entrances and Exterior Doors," "Curtis Interior Doors," and "Curtis Windows." These are issued by the Curtis Companies, Inc., Clinton, Ia.

51—"New Uses for Douglas Fir Plywood"; valuable information from the Douglas Fir Plywood Manufacturers, Seattle, Wash.

52—"Cromar Oak Floors," presents Cromar factory-finished oak floors offered by the Cromar Co., Williamsport, Pa.

53—"Laying, Finishing and Care of Oak Floors" is a vest pocket manual prepared by the Oak Flooring Mfrs.' Assn. of the United States, Memphis, Tenn.

56—"Frames of Quality" illustrates and describes the weather tight window frames offered by the Farley & Loetscher Mfg. Co., Dubuque, Ia.

57—"Pine Craft Weather Proof Frames" presents window frame details for all forms of construction as offered by the White Pine Sash Co., Spokane, Wash.

58—"The Andersen Master Casement," a complete unit of sash, frame, screen, storm sash, hardware and glazing is featured in a news bulletin from the Andersen Frame Corporation, Bayport, Minn.

59—"Silentite 'Pre-Fit' Frame, Window, Screen and Storm Sash," is a portfolio of details explaining this revolutionary improvement in home windows by the Curtis Companies, Clinton, Ia.



61—"Silver Lake Window Sash Cord," describing the product of the Silver Lake Co., Newtonville, Mass.

65—"Standard Specifications for House Framing" is a handbook of details and specifications data as prepared by the architects and engineers of the Weyerhaeuser Forest Products, St. Paul, Minn.

**WALL AND FLOOR MATERIAL**

69—"Micarta," molded sheets and panels in beautiful fadeless colors and patterns for window sills, counters and table tops, and sanitary paneling, offered by the Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

70—"Formica": the design and construction possibilities of this material for modern architectural effects, featured in a series of pamphlets by The Formica Insulation Co., Cincinnati, O.

74—"Lloyd Floor and Wall Tile" is a catalog of 56 pages showing the complete line of the Lloyd Floor & Wall Tile Co., Kansas City, Mo.

78—"What Sanitas Can Do to Modernize Your Rooms"; a booklet in color from The Standard Textile Products Co., New York City.

**GLASS AND PAINTS**

82—"The Sunny Side of the House," a portfolio of remodeling suggestions showing what can be done by building on glazed porches, bay windows and solarium; the American Window Glass Co., Pittsburgh, Pa.

83—"Pennvernon Window Glass" describing the new process in the making of window glass, by the Pittsburgh Plate Glass Co., Pittsburgh, Pa.

84—"Libbey-Owens-Ford Quality Glass" featuring the advantages of using this quality glass; Libbey-Owens-Ford Glass Co., Toledo, O.

85—"Aluminum Paint; Its Uses, Utility and Application"; a handbook prepared by the Aluminum Co. of America, Pittsburgh, Pa.

**BUILDERS HARDWARE**

90—"Stanley Swing-up Equipment," the garage doors arranged to swing up as perfected by The Stanley Works, New Britain, Conn.

91—"Electric Garage Door Openers" adapted for large doors and for home garage doors, also radio-controlled door openers offered by the Barber-Colman Co., Rockford, Ill.

92—"The Overhead Door Opens Overhead Out of the Way," presenting details and installation data by the Overhead Door Corp., Hartford City, Ind.

93—"National Garage Hardware," a 40-page catalog showing the garage hardware with numerous garage designs by the National Manufacturing Co., Sterling, Ill.

94—"Over-the-Top' Door Equipment" with which any set of doors can be remodeled into upward-acting, by the Frantz Manufacturing Co., Sterling, Ill.

95—"Majestic Roll-N-Fold Doors"; details of the garage door hardware of The Majestic Co., Huntington, Ind.

96—"McKinney Locks"; a portfolio of information on the new McKinney cylindrical locks; The McKinney Manufacturing Co., Pittsburgh, Pa.

97—"The Point" features the zinc-clad shingle nails of the W. H. Maze Co., Peru, Ill.

98—"The Austral Sash Sustainer," a circular describing this device as perfected by the Austral Window Co., New York City.

99—"Modern Building Methods Using Steeltex"; a handbook of wall and floor construction for better building, by the National Steel Fabric Co., Pittsburgh, Pa.

100—"Edwards Sheet Metal Products," a complete catalog of 184 pages showing the line of The Edwards Manufacturing Co., Cincinnati, O.

**INSULATION MATERIALS**

101—"The Invisible Home," a manual of practice of blown-in insulation, by the Johns-Manville Co., New York City.

102—"Just Between You and the Weather"; how summer heat and winter cold are kept out of houses; U. S. Mineral Wool Co., New York City.

103—"Build Warm Houses with Cabot's Quilt"; 12 pages of useful installation data, by Samuel Cabot, Inc., Boston, Mass.

104—"Sisalkraft Reinforced Building Paper"; many important uses for this versatile building material outlined by the Sisalkraft Co., Chicago, Ill.

105—"A Guide to Home Comfort That Pays Its Own Way," featuring Flax-linum insulation; the Flax-linum Insulating Co., St. Paul, Minn.

106—"Money-Making Jobs," suggests opportunities in the home insulation field; Wood Conversion Co., Cloquet, Minn.

**HOME EQUIPMENT**

112—"Closidor," an ingenious auxiliary compartment to go on the back of any door; developed by the Servidor Co., New York City.

113—"Dahlquist Copper Boilers"; circulars featuring the automatic electric hot water heaters developed by the Dahlquist Mfg. Co., South Boston, Mass.

114—"Planning for Home Telephone Conveniences," a de luxe leatherbound handbook of 52 pages, offered by the American Telephone and Telegraph Co., New York City.

115—"Westinghouse Nofuze Load Centers," an 8-page bulletin making plain this revolutionary improvement in house wiring, by the Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

116—"The Story of Comfort," featuring the G-E wiring system for the modern home, a 34-page handbook by the General Electric Co., Bridgeport, Conn.

117—"A Practical Plan for the Electrical Contractor"; how to increase the volume and the profit in electrical wiring jobs; Arrow-Hart & Hegeman Electrical Co., Hartford, Conn.

118—"Frigidaire Information for Architects and Builders," a portfolio covering the complete Frigidaire line, by the Frigidaire Corp., Dayton, O.

119—"Norge Electric Refrigeration"; full data on the new Norge Rollator refrigerator, by The Norge Corp., Detroit, Mich.

120—"Architects' Specifications of Westinghouse Refrigerators," presenting full data, by the Westinghouse Electric & Mfg. Co., Refrigerator Sales Division, Mansfield, O.

122—"Magic Chef Porcelain Enameled in Artyle Finish"; a portfolio in color featuring recent improvements in Magic Chef gas ranges; the American Stove Co., Cleveland, O.

123—"Marschke Company Specialties, General Catalog," featuring the folding stairs and other specialties of The Marschke Company, St. Paul, Minn.

124—"The Dusterator" describes this product of Boes & Boes Mfg. Co., Lafayette, Ind.

**CONTRACTORS' EQUIPMENT**

125—"The Reid-Way Whirlwind Sander," giving facts on the sander with only one moving part, perfected by The Reid-Way Corp., Cedar Rapids, Ia.

126—"The American Handy-Sander," one of a series of new pamphlets illustrating the American line, and pointing out business opportunities in the floor sanding business, by The American Floor Surfacing Machine Co., Toledo, O.

127—"4 Keys to Success in the Building Industry," one of a series of catalogs and handbooks on the manufacture of concrete products using the equipment of the W. E. Dunn Mfg. Co., Holland, Mich.

128—"Ransome Concreting Equipment," a series of Ransome bulletins giving all information concerning the line of concrete mixing and handling machinery offered by the Ransome Concrete Machinery Co., Dunellen, N. J.

129—"Jaeger Mixers," a catalog of 40 pages presenting the concreting machinery offered by The Jaeger Machine Co., Columbuus, O.

130—"H & A Woodworking Equipment"; 20 pages of new information regarding the woodworking machines of Heston & Anderson, Fairfield, Ia.

131—"Contractors' Catalog of Woodworking and Sanding Machines" by the Porter-Cable-Hutchinson Corp., Syracuse, N. Y.

132—"Catalog of Saw Mill and Woodworking Machinery," featuring the complete line of the American Saw Mill Machinery Co., Hackettstown, N. J.

133—"Parks 'Carpenter Shop Special'"; photographs and specifications of this machine, developed by The Parks Woodworking Machine Co., Cincinnati, O.

134—"Skilsaw—the Perfected Electric Hand Saw"; pamphlet showing the many uses of this equipment; Skilsaw, Inc., Chicago, Ill.

135—"De Walt Wonder Worker Saves Money, Labor and Erection Time"; many suggestive facts for builders by De Walt Products Corp., Lancaster, Pa.

136—"Cutting Distribution Costs with Motor Trucks"; a helpful book of motor truck experience and practice compiled by the General Motors Truck Co., Pontiac, Mich.

137—"Steel Scaffolding" features the product of the Steel Scaffolding Co., Evansville, Ind.

138—"International Trucks in the Coal, Coke, Ice, Lumber and Building Materials Industries"; 32 pages of photographic data on the utility of international trucks; the International Harvester Co. of America, Chicago, Ill.

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(Continued from page 99)

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- KALMAN Metal Lath, Kalman Steel Corp., Bethlehem, Pa.
- KALMANTRUSS Joists, Kalman Steel Co., Bethlehem, Pa.
- LAKEWOOD Finisher, Subgrader, Grade Rooter, Roadforms, The Jaeger Machine Co., Columbus, Ohio.
- LIBBEY-OWENS-FORD Safety Glass, Polished Plate Glass, Flat Drawn Window Glass, Libbey-Owens-Ford Glass Co., Toledo, Ohio.
- LINCOLN TERRAZZO SPECIAL for Grinding and Rubbing Terrazzo and Marble Floors, Lincoln Schlueter Floor Machinery Co., Chicago, Ill.
- LINCOLN TWIN DISC Floor Waxing, Polishing and Scrubbing Machine, Lincoln Schlueter Floor Machinery Co., Chicago, Ill.
- LINESTART Motors, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- LUNAIRE Luminaires, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- LUNALUX Luminaires, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- LUSTRAGLASS, "The Ultra Violet Ray Window Glass," American Window Glass Co., Pittsburgh, Pa.
- LUXSOLITE Pendants, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- MCCORMICK-DEERING Road Plows, Engines, Grading Plows, Industrial Tractors, International Harvester Co. of America, Chicago, Ill.
- MACMAR Trusses, Kalman Steel Corp., Bethlehem, Pa.
- MAGIC CHEF Gas Range, American Stove Co., St. Louis, Mo.
- MARCO Telefold Stairways, Folding Stairways, The Marschke Co., St. Paul, Minn.
- MARVEL Terrazzo Grinding Machine, Lincoln-Schlueter Floor Machinery Co., Chicago, Ill.
- MASTER Woodworker, Woodworking Machinery, Floor Sander, Master Woodworker Mfg. Co., Detroit, Mich.
- MAZE Copper and Zinc Nails, Glaciers Tools, Dowel Pins, W. H. Maze Co., Peru, Ill.
- MICARTA Insulating Material, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- MIDGET Safety Switches, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- MOLDARTA Insulating Materials, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- MONARCH Planer, Matcher and Moulder, American Saw Mill Machinery Co., Hackettstown, N. J.
- MULTI-CATCH Sockets, General Electric Co., Schenectady, N. Y.
- MULTICONTACT Switches, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- MULTI-PRE-SET Switchboards, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- NATIONAL Door Hangers, Hinges, Track and Builders' Hardware, National Mfg. Co., Sterling, Ill.
- NATIONAL REINFORCING Welded Wire Fabric for Concrete, Cement, Stucco, Gunit, Plaster Corners and Joints, National Steel Fabric Co., Pittsburgh, Pa.
- NEW PROCESS Gas Range, American Stove Co., St. Louis, Mo.
- NORGE Rollator Refrigeration, Norge Corp., Detroit, Mich.
- NU-WOOD Insulation Board, Insulating Lath, Wallboard, Bevel Lap Tile, Wood Conversion Co., Cloquet, Minn.
- OLD VIRGINIA WHITE Paints, Samuel Cabot, Inc., Boston, Mass.
- ON-THE-WALL Ironing Board, Farley & Loetscher Mfg. Co., Dubuque, Iowa.
- "OVERHEAD DOOR," Overhead Door Corp., Hartford City, Ind.
- P & B Acid Resisting Paint, Ruberoid Co., New York, N. Y.
- PARAHEX Strip Shingles, Beckman-Dawson Roofing Co., Chicago, Ill.
- PRESTO Sliding Stairs, Farley & Loetscher Mfg. Co., Dubuque, Iowa.
- PRESTO Steel Floor, Truscon Steel Co., Youngstown, Ohio.
- PROFITAIRE Combination Store Counter & Warm Air Register, The Majestic Co., Huntington, Ind.
- QUALITYBILT Millwork, Farley & Loetscher Mfg. Co., Dubuque, Iowa.
- QUICK MEAL Gas Range, American Stove Co., St. Louis, Mo.
- QUILT Sheathing and Insulating, Samuel Cabot, Inc., Boston, Mass.
- RADIO-CONTROLLED Garage Doors, Barber-Colman Co., Rockford, Ill.
- RANSOME STANDARD Building Mixer, Ransome Concrete Machinery Co., Dunellen, N. J.
- RAPID Wood and Stone Surfacing Machines, Lincoln Schlueter Floor Machinery Co., Chicago, Ill.
- READING Puddled Iron Pipe, Charcoal Iron Boiler, Tubes, Old Hickory Bar Iron, Cut Nails, Puddled Iron Nipples, Puddled Iron Couplings, Puddled Iron Casing, Tubing and Line Pipe, Reading Iron Co., Philadelphia, Pa.
- RECEIVADORS, for homes and apartments, The Servidor Co., New York, N. Y.
- RED-HEAD Warning Beacon, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- REGISEAT Heaters, The Majestic Co., Huntington, Ind.
- REID-WAY Convertible Sander, Prepared Abrasive Sheets, Whirlwind Sander, Reid-Way Co., Cedar Rapids, Iowa.
- RELIABLE Gas Range, American Stove Co., St. Louis, Mo.
- REMINDO Combined Switch and Buzzer, General Electric Co., Schenectady, N. Y.
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- ROBRAS Convectors, Revere Copper & Brass Co., New York, N. Y.
- ROCOF Convectors, Revere Copper & Brass Co., New York, N. Y.
- ROLL-N-FOLD Garage Doors, The Majestic Co., Huntington, Ind.
- ROMAN Bronze, Revere Copper & Brass Co., New York, N. Y.
- ROOM-HOIST Motors, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- ROTAIRE Fan, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- RO-WAY Upward Acting Door, Rowe Mfg. Co., Galesburg, Ill.
- RUBEROID Roofing and Shingles, Building Products, Ruberoid Co., New York, N. Y.
- SAFEKOTE Roofings and Building Products, The Ruberoid Co., New York, N. Y.
- SAN-EQUIP Septic Tanks, San-Equip, Inc., Syracuse, N. Y.
- SAND'S Levels, Sand's Level & Tool Co., Detroit, Mich.
- SANTAS Cloth Wall Covering, Standard Textile Products Co., New York, N. Y.
- THE SAW MASTER, Master Woodworker Mfg. Co., Detroit, Mich.
- SCHLUETER Rapid Floor Surfacers, Lincoln-Schlueter Floor Machinery Co., Chicago, Ill.
- SEALEX Linoleum, Treadlite Tile, Wall Covering, Congoleum-Nairn, Inc., Kearny, N. J.
- SENTINEL Breakers, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- SERVIDORS (Steel) for hotels, clubs and apartments, The Servidor Co., New York, N. Y.
- SINGLE PURPOSE Machines, Woodworking Machinery Co., Inc., Philadelphia, Pa.
- SISALKRAFT Reinforced Building Paper, Tarpaulins, Windbreaks and Temporary Enclosures, The Sisalkraft Co., Chicago, Ill.
- S K DOUBLE DUPLEX, Building Paper, The Sisalkraft Co., Chicago, Ill.
- SKILSAW Electric Saws, Skilsaw, Inc., Chicago, Ill.
- SLIDETITE Garage Hardware, Richards-Wilcox Mfg. Co., Aurora, Ill.
- SNAPCATCH Porcelain Sockets and Receptacles, General Electric Co., Schenectady, N. Y.
- SNAPON Metal Lath for Installing Tile, Transcontinental Tile Corp., Indianapolis, Ind.
- SOLAR GLOW Radiators, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- SOLLAIRE Luminaires, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- SOLLITE Luminaires, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- SOLLUX Luminaires, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- SPEED Waterproof Portland Cement, Pebble Lime, Chemical Hydrated Lime, Masons Hydrated Lime, Portland Cement, Louisville Cement Co., Louisville, Ky.
- SPEEDMATIC Electric Floor Sanders, Portable Electric Saws, Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
- SPRAGUE Fixtures, General Electric Co., Schenectady, N. Y.
- STANLEY Paints and Varnishes, The Stanley Chemical Co., East Berlin, Conn.
- STANLEY Power Drills and Power Tools, Electric Saws, Electric Hammers, Etc., Stanley Electric Tool Co., New Britain, Conn.
- STANLEY SWING-UP Hardware Equipment, Garage Hardware, Stanley Works, New Britain, Conn.
- STANLEY Tools, Stanley Rule & Level Co., New Britain, Conn.
- STAR Glaziers Points, W. H. Maze Co., Peru, Ill.
- STEELTEX Laths, Channels, Tie Wire, Pencil Rods, Nails, Reinforcing and Plaster Base, National Steel Fabric Co., Pittsburgh, Pa.
- SUCCESS Concrete Machinery, W. E. Dunn Mfg. and Affiliated Co.'s, Holland, Mich.
- SUPERLUX Refractors, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- SYNCHROWELD Motors, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- TAKE-ABOUT Portable Hand Sanders, Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
- TELEVOX Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- TEMLOCK Building Insulation, Armstrong Cork & Insulation Co., Lancaster, Pa.
- TINTAGLASS for Walls, store fronts and decorative trim, American Window Glass Co., Pittsburgh, Pa.
- TRIPLEX Instruments, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- TROLLEYLITE Brackets, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- TROUBLE-SAVER Brackets, Jacks, Scaffolds, Masons' Trestles, Etc., Steel Scaffolding Co., Evansville, Ind.
- TRUSCON Steel Windows, Truscon Steel Co., Youngstown, Ohio.
- TRUSTEEL Standards, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- TURNOVER TOASTERS, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- U. S. Mineral Wool, U. S. Mineral Wool Co., New York, N. Y.
- UNIVERSAL Level-Transit, David White Co., Inc., Milwaukee, Wis.
- UNIVERSAL Portland Cement, Universal Atlas Cement Co., Chicago, Ill.
- U-SOLDERLESS Connectors, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- VENTO Puttyless Barn Window, Steel Sash, Vento Steel Sash Co., Muskegon Heights, Mich.
- VICTOR Sliding Stairs, Farley & Loetscher Mfg. Co., Dubuque, Iowa.
- WALLACE Woodworking Machinery, J. D. Wallace & Co., Chicago, Ill.
- WATSON Roofings and Building Products, The Ruberoid Co., New York, N. Y.
- WEMCO Coil, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- WHIRLWIND Fans, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- WHITE'S IMPROVED Level-Transit, David White Co., Inc., Milwaukee, Wis.
- WINTHROP Open-Weave Membrane, Asphalt Emulsion No. 200, Asphalt Emulsion No. 1 H.T., Asphalt Emulsion Insulation, Asphalt Emulsion Mastic, Emulsion Mortar H. T., Fibrated Roof Emulsion, Asphalt Emulsion Mortar, Colored Asphalt Emulsion, Asphalt Emulsion No. 1, Copperclad Valley, K-B Paper, Grade "A" Asphalt, Tufcote Paper, Red Rosin Paper, Style "A" Roofing, Diamond Edge Roofing, Brick Siding Strips, Ced-A-Roc Shingles, Argotile Strip Shingles, HEX Shingles, Big Chief Shingles, Shurlok Shingles, Sealedge Shingles, 3-in-1 Tapered Asphalt Strips, Tapered Asphalt Shingles, Beckman-Dawson Roofing Co., Chicago, Ill.
- ZINC CITY Glaziers Points, W. H. Maze Co., Peru, Ill.
- ZINCLAD Rustproof Roofing Nails, W. H. Maze Co., Peru, Ill.
- 4-SQUARE Guide-Line Framing, General Timber Service, St. Paul, Minn.
- 4-SQUARE Packaged Lumber, General Timber Service, Inc., St. Paul, Minn.

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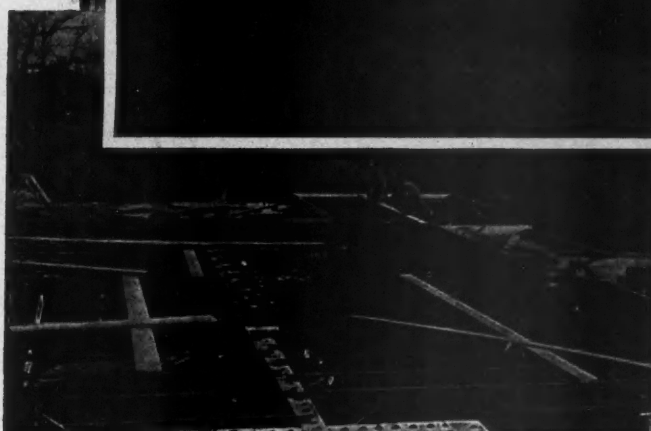
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# KALMANTRUSS STEEL JOISTS

## in modern home construction



Kalmantruss Steel Joists and Accessories were used in the floors of this modern Minneapolis Home. . . . Architect: Dorr & Dorr, Minneapolis. Contractor: Clarence K. Bros, Minneapolis.

Kalmantruss Joists, Kalman Rigid Bracing, Kalmanlath and Accessories make a level, rigid installation for concrete floor slabs and eliminate the use of forms.



These attractive doorways were made possible by the use of Kalman Steel Door Frames which meet the esthetic and practical requirements of modern architectural design. They form an integral part of the wall structure, eliminating warping, twisting, and formation of plaster cracks.

The growing use of steel in modern home building is not a fad. There are many decided advantages in its favor. For instance, consider the specific case of floors constructed with Kalmantruss Steel Joists and Accessories. A few of the worth-while benefits are as follows:

These Steel Joists eliminate shrinkage that causes cracking in plaster partitions and the opening up of unsightly, dirt-catching cracks between floor and wood base.

A stronger, stiffer floor is obtained, Kalman Steel Joists, braced with Kalman Rigid Bridging, practically eliminate vibration in floors and plaster cracks in ceilings.

The use of Kalman Steel Joists greatly reduces the fire hazard, particularly over boiler rooms and basements.

Kalmantruss Steel Joists and Accessories are convenient to use, economical, and easily and quickly erected.

Detailed information will gladly be furnished in regard to these and the many other advantages obtained by using Kalmantruss Steel Joists and Accessories. Communicate with any of the district offices listed below.



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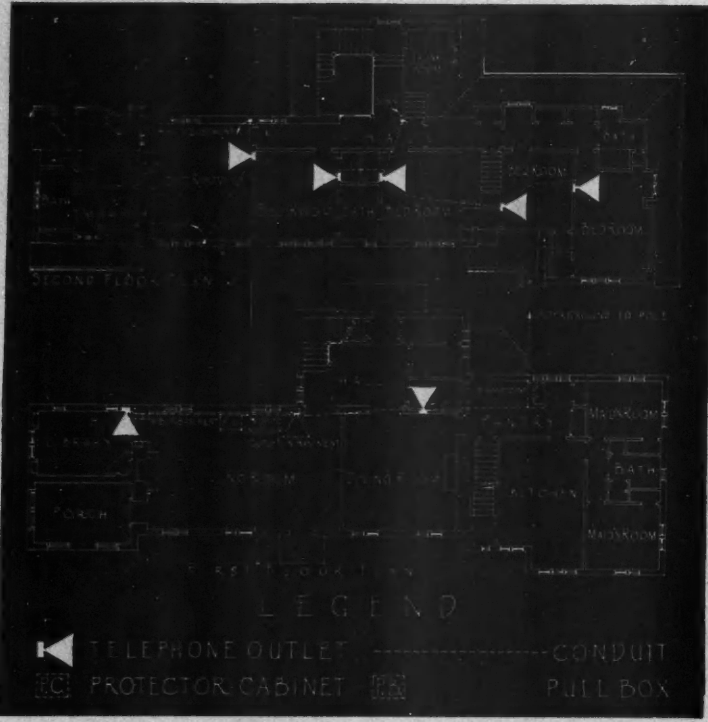
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BUILT-IN telephone convenience returns three definite dividends. It attracts prospects, converts them into customers, and keeps them content with their purchases.

Of the three, the last is not least important. The builder of the home pictured on this page employed telephone convenience to such good advantage that its owner says: "—complete and fully adequate telephone service has brought to my home a genuine comfort and convenience; and the pleasure of knowing that my family can use the telephone without wasting time by taking many unnecessary steps."

*Telephone convenience is provided for in the residence of Mr. F. T. Holliday, 5665 Sunset Ave., Indianapolis, Ind., by built-in conduit connecting nine outlets, including one in the basement and one in the third-floor servants' quarters.*

H. L. SIMONS, Architect and Builder, Indianapolis.

Telephone convenience is easily and economically arranged by including telephone conduit in walls and floors during construction. It conceals wiring, protects against most-service interruptions, and permits telephone outlets to be located wherever they're wanted throughout the house. Plan for it in new and remodeled residences.

The local telephone company will advise and assist you, without charge. Just call the Business Office.



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### NOTICE TO ADVERTISERS

Forms for the May Number of the American Builder and Building Age will close promptly on April 15. New copy, changes, orders for omissions of advertisements must reach our business office, 105 W. Adams St., Chicago, not later than the above date. If new copy is not received by the 15th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts. AMERICAN BUILDER AND BUILDING AGE.

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