VORLD'S GREATEST BUILDING PAPER

Vol. 42.

CONTENTS FOR MARCH, 1927

No. 6.

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MEMBER BUREAU OF THE AUDIT CIRCULATIONS

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MEMBER BUREAU OF THE AUDIT CIRCULATIONS

Yurney

announces

a complete line of Refrigerator Cabinets for

ELECTRIC REFRIGERATION

Now the Gurney organization announces one of its greatest achievements in 35 years of successful refrigerator building.

Architects and builders, knowing past Gurney accomplishments, will look to this line for advanced ideas and marked improvements in refrigerators for electrical use.

And well they may! For this new Gurney line lives up to the fullest expectations of Gurney enthusiasts. Now, exclusive features for greater efficiency have been incorporated.

Now, for the first time, a coil chamber is constructed with open top and bottom, provided with a defrosting pan with pet cock drain. This is a distinct advance-one of many in the new Gurney models.

Exterior, interior, insulation, circulation, door sealing every factor, large and small, has been carefully weighed by Gurney Engineers in their development of a line for maximum efficiency in electric refrigeration.

Architects File Folder

Furnished free as part of our helpful engineering service which many of the leading architects are using. File folder includes illustrations, complete descriptive details on construction, sizes, weights, etc. Drawings supplied in tracing form ready to use for making blue-prints. Folder now ready for distribution. Write for your copy.

Outstanding features of the line All Steel Models

For domestic use. Eight numbers—four for remote installation, four for self contained units, Athermos All-Steel construction, ranging from 5.7 to 13.3 cu. ft. capacities.

Insulation—pure cork board, 1½ thick over entire area, except bottom which has 3 thickness.

Interiors—either enameled or porcelain.

Doors—double seal, closing against air-tight gaskets. Quarter-Sawed Oak

For domestic use, three sizes, 9 cu. ft. and 12.5 cu. ft. for remote installation; 10.9 cu. ft. self-contained.

Heavy Steel Models

For mercantile use, two sizes—30 cu. ft. and 60 cu. ft. For large homes, restaurants, stores, delica-tessens, etc.

Insulation—3 in. pure cork board.

CORE BOARD.

ALL STEEL MODELS
HAVE DEFROSTING
PAN WITH PET COCK
DRAIN. COIL CHAMBER IS OPEN AT TOP
AND BOTTOM, AIN
EXCLUSIVE GURNEY
FEATURE.





GURNEY REFRIGERATOR CO.

General Offices and Factory: Fond du lac, Wisconsin

Permanent Exhibits and Sales Rooms CHICAGO, 308 N. Michgan Âve.
NEW YORK, 206 Lexington Ave.
DALLAS, TEXAS, Santa Fe Market Bldg.
Los Angeles, 757 Warehouse St.
San Francisco, 180 New Montgomery St.

Slide the doors of They have to work—they



YOUR doors—like the pistons in a motor—are the working part of the garage. And door efficiency is almost entirely a question of hardware.

That's why Slidetite Door Hardware is so universally used in equipping garage doorways. Its use insures doors that work right and stay right.

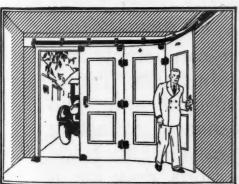
With *Slidetite*, the doors slide and fold against the wall, *inside*; not

exposed to rain and strong winds; not bothered by ice and snow. Slidetite equipped doors operate easily and surely and close as tight as the front door of your house.

Slidetite is the most practical hardware for doorways, containing from two to ten doors and any width up to 30 feet. Regardless of width, the opening is unobstructed when doors are open.

Son the inside the building stands still





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ny of ted When a garage is not deep enough to fold the doors inside—Slidaside is the correct hardware. Doors so equipped slide around the corner, flat against the wall.

Slidaside can be used for

Slidaside can be used for two car garages by sliding doors to both walls, and is adaptable to any garage, regardless of distance from jamb to side wall. Both Slidaside and Slidetite

Both Slidaside and Slidetite equipment provide for an entrance door—does away with expense of a separate entrance.



Hand Rail Brackets

For attaching wood or metal hand rail to any wall, this bracket is indispensable. A solid casting of malleable iron is finished in black enamel, antique copper or brass and bronze plated. The 3-inch base is securely held by expansion bolt. Head of log screw finished to match bracket.



Rapid Acting Vises

Here is the handiest vise you have ever handled. Instantly adjustable at any point, one-quarter turn of handle disengages jaws and permits of sliding back and forth full length of guide rod. Engages and locks firmly by slight reverse turn of handle. To try one is to become an enthusiastic booster.



AURORA, ILLINOIS, U.S.A.

New York Boston Philadelphia Cleveland Cincinnati Indianapolis St. Louis New Orleana Chicago Minnespolis Kansas City Los Angeles San Francisco Omaha Seattle Detroit.

Montreal - RICHARDS-WILCOX CANADIAN CO., LTD., LONDON, ONT. - Winnipeg

Largest and most complete line of door hardware made



AN ATTRACTIVE



Putting Value Into Business Property

Practically 100,000 stores remodel their fronts every year. A large retailer in the heart of Chicago has remodeled his window three times in the last five years. Owners are alive to the importance of the store front, and are setting the pace for the rest of the 1,281,000 retail stores in the country. They are wise to fall in line in a game where only the fittest survive.

Quite often the contractor can supply the practical solution to serious business "leaks" which the retailer considers insignificant. The contractor knows the importance of attracting interest to a store as well as holding trade already secured. His suggestions may be a source of profitable business to both himself and the store owner.

IS GLORIFIED BY

WINDOW DISPLAY



A Zouri Store Front has an individuality impossible to mistake. It is dignified and substantially beautiful. Structural rigidity gives it freedom from distortion. When set, and during setting, glass encased in a Zouri frame is safe from shock, pressure, wind, settling and breakage. Key-set construction, the self-adjusting setting block, and the reinforcing bracket insure a Zouri owner against loss.

Zouri's reputation as a quality store-front is responsible for its present broad distribution by the largest organization in the field.

Useful detail sheets and data book

This handbook has been written for architects, contractors and builders. It deals primarily with construction and gives plans and diagrams showing best approved methods of window and display space arrangement. The detail drawings will be welcomed by specification writers. A word from you will bring them—promptly.



Zouri Drawn Metals Company

Factory and General Offices

1608 East End Avenue, Chicago Heights, Illinois

DISTRIBUTORS IN PRINCIPAL CITIES - NAMES ON REQUEST

PROPER FRAMING

ARCOLA



ARCOLA Hot Water Radiator

Heat

ARCOLA with Jacket (Parlor) in French Gray

ARCOLA without Jacket



Radiator Heat IS A Strong Salesman!

The public KNOWS that Radiator heat is the most satisfactory method of warming homes. Prospective home buyers, therefore, LOOK for Radiator heating.

And, thanks to the American Radiator Company, a World Institute of Heating, even the most modest homes, with or without basement, may now have RADIATOR HEAT most economically—through and with the ARCOLA.

Made in two styles, as illustrated above. The Jacketed ARCOLA (Parlor) is finished in French Gray, Vitreous enamel The Ideal ARCOLA is the leading sales

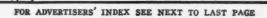
argument of the builder SELLING his houses, in RENTING his houses; an ASSET in negotiating finances and a commendation of his judgment in selecting highest quality, permanent building equipment!

Phone or write our nearest branch office for valuable heating data about the Ideal ARCOLA.

AMERICAN RADIATOR COMPANY

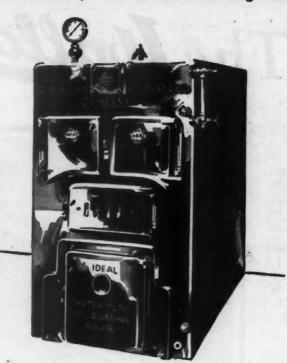
Showrooms and sales offices: New York, Boston, Providence, New Haven, Newark, Philadelphia, Baltimore, Washington, Richmond, Buffalo, Pittsburgh, Cleveland, Detroit, Cincinnati, Atlanta, Chicago, Milwaukee, Indianapolis, St. Louis, St. Paul, Minneapolis, Omaha, Kansas City, Denver, San Francisco, Los Angeles, Seattle, Toronto, London, Paris, Milan, Brussels, Berlin.

Makers of IDEAL Boilers, AMERICAN Radiators, ARCO Hot Water Supply Heaters, VENTO Ventilating Heaters, Heat-Controlling Accessories and other products for drying, cooling and refrigeration.



WORLD

NSTITUTI OF HEATING For homes, apartment buildings, skyscrapers,—the IDEAL Water Tube Oil Burning Boiler is of such range and capacity that it will fulfill the most exacting requirements and will function with full efficiency during the life of any building. It is especially designed for rapid heating.



Best Oil Burner Results

In keeping with its larger ideals of public service and the obligations of leadership, American Radiator Company, from the first, have kept open the doors of its great laboratories for the aid of oil burner inventors and manufacturers.

This close and continuous cooperation has resulted in the practical scientific development of modern oil burners, and the perfection of IDEAL Boilers for oil burning.

Here again, with its wealth of heating experience and its vast equipment in

heat-measuring, heat-recording, and heat controlling facilities, American Radiator Company has demonstrated that it is truly a WORLD INSTITUTE OF HEATING.

IDEAL Boilers, for oil burning, are offered in three types,—scientifically proportioned and equipped to guarantee the utmost in oil burner results. These IDEAL Boilers have had their complete development hand in hand with the oil burner industry and they afford, therefore, the best to be obtained in operating efficiency, economy, and dependability.

ARCO ROUND Oil Burning Boiler

IDEAL Type "A" Oil Burning Heat Machine

The most widely used heater for homes,—the ARCO Round Oil Burning Boiler is designed and constructed for efficient oil burning. It delivers satisfactory results in daily service, during the life of the building.





Distinguished for its cleanliness and attractiveness, this boiler is the "aristocrat of home heating boilers." It is scientifically designed and constructed for efficient oil burning and is suitable, single or in batteries, for the finest residences and largest buildings.

AMERICAN RADIATOR COMPANY

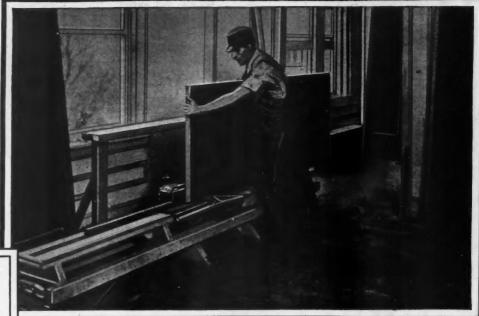
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Makers of IDEAL Boilers for coal, coke, oil and gas. AMERICAN Radiators, ARCO Hot Water Supply Heaters, VENTO (Ventilating) Heaters, Heat-Controlling Accessories and other products for drying, bumidifying, cooling and refrigeration.



"The Wallace Idea"

Photograph showing how A. Bentley & Son of Toledo applied "The Wallace Idea" to the fitting and hanging of 1600 doors. The job was finished by 8 men in 14 days, and saved this contracting firm \$2352. See complete story on opposite page.



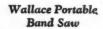


The Wallace Electric Handsaw is light in weight and easy to handle. Its chief feature is absolute SAFETY. The blade is entirely covered at all times. The motor, the switch, the operator and the saw itself are completely protected against injury.

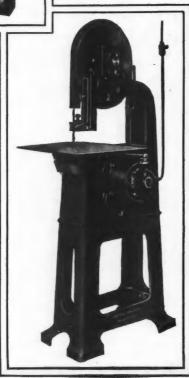
Wallace Portable Universal Saw

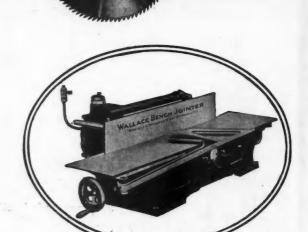
A portable floor type of Universal Circular Saw that combines all the advantages of the portable bench machine and the self contained floor type.

The saw can be moved independent of its base.



Contains built-in and directly connected motor with ample power to efficiently handle work within its full capacity.





Wallace Bench Planer and Jointer

A compact and highly efficient machine—easily portable with ample power to handle all classes of work.

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Bern A to 1 door

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1

Saved \$235200 for this contractor on one operation

8 carpenters fit and hung 1600 doors in 14 days

WHAT "The Wallace Idea" has done for others, it can do for you. The case of Bentley & Son of Toledo is typical:

A hotel was going up, with over 1600 doors to be fitted and hung. You know that five doors is a good day's work for any experienced carpenter. Bentley put the Wallace Idea to work

and in 14 days all 1600 doors were up-and it needed only 8 men to do the job! Figured at prevailing wages, this contractor estimated that the Wallace Idea saved him \$1.47 per door, or a total of \$2352 on the work of 8 men in two weeks. Had the same 8 men done this job the old way it would have required six weeks!

PPLYING the Wallace Idea to building operations is bound to produce results. The percentage of saving on a small job is just as great as on the big ones. The secret is-individual machines for every job, portable machines that can be taken to the job instead of having to take the job to the machine.

RESULTS of applying the Wallace Idea are simply amazing. Money wasted on sawing, cutting, planing, mitering and fitting lumber and millwork is saved. Costly time and man power are conserved by simplifying the work. The unmistakable results are enormous increases in profits.

Wallace portable electric saws, jointers and planers (all direct motor-driven with no belts) not only save

money but insure uniform workmanship.

The big feature of Wallace machines is that they are quickly and easily moved from one building to another, from floor to floor, rolled from room to room as the work progresses. Instead of moving cumbersome piles of material, you simply roll the machine to the material. Out on the job, you take Wallace machines right into the building. They are so light and so portable that your men waste no time running up and downstairs, indoors and out, to do a trifling job of ripping, mitering or planing. The Wallace machine is at his elbow. Takes little or no room—never gets in the way.

When building is slack, you can move your Wallace machines into your shop, your garage or your basement and idle hours can be turned to profit working up waste stock, turning out storm sash, screens and standard mouldings, cabinets, etc.

ORTABLE MACHINES

Free Trial

We will send one or more Wallace machines to you for free trial. Prove to your own satisfaction what timesavers they are—how they save steps for your menget the work done quicker and cheaper and better than old-fashioned methods.

If you decide not to keep the machines, ship them back to us and it will cost you absolutely nothing, not even freight charges.

Easy terms if you wish

Let us send you our book illustrating and describing Wallace Portable Machines. The prices are surprisingly low and, if you wish to take 10 months to pay for them, you will find our easy terms convenient. Many users let Wallace machines pay for themselves.

Our whole proposition is all in your favor. Send only your name and address on this coupon and let us send you full details by return mail.

J. D. WALLACE & CO., 136 S. California Ave., Chicago, Ill.

You may send me your book on Wallace Portable Machines and full details of Free Trial Offer and easy terms.

"As substantial



FRED G. KIMMICH, of the Fred G. Kimmich Company, leading building contractors of Pittsburgh, Pa. Mr. Kimmich believes that substantial homes embodying every modern desirable feature can be built to sell at a moderate price. All of the Model Homes he is building will be sold at less than \$16,500.

as they are complete"

IN our Model Home development at Willow Terrace, Mt. Lebanon, we are trying a new experiment in home building in Pittsburgh," said Fred G. Kimmich, who is handling the building construction. "There are 264 lots to be sold in the development. And to set the standard for the whole property and increase the value of each lot, we are building ten Model Homes on scattered lots.

"These houses will embody every modern improvement for the convenience and comfort of the occupants. Among the items of equipment are electrical refrigeration, incinerators, and a complete kitchen cabinet of standard make. Wiring

equipment for an electric stove will also be installed. Every house will be enclosed with standard heat insulation material and completely weather-stripped.

"And our Model Homes will be as substantial as they are complete. None will be of frame construction—brick or stucco will be used exclusively. They will be roofed with high-quality, slate-surface shingles."

Carey BIG SIZE Asfaltslate Shingles are the "high-quality, slate-surface shingles" to which Mr. Kimmich refers. For lasting durability, there's no better shingle than Carey Asfaltslate. Once on, it's on to stay—always snug and trim and weathertight. For this is "The Shingle that Never Curls."

Carey Asfaltslate Shingles are both bigger and thicker than the ordinary shingle. They save labor in application and they provide a three-thickness roof with shingles laid full 5 inches to the weather—300 pounds to the

square. No wonder home builders in every section of the country prefer these finer shingles! Write us and have us tell you all about them.

The Philip Carey
Company, Lockland
Cincinnati, Ohio



One of the Model Homes in the Mt. Lebanon development, Pittsburgh, designed to meet every modern requirement for comfort and permanence.

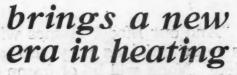


The Carey BIG SIZE Asialts ate Shingle measures 10" x 15¼", and with a 5-inch exposure makes a three-thickness covering for the roof.



"THE SHINGLE THAT NEVER CURLS"

Reuben N. Trane's Invention





Reuben N. Trane President

The Trane Company Residences



An Amazing Success in All Types of Buildings

REUBEN N. TRANE'S HEAT CABINETS have been universally accepted by architects and engineers as "Successors to the Radiator." Thousands of Heat Cabinets have been installed and the results are a revelation in heating comfort and room beauty. Used on any type of heating system-hot water, steam, vapor, or vacuum.

Two Types

Trane Heat Cabinets are built in two types—visible and concealed. The visible type replaces the unsightly radiator with heating furniture. Looks like furniture, finished like furniture to harmonize with decorations. The concealed type is perfectly hidden between the walls. Not an inch of floor space wasted, nothing in sight except an artistic damper grille. Total weight 1/5 that of equivalent cast iron radiation.

Trane Heat Cabinets heat by convection. Not an adaptation of the radiator, but a big, new development in heating, of vital interest to every builder. Write today for complete facts. Address The Trane Co., 276 Cameron Ave., La Crosse, Wis.



Schools

Apariments and Hotels

CABINETS

HEATING SPECIALTIES AND PUMPS

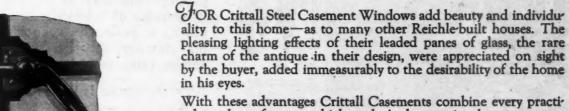


*An entirely new type of heating unit, replacing radiators. Not a hidden or recessed radiator— not a radiator shield or screen.





Crittall Casements helped sell this house for C. E. Reichle Co.



cal modern feature which today's house-wise buyer expects. Inward opening windows are available at no extra cost. Correct ventilation is assured. Construction is guaranteed wind and weather proof and of lasting strength. Hardware is of solid enduring bronze. These are among the reasons why Reichle today has standardized on Crittall.

Reichle's business has been built on a basis of giving his customers the best, keeping them sold, and letting them sell for him not only when they move in, but next year, and every year. He has found that Crittall Casements do much to secure this permanent good will for him—at a price remarkably low for Crittall service and quality.

Let us tell you how Crittall Casements can actually be made the selling feature of your houses—how they help make sales for Reichle and other successful builders. Ask for our complete illustrated catalog of all types and sizes, which shows how easily these windows may be installed, screened and draped.

CRITTALL CASEMENT WINDOW CO., 10981 Hearn Ave., Detroit

Available in steel in a wide variety of Standardized sizes and types. Also Custombuilt in either steel or bronze to the architect's sizes, designs and specifications.

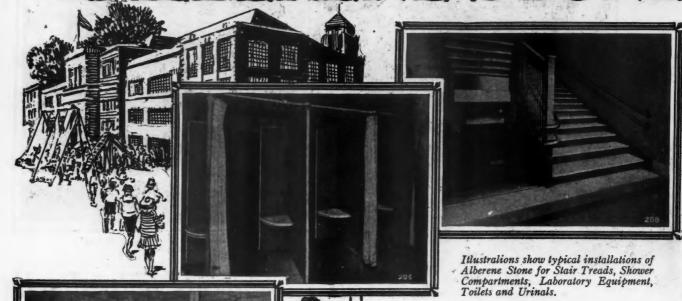


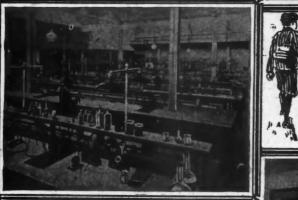




ocealed in the handle is a coiled g, which takes up all wear, so the handle may be in con-

Equip for Permanence With ALBERENE STONE







A NATURAL quarried stone ages in the making, Alberene Stone has the time-proof permanence of the hills from which it comes. It owes its leadership to its ability to resist the agencies which attack and destroy all other materials used for similar purposes.

Alberene Stone is light gray in color, hard and smooth and strong. It has no cleavage lines and will not fracture, chip, split or spall. It is non-absorbent and non-staining—heat-and-cold-proof—highly resistant to acids and alkalis. It is easily machined in any form and assembled in any construction with liquid-tight germ-proof joints.

Alberene Stone has become a standard material for many important building purposes. It is a material upon which maintenance costs are minimized. Write for the Catalog, giving complete data, construction details, illustrations, etc.

ALBERENE STONE CO.

153 WEST 23d St. NEW YORK CITY.

Boston, Chicago. Philadelphia · Newark N.J., Pittsburgh.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



A G-E Wiring System give you selling points in every room.

If you build to SELL.... complete wiring pays

The G-E Wiring System is a system of housewiring embodying adequate outlets, conveniently controlled, and using G-E materials throughout. If interested, address: Sec. AB-3.

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Merchandise Department General Electric Company Bridgeport, Connecticut Practically every builder who has tried out the G-E Wiring System as a selling appeal is enthusiastic about it. Its many points of comfort and convenience make a house many times more attractive and make it sell more easily.

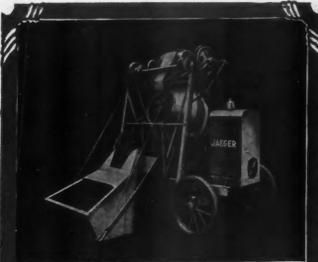
Housewiring received little attention up to a few years ago. But now the advertising of the G-E Wiring System has done much to make people realize that a well wired house is a better home to live in. This system may add about a tenth of a per cent to the cost of a building. But it pays big dividends when the time comes for selling.



WIRING SYSTEM

- for lifetime service

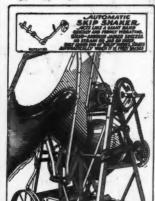
GENERAL ELECTRIC



Jaeger

AUTOMATIC POWER LOADER

Ask about the lightweight one bag Jaeger, with Leroi engine—Loader and tank at an amazingly low price.



JAEGER'S LATEST SUCCESS

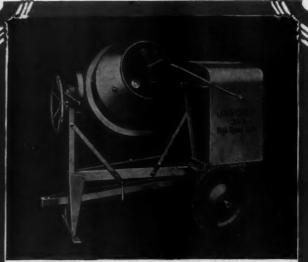
"SKIP SHAKER"

Ferro Concrete Construction Company, Cincinnati, O., says: "We have had 12 outfits with Shaker— Won't use anything else."

JAEGER IS THE WORLD'S LARGEST SELLING MIXER

The wonderful success is due to speed — patented "Re"mixing action of drum — Semiautomatic discharge. Patented measuring "tip over" water tank — steel construction.

Built in 1/2 to 4 bag sizes, 36 models



Jaeger

High Speed Trailers

BUILT FOR FAST HAULS OVER BAD ROADS

AUXILIARY SPRING SHOCK ABSORBERS DISC WHEELS
ROLLER
BEARING
CUSHION TIRES



The Handy Mixer

Just right size for the small jobs—will pour average house foundation in a day — Mixes mortar as well as concrete.

\$190.00 NET CASH FACTORY

Buys complete Jaeger Trailer with dependable power — Roller bearing steel wheels — Spring shock absorbers — (Cushion tires slightly more.)

GET OUR NEW CATALOG-PRICES AND CONVENIENT TERMS

THE JAEGER MACHINE COMPANY
521 DUBLIN AVENUE — COLUMBUS, OHIO.

Branch Offices and Warehouses in all the Principal Cities.

JAEGER



JAEGER PLASTER MIXER

Self Cleaning Hoe Type

Cuts Mixing Costs in Half

Brick mortar, patent hardwall or lime plaster (with any amount of fibre) sand or cement finish, magnesite or stucco.





JAEGER MIXED MUD SPREADS FASTER UNDER THE TROWEL

Means more daily output on highest priced labor — no mixing on the hawk — no lumps.

Make Stronger Plaster—Use More Sand

A better plaster mixer with 5 h. p Leroi engine—heat treated steel reducing gears running in oil—built in clutch—renewable steel plate drum sheet—Jaeger non-leak Journal bearings.



TAPARA ELEMENTAR

ALL STEEL—100% ROLLER BEARING
DIRECT DRIVE—NO COUNTER SHAFT.
CRISS-CROSS MIXING ACTION
FASTER DISCHARGING
HALF-TON LIGHTER—50% STRONGER

NO MORE POUNDING ON LOADING SKIPS!!

JAEGER'S
AUTOMATIC
SKIP SHAKER

Starts vibrating when skip is fully raised—No clogging—faster charging.



JAEGER'S 10-S TWO BAGGER AT ONE BAG WEIGHT AND PRICE

Built in low charging or power loading models.

FOUR HEAVY DUTY SIZES

10S 14S 21S 28S

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100 Jaeger Service Stations and Distributors-No delays.



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The Roof that Sells

WHO wouldn't be attracted by the substantial appearance of the home shown below?

The roof of Genuine Bangor Slate has a dignity, permanence and fire protection that at once strike home-planner and home-buyer favorably. It's right there in full sight, its own effective advertisement, something to draw the attention of the passerby.

Genuine Bangor Certificate Slate

has been noted for generations for its wearing qualities. Its toughness exceeds that of ordinary slate by 20 to 30 per cent. Yet Genuine Bangor Slates are furnished in several grades to meet the needs and suit the pocketbooks of every home-planner.

You can be sure of getting Genuine

Bangor Slate only by requiring the Genuine Bangor Label and Certificate with every shipment.

This association is maintained for the purpose of furnishing any information that you may need about the use of slate on the houses you are planning. It will be a pleasure to correspond with you.

BANGOR SLATE ASSOCIATION BANGOR, PA.

"A roof that speaks for itself"



Why a Slate Roof?

- 1. Protection—Solid stone, double thickness over your entire roof.
- 2. Permanence—Water-, Fire-, and Time-Proof.
- 3. Economy—Moderate first cost. High re-sale value. Nothing to renew,
- to renew,

 4. Beauty—Quiet dignity that blends with any wall surface.
- 5. Construction—Requires no heavier frame than the minimum allowed by building laws.

The roofer who uses
GENUINE BANGOR CERTIFICATE SLATE
is a reliable roofer
We will gladly furnish the name of one near you



Does the Work the Way You Want it Done

Powerful Fast-cutting Clarke Vacuum Portable Sander

This remarkable machine cuts so fast, so smooth, so easy—so far out-classes the old-time cumbersome Drum Sanders and every other surfacer on the market—that nothing else can compare. On floor work or shop work—rough work or smooth work—old or new, you will see labor saving of the kind that not only makes Greater Profits but stands for complete satisfaction

Yes, it sands so close to the wall that the baseboard and quarter-round cover what's left, and works in bathrooms, and closets, on stair landings and in the hard-to-get-at places as easily as in the open. Whether it's floor sanding or bench work the "Clarke" will do it easier, quicker, better, and more economically than you would possibly believe.

No special wiring—no truck or two or three men to move it—no back-breaking work. This is a modern machine—no other can do its work. Carry it with one hand, plug it into any electric light socket—it is a profit-producer that pays for itself in 5 to 90 days.

Get a "Clarke" and you won't have to wait on the other fellow to get your jobs done—a day or two or more of waiting, many times results in the loss of a sale or a rental.

And the way it turns out the work will make your heart glad. No other machine can give you the fine, beautiful, velvet smooth surface that a Clarke Vacuum Portable Sander gives you so easily. Don't put it off any longer. Take these steps now—you will eventually. Send for full information on this remarkable machine. No, there's not a bit of obligation.

HERE'S THE COUPON—MAIL IT NOW

Clarke Sanding Machine Company

618-622 W. Lake Street



For Ten Years Originators and Manufacturers of Portable Sanding Machines.

618-622 W. Lake Street, Chicago,	CO., A.B.	. 3-27
Gentlemen: Please send me full Clarke Vacuum Portable Sander.	details concerning	the
For Shop work	For Floor Sanding	
NameT	itle	
Address	ity	****
Firm NameS	tate	100

THE MASTER



A stationary machine for Shops, Mills, Lumber Yards, etc.

Guaranteed to rip 6" stock at the rate of 15 lineal feet per minute, on 3-phase line 440 volts. Weight-1600 pounds. Horse Power-5 H.P.

Capacity-8-inch cross cutting. 6-inch ripping.

Size-Length, 5 feet Width, 41/2 feet. Height, 6 feet.

Equipped with 6-inch or 8-inch jointer.

No. 8

Model No. 9

Weight, 700 pounds. (Can be taken down in four parts). 2 H.P.

Capacity—4" cross cutting, 4" ripping.

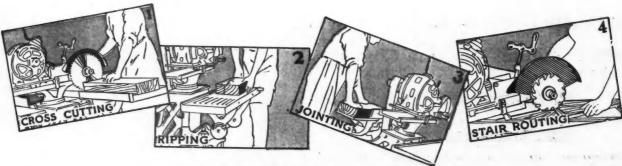
Size—Length 5', Width 2' 6" (By folding table brackets). Will pass through doorway.

6" or 8" jointer 42" long equipped with jointer fence and full safety round jointer head.

Guaranteed to rip 4" stock at the rate of 10 lineal feet per minute on 220 volts (power line).

A powerful machine for Contractors and Builders, Shops and all Woodworkers— can be taken right on the job.





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WOODWORKER

Model No. 12

Weight without jointer, 295 lbs.; 6" Jointer 42" long, 100 lbs. 1 H.P.

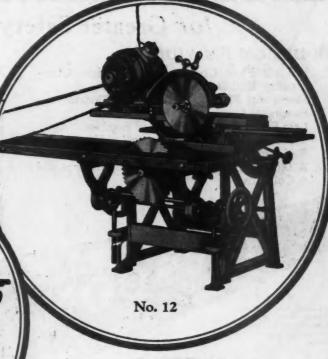
Capacity—3" cross cutting (12" saw); ripping (10" saw). Size—Length 44", Width 33", Height 47".

Cutting table, 5' long.

Equipped with 6" jointer 42" long.

Guaranteed to rip 2" stock at the rate of 30 lineal feet per minute on 110 volts (house light circuit).

Designed to be taken right on the job and will handle the hardest work at an amazing speed. Can be connected on an ordinary house light circuit.



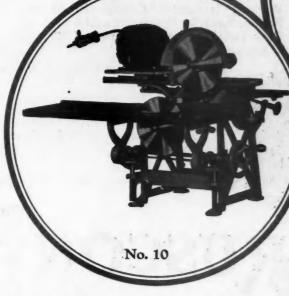
Model No. 10

Weight without jointer, 130 lbs.; Jointer 30 lbs.

Capacity — 2" cross cutting, 1½" ripping. Size — Length 34", Width 22", Height 25". Equipped with a 4" jointer.

Rips 1" stock at the rate of 30' per minute.

On "Inside Finishing" the Model No. 10 will make every cut necessary for house building, besides housing out stair strings, mouldings, etc. It will cross cut 2" faster than any machine three times its weight. Runs from ordinary lamp socket. Set up—right on the bench. Carry it in your tool box on the job. Cannot be equalled for inside finishing. Speed and power combined. The most up-to-date machine on the market at the lowest price.



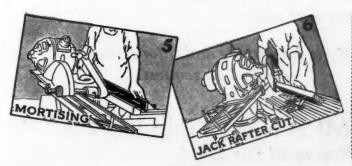
4 Models for All Classes of Work

MASTER WOODWORKER MANUFACTURING CO.

Brush and Congress Streets, Dept. A.

DETROIT, MICH.

Mail This Coupon for Free Big Book



Master Woodworker Mfg. Co. Brush and Congress Streets, Dept. A. Detroit, Michigan

Send me your Big Book free showing me how to double or treble my wages.

Name_

Address

City___

State_

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

TRUSCON PLATE GIRDER JOISTS

for Greater Safety and Economy

THE DESIGN PROVIDES:

Firesafe Floor Construction for Light Occupancy Buildings.

Permanent Floors. Verminproof Floors. Favorable Cost. Soundproof Floors.

Less Dead Weight. Speed of Erection.

The Most Simple Construction.

Easy Inspection.

A Great Reduction in Supporting Beams and Columns.

Erection as Safely and Easily in Winter as in Summer.

Elimination of all Form Work.

Fewer Elements of Chance in Field Labor. Erection of Any Number of Floors at One Time. Minimum Planking.

Simplification of Field Equipment.

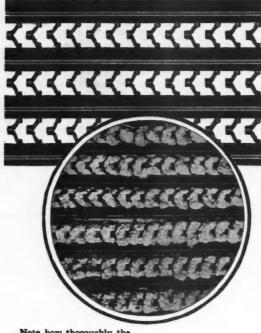
Substantially Reduced Cartage and Freight Costs.

Working Platforms for Construction Above. Storage Space for Construction Materials. Easy Installation of Plumbing and Electrical

> A Saving in Construction Time. Shipment of Proper Lengths, Ready for Installation.

> Holes, 2"x4"—24" on Centers, in Standard Sections, for the Passage of Flexible Wire Conduits and Pipes.





Note how thoroughly the plaster penetrates and locks around the 'metal 'keys' of Truscon Metal Lath. This means utmost

TRUSCON METAL LATH

Contractors and builders everywhere favor Truscon Metal Lath because it can be plastered faster and with less labor. Its small mesh and plaster gripping "key" form a perfect bond, save plaster and make a better job. Truscon Metal Lath means fire-resisting plastered walls of greater rigidity with freedom from cracks and lath marks—all qualities that build permanent owner satisfaction.

Write for catalog and information sent free on request.

TRUSCON STEEL COMPANY, Youngstown, Ohio

Warehouses and Offices in all Principal Cities.

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927

FINZER BROS. CLAY CO., Sugarcreek, Ohio
Gentlemen: Enclosed find
twenty-five cents (25c) in
stamps or wrapped coin.
Please send me at ence your
Plan Book of Brick Homes.

Town...... State......
A.B. (Please print_name)

The Beauty of Clinton Face Brick **Mellows With Age!**

The very same elements that cause wood to rot, stone to flake or crumble, stucco to crack or discolor, paint to wear off and metal to rust, graciously mellow and har-monize Clinton Face Brick into a masterpiece of texture and color.

The beauty of Clinton Brick never fades; The beauty of Clinton Brick never fades; it never becomes tiresome. Its soft restful tints and constantly changing highlights and shadows give a third dimension to color that cannot be gained through the use of any other building material.

Created by fire, Clinton Face Brick can never be destroyed by fire.

Thousands of Clinton Face Brick homes throughout the country are saving their

throughout the country are saving their

owners neat sums in repair bills that homes

owners neat sums in repair bills that homes built of other materials inevitably incur. The type of construction and quality of material used in construction have much to do in influencing the sale of a house. A home built of nationally advertised face brick is easier to sell than one built from an unknown brand, and brings a better price and profit. better price and profit.

Clinton Face Brick costs no more than

ordinary face brick but adds greatly to the

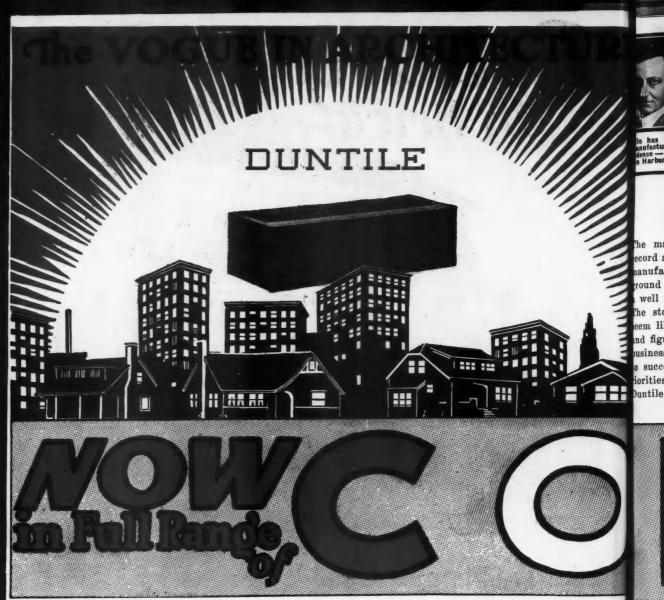
selling value of the house.

Ask your dealer about the Finzer Free Plan Service and write for our new Plan Book "Twenty Brick Homes—and How To Build Them".

The Finzer Brothers Clay Co.

Sugarcreek, Ohio

EBRICK



Meeting Today's Architectural Vogue With a Permanent Material Within Everybody's Reach

UNQUESTIONABLY, the architectural vogue today is toward greater use of COLOR. You see a new brightness everywhere in fashionable homes. The colorful Spanish architecture sponsored in the South and West has helped bring about this newest trend.

But for the average man, there has been one severe problem. The new architectural effects are obtainable only with permanent, masonry materials. The cost has been very high.

Now comes a development that brings the newest colorful beauties of permanent construction within reach of all. The W. E. Dunn Mfg. Company has perfected a new Duntile—called Mat Glazed Duntile. The color effects obtainable are more subtle, more striking, more broad in range than any other material—bar none. The cost is startlingly low in

comparison with any other form of permanent construction. The wall texture produced is brilliantly beautiful—slightly rough, varied, and touched with interesting glints of color.

Pictu

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of Du

stater

Facts

415 V

With material of such beauty and absolute permanence costing no more than good frame construction, Duntile manufacturers are facing what is unquestionably the greatest opportunity in building today.

Over 350 manufacturers in all parts of the country have already demonstrated the basic soundness and profit possibilities of Duntile manufacturing With this as a guide, and with the enormous market that color now opens up, every man who is ambitious to consider manufacturing independence, should investigate this latest, greated development in the building field.

A DUNTILE PLANT IS TODAY'S OUTSTANDING MANUFACTURING OPPORTUNITY



le has brought anufacturing indence — Sewall, a Marher, Mich.



Fister, president prospercus Duntile Mfg. & Supply Co., Allentown, Pa.



Albert Dahl & Sen, Elwood City, Pa., exceeds expectations 40% first 9 months.



Decker, Yerk, Pa., increased investment ten times in year.



Lyons, Norwalk, Conn., set for life with \$48,500 Duntile business.



Ritzert, Naperville III., built \$15,000 Duntile business is one year.



Hillebrand and partner Hummel notably suc-

A Story of Business Romance and Success

he manufacture of Duntile is a business of proven ecord and success. There are now more than 350 Duntile nanufacturers in all parts of the country. The backround of their experience is available to you—charting well marked road to independence.

The stories of success in Duntile manufacturing often eem like romances of the business world, yet the facts and figures are clear for all to see. Every phase of the susiness has been standardized according to proven ways success. The unlimited market—the structural superiorities of Duntile—the great volume production of buntile plants, the wide margin of profit—the full details

of these demonstrated facts are yours for the asking. The new mat glazing process has been invented and perfected by the same technical minds that conceived the original Duntile. It represents years of development and testing. It is offered now as a completely standardized process—as efficient, as sure and proven as everything that the W. E. Dunn organization has sponsored in the past.

Learn the true story of this newest development which is destined to startle the building field. Do it now before this opportunity is seized by someone else in your community. Simply sign and mail the coupon below.

UNTILE

LISTED IN SWEET'S CATALOG

Picture for yourself, the possibilities open to a material that meets beyond comparison the new architectural vogue of color, that provides the finest of permanent construction, yet costs 30% less than brick! Then study the opportunities of Duntile manufacturing as described in plain statements and clear figures in our book "Basic Facts." Use the coupon below.

W.E.DUNN MFG. Co.,

415 W. 23rd Street

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Holland, Mich.



untile plants like this are operating all over the country.



W. E. DUNN MFG. CO., 415 W. 23rd St., Holland, Mich.

Send me the complete story of the new Mat Glazed Duntile—the color effects obtainable—the structural advantages—the process of manufacture—the profit opportunities as demonstrated by the past records of Duntile Manufacturers.

City

BASIC FACTS

3-27



BOSTON SUNDAY ADVERTISER MODEL HOME, OAK HILL VILLAGE, NEWTON CENTRE, MASS.
DESIGNED BY HOME OWNERS' SERVICE INSTITUTE. ERECTED BY ARNOLD HARTMANN

Make Every Home You Build a Model Home

By using model home building materials -by using Fenestra Casements and other nationally known building products.

That's what the country's largest builders are doing. In New York, in Chicago, in Detroit, in Cleveland, in Pittsburgh, in many other cities, both large and small, these builders have found the model home demonstration idea so successful that they are using the

same nationally known materials in most of the homes they build.

And Fenestra Casements have played an important part in this model home program. They have provided the builder with the more modern type of windows-beautiful and useful windows that help sell houses-at a surprisingly low cost. The Fenestra catalog gives you the details you need. Write for it.

DETROIT STEEL PRODUCTS COMPANY, C-2304 EAST GRAND BOULEVARD, DETROIT, MICHIGAN FACTORIES: DETROIT, MICHIGAN; OAKLAND, CALIFORNIA, AND TORONTO, ONT., CANADA

Tenestra CASEMENTS



ANOTHER BOSTON MODEL HOME





A WESTFIELD, N. J., MODEL HOME



Last Year 104,000 Families Inquired About Brick Homes

TAST Year—1926—104,000 families keenly sought information about brick homes.

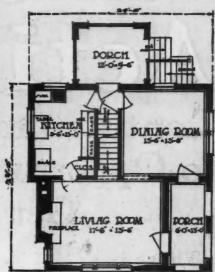
Many of these are in your locality.

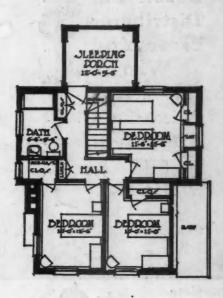
Home seekers have become discriminating buyers. In becoming discriminating buyers they are demanding homes of brick.

More and more builders and realty builders are turning to Brick because they know brick homes are in demand-hence easier sales-quicker turnover.

The "POCATELLA"

A COMMON Brick house that has been built, sold, and 'ived in -- proved practical and profitable. It is one of those shown in the brick house plan book -- "The Home You Can Afford" -- listed below. We furnish at nominal cost, specifications, and complete original working blue prints for all these houses.





Send for the Brick Books listed below NOW!

At Your Service

These District Association Offices and Brick Manufacturers Everywhere

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Common Brick Ass'n.
2131 Guarantee Title Bldg., Cleveland, O.
Send me the Books of Brick Beauty and
Economy checked below, for which I enclose
the price indicated.

e price indicated.
"Your Next Home"—(New Edition) Photos and Plains of 57 homes, 10c.
"The Home You Can Afford"—62 homes, 10c.
"Brick, How to Build and Estimate"—25c.
"Skintled Brickwork"—15c.
"Farm Homes of Brick"—5c.
"Brick Silos"—10c.
"Multiple Duellingt of Brick"—10c.

ngs of Brick"-10c.

Big Price Cut Causes Quick Action —

Contractors Everywhere Respond to Opportunity to Save \$60 and Get a Better Mixer

There is a Leach Co.
Distributor
Near You
Who
Has These
Mixers on

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1926 Price

Complete
Line of
NonTilters

1927 ter Greatetion Production Production

No Change In Quality

MATERIAL DEALERS

Name MAIL MADITION Address COUPON City NOW State LEACH CO., Oshkosh, Wis Gentlemen: Send me full detail of Leach Tilter. □I do want sale I do not man to c **TEACH** 1. Rubber tired steel Send catalo OSHKOSH of Nondisc wheels. Tilters. 2. High grade engine. 3. 4-inch steel body channels. 4. 4 cu. ft. drum. 5. Structural steel drum supports. 6. Geared tilting mechanism. Alemite Lubrication This is the each Machine You Actually Get for 19500 Oshkosh WRITE TOR DEALERS PROPOSITION



Think what it means to be able to say . .

"This bouse is equipped with Hoffman Vacuum Heat"

FIRST of all, it means an easier sale, Second, it means a better price. If a customer is hesitating between 2 houses, it may be the deciding factor.

For Hoffman Vacuum Valve users (as well as Hoffman advertising in the Saturday Evening Post, Literary Digest, American Magazine, Good Housekeeping, House & Garden, House Beautiful and 8 other magazines and Metropolitan newspapers) are saying:—

"Hoffman No. 2 Vacuum Valves turn any one pipe steam system into a vacuum system. You get up steam in 15 minutes (not an hour), radiators stay hot 3 hours (not 30 minutes) after fires are banked—for $\frac{1}{3}$ less fuel." In selling the features of your house against competition you can (when you reach the heating system) point out that the average heating system requires one and one half tons of coal (or 190 gallons of oil) a season for each radiator — and that the Hoffman Vacuum System saves $\frac{1}{3}$ of this fuel. This unique system therefore makes the owner of your house a gift of approximately \$5 a radiator each year. Enough (for a 12 radiator house) to pay the interest at 6% on \$1000.

Send for full details

TO CAPITALIZE this valuable sales argument, get full particulars, including names of reliable heating contractors in your territory. Address your letter to the personal attention of Guy Hutchinson, Vice-President, Hoffman Specialty Co., Inc., Dept. AB-1, 25 West 45th Street, New York City.

The

HOFFMAN No.2 VACUUM VALVES

Begin Now! Double Your Income With

HoltBid

We Will Send It S To You FOR ONLY

So tremendous has been the response to our first offer of the famous HoltBid Method Of Estimating, that we have decided to make it so easy for every member of the building industry to become a HoltBidder that no one need hesitate a moment longer.

FOR A LIMITED TIME ONLY—We will send the complete HoltBid Estimating System for only \$1.00 with your order.

At so small an outlay, we know that if you want to gain the many advantages that HoltBid Method Of Estimating will bring you—and who doesn't want to make More Money?—you will snap up this opportunity at once and start on the HoltBid course this week.

We have so much confidence in the men who constitute the great Building Industry, that we do not hesitate to expend thousands of dollars in placing the HoltBid Method in their hands at so insignificant a price as \$1.00 with order. We know that the HoltBid System Of Estimating will win wherever it is used by those who have mastered its principles.

This announcement tells the story of HoltBid Method Of Estimating and what it can do for you. Read It—Study It. Then all you need do, is pin a dollar bill to the coupon on the last page and mail both to us. By return mail you will receive the diagrams, instructions and material, that will start you on The Biggest Thing In the Building Field Today—The HoltBid Method Of Estimating.

By Using HOLTBID
There Will Be No
BILLS TO PEDDLE



Another Important Units
Added to the Big



ORGANIZATION



Let Us Answer Your Questions

Question—Do you mean to say that with the HoltBid System I can figure from any rough sketch or ordinary picture?

Answer—Positively yes! We first instruct you in the analysis of pictures and how to determine their major factors of proportion, after which you can answer any question that can be answered from complete, scaled drawings. Furthermore you will be in a position to make more practical use of your plan books as a HoltBidder.

Q.-How can the HoltBid do all that and be accurate?

A—Because it is a combination of a material list process and the old square system—the square method modernized. HoltBid forms preclude omissions. "The HoltBidder's Key" is an actuary that gives accurate square costs for whatever size building you are figuring—any construction, all materials, at any price. It is almost unbelievable, but the square cost of any desired wall can be accurately determined in forty seconds. Think of it—less than a minute!

Q.—But how are you to know how many "squares" there will be in that picture?

A .- Can you figure how many square feet there are in a floor 30x30? If you can, you can figure any wall or roof just as accurately from mere pictures after we ex-

plain them to you. No matter how complicated it may seem, we absolutely guarantee to make walls, roofs, ceilings for one and one-half story houses, dormers and all units just as easy to figure as a floor.

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Q.—Can you figure other materials besides lumber?

A.—Yes, brick, tile, cement blocks, concrete—anything but structural steel and reinforced concrete, and the HoltBid System will help you in many ways to figure that.

Q.—Can you figure labor as well as materials?

A.—Certainly, Part 17 of the HoltBidder's instructions deals entirely with labor records and labor accountancy. The HoltBidder's Memo gives time records in hours for any ordinary building

Q.-Where do you get your material list?

A.—From your HoltBid, after you know it will not be a "peddler's list." It's simply a matter of how fast you can write No omissions—no losing count—no headaches—and you will enjoy seeing how easy it is, no matter how expert you now may be. The HoltBid holds many valuable time-saving ideas for you.

Q.—Can I learn to HoltBid if I know nothing about building or construction?

A.—Many have, and you can if you can read, write and figure. Higher mathematics and geometry are not in



The Holtbidder has the jump on everyone when making sales. Customer can get accurate estimate in 30 to 50 minutes.

volved in HoltBidding. You may ask us any number of questions about that which is not clear to you. Your questions will receive individual attention.

Q-Will it help one who has had much experience and is good at figures?

A.—Yes. How much we cannot say, because you alone know what you know. Many experienced men are keep-ing up-to-date by becoming HoltBidders. We know you do not want to step down or let others pass you.

Q-What is the time limit on HoltBidder's service?

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A—Your life. You may consult Mr. Holt and his staff of Master HoltBidders any time you wish. You will appreciate the value of being a registered HoltBidder if you tree relocate in another section of the country where construction is new to you.

Q.—How can you give me such training for so much less than any educational institution?

A.—Why are Ford's so reasonably priced? Remember the HoltBid System is a part of the world's greatest organization for building information—The Radford Publications

Q-Will HoltBid help me get a better job if I am an employee?

A—Yes by making your present job pay you better.
Your added ability as a HoltBidder will attract more opportunities and your trial demonstrations will carry conviction. We will not solicit a position for you, but will

bear witness to your ability as a HoltBidder. Many have found the HoltBid a "job insurance" policy.

Q.—How do I know that HoltBid is not "old stuff" to me?

A.—Because much of the HoltBid system was developed by Mr. Holt and his collaborators in practical experience and has never been published or otherwise made generally known before.

Q.—Can I afford the HoltBid?

A.—Yes, absolutely. As a HoltBidder your carnings will increase. And the time-payment plan permits you to pay as you progress.

Q.—How soon can I begin?

A — Immediately! All you need do is fill out the coupon on the next page, attach your check, money order or currency for \$1.00, and mail to me. By return mail you will receive the study units and materials enumerated on next to the last page of this booklet.

Q.—Is the HoltBid difficult to learn?

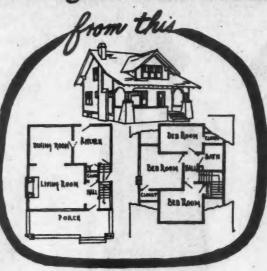
A.—No, but like everything else, you must apply yourself to the work in hand to gain your goal. You can master the principles of the HoltBid Method of Estimating if you make up your mind to do so.

Q.—How long will the present down price of \$1.00 hold good?

A.—The special introductory price and the \$1.00 down-payment plan are for immediate acceptance. You must

HoltBid Will Figure This House

Only 30 to 50 Minutes are Required to Accurately Estimate the Cost of an Ordinary Building by the Tested and Tried HoltBid Method.



Your Order-\$1.00 Down -Includes a Year's Subcription to The American Builder Magazine.

In An Hour!

Only 1000 Sets Available At This Bargain Price!

I WANT to place 1,000 HoltBid Systems in the hands of the representative men in the building industry as advertising for the HoltBid Method and the Radford Organization behind it.

To bring about this result immediately I have reduced the original down payment price from \$15.00 to \$1.00, and as further inducement I have fixed the monthly payments at only \$5.00 each, until the special introductory price of \$85.00 has been paid. Moreover, your order for HoltBid will include a year's subscription to the American Builder magazine, which becomes effective immediately upon receipt of your acceptance. Without the American Builder we shall deduct \$1.00 from the total purchase price.

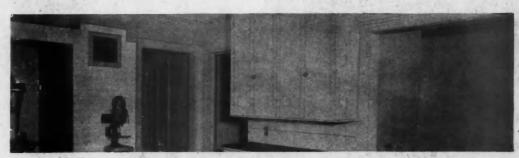
I know that the 1,000 men who will become HoltBidders through this special offer will forever attest to the great value of the HoltBid Method of Estimating. Their use and endorsement of the HoltBid Method will be the finest stamp of approval of HoltBid I could ask for-the best testimony in the world of HoltBid merit.

You've Got To Act At Once

I urge you to take advantage of this offer immediately. I not only give you an opportunity examine and study the HoltBid method, but also guarantee to refund you the \$1.00 down payment if you are not satisfied. Obviously, I have limited this offer to the 1,000 sets and therefore cannot emphasize too strongly the necessity of prompt action.

Merely pin a \$1.00 bill to the coupon below and mail to me. It will bring you the first of the HoltBid system as well as a copy of the American Builder magazine each month for a year. I shall look for your response by return mail and shall send you my personal acknowledgment of your order.

William A. Radford, President, HoltBid Service Company 1827 Prairie Avenue, Chicago, Ill.



When Beauty enters the Kitchen



If you think of a kitchen as a food laboratory, you will give added thought to its floor.

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Ill.

Cleanliness and permanence you will want of course. And quietness too will be desirable. Also color and tone will have their place because at last beauty has entered the kitchen.

Make a mental sketch of the kitchen floor your best judgment would approve, then fill in the picture with Goodyear Rubber Tiling.

A material that measures up to such

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Sold under a name that insures satisfaction. Used successfully in every kind of business structure. Quality considered, the price is low.

Complete architectural data will be gladly forwarded upon request. Address Goodyear, Akron, Ohio, or Los Angeles, California.

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YOU can set early completion dates without fear, when your equipment includes a DeWalt. Speeds the job all along the line, from the shoring of the excavation, and the concrete forms, to the room trim. Use it right on the spot. Runs from any lamp socket. Two men can easily carry it anywhere. Tools changed in 30 seconds. Direct drive—no wobbly belts.

in making concrete forms

See the DeWalt in action on your own job. Demonstrations will be made anywhere in U. S.

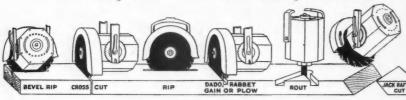
SixTimes Faster On All These Jobs

Jack Rafter Moulding Fluting Cuts Ripping Dadoing Mitering Routing Beveling Sanding Matching Turning Polishing Boring Mortising Grinding Tenoning Shaping Cross Cutting Panel Raising

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Makes any cut - and work always lies flat



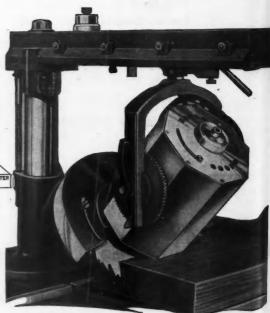
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Let us have all the facts about how the DeWalt Woodworker can add to our profits. This does not obligate us, of course.

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Will Last Always!

The K-V Clothes Closet Fixture represents a small investment, and is easily installed. Made of steel—handsomely nickeled—in lengths up to 60 inches. Slides easily on roller bearings. Sturdily constructed and can't get out of order. Ideal for homes of all kinds, hotels, clubs and apartments. Write today.

K-V CLOTHES CLOSET FIXTURES

Wasting space in home building is just short of shameful neglect. Yet, the average contractor or builder doesn't realize that year after year he wastes millions of feet of space by planning clothes closets that are unnecessarily large—and being large, become untidy white elephants to the housewife who must attempt to keep them in order.

By planning Space Saving Closets, and installing K-V Clothes Closet Fixtures you can positively save from 20 to 30% room space and hundreds of dollars in construction costs.

The K-V booklet "How to Design Wardrobes and Clothes Closets" will tell you all about it—start you off with new ideas for homes planned this spring—save you much money—and bring to your homes an added selling feature that means quicker sales.

Will you send for it? Use the coupon, and get your copy at once.

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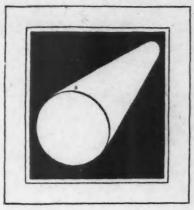
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ALPHA CONTAINS MORE COPPER





RASS pipe has been made for many years by casting a solid billet and piercing it to form a shell, which is then drawn down to size. This is called the "Piercing" process. But brass having much over 60 per cent copper cannot be pierced and that is why ordinary brass pipe has never contained more than 60 per cent copper.

LPHA brass is cast in tubes instead of in solid billets and so we do not have to use the piercing process. Consequently, we can use all the copper necessary to give the best results. The mixture we have chosen has 10 per cent more copper than the old process will allow, and that is why Alpha brass pipe has properties that ordinary brass pipe cannot have.

ALPHA has more copper and more lead than the usual brass pipe. More copper raises its resistance to corrosion and makes it more ductile and tough. More lead makes it easier to cut the clean and perfect threads so essential to leak-proof connections.

Alpha has a superior surface finish and can be bent cold without collapsing. Every length is trade-marked twice and we guarantee it against season cracking.

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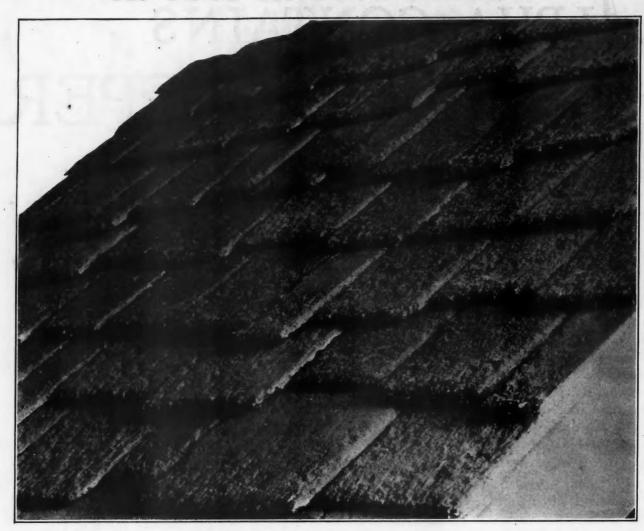
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# TAPERED AMBLER ASBESTOS SHINGLES

Rigid, Fireproof Roofing NOT Flexible, Impregnated Felt.

# On Your New House Let the FIRST ROOF be your LAST ROOF AMBLER ASBESTOS SHINGLES WILL LAST YOUR LIFETIME

If you want to avoid roof troubles be sure to have your Architect specify

TAPERED AMBLER ASBESTOS SHINGLES

They are Fireproof, Weatherproof and Everlasting

The above close up photograph shows the definite charm and distinctive effect of this unique product, the "English Thatth" in random widths, irregular courses and rough texture that completely eliminates hard and fast lines and sets a new roofing standard, giving a novel beauty to the modern home and an added degree of serviceability to a roof.

First of all. TAPERED AMBLER ASBESTOSISHINGLES have the taper of the old wooden shingles. They come in random widths, 6 in. to 14 in., ½ in. thick at top and ½ in. at butt and 20 inches long. They are strong, rigid, shingles, not paper or rag felt—never curl, or warp, not affected by the blasts of winter, the heavy rains of spring and the blazing heat of summer, year in and year out, for they are made of Asbestos and Hydraulic Cement—Nature's imperishable materials. They are made in a variety of non-fading colors:—Green, Red, Brown, Gray, etc.

Fireproof Tapered Ambler Asbestos Shingles are absolutely fireproof, not merely "fire-resistant". Ask your fire insurance agent what the difference is. He will tell you the difference and show you the saving in rates—a matter of serious consideration over a term of years and years. It will pay you to write us for complete information covering these superior shingles.

Made by the AMBLER ASBESTOS COMPANY, at Asbestos, Pennsylvania, and sold by the

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SHINGLE, SLATE & SHEATHING COMPANY

Pennsylvania Ambler :

OR BRANCH OFFICES IN LARGE CITIES

"ASBESTOS CANNOT BURN"

1, 1927

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Por YEARS non-tilting design attempted to compete with the efficient simplicity of wanter design in the half-bag size. Today the half-bag non-tilter is obsolete. Today the popular one-bag 5-S tilter is also dominating. Today the larger job contractor is increasingly demanding tilter efficiency and simplicity in all larger sizes up to and including 14 cu. ft. capacity.

WANDER has full confidence in the Single Opening Tilting Principle. WANDER believes if the same functions of a concrete mixer can be performed better with one-third of the moving-wearing parts necessary in the non-tilter design, that the tilter will eventually dominate in all the sizes.

Our 1927 Catalog covering WANDER Mixers in sizes 3, 3½, 5, 7, 10 and 14 cu. ft. mixed concrete per batch, covers the only exclusive, complete line of Single Opening Tilting Mixers in the industry. It is yours for the asking.

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7 out of 10 leading mixer manufacturers are now building TILTERS around the fundamental WANDER design



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Here's good news for you and every American Builder reader!

Our big, new book—"Most Popular Homes in America"—148 pages—is off the press and we want to send you your copy at once, absolutely free of cost.

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Real Estate Miscellaneous.....

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ECONOMY! Any kind of fuel burns per Holland You fectly in the Holland can buy the cheapest and even that goes further and gives better results than the gives perter results than the most expensive fuel in the average furnace. You can actually save more than 20% of your present fuel cost-it you are using an ordinary heating system—that's Juaranteed!

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Only Holland Heated Homesenjoy theright degree Guaranteed!

### CORRECT **INSTALLATION!**

Right installation is the basis of satisfactory heating. Every Holland installation is made by a factory trained expert. Your Holland must heat satisfactorily-that's our contract to you. Every room heated, no matter what its location. Every installation is backed by the entire resources of the Holland Furnace Company, who are Directly and Solely Responsible to You. If your home happens to be unfitted for warm air heating-we have DAMPENED to tell you. It must be right—and you must be en-tirely satisfied before we are. When we contract to heat-we have to heat-that's

Guaranteed!

Carrying our the ashes isn't a dirry job with to stop using coal wine any.

Guaranteed!

### EASY TO OPERATE!

The Holland is the easiest furnace to care for ever built. The fuel lasts longer There are less ashes. The flow of heat is even and perfectly distributed. Once a day twice at the most the Holland fire boxisfilled with fuel and then the Holland takes care of itself. Its ease of operation is

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#### **GUARANTEED!**

An iron clad guarantee good for five years. Every part, every feature is guaranteed. Satisfactory heating of the entire house—the right degree of humidity—ease of operation, cleanliness, right installation, healthfulness and economy-all guaranteed for as long a time as the furnace is cared for according to our instructions!

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Holland Furnace Company, Holland, Michigan

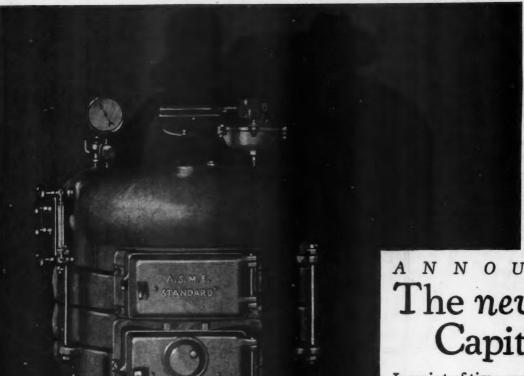
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- Please send me your special proposition for contractors and builders

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The new
Capitol boiler

In point of time and in approach to perfection, the new Capitol is the latest development in round boilers.

Beyond all question, it has in practical tests proved measurably superior to all previous types—in fuel economy, comfort, and perfect heat control.

Whether you are building one house or a group of them, you can confidently install the Capitol as representing an utterly new and unprecedented efficiency for residence heating.

Your clients and prospective buyers will see this unparalleled improvement announced in the March national magazines with a circulation of more than 5,475,000 copies. See the attention-seizing color spread, for example, in the Saturday Evening Post, March 19.

Ask any Capitol contractor about the superiorities of the new Capitol boiler and the savings of Capitol guaranteed heating. Or write for full data.

UNITED STATES PADIATOR GRPORATION-DETROIT, MICHIGAN
6 FACTORIES AND 28 ASSEMBLING PLANTS SERVE THE COUNTRY
For 37 years, builders of dependable heating equipment

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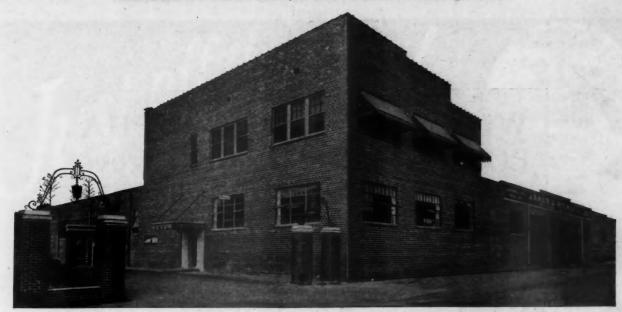
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# "500% increase this year in our sales of Eternits"

-Baker & Holmes Co., Jacksonville, Fla.

500% sales increase in one year! And only the second year the Baker & Holmes Co. had handled Eternit Asbestos Shingles. This well-known building supply house further writes us:

"We attribute this increase to the superior quality of Eternit Asbestos Shingles and your splendid co-operation. During the recent hurricane, which ravaged the lower East Coast and central section of Florida, Eternits withstood the elements without any material damage. This further substantiates our judgment in handling Eternits and serves to increase our efforts in their behalf."

There's a vital message for every building supply dealer, a recommendation for Eternits that no one who buys, sells or

lays roofing can afford to belittle or ignore.

Eternits are easier to sell. And to be easier to sell they must be better, quality for quality and price for price, than any other asbestos shingle made.

They are! They're stronger, tougher, more resilient. They can be handled with less breakage. They can be laid more easily, more quickly. The hundreds of letters we've received supporting these facts have come mainly from dealers, builders and roofers who've also handled or used other kinds. They've made some direct comparisons. We will be glad to refer you to any of these folks direct.

We also want to show you why the demand for asbestos shingles grows so fast. We want to tell you the reasons why an Eternit roof never fails to satisfy. We want to tell you something about the exclusive Eternit features—the extra long fibered, South African asbestos and the layer-by-layer built-up construction which is so superior to the cast or moulded

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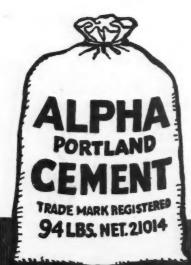


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Check square if you	are a dealer. If you	are a builder or	roofer, give dealer's	name here

With every sack of ALPHA PORTLAND CEMENT goes an experience of 36 years in making a high-grade Portland cement and in serving its users.

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# Contractors Experienced In

DEALERS are urged to write for full information to the nearest manufacturer listed below

ALABAMA Alabama Brick and Tile Co., Decatur. Jenkins Brick Co., Montgomery. Vulcan Tile and Brick Co., Birmingham.

ARKANSAS

Magnolia Brick & Tile Co., 225 Louisiana St.,
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CALIFORNIA
W. S. Dickey Clay Mfg. Co., 604 Mission St.,
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San Francisco.
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COLORADO Longmont Brick and Tile Co., Longmont.

GEORGIA Columbus Brick and Tile Co., Columbus.

Wm. E. Dec Co., 30 N. LaSalle St., Chicago.
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National Fire Proofing Co., 26th St. and Shields
Ave., Chicago.
White Hall Sewer Pipe and Stoneware Co., White
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Indiana Drain Tile Co., Brooklyn.
National Fire Proofing Co., Brazil.
Portland Drain Tile Co., Portland.
Sweetser Drain Tile Co., Sweetser.
Vigo-American Clay Co., Terre Haute.

Mason City Brick & Tile Co., Mason City.

KANSAS The Humboldt Brick Mfg. Co., Humboldt.

KENTUCKY
Coral Ridge Clay Products Co., Louisville.

MASSACHUSETTS
National Fire Proofing Co., 99 Chauncy St.,
Boston.

National Fireproofing Co., 620 Polk Directory Building, Detroit.

MISSISSIPPI
West Point Tile Co., West Point.
MISSOURI
W. S. Dickey Clay Mfg. Co., Kansas City.
Fayette Brick and Tile Co., Fayette.

NEW JERSEY
The Anness Hollow Tile Corporation, Wood-bridge.

NEW MEXICO
Albuquerque Brick & Tile Co., Albuquerque

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Troy Fire Proofing Co., Troy.

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Heliman Brothers, Tiffin.
Metropolitan Paving Brick Co., Canton.
National Fire Proofing Co., East Canton.
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'HE savings in labor cost. The savings in mortar—the saving in speed of construction—the saving in foundation cost due to reduced weight of walls.

The definite advantages of Hollow Tile for floors—the unusual strength and lightness—the fire safety—the speed and economy in construction—to say nothing of owner acceptance and owner satisfaction.

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> Your name will then be included (without charge) in 1927 listing of experienced responsible contractors. List distribution is to owner prospects, dealers and all Tile manufacturers and all inquiries about contractors.

# Large Increasing Demand

Building Material Dealers are requested to write one or another of the manufacturers listed on this page for special terms and information relative to the varied uses of Hollow Building Tile.

Turnover and profits are assured. Direct-to-job shipments both make and save money too. Write now, before the building rush starts.

HOLLOW BUILDING TILE ASSOCIATION Conway Building, Chicago



# 67"Insurance Policies" that bring you Guaranteed Incineration

To over 2500 of America's leading architects and builders, the word "Kernerator" stands for "guaranteed incineration for the life of the building." The Kernerator itself is only part of our contract to insure this guarantee. Even more important, if that be possible, are the sixty-seven Kernerator agencies throughout the world—each in charge of a highly trained incineration engineer possessing a knowledge of garbage and waste disposal which really makes incineration a science. Some of the well known ways in which these men cooperate are:

- 1 Planning service.
- 2 Installation supervision by an expert incineration engineer.
- 3 Personal attention and help if operating instructions are lost or not followed.
- 4 Service stocks, for immediate shipment, at several strategic points.

We have prepared twelve brief messages on the subject" Is Incineration So Simple, After All." Architects and builders interested in the science of incineration will find them valuable reading. May we send them?

For detailed information, see Sweet's 21st edition, pages C3054-C3055. Or 'phone your local Kernerator representative.

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# BUILDER

March 31, 1925

Copper & Brass Research Association, 25 Broadway, New York, N. Y. enuemen:
Please send me your books "Real Roofings" and "Home
"ixtures" and oblige-Tixtures" and obuge.

I wish to thank you for the copy of your book "A Real Home" that I received yesterday. It sure covers everything to time" that I received yesterday. It sure covers everything to time that I received a "Home Reautiful." which was one.

I recently visited a "Home Reautiful." Gentlemen: Fixtures" and oblige. into money. I then told him I wouldn't consider spending that much money on a home not having Brass pipe. I then money on a home and the cheapest gutters and Imagine \$22,000 for a home and got Copper gutters and Imagine Then asked him, have you got right back at him made. Then asked he said yes—I went right back at them conductor pipes. He said yes—I went right back at them and said I'm not sure about that, as I noticed he Believe me and said I'm not sure about that, as I noticed he made no sure about that effect. Believe me and said I'm not sure and conductor pipes on my home copper bronzed probably to give ductor pipes on my home when I put Copper gutters and conductor varything to live it won't have anything I won't bronze them, because I won't have anything I won't bronze them, because I won't, and should I sell my I'm a sort of a crank on that stuff, and should I sell my I'm a sort of a crank on that stuff, and should I sell my I'm a sort of a crank on that stuff, and should I sell my I'm a sort of a crank on that stuff, and should I sell my I'm a sort of a crank on that stuff, and should I sell my I'm a sort of a crank on that stuff, and should I sell my I'm a sort of a crank on that stuff, and should I sell my I'm a sort of a crank on that stuff, and should I sell my I'm a sort of a crank on the stuff is a crank on the st Won't pronze them, pecause I won't have anything to nice.

I'm a sort of a crank on that stuff, and should I sell my I'm a sort of a crank on that stuff, and should I sell my place this summer my intentions are to build and use the goods you people recommend.

prace une summer my intention goods you people recommend. Yours very truly,

Fre Bren Williamsville, N. Y.

> This letter expresses the point of view of thousands of prospective home buyers today.

> In home construction the buyer demands materials that do not require costly replacements.

> COPPER, BRASS and BRONZE never rust. Home buyers know that these metals eliminate all future repair expense due to corrosion.

> For the builder COPPER roofing materials, Brass pipe, Brass or Bronze hardware and lighting fixtures provide the best sales argument.

### COPPER & BRASS RESEARCH ASSOCIATION

25 Broadway-New York



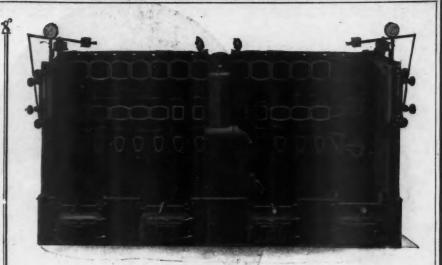
Triple Fire Travel
Flames and hot gases give
up all their heat units by
passing three times through
the length of the boiler
before being drawn up the
chimney.



Flat Pattern of Grates
Grate bars are so constructed that by connecting them together in pairs or triplets, the shaking and cleaning is easily and thoroughly done.



In Two Types
"Progress" Boilers are made
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mild weather one-half of
the Twin Boiler may be
used independently—a
great saving of fuel.



# THATCHER Progress Boiler

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You will be doing the best possible by your customers and yourself if you equip your large structures with the Thatcher Progress Boiler.

For halls, churches, schools, libraries, and residences having many rooms, no boiler will heat more efficiently and at lower cost than the "Progress".

In the column at the left are shown and described features that contribute to the widespread popularity of this boiler.

The low water line of the Thatcher Progress Boiler makes it easy to install because no pit is necessary and ample overhead room is assured. Its side feed construction and short depth of grate make it easy to fire. Economy of fuel is also a feature.

Literature describing in detail the Thatcher Progress Side Feed Boiler and other Thatcher products, has been prepared especially for builders and contractors. Write for it today.

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# THATCHER BOILERS-FURNACES-RANGES



# Homes now include apartment house Conveniences

TODAY in planning, building or buying a detached home it is generally accepted that the same economic laws underlie its ownership that underlie the financing of a large residential hotel or apartment building.

The same consideration is now given to the relation between the cost of the building with its ground and the accommodations afforded.

Twenty-four hour utilization of space—as made possible with Murphy In-a-Dor Beds—is now the aim of both home owner and apartment builder.

With Murphy In-a-Dor Beds spacious rooms, with ample sleeping accommodations, are possible, in both house and apartment, on a relatively small floor or ground area.

The Murphy In-a-Dor Bed permits

The Murphy In-a-Dor Bed permits the building of an adequate house on a smaller lot. This means a less expensive home on a less costly lot. It means less house to heat, to furnish, to redecorate, to insure, to keep clean and in order.

Within the year there has sprung up among prospective homeowners a great interest in the Murphy In-a-Dor Bed that had revolutionized apartment house construction. This interest is expressing itself in the editorial columns of the press, in inquiries to us and in requests, by prospective builders, to contractors and supply dealers for information about In-a-Dor Beds. Are you making preparations to keep pace with this new trend in home building?

Learn now the mechanical and structural superiorities of Murphy In-a-Dor Beds—the only beds that in full size will swing through a standard three foot door.

Our literature will familiarize you with the features of Murphy In-a-Dor Monte

Beds. Our Murphy Co-operative Service is maintained to help architects, builders and contractors with plans and construction until they have seen how simple and easy these phases of the subject are.

Write us about our product—the only In-a-Dor Bed—and our service.

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# The Murphy In-a-Dor Bed

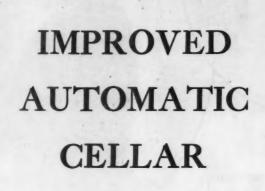
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IN-A-DOR BED-THE MURPHY

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Equally serviceable for residences, office buildings, factories, elevators pits or excavations. The Penberthy removes more water, in less time, at lower supply pressure than any other drainer of its kind. The movement based on natural laws, is extremely simple, has only one point of friction and is unaffected by dirt. Approved by years of public use.

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Install in a sump, allow the level of surface to be drained. The drainer valve (C) is normally in a closed position. As the water rises it lifts the float (L) until, when sufficient water has accumulated, the float buoyancy opens the valve (C) and starts the ejector (F). The ejector pumps rapidly until the level of water in the sump has lowered to a point where the float (L) in descending with the level of the sump water, automatically closes the valve (C). The cellar drainer now remains inactive, using no pressure water until the sump has again filled with seepage water.

See your jobber or write us for information if he cannot supply you.

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# THEY'RE ALL WANTING THIS NOW





### Majestic Coal Window

Majestic Coal Windows are the recognized leaders—guaranteed break-proof, rust-proofed—made of Certified Malleable Iron and Keystone Copper Steel. More Majestics are in use than all other coal windows combined. You're sure to please your client when you install Majestics in the houses you build.

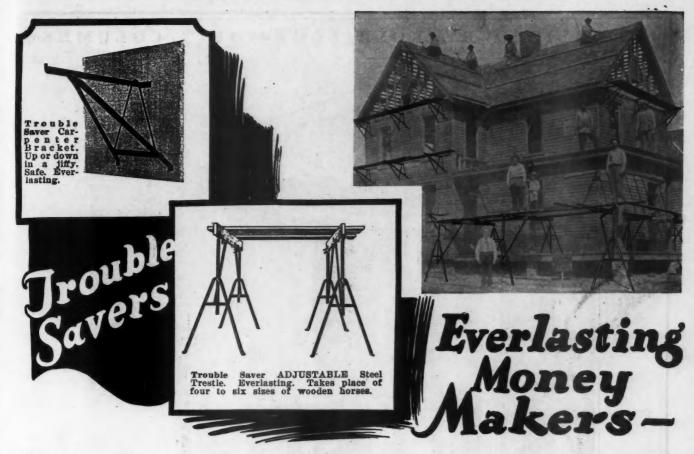
VERY WOMAN wants this new convenience -the Majestic Milk and Package Receiver. It saves her steps and prevents annoyance, intrusion and theft in the delivery of milk and packages to her home. With a Majestic there is no longer need for deliverymen to enter the house nor for packages to lie unprotected on porch or steps. Deliveries are placed in the Receiver from the outside. The deliveryman closes the door and it locks automatically. The packages are removed from the inside at the convenience of the housewife. Quickly and easily installed in any type of home and the cost is low. The Majestic Milk and Package Receiver is a practical convenience that weighs heavily in a woman's opinion of the whole house. Install it in the houses you build.



Write for catalog showing Majestic Milk and Package Receivers, Coal Windows, Underground Garbage Receivers and other Majestic Quality Products you will want to use in the houses you build.

THE MAJESTIC COMPANY, 1500 Eric Street, Huntington, Ind.

# Majestic MILK AND Receiver



What Users Say-

"Find them very satisfactory."
"Would not be without them since I realize how safe they are."
"Am well pleased with the Scaffolds."

"The Scaffolds are all that you claim, and more too, as they save us much construction work."

"I am sure they saved me the price of them many times. . . Your Trouble Savers are well named."

"Your Scaffolds are just what every builder ought to have if he is any kind of a builder. I could not be without them."

"Scaffolds are all they were re-commended to be in the way of time

Start These Big **Economies Today** 

Right now is the time to buy scaffolding. Don't miss the profit on two or three cold weather jobs, but order your Trouble Saver Steel Scaffolding immediately, and make enough money on it to pay for it before the building season opens up. Stop now wasting money in erecting or tearing down wooden scaffolding and re-placing worn wooden scaffolding. Mail the coupon now, and plug up these profit leaks.

Check up on the Contractor-Builders or Realtor Builders whose business grows bigger, more prosperous, and more profitable each year—and you'll find them using modern equipment.

And the type of modern equipment they naturally buy first is Trouble Saver Steel Scaffolding, of course, because steel scaffolding will save more and last longer than any other type of modern equipment.

- Quicker. Trouble Savers make scaffold erection or dismantling a job of minutes instead of
- Safer. Workmen do more when they feel safe. They have supreme confidence in the safety of Trouble Savers.
- Everlasting. Trouble Savers last a lifetime, saving the cost of countless sets of wooden scaffolding.
- 5. Save Thousands.
  Trouble Savers make a big lumber and labor saving on every job, for a lifetime. This saves you thousands of dollars.
- Modern. Trouble Savers mark you as an enterprising contractor with modern equipment. This means more jobs and bigger jobs.
- Low Cost. A few dollars will buy enough Trouble Savers to scaffold a small job. You'll quickly see the saving. Then you can increase your Trouble Saver Scaffold in little by folding little by little as your

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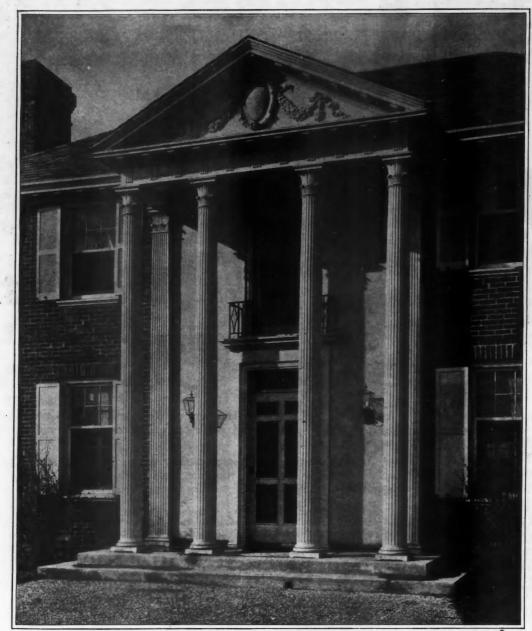


THE STEEL SCAFFOLDING CO

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### STABILIZED BY KOLL LOCK-JOINT COLUMNS



Smithers Residence, White Plains, New York
Donn Barber, Architect

Whether your problem concerns a fine entrance, a beautiful fireplace mantel or other exterior or interior work, you'll find here the fine designing and masterly craftsmanship which you require to please your client. Catalog of entrances, Koll Lock-Joint Columns or Garden Equipment gladly sent on request. Hartmann-Sanders Co., 2171 Elston Ave., Chicago. Eastern Office and Showroom, 6 East 39th St., New York City.

# HARTMANN+SANDERS

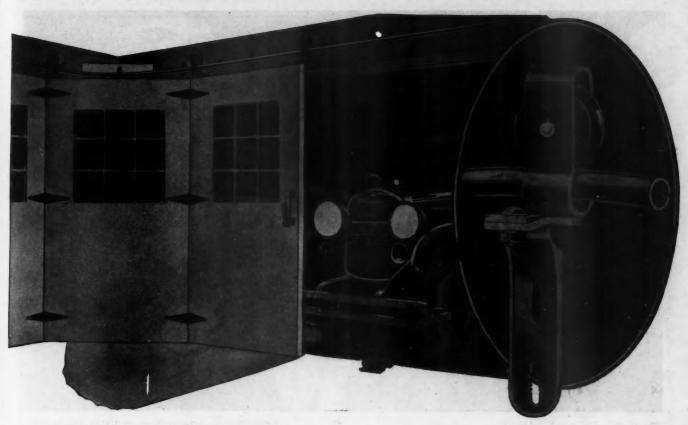
Pergolas Rose Arbors Garden Equipment



Colonial Entrances Koll Columns

210





# Car Owners are entitled to better Garage Doors

No need now for car owners to have garage doors that sag, stick and jam; that won't stay either open or closed. For you can specify A-P garage door hangers to replace old hardware, on old doors, just as well as for use with new ones.

A-P "1189" is the favorite Round-a-Corner garage door hanger. It has the famous A-P high carbon steel round track which, with lubricated roller bearing hanger wheels, forms an easy running, round-a-corner door, free from all side friction. And A-P doesn't balk, buckle or jump the track. It is quiet. So quiet that its silence says more than a million words.

Made to fit openings with any number of doors. Sells in various combinations and costs no more than the ordinary flat track type.

The only moving parts on the entire garage need the best equipment that can be had. A-P "1189" Rounda-Corner garage door hardware is first choice with many thousands of architects, contractors, builders, dealers and car owners. Every firm in the building trades should have A-P Catalog No. 95 showing this and other hangers along with all kinds af building hardware. Write for it on your letterhead.

### **ALLITH-PROUTY COMPANY**

DANVILLE, ILLINOIS

Garage Door Hardware Rolling Ladders Manufacturers of
Spring Hinges
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CONTRACTORS

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tell us that specifying and installing A-P hardware in garages, homes and all buildings builds up their reputations for good hardware judgment and mades property easier to sell. It will do as much for you.

# Allith

Manufacturers of the Finest Line of Garage Door Hardware



This trademark on every board proves it is genuine California Pine

"Cal" Pine, guardian of the grades, is the head of the official Association grading inspection force.

# "Cal" Pine makes his mark on every piece of California Pine lumber yard stock

Here is good news for every architect, builder, lumber dealer and home owner. A trademark: O.K. "Cal" Pine, in the form shown above, has been officially adopted by the California White and Sugar Pine Manufacturers Association. It will appear on every piece of California Pine lumber yard stock from Association mills. Increased sales and the opening of new markets have made such a move advisable. This progressive step is taken to insure better satisfaction among all factors in the sale and use of California Pine. Under the "Cal" Pine trademark everybody can specify, buy or sell with added certainty of quality.

The trademark: OK "Cal" Pine is more than a symbol of identification. It is the pledge of superior lumber properly manufactured, standard sizes and uniform grading. Before any piece of California Pine receives "Cal" Pine's OK-mark it must pass the rigid inspection of certified mill graders who grade according to strict Association rules. The work of these

graders is in turn constantly checked and supervised by Association inspectors.

"Cal" Pine—guardian of the grades—is head of the official inspection force which covers all the Association mills. Under his leadership the users of approximately two billion feet of California Pine each year are assured a properly manufactured and uniformly graded product.

And to make his assurance more binding "Cal" Pine now makes his mark on every piece. Our "30 Million Messages" national advertising campaign will tell every lumber consumer to look for "Cal" Pine's OK on every board.

Have you a copy of "Cal" Pine s illustrated book of grading rules?

It covers the entire subject of grades, sizes and uses of California Pine. A postcard brings one or more copies gratis.



CALIFORNIA WHITE AND SUGAR PINE MANUFACTURERS ASSOCIATION

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656 CALL BUILDING . SAN FRANCISCO

# **CALIFORNIA PINE**

California White Pine (trade name)

California Sugar Pine

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# Are You the Man Who Instatted miths Store Front?

Even the greatest among us have an impulse to "follow the leader." Contractors who install one front in a neighborhood find that invariably one installation brings another, even to the point of a hurry-up phone call.

The contractor who installs a satisfactory store front a front that has a clear appeal to the sense of beauty and a definite display value—will soon acquire a reputation as a store-front specialist, and orders will flow uninterruptedly to his door.

That this is a fact has been amply proven by hundreds and hundreds of contractors who are putting their efforts on selling and installing

### BRASCO FACTS

- 1. Extremely simple in design.
- 2. Indirect screw pressure.
- 3. Heavy gauged copper.
- 4. Extra wide grip on the glass.
- 5. Artistically beautiful.
- 6. Wide drainage gutter.
- 7. Staggered ventilation ducts.
- 8. Easy to install.
- 9. Economical to glaze.
- 10. Employs standard millwork.

# Brasco COPPER STORE FRONTS

And whenever you find a contractor who is making a specialty of installing Brasco Fronts, there you will find a contractor who has made a positive financial success in his business.

Brasco Copper Store Fronts have won marked preference by virtue of their design, construction features, durability, strength of material used, and reasonable prices.

Mail the coupon today. It will bring you the details of how you too can enjoy the profits of store front work.

# BRASCO MANUFACTURING CO. 5029 WABASH AVE., CHICAGO

Eastern Sales Office and Warehouse 28-14 Wilbur Ave., Long Island City, N. Y.

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BRASCO MFG. CO., 5029 Wabash Avenue, Chicago.

(A. B. 327)

Send me your free information on profitable store front work.

Name __

Address

When you build or sell a house with Curtis Woodwork give the owner a Curtis Certificate. It is authenticated evidence that Curtis Woodwork is in the house.

# Truly Colonial must be built Colonial

WHITE siding and green shutters do not make a house truly Colonial. Unless it has the proper proportions and genuine Colonial details, it is not true to the type.

Contractors and builders who build Colonial homes will find in Curtis Woodwork designs that will give their houses true Colonial character and that will save money at the same time.

This is also true of Curtis Woodwork for other architectural styles—English, Spanish, Italian, Modern American.

Curtis Woodwork is manufactured for stock, in acceptable woods and in a wide variety of sizes. It is easy to draw plans to take these stock forms or to fit them into plans already drawn.

When you use stock woodwork you are relieved of a great deal of the trouble that is attached to made-to-order production. Deliveries are made on-time and when you want them; mistakes of every kind are avoided or greatly cut down; and you are sure of the finished work.

Besides being of better construction in both workmanship and materials than any other kind of millwork, Curtis Woodwork reaches the job in better condition and requires less preparatory work on the part of the carpenters and painters.

The leading dealer in woodwork in your town (if you work east of the Rockies) is probably a Curtis dealer. Ask him to show you his stock and to explain the service he renders on Curtis Woodwork. Or write for further information.

# CURTIS WOODWORK

Here is a close-up of the entrance in the house shown above, which is the home of Mr. W. Irving Kimball, in Wynnewcod, Pa.; Wallace & Warner, architects; The Gillingham Company, dealers. This entrance contains Curtis standard frame C-1265 and porch columns C-1397.

Windows with small panes and blinds are almost universally used on genuine Colonial houses as in the home of Chas. S. Ristine, Wynnewood, Pennsylvania; Wallace & Warner, architects and builders; The Gillingham Co., dealers.



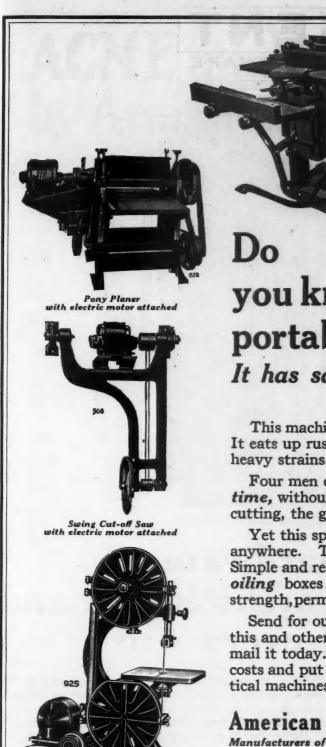
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Do you know this portable Woodworker?

It has saved thousands of builders time and money!

This machine often pays for itself on the first few jobs. It eats up rush work. And it is built to stand up under heavy strains.

Four men can work on this woodworker at the same time, without interference. When you want to do cross cutting, the gauges can be removed in five seconds!

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Send for our free catalog giving further particulars of this and other machines. Cut out the coupon below and mail it today. Thousands of builders have cut operating costs and put through rush jobs with these sturdy practical machines.

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Manufacturers of all varieties of Saw Mills and Woodworking Machines
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LOCKS AND HARDWARE



# Sargent hardware for every style of architecture and buildings of every size

WHATEVER you build—whatever its style or size or cost—you will find appropriate patterns and true economy in Sargent locks and hardware of solid, time-defying brass or bronze.

Here are beautifully designed handles, knobs and knockers. Easy spring locks for entrance and interior doors that are not surpassed in security or ease of operation. Sash and casement

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Choose from the great variety the Sargent line offers you.

Choose from the great variety the Sargent line offers you. The most modest six-room cottage can be made more livable, more attractive with Sargent hardware—more salable if you are building to resell. If you are a development or operation

builder, there are so many different styles that for even a group of similarly designed houses Sargent fittings may be selected that bring a freshness and individuality to the doors and windows of each.

individuality to the doors and windows of each.

Remember that Sargent locks and hardware are not only for the pretentious or costly dwelling.

They are increasingly used in

They are increasingly used in small buildings. For builders are realizing that the slightly higher cost of bronze or brass is far outweighed by the greater service and satisfaction that Sargent hardware gives. Sold by representative dealers in all cities, who will gladly help you make appropriate selections and furnish estimates of cost.

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# ACME quality is appreciated by American home builders





Model A, without open shelf below.



Model B, with open shelf below.





Model E, for mounting on wall.

Four sizes.

Reproduction of advertisement appearing in recent issues of "House and Garden", "House Beautiful" and "Keith's Beautiful Homes".

Year after year, thousands of home owners are insisting on MORTON "Acme" steel, white enameled cabinets for their bathrooms. They do this on the recommendations of their friends, their architects or contractors-sometimes all three. And this confidence is not misplaced. There are no finer bathroom cabinets, in construction, design, and finish. Catalog A-4 gives full particulars and installation details. Write for it.

### MORTON MANUFACTURING COMPANY 5161 West Lake Street, Chicago, Ill.

# Combination Bath



Plate 30 E

Semi-Vitreous Porcelain Ware, 44x30 inches to tile in right or left hand corner, or in recess. Glazed white all sides. Only one size made.

The COMBINATION BATH is an entirely new departure in the development of modern sanitary comfort, comprising, as it does, a SEAT, FOOT, SHOWER and CHILD'S bath, all in one.

It possesses many essential common sense features not found in any other types. For instance, it is more comfortable and less wasteful of water; it is possible to bathe and treat the feet without the removal of all clothing, by having only a small amount of water in the foot section. The ledges on the end and both sides of the dimensions of the foot section allow ample space for the feet when standing or sitting. The Mother or maid can bathe a child in comfort under ideal conditions. The child can be bathed on the seat section, and then, if desired, dipped in the water filled foot section.

Remember, when you are considering the length of the COM-BINATION BATH in comparison with other kinds or styles, that you do not assume a half reclining position when using the COMBINATION BATH, but instead a sitting position; so that your length from the knee down does not count in the length of the space required as it does when using the ordinary bath; also that the uncomfortable, cramped position assumed in the latter case is entirely removed and supplanted by a natural, comfortable posture, such as experienced when sitting in an easy, comfortable chair with just as much room in every direction as a person would have in using the ordinary bath of greater length.

Furthermore, when the COMBINATION BATH is used as a nower bath it is equal to any standard type shower receptor.

One size only. for all size people

Regular Bath, Seat Bath. Shower Bath Foot Bath, and Child's Bath, all in one piece

**PATENTED** 

Sold through Jobbers of Plumbing Supplies

Write us for descriptive booklet.



Plate 10 E

Enameled Iron Ware, 44x30 inches to tile in recess, only. Enameled white front. Waste in foot section either right or left hand end. Only one size made.

The arrangement of the seat and foot bath permits the taking of a head or body shower bath, the latter without wetting the hair. This recommends it, and is a feature which should not be too lightly regarded; in fact, we strongly recommend installation of showers in connection with the COMBINATION BATH.

In planning bath rooms, space saving is ofttimes a most important problem, which can be readily and satisfactorily solved by the adoption of the COMBINATION BATH. This is all accomplished without encroaching on the space required for persons weighing as much as 250 pounds to an extent that comfort is sacrificed in any degree.

Tone will be given the bath room wherein such a distinctly attractive and meritorious fixture as the COMBINATION BATH has been installed—an added attraction fully appreciated and not likely to be overlooked by your guests.

We furnish plans for installing the COMBINATION BATH, avoiding the necessity for having any part of the waste fittings extended through the ceiling below the bath room, requiring a suspended ceiling; which, in many cases, would prove undesirable.

These plans provide for raising the bath about four inches above the floor level, and filling in the open space with tile. This increases the extreme height of the tub from floor to top of about twenty-one inches, which is slightly less than the height of a staple bath on legs or base.

Many of the COMBINATION BATHS have been installed in this manner, and have proven entirely satisfactory.

# WHEELING SANITARY MFG. CO., Wheeling, W. Va.

Branch Office and Show Room: 315 Wrigley Building, Chicago, Illinois

VITREOUS CHINA—Water Closet Bowls, Flush Tanks, Lavatories, Etc. SEMI-VITREOUS PORCELAIN — Bath Tubs, Lavatories, Drinking Fountains, Kitchen Sinks, Laundry Trays, Urinal Stalls, Etc. EDWARD H. SINN, Warehouse, 119 Bergen St.,
Harrison, N. J.

1. J. HICKEY, Office, 185 Devosshire St., Boston, Mass.;
Warehouse, 240 Albany St., Cambridge, Mass.
WHEELING SANITARY MFS. CO.
Warehouse, 140th and Exterior Sts., New York City.



Hurricane Winds

The Miami house is stuccoed to conform to the style there.

TWO rules only need be observed to make a home proof against the sustained fury of a hurricane. Frame it of Southern Pine—the supreme structural wood of the world. Follow the long recognized Fifteen Points of good construction. Then let winds blow!

These Fifteen Points are incorporated in a house now being erected by the Southern Pine Association in Miami, Florida, with the co-operation of the Miami Lumbermen's Credit Bureau, the Associated General Contractors and The Architectural League of Greater Miami.

Several of the all important Fifteen Points are shown in this engineer's drawing of one corner of the frame of the Miami house. Notice (1) how the sill is anchored, bolted, to the foundation. The sub-floors (2) run diagonally and at right angles to each other. There is corner bracing (3) and the braces are cut into the studs. The rafters (4) are anchored to the main frame.



Arrangements have been made to furnish plans and specifications of the hurricane-proof house for the nominal sum of Ten Dollars.

These letters at the right of "SPA" identify the grade. The designation here is one of 16 grade-marks appearing on lumber from Southern Pine Association mills.



Architects, contractors, carpenters and other experienced builders endorse this common sense construction which characterizes structures that have stood the storms of many decades.

Any home, whether in storm swept areas or not, deserves good construction of this character. You can finish as you wish—wood siding, stucco or brick veneer—but do not slight the frame. In one laboratory alone—the Forest Products Laboratory under government direction at Madison, Wisconsin—130,000 tests prove the structural strength of Southern Pine.

At any lumber yard east of the Rocky Mountains you can buy Southern Pine and you can buy today with greater confidence than ever before. *You can tell it by its trade-mark. You can judge it by its grade-mark—the grades being in accord with American Lumber Standards.

The Fifteen Points of Hurricane-proof Construction are in book form. The book is free. Write for it today.



As the hurricane-proof house would look in brick veneer.

Southern Pine Association
132 Interstate Building
NEW ORLEANS, LOUISIANA

SOUTHERN PINE-THE SUPREME STRUCTURAL WOOD OF THE WORLD



C. A. Moses Construction Co.

wheelbarrows which have always proven satisfactory, we like the service which goes with your product. We find that we can secure your equipment and repairs quickly within the wide range of cities in which we operate.

Yours very truly
C. A. MOSES CONSTRUCTION COMPANY

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The C. A. Moses Construction Co. are national builders, and they, like many other large operators, must have complete and prompt service. The wide distribution of our product and the interchangeability of Sterling parts make it possible to standardize this important equipment to advantage.

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Philadelphia,
Detroit, Cleveland,
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Leg shoes represent only one of many improvements incorporated in Sterling construction.

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Accept NO Substitute

STERLING ON A WHEELBARROW MEANS MORE THAN STERLING ON SILVER PANY

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It's easy to inject the purchase urge into merchandise when offered for sale in such appropriate settings.



#### KAWNEER SOLID COPPER STORE FRONTS

are the recognized standard with merchants in every line of business.



# THE CROWN JEWELRY COMPANY

Indianapolis, Ind., writes: "We have received many compliments on our store front, not only from our competitors here in town, but also from the various traveling men who visit us."

# Such Recognition Must be Deserved

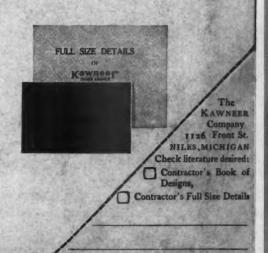
Hundreds of architects specify Kawneer Store Fronts in commercial buildings. Every day, through the Kawneer service offices, it is our pleasure to cooperate with them to install the front best suited to the owner's needs.

Thousands of satisfied contractors, year after year, add convincing evidence to KAWNEER's unparalleled record of service to owners and merchants everywhere.

Hundreds of thousands of merchants carry on profitable business today behind KAWNEER STORE FRONTS. You, too, may profit from your share of these installations. Start today—write for Contractor's Book of Designs.



See reverse side for various store front designs











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for Any Merchant Anywhere

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NILES, MICHIGAN



### Plate Glass Protection

The patented Kawneer resilient (flexible) metal grip on the plate glass windows, prevents danger of breakage caused by vibration and wind pressure. This metal grip not only seals the joint but allows the plate glass to bend naturally under wind or other pressure.



### The Cost is not Prohibitive

Increase the scope of your work. Builders everywhere are gaining prestige and profits by figuring Kawneer Store Front Work, along with the general run of their jobs. They find that remodeling a store front the Kawneer way is as simple as framing a house.

II 28







An ILGAIR Installation in an Oak Park, Illinois home. Note how the cooking odors, steam and fumes are re-



dodel Home in a large Chicago department store where the ILGAIR Ventilator was



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as simple

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The Home of Oscar Heinemann, where an ILGAIR Ventilator makes the kitchen a joy spot.

# Make the Kitchen a Ventilate it Joy Spot

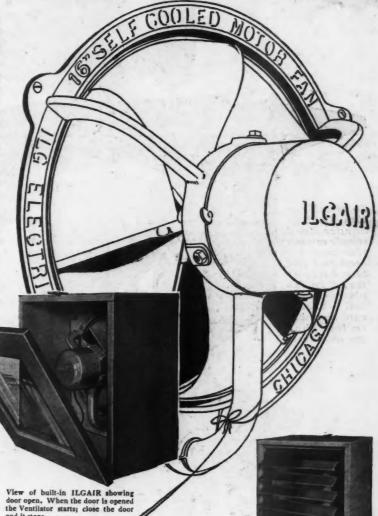
F YOU are planning to build a really modern home don't forget to provide for ventilation in the kitchen — install an ILGAIR Ventilator. It's the one outstanding built-in feature of present day model homes — specified and recommended by leading Architects and Contractors everywhere.

No other electrical convenience will add so much to the sales and rental values of a home as a built-in ILGAIR Ventilator — a quiet running exhaust fan that removes excessive heat, objectionable cooking odors and greasy fumes. The change it makes in the atmosphere is delightful. It's a joy to work in the kitchen that's ventilated with an ILGAIR, and the cost of operation is only a few cents a day.

The new and improved built-in ILGAIR Ventilator can be installed at a surprisingly low cost. It comes complete with cabinet, ventilator, automatic shutter and all necessary hardware. It's automatic in operation simply open the glass paneled cabinet door and the ventilator starts; close it and it stops. The entire outfit is made, tested, sold, and guaranteed as a complete unit — it's the only ventilator manufactured with a fully enclosed self-cooled motor.

We urge every builder of modern homes to send for the new ILGAIR bulletin. It pictures and describes this equipment in detail including data, charts, photo-graphic illustrations and installation suggestions and instructions. Ask for this new bulletin and a copy of our 48 page condensed catalog — clip, sign and mail the coupon—NOW.

ILG Electric Ventilating Co. 2852 N. Crawford Ave. .: Chicago, Ill.



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THE ONLY VENTILATING FAN MADE WITH A FULLY

ENCLOSED SELF-COOLED MOTOR

for Stores, Offices, Factories, Public Buildings, Restaurants, Theatres, Homes, etc.

THEOTHER.

Exterior view of the built-in ILGAIR showing it in operation and the shut-ter open. The shutter closes when the ventilator stops.

Without obligation send me your new built-in Ilgair Bulletin and 48 page illustrated book. I am interested in correct ventilation as applied to the subject checked.

Name

Full Address

☐ Home ☐ Public Building ☐ Office ☐ Store ☐ Factory

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

# The 20th Century Woodworker

U. S. AND FOREIGN PATENTS PENDING Licensed under U. S. Patent No. 1482631, Feb. 5, 1924

# Shaper Head and Router Attachment Can Do All and More Than a Single-Purpose Shaper Can Do

Reversing lever -To attach the 20th Century Shaper Head simply remove the cross-cut head and put the Shaper Head in its place - same belt - change can be made in less than five minutes. Cressol, Morris Condition, American Ame

This is another exclusive feature of the "20th Century Woodworker".

This attachment in conjunction with the other features described in preceding issues, viz., the tilting head, Straight Line Cutoff and overhead dado, separate rip saw mandreland double drop table jointer, with rabbetting lip—enables the user to perform all the operations of a well equipped

This wonderful attachment embodies all the best principles of the Shaper as it is known today—and more.

Cutters of any form or any size that can be used on a 5/8" spindle are adaptable to this attachment.

The fence equipment consists of an auxiliary table with a standard Shaper Fence, with springs to hold the work down and in against the fence. The springs are so designed that there can be no jumping—no ridges—the resulting cut is perfectly smooth. The cutter can run in either direction. The direction of rotation of spindle is controlled by a spring lever with positive lock-the central position is neutral.

> To transform the Shaper Head into a Router Head simply remove the shank or arbor that holds the shaper cutters and put in a shank or arbor fitted to hold standard routing Bits. Any kind of routing can be done up to  $1\frac{1}{2}$ " diameter.

> The entire machine, including Shaper Attachment, fully ball bearing, Alemite lubri-

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Manufacturers
EIGHTEENTH STREET AND ALLEGHENY AVENUE PHILADELPHIA, PA.

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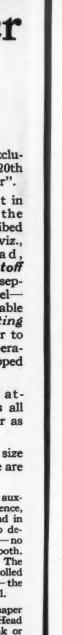
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1927

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AMERICAN STOVE COMPANY, 233 Chouteau Avenue, St. Louis, Mo. Largest Makers of Gas Ranges in the World

Attractive Model Home, Built by the Yasilanti, Michigan, Daily Press: R. S. Gerganoff, Architect. Yasilanti



# The Outstanding Touch of Beauty IN THIS MODEL HOME

Visitors to the Daily Press Model Home in Ypsilanti, Michigan, are immediately impressed by two things—the distinctive architecture and the beautifully blended effect of the Winthrop Roof. Winthrop Shingles were used on both the house and garage.

#### Many Model Homes Roofed with Winthrops

Model homes—built of nationally approved materials—have impressively demonstrated the leadership of Winthrop Tapered Shingles. Winthrops are the only tapered asphalt shingles made. The heavy butts are reinforced with extra coats of everlasting asphalt on both sides of the heavy felt core.

#### Harmonizing Colors

There are eight solid colors and five twocolor combinations. This gives you a wide range to attain startlingly pleasing effects. Winthrop beauty is lasting—nature's own colors in slate, crushed and permanently embedded in the asphalt base.

#### The Roof of a Lifetime

The heavy butts of Winthrop Shingles double the thickness where exposed to the weather. They lie snug against the roof and never rot, rust, crack, split or curl. They do not saw off the nails. Winthrops fit any architectural curve. Another big feature—they are fire resistive and approved by the Underwriters' Laboratories.

Every day more home builders are convinced of the superior qualities of these remarkable shingles. Architects are specifying and contractors are recommending Winthrops for better roof construction.

Winthrop Shingles are sold by leading building supply dealers. Write us for a complete set of *free* samples of all colors.

BECKMAN-DAWSON ROOFING COMPANY
1032 Brooks Building, 223 W. Jackson Boulevard, Chicago, Ill.
Also Manufactured by
LOCKPORT PAPER CO., Lockport, New York

Winthrop
Tapered Asphalt Shingles



LEADERS FOR SPEED—ENDURANCE BOSS Mixers are built for yardage. Trussed, cross-braced, reinforced

and built of steel to stand up under hard work. Designed, bushed, lubricated and Hyatted for turning out over 30 more batches from whistle to whistle. You save power, save time, save repairs when a Boss is put on the job. Stays on the job day in day out for a longer period of years You save power, save time, save repairs when a Boss is put on than ordinary mixers—a fact proven by 17,500 users since 1911, when Boss Mixers were born.

THE FAMOUS BOSS 10S

# A Sensibly Sized Mixer for Any Job

One bag any proportion or two sacks 1-2-5 mix. Extremely compact. Built of steel. Rapid, patented discharge and remixing action allows 25 to 30 more batches daily. Furnished with steel or rubber-tired wheels. 50-inch diameter steel drum answers the demand for a real 10S Mixer. WEIGHS NO MORE—COSTS NO MORE than some one-baggers. Write for latest prices and the new BOSS catalog.

#### The American Cement Machine Co., Inc.

Ask For New 1927 **Boss Catalog** 

88 SINGLE OR DOUBLE DRUM HOISTS Taible 5 to 8 H.P. Nonreve 8 to 35 H.P. gas or electric



Our Low Prices Will Surprise You



OVERSIZE 58 TILTER One Bag Capacity. 1-2 1/4-4 Mir. Half Bag Price.

Coupon for Information

The American Cement Machine Company, Inc.
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Without obligation send 1927
Boss Catalog together with prices on the machines checked below:

- HANDY MIXER—38
  The last word in portable
  Drum Type Mixers.
- ONE BAGGER—78
  Half ton lighter, yet 50%
  stronger. Also furnished
  to fit Ford truck.
- ONE-TWO BAGGER—108
  The big favorite with contractors. With "Cross Wise Trucks" also used as End Delivery Alley
- N. Y. SPECIAL—148

  Mounted on Steel Trucks
  or skids. Very compact.
- HEAVY DUTY_218_288
  Used in central mixing plants and railroad jobs.
  - ALLEY AND STREET
    PAVER
    End discharge—Mover one man control. Weighs 6100 lbs.
- TILTERS—3½S
  Extremely portable. Low
- charging.

  OVERSIZED 58 TILTER

  With or without automatic power charger.

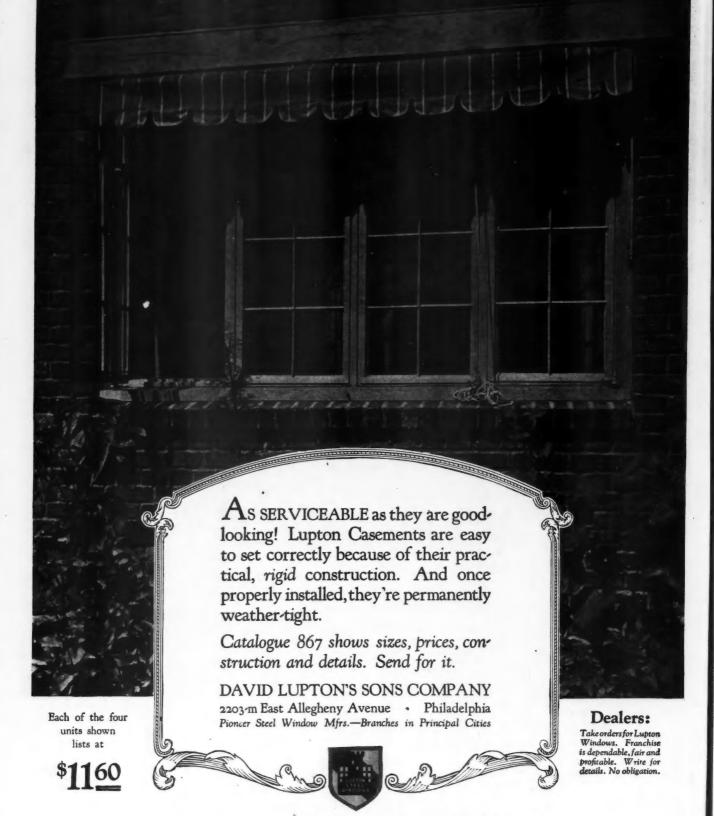
  ONE BAG TILTER

  With folding track loader.
- Single or double drum— Electric, Gas or Belt power. HOISTS

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Nature of work Mixer or Hoist is to do?



#### LUPTON COPPER ~ STEEL CASEMENTS

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# BUILDING PAPER



# Outlasts the Building!

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#### THREE WEIGHTS—LIGHT, MEDIUM, HEAVY STANDARD ROLLS—USE THE COUPON

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#### Other Features

No masonry material of greater fire resistance.

High degree of insulation makes buildings cooler in summer, warmer in winter, and saves fuel.

Provides excellent acoustic qualities and eliminates through passage of sound, insuring sound proof walls and partitions.

Dryness is assured with construction of Cinder Concrete.

Highest structural efficiency of any masonry building units.

Age increases strength of Cinder Concrete Building Units.

Nail holding power equal to that of yellow pine. Nails may be driven to secure all interior trim.

Cinder Concrete Units are lighter in weight, more easily laid with increased speed in construction.

Walls may be plastered direct, eliminating all furring and lathing.

#### The Wall Between

INSIDE and outside wall surfaces are important, but the wall itself is vital.

In thousands of buildings, Cinder Concrete Building Units form this wall between, faced with stucco, stone or brick outside, coated with paint or plaster within. This invisible wall is a barricade of insulation against sound, heat or dampness, frost or fire.

Greater economy of construction is made possible with back-up of Cinder Concrete Building units. The low basic cost of the material itself, its lightness of weight insuring ease of laying, and the absence of breakage all combine to reduce both material and time costs.

#### CINDER CONCRETE BUILDING UNITS

Manufactured under Straub and Bo Patents
Address all inquiries to Department A

NATIONAL BUILDING UNITS CORP.

1600 ARCH STREET-PHILADELPHIA

THE ONLY MIXER that we know of that was ever sold with definite guarantees of trade-in value and rebuilding cost. Built with heavier steel in the truck frame, 1-piece railroad rails on the drum that will last ten years or better, and guarantees on the whole machine that you never saw made on any other mixer.

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A complete range of sizes from ½-bag to 4-bag. Also tilting mixers, 3½-ST. and 5-ST., and the MARSH-CAPRON Plaster and Mortar Mixer.



Why are MARSH-CAPRON Mixers used by well-known contractors like these?—

By substantial concerns like Kelly & Sullivan, Somerville, Mass.; Jno. W. Ferguson Co., Paterson, N. J.; Števens Engr. & Const. Co., St. Louis, Mo.; J. W. Billingsley, New Orleans, La.; H. S. Crocker, Denver; J. B. Gill Corp., Long Beach, Calif.; H. J. Flaherty, Pittsburgh, Pa.; Campbell Constr. Co., Minneapolis, Minn.; J. C. Wenrick, Cleveland, Ohio, and a lot of others in the same class.

These Concerns like the MARSH-CAPRON'S big output—

And they also like the stronger construction all the way through.



"Go ahead and dump in your load," said the mixer man to the wheeler, "and we'll start another batch."

stuff was coming too fast.

The man with the barrow didn't move, but said: "There's still some stuff in the drum from the last batch."

"What of it? You don't have to take the last dribble out of a MARSH-CAPRON'S drum, when pouring slacks down for a minute. You can go right ahead and put the next batch in. One of the reasons why we are pouring more concrete with this mixer is because the drum holds more stuff."

Yes, sir, you'll find that every MARSH-CAPRON Mixer is full rated capacity—with a little to spare. Here's how one owner puts it:

"Our organization is very well pleased with the MARSH-CAPRON we put on the job two years ago—our men all express admiration for its speed, and the ease with which it is handled. We also find that the drum holds more concrete than its rated capacity. All in all we are highly pleased." J. B. Gill, J. B. Gill Corp., Long Beach, Calif.

And faster working machines—for instance the power loader skip of a 1-bag MARSH-CAPRON goes up in six or seven seconds, and empties in five seconds.

And the discharge is fast and smooth—under perfect control.

These are the mixers that will make you more money. Will give you a big output of good concrete, and work for you every day.

MARSH-CAPRON COMPANY, Chicago, Ill.

11 South La Salle Street Representatives Everywhere

#### MARSH-CAPRON MIXERS



ANOTHER good builder has proved that FLAX-LI-NUM insulation helps sell homes. Mr. Fred LaFave insulated with FLAX-LI-NUM all the homes in a new development at Elmhurst, Ill.— and they "sold like hot cakes".

Good looking homes they are—every one. But people today are looking for more than good looks. They welcome the definite assurance of a one-third reduction in heating cost that FLAX-LI-NUM gives them.

When you tell them that this same FLAX-LI-NUM shuts out the heat in summer and keeps the house more comfortably cool, you have added another convincing reason for buying.

Only genuine insulation can effect this saving in fuel and assure full comfort, winter and summer.

You, too, can use FLAX-LI-NUM insulation to help sell your homes. You have, in FLAX-LI-NUM, an insulation that has proved its value for more than 17 years — in all kinds of buildings and all kinds of climates. Once installed, it is there to stay. It will remain in place, in perfect condition, and with undiminished efficiency, for the life of the building.

#### FLAX-LI-NUM Gives Six Surface Resistances

The method of installing FLAX-LLNUM is as scientifically correct as the material itself. As heat passes through a wall, some of it is stopped by surface resistances. Hence, the more surfaces in a wall, the less heat passes through it. FLAX-LI-NUM is installed halfway between the inner and outer walls, forming two extra surface resistances, six in all.

One-half inch is used in side walls; one inch in roof. Let us tell you all about how FLAX-LI-NUM helps hurry the sale to a successful close.

FLAX-LI-NUM INSULATING CO., St. Paul, Minn.

### Flax-li-num

THE CORRECT BUILDING INSULATION AND SOUND CONTROL MATERIAL

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Surface

Drops

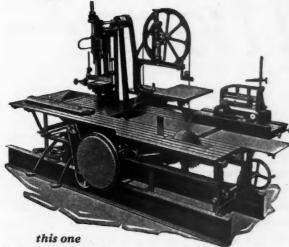
### Now—spring jobs are up for bids

# for real, work Get a Parks!



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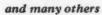
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for quick, handy jobs
in and around the
homes you build. Cuts
the time of your men
and turns out better
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Parks "Cabinet Shop
Special No. 10" complete with motor as
illustrated \$290.



in your shop for turning out special mil-work at price-cutters' cost and getting the job when you want it, without losing time waiting for the mill to think about it. Parks "Planing Mill Special"—does everything in mooth oes everything in orking, \$590.

11

individual and combination woodworkers for every need. Band saws, lathes, shapers, hollow chisel mortisers, saw tables, bench jointers, etc., are shown in the Parks cata log. Send the coupon for your copy.



time-saving, lumber-saving Parks production, and figure in a larger profit for yourself on tighter bids that win the jobs for you.

Then figure this saving and business-getting advantage for all the years you'll be in business—because Parks machines are ruggedly built to last longer on the job than you will. Your Parks won't quit until you quit!

Built for hard, steady work, and powered to do any woodworking job you've got without sticking or bucking. You don't have to pamper and baby a Parks. Not too heavy to be handy and not so cheap that it is flimsy-that's a Parks. Swear off the nuisance of trying to make toy machines do a Parks job. Depend on dependable, well-known, correctly-designed Parks machines with their 40-year record and 10-year guarantee to back up the small price you pay for them.

> If you're in business to make money-Get a Parks!

#### THE PARKS BALL BEARING MACHINE CO.

Fergus and C. H. & D., Cincinnati, Ohio Canadian Factory, 208 Notre Dame East, Montreal, Canada



A. B. 3-27

The Parks Ball Bearing Machine Co. Cincinnati, Ohio

I must have good machinery to do first class work at a profit. Send me a Parks catalog. I am interested in Usriety woodworker | Individual machines to do the

following kind of work.....

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

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Home seekers, the buyers and the builders of today, are thinking of the new home in terms broader than merely a house with so many rooms. They think of comfort, of security, of surcease from the multitude of small irritations which may arise from indifferent construction or ill-chosen materials. Whether a man build a house to occupy or to sell makes no difference in his present-day conception of what a home should be. The man who builds to sell must sell to the

man who would build to occupy, a house as good as that man would build for himself. A home must be free of annoyances caused by emergency repairs. What a world of satisfaction the family finds under a roof that is not only safe and secure from lightning or fire, which does not leak and which will

last as long as the building with ordinary maintenance care. What a comfort to have walls that do not crack and from which the plaster does not fall. What a satisfaction in a drainage system, eaves spouts, gutters, etc. that function perfectly year after year. How desirable a heating system which also insures scientific ventilation.

These are all features which mean much in making H-O-M-E spell "home". They are all attainable with

Sheet Steel, the material of universal adaptability. When you build, see that the roof is Sheet Steel and that the plastering is on metal lath.

For detailed information regarding Sheet Steel, write the SHEET STEEL TRADE EXTENSION COMMITTEE, OLIVER BUILDING, PITTSBURGH, PA.



Thistrade-mark stenciled on galvanized Sheet Steel is definite insurance to the buyer that every sheet so branded is of prime quality—full weight for the gauge stamped on the sheet—never less than 28 gauge—and that the galvanizing is of the full weight and quality established by the SHEET STEEL TRADE EXTENSION COMMITTEE specification.

SHEET STE

for Strength Safety Beauty and Economy

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

**Styles** 

for every

room in

the

house



Look for this trademark on the back of the goods

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PRANK BROKES

FRANK DROESCH,

BUILDING CONSTRUCTION

110-19 JAMAICA AVENUE

RICHMOND HILL N. Y. March 3rd, 1

Er. J. W. Eehrens, The Standard Textile Products Co., 320 Broadway, New York, E.Y.

Dear Sir:

We have used Sanitas to great advantage during the past twenty years of our experience and find that it is the most satisfactory wall covering that can be used for decorative purposes. It is a permanent decoration, and prevents any unsightly cracks in the plaster from showing, as it will when paint or paper is used.

Under separate cover is an exterior photo of one of the houses we have erected in our Little Neck development, and also photos showing the interior views of this house, which has been decorated throughout with Sanitas.

Prospective purchasers of houses, after inspecting our sample house, which also is decorated with Sanitas, are easily covinced that this material is the most practical wall covering that can be used for a home.

We will be pleased to furnish you with any additional information you may require regarding our experience with your product.

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MAD:E E

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Fill out the coupon below and send to our Architects' Service Bureau for samples, literature and full information about Sanitas.

This builder knows. His twenty years of experience with Sanitas makes his opinion worth something.

Sanitas makes a home out of a house—it helps the sale.

Sanitas is a cloth wall cover-

ing with a surface of oil colors that do not fade, crack or peel. Sanitas can be applied on any flat surface. Can be hung on plastered walls as soon as plaster is dry. No need to wait for setting. Cracks will not show through Sanitas.

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Dept. K

Architects' Service Bureau
The Standard Textile Products Co.,
320 Broadway, Dept. K
New York

Please send me samples of Sanitas and complete information for builders

Name	
Address	
City	

### No other wood has so many uses as durable Douglas Fir

Here are some of the uses of Douglas Fir, and why:

- 1. Forms and centering: Strong, durable almost impervious to water, stiff, inexpensive.
- 2. Framing, sheathing and roof boards: Strong, durable, stiff, light, most dimension and boards all heartwood, high insulation value, easy to work.
- 3. Window frames and door frames: All heartwood where exposed to weather, durable, stiff, resists warping, resists abrasion, takes paint and varnish well.
- 4. Window sash: Strong, stiff, durable

- resists warping, wears well, stands exposure, takes paint, varnish, etc., well.
- 5. Siding and exterior trim: Durable, lays and stays flat, takes and holds paint, stain and varnish.
- 6. Underflooring: Strong, stiff, durable, inexpensive.
- 7. Furring and lath: Strong, stiff, inexpensive, durable, non-staining.
- 8. Interior trim and finish: Beautiful grain in either flat or vertical, holds nails, resists warping, takes paint, stain, varnish and wax.
- 9. Finished flooring: Smooth, even-colored wear resisting.
  - 10. Interior and exterior doors: Strong and durable vertical grain stiles and rails, and handsome flat grain panels, takes finishes well, holds hardware tightly, reasonably priced.

Do you know of any other wood that is actually satisfactory for so many uses?



Douglas Fir sheathing, window and door frames, scaffolding, ladders and trim. The roof is covered with Western Red Cedar Shingles over Douglas Fir roofers. This house is built to last.



Pergolas get plenty of exposure—and Douglas Fir is safe wood to use for this purpose. The rafters are Western Red Cedar. Both woods take paint and hold it

Your postcard request will bring you illustrated literature on Douglas Fir and other West Coast woods. Address, West Coast Lumber Bureau, 5560 T Stuart Building, Seattle, Washington.



You'll like the appearance of the Douglas Fir that retail lumber dealers deliver to your jobs— and you'lllike the appearance Douglas Fir gives to your jobs—this doorway, for instance.





Millwork plants are turning to Douglas Fir and duplicating the results they used to get with the old-time. White Pine. Here is some Douglas Fir millwork.

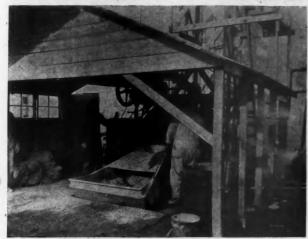


An artistic genious discovered that striking results could be obtained by sandblasting Douglas Fir through a heavy baper stencil. No other wood gives.such good results. One hotel has its entire lobby decorated in sand-etched Douglas Fir pan-els, each with a different design.



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are known as the last word in interesting new prospects. modern completeness. If you are, to interest you.

equipped with this talked of fixture, you would start endless ripples of comment—advertisements of your "up-to-dateness"—spreading far-

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For homes of the better sort the the Kohler Electric Sink is certain extra cost of the Kohler Electric Sink, weighed against its extra atten-If you were to show a house tion value, is likely to prove a very minor consideration. Why not ask your plumbing jobber or contractor about this remarkable fixture? May we send you descriptive literature?

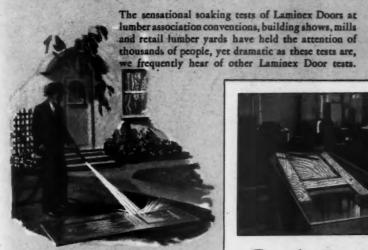
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### KOHLER of KOHLER

Plumbing Fixtures

### Can you think of a new test for Laminex doors?

#### These unusual tests have already been made



was exposed to the weather for twenty day, June and July and thoroughly soaked with rom a hose. Results:—"No shrinking, swell warping," said Mr. Lionel Ray. "No oper No peeling or cracking."



r was left on the roof of a boiler house. Blaz-teat beneath; snow and ice above! Yet when a down for inspection, "we found the door not swell, spring or warp," say East Dayton & Door Company



The row boat test: "About two years ago I used some of your three-ply Waterproof Fir Panels for the bottom of a sectional boat . ." says Mr. Compton of the Allen Manufacturing Co., Shreveport, Louisians, "... except for some small abrasions caused in handling, the Fir Panels used for the bottom seem as good as when first put in."



Prof. Grondal's original test

The first of these famous Laminex Door soaking tests was made by Prof. Bror L. Grondal at the Forest Products Laboratory in the University of Washington. After immersing a Laminex Door in water for 24 hours, Prof. Grondal reported, "The complete absence of warping of the panels and the door as a whole, and the particularly slight expansion due to absorption of moisture was especially noticeable. The door was not damaged in any way."

Some of these other tests are accidental, but most are

intentional-and all of them prove again and again

that Laminex Doors stand treatment that would ruin ordinary doors. Read about these tests. See if you can think of a new test. Then tell us the results.







THE WHEELER, OSGOOD COMPANY
Tacoma, Washington

Gentlemen: I would like to know more about Laminex Doors.

Also send literature and sample of Laminex wood, so we can make our own tests.

City. I am a Dealer 🗆 Contractor

Architect

# In 185 public tests



Committee of architects and building officials inspecting a Laminex door after the famous soaking test. Although often immersed in water for weeks no Laminex Door has ever failed.

### no Laminex door has ever failed

HESE extremely severe tests are made simply to show you that Laminex doors can never warp or come apart; to prove that Laminex doors are absolutely unaffected by climatic conditions.

We don't suggest that you store Laminex doors in damp warehouses or hang them in buildings that haven't dried out yet, but we do say that Laminex doors will even stand treatment like this, which frequently causes troubles with other doors. The stiles and cross-rails of Lami-

nex doors are constructed on a core of stress-balancing blocks. Any attempt of one block to warp, swell or shrink is immediately counterbalanced by forces in the opposite direction exerted by neighboring blocks. All parts of a Laminex door, including the plywood panels, are held together firmly by Laminex cement, which is absolutely waterproof and actually stronger than wood.

Look at the replacement guarantee label and the word "LAMINEX" on the bottom of the doors you buy from progressive millwork and lumber dealers who carry popular designs of Laminex doors in stock. Mail the coupon for interesting literature and a sample of Laminex wood to test.



THE WHEELER, OSGOOD COMPANY TACOMA, WASHINGTON

LAMINEX DOORS



FIRST impressions are vital in selling houses and in creating first impressions no feature plays a more important part than the roof. Fine roofs make sales; poor roofs lose them.

Builders tell us that Ruberoid Massive Hex-strip Shingles make the roof that home-seekers are always looking for but seldom find—depth of coloring, depth of shadow lines and the ruggedness that forecasts permanence.

No other shingle excels the Massive Hex-strip in combining these qualities. Hereis a shingle with 40% added thickness, built with the heaviest high grade felt possible to use. One look and your customer recognizes a beautiful, permanent roof.

There's a choice of six rich, non-fading natural slate tones and two attractive 4-tone combinations to choose from. The 4-tones are pre-assorted—which assures application in proper sequence of colors. A harmonious roof is thus assured.

There is a lumber or building supply dealer in your locality who sells genuine Ruberoid Shingles and Roofings. Ask him about them or—use the coupon below.

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# Building Insulation

INSULITE is wrapped in neat, tight, strong bundles. Protected until ready for use. Wrappings are serviceable between floors, and for covering floors while house is under construction.

The Double-Purpose Value of



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The insulating value of INSULITEgreater than that of any other insulation in structural form—will meet every need and expectation in the way of fuel saving, heat exclusion, prevention of moisture condensation, etc. INSULITE -due to its all-wood fibre compositionis very durable; is free from danger of depreciation; has great structural strength. Whether used for sheathing, plaster base, roof insulation, wall board, it is always a double-purpose material; building material and insulation in one.

In tests made on INSULITE from regular dealer stock it was found that a weight of 1,152 lbs. was required to separate plaster from one square foot of INSULITE. A strain of only 512 lbs. was required to separate the plaster from a square foot of wood lath, this separation including the mechanical clinch.

#### INSULITE PLASTER BASE

INSULITE provides a base for plaster that insures better looking walls. Lath marks are eliminated, the walls are more rigid, and besides these structural advantages there is a very high percentage of insulating value. Comes in sheets 18 by 48 inches—just the proper size for easy handling, and large enough for rapid application.

We maintain a Service Department whose members are prepared to answer any questions regarding the uses, characteristics and application of INSULITE in any of its forms -whether Sheathing, Plaster Base, Wall Board, Four-Four Roof Insulation, Insulite Rooflap [1-inch thick] or Acoustile. They welcome the opportunity of working with you -without cost or obligation of any kind.

Specifications for application of INSULITE Plaster Base sent on request. Same specification manual contains detailed in-

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Workmen like to handle INSULITE Plaster Base, and there is a decided labor saving when it is used. The long sides are shiplapped to insure tight joints. The units are applied so that end joints are staggered. Made in two thicknesses—½-inch and 1-inch, both in rigid board form to serve the double duty of insulation and building material.

THE INSULITE COMPANY, Minneapolis, Minn.

SHEATHING

ALL THAT INSULATION MEANS INSULITE DOES

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### —an Efficient Machine

Ease of operation has become an increasingly important factor to owners and prospective owners of floor sanding machines.

They have found that by sparing the operator the tiresome effort some machines require. no serious let-down in production is experienced. Greater output and greater profits are the inevitable result.

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The Master Floor Sander is lighter than other machines having as great a cutting capacity. It weighs only 230 lbs., but 150 lbs. of the weight is on the drum where it is most useful.

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Fewer repair bills and less depreciation add to the efficiency of the Master.

industry for more than 15 years. Constant effort and study during that time have resulted in a machine noted for its high efficiency.

So confident are its makers of its merits that they accompany each Master Floor Sander with an absolute 5 year guarantee against defects, either in workmanship or material.

Send NOW for the catalog giving details of the Master.

#### MASTER WOODWORKER MANUFACTURING CO. BRUSH & CONGRESS STREETS DETROIT. MICHIGAN

Send me your floor surfacing information showing me how I can buy a Master Floor Sander on small payments, allowing machine to pay for itself.

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# STEELDECK ROOFS



# TRUSCON I-PLATES

IN selecting a roof for any type of structure there are three elements of vital importance to be considered. The first is structural strength; the second resistance to heat transmission and the third weathering qualities. Truscon Steeldeck Roofs are structurally correct and were designed with the idea of making the application of approved insulating and waterproofing materials an easy matter. Thus, in Truscon Steeldeck designs you find the three elements of good roof construction taken care of economically. The Truscon "I-Plates" Steeldeck Roof offers these advantages:

- Light in weight—not over 5 pounds per square foot including insulation and waterproofing.
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- 3. Expansion and Contraction difficulties eliminated—Expansion joints are provided in two directions at the sides and ends of each "I-Plate." There can be no accumulation of appreciable movement. Insulation and water-proofing is positively free from injury by this usual source of trouble.
- 4. Any degree of insulation may be obtained.
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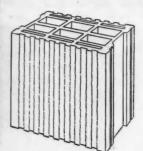
- 6. Low final cost—light weight effects savings in structural supports.
- Engineeringly correct—spans to eight feet between supports, depending upon the loading requirements.
- 8. Permanent—made of copper-bearing steel, protected from above and below.
- Adaptability—best for straight-away, flat, pitched, and slightly curved roofs, with a minimum radius of 40'-0".
- Undivided responsibility—Roofers will furnish roofs complete—deck, insulation, and waterproofing.

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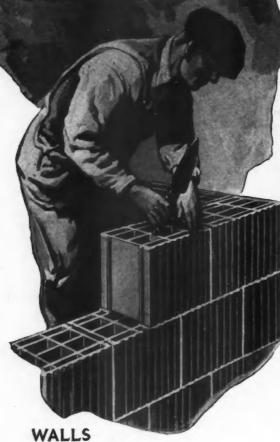




# A single source of supply but an UNLIMITED ONE

Double Strength: its scientific design gives a high margin of safety; its wide mortar beds make perfect joints. Double Economy: this large, well-burned, true-to-size tile unit lays easily and quickly, and special shapes are available for all requirements. Double Insulation: moisture, heat, and cold are barred by the presence of dead air cells, and the absence of through mortar joints.

Natco Double Shell Load Bearing Tile has all these advantages—and another: undivided responsibility as to service, delivery, and quality. For there is a single—and an unlimited—source of supply.



For

Natco Header Backer, Unibacker and Bakup with a facing of brick; Double Shell Load Bearing with a facing of stucco; Double Shell Tex-Tile with fin-

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Natco Flat Arch, Segmental Arch, Combination and Natcoflor are all fire-safe, strong, light and sound proof. They can be laid Winter or Summer, at great saving of labor.

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NO part of a home so quickly wins the praise of prospective buyers as beautifully-grained flush doors. Their smooth surface is not marred by cracks, panels or moldings that catch and hold dust.

There's a sturdy dignity, a promise of quiet, and a resistance to the passage of fire in flush doors built by Roddis. And there's beauty second to none. Builders everywhere who have used them know that Roddis Doors help sell good homes — that the Roddis guarantee is a convincing proof of excellence.

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Marshfield, Wisconsin

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Send for the Roddis Design Book

1927

Roddis has prepared a booklet showing Flush, French and Outside: Doors in their finished colors. Immediate shipment from warehouse in principal cities. Write for a copy. Just ask for

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FLUSH ... AND ... FRENCH ... DOORS



Door Track

the Builder's Friend

GANNON BALL BEATS EM ALL

Storm Cover
and No Brackets

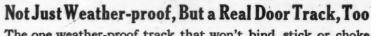
Weather-Proof Sparrow-Proof Automatically Self-Cleaning

NOOS

End View ACTUAL SIZE

Shows how dirt, dust and rust work out of slot in bottom of track.

And how wheels run and wear evenly on both sides after building sags or settles.



The one weather-proof track that won't bind, stick or choke the hangers if the track kinks or bellies when the building settles; roller bearing ball wheels of hangers bear even, wear even and run even no matter how the building sags or warps. All the mechanical perfection of Cannon Ball.

All Cannon Ball Hangers Fit Seal-Tite Track

Under-slung, tandem hangers adjustable up and down, in and out—and for thick or thin doors.

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Heaviest weather-proof track made. Strongest at the joints. Same material as railroad rails. Easiest to hang and hardest for the hired help to jim up. Never needs the doctor.

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Stanchions Door Hangers
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Water Bowls and
Litter Carriers Specialties

STAR Equipment

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1927

The type of kitchen that wins women instantly

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There are handsome units covering every need of every kind of kitchen. Dish and broom closets! Folding ironing boards! Refrigerators! Kitchen cabinets! Disappearing "breakfast nooks!" Linen cupboards! Each unit is complete in itself-can be used singly or in combination.

Only Kitchen Maid Units offer the cleanliness of rounded inside corners and smooth doors. Only these units provide Kitchen Maid construction and design. Yet they cost no more installed than old-fashioned cupboards.

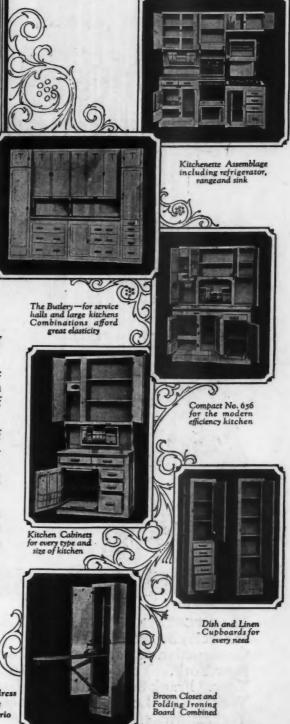
This page shows only a few of the many Kitchen Maid Units. Write for complete catalogue, dimensional drawings and special

WASMUTH-ENDICOTT COMPANY, 1303 Snowden Street, Andrews, Ind.

Representatives

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Your Kitchen Aid If in Canada, addres Branch Office Waterloo, Ontario

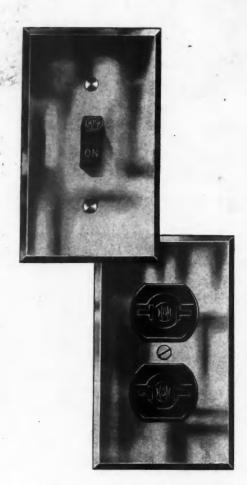


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Kitchen Maid Equipment Used in All Model Homes Built by Home Owners Service Institute

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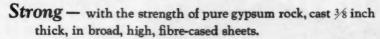


TRANSPORTATION BUILDING is equipped with H&H No. 8601 Tumbler Switches and No. 1494 Duplex Convenience Outlets. We'll send catalogue data on these devices if you haven't a copy of the H&H Catalogue.

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# Use Sheetrock When you need walls that are:



Firesafe — Pure gypsum rock, cannot burn nor transmit fire; approved by the Underwriters' Laboratories, Inc.

Warp-Proof - Unaffected by atmospheric conditions.

Highly Insulating — Pure gypsum has an amazingly low co-efficient of heat conductivity.

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Perfectly Smooth — exclusive Reinforced Joint System perfectly conceals all joints, no necessity for paneling.

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Vermin-Free - clean, sanitary, rock.

Sheetrock is the pioneer FIREPROOF plaster wallboard, for finished walls. Send the coupon below for sample of Sheetrock and full details.

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Please send me your data on the new Sheetrock Reinforced Joint System and other special information on Sheetrock.

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Sheetrock comes in standard sizes: % inch thick, 32 or 48 inches wide and 6 to 10 feet long

# SHEETROCK

FIREPROOF...INSULATING

Made by the United States Gypsum Company

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A.	Pathfinder (weekly)26 Iss	ues	.50	-	-
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with Portland Cement

CONTRACTORS and engineers everywhere are saving time and money by using Solvay Flake Calcium Chloride with Portland Cement in all concrete contruction work.

Solvay is of tremendous advantage for cold weather use, it lowers the freezing point of the gauging water, generates heat and cuts in half the setting time. It also produces early tensile strength and increases the ultimate or final strength.

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construction has the indorsement of the Portland Cement Association and other leading authorities.

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Send for the interesting illustrated Solvay Booklet—it's free for the asking and gives you the very latest information about this interesting subject.





# for the best question ASKERS

MOST UNUSUAL PRIZE CONTEST EVER HELD NO QUESTIONS TO ANSWER . . . NO RIDDLES TO SOLVE . . . NO NAMES OR SLOGANS TO INVENT

AT LAST, a prize contest that's right in your front yard! If you can't send in a cash-winning set of questions-who can? Here are the plans and specifications.

Lumber is one of the most important materials that goes into a home, or any building for that matter. On it depends long life and staunchness — beauty of trim and finish—the lasting trueness of doors and windows—the results of paint and varnish—a hundred and one things that make for pride and satis-faction for both building contractor and client.

One of the very choicest woods for building purposes that grows in America is Pondosa Pine. If you got a contract today for what promised to be one of the show places of your locality, would you choose Pondosa Pine? If so, why? Where should it be used and why?

To encourage you to know all about Pondosa Pine we are offering \$4000 in cash prizes for the best sets of questions regarding its use.

The home buyer, the architect and the lumber dealer too should know all about Pondosa Pine. Its

advantages over other materials for certain purposes. What it means in building economy. Why it appeals to carpenters and the country's foremost manufacturers of doors, sash and interior and exterior trim.

Therefore home buyers, architects and lumber dealers may try for the prize money. And to make the contest quite fair, we are dividing it into four classes. One—Contractors. Two—Home owners or prospective owners. Three—Architects. Four— Lumber dealers.

#### 24 PRIZES IN ALL Four \$500 Prizes

We will pay \$500 in each class for the best set of questions sent us about the use of Pondosa Pine in building.

Twenty \$100 Prizes

We will also pay \$100 in cash to each of the five contractors, \$100 to each of the five home owners, \$100 to each of the five architects and \$100 to each of the five lumber dealers whose sets of questions shall be judged to be the next best.

You have three months in which to prepare and send in your

questions, but it will pay you to start working on them right now. You may send as many sets of questions as you wish, but the number of questions asked will not alone decide the winner. Send your questions to Contest Editor, Dept. 22, Western Pine Manufacturers Association of Portland, Oregon.

#### CONTEST RULES

CONTEST RULES

1. Contest opens March 1, 1927. Closes May
31, 1927. Questions must be post-marked
not later than May 31, 1927, to be eligible
for entrance. The winners will be those
who in the opinion of the judges submit the
best sets of questions. Checks will be sent
winners as soon as decisions can be made.
Public announcement of their names will be
made in September.

2. If you are a home owner or prospective
home owner, please print or plainly write
your name and address at top of each sheet.

3. If you are an architect, contractor or lumber dealer the questions should be written
on your business stationery.

4. Any firm or any or all of the individuals
in an architect's, contractor's or dealer's
office may compete.

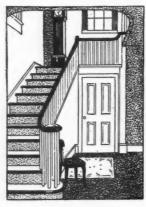
5. If in the opinion of the judges two or
more contestants are tied for any of the
prizes, the full amount of that prize will be
given to each.

6. The judges will be selected by the Western Pine Manufacturers Association. Their
decisions shall be final.

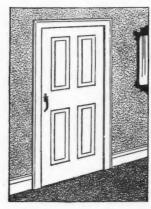
7. Do not write for information about this
contest. All the information is contained on
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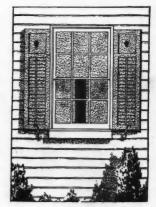
Wouldn't you like to know why and how Pondosa Pine can help you build entrances as charming and lasting as those of famous Colonial homes?



Where in a stairway would you use Pondosa Pine? You could ask many interesting questions about this one detail



Can't you imagine the need for thoroughly seasoned lum-ber in interior trim? Nothing can take its place here.



A little thought about windows, siding or clapboards, cornices and other parts of a house quickly suggest a set of questions.

Pondosa Pine The Pick o'the Pines



# Suspended Ceilings Are Erected With Astonishing Ease!

See how easily it is done! No back-breaking labor! No puzzling problems! Just a lift to get the sheets in place—a couple of turns of wire and then the easy job of making it secure. That is the way Sykes Small Mesh Diamond Metal Lath goes up.

1927

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The illustration shown above is from an actual photograph of the erection of ceilings in the McKinley High School at Steubenville, Ohio. The Sykes steel channels (see cut)—unusually straight and rigid for their weight—are wired to the larger cross channels and the Metal Lath is in turn wired to them. That is all there is to it.



"The Pyramids Are Permanent Too"







Cold Rolled Steel

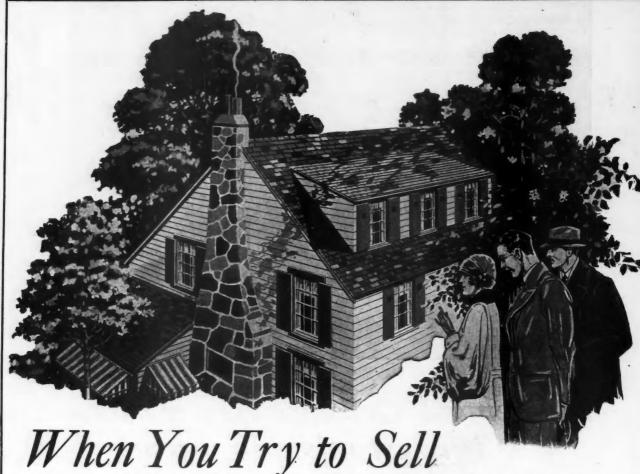
Sykes Small Mesh Diamond Lath is ideal for ceilings of the suspended type. It can be applied not only to flat surfaces with amazing facility, but to irregular ones as well. It can be bent and fitted to curving planes, elaborate cornices and ornamental mouldings with an absolute minimum of effort. And it is the best base for plaster work that can be employed. Ceilings in which it is used will never show unsightly cracks. Sykes Metal Lath will not warp or shrink. It is fire and vermin proof. It is PERMANENT.

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Look for this mark on every bundle



With cheap money, plentiful labor and reasonable material now is the time for people to build, who have be en waiting until conditions were right,



# ne Man Who Stood Still



HE man who stood still! You pass him on the street every day. If you take one moment now, you can easily recall at least one man who reminds you of this picture. Day after day he follows in the same groove. In good health and in bad he has got to work. Growing older and older, he sees ahead no relief from the ceaseless toil that he has known all through his life. There is no opportunity for him to cease for a single day the everlasting "humdrum" that he has known for so long. He is the man who stood still.

When he had the chance he failed to seize it. He allowed other men, no smarter, no abler, no better than he, to crowd him out. One by one his

fellow workers passed him by to better and more profitable work. They left him always standing on the threshold of success. But they left him behind. He heeded not the

beckonings of opportunity. He is the man who stood still.

And now at sixty, at seventy or at eighty years you may see him any day if you care to look—a good carpenter, a good builder, a good contractor perhaps—but that's all; good in the sense that he can do certain things simply because he has done the same thing over and over again—but not good enough to try the new difficult work, the modern up-to-date jobs; the kind that pay good money. No, he cannot do these things—he never learned how. He is the man who stood still.

You don't want to stick to the plane, the saw and the hammer all your life. If you are a contractor or a builder don't you want bigger work than just barns, sheds and now and then a house or two?

If you are a draftsman, an apprentice or assistant in an architect's office you don't want to remain in your present position any longer than you have to; you want to make your present work the stepping stone to a bigger position, which will be your life's work.

You don't want to stand still and see your friends step ahead to enjoyable, well paid, independent work simply because they "snap up" the same opportunities, the same chances that are offered you. It is the natural ambition of

man to want to keep up with his fellows.

The only way that you or any other man can keep up is through study-study of your chosen work. If there is a certain part of your work that you don't thoroughly understand then some time when that kind of work has got to be done some other man is going to step up ahead of you and do it. He learned how. KNOWLEDGE IS THE

GREAT LEVELER. There is no true independence where there is lack of training.

You have the chance now within your grasp to get this necessary training. This advertisement is an absolutely direct appeal to you. No matter how good a position you hold now—no matter how much work you are getting—no matter how well you are paid for it—this advertisement holds as much interest for you as the man who is

actually looking for work.

At no risk to you—without the slightest obligation on your part—we offer you the really great opportunity of perfecting yourself in your life's chosen work. Don't pass this page by until you have made up your mind to give the rest of this advertisement careful study. Look at the picture again at the top of this page—look at it carefully. You owe it to yourself and to those who may be dependent upon you to take advantage of every possible chance for bettering yourself.

You cannot afford to be the man who stood still Radford's Cyclopedia of Con

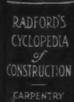
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# He Waited too Long

"If I only had this set of books twenty or thirty years ago, they might have changed my whole life. The knowledge in the big CYCLOPEDIA would have enabled me to increase my earning power, to take on big work, paying big money, and possibly have helped me to make a fortune in the building business."

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and assist us in making other sales.

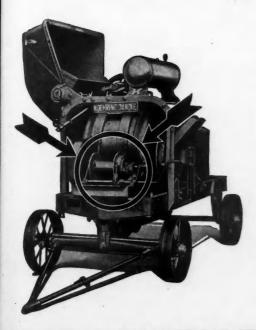
Our special price to you for advertising purposes is only \$37.50, and our liberal terms are only One Dollar down and \$3.00 per month until the amount is paid. We give you five days to look the books over and see if they are entirely satisfactory. If you conclude not to keep them, we will refund





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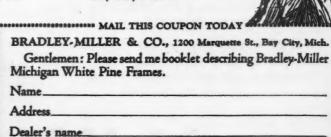
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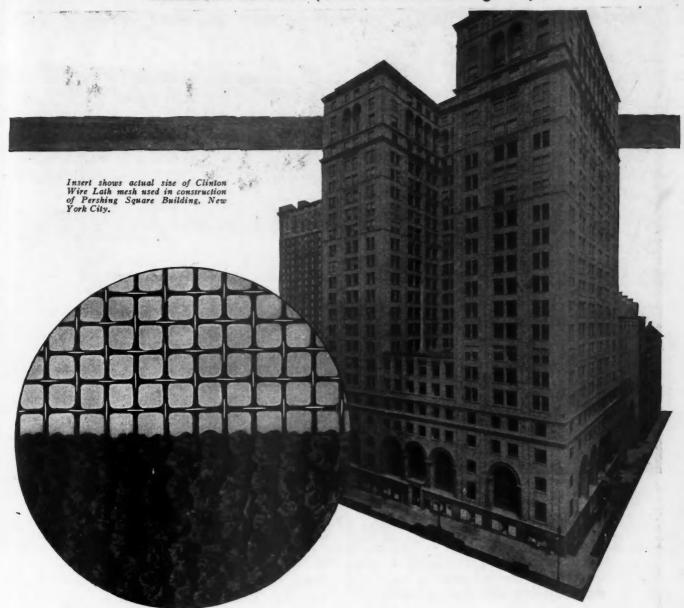
Colored WIFCO Super-Mortar is made right at the mill. The colors are ground into it in unvarying proportions. Uniformity is assured. And these colored super-mortars are of the same strength, workability and permanence as the standard natural super-mortar.

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Super - VIFCO - Morter



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As in many other famous buildings throughout the country, Clinton Wire Lath was chosen because of the

permanence, strength, and beauty it gives to any plaster and stucco construction.

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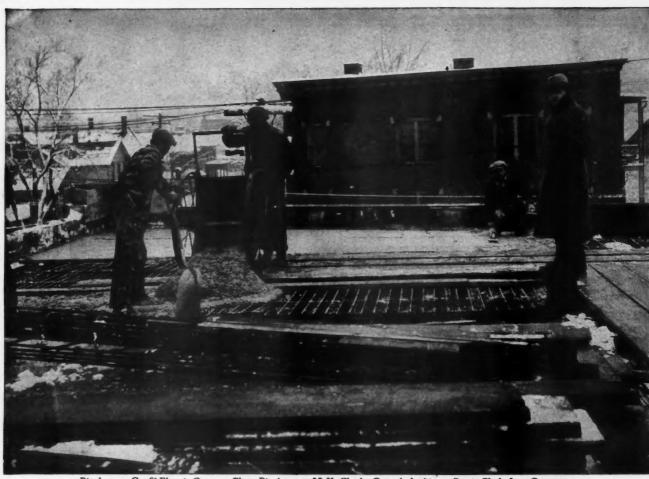
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#### Its ten points of prime importance

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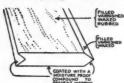
CROMAR, an oak flooring milled from the finest oak, is completely scraped, sanded, filled, varnishedandwaxed at the CROMAR plant by patented machines. Because CROMAR is completely finished at the factory, like furniture, all there is left to do is to nail it down.

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CROMAR patented machines apply floor varnish and wax at the CROMAR plant. Not only is every pore of the wood filled, but the filler is driven deep into the oak. Thus the oil from the varnish is not absorbed. The varnish retains its elasticity and does not flake or scratch white.



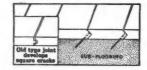
#### -"Warping" and "Drying Out" are Prevented



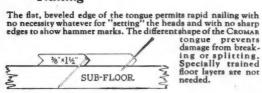
The oak lumber is kiln dried to 4% moisture-content. This is practical only because Cromar receives a moisture-resisting coating on back and edges in addition to its several finishing coats on face. Because Cromar is 96% dry at the start—and then coated to keep it dry—complaints about "warping" and "drying out" are almost never heard of.

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The shallow rounded groove, in conjunction with point 3, prevents the opening up of square cracks between the strips. Square cracks pack with dirt, making unsightly dark streaks that cannot be removed. The Cromar patented groove is only  $1/40^{\circ}$  deep, and is easily cleaned with a brush or dry mop.



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Because Cromar is laid right over the old floors, and without the usual two weeks' mess and confusion, contractors can sell a Cromar floor where no sale was possible before. And because of the speed with which Cromar is laid, contractors can handle a greater number of jobs with the same number of men.

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sanding of uninished flooring. Of course, there is no scraping or sanding to be done with Cromar. But even at the time of refinishing, the different shape of the Cromar "lip" permits cutting down without weakening. And Cromar's superior finish makes early refinishing unnecessary.

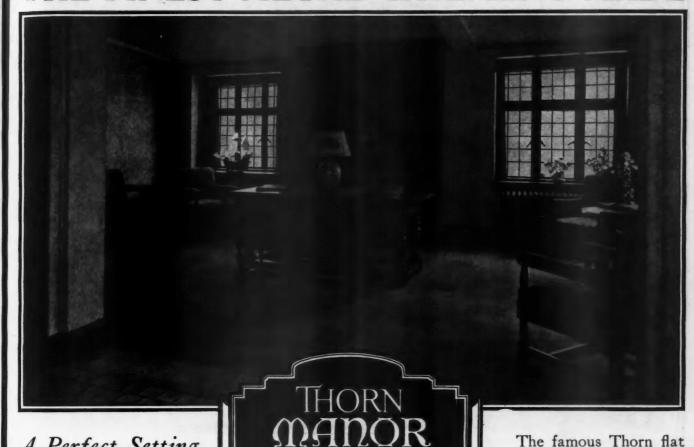
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A Perfect Setting for Leaded Glass . . . rigid against wind . . . tight against weather . . . cannot rattle, shake or sag

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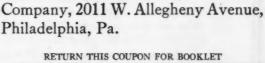
FOR LEADED GLASS the service required of a window is particularly severe. Extraordinary strength and rigidity are essential. In fact, even with plain glass there is too often under-estimation by the manufacturer of the stresses and strains placed upon

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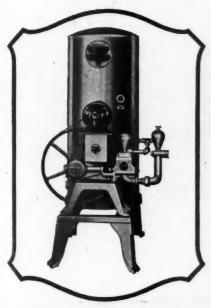
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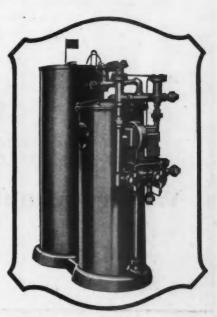
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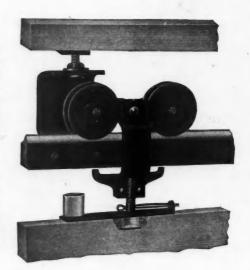
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Wagner Manufacturing Co., Cedar Falls, Iowa





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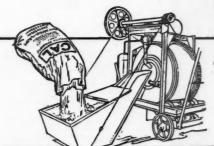




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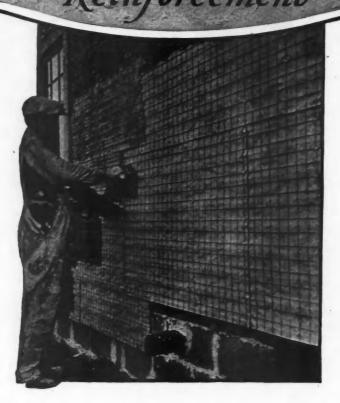
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Large and small homes, located anywhere, may have dependable Fairbanks-Morse water service.

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Rocklath, the famous *firesafe* plaster lath, now comes in 16 x 32 and 16 x 48 sheets, 32 square feet to bundle.

No broken edges—no waste—faster, cheaper handling—more efficient application (each sheet covering a "lath break," the space of 8 wood lath with one-half the nailing).

Grips plaster tightly, perfectly, all over. Never buckles nor warps. Makes a finer, safer, more permanent wall in less time.

Specify Rocklath, bundled and in the new sizes. It'll save you time and money, and it aids better plastering. Sample and application data for the asking. Write—

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# ROCKLATH

The FIREPROOF LATH

Made by the United States Gypsum Company

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UNITED STATES GYPSUM COMPANY

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Dept. 601, 205 West Monroe Street, Chicago, Illinois

Please send me complete information on Rocklath.

Name....

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No more searching and fumbling for inside keys. No hit-and-miss jabbing at elusive keyholes. No sticking latchbolts. No wobbly doorknobs. When you install SCHLAGE locks you end all that trouble. Most SCHLAGE locks require no key. No SCHLAGE lock requires inside keys. Where outside key is necessary, the keyhole is located handily in the center of the outer knob. A button in the inner knob saves the trouble and delay of inside keys. No need to cross the room to try the door. Merely a glance at the button tells if it is locked. Instant protection simply by pressing this handy button. The intruder can't get in, but those inside can leave at will—the turning of the inner knob automatically unlocks

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the door. In case of fire the tiniest tot has only to reach the knob and walk out to safety. Highgrade steel com-

pression springs throughout give the action a quick elastic snap, and the whole working is so simple, so easy, doors seem almost to open and close themselves.

#### **Enduring Service**

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To LOCK [inside] just press the button in the knob. To UNLOCK just turn the knob

> screws, and slip on knob. That's all. Completed in 1/3 the time required to install other locks. No adjusting. No screws in spindle, knobs, or escutcheons. No complicated mortising or assembling. So simple and easy even the most inexperienced workmen can make speed without mistakes. Eight (8) types for all doors. All locks inter-changeable and doors may all be drilled at same time. All working parts cold-rolled electro-galvanized steel.

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Made by SCHLAGE LOCK COMPANY San Francisco, California



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# ONE MAN* supplies



# Carney Cement Mortar to their largest crews!

WHEN one man can mix enough Carney Cement mortar to supply Theodore Stark & Company's largest crews, he has done something.

For six years, this builder has been using Carney Cement mortar on some of Milwaukee's largest jobs, and one man supplied all the mortar. Any builder can make this same labor saving with Carney Cement because Carney requires only water and sand—soaking is not necessary and lime is not needed.

In addition to saving mixing time, you will find that Carney Cement also shows a big saving in material. Where other cements take three parts sand, Carney takes four parts perfectly. This extremely plastic quality also gives the masons a bigger day, because tamping and re-tempering is eliminated.

Here is one place where costs can be trimmed without affecting quality—put Carney Cement on your next job.

#### THE CARNEY COMPANY

DISTRICT SALES OFFICES: CLEVELAND, CHICAGO, DETROIT, ST. LOUIS, MINNEAPOLIS

Specifications:

1 part Carney Cement to 3 or 4 parts sand depending upon quality of sand. bi

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Since 1883

We expect to keep on using Carney Cement and can highly recommend it in every way."

WARREN NEVILLE,
THEODORE STARK & COMPANY,
Milwaukee, Wis.

"We have been a consistent user of Carney Cement for the past six years and we have found the use of this material to be both economical and practical. We have realized a great saving in labor due to the simplicity of handling and mixing. We find one man can easily mix this product and supply mortar for the largest crews of bricklayers that we use.

Cement Makers



CARNEY CENTENT

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

### Around the Family Table

### Next Month— Our Reference Number for 1927

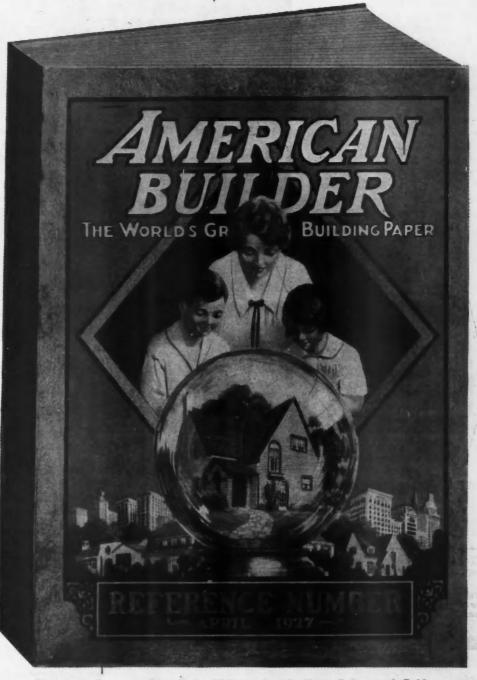
HE APRIL American Builder will be our Special Reference Edition for 1927. It will follow closely the style of last year's book; and will be one of the largest, most comprehensive and best illustrated magazines ever offered the building industry.

There will be no increase in subscription price—extra copies 35 cents each; by the year 12 monthly issues \$2.00.

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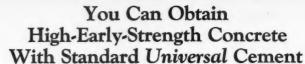
> Invite your friends to share in this. Send us your order now. Don't miss this big April Reference Number.

> > Editor American Builder.



The April Cover Is Beautifully Lithographed in Four Colors and Gold.





High-Early-Strength Concrete does not involve the use of a special cement at an additional cost.

High-Early-Strength Concrete is made by using thoroly tested methods and STANDARD *Universal* cement, which, being *standard*—not special—sells at the regular price. It is the same quality *Universal* as used in ordinary construction.

In 3 days, High-Early-Strength Universal Concrete has a strength equal to or better than ordinary concrete in 28 days. It is permanently better and stronger than ordinary concrete. It is being used on all types of jobs. The accompanying coupon will bring full details promptly on the thoroly tested methods to use for obtaining strong concrete in 3 days.

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#### Universal Portland Cement Co.

Chicago Pittsburgh Minneapolis Duluth Cleveland Columbus New York

Concrete for Permanence



High-Early-Strength Universal Concrete is made by using fully tested methods and the same quality of standard Universal (not special) cement as used in ordinary construction.

#### UNIVERSAL PORTLAND CEMENT CO.

210 South La Salle Street, Chicago.

Without obligation, please send me detailed information on methods for securing strong concrete in 3 days with standard Universal [not special] cement, the same quality Universal regularly used.

Name ....

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FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

1827 Prairie Ave., Chicago - 250 Park Ave., New York City

#### A New Normal

It should be borne in mind that while the amount of building in the United States since the war has been very large in terms of dollars it has not been as far out of line as the public has, at times, been led to believe. The pre-war volume of construction was \$3,000,000,000 a year. Taking into consideration the greatly reduced value of the building dollar, the increase in population and the higher standards of living, it is not unlikely that a new normal building volume at this time would approximate \$6,000,-000,000."

This extract from a recent statement made by S. W. Straus, president of S. W. Straus & Co., brings out a point which is too frequently overlooked by those who are constantly predicting a serious slump in building activity, due to supposed over-building of the past few years. The industry is on a new basis today. It is the basis of 1927, not that of 1914. It must be judged by new standards not by the antiquated standards of pre-war days.

#### This Demonstration Is Effective

THE Southern Pine Association reports that the message of good construction which it is broadcasting in the form of demonstration houses with hurricane-proof framing, is already showing a telling and highly desirable effect upon building activities. Since the completion of the New Orleans frame, the association has received evidence that several other houses, now in the course of construction, by individual builders, are incorporating the 15 salient points of good construction brought out in the New Orleans house.

Although only the preliminary work has been done on the Miami home, it has been definitely ascertained that the project is exciting more than passing interest among builders. This is true not only of Miami, where the house is located, but also for the entire state of Florida and for adjacent states.

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#### **Progress In Wood Utilization**

A REPORT from the National Committee on Wood Utilization has been issued which shows the status of its activities and the encouraging strides which it is making in the important work it has undertaken. Perhaps the most conspicuous accomplishment is the recent publication of a bulletin, entitled "The Marketing of Short Length Lumber," which indicates the enormous saving possible when industry has been educated to the utilization of the short lengths that are now, ordinarily, wasted.

A new project, undertaken during December, is the end matching of softwood lumber and this is considered an important adjunct to the short length study. Other subjects in which marked progress has been made are the seasoning and handling of lumber, wood distillation, wood preservation, small dimension stock, veneer and plywood, and containers.

Early in December, the Director of the Committee inspected the operation of a foreign type gang saw, specially designed for the cutting of small logs of less than 10-inch top diameter. The operator of the mill using this saw stated that he had more than doubled his daily output with it and had decreased the cost of sawing by almost 50 per cent. It seems likely that this type of gang saw is destined to play an important part in the utilization of small logs in this country in cases where speed and accuracy of manufacture are required.

#### 1927 Shows Second Largest January Activity on Record

TOTAL construction contracts awarded during January in the 37 states east of the Rocky Mountains amounted to \$384,455,400, according to F. W. Dodge Corporation. This was the second largest January total on record, although 16 per cent under the maximum January, which was last year. The entire decrease of last month is accounted for in a drop in New York City's contract volume, and two-thirds of the decrease is accounted for in the fact that January, 1926, had a single \$50,000,000 power-plant job for New York City, which was not duplicated in the January, 1927, record. Comparing the January total with that of December, 1926, shows a decrease of 28 per cent. It should be noted that this is again a comparison with an abnormally high month, the December total having been swelled by large subway and other public works projects.

#### Better Homes in America

THE annual Better Homes in America campaign for 1927 will culminate in Better Homes Week, April 24 to May 1, when the program will be completed and the work of awarding prizes in the Better Homes in America Contest will be undertaken. In 1926 more than 3,000 cities, towns, villages and rural communities conducted programs in the 1926 campaign and the number for this year will undoubtedly exceed the 3,000 mark.

Here is a movement which is having a tremendous influence in the present day trend toward beauty, labor saving, convenience and sanitation in the design, construction and equipping of homes. It is a movement which deserves the support of every progressive builder whether his field may be in a large city, one of the smaller communities or in a strictly rural district.

That the influence of the Better Homes in America campaigns is actually extending to the rural communities is witnessed in the demand which has been made upon the national headquarters for campaign instructions especially adapted to rural communities. This year the regular Better Homes in America Guide Book has been supplemented by a separate Guide Book for Better Homes Campaigns in Rural Communities and Small Towns.



MODERN home seekers inspect interiors with experienced eyes. They quickly appreciate and respond to the things that contribute to convenience, beauty and safety.

The DIM-A-LITE Porcelain Bathroom Bracket is an outstanding member of the already famous DIM-A-LITE family. Its installation increases the salability of any house. Its beauty is appropriate in the finest home—its price is practical for the tiny bungalow. In addition to the four graduations of light provided the bracket includes a convenience outlet for boudoir and bedroom appliances. It is especially adapted to use in apartment houses and hotels.

Every modern bathroom should be equipped with the new DIM-A-LITE Bracket. Its "dim" light is of great advantage to the evening's guests as it avoids embarrasing questions or the the usual search for the electric switch.

For the family, its "nite" light service provides protection as well as convenience. In cases of sickness a DIM-A-LITE Bracket is an imperative necessity.

Listed under re-examination service of Underwriters' Laboratories



5227 Green Street

Philadelphia. Pa.

### **Building As a Profession**

By JOHN T. NEUFELD

HEN choosing a profession, we generally consider such points as: (1) Is the profession one with an open field of possibilities? (2) Is it a worthy profession? (3) Is it a paying profession?

We believe that we can answer these questions in the affirmative when referred to the building profession. We will, however, first explain what we mean by choosing "building as a profession." We may enter this field as a tradesman or we may enter it as an architect. However, every man engaged in the building business, either as a tradesman or an architect should have a broader view or a greater ideal before him, that is, of being a "real builder," not only one who makes the drawings for the building or one who executes a portion of the work, but a person who really "builds."

The term "architect" really means the principle builder. Historians will tell us that the reason that we have such famous works of architecture, such excellent monuments by our ancestors, is because in that day and age they had "real builders," that is, men who not only made the plans for the building, but actually built them. The men who handled the material on the job planned the building. It is not necessary, of course, that the builder, that is the one who plans the building, do all the work. But a real builder, in the true sense of the word, should plan and build and it is this profession that we refer to in this discussion.

#### A Worthy Profession

The building profession is a worthy profession in that it supplies one of the three necessities of life. We usually find these named as food, shelter and clothing. The builder supplies one of these essentials.

#### Unlimited Possibilities

We find this profession unlimited as to possibilities. There is a great field in public building. The present American style of architecture is changing rapidly to conform to the demand for commercial buildings and any man who makes it his profession not only to plan but also to build buildings will find wonderful possibilities.

#### The Preparation for the Building Profession

The person that starts off as a tradesman has perhaps the best opportunity to become a real builder. He has a much greater opportunity than the man who starts as a draftsman, not having had the practical experience.

A thorough understanding of building construction is necessary for a builder. This is gained by practical experience and study. A thorough study of building materials is required. With this a study of architecture, that is, History of Architecture, Architectural Design, etc., is necessary. A study of strength of materials is also essential. To be a builder in the broad sense of the word really requires a very thorough and broad education. Perhaps more so than almost any other profession.

As an incentive to young men engaged in the building trades, we would urge them to go ahead and make use of the experience they have gained in their trade. Keep on studying in the line that you have started. Do not think that any study in the line of architecture or building is unnecessary. Make your aim and ideals that of the original meaning of the word "architect," that is, the "arch builder" or the "master builder" and stick to it.

#### Revised Grading Rules

ONE of the most progressive steps taken in recent years toward efficient grading rules governing the manufacture and marketing of lumber occurred recently at a meeting of the Timber Specifications Committee of the Southern Pine Association. Secretary-Manager H. C. Berckes explained that the purpose of the meeting was to correct faults existing in the present southern pine timber specifications, which have taken cognizance of only the higher and lower structural grades. The new set of specifications, recommended during the course of the meeting, make decided provisions for intermediate grades. They will be placed before the members of the Grading Committee for approval at an early date.



The Practical Experience of the Building Tradesman Plus Book Learning and Study Makes the Real Master Builder.

### He Sells Before He Builds

What This Builder Learned While Working for Others Brought Him a Quick Success

NLY about a year ago, a young man announced to the world that he had started into business for himself; and that business was the building of homes. To those who read the advertisement, it was not much more than an announcement for the man was practically unknown.

But people soon began to find out about him. A home was built in a corner of the city, then another and another. And there was a something about these homes that made them more attractive and better to live in. Those who owned them claimed more conveniences and more comfort; and the prices were reasonable. The world that had looked on with indifference a few months before, now sat up and began to take notice. Here was something out of the ordinary. This builder was not only building homes and financing them, but he was putting a personal touch to them that the owner would appreciate for long years to come.

More and more bought. The prestige which the first few homes had created, now spread, and the name of the builder became recognized as one who could be relied upon as a real home builder. He was Otto Klaus, of San Antonio, Texas, and his experiences before and after he went into business for himself, make interesting reading.

"When I was working for another man," Mr. Klaus explained, "I had an opportunity of seeing a lot of ideas and experiments tried out; some were good and some were bad. At any rate, I had the opportunity of benefiting from them. If it proved to be a good feature, I knew that it was something worth remembering; but if it failed, I knew why and knew that it was a thing to be avoided, or to be improved upon.

"I used to design a great many homes and I began to note that there was more than just drawing the lines. It was not only possible to arrange the rooms so as to provide the maximum amount of convenience, but it was also possible to so plot these rooms and so set the house on its lot, that the maximum amount of cool air would be provided in the summer; the maximum amount of light

at all times; the best shade, and the right amount of heat.

"These were all things which meant a lot to the home owner. This was not going to be a commercial investment for him. It was to be his home, his castle, and it was not the value of the house, nor the lot that interested him; but it was the home that he had his heart set on.

"So I began to make a study of all these little points, making notes here and there, making comparisons and checking them with other observations that I had made. Soon, I was able to determine pretty closely just how a house should be laid out in order to assure the owner the maximum amount of comfort and convenience at all times.

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"Another thing that we did that was beneficial in showing just what we would have later, was to make an elevation of all the houses we were to put in a new addition, together with sets of plans. These were, of course, roughly fashioned, but they served the temporary pur-

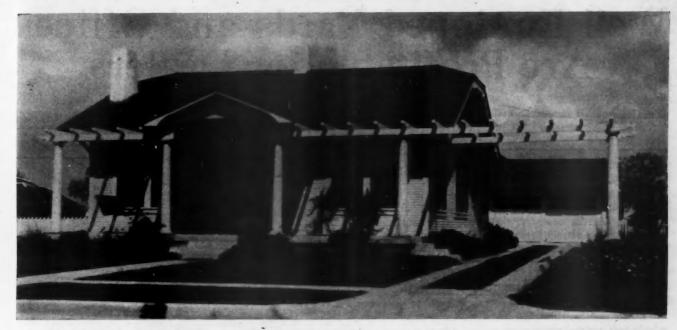
pose for which they were intended. Then, when the plans had been finished, we would make a large clearance on the floor of the office and lay the houses along just as they would look in actual practice in the new addition. This gave us an idea of what we would have later. It helped us in making a more harmonious blend of colors, sizes, shapes and forms. It helped us to bring out the best that could be had along the lines of correct building and attractiveness.



Otto Klaus, of San Antonio, Texas, Has Made a Quick Success in His Own Business by Applying the Lessons He Learned While Working for Others.



A Group of Homes Built by Mr. Klaus for Owners Who Had Already Bought and Were Thus Saved Interest Charges and Also Had an Opportunity to Put Their Own Ideas Into the Designs Made Especially for Them.



A Typical House of the Sort That Mr. Klaus Is Building for the Home Builders of San Antonio and Which Have Won Him Recognition in the Short Space of One Year as an Independent Contractor,

"When we had them spread out on the floor of the office, we would shift them about; some would be torn up and thrown out altogether, but when we were through, we knew just how the addition would look when we got in the actual work.

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"I worked here for quite a number of years, and was satisfied in a way; but I realized that I had also reached a limit. It mattered not that I work there the rest of my life; my salary would not be much if any higher, and I would not have a much better job.

"So I quit the firm with which I was connected and struck out for myself. I had gained quite a little experience while I was working for this company. I felt confident that it would help me if I got out and used a little of it to my own advantage; and it did.

"My plan of building, however, is different from that used by a great many dealers. I noted that a builder would buy up an addition, make some improvements, and put in some houses. For example, in opening up a new addition, he might build thirty houses. These he would try and sell; but whether he sold them or not, he had to turn over his paper. Then, for every day that those houses were standing idle, an interest charge was

piling up which someone had to pay. Naturally, the builder would not assume this, as he had had enough expense as it was.

"It seemed reasonable to believe that the man who eventually bought the house would have to pay interest on the investment from the time that it was built, regardless of whether he owned it or not. Of course, he would not know this, for it would be put in on the price; but it was a fact.

"So when I began to do building on my own hook, I made it a practice not to build anything until it had been

PE JOSK COPE BED RM. KITCHEN 13-0'x 9-9" DREAKFASTEM 9-0×6-6 DINING RM BED RM. 15'-3"× 13'-6" 13-3"x 13-6" LIVING RM. BED RM. 17-0'x 13-0 11-6"x 13-0" PORCH PERGOI

Floor Plan of the House Shown Above, Designed to Make the Most of Every Bit of Available Space and Light.

sold. I would buy a let, find a customer, and then build the house. This gave people an opportunity to put in a few ideas of their own, and it made it much cheaper. If a man bought a house today, I would get up the plans and have him approve them at once. Then the work would be started and pushed to a finish. When completed, we would get notes on the place, turn over the paper, and he would only have to pay interest from the day that the house was ready for him to move in.

"I have also found that by using a little diplomacy and a little common sense, a man can do a lot of business that a great many times would be allowed to slip by. I have had several cases where a man would come to me asking me to build him a house, or a store, or a garage, on a lot which was heavily mortgaged. Ordinarily, this would not look like good business, but by working it about a bit, I was able to put up the building, and have it financed through an investment company.

"I had one instance where a man wanted to build on a corner lot but did not have any money. I went to the loan companies and they laughed at me. They told me that I did not have any collateral, no security. I

wanted to build that building, for it was an attractive store building, and meant a profitable job; so I began to look around for a way out of the predicament.

"At length. I hit upon a plan which got good results right away. I went to one old, reliable drug firm and convinced them that this would be a good corner for another drug store. They agreed with me after a bit, and I got them to sign a lease on one of the stores—which would be a part of the building—for ten years. Then I went to one of the prominent grocers who had

(Continued to page 196)

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### Well Equipped Yards and Offices Are Profitable for Dealers

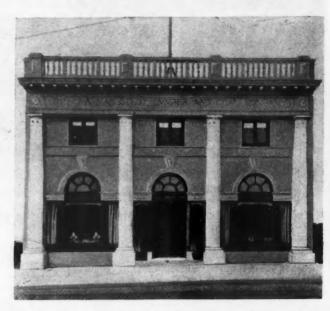
SELLING psychology has the same underlying principles whether applied to building material or dry goods. The customer bases his judgment largely on the evidence of his eyes. First, he gains an impression of the institution as a whole; its standing and importance; its stock and equipment; and, by inference, its ability to serve him. It is a well-known fact that the environment influences the buyer. If the surroundings are dingy and disorderly, he does not think as highly of the material displayed for sale. On the contrary, the goods displayed will gain much from an attractive setting.

As a matter of fact, a building material dealer who takes no pride in the appearance of his office, sales room and yard, seldom attempts to make any effective display of samples or the stock itself. More progressive dealers throughout the country, however, are keen to take every advantage and have fine appearing sales rooms and displays which will promote sales.

Of course, there is a marked difference between a jewelry business and that of a building material dealer. Appearance is almost the chief value of jewelry, whereas, enduring qualities and fitness for the purpose should be the main qualities of building material and equipment. And yet, it is undeniable that both builders and buyers of homes and other buildings are thinking in terms of the appearance of the completed structure—both inside and out. It is, then, only natural that they should pay considerable attention to the appearance of the material they buy and be influenced

by the outward appearance of the dealer's establishment.

Another argument in favor of attractive display rooms is



Really Fine Architecture Distinguishes the Office Building of the J. A. Mahlstedt Lumber & Coal Company, at New Rochelle, N. Y.



Unique Interior of the Office of the J. A. Mahlstedt Lumber & Coal Company, at New Rochelle, N. Y. This company also has splendidly equipped yards and fine sales rooms at Rye and Mamaroneck, L. I.

#### Merchandising Through Better Display



This Fine Office and Sales Room Is That of the Johnson Lumber Company, Inc., Erie, Pa.

the great and increasing variety of building material, equipment and supplies which building material dealers now find it profitable to carry in stock. In addition to lumber, nearly all of them carry millwork, flooring and finish, wallboard, metal lath, ready roofing, building insulation, asbestos, metal and asphalt shingles, as well as plain and stained wood shingles. They quite often carry a line of paints and varnishes, tars and cements. Many of them have concrete products yards where they make block and tile and also sell common and face brick, lime, plaster, portland cement, stuccoes, sand and gravel. Many of them also handle builders' hardware and metal sash, and have for sale sheet metal specialties, such as eaves trough, flashings, skylights, ventilators, and, in many cases, furnaces, hot water heaters and coal windows.

These lines can be effectively displayed in a sample room or sales room and many of them can only be sold by effective demonstration.

In fact, architects, builders, contractors and owners who visit the dealer's place of business to order supplies often will not know all the lines which the dealer carries in stock unless prominently displayed and brought to their attention. Also, there are many items which buyers want when they see them, but otherwise fail to order or will secure elsewhere.

No dealer will deny the economic advantages of an orderly, well arranged yard, with proper buildings and bins for protecting and classifying the material. The location of switch tracks, weigh scales, driveways and bins should be carefully studied, to secure that arrangement which will best facilitate the unloading, storage, handling and delivery of materials. Not only does the time of yard employes run into money, but also the amount of business done by any yard is limited to the volume which it can handle promptly. Perhaps in no other business does promptness of deliveries count for so much. When a builder has a schedule which calls for



Lumber Storage Is Classified and Orderly in the Plant of the Johnson Lumber Company.

deliveries on a certain day, he often must have that material promptly and will attempt to secure it elsewhere rather than lay off his men and incur a loss by the delay to his job. This shows the importance to the building material dealer of a well selected fleet of motor trucks, as well as efficient handling arrangements at the yard. Practically all sizes and types of trucks are needed in this field, from the lightest and speediest types to the large, powerful trucks with special elevating and dumping equipment.

#### Quantity Surveyors Convention

THE second annual convention of the American Institute of Quantity Surveyors will be held at Washington, D. C., June 6 to 8, 1927. This institute was organized in June, 1926, at Chicago, and is making rapid progress in the development of quantity surveying as a profession in the United States. Its headquarters are at 510 N. Dearborn St., Chicago.



A Woodworking Plant Is a Feature of the Johnson Lumber Company's Equipment Which Is Much Appreciated by Erie Builders.

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### Apartments in a 43-Story Tower with Ritz-Carlton Service

Sky Scraper Residence with the Most Modern Equipment

HIS month's perspectives represent a wide variety of architecture-an office building in Detroit, a theater in Buffalo, a large apartment hotel in New York and a medical headquarters in Brooklyn. Of these, the Ritz Tower in New York is one of the most recent skyscraper developments providing, as it does, most luxurious living quarters high above the noise and dirt of a great city. Arthur Brisbane is the owner.

#### Metropolitan Building, Detroit, Michigan Weston & Ellington, Architects and Engineers

This building is of fireproof construction, reinforced concrete, with brick and terra cotta walls and comprises twelve stories and basement, designed for stores, shops and offices.

The facades and detail employ the Gothic style of architecture which indicates its practical adaptability to the modern office building. The lines of the tower are particularly well brought out by strong vertical lines from the ground up and the slightly retreating angle of the two front wall faces.

#### Statler Theater, Buffalo, N. Y. Warren & Wetmore, Architects

This theater is now under construction directly across from the Statler Hotel, on Delaware Avenue, Mohawk and Niagara streets. The main entrance of the theater will be on Delaware Avenue and there will be a private entrance as well, directly across from the Statler Garage, on Mohawk Street, for use of automobile owners. The building will be of brick and terra cotta and it will conform architecturally with the facade of the Hotel Statler.

The auditorium will have a seating capacity of 1,600 on two floors. There will be large lounging rooms and parlors for the convenience and comfort of patrons. The stage, which will be large enough for the presentation of any kind of theatrical entertainment, will be equipped with all the latest inventions, and the dressing rooms will be furnished in such a way as to make actors feel really at home in them.

The Statler Theater will be owned by Hotels Statler, Inc., and will be under lease to Mr. A. L. Erlanger, who plans to keep the theater open year round.

The building will cost approximately \$1,000,000 and will be ready for occupancy some time in 1927.

#### The Ritz Tower, New York City Emery Roth, Architect

Todd, Robertson, Todd Engineering Co., Builders

Extending three stories below grade and 41 stories above the sidewalk, the Ritz Tower is one of the landmarks of modern New York. It is also unique because the tower from the sixth floor is devoted to apartment suites, luxuriously equipped. Being exposed to fresh air and daylight on all four sides, the tower provides ideal living quarters for those who wish to occupy apartments in the heart of Manhattan, at East 57th Street and Park Avenue. The lower floors are devoted mainly to the preparation and service of the famous cuisine of the Ritz-Carlton Restaurant & Hotel Company and its corps of chefs.

The architecture of this building follows the style of the Italian Renaissance and the design has cleverly utilized the set-back requirements of the zoning laws to produce a unified tower effect in this slender building.

The materials of the exterior finish and adornment are granite in the base course and the filler panels at grade; limestone to the level of the fifth story; above this face brick and architectural terra cotta trim, ending at the topmost stories with Spanish tile mansard roofs and a finial obelisk of limestone, crowned with a golden sphere. Hand wrought metal work, such as grilles, balustrades and railings, have been introduced to fully carry out the Italian details. In the stories above the eighteenth, rolled-steel casement windows have been used, while those in the lower stories are of solid metal of double hung pattern.

Corridors, dining rooms and tea rooms are beautifully decorated in period designs. The main entrance corridor is paneled in the finest French walnut. The floors are of Roman travertine.

The nineteenth and twentieth floors have, perhaps, the most unusual duplex apartment in New York City. The living room is a full two stories in height with large, graceful steel casement windows allowing egress to an offset roof terrace running clear round this apartment at the nineteenth floor level. Each apartment serving-pantry has a specially built unit electric refrigerator and clothes closets are equipped with roller hangers, shoe shelves and chifforobe drawers.

#### Medical Arts Building, Brooklyn, New York Mortimer E. Freehof, Architect David Solomon, Builder

One of Brooklyn's long felt wants is soon to be satisfied by the erection, at 142-144 Joralemon Street, of a thirteenstory fireproof office building, to be devoted solely to physicians', surgeons' and dentists' use.

The structure, known as the Medical Arts Building, is approaching completion.

The front of the building has been especially designed by the architect, Mortimer E. Freehof, to express and embody the dignity which is an essential and integral part of the medical profession. Above a base of limestone, a dark, rough-textured brick is to be employed, topped again by stone columns and pediments, the whole forming a harmonious and beautiful facade.

While store space will be available on the ground floors, the usual stone fronts will be eliminated and fine plate glass and bronze fronts will be installed in keeping with the dignity of the building.

None of the space in the building will be rented. Instead, all suites, stores, etc., will be sold on a co-operative basis to members of the medical professions, and in the case of the stores, to high class chemical, drug and surgical instrument concerns.

In addition to the usual features found in office buildings, this structure will contain refinements of particular interest to its ultimate occupants. Power lines sufficient to supply X-Ray and other therapeutic devices will be conducted to outlets in every suite. Toilet and lavatory accommodations will be furnished individually for every suite. A powerful ventilating system will be installed to protect the atmosphere in the various laboratories, dark rooms, X-Ray rooms, etc. The trim, windows, radiators and floors will be of the hospital sanitary types.

The operation is being conducted by the 142-144 Joralemon Street Corporation, of which the directors are David Solomon, the well known Heights builder; James H. Brown, vice-president of the Kings County Real Estate Corporation, and Albert Hutton, until recently vice-president of the United States Title Guaranty Co.

# ART SUPPLEMENT of NOTABLE ARCHITECTURE



PLATE 125

The Metropolitan Building, Detroit, Mich.; Weston & Ellington, Architects; an interesting example of office building Gothic.

The AMERICAN BUILDER, Marth, 1927

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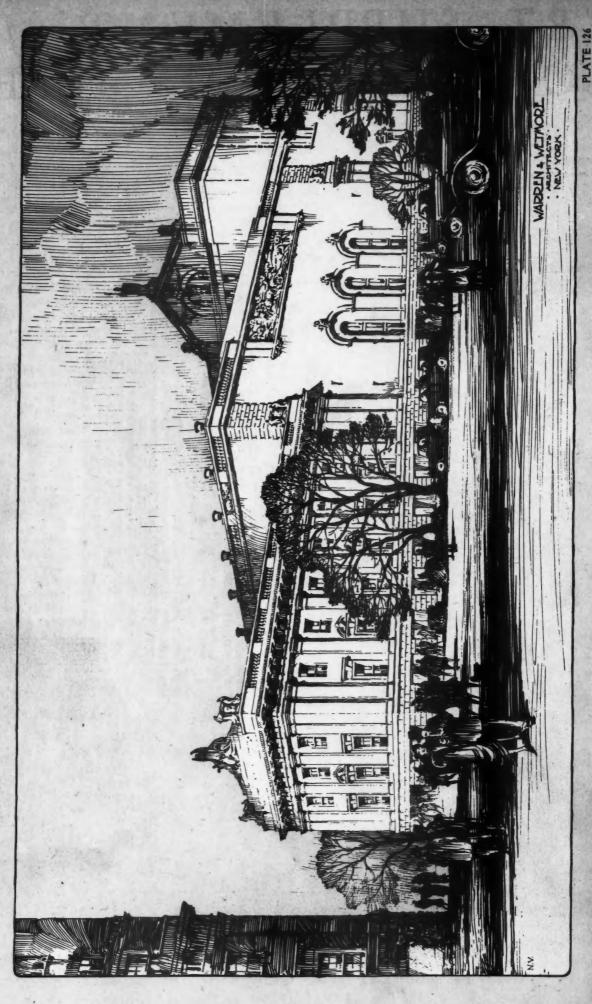
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The Statler Theatre, Buffalo, N. Y.; Warren & Wetmore, of New York, Architects; now under construction opposite the Statler Hotel



The RITZ TOWER APARTMENT HOTEL, Park Ave. and Fifty-seventh St., New York City; Emory Roth, Architect.



PLATE 128

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The Medical Arts Building, Brooklyn, N. Y.; Mortimer E. Freehof, Architect; David Solomon, Builder.

## New Front Aids Old Hotel

By V. F. WASIELENSKI



No One Would Recognize in This Trim Modern Building, the Old Commercial Hotel, Shown Below, Which Had Already Served for Nearly Fifty Years. Putting a new front on the substantial old structure rejuvenated it.

THE "Old Commercial House," in Phoenix, Ariz., had about served its time, it being some forty years since the mule teams had hauled its lumber 35 miles from the then nearest railroad. While the owner was thinking of what he might do with the old structure, a fire broke out in the building. This was in 1916. Very little could be done to check the flames with the result that the old hotel was completely gutted. However, the exterior walls and old verandas remained undamaged so the owner had the whole interior rebuilt in accordance with all modern construction ideas.

As time went by, new hotels were built, and though the "Commercial" had indisputably the best accommodations and service, its business showed a steady decrease,

the owner finally realized that he needed a new "front" and that it was the appearance of his hotel that was keeping guests away. Even stores that were renting space in the building reported considerable loss of business.

It was with the above problem that the owner came to our office. What could be done to make a good looking building out of that old dilapidated structure, and still not spend more than \$15,000? This was far from being an easy matter, for the building had a frontage of 137 feet on one street and 150 feet on the other. Not only that, but the work had to be done without any disturbance to the guests in the hotel, no scaffolding could be built across the whole face of the building, and as little hammering and noise was to be done as possible. The sidewalk around the hotel had to be kept open at all times.

After considerable figuring and sketching a method of solving all problems was worked out, and like everything else, was simple after it was done.

The first thing to do was to remove the old veranda. This was done with hand bars, and as a result, with no noise, each piece was handed down to the truck that hauled it away. The porch over the sidewalk was left



Merely Because of Its Dilapidated Appearance the Old Hotel Was Losing Business in Spite of its Excellent Accommodations and Service, and the Store Spaces Were Difficult to Rent.

in place, while the new posts were set. Then, after a new girder was built up, the old posts were removed, and the floor allowed to rest on the new work. This was reinforced and covered with canvas, so as to produce a water-proof deck.

A twenty-foot section of scaffold, high enough to reach the cornice, was then built and placed on rollers. This could be moved across the face of the building, and from it all the work was done. Two rows of metal tile produced the necessary red line with which to cap the building, good plastering and a dash of coarse texture covered all the old brickwork, a few quarry tile added more life, lamp standard put on an air of dignity, and the use of wrought iron railings and paint did the rest.

The stucco work is of soft sand color, window caps and sheet metal work a soft brown, all exterior woodwork is verde green, the rails black, the light standards old copper and the tile work red. Awnings of a color to correspond were now added, and the old hotel, under a new name, took its place with the best in the West. The work was completed in a short time, to the satisfaction of everyone, and at a cost of less than \$12,000.

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# The Grand Riviera of Detroit Another Atmospheric Theater

John Eberson, Designer of the Capitol Theater, Chicago, Architect, Is Introducing
This Type of Theater in a Number of Cities

HE city of Detroit now has an "atmospheric theater" similar to the Capitol Theater, Chicago—the Grand Riviera, pictured below. This design is by the architect who planned the original theater of this type, John Eberson.

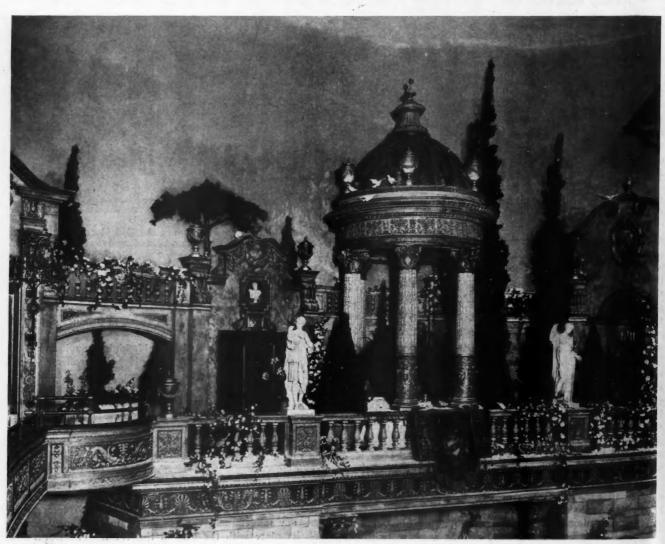
Mr. Eberson has not attempted any changes in the scheme of decoration as used in the "Capitol"; in fact, the interiors are almost identical. There is the same wonderfully restful illusion of the out-of-doors. The spectator feels the charm of some pleasant summer evening in Italy with stars twinkling in the distant sky. The beautiful outlines of an ancient temple, of gardens, flowers, shrubbery, marble walls and statuary are etched against the sky. In fact, the illusion is perfect of a complete change of scene, as one steps into the theater. It is as if modern American life had been left far behind and the visitor transported to this far-away land.

The scene is not only in front, as on a stage, but seems to surround one because it meets the eye on both sides as well as above. There seem to be no sides and roof to the

building. The clouds which float across the sky and the stars which twinkle above seem far away. The climbing roses which overhang the garden wall appear so natural that they might exhale a perfume.

The actual size of the amphitheater—great as it is—is vastly exaggerated by the art of the painter and the scale of his perspective. Incoming spectators step softly and speak in hushed whispers as they feel themselves a part of the beautiful panorama which seems to stretch so far on every side. The atmosphere of the scene seems to sink into the senses.

Aside from the stars, no direct lights are in evidence except in the lanterns of garden and temple; yet there is a diffused glow which outlines trees, garden walls and buildings against the sky. The architect, here, is a painter on a grand scale who paints depth into his picture, not only above but on each side as well. Art has been made to conceal the artificial. The observer feels the charm of his surroundings just as much as if he were actually close to nature in just such a scene. There is no sense of being in



A "Close-Up" Which Reveals the Beautiful Detail of the Grand Riviera Scenic Atmosphere Which Creates a Perfect Illusion of the Out-of-Doors.

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To accomplish this unusual and pleasing aim, the designer has borrowed freely from classical, ancient and definitely established architecture the shape, form and order of temples, gardens, and loggias with which to reproduce in the auditorium nature's settings. The interior, with its details, represents a careful study and an intelligent exercise of the decorator's art in reproducing ancient forms, textures and colors. The art of the decorator asserts itself in every corner of the house and has been cleverly applied with brush and electric flow to tree ornaments and flower furnishings, lights and shadows to produce a true atmosphere of out of doors without in the least cheapening the illusion by overdone trickery.

John Eberson, the architect who originated the "atmospheric theater," received his early training in old world art schools at Dresden, Saxony, and Vienna, Austria, but, since coming to this country, has had extended architectural experiences in several large

American cities. He has not confined his work to theatrical design but now has several large buildings of other types under way in Florida, Texas and other states.

Despite the vastness of the Riviera auditorium, with its more than three thousand seats, it retains an atmosphere of intimacy, an atmosphere which is always new and alive, for the Grand Riviera Theater auditorium is picturing



This Romanesque Octagonal Tower Forms a Fitting Entrance to the Italian Interior.

nature itself, and in a most pleasing way.

The exterior of the Grand Riviera has an attractive feature in an octagonal tower, with pleasing terra cotta ornamentation. This forms the entrance and a large marquise covers the sidewalk to the curb, extending back each way from the corner and protecting the entrance doors which face the corner.—C. THORNE.



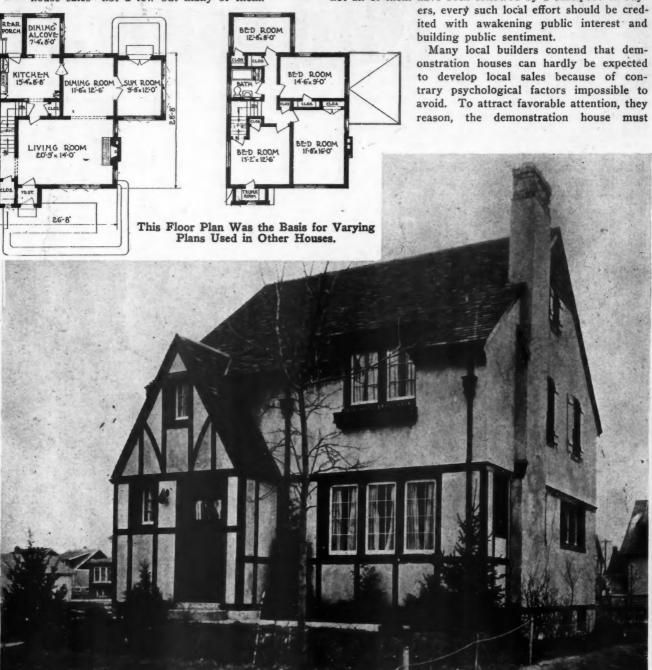
Another View of the Riviera Auditorium Showing How the Balcony Extends Through an Archway or Staggered Ceiling. From each seat there is an unobstructed view of the stage.

# EAL ESTATE AN DIVISION WO

# ome Really Sells Houses

UILDERS generally will be glad to read about a house sales-not a few but many of them.

Other "model homes" have proven of great value in demonstration house which led to actual immediate stimulating the general demand for homes, and although not all of them have been followed by a stampede of buy-



The Model House at Detroit, Mich., Was Designed by a Committee of Detroit Architects and Sponsored by the Detroit News. Its complete success is attested by the great impetus which it gave to actual construction of homes.

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Entrance Detail of the W. A. Keunzel Home, Which Was Built from the Plans of the Detroit Model Home.



The Rear of the Kuenzel Residence Showing the Dining Alcove with a Bedroom Above the Rear Entrance to the Sun Room and Also the Neat Brick Trim Under the Windows.

represent the finest of everything, while the speculative house, to be moved readily at good profit, must be put up about as cheaply as possible. So they feel that the demonstration house and the house built to sell do not mix.

However, recent experience in Detroit has proved conclusively that if properly managed and aggressively followed up, a demonstration house may be made to "deliver" admirably from the point of view of both builder and buyer.

The Detroit "Model Home" was a two-story seven-room building of concrete masonry construction. The idea was sponsored by the Detroit News and turned over to Major Charles D. Kelley, head of the paper's home building department, for development. Plans were prepared by a committee of Detroit architects appointed by the Michigan Chapter, American Institute of Architects.

Major Kelley announced that the campaign centering in the model home would focus on three objectives: to provide the average man with a suitable plan, to assist in financing construction, and to join hands with reliable contractors in order to deliver the kind of house desired, at a reasonable price. The William S. Piggins Building Corporation was awarded a contract to build the demonstration house at a price of \$7,000. The concrete masonry walls, of cinder concrete block and stucco, cost only 5 per cent more than frame.

An interesting feature of Major Kelley's plan was the cast iron requirement that the successful bidder for the construction of the model house should agree to erect at least twenty replicas for private owners at the same

price as the "model," should that number bed e sired.



Another Pleasing Adaptation of the Model House Design in Which Half Timbering Is Used for a Portion of the Front Elevation Only and the Front Entrance Shows an Individual Touch.



Here the Reverse of the Plan Was Used and Textured Stucco in Place of Half Timbering Gave a Pleasing Effect.

Some of the bidders liked this feature while others had their doubts about it. Few expected any great call for replicas.

Public officials and prominent citizens participated in the ceremonies connected with ground breaking, corner-stone laying and dedication. The house was carefully completed and furnished to the last detail. The public kept abreast of progress through the columns of the News. When the doors were thrown open there were crowds of enthusiastic home seekers all pleased with the compact and homey arrangement, the tiled bath, linoleum floors, ventilating fan in kitchen, Dutch cove breakfast nook, French doors to the terrace, attractive tinted textured surfaces and substantial construction throughout.

The house quickly acquired public approval, even to the point where some of the News' contemporaries mentioned it. The model house was not for sale, being given away later to a deserving blind hero, chosen in a

voting contest. But in the short space of a few days the demand was so great that the William S. Piggins Building Corporation secured contracts for some forty houses along the same general lines and the Detroit Cinder Block & Tile Company sold its concrete building products for use in a total of about 200 houses erected in the vicinity during the next few months.

Lack of space prevents more than a brief description of the construction methods used in building these houses. The walls were constructed entirely of standard 8x8x16-inch cinder concrete block of the type covered with portland cement stucco. It was desired to make the houses fire-safe by the use of concrete walls, metal lath for ceilings, partitions and eave overhang and a fire-resistant roofing. The stucco tints and textures vary considerably throughout the work, as specified by architect or desired by owner. The rather smooth, conservative finishes predominate, being closely in keeping with the English cottage architecture used in the model house and its counterparts.

"Good results might not have followed so naturally had this one architectural theme been used in a large number of adjoining houses; luckily, these houses were scattered quite widely, so there was no feeling of repetition.



This House Also Was Inspired by the Detroit Model House and Its Plan Was Noticeably Influenced by the Source of Inspiration.



A Number of Large Residences Which Were Built in and Around Detroit Followed the Model House Influence in Design Without Using the Actual Plan.

It hardly need be stated that many contractors other than those who built the demonstration house soon began to gather in resulting business as the News home-building department succeeded in distributing the plans and making contact with more bidders. Likewise, several of Detroit's leading architects were called in as the limitations of one plan became apparent. Under their supervision many more homes were built as a result of the campaign, which did not resemble the model house in any respect.

Before the season was over the activity had taken a decided hold on Detroit with almost incalculable good to the community from the standpoint both of pride in home ownership and demand for good planning and first-class construction.

The houses shown in accompanying illustrations are selected as typical of the many that were built as an immediate result of the "Model Home." They are sufficient to demonstrate the effectiveness of the campaign in Detroit and testify to the public interest in superior construction, even at a higher price.

The Detroit News and Major Kelley must be recognized for their wise management; J. H. G. Steffens and other Detroit architects of the local committee for a very pleas-

ing and practical plan, so easily capable of adaptation to a variety of city and suburban conditions; likewise, the Piggins Company and other contractors, and, not least, the cinder concrete block manufacturers who were alert enough to supply material for all of the walls. It may interest readers to know that among the directors of this latter company are Ty Cobb and Senator Couzens, and both of them have come to be well known around Detroit as active better home boosters.

A. J. R. Curtis.



In view of the rivalry between Detroit and Cleveland it may be taking an advantage to point out the similarity of the Cleveland "Model" house, built some months later, with the Detroit model. Much the same plan was used at Cleveland by the Cleveland Federation of Women's Clubs, both in the model house and in the conduct of the campaign, and the movement seems destined to be equally successful there.

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# **End-Matched Soft Wood Flooring**

By J. F. CARTER

Note: This Is the First of a Series of Three Articles by Mr. Carter on the Utilization of Short Length Lumber .- Editor

ND-MATCHED softwood flooring, such as yellow pine, is on the market commercially; and, despite whatever resistance might be offered to its use by those who always lag behind, it is gaining ground so rapidly that the alert contractor and builder is taking cognizance of it.

End-matched flooring is that flooring which has a tongue ful face nailed job, for there is no face nailing.

at one end of the piece and a groove at the other-just the same as sidematched flooring. End-matched hardwoods are not new. There is not a contractor or builder who has not used and is not using end-matched hardwood floorings, because hardwood floorings are end-matched. It is the general custom.

It has been twelve years since one of the southern yellow pine mills started end-matching some of its flooring. And during that twelveyear period it has not stopped. Within the past year a number of other southern yellow pine mills have installed machinery for end-matching, and there is every promise that the coming year will see twice the pres-

ent number of installations.

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> It must be seen that the idea of end-matching yellow pine flooring is really not a new thing. It has gone through all the experimental and the test stages. And, because the new spirit of organizations of manufacturers is so strong today, all the kinks and errors which have been made by one company have been truthfully

transmitted to all other southern yellow pine mills so that the errors once made will not be made again. Thus, we see that as the increased manufacture of end-matched flooring takes place the buyer need have no fear of the things which may have occurred ten years ago.

Why should the contractor or builder accept end-matched yellow pine flooring?

Because it will make him money in his business.

That is a good reason.

The manufacture of end-matched flooring saves money for the sawmill man-by permitting him to cut out defects -thus raising the grade of the piece, permits him to ship odd lengths, and permits him to ship much shorter lengths than were shipped in standard butt-end flooring. It means real conservation; a greater footage of manufactured material is sold from the log; a greater profit is made from the single log; and this means, in the long run, a lower price.

When the contractor purchases butt-end softwood flooring he suffers two losses; one is the 8 or 10 per cent additional flooring which he must buy to be wasted by cutting off; and the other is the loss of time in sawing to meet joists, or in squaring the two butts to meet when he is laying on a sub-floor.

Short lengths of end-matched yellow pine are a tremendous saving to the contractor and builder. In the first place he can purchase the short lengths at a considerably lower price than the standard lengths, whether butt-end or end-matched. Secondly, there is no wastage in sawing, not a bit. The only time a piece of end-matched pine floor-

ing is sawed is at the end of the run across the room, and the piece sawed off is brought back to start the next run. So that, the only possible piece of waste by sawing off is that piece left when he has finished the entire house.

The third saving is in the labor of sawing. The fourth saving is that he does not have to lose time making a care-

> The fifth saving (to someone) is that the finishing or scraping of endmatched yellow pine flooring is not as costly as the same procedure on butt-end flooring.

> The next consideration is that the job is a better looking one because there is no face-nailing, and there will be no squeaks caused by the loosening of such face-nails.

Just at this point let us present some rough figures to illustrate what the contractors save by using short lengths of end-matched yellow pine;

First, the mills make a considerable differential in price on short lengths end-matched-in some cases as much as \$15.00 per 1,000 feet. Of this, it is fair to be assumed that the retailer will pick up \$5.00 of the differential and permit the contractor or builder to have \$10.00. I say this is "fair to be assumed" because I have talked to several retail lumbermen concerning this point.

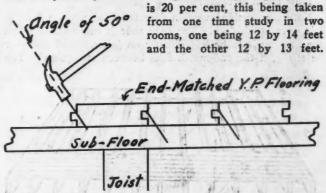
Secondly, the 8 or 10 per cent excess which has always been figurged by the contractor is not purchased—there is no need of it because

J. F. Carter, Field Man and Expert on Merchandising of Short Lengths for the Southern Pine Association.

there is no such waste.

Thirdly, there is a saving in time of 25 to 40 per cent in the use of end-matched yellow pine flooring as contrasted with butt-end. The lesser saving comes when the short length end-matched is being laid over sub-floor and the greater saving comes when the flooring is being laid directly on joists without a sub-floor. This saving in time is a very large item, and one time study after another, with scores of letters from contractors, attest to the value of short-length end-matched flooring.

Fourth, the saving in sanding or scraping an endmatched yellow pine floor as against a butt-end pine floor



The Method of Nailing End Matched Yellow Pine Flooring When Laid on a Sub-Floor. Nails should be about six or seven inches apart.

Test for Strength Being Made on a floor of End Matched, Yellow Pine, Laid Directly

on Joists, Without Sub-Floor. This floor is bearing a strain of 990 pounds to the square inch and has not failed. In this case the dial

inch and has not failed. In this case the dial showed 1,175 pounds when the floor failed. This is more than any household load.

The contractor can take these four points and reduce them to dollars and cents on any of his jobs. They will work out perfectly, in the event they do not show him even a greater saving than is cited in the foregoing.

How about obtaining end-matched softwood flooring?

The actual fact is that the contractor will not be able to call on every retail lumber yard and obtain the item at

once. This is because the retail lumberman is not a merchandiser. The only seller of a product who is a poorer merchandiser than the retail lumberman is the sawmill man or manufacturer. It is truly lamentable in this age of sharp competition that no more merchandising principles have been applied by the manufacturers of lumber.

The retail lumberman waits for the demand, then he orders his lumber. The contractor will probably find this true of end-matched yellow pine flooring. But this defect will be cured within a few months. The propaganda for the use of end-matched yellow pine flooring is strong and spreading rapidly, carrying with it, too, the feature of short lengths.

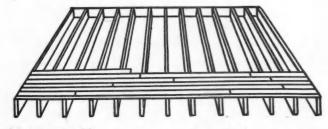
What do I mean by short lengths? I mean end-matched flooring in pieces from 2 to 8 feet. These are the bundles on which the retail lumber yard, and the contractor or builder, get their differential. And these are the lengths in which the really large savings are made in laying, whether over joists or sub-floor. It will be surprising to contractors who are not initiated when they discover how much flooring one man can lay if the item is short-length and end-matched.

One of the arguments, perhaps, will be that too many breaks show in such a short-length floor. It is quite true that many breaks show.

But rear hall, kitchens, pantries, bedrooms, and other such rooms are among those in which it does not matter so much that a great number of breaks show. The strength is still there, the finish is there, a saving in purchase price exists, and a saving in labor in laying and finishing is certain. Rear porches are among those which might be included.

How about strength?

Naturally, such a question does not arise when a floor is laid over a sub-floor. The only time it can arise is when the flooring is to be laid directly on joists. Will the floor be strong if the end-match falls between two joists? The



End Matched Flooring Laid Directly on Joists. No attention need be paid to the location of joists when matching.

answer is strictly an affirmative—without reservations.

Joists are spaced on 16-inch centers. Therefore, the purchase of short-lengths, since it includes 2 feet as the shortest piece, will not include anything which will not be nailed on a joist at some part of its length.

But—here is the way in which strength has been tested: Specimen floors were made in which one piece of end-

matched yellow pine flooring was 6 inches long. This piece was so placed that it fell squarely in the center of the space between the joists, so that it could not be nailed to anything, so that nothing but the side and end matches were holding it.

The pressure on top of the floor was brought to bear in the center of this 6-inch piece, a situation which, in practice, would rarely occur. The first floor tested failed at 785 pounds per square inch (the testing bearing was a square inch) and the failure was not at either the side or end matching of the small unsuported piece, but was in another piece nearer to a joist. The second floor failed when 900 pounds per square inch were brought to bear on the short unsuported piece. There was no sub-floor. This test was to show strength when laid directly on joists.

The strength of any one piece depends on the angle of the grain and the texture of the wood, but the evidence produced in the tests are conclusive that short end-matched yellow pine flooring regardless of grade can be used without sub-floor, letting the joists come where they may, without being supported by joists, and it will withstand more than any reasonable household load.

Although these tests have shown the strength which short endmatched flooring has, I would not

suggest that floors be laid without sub-floors. Sub-floors carry several insurance features. One is that the strength of the structure is greater when a sub-floor is laid diagonally; another is that the room is better insulated; and a third is that the floor is more sound-proof. Of these, quite obviously, strength of the structure as a whole and the insulating qualities are important.

Contractors and builders are accustomed to purchasing and using hardwood floors in short lengths and endmatched. They should do the same with softwoods. In yellow pine flooring there are two faces, one rift or quarter sawed and the other plain or flat-grain. The rift or quarter sawed, or edge-grain, yellow pine is a far prettier and better floor than is the flat-grain, more durable and finishes better. But the finish or the durability are matters of choice with the builder. In my opinion, and in the opinion of many contractors who are using short length, end-matched flooring of yellow pine, there is no choice, it should be used.

### Trade School Commencement

THE third commencement of the Building Trades Division of the Cleveland, Ohio, Trade School was held on January 20, 1927. One hundred fifty-five apprentices in five building trades, bricklayers, carpentry, electrical, painting and plumbing, were given diplomas.

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# A Garage with Garden Atop

CURLETT & BEELMAN, Architects — NEVILLE STEPHENS, Landscape Architect



This Charming Garden of the Francesca Apartments, in Los Angeles, Is But a Step Off the Lobby of the Building and Is Planted Upon the Roof of the Garage.

A S a guest of the Francesca Apartments in Los Angeles you naturally expect, and receive, all the comforts and conveniences of a high-class hostelry of its kind; but you are not prepared for a very pleasant surprise which you stumble on quite by accident and which makes your stay even more enjoyable. The surprise consists in the discovery that the beautiful garden which you enter a few steps above the lobby, expertly designed, completely planted, strikingly developed, rests upon the roof of the apartment's garage. It is a perfect example of a charmingly landscaped rear garden suspended some 15 feet in the air by reinforced concrete.

There are many qualities to delight the eye in the Francesca garage roof garden, thanks to the architect, landscapist and builder. It is a broad velvety greensward bordered by a grass-grown paved walk behind which there are heather, shrubs of varying height and potted plants of many kinds, with benches of cast stone along the way that invite one to tarry for a while. At the farthest end a charming little lily pool with cat-tails is guarded by a beaming terra cotta satyr. Being equipped with electric standard lamps, this garden invites use by day or night.

No one would ever guess that he was walking on just 21 inches of soil, spread over two inches of crushed rock, above the garage roof. But that is the case. This base was necessary for proper drainage of the lawn and plants and was laid over asphalt and membrane waterproofing. In this bed of rock the sprinkling and electric conduit systems were laid and then covered with 21 inches of soil. The pool itself was built up of concrete above the roof to the level of the walk and equipped with special water inlets and outlets. The entire garden, measuring 80 by 100 feet, drains to two corners.

The planting by Neville Stephens required some special



The Garage Entrance with Steps at the Left Leading to the Garden Pictured Above.

study because of the shallow nature of the soil. This problem was solved, however, by the use of short-rooted plants and shrubs, and it is interesting to know that not a single one of the scores of different plants has required replacing. Trees and shrubs have now reached a height of several feet and are as healthy and vigorous as any that have all of Mother Earth in which to spread their roots. Curlett & Beelman, Los Angeles, were the architects.

HENRY C. NEWELL.

# Kuehncrest, A North Woods Lodge

This Vacation Home Is More Than a Summer Cottage for Its Construction Makes It a Comfortable Year Around Home



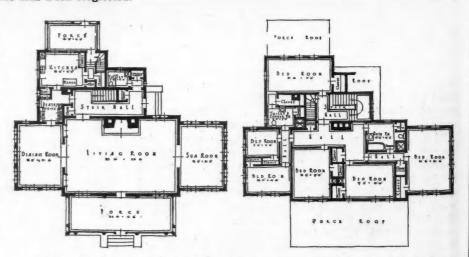
Kuehncrest Follows a Design Which Has Been Skillfully Handled to Harmonize with the Rustic Setting on the Shore of Lake Curtis Amid the Pines of Northern Michigan and Is an Example of the Summer Home in Which no Item of Comfort for Year Around Residence Has Been Neglected.

AMOUS as the playground of the Middle West, the north woods of Michigan, Wisconsin and Minnesota is a paradise of lakes, streams and woodland where summer homes have been developed along lines particularly appropriate to their rustic setting. Here may be seen vacation homes ranging from the rudest type of log cabin to the most elaborate residence of the wealthy, the latter often equaling the supposedly more permanent and pretentious city residences of these families.

Among all these the recently completed lodge of Louis Kuehn, president of the Milwaukee Corrugating Company, stands out by reason of its individuality and charm. At the head of this page, this rustic

home is pictured as it may be seen, overlooking Lake Curtis, in Gogebic County, in the upper peninsula of Michigan. But this picture gives only a meager conception of its charm, for, though the mind may easily picture the effect of the rustic log walls, there is nothing to convey the impression of the remarkable coloring which has been applied to the roof.

This roof, one of the most outstanding features of the house, is of sheet metal tile which have been successfully



The Plan of Kuehncrest Centers Around the Spacious Living Room with Its Great Fireplace for the Burning of Logs.

colored to reproduce, in all faithfulness, the variegated colorings found in burned clay, Spanish tile. Harmonizing with the natural colorings of its environment, it adds the final touch of artistic perfection to this lodge tucked away among the pines.

Nor is the roof the only portion of this house in which sheet metal has been used to good purpose. In fact, the extensive use of sheet metal is one of the features which make it original and striking. Though the living room is fire this unce has from room able ing comments.

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is provided with a great fireplace where a fire of logs offers cheer on chilly evenings, this house does not depend upon such uncertain heating. In the basement there has been installed a wood burning furnace from which warm air ducts lead to all the rooms of the house and assure a comfortable temperature under all conditions, making this not merely a summer home, but a comfortable year around residence when desired.

Then, too, the house is most completely equipped with metal gutters, down spouts and all such accessories which are associated with good construction in the better city residences, and again sheet metal has been used in the metal lath base for interior plastering. No more finished dwelling could be found anywhere, though none of

these accessories which add so much to permanence and comfort in any way detract from the rustic effect of the whole.

Kuehncrest, as Mr. Kuehn has named this charming new home of his, was designed by R. A. Messmer & Brothers, architects, of Milwaukee, and the construction was handled by Walter Oeflein, who also built another summer home for himself on Lake Curtis.

The plan shows a most complete home where nothing lacks to afford comfort to the owner. It centers about a spacious living room measuring 37½ feet by 25½ feet and with a magnificent fireplace at one side. This room is centered from a front porch of almost equal size from which there is a

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The Living Room Has Been Finished in a Combination of Slab Siding and Plaster on Metal Lath.

view of the lake. At the ends of the living room are two more rooms, a sun room and a dining room. To the rear are found the stair hall with convenient toilet, pantry, kitchen and stairway leading to the basement.

Above stairs are sleeping quarters to accommodate a large vacation party. Here are six bedrooms. There are also two bathrooms and the two large front bedrooms are furnished with separate lavatories. The bathrooms are equipped with both tubs and showers. Every bedroom is supplied with an ample closet and there are extra closets opening from the hall for the storage of linens.

While this house has the appearance of a log house, the disadvantages of this type of construction have been avoided by the use of standard frame construction with a siding made in the form of a slab and stained. The resemblance to actual logs is remarkable and in addition to this desired appearance it is posible to thoroughly insulate the walls and to preserve them with fresh stain when required, protecting them against decay.



This Home Is Thoroughly Heated by a Warm Air Furnace Located in the Basement so That, with Its Excellent Construction, It Is Entirely Suitable for Year Round Residence.



The Fireplace, with Its Swinging Pot Hook, Heavy Fire Dogs and Massive Timber Mantle Shelf, Is an Irresistible Attraction.

### **Mason Contractors Meet**

THREE HUNDRED prominent mason Contractors from the United States and Canada renewed their acquaintance with trowel and mortar board and matched their skill at bricklaying, in the dining room of the King Edward Hotel at Toronto, Canada, recently. This contest marked the opening of the three-day annual convention of the Mason Countractors' Association of the United States and Canada, January 24 to 26, 1927.

# How Modern Floors Help to Sell the House

In buying a home in America it has become the natural right of the wife to have the final say. The man sizes up the garage. He mentally figures how much room he will have to work around his car. He looks at the driveway and estimates the clearance he will have going in and out. He may be thrilled by the cellar, for the furnace may mean much work or little, and if he is mechanically inclined his workroom will be located "below stairs."

But his wife looks over the house from the standpoint of convenience, the amount of work needed to take care of it, the number of steps from the kitchen to the dining room, the number and size of the clothes closets, the decorations, the possibilities of making the rooms beautiful.

So much attention has of late years been directed to floors that women have come to regard them as part of the decorative scheme of the rooms. Because women have become floor-conscious they hesitate to buy houses if the floors don't satisfy them. The trend towards simplifying the care of the home, and the feminine desire for beauty have combined to popularize linoleum floors.

Years ago linoleum was accepted only in kitchen and bath. It was used in these rooms for reasons that had at least as much to do with practical considerations as with smart appearance. Water splashed in the bathroom was easily wiped up. When the kettle boiled over, or a

pan upset, the floor by the kitchen stove was easily made to smile again. In those days choice of patterns was limited. Linoleum was then just a good, easy-to-clean floor.

Then came the leaning to houses arranged on more practical lines. The all-over carpet and the once-a-year nightmare of spring cleaning passed into history. Floors became more than just something to walk on. The old idea of "soft wood upstairs and hard wood downstairs" gave way to linoleum floors for every room in the house.

Note we say linoleum floors—not floor covering. There's a big difference. The linoleum floor of today is a structural floor. It is literally built in; cemented to builders' heavy deadening felt, which is, in turn, pasted to the wood underfloor. The builders' felt takes up the expansion and contraction of the wood underfloor and prevents the linoleum opening at the seams. As a re-



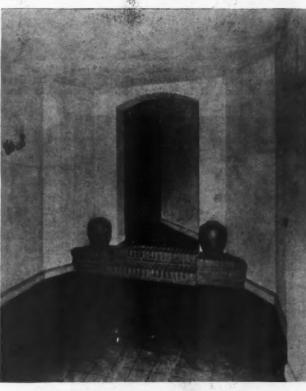
In the Home of a Philadelphia Architect, the Charming Dignity of the Dining Room Begins with Its Linoleum Floor. The six-inch blocks of black contrast with the rich red-veined marble effect. The border is plain black.

sult linoleum laid this modern way remains a smooth, practically one-piece floor.

It is also a quiet floor, a warm floor. No drafts can get through the combination of heavy felt and linoleum. It is a delightful floor to walk on because linoleum is made largely of cork, springy and noise-deadening. But

the modern linoleum floor appeals to the housewife also as a beautiful floor. In choosing her new home she runs an appraising eye over walls, woodwork, doors and windows-and she also looks at the floors. She is keenly conscious that her job is to make a home out of that house. According to the impression her eye receives she will either want that house or she will do her best to kill the sale. Many builders have found linoleum floors a big factor in "putting over the sale" to the woman who so largely influences the sale.

Linoleum floors of color and design immediately suggest to the woman who sees the house for the first time many possibilities for home decoration. She knows that the floor is the room's biggest single area. Here is the real foundation for rugs, draperies, wall paper and furniture. She wants floors that will be easy to keep looking well, and she has learned that floors of lino-



The Entry of a California Apartment. Approaching the steps, the eye naturally goes to the floor where the charming, dark red, inset, tile pattern linoleum harmonizes with the steps of tapestry brick. The finishing touch is a border of plain black.

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A Bedroom Needs a Quiet Floor. In this one the linoleum, cemented over heavy deadening felt makes footfalls silent. The cheerful gray Jaspe harmonizes with walls, draperies and furniture. Though unobtrusive it adds a soft charm to the room.

leum are easy to keep spick-and-span. She knows that they release the woman who does her own housework from the eternal round of sweeping and scrubbing. She knows, too, that linoleum floors never need refinishing.

There are many other selling points about linoleum floors which the builder can use in putting the sale across. The woman who has small children sees that on this kind of floor little ones may play all day without fear of drafts and resulting colds. Now and then a woman says: "Oh, but I want my pretty rugs!" The answer is that on linoleum floors rugs should be scattered around just as on hardwood. "I wouldn't step out of a warm bed on to that cold floor!" doesn't hold nowadays. By actual test the linoleum floor is a warm floor, for linoleum is non-porous and is a non-conductor of heat and cold.

The way to a woman's heart is through her eye. Linoleum floors help impart a charm she finds it hard to resist, for the variety of patterns and the range of colorings is without limit. Consider the possibilities of the warm red and brown tile patterns in rooms that, facing north, do not get the sun. Again, where the sun floods in during the afternoon, think of the delightfully cooling effects to be had with green or blue tiles, or gray Jaspe.

For kitchen and bath room blue and white tile running at a 45 degree angle to the walls are still popular, but richer patterns may now be had. What housewife wouldn't be captivated by the lovely new moulded tile patterns, blue and gray, two-tone grays, red and buff granite, interlined with white or black?

For bedrooms and living rooms there are many pretty patterns that women like. Figured patterns in soft-colored effects; lovely Jaspes in two-tone grays, buffs, browns, greens and blues, set off by a broad contrasting border of black. Jaspe adds colorful brightness to a room, yet is neutral enough to merge in with any decorative scheme.

For halls and sunparlors there are beautiful inset marble effects, showing rich clouded tones; Spanish tiles in reds, blues and combinations worthy of an old-world cathedral window.

To the practical mind of the builder there naturally comes the question of cost. We have looked into this and we find that the cost of inlaid linoleum, laid the modern way, compares favorably with that of hardwood. Where a linoleum is to be laid the underfloor can be of second grade matched lumber. Any slight unevenness is taken up by the builders' felt.

The saving in lumber costs covers a goodly portion of the cost of linoleum and laying. Properly cared for, the linoleum floor needs no refinishing. We have heard of houses with linoleum floors that have lasted well over thirty-five years. Time has only served to mellow their beauty.

### Traveling Fellowship Announced

A TRAVELING fellowship, in the United States, for French architects, has been established by the American In-

stitute of Architects under the auspices of the French Ministry of Education. The annual value of this fellowship, the donor of which is Julian Clarence Levi, of New York City, is \$1,500. The holder will spend part of his time in travel and part in employment in the offices of prominent American architects.

"The institute," the announcement says, "deems the establishment of this fellowship a valuable contribution to international architectural education and a graceful recognition of our educational debt to France."

This fellowship will continue for an experimental period of three years and will be administered by a committee of the institute consisting of Chester Holmes Aldrich, Harvey Wiley Corbett, Julian Clarence Levi and Lawrence Grant White, all of New York.



The Din of the Children's Play is Lessened by this Floor of Inlaid Black and White Tile Linoleum. Tumbles do not result in hard bumps and bruises and the cool pattern offsets the heat of summer sun. This floor will continue to look well in spite of the rough treatment which is inevitable in a play room.

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# **Demonstrating Modern Features**

J. A. ALTSCHULER, Architect

THE house illustrated below was a co-operative undertaking planned and built by a group of dealers and contractors in New Castle, Pennsylvania. This model or ideal home was intended to show to the people of New Castle all the modern features in construction, woodwork and equipment, actually applied in the building of an average home.

Plans, in Colonial style, were the work of J. A. Altschuler, architect. The design is that of a simple six-room and enclosed sun porch house of such a size as is commonly seen in the suburban districts of cities all over the country. In accordance with modern practice the living room is made proportionately large, extending entirely across the front of the house, with the exception of that space which is used for the entrance vestibule.

The sun porch, at the end of the living room and separated from it by French doors, in reality forms an extension of this room, adding an additional 9 by 12-foot space

to the 13 by 19-foot space of the living room proper. Back of the living room are the dining room and kitchen. The former with a door onto an open porch to the rear of the sun porch.

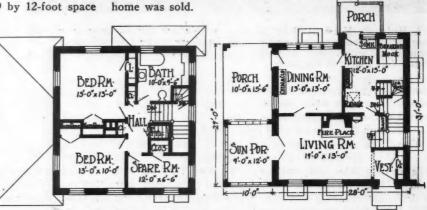
The kitchen is the small, compact type now in vogue in which the space is scientifically utilized and the equipment, including a breakfast nook, is largely built-in. From the kitchen a rear door opens onto a small service porch and there is a stairway to the basement. The second floor is reached by a stairway leading up directly from the living room at the vestibule end.

On the second floor there are two good sized bedrooms and a smaller

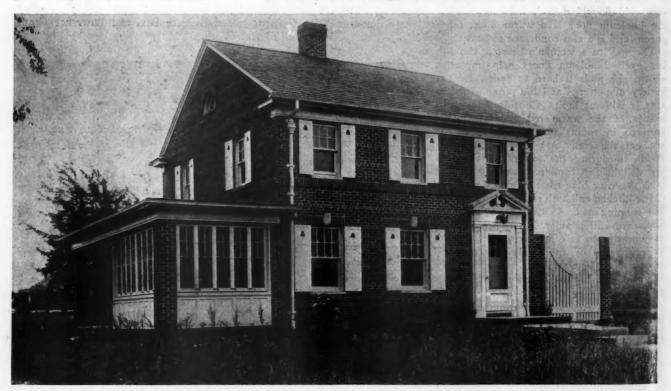
spare room. Each of these has a closet provided with a built-in wardrobe which greatly increases the capacity of the closet space. One of the bedrooms has an additional closet and there is a linen closet in the hall close to the bathroom door. Every room has windows on two sides assuring ample cross ventilation and light.

The exterior of this house is in brick, depending for ornamentation on a belt course below the second floor windows and on the wood-trim including wooden shutters of typical Colonial style. There is also a wooden gateway with brick gate posts, used in connection with the driveway at the side and balancing the sun porch at the opposite side.

When placed on public exhibition this house was shown completely decorated and furnished by decorators and furniture dealers also co-operating. All of this group aided in financing and carrying the demonstration until after the public exhibition when the ideal



This Is Not a Large House but Contains Six Good Sized Rooms and an Enclosed Sun Porch Well Arranged for the Use of a Typical Modern Family.



An Unpretentious but Fully Modern Home, in Construction, Woodwork, Equipment and Decoration, Suitable for the Average American Family, Planned and Built by the Co-operation of Dealers and Contractors as a Demonstration to the People of New Castle, Pennsylvania.

# Taking the House to the Buyer

### A Street Display What Was Successfully Used to Promote a Big Building Project

HEN William B. Greve, of New York, undertook a big housing project in Brooklyn, near Sheepshead Bay and Coney Island, he had a sales problem on his hands of no mean proportions.

First, of course, came the problems of finance and development, engineering and construction, which were successfully surmounted by the Prudence Company, as financiers, and Gerrittsen Park, Inc., as builders and promoters. The problem of selling hundreds of houses came next. These were designed for sale to families of moderate incomes.

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Mr. Greve believed that there was an immediate market for a large number of houses costing from \$3,000 to \$5,000. These low prices were possible only by means of mass production and the economies possible with standardized plans, building materials and equipment.

But the public has to be sold in a big way on the advantages offered and we illustrate herewith one of the most successful advertising methods used. In order to induce the buyer to come to the house, it was decided to first take the house to the buyer. Carrying out this idea, a perfect miniature model of one of the houses was constructed. It was a faithful replica on a small scale and showed every detail exactly as it would be built. However, it was built on a scale large enough to be impressive—in fact, large enough to occupy the entire loading area of a Ford truck.

The model house looked quite attractive with its colored asphalt shingles, its neatly painted wood clapboards and trim, with trellised porch columns. Well displayed signs mounted on the truck just below the base of the model

carried convincing arguments to those whose attention was directed to the display. One of these signs read:

"YOU CAN PAY \$400 CASH AND \$40 A MONTH and in 6 years you will have paid off over \$2,000 on your home and your carrying expenses will then be less than \$15 a month—Think this over."

Another sign read:

"A Home Within the Reach of All FORD HOMES, 'New Model' Greatest Value Ever Offered \$40 A MONTH BUYS A HOME"

Then followed particulars about the bus to property and the address of the company.

This truck paraded for weeks through many miles of streets in Brooklyn, Manhattan and other sections of Greater New York. It attracted a great deal of attention and was the means of interesting hundreds of buyers who were able to see, from this model, exactly what their money would buy and how easy it was to finance the purchase of a home in Gerrittsen Park. Over 500 of these homes have been built and sold, whereas the site, on January 1, 1923, was 100 acres of salt marsh—since filled in, graded and all street improvements put in.

"Smaller Houses and Gardens of Versailles, 1680-1815," by Leigh H. French, Jr., and Harold Donaldson Eberlein, published by the Pencil Points Press, Inc., 419 Fourth Avenue, New York City, is the seventh book in the Pencil Point Library. Price, \$6.



This Cleverly Arranged Display of a House Model Mounted on a Truck, Together with Well Worded Signs, Helped in the Sale of Hundreds of Homes.



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### It Pays to Advertise

"Can't understand why you failed in business."
"Too much advertising."

"What do you mean—too much advertising? You never spent a cent in your life on advertising."

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"That's true, but my competitors did."-Asbestos.

One reason there is so much humor in the world is because there are so many persons who take themselves seriously. — Philadelphia Inquirer.

### He Helped

A story is told of a green brakeman who was making his first trip on a logging railroad up in the mountains. The train was going up a very steep grade and with unusual difficulty the engineer succeeded in reaching the top. When the engineer had the train going along smoothly again, he said, with a sigh of relief, "Well, I tell you we had a job to make that grade, didn't we?" "Yes," replied the new brakeman, "and if I hadn't kept the brakes on all the way up we would have slipped back."

# CH BONT DO IT GEORGE, THOSE INDID O GUTTERS GET CLOGGED WITH LEAVES - AND - NOW ILL XIST TELL YOU - IF JI WAY ME I WOULDN'T THINK OF BUILDIN A FRANK HOUSE AN NOWS IN TIME T CHANSE IT IF YER GOIN T THOSE REPORT OF THE PROPERTY OF TH

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(Reprinted by Permission of the Chicago Tribune)

in the smart student, "the more one sits the less one can stand."

"Exactly," retorted the lecturer "and if one lies a great

endurance."

**Ouestion Answered** 

Nature Lover, gazing at a gigantic tree: "Oh, wonder-

Gardener (nearby): "S'cuse me, mem, but 'e would prob-

ful, mammoth oak, if you could speak what would you tell

ably say: 'If you please, I'm not an oak, I'm a spruce.'"

"Exactly," retorted the lecturer, "and if one lies a great deal, one's standing is lost completely."

Spaghetti Red?

"Are you fond of autos?"

"Am I? Say, you should

"Sedentary work," said the lecturer, "tends to lessen the

"In other words," butted

see the truck I ate for lunch."

-Business Builder.

### Safety First

"See here," the Indian inspector declared, "it is a viola-

tion of the law now to have more than one wife and the law must be obeyed. When you get back home you tell all your wives, except one, that they can no longer look upon you as their husband."

"You tell 'em," suggested the Indian after a moment's reflection.

### Revenge

A business man who had been irritated beyond measure by solicitors for this and that—tag days, drives, and charity advertising—so the story goes, was bitten by a mad dog. He went on to "business as usual." When word got around his outer office, a couple of his irritants inquired solicitously of him, "You have just been bitten by a mad dog!"

"Yes, I was." (Business of not looking up.)

"What! And you came right to your office?"

"Yes. There was some writing I felt I just had to get done." (Business of going on writing.)

"Oh, I see. Writing your will, I take it."

"No. Writing the names of the people I am going to bite when I go mad."

### He Comes Prepared

"Are you the plumber?"

"Yes, ma'am."

"Well, won't you please be careful when you do your work? My new linoleum has just been polished."

"Don't worry about me slipping, lady; I've got nails in my shoes!"

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I've allus noticed great success
Is mixed with troubles more or less,
And it's the man who does the best
That gets more kicks than all the rest.
—James Whitcomb Riley.



### Question Still in Doubt

"Was your barn hurt during the cyclone?"
"I dunno, I ain't found it yet."

# OLORIGE HOME PLANS TRADE MARK

# Planning For Tomorrow

The Wise Home Builder Observes How Rapidly Times Are Changing — Old Standards Giving Way to New—And So Plans Today's House With An Eye to Future Requirements

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### By WILLIAM A. RADFORD

ColorKeeD Town is the suburb with a future! Its homes are styled for today and tomorrow! They look forward with the present trend in popular design; not backward to what was

considered good enough twenty years ago.





"The Eagle" is a six or seven room Dutch Colonial home well designed and with an ideal interior as pictured in the ColorKeeD plans illustrated on the opposite page.

ColorKeed Plan Patent Applied For

-the popular size wanted today. They will go on the typical narrow building site. They are compact—easy to heat and to maintain.

But the most important point about these Color-KeeD Homes is the forward-looking provision they make for all up-to-date equipment and appointments which are required in the home that is really modern

today, and will continue to be modern tomorrow and ten years from now.

Notice on each of the ColorKeeD floor plans the little numbered circles and the accompanying "Key to Equipment" which explains what these numbered circles stand for.

# The EAGLE A Home of Low Cost Yet Modern in Every Respect

The home design pictured above possesses all the fea-

tures of exterior design preferred by those of conservative taste. It is an inviting homey home. The exterior suggests the cheerful, well arranged rooms which the ColorKeeD floor plans, illustrated opposite, show this design to possess. It is a home of six rooms and bath, plus the immense screened porch or sun parlor. The dimensions

> 24 x 28 feet permit this house to be built on the average city or suburban lot and the cost will not be extravagant.

While the first floor plan and the second floor plan are very interesting in the provisions they make for the customary living and sleeping rooms and all up-to-date appointments, we would direct especial attention to the basement layout and the facilities provided there.



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KEY TO CEILIN CHERACKI CHOONVEN

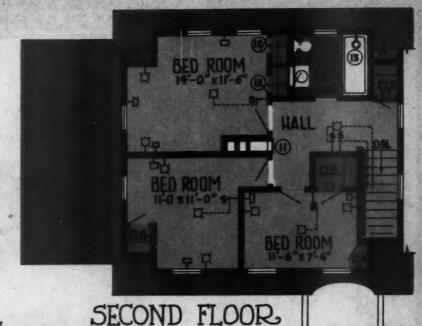
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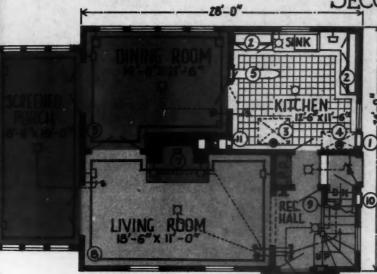
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The basement is truly the foundation of the home and much of the success and satisfaction of the entire structure depends upon the way the basement is laid out, built and equipped with heating plant, laundry, etc. Study this basement ColorKeeD plan and apply the ideas and suggestions made to all other home designs for they all require similar details and elements.





### Key to Equipment

Ventilating Fan Kitchen Cabinet Range

Refrigerator

Thermostat Built-in Mail Box

Fireplace Throat and Damper

Radio

Mirror Door

Package Receiver

Incinerator Efficiency Wardrobe Tub Shower

Water Softener Water Meter

Clothes Drier Washing Machine Laundry Stove Coal Chute Hot Water Supply Cast Iron Cleanout

Doors

Electric Panel Weatherstrips

Storm Sash Screens Lighting Fixtures Convenience Outlets Heating Plant Radiant Gas Heaters Casement Windows

FIRST FLOOR

ColorKeed Plan Patent Applied For

KEY TO ELECTRICAL SYMBOLS CEILING OUTLET # FLOOR RECEPTACLE:
CHERACKET OUTLET #SPECIAL OUTLET
CONVENIENCE OUTLET #SWITCH

Color Key To Plans LIVING ROOM DINING ROOM

KITCHEN

PANTRY

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HALLS CLOSET

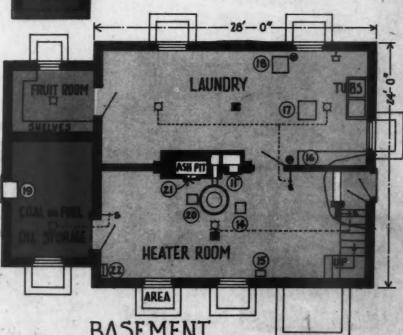
BED ROOM

BATH AND LAVATORY

PORCH ROOF

BASEMENT

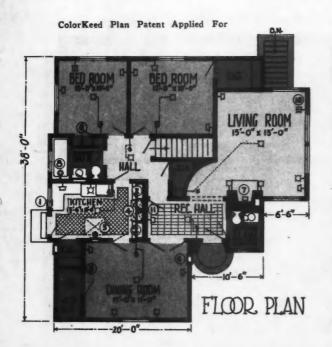
FRUIT CELLAR.
FUEL ROOM STAIRS





### The EASTPORT

A CHARMING five-room French cottage in stucco with interesting wall surfaces, roof, entrance door and casement windows. The main section of the house is 20x38 feet with an ell making a seventeen-foot projection. The entrance and reception hall placed in the corner gives convenient access to all parts of this well arranged plan. Study the ColorKeeD plan for details of equipment and arrangement for this home. This design is handled in the spirit of a demonstration cottage or "dream home." It has all of the desirable features to make a perfect home example.



### COLOR KEY TO PLANS LIVING ROOM DINING ROOM CLOSET BED ROOM KITCHEN BATH AND LAV. PANTRY PORCH HALLS ROOF

### Key to Equipment

- Ventilating Fan Kitchen Cabinet
- Range

- Refrigerator Thermostat Built-in Mail Box Fireplace Throat and
- Damper Tub Shower Efficiency Wardrobe Radio Outlet Mirror Door

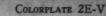
- Bed Closet Weatherstrips

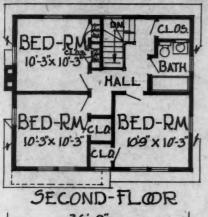
Storm Sash Screens

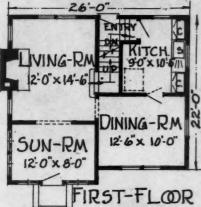
Lighting Fixtures Convenience Outlets Electric Panel

Washing Machine Clothes Drier Coal Chute Heating Plant Hot Water Supply

Water Softener Garbage Incinerator Radiant Gas Heaters Casement Windows



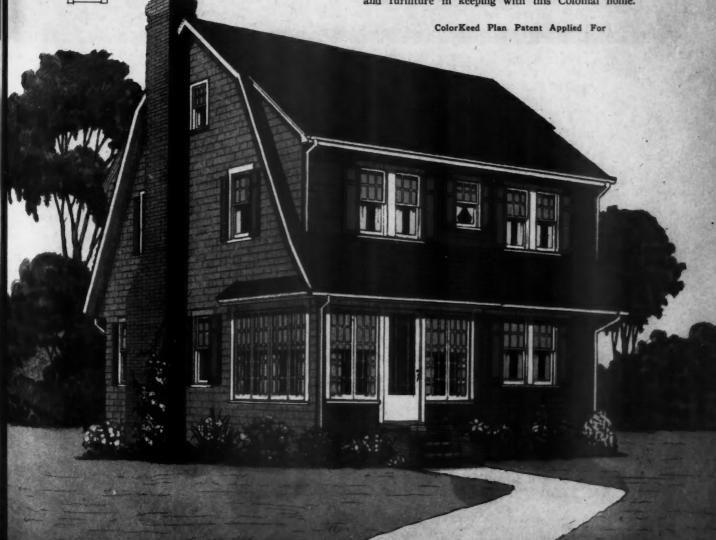


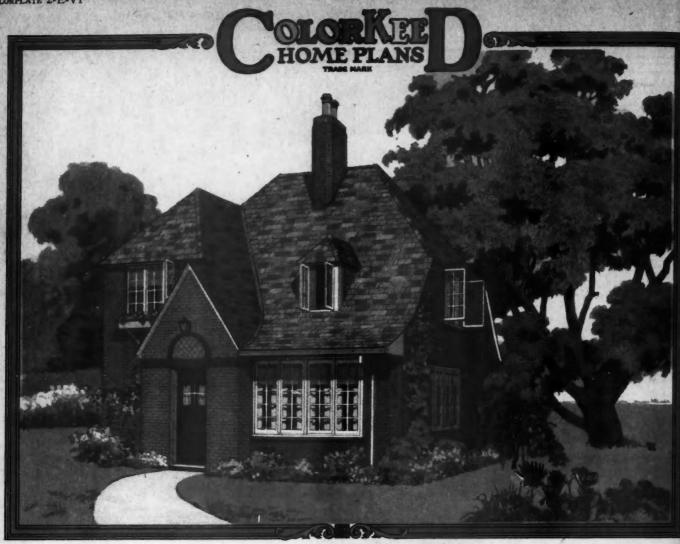




### The EAU CLAIRE

THIS is a well handled, low cost Dutch Colonial design 22x26 feet, containing six rooms and bath. The sun-room entrance makes a fine addition to the living room. Color sketch above suggests an effective window curtaining scheme and furniture in keeping with this Colonial home.





### The EDDINGTON

THIS is an English design in brick with roof lines rounded off and interesting groups of casement windows giving this design a decidedly European atmosphere. The ColorKeeD plans illustrate how practically the interior is arranged. Numerous items of desirable equipment and labor-saving appointments are suggested with the idea of making this truly a modern American home.



LIVING ROOM DINING ROOM

KITCHEN PANTRY

CLOSET BED ROOM

BATH AND LAV.

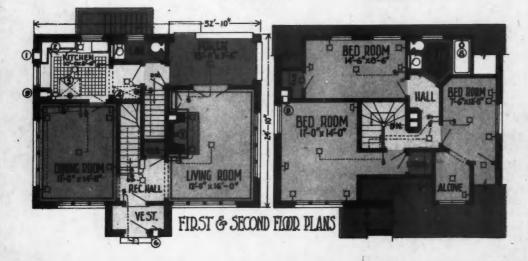
PORCH ROOF

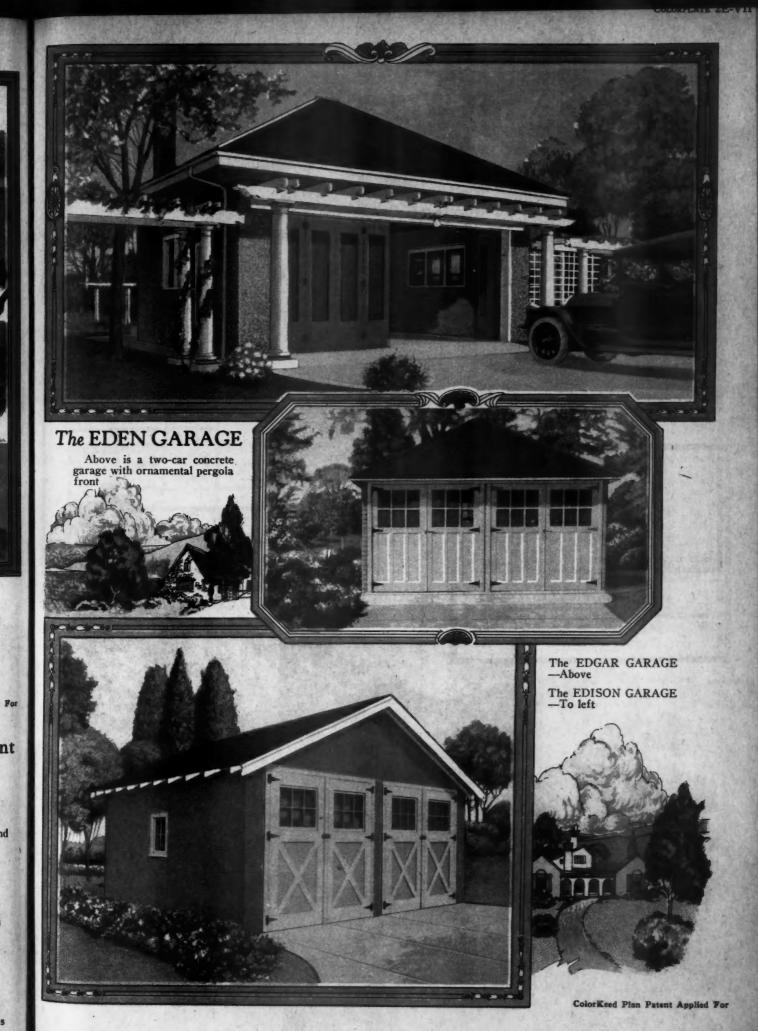
ColorKeed Plan Patent Applied For

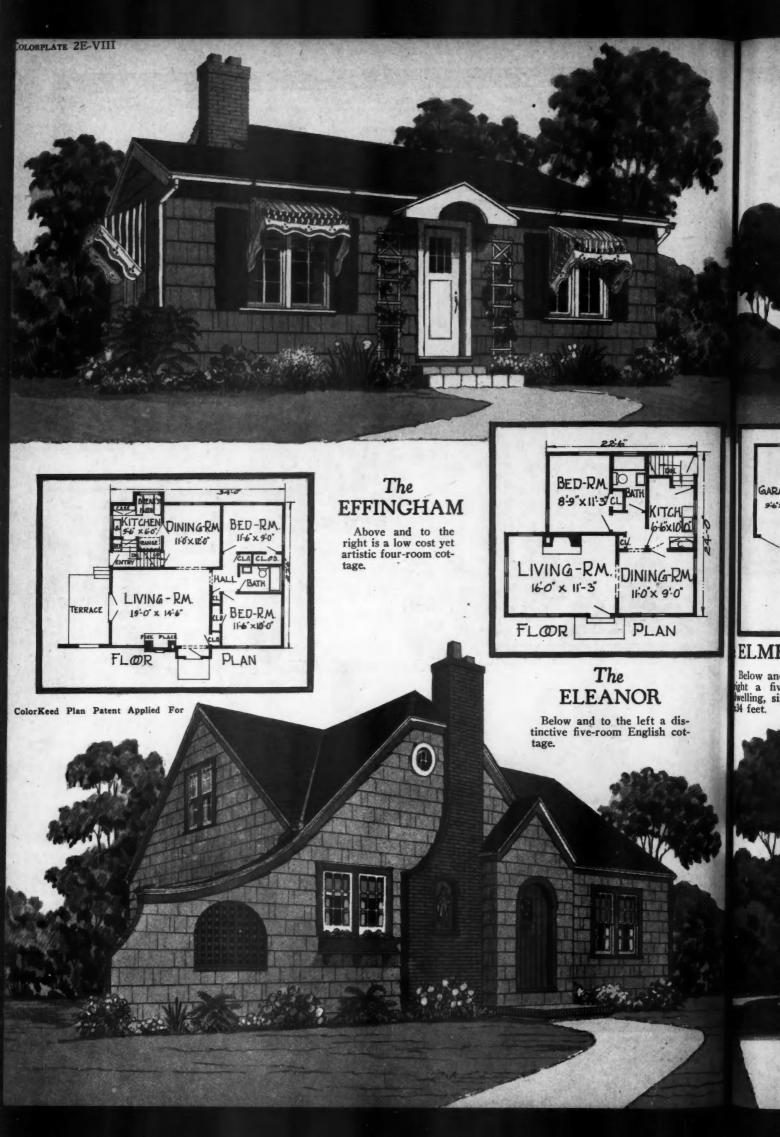
### Key to Equipment

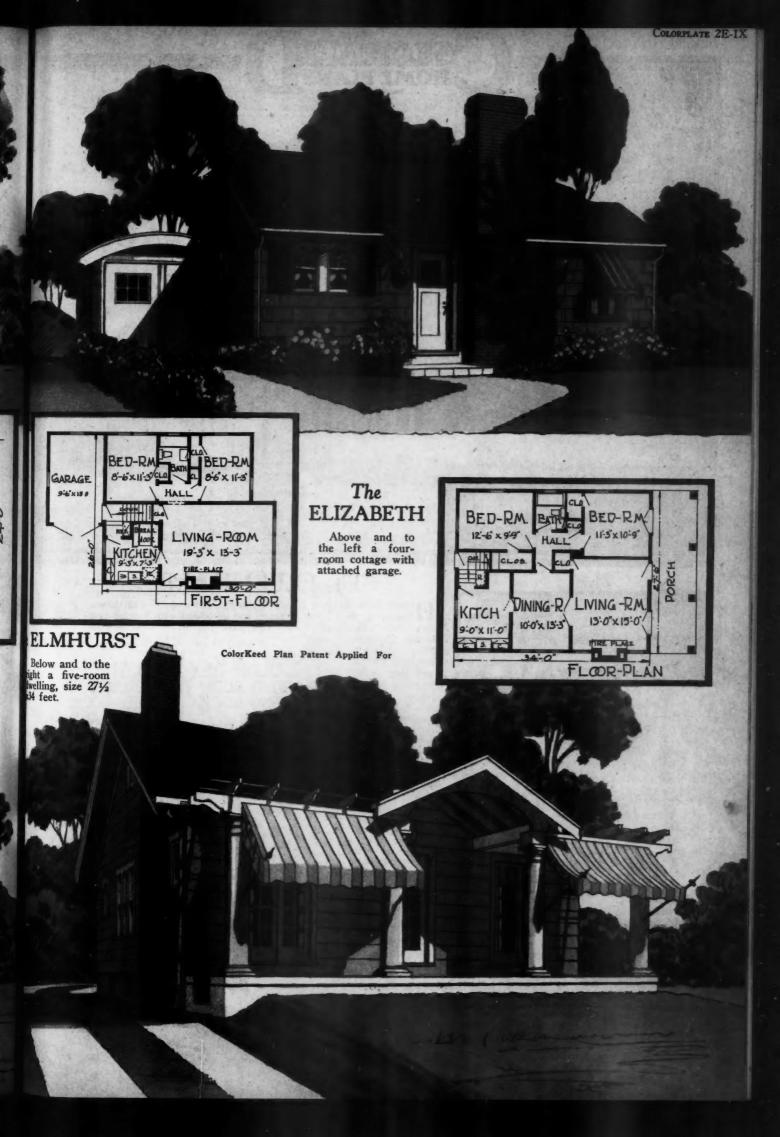
- Ventilating Fan Kitchen Cabinet
- Range Refrigerator

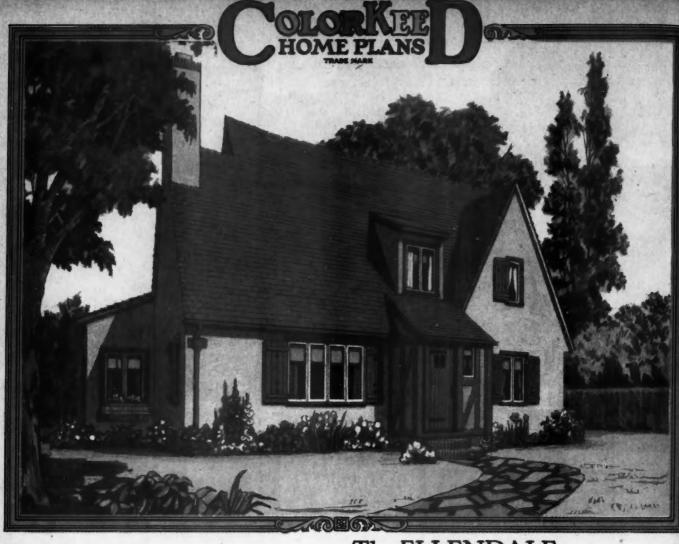
- Thermostat Built-in Mail Box Fireplace Throat and
- Damper Tub Shower Incinerator Weatherstrips Storm Sash Screens Lighting Fixtures
  Convenience Outlets Electric Panel
  Washing Machine
  Clothes Drier
  Coal Chute
  Heating Plant
  Hot Water Supply
  Water Softener Garbage Incinerator Radiant Gas Heaters Casement Windows













ColorKeed Plan Patent Applied For

### Key to Equipment

- Ventilating Fan Kitchen Cabinets Refrigerator Ironing Board

- Range
  Clothes Chute
  Thermostat
  Fireplace Throat and Damper
- **Broom Closet** Built-in Mail Box Tub Shower
- @ Disappearing Stair-
- Moth-proof Closet Sewing Machine Out-

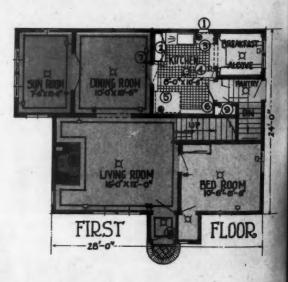
let Weatherstrips Storm Sash Screens Lighting Fixtures Convenience Outlets Electric Panel Washing Machine

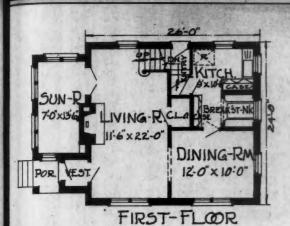
HERE is an unusual design featuring stucco walls with antique timbering around the entrance and decorated with antique shutters. The ColorKeeD floor plans show this to be a seven-room

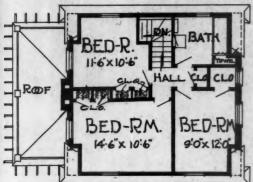
house, plus the convenient breakfast alcove and the very commodioussun room opening off the dining room. downstairs bedroom is a desir-able feature. Also notice the large number of closets in this home de-Many sign. specialties of equipment and modern appointments are suggested in the Key to Equip-ment.

Clothes Drier Coal Chute Heating Plant Hot Water Supply Water Softener Garbage Incinerator Radiant Gas Heaters Casement Windows









AV.

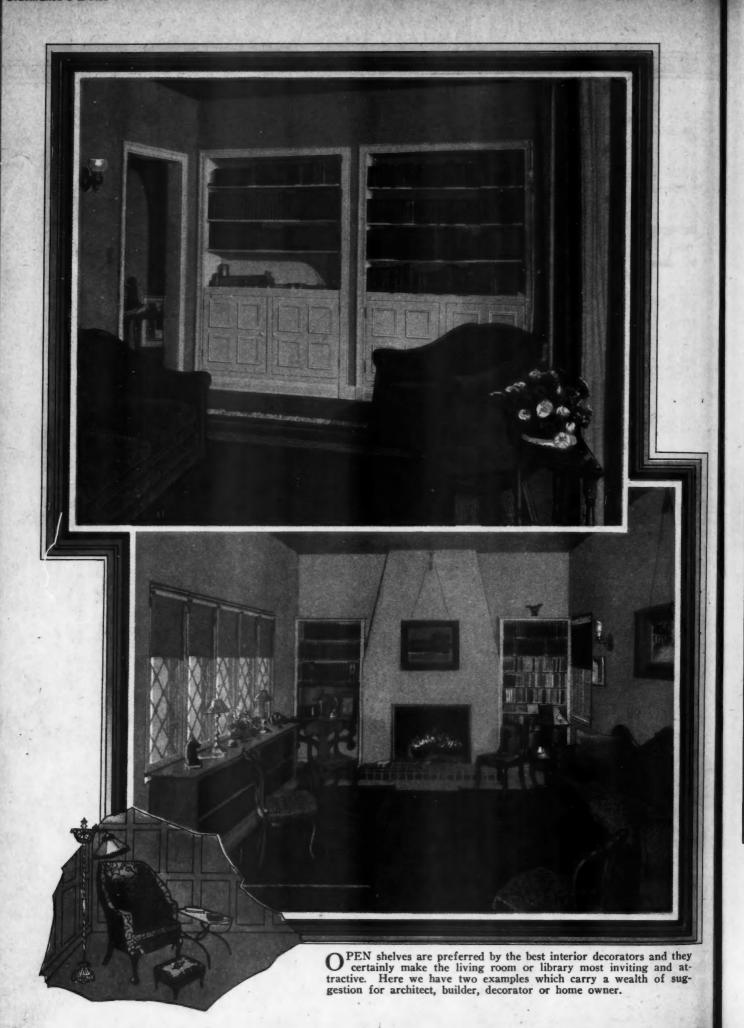


### The ELMIRA

HERE is a compact seven-room brick house of Colonial lines. Being only 24 feet wide it is well adapted to a narrow lot. Color sketch above illustrates one of the delightfully furnished bedrooms.

ColorKeed Plan Patent Applied For





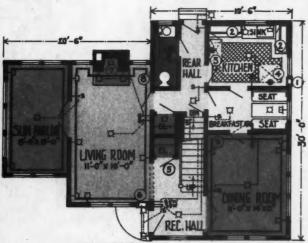




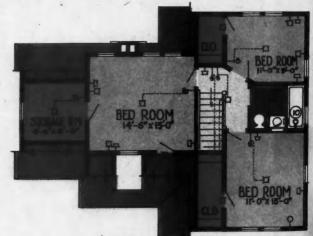
### The ELMSFORD

THIS is the type of home design favored by those planning and building model homes because it contains striking exterior features besides the large rooms well arranged which lend themselves to effective interior furnishings.

- COLOR KEY TO PLANS
  LIVING ROOM CLOSET
  DINING ROOM BED ROOM
  - KITCHEN PANTRY HALLS
- - BED ROOM BATH AND LAV.
  - PORCH ROOF



FIRST FLOORS



### SECOND FLOOR

ColorKeed Plan Patent Applied For

### Key to Equipment

- Ventilating Fan Kitchen Cabinets
- Refrigerator
- Range
- Mirror Door Built-in Mail Box
- Fireplace Throat and
- Damper Radio Outlet Thermostat Tub Shower Weatherstrips

Storm Sash

Screens Lighting Fixtures Convenience Outlets Electric Panel Washing Machine Clothes Drier Coal Chute Heating Plant
Hot Water Supply
Water Softener
Garbage Incinerator
Radiant Gas Heaters
Casement Windows





### The ELWYN

HERE is a model home in every respect. Three principal rooms besides breakfast nook and lavatory on the first floor and four big rooms with bath on the second floor.

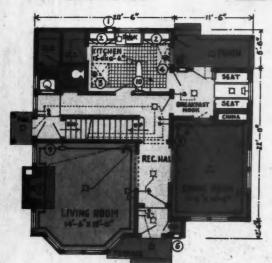
COLOR KEY TO PLANS
LIVING ROOM
DINING ROOM
KITCHEN
BATH AN

PANTRY HALLS

BED ROOM

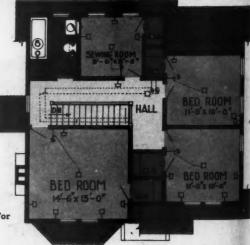
BATH AND LAV.

PORCH ROOF



FIRST FLOOR

ColorKeed Plan Patent Applied For



SECOND FLOORS

Screens

### Key to Equipment

- Ventilating Fan Kitchen Cases Range

- Refrigerator Thermostat Built-in Mail Box
- Fireplace Throat and

- Damper

  B Tub Shower

  Radio Outlet

  Ironing Board

  Package Receiver Weatherstrips Storm Sash

Lighting Fixtures Convenience Outlets Electric Panel
Washing Machine
Clothes Drier
Coal Chute Heating Plant Hot Water Supply Water Softener Garbage Incinerator Radiant Gas Heaters Casement Windows

Norma

ample is a tical a tower and li ration arche



### Norman Cottage with Round Tower Entrance Provides a Home of Distinction

THE never-ending quest for "something different" has brought home builders around to a revival of the picturesque towered houses of Normandy. The example pictured below and in full colors on our front cover is a very successful design. The interior is just as practical as the exterior is unique and good looking. The round towered entrance in the inside corner, with dining room and living room wings right and left makes for a fine separation of the important parts of the floor plan. A high arched ceiling in dining room, living room and reception

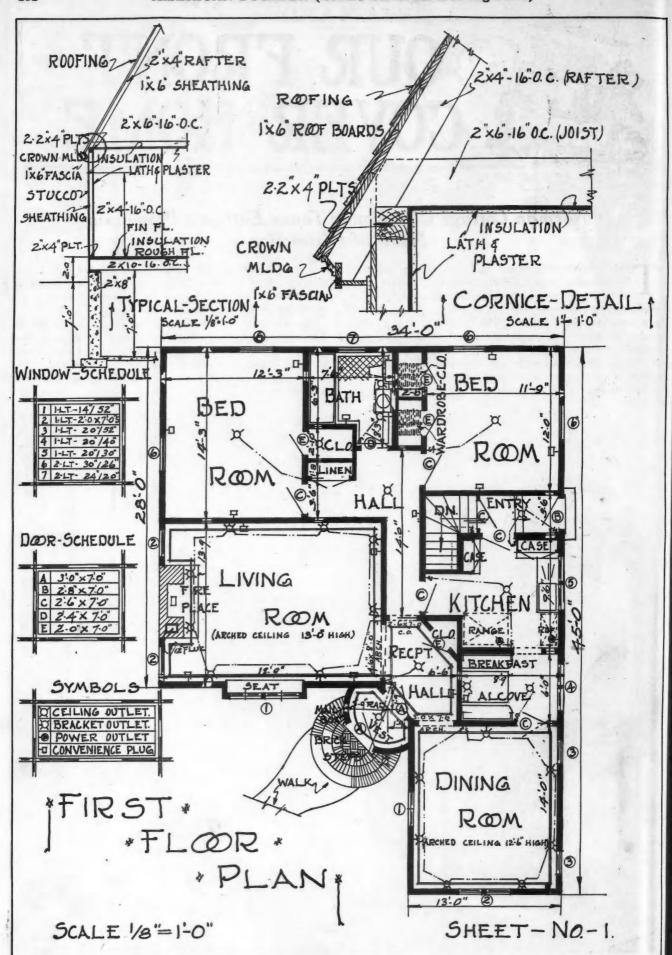
hall give almost a regal look to this interior. The two sleeping rooms are off by themselves for privacy and quiet.

Complete working plans, one-eighth inch to the foot, are presented on the four pages following.

The kitchen is centrally located, yet is inconspicuous. The breakfast alcove makes an attractive nook, convenient to the kitchen and so cheerfully well lighted that it will be used often in place of the larger dining room. The grade entrance and back entry leading to the basement are well arranged.

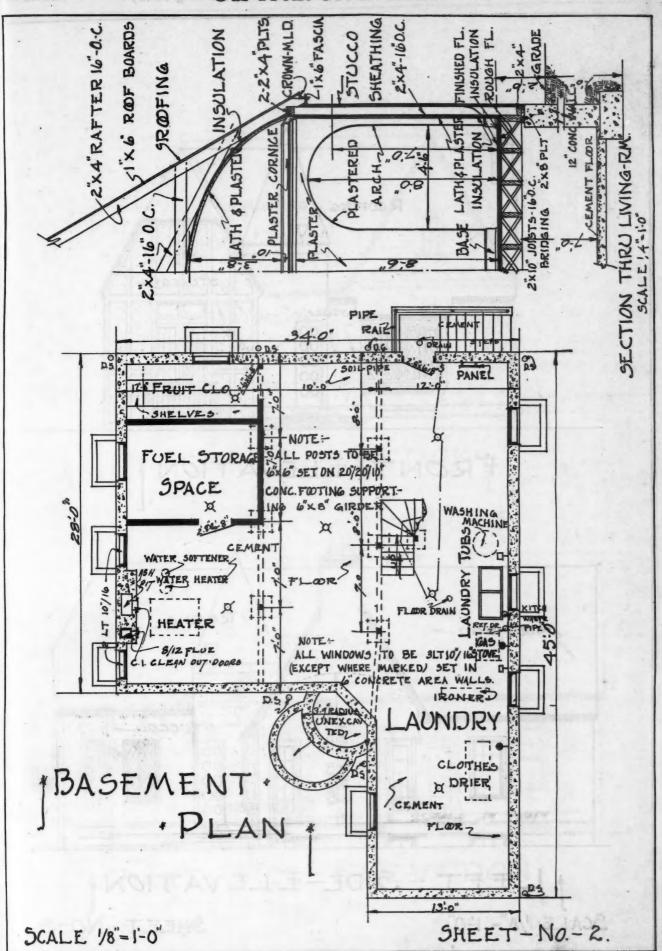


Norman Cottage of Five Rooms, Bath and Breakfast Alcove and with High Vaulted Ceilings in Dining Room, Living Room and Reception Hall. See the four pages following for complete working plans.



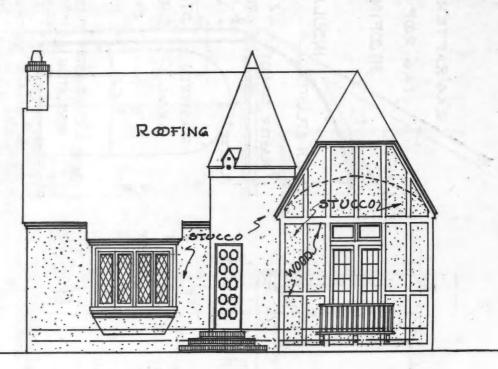
This Main Floor Plan Shows the Wonderful Convenience and Cheerful Livability of the Norman Cottage Pictured on Our Front Cover.

The B

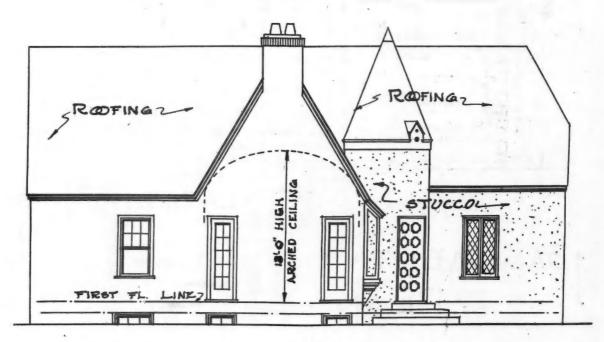


The Basement of the Front Cover Norman Cottage Gives an Unusually Good Separation of Laundry and Heater Space.

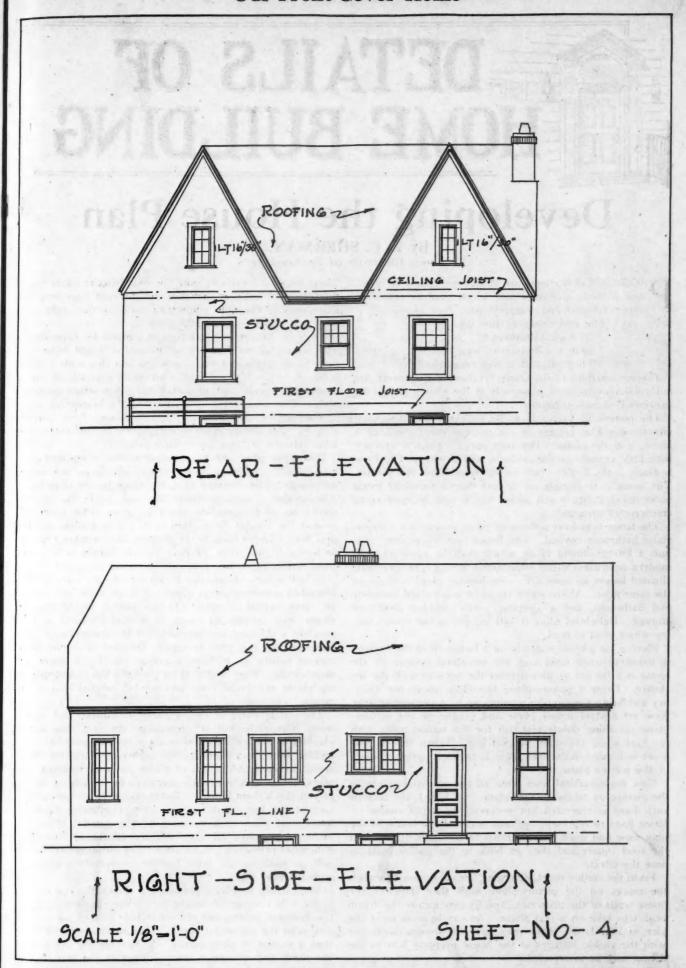
d on



FRONT-ELEVATION



SCALE 1/8"- 1'-0" SHEET- NO-3.



The Rear and Right Side Elevations of the Front Cover Home Are Interesting. For the floor plans see pages 182 and 183.



# Developing the House Plan

By V. L. SHERMAN, Lewis Institute of Technology

PROSPECTIVE clients are at all times prone to introduce pictures of houses into which shall be embodied certain features and comprehensive floor plans.

"The ever-ready victims they

Of logical illusions.

And in a self-assertive way

They jump at strong conclusions."

The anticipations of the client, be they ever so sweet, are not conducive to verse, especially if the clients cannot be convinced of impossibilities.

The picture in Fig. 1 is to be endowed with the third dimension. The picture is not merely the picture of a house, it is the house. The anticipations which it arouses, with little enough excuse perhaps, will be changed to fore-bodings if the builder fails in his regard for the picture. The house is to contain on its first floor a fair-sized living room opening into a sun parlor which may be used as an emergency bedroom.

The latter is to have a dressing room annex with a downstairs bathroom beyond. The living room is to open also into a kitchen-dining room which shall be provided with modern equipment easily sequestered from a refectory table situated before an open fire. The heating plant is to go on the same floor. Above stairs are to be a fair-sized bedroom, and bathroom, and a sleeping porch, besides plenty of storage. Delightful place it will be, out in the open country where mud is mud.

Placing the picture squarely on a larger sheet the horizon is found through right and left vanishing points. If the house is a bit out of plumb reset the horizon with the tee square. Draw a picture-plane line close above the chimney and bring the vanishing points up to it perpendicularly. Now set a steel square blade and tongue on the picture-plane vanishing points and fish for the station-point with the heel along the main vertical line. When the station-point is located draw lines from it to the vanishing points in the picture-plane.

Now draw vertical lines from all the essential points in the picture up to the picture-plane. In Fig. 1, the lack of such lines is regretted but necessary to avoid confusion. Draw lines to represent the near walls of the house in the plan view and draw them parallel to the lines drawn with the steel square and then go back to the station-point to note the effect.

From the station-point, diverging lines are passed through the marks on the picture-plane until they intersect the house walls of the plan view, and by this means the dream begins to take on a real shape. As can be seen from the plan in Fig. 1, the shape may have its disadvantages but with the visible features of the house properly located the dream may be interpreted.

To do this lines are drawn from the main vertical lines to one side giving the heights in the scale of the picture. These heights, combined with the floor lengths taken from the plan, will form an elevation and the roof lines may be determined. Through unforeseen luck in this case the pitch just made a five-eighths pitch.

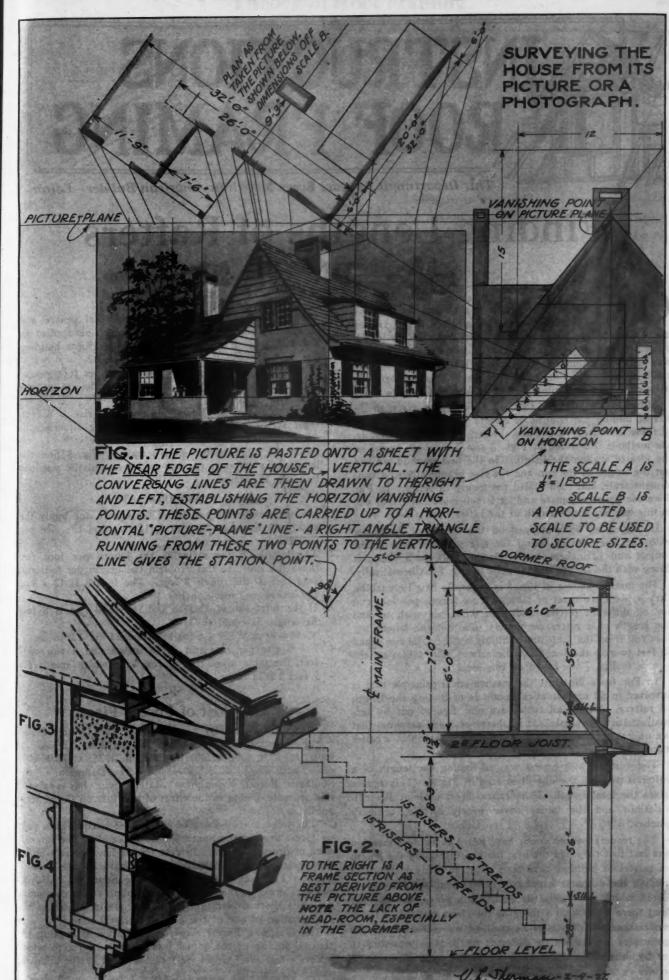
Next the height of some part is gauged by experience. The sample shows 7 feet 4 inches as the height from the floor to the ceiling of the side porch and this with a door 6 feet 8 inches. The 7 feet 4 inches is marked off on a diagonal to scale and projected to a temporary vertical scale. This temporary scale furnishes the respective sizes and should be accurately and stoutly made. It is usually a pesky thing unless made to read up to 30 feet, but is the chief reliance in living up to anticipations.

When the plan and two elevations are completed and transferred to normal scale various handicaps are more noticeable. The chimney rises too close to the near wall. The dormer is unquestionably low and, while the picture shows no such prejudice, there is scant head room all around the second floor, even with a low ceiling on the first floor. Going back to the dormer, such windows would be better farther from the floor but are hardly to be remedied unless the entire roof can be raised or spread.

A full section should be drawn exactly to scale before too much consideration is given. A large scale, say 1 inch to 1 foot, should be used. On this section should also be shown stair profiles for treads of reasonable depth and, if possible, a chimney and fireplace. If the materials of construction are not predetermined, sketches of sections at various points, as at Figs. 3 and 4, should be made for memoranda. They will tend to preserve the confidence of the client and make him open-minded toward rearrangements

The whole trend of this is really unnatural, and sometimes impossible, but it emphasizes the fact that house planning is not for the guess-work of the irresponsible. No builder, much less a prospective owner, has any reason to accept as creditable a set of plans, or a perspective and plans, unless he knows their source to be reliable or unless he can check them himself. But if the mode of operation is corrupt the last result will be more engrossing than an impersonal affair and, contrary to the general belief, an owner appreciates all the builder's efforts to overcome difficulties presented. Even after rabid outbursts an owner will go back to the same builder, in perfect confidence, with the next job.

The picture in Fig. 1 presumably shows the rear of the house. A photograph might be further analyzed to get the compass points, but the conjecture is that the jutting roof is at the northwest corner. The room arrangement is then a matter of consequence. Preserving the dormer on the south and opening a north dormer at the rear for the sleeping porch leaves that porch on the shady side and out of the common southwest winds of summer.



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# Finding Lengths of Rafters

By JOHN T. NEUFELD

N the opposite page we illustrate seven different ways of finding the length of a rafter. Other ways can be illustrated besides those given here. In our last discussion we learned that the run, rise and the length of a rafter formed a right triangle and that the right triangle was the basic geometrical shape upon which nearly all roofs could be laid out. Finding the length of a rafter therefore is based on the principle involved in the right triangle.

Although we may say that we have shown seven methods of finding the lengths of rafters yet, in a sense, some of these are based on one and the same idea. For example, the methods illustrated in Figs. 2 and 3 are both based on the idea of scaling the length. In the first method we laid out the length of the run and the rise graphically to a convenient scale, and then scaled the length of rafter. In Fig. 3 we use the steel square and let 1 inch represent 1 foot and in this way scale the length of the rafter.

In Fig. 4 we have stepped off the length of the rafter with the steel square, using the rise per foot run on the tongue and 12 inches on the blade. This, in a sense, is doing with the square what is done in Fig. 5 mathematically.

The method shown in Fig. 5 is generally based on tables, that is, we have a set of tables giving length per foot run for all different pitches and then when we wish to find the length of a rafter we merely pick out the length per foot run from the table and multiply by the total run taken in feet to give the length of the rafter. The tables on the square in Fig. 7 are based on this idea.

In Fig. 6 we illustrate the mathematical principle that is involved in all mathematical methods of finding the length of rafters. Nearly all tables are also figured out by this mathematical principle. It is, therefore, quite essential that we understand this method of finding the length of a rafter even though we do not use it on the job.

The quickest and easiest way of finding the length of a rafter is perhaps the one illustrated in Fig. 8. This square gives the total length of the rafter direct without any calculations and the tables cover nearly all the ordinary pitches.

The readers will no doubt have heard carpenters mention the fact that they had the best method of finding the length of rafters or perhaps have read about so many methods of finding the different lengths of rafters that you have wondered which was really the best. In a sense, we may say that there is no such a thing as the "best method." If we understand the principles as outlined we will soon see the principles involved in the different methods as presented to us by others. Whether they are in the form of elaborate tables or some new patented device.

#### **Problems**

- 1. What numbers must we use on the steel square and how many times must the steel square be applied in order to step off the length of the rafter for a building 22 feet wide and having a ½ inch pitch?
- 22 feet wide and having a ¼ inch pitch?2. A building is 16 feet wide. The length per foot run of the rafter is 13 inches. What is the length of the rafter?
- 3. If the total run is 13 feet and the total rise is 8 feet, what is the length of the rafter? (Use square root method.)
- From the table on the steel square in Fig. 8 find the length of a rafter if the run is 7 feet and the rise per foot run 10 inches.

#### **Answers**

- 1. Use the numbers 6 and 12 on the square and apply the square 11 times as the run is 11 feet and the rise per foot run is 6 inches.
- The length of the rafter is the length per foot run times the run. In this problem the length per foot run is 13 inches, the run is 8 feet. The length is 13 × 8 = 104 inches = 8 feet 8 inches.
- 3. If the total run is 13 feet and the total rise is 8 feet the length is equal to
- √13² + 8² = √169 + 64 = 15.2643 = 15 ft. 3 3/16 in.
  4. For a rise per foot run of 10 inches and a run of 7 feet, the table gives the figures 9-1-5 which stands for

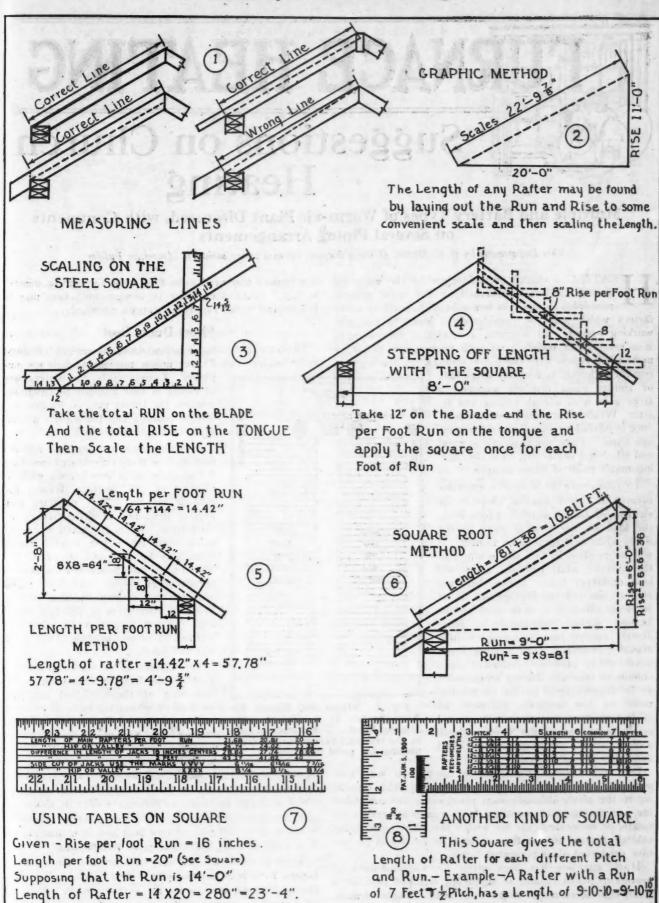
### feet, the table gives the figures 9-1-5 which stands for 9 feet 15/12 inches.

### The Cost of Forest Fires

A N estimate recently completed by the United States Foresty Service places the burned over acreage of forest land, in nine southern states, in 1925, at 22,000,000 acres, with a loss of \$18,000,000. E. L. Demmon, of the Southern Forest Experiment Station, who has analyzed this estimate, points to the effect of this loss on the general public as follows:

"The huge money value of the timber burned each year by forest fires in the South should make clear the importance of fire prevention. Private timber land owners suffer the greater loss but ultimately it is paid by the general public. The fact that the loss in the South in 1925 was twice as great as that of all the remaining states combined, warrants the consideration of all who are interested in the conservation of one of the South's greatest assets."

The Southern Forest Experiment Station is making extensive studies of the actual loss of timber growth which occurs when fire burns over forested areas of the southern states periodically.



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Seven Different Ways of Finding the Length of a Rafter—Fig 2, the Graphic Method; Fig. 3, Scaling on the Square; Fig. 4, Stepping Off Length with the Square; Fig. 5, Length per Foot Run Method; Fig. 6, Square Root Method; Figs. 5, 7 and 8, Using Rafter Length Tables on Steel Square.



# RNACE HEATING

# Suggestions on Church Heating

Multiple and Battery Types of Warm-air Plant Discussed, with Comments on Several Piping Arrangements

This Department by R. C. Nason, Heating Expert, appears every month in American Builder

HEATING a church or auditorium by the warm-air method, although governed by the same general principles as apply in house heating, involves other factors which must be considered to insure a properly working system. In warming a residence, for example, it is essential to maintain an even temperature in six or more small rooms with fairly low ceilings. A heating sys-

tem for a church, auditorium, lodge hall, or similar room involves warming a large area with a high ceiling and no attic. Windows are large and no assistance is offered overhead, as in the average home. Thus, the exposure is great and structural protection, from the heating man's point of view, meagre.

To counteract the excessive exposure present in church heating, there is the element of bodily warmth, which eases the load on the heating plant at the times when heating is most needed. It will be recalled in this connection that the average adult provides about 450 heat units per hour. When there are several hundred persons present, as at services, through a large part of the heating season ventilation is more acutely needed than warming in fully attended churches. The heafing plant, nevertheless, must be estimated large enough to raise the interior temperature to 70 degrees prior to the commencement of the services, through the coldest weather, and also warm several small rooms, such as the Sunday school, pastor's study, reception rooms, chapel and other rooms of similar nature.

Due to the large, free area, in comparison with that occupied, it seldom is necessary to supply cold, outside air to the plant, although such provision is recommended for use during mild months. It is common practice to rotate, or recirculate, the air within the building, locating cold-air returns in the floor, somewhat as shown in the four suggested plans presented herein.

Much attention has been given by manufacturers of heaters to plants capable of supplying sufficient heat for a small church, school or lodge room with a single furnace. When churches are of fairly large size, say seating more than 300 persons, it is advisable either to install what is known as a heater battery, comprising two or more units in a single casing and using a common distribution bonnet. In the battery heater either one or both heaters may be fired at the same time, which has the advantage that only

one furnace may need to be fired when the heating demand is light. Immediately prior to services both fires may be lighted and a full supply of warmth provided.

#### **Short Ducts Best**

In warm-air heating it is inadvisable to extend horizontal ducts longer than 20 feet unless mechanical fans are em-

ployed. Consequently, the battery type of heater is best adapted to conditions wherein the heater may be located in a central position and the leaders are not over the length suggested.

A flexible plant arrangement, and one preferred by many experienced installers, is that embodying two heaters with individual casings, bonnets, leaders and cold-air returns. This provides even greater flexibility than the battery arrangement. When the small rooms are being used the heater located nearer them may be fired and the other permitted to go out. Separate units likewise permit short motive head from piping radiation and internal rubbing friction. With an installation of this type buildings 150 feet long may be adequately warmed by proper spacing of the registers and plants.

The science of warm-air heating is now so old, said to date back to the beginning of the Christian era, that methods of estimating sizes of warm-air leaders, returns and sizes of heater are manifold. At least one of these is known to those whose business is the installation of heating plants. A word of

caution, nevertheless, might well be sounded here and that is with reference to the loss of heat through the roof, which is about the same as through walls. If there is a glass dome, or skylight, the glass area must be considered likewise. The omission of roof heat loss in estimating has been fatal to many otherwise good installations.

When transmission, leakage, exposure and quick heating factors have been calculated it is well to check the calculations by computations on the contents basis. Here the total cubical contents of the rooms to be warmed are figured and then the number of heat units required to offset the total heat loss. The heater is selected to provide sufficient heat to offset the gross loss, or may be rated to handle a specified number of inches of leader pipe area. It has been found, moreover, that one B.t.u. will warm 55

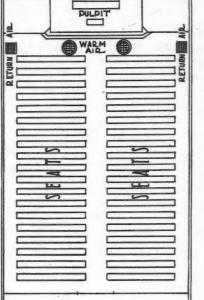


Fig. 1. Warm and Return Air Arrangement in a Church with Sloping Floor. The warm air rises to the rear and returns to the front making for good circulation.

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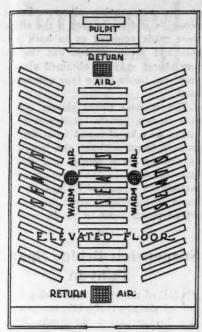
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### Principles of Church Heating



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Fig. 2. Register Plan for an Auditorium with Sloping Floor and Three Rows of Seats, Providing Better Heating Than That Shown in Fig. 1.

cubic feet of air through one degree at 70 degrees Fahrenheit. Therefore, if the cubical contents of a building be represented as C, in the accompanying equation, the number of heat changes per hour by n, the indoor temperature by tr and the outdoor temperature by to the heat required to offset leakage loss will be as follows:

$$H_a = \frac{(t_r - t_o)_n C}{55}$$

Another formula has been derived from the foregoing, known as Carpenter's Law, in which the heat lost from single ply glass is taken as 1 and that

lost from walls as 0.25, which may be used to find the total heat loss per hour. This is:

$$H_a = (t_r - t_o) \left( G + \frac{1}{4}W + \frac{nC}{55} \right)$$

It is always well to add about 25 per cent to the total heat loss to compensate for exposure and urgent demands for heat. It should be recalled, too, that an oversized heater will give longer, trouble-free service than one barely large enough to fulfill requirements.

Other quick calculation rules have been offered and may serve as a quick check-up, by which the number of square inches of warm-air leader pipe required may be learned. As applied to churches and assembly halls it is found that one square inch of cross section of leader will provide sufficient heat to warm from 40 to 60 cubic feet of space for first floor rooms. This rule should be used cautiously and 10 per cent added for exposure and another 15 per cent for safety

As no heating system of any description is better than the care with which it has been installed, it is readily seen that the utmost care is required as to sizing of leader

pipes and location of the plant to keep the pipes as short as possible. This implies also the importance of locating the furnace as nearly beneath the center of the building as practicable, with preference, if any, towards the side of greatest exposure.

Each leader would best have an upward pitch of at least one inch to the running foot and the pitch of all should be the same. When leaders exceed 15 feet in length they would best be increased in size. A good rule to follow is to add ½ inch to the diameter of leaders for every 5 feet or part

thereof of length in excess of 15 feet, or, when odd ½ inch sizes are not used add 1 inch to diameter of pipes for each 10 feet or part thereof in excess of 15 feet. All warm air leaders may well be covered with air cell asbestos or insulation of equal value.

As there are few structural impediments to running warm-air leaders and returns wherever desired in church heating, unless basements are used, several methods of distribution of heat and removal of cold air are commonly employed, any of which should be satisfactory provided there

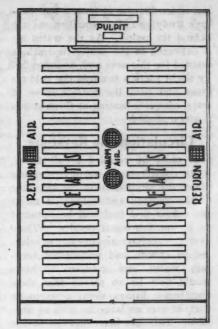


Fig. 3. A Good Distribution Plan for a Church with Level Floor Assuring Plenty of Heat in the Central Portion Where the Majority of the Audience Will Be Seated.

is sufficient heat delivered and the area of the combined cold-air returns equals or slightly exceeds the area of the combined heat leaders.

It was formerly the custom, and still is in many localities, to slope the floors of the auditoriums towards the pulpit, or altar. In planning register locations under these conditions it should be recalled that warm air rises readily and cold air descends to the lowest part of the room, which in this case is near the pulpit, as shown in Fig. 1. The warm air supply in such a plan will rise to the rear, and, when cooled, will return to the front, making for good circulation.

In Fig. 2 there is shown another method of locating warm and cold-air registers. The seating arrangement is different here, there being three instead of two rows of seats. The warm air supply is here delivered at about the center. In the arrangement shown in Fig. 2 it would be inadvisable to locate both cold-air returns at the front from the fact that the forward portion of the room would be warmed but not the rear. This arrangement should provide better heating than that shown in Fig. 1, which

is intended for a comparatively small building.

In Fig. 3 the floor level, the warm air is delivered at the center and the cold air removed at the sides. This makes a good arrangement as the center of the room is likely to be well heated, and experience has shown that the majority of the audience take seats here. A slightly different seating and register arrangement is shown in Fig. 4, which represents what is perhaps a more modern seating arrangement than that shown in Fig. 1. The floor is level and the seats are in three rows, the auditorium be-

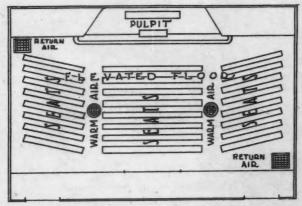


Fig. 4. Floor Plan for a Church with Level Floor and a Seating Arrangement of a More Modern Type Than That Shown in the Other Plans.

ing wider than it is long. The pastor's study and other small rooms are behind the pulpit. As the warm air is delivered in the center, warmth is assured for this area and, being pulled by slight suction towards the cold air faces and over the outside rows of seats, adequate heating at these points is accomplished.

### Circulation the Keystone

It must be recalled at all times, when considering a warm-air heating plant, the circulation is the keystone of this method and without it much more heat and fuel will be required to accomplish equal results. Whatever the register arrangements selected in church and auditorium heating, warm and cold-air registers would best be so placed that their remoteness brings about a warm-air current over as large an area as possible. This has been the aim in the floor plans here presented.

The small rooms of church buildings usually are located at the rear of the platform, or in an ell at one side. It is for this reason that two separate heating plants are recommended. To supply the small rooms, the heater nearer the front should supply individual warm-air leaders, none less than 9 inches in diameter, to each room. Their size would, of course, be governed by the rooms' use, their cubical contents and their location with reference to exposure.

In designing warm-air leaders independent runs to each register are recommended and cold-air returns connected to opposite sides of the bottom of the furnace casing. In some instances, nevertheless, it is necessary especially when basements are to be used for Sunday school or other purposes, to extend warm air ducts within the partitions between the ceilings and the auditorium floor. It then becomes necessary to install a tee, the branches of which are connected to two or more registers.

The design in this case would be somewhat as shown in Fig. 5. Attention is directed to the chamfered corners

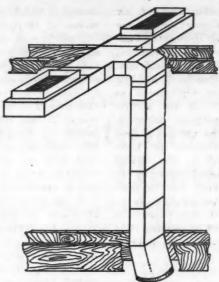


Fig. 5. A Warm Air Leader Design Suitable for Use Where It Is Necessary to Connect Two Registers to the Same Duct.

of the rectangular elbow. Better results would be secured if the elbow were made rounded as to both outside and inside angles, but the fitting shown may be obtained already made up, hence is the type commonly used.

The register boxes shown are of floor design. Parts for this style of fitting may be obtained from fittings manufactured without the necessity of making them singly, and this is fast coming to be the accepted method of securing fittings on account of high labor costs when individual pieces must be made.

### Suspension Bridge Spans Canyon

ONE of the great engineering feats of the age is the Hansen suspension bridge across the Snake River near Hansen, Idaho. This structure,

which stretches across the canyon from rimrock to rimrock, is 345 feet in height and 688 feet in length. Massive cables suspend it. The flooring is of wood as steel was considered too heavy and this wood has to be replaced from time to time as the traffic is very heavy.

For many years the people living across the canyon from Twin Falls, expressed a desire to get to Twin Falls to trade without having to negotiate the treacherous grades up and down the canyon walls.

The bridge cost over \$100,000. All of the material had to be hauled a considerable distance from the nearest railroad station, and the handicaps in construction were many. The view from the bridge over the river is hair-raising and the bridge itself, as seen in the picture reproduced below, seems more like a bit of cobweb, hardly capable of supporting its own weight, than like the sturdy roadway of cable, steel and timber which it really is. A better idea of proportion can be had, however, by comparison with the two tiny figures to be seen at the extreme right.



Six Hundred Ninety-nine Feet Long and 345 Feet High Is This Hansen Suspension Bridge Over the Snake River Near Hansen, Idaho.

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### Veneered Interior Trim Suited to All Classes of Homes

OWHERE is the progress of Americans in appreciation of the finer arts more apparent than in our medium and higher-priced residences. Many of even the cheaper homes express excellent taste and strong individuality and this development of taste and individuality is reflected in the trend of interior trim.

The two pictures herewith were taken in a residence costing between \$25,000 and \$30,000, one of the higher-priced houses from the viewpoint of this article, but they were selected because they indicate the trend of the times in interior trim and are typical of the results that can be achieved where one has money to gratify desire.

This house was built by the owner as his own home and he had an ideal for inspiration. Admiring American walnut, he succeeded in acquainting his architect with his wishes and the first floor is finished entirely in walnut. Moreover, so particular was he that he visited a veneer mill with his contractor and personally selected the veneers with which his woodwork is faced.

The mantel in the living room, with its large panel of matched walnut stump wood, is typical of the good judgment exercised in the selection of wood for the doors and other finish. The dining room, with its walnut paneling, is especially pleasing. These panels are faced with matched veneers taken from one flitch, with the result that they all have uniform figure. The door panels are of matched stump wood and the rails and stiles are of ripple or fiddle-back figure.

Another owner, with a strong penchant for quartered oak, selected his yeneers from one tree, which was cut to his specifications, and his roomy bungalow is a symphony in that wood. Panels, trim, ceiling beams, doors and even the insides of window sash are veneered with wood of harmonizing figure and tone. Veneers from the same tree were used on the furniture, which was made especially for the house. The narrow, polished oak flooring was selected with regard to tone and shows no light and dark streaks.

These instances indicate what can be done by the home builder who does not have to consider expense in the materializing of his dreams. His enthusiasm is easily communicated to his architect, contractor and the concern which builds the trim, and the veneer manufacturer is glad to give his hearty co-operation.

Members of the Mahogany Association built a beautiful residence in Louisville, designed to show what can be done with mahogany, and its interior finish was made entirely of that wood. After being used for exhibition purposes the house found a ready purchaser.

But the chief interest of this article lies in suggesting to the builders of modest residences, mostly paid for on the installment plan, how, without materially increasing costs, they can approximate the interior effects of the more ambitious houses by the use of stock plywoods.

There is inherent in humanity a love and admiration for wood finish. The psychology of this has been recognized and turned to financial profit by many contractors who build



This Mantel with Its Large Panel of Matched Walnut, in a Residence Costing Between \$25,000 and \$30,000, Is an Example of the Possibilities Where Good Judgment Is Used in Selecting Woods for Interior Trim.

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A Dining Room with Paneled Walls, the Panels Being Faced with Matched Veneers Taken from a Single Flitch, Is Particularly Pleasing.

to sell. They have learned that some veneered paneling has a strong attraction for the ordinary home buyer and results in easier sales at higher prices.

Fortunately, the ancient prejudice attached to veneered goods has practically passed away. Veneering is now reduced to an exact science and many large manufacturers are building millions of feet of plywood every year. The demand is constantly increasing as it becomes more generally known that the product is more stable than solid construction and that such defects as warping, splitting and loose veneers have been practically eliminated. Notwithstanding the assertions of some misinformed furniture salesman, very little modern furniture is built of solid wood.

For any who have lingering doubts as to the stability of plywood, we would recommend an investigation of the piano. Besides being a musical instrument, this is the handsomest piece of furniture that goes into the home, and it is subjected to infinitely hard usage in spite of the best of care, such as rapid changes in temperature and humidity, yet the veneered surfaces exhibit no defects through the long years they are in service. All pianos are veneered, in fact, the graceful curves of grand pianos can be accomplished with no other material than laminated wood.

In every large city may be found stocks of plywood from which suitable selections can be made. These embrace both the fancy cabinet woods and cheaper woods, and are adapted to a great number of purposes. They are manufactured by concerns specializing in the business and can be depended upon not to develop structural defects.

These stocks are easily accessible to the smaller towns, as are also the large stocks carried by many of the manufacturers; lists may be had on application. One will find walnut, mahogany, plain and quartered oak, maple, ash, plain and figured gum, among the more expensive woods, in a great variety of sizes and plies. Immense quantities of birch, fir and California white pine are on the market, ready for immediate delivery. The fir has a characteristic and pleasing figure while the pine is not so strongly figured, both take stains and finish nicely. A late importation is Gaboon mahogany, which is becoming popular in the East. It is not genuine mahogany, but has a typical mahogany color, without much figure. All of these are built-up with water-resistant glues and may be purchased at moderate

prices in large or small sizes; they all have single-piece faces.

A recommendation for plywood panels for interior trim that will be appreciated by the contractor is that they are easily installed and cover surface rapidly. While not much subject to shrinking and swelling, rabbetted mouldings or battens should be used to hold them in place and cover the joints. Such few nails as are used in holding the panels should be placed so as to be covered by the mouldings. An otherwise handsome job can be spoiled by some jack carpenter driving nails in the panels where they will show. When placed against a brick wall or one that is likely to accumulate moisture, the backs of panels should receive a coat of asphaltum paint.

The manufacture of plywoods requires special equipment, experience, constant practice and unremitting carefulness, hence the necessity of purchasing them from a concern specializing in their manufacture. In the larger cities may be found a few concerns capable of making good plywood, but they cannot compete with the specialty house, manufacturing on a quantity produc-

tion basis, either in quality or price.

Exterior veneered doors should be made with water-resistant glue, and as these are not successfully applied with the brush, such doors should be purchased from regular door manufacturers, equipped with glue spreaders. In such factories all material is tested for moisture contents, the cores are built-up of narrow strips, which minimizes the inclination to warp, and a crossbanding of veneer with the grain running at right angles to the grain of the core and face veneer is laid between the two. They cannot be split with an ax and can be immersed in water for days without appreciable swelling.—Harmon W. Marsh.

### **Using Paper Twice**

THE photograph shows how varied are the uses of building paper. Besides being used for sheathing and other regular purposes in the building of any structure, it can be made to perform many other important and valuable duties.

In the accompanying pictures a building paper of especially tough composition is shown spread over the foundations of a house to protect them from the elements. Because it is waterproof and difficult to tear, it is invaluable for this and similar uses. Afterwards the same material can be used for sheathing.



This Building Paper Is so Tough That After Being Used to Protect the Foundation It Was Still in Condition for Use in Sheathing.

## A Home of Concrete Masonry and White Cement Paint

CLIFTON LEE, JR., Architect



A Charming Southern Home in Which a Most Interesting and Pleasing Effect Has Been Achieved with the Use of Concrete Masonry and White Paint, a Finish Which Is Enjoying a New Popularity.

HE charming residence recently completed by Dr. J. O. Fitzgerald at 3007 Chamberlayne Avenue, Richmond, Virginia, is an interesting example of the growing use of white cement paint as an exterior treatment for concrete masonry. During the last few years cement paint or whitewash has been used extensively on common brick for fine residence exteriors but it is only recently that this treatment has been used to any extent on concrete building tile or block.

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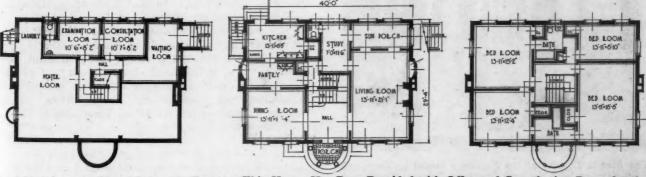
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Dr. Fitzgerald's residence, of which Clifton Lee, Jr., of Richmond, was the designer, follows the traditions of the vicinity. It is a good example of the type of Colonial used liberally in better class house design in Virginia and Maryland since before the revolution. The use of the white painted exterior adds a quaint note and serves to accentuate pleasantly the period design, which, during early days, was frequently executed in frame and finished in white enameled siding.

The walls of this house are of cinder concrete block with 8 by 16-inch face, that portion of the wall below the street level floor being 12 inches in thickness and above 8 inches in thickness. The basement wall was laid up of 4-inch and 8-inch thickness block in combination. These block were furnished by the Richmond Patent Building Block



In Addition to the Usual Basement Features This House Has Been Provided with Office and Consultation Room for the Use of Its Owner, Who Is One of the Leading Physicians of Richmond, Va.

Company. The lintels are all L-shaped steel members. For openings 4 feet in span or under two 4 by 3 by 1/4-inch L's are used and for openings over 4 feet in span two 6 by 31/2 by 1/4-inch L's are used. The floors throughout are of ordinary joist timber construction.

The method of preparing and applying the cement paint used on the exterior will no doubt prove of interest to readers. After thoroughly brushing off all dirt spatters of mortar and other loose particles, the surface was drenched to prevent the natural suction of the block from drawing the moisture from the paint. The first coat consisted of a creamy mixture made of 10 pounds of cement paint and three quarts of water to each batch. The mixture was thoroughly mixed for several minutes before being applied with a stiff-bristled brush.

The first coat was kept wet by sprinkling carefully until the second coat was applied, using the same method as for the first coat except that the mixture was applied somewhat thicker, using less water, about 2½ quarts to each 10 pounds of the dry paint. Used in this way, about 10 to 12 square feet of surface was covered per pound of paint used, including two coats. The final coat was kept damp

for several days. The surface is hard and of uniform color.

Interior partition walls on the lower floor are all of 4-inch cinder concrete block on which the plaster is applied direct. It will be noted that this floor contains Dr. Fitzgerald's waiting, consultation and examination rooms in addition to laundry, heating plant and basement storage. The masonry partitions were used largely to provide rigid bearing for the floor joists and to minimize plaster cracks. Slate was used for the roof.

The main floor layout is somewhat



An Entrance at One Side Admits to the Doctor's Offices Conveniently but Unobtrusively.

unusual in regard to the relatively large proportion of space given to kitchen and pantry, a feature which seems quite the contrary of that noticed in much modern practice, but is still typical of Southern Colonial homes.

A. J. R. Curtis.

A Close-Up View Shows the Actual Appearance of This Interesting New Wall Treatment.

### He Sells Before He Builds

(Continued from page 141)

been expanding a bit during the past few years, and I got him to take out a lease on another part for ten years.

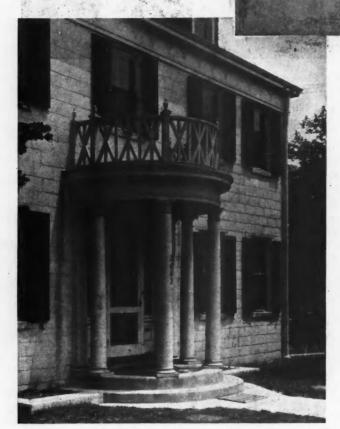
"This now gave me two long-term leases backed by firms which had good security and credit in the city. With these I went back to the loan company and did not have much trouble in obtaining a sum of money which enabled us to go ahead.

"I believe in being frank with the people with whom I have dealings, and in showing them that you have their interest at heart. I am always glad that I have adopted my methods of building when I talk with a customer, for I am able to take a piece of paper and show him every figure that will go into the cost of building his home; and there are none of them to which he can object.

"I can put down a figure and say, 'Now this will be the cost of your lumber.' Then, I can put down other figures, and say, 'This is the cost of your labor, your paint, your plumbing, or your finishing.' Then, I can add to this amount 7½ per cent, and tell them that that is my charge for planning and financing their home. Being able to work on a small margin of profit, I am able to do the best by them that is possible.

"The building industry has changed and has expanded. We open up a new addition, put in lights, water, gas, and roads—and we soon have a bus service connecting the addition with the business section of the city."

B. C. Reber.



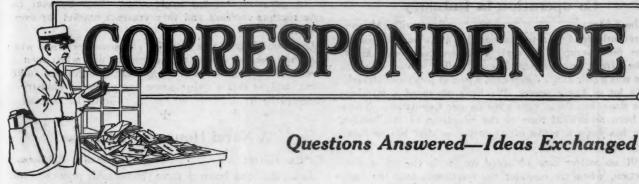
The Simple Dignity of the Entrance Detail Is Thoroughly in Keeping with the Best Southern Colonial Tradition.

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### Ouestions Answered—Ideas Exchanged

### The Junior Partner



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When H. W. Gilbert's Son Is Just a Little Bit Older He Will Undoubtedly Be a Builder Like His Father for He Has Already Shown His Interest in American Builder.

the United States?" As I top "Dad" Scoville, of Ypsilanti, Michigan, by two years I guess you will have to put me at

the head of the class until another "Old Boy" pops up. Next! I was eighty-five on December 20, 1926. E. N. MEAD.

### Here's a Suggestion

To the Editor: Leavenworth, Kansas.

An accident suffered by a friend leads me to call attention to a very common, if not universal, fault in the building of staircases. If the consideration of architects and builders is called to this mistake through your publication I shall feel repaid.

The fault is this: Why is not the newel post of a stair balustrade set on the last step of the stair?

Within my own personal knowledge the fact that there is always one step beyond the newel post has led to many accidents. One naturally slides one's hand along the hand-rail of the balustrade in descending a stair. When the rail stops the mind automatically assumes that the floor is reached

Cleveland, Ohio. To the Editor:

Bet you can't claim any younger readers of AMER-ICAN BUILDER than the one in the enclosed picture. His daddy has always enjoyed the magazine and the young man's choice is a nattural one.

H. W. GILBERT.

### The Oldest Dealer!

Buffalo, N. Y. To the Editor:

I noted on page 135 of the June AMERICAN BUILDER the query, "Who is

the oldest active lumber dealer in

and the added step causes a fall. Especailly is this dangerous in the dark and to an elderly person or one who is EMMA UPTON VAUGHN. slightly crippled.

### An Interesting Fence

To the Editor: Rocky Point, Villa Grande, Cal.

I enclose a photograph of a small camping bungalow, including a lattice fence of original design, which I have built on the bank of Russian River at Rocky Point. As this fence has attracted an unusual amount of attention and admiration, it occurred to me that it might be of interest to you and to the readers of AMERICAN BUILDER.

The general construction of the fence is obvious. It is 5 feet high and 20 feet long. The lattice is of 1 by 3 strips with mitred tops, nailed 4 inches apart on an angle of 45 degrees, the 2 by 3 rails supported by 4 by 4 posts, set 10 feet apart and finished with 1/2 by 2 neck band mould and 1 by 4 base.

This lattice construction is much stronger, more durable, and costs less than a tight board fence. The posts may be set farther apart and the rails may be made lighter. The little extra labor of erecting this fence is more than compensated for by the saving in material.

This makes an ideal fence for enclosing and subdividing farmyards, as it can be built "horse-high, cow-strong and pig-tight." By placing single wires, chicken wire or fly screen between layers of the lattice it becomes chicken-proof and even rat-proof.

A humorous neighbor commenting on the speedy erection remarked, "Why you can put up so much of that fence in a day that it would take you all night to walk back to where you started." FRANK DE GUERRE,



This Fence Was Built by Frank De Guerre, of Rocky Point, Villa Grande, California, from His Own, Original Design. It is inexpensive, quickly built and is described as "horse-high, cow-strong and pig-tight."

### Co-operation in Industry

To the Editor:

Somerville, Mass.

I recently read an article about the '49ers and it brought to my mind some of the early general contractors I knew, of the Moses Irons type. The old fellow whose stock in trade was a pair and a dump cart, a box of picks and shovels, and a lot of horse sense. We have advanced a lot since those days, but those men gave us our foundation. There has been an ethical tone to the education of the builder, there has been a sense of co-operation that has included everyone.

Still, no matter how advanced we are in the art of construction, when we consider the conditions that the early pioneers of the contracting game had to labor under, we must marvel at their courage and endurance. Today the steam shovel comes on the scene a separate contract, under the general, it is true, but separate. The cement and cassion, the stone mason, the iron worker, the carpenter, painter, finishers, each separate, but a factor in the general contract.

The greatest aid to the advancement of the workers in the broad field of the building industry has been the trade paper. It has created a fellowship among all the factors concerned. John Jones, the carpenter, knows the needs of Smith, the plasterer, and their work interlock. The foreman of one factor can talk intelligently to the foreman of the other and so on through the great game.

I happened recently to visit the house of a banker who is much interested in real estate and co-operative ownership and there on his library table was a copy of my old friend, the American Builder. I marveled at his selection, but he stated that that was the instrument by which he measured his wares. He showed me a number of pamphlets and

catalogs and some handsomely bound books he had and said that when a man talks to him on construction he must talk facts. I believed him and perhaps he is not an exception.

Now, if these men know their book to that extent why should the rank and file be ignorant? It is pitiable to see a man nervously twist his hat out of shape and stutter monosyllables when he really needs and is worthy of assistance. Yet every man jack in the industry stands ready to help him, only too eager to have the true knowledge of their product truthfully diffused.

The game of baseball is the most interesting, the most fascinating game of the American continent, and it is the spirit of co-operation that has made it so. Year by year the gate receipts increase and they create a market for every industry.

Our game is the same since far off memory of time when man first sought shelter to the present day when men as a unit strive to produce it in grander, yet grander fulfillment, and as in the other game every known industry is benefited by it.

John P. Downer.

### A Novel House in Arkansas

To the Editor:

Nashville, Arkansas.

I am submitting herewith three photographic prints of buildings. One is of no importance from an architectural standpoint, I suppose, being merely the old antebellum dwelling in which Mr. Garland was raised.

The residence of Mr. Hutchinson is a modern building which may be of more interest than the other. That of Mr. Reese is something of a curiosity. The spired aggregation was built by a man raised on a farm without advantages and practically without any education. Without any knowledge of architecture and without assistance, he worked out this idea and himself built the creation. I don't suppose there is a duplicate of this building on earth.

When Mr. Reese first built this residence the matter of paint color worried his mind. When mentioning this to a friend, the friend, more jocularly than otherwise, suggested a bright red. John then proceeded to get the reddest paint in town and there was nothing about that house but the roof that was not red but that might have been, I suppose, if the red paint had not given out. People finally made so much fun of the color of the structure that the ingenious owner changed the color to the regulation white.

W. C. Rodgers.



This Group of Houses, in Nashville, Ark., Present an Interesting Contrast. The one above is a fine modern bungalow representative of the type which is being built today.



And Here Is the Curious Creation of Man Who Had No Advantages of Education, or Training or Assistance.



Contrasted with the Modern Bungalow Above Is This Old Antebellum Residence, Still Standing.



THE 16-story Senate, one of the newest and most modern apartment hotels of St. Louis, is known for its superlative equipment.

The kitchens are equipped with Napanee Units. The Napanee is recognized by architects, builders and home owners the country over as the ultimate in kitchen utility and handsome appearance.

That's why so many fine apartments are being Napanee equipped.

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> Architects and builders, appreciating hidden value, delight in Napanee's sturdy construc

tion — all hardwood, gained-in corner joints, gained-in shelves, rust-proof hardware, base reinforced front and rear — everything for quality. And those who build for investment understand that the beauty and serviceability of Napanee Units attract and hold desirable tenants.

ce. There is a Napanee Kitchen Unit, or group of

units, for all needs—for any size space—for any arrangement of doors and windows. Let our Architectural Service Department assist you in planning or figuring.

COPPES BROS. & ZOOK - Nappanee, Indiana

# NAPANEE DUTCH @ KITCHENET

Built Like Fine Furniture

OUR GOLDEN ANNIVERSARY YEAR

COPPES BROS. & ZOOK, Nappanee, Indiana

Gentlemen:—Please send me your illustrated catalog of Napanee Dutch Kitchenet Units.

(Please check square) I am Builder Architect Home Owner Mame

Address

City

State

### We Helped Build His Clinic

To the Editor: Wolcottville, Ind.

Enclosed find \$2.00 for AMERICAN BUILDER. I have not only enjoyed your magazine but it has been a great help to me in the planning, decorating, and giving me ideas in the building of my tonsil clinic. Picture of same enclosed.

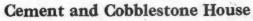
In so far as I know, this is the first private hospital devoted exclusively to tonsil surgery. For the last ten years I have been riding a surgical hobby of trying to give the best skilled service in removing tonsils. Specially designed instruments have helped some.

The construction of a private hospital to take care of my patients has made me feel that at last I was in a small way contributing something useful to the community and my profession.

At the recent medical convention at Atlantic City, Dr. George B. Lake, managing editor of "Clinical Medicine," insisted that

I give him a writeup on my tonsil clinic, bloodless operation, etc., but you can see by this letter I am not an author. However, from an architectural standpoint and the services it renders a discriminating class of patients, I am proud of it even if the building of it has put some gray hairs in my head.

If any of your editorial staff want to take a vacation, send them down. If they can't get an interesting story for your readers we can go fishing.—J. E. RARICK, M.D.



To the Editor: Kerrville, Texas.

I have intended for some time to send you a description of the house I built here, of local material. We wanted a fireproof home, but found that brick or hollow tile would have to be shipped in nearly a hundred miles over a branch line railroad. With the consequent high freight rates, the size house we wanted and labor at \$14 a day, our finances were not enough.

This is a hilly, rocky country and the river beds are full of gravel, cobblestones and some sand. Here was building material, practically free, right under our feet.

I got data on all the cement machines on the market and examined houses built with them. I then experimented a bit and decided that, considering local conditions, I could improve on anything I had seen. The house which I built has a perfect double wall. There is no place, even at the corners, where outside rock or mortar touches the inside wall. There is an air space of about one inch all around. The two walls are tied together with loops of heavy galvanized wire.

The blocks are two feet long, one foot high and three inches thick. In the outer walls flat cobblestones project out of the blocks while in the inner walls they are flush



A Home Built Complete by Otto A. Morris with the Aid of One Helper. He even made his own concrete block forms.



This Clinic, in Wolcottville, Ind., Was Built by Dr. J. E. Rarick, Who States that American Builder Was a Great Aid to Him in the Planning and Decorating of His Building.

with the surface. These cobblestones give a great economy of cement as well as a novel effect in the outer walls and a perfect, moisture-proof wall. The cobblestones take up almost a third of the volume of the blocks. They are plain white limestone and flint.

Because of the economy feature of the cobblestones, the rest of the concrete block can be made of a richer mixture than usual and this makes a more dense, stronger, and thoroughly water and damp-proof wall. I built a small garage first to try out the blocks. This has a single three-inch wall only, but it has proven strong, and in damp, cold weather it has not sweated on the inside.

I made the blocks under a shed on a long table. I placed an empty form on the table and shoveled in the wet aggregate to fill the form about two-thirds full. Then I placed cobblestones in the mixture and worked them down.

My forms were made of two by four, covered with tin for the bottoms and the sides and ends were collapsible. When a form was filled I would place a couple of clamps over it and allow it to stand about 24 hours. I would then remove the sides and tip the form so the block would slide out on its edge and allow it to stand, untouched except for watering, for at least 24 hours longer.

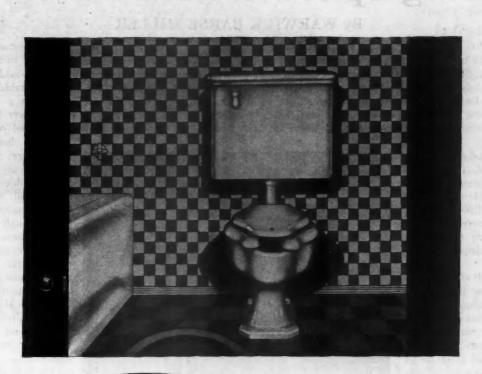
The only reinforcement used was the wire already mentioned. Several strands of this were placed in the mortar joints under the blocks bridging the windows and doors and extending back into the walls for a foot or so. The mortar used was one part cement and three parts sand. I had never before used a trowel, being a carpenter only. I hired one helper at \$2 a day and did the work myself.

This house, 42 feet by 34 feet, with plumbing and all, cost a little over \$2,000, not counting my own labor. I am sending a picture which shows how it looked with the walls partly up.

Otho. A. Morris.

### Barber Asphalt Co. to Move Office

THE Barber Asphalt Company has announced that it will move its New York office from the Woolworth Building to the new Graybar Building, the below-ground floors of which form an integral part of the Grand Central Terminal. The reason for this move was the need of more space because of increasing business and the centralizing of the building trades in the Grand Central zone. The move will be made about the time the building is completed, April 1, of this year. The main office of this company is at Philadelphia, Pa.



When you talk modern fixtures you talk the Purimo

"Standard" Purimo, complete as shown, \$95 exclusive of installation cost.

PURIMO TOILETS are absolute proof that the fixtures of your houses are the most modern to be had. They have these special features for health, hygiene, sanitation, that no other toilets can offer:

1. Extended lip both front and back—making for the utmost comfort, cleanliness, and sanitation. In no other toilet is this obtainable.

2. White seat divided at the back as well as in front for greater cleanliness.

3. Large water area with minimum of exposed fouling surface.



4. The new "Standard" Tank Fitting that insures quiet, efficient action under all conditions.

All parts of the Purimo are designed and made by "Standard", so every part works harmoniously with every other part. And every part is backed by the world's largest manufacturer of Plumbing Fixtures of each type—Enameled Ware, Vitreous China and Brass Goods.

When you install Purimo Toilets, you can be sure that they will give permanent satisfaction and increase the market value of your houses. Write for Catalogue.

Standard Sanitary Mg. Co., Pittsburgh

LOOK FOR THESE FIVE FEATURES IN SELECTING A TRULY MODERN FIXTURE. "Standard" PURIMO HAS THEM ALL



This shape in front



Extended front; cut-



Large water area



White seat divide



Quietness with

"Standard"
PLUMBING FIXTURES

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

# Utilizing Space in Modern Houses

### By WARWICK BARSE MILLER

In BUILDING the small, compact house of today, one must plan to make use of every inch of space he can find. It therefore becomes necessary for one to examine the blue prints of his future home with the greatest care, to see if he cannot squeeze in a linen closet or a broom closet here, a bookcase or a window-seat there, or if some valuable area may not be going to waste in this or that room.

Such pains taken will be highly rewarded, for one of the greatest enjoyments of a home is to be able to put each household appliance neatly away in its correct space. Everyone knows the inconvenience of inadequate closet room.

When we built our house a few years ago we had no end of fun in planning a use for every inch of space we could find. It was remarkable the number of things we added and which we had given up all thought of having in our small house.

First came the question of a clothes chute. The lady of the house could not get along without that. So we cut one foot off of the end of a bedroom closet, the end being the wall of the upstairs hall. With this room ,we made a closet one by two feet, opening into the hall, with the trap door of the chute in the bottom. Two feet above the trap we put a shelf or second closet door, where we kept dust cloths, brushes and the vacuum cleaner, and at the top, about two feet from the ceiling, we put still another shelf for wrapping paper and newspapers.

Now, the clothes chute ran straight down through the center of one end of the butler's pantry, protruding into

that room like a chimney, and leaving a space of 23 inches on either side between it and the pantry walls. If it had been left thus, it would not only have looked grotesque, but these inches would have been practically useless, since one could not have moved around in them without being hindered by the clothes chute.

Incidentally, it might be well for every builder to observe the architectural axiom which can be deduced from this situation; namely, that in a compact house, wherever there is a space which is too small to move around in practically, this space should be made into a closet or cupboard. This is the axiom we strictly observed throughout our planning.

We ended the butler's pantry level with the chute, and in the resulting area between the chute and the kitchen we put a broom closet 23 inches deep and 15 inches wide opening into the kitchen. This gave us a place for house-cleaning implements, both upstairs and down. On the other side of the chute, next to the dining-room, we arranged an excellent little cupboard five feet high and just the right size for the extra table leaves. Above this was built another cupboard with a glass door, and three shelves inside to hold vases, flower baskets, thermos bottles and miscellaneous glassware and ornaments.

In the back hall of this floor there were 18 inches between the jamb of the kitchen door and the end of the hall, and inasmuch as this anteroom is used only to pass through and to hold the icebox, these inches showed possibilities of being employed to a better advantage than merely enlarging the hall.

A partition with a door was built from the jamb across to the opposite wall, and with a window and three shelves in this new room, we had a cold-storage closet right next to the kitchen. Into this we put food that does not need to go into the icebox and would not be convenient if placed in the real cold-storage room in the cellar.

Opposite the upstairs broom closet the hall opens into a study and a bedroom. We had no use for a clothes press in the study, and the space between these two rooms was too long to be practical for the one bedroom clothes press. At one end, therefore, we built a nice clean linen closet opening into the hall, and measuring two feet deep by two feet four inches wide.

The big, ample linen closet is, besides the clothes chute, the household luxury the American wife seems to prize most. This closet has six roomy shelves laden with sheets, blankets and quilts.

One of the Many Space Utilizing Features of the House Described on This Page Is a Cupboard for Table Leaves and Glassware Built Into the Butler's Pantry.

On the floor, beneath the first shelf, is kept the electric heater, a roll of shelf paper, and extra appliances for the vacuum cleaner.

We finally decided to give up the door from the bathroom into the bedroom, and just have one door leading into the hall, and in the corner between the door and the wall a medicine cabinet was built. One foot deep by two feet wide and five feet high, it has three big shelves supporting a veritable apothecary's shop of antidotes and bathroom appliances. Below it, the lady of the house had three large drawers built in for face cloths, face towels and bath towels.

All our bedroom closets have shelves in each end from floor to ceiling, whereon we keep shoes, golf balls, cigars, guns, fishing tackle, hats and letter files. In the study,

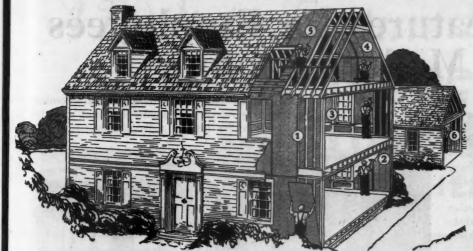
(Continued to page 206)

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### How Celotex Is Used

Celotex should al-ways be built into and (4) Celotex is ways be built into both walls and roofs (1) Celotex, as sheathing, replaces wood lumber and building paper. Adds greater strength ... costs no more (2) Under plaster, re-placing lath, Celotex builds stronger walls and ceilings . . . less apt to crack . . . free

used as interior finish and atticlining either initsnatural tancolor or decorated (5) As roof sheathing, re-placing wood lumber, Celotex provides insulation where it is most needed (6) As garage lining it helps protect the car against freezing.

# Duild Comfort, Strength and Fuel Economy into your homes with Celotex

PROPERLY applied to any home, Celotex gives real protection against the sharp extremes of America's climate—shuts out forever winter's icy blasts and summer's stifling heat—can cut fuel costs about 1/3.

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Home owners are quick to appreciate this extra comfort and money saving; their enthusiastic approval is your best source of new business.

But Celotex does more than in-

sulate; it strengthens construction as well. Broad, strong boards of Celotex, applied as sheathing or under plaster, brace a wall much better than narrow wood lumber or lath. The whole house is stronger besides being more comfortable all year round; at little or no extra cost.

For Celotex is not an extra item in building. As sheathing it replaces the rough boards formerly used;

under plaster it replaces lath. And large Celotex boards are much quicker to apply than narrow wood lumber. This speeds up construction as well as saving labor.

Because Celotex is light in weight (about 60 lbs. per 100 sq. ft.) and is sawed, erected and nailed just like wood, it is always easy to handle. Celotex boards are uniform—4' wide, 8' to 12' long, 7/16" thick. There are no short pieces or odd sizes; every board is usable—free from cracks, knotholes or stain.

All lumber dealers can supply Celotex. Mail the coupon now for the Celotex Building Book and Specifications, telling what Celotex does and how it is applied.

THE CELOTEX COMPANY, Chicago, Ill. Mills: New Orleans, La.

Branch Sales Offices in many principal cities (See telephone books for addresses)

Canadian Representatives: Alexander Murray & Co., Ltd. Montreal Toronto Halifax Winnipeg Vancouver

Andrew P. Northfelt, builder, Minneapolis, Minnesota, uses Celotex in his own residence. "I constantly recommend Celotex," says Mr. Northfelt, "because it greatly increases the owner's comfort. And I believe that Celotex will cut fuel costs in half."



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INSULATING LUMB	ER
THOUSE THE SECOND	

Please send me the Celotex Buil	ding Book and	Specifications
Book showing how to apply it.		
Name		

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

THE CELOTEX COMPANY, Dept. T-503.

## Special Features for Employees in a Modern Factory

T is not many years since anybody would have laughed this page were taken in a factory. In those days a fac-

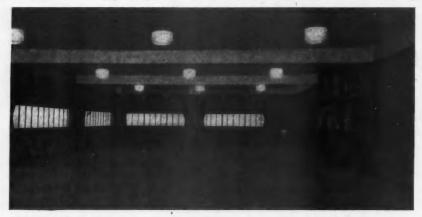
tory was simply a workshop and nothing more but times have changed and the modern factory contains accessories which have nothing to do, at least not directly, with the production processes. Though not directly connected with the actual production they are an important part of the establishment and no one who is planning a modern factory can afford to overlook them.

In the new building of the Kirsch Mfg. Co., Sturgis, Mich., where these pictures were taken, there is a full appreciation of the value of departments devoted solely to the benefit of the personnel. In addition to the lounging and billiard room and the gymnasium shown here, there is an infirmary and dispensary where first aid is administered in case of either accident or sickness. In conjunction with the gymnasium there is a swimming pool and also bowling alleys. Another recreational fea-

ture is a roof garden which offers the employes a comfortat you had you told them that the pictures shown on able and attractive retreat on summer evenings and then of course there is the kitchen and cafeteria.



A Lounging and Billiard Room, Equipped with Comfortable Chairs and a Radio, at the Right, Affords a Place Where Employees May Rest, Read or Enjoy Entertainment, and Creates Much Satisfaction.



This Is a Combination of Auditorium, Ball Room and Gymnasium and in Each Capacity Is Proves a Real Asset to the Kirsch Company, and Is in Constant Use.

No large and progressive business firm would, today, fail to provide assurance of good wholesome meals at reasonable cost for its employes. Because of the lack of satisfactory restaurants in most factory neighborhoods the plant cafeteria is rapidly becoming a regular institution. Even when outside facilities are good a large company finds that by supplying better food at lower cost it gets better service from employes and there is less lost time from sickness.

JOSEPH T. RYERSON & SON, INC., of Chicago, announces that Fred S. Doran, who has been associated with the company for 21 years, has been appointed manager of its new Cleveland, Ohio, warehouse plant.

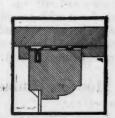


The Private Office of the President, C. W. Kirsch, Is Handsomely Equipped, But with None of the Display Which Is Out of Place in a Business Office.



The Sample Display Room Is Well Planned for the Effective Showing of the Company's Products, and Is One of the More Strictly Utilitarian of the Special Features.

# A Built-in Feature that influences Home Buyers -



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Weather stripped wina own small claim ically airtight yet easy to operate. Chamberlincovers entirely the runways of sliding windows but raised strack-like corrugations a minimum.





HAMBERLIN WEATHER STRIPS are not merely a desirable built-in feature but a recognized necessity and an influential factor when buyers select their homes or investment properties. During the past 34 years Chamberlin has equipped millions of windows and doors and people have reason to regard Chamberlin as being just as essential as efficient heating or up-todate plumbing. Chamberlin Weather Strips are usually preferred because for 34 years Chamberlin has operated on the principle that weather stripping,

to be permanently efficient, demands more than correctly designed, carefully made weather strips. It demands the mechanics' exacting attention to installation details and practice. That is why Chamberlin exclusively installs its own weather strips. All installations are made by Chamberlin mechanics trained and supervised to work to the Chamberlin standard. And, as final assurance of permanent satisfaction to the builder, buyer and all subsequent buyers, Chamberlin guarantees and services its equipment "for the life of the building."

Write today for complete information

CHAMBERLIN METAL WEATHER STRIP CO.

West Lafayette Blvd., Detroit, Mich.

100 Sales and Service Branches Throughout the United States



## A Convenient Work Table

Fixture Can Be Used for Drafting, Study and Writing-Compartment for Papers Tilts Out of Way

HE design of work table in the accompanying sketches, embodies the features of a drafting table, desk, studying and writing tables, forming a construction of unusual simplicity for the amount of service that this table will provide. The construction follows that of a shop office table in a local machine shop, though the dimensions for the top have been reduced somewhat and the design otherwise altered to improve its service.

The top is fitted with a hinged receptacle, with partitions for papers, books, etc., and one long space for rolled prints, blank drawing paper and tracing cloth. The feature of the hinged holder is that of clearing the top for drafting work. The compartment lifts up without disturbing the contents. Two long drawers at right end are for instruments and other materials which it is desired to keep in a locked compartment.

The upper drawer is fitted with a slide for holding the ink, pens, thumb tacks, etc., in a convenient position, leaving, however, the other section of the drawer available for larger parts.

Under the top of the table, two long guides made of sheet metal are secured as holders for the drawing board when not in use. This holder is of advantage in protecting the surface of the board with any projects or drawings which are tacked to it from dirt and damage.

Two small metal clips as shown are holders for the "T" square, which arrangement of holders forms a convenient and compact method of stowing these parts safely. Inasmuch as it is desirable to have the table elevated when used

for drafting purposes, four extensions as shown are placed under the legs as required. The leg braces are so placed that the longitudinal brace forms a foot rest for the comfort of the worker.

and brace construction and two-inch by two-inch white pine for the legs. The extensions which blocks of the leg material, with side sections of the lighter material.

The whole design involves much thought and study of conditions and for the average worker this table will prove a very successful feature for carrying on projects necessitating sketching, drafting, plan studies and writing. It will be noted the entire plan is worked out with consideration of costs to make up this table. The material and labor involved are such that it can be followed by the average worker and completed in a short space of time. G. A. LUERS.

### Utilizing Space in Modern Houses

(Continued from page 202)

on either side of the fireplace, are window seats, the tops of which open into large, boxlike spaces where we put fire wood in one and books, pictures and miscellaneous papers in the other.

All the space under the eaves on this floor is used, too. On one side of each attic room is a closet with a small door inside leading under the eaves. On the opposite side is the small door alone. These cubby holes, which are unplastered and have merely rough floor, make storage room for boxes, screens, wall paper, old books and odds and ends every household possesses.

This has been our experience in utilizing every square inch of space we could ferret out of the blueprints. haps these miscellaneous kinks we instituted will offer helpful suggestions to the prospective builder.

We are enjoying order and luxurious efficiency which I have observed many homes do not possess. But if we had not done what we did, we would have had to spend a good deal more money or put up with annoying incon-

TABLE TOP

veniences.

The material which has given satisfaction in the table referred to is white pine. HOLDER FOR DRAWING DOARD Three-quarter-inch material for the top, drawer afford a very stable support are made up from DEANING BOARD 0 T. SQUARE 0 Ex2'LEGS Upper Drawer Leg Extensions EXTENSIONS PERSPECTIVE VIEW HINGED ON PARTITIONED COMPARTMENT END ELEVATION LEG JUPPORT AND FOOT REST

Perspective and End Views and Construction Details of a Practical Work Table.

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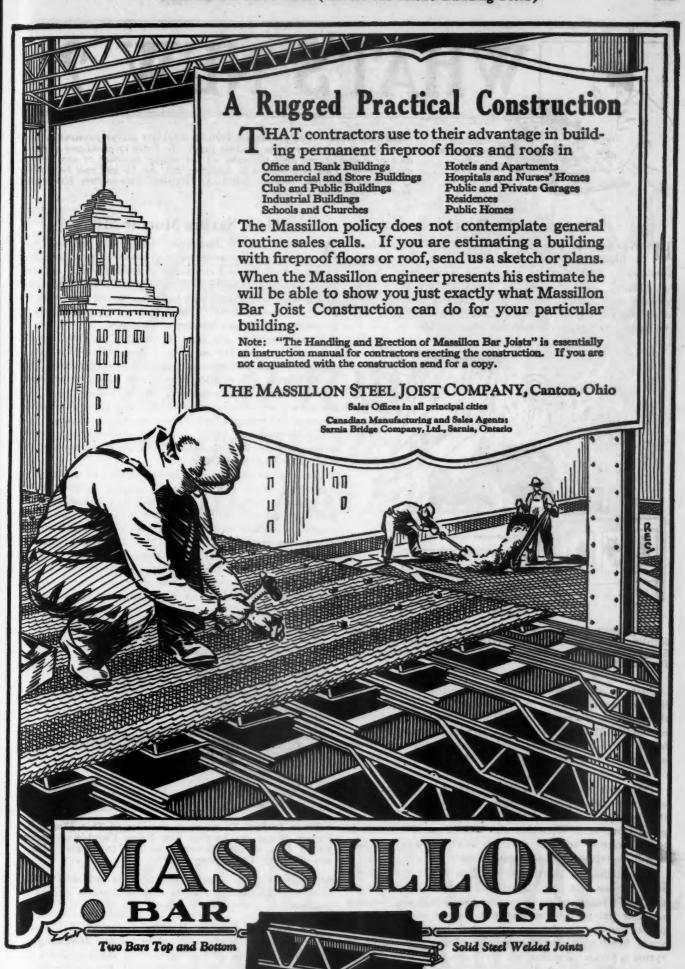
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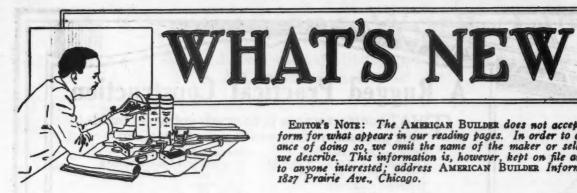
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### It Cures the Rattle

HOW often have you had the experience of lying awake at night unable to sleep because of the rattling windows? That sort of experience need never again be endured, according to the manufacturers of a new window sash holder, which, it is claimed, entirely prevents the rattling of windows in any wind. Nor is this the only advantage claimed for this holder.



He Doesn't Need to Have His Sleep Disturbed by That Rattling Window if He Will Have It Equipped with the Simple, Inexpensive Sash Holder Described Here, Say Its Manufacturers.

First of all, it is simple and inexpensive and easily installed on either new or old windows. Once installed there need be no replacements, for it is guaranteed for the life of the window. Installation requires no mutilation of frame or sash, labor and material are saved and, when used with metal weatherstrips, a perfectly tight job is obtained.

This holder consists of a double spring which takes care of any irregularity of the jambs. The spring is made of the best, untempered, lock spring steel and then tempered from 46 to 49, which allows it to stand adjustment to take care of any size sash. If this tension is ever lost it will be replaced by the manufacturer.

In installing, a mortise is made in the center of the sash, on one side only, larger and wider than the spring to allow freedom of movement and 1/4 inch deep. In case more or less pressure is needed it may be adjusted to the proper tension by the use of a claw hammer, making a sharp bend near the footing. In placing the sash, the spring is pressed down with a trysquare to prevent scratching the jamb. A small amount of paraffin used on the jambs makes the sash run more smoothly.

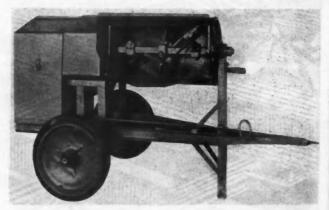
### Time Saving Mortar Mixer

A LTHOUGH the illustration shows only one size, this plaster and mortar mixer is available in two sizes, one having a capacity of 5 cubic feet of loose material and the other having a capacity of 3 cubic feet of loose material. The mixer, it is stated, will keep five or six plasterers or 10 or 12 masons busy. The larger mixer will supply a proportionately larger number of workmen.

These machines are light in weight, easy to handle, sturdily built and low in price. They will give a better and more even mix than is possible by hand mixing and, it is claimed, will enable plasterers to cover considerably more surface per day because of the better mix. The blades are so constructed that the material is thoroughly kneaded and mixed a great many times per minute. The clutch control and tilting lever are conveniently located at the same end of the machine, a feature which saves many steps and therefore much time.

The engines used have a liberal surplus of power over the actual rating and handle the mixers without strain. They are protected by a substantial steel housing and all gears are suitably enclosed. A two horsepower horizontal engine is regular equipment on the 3-foot mixer and a 21/2 horsepower on the 5-foot. On the larger mixer a four horsepower vertical engine can be furnished.

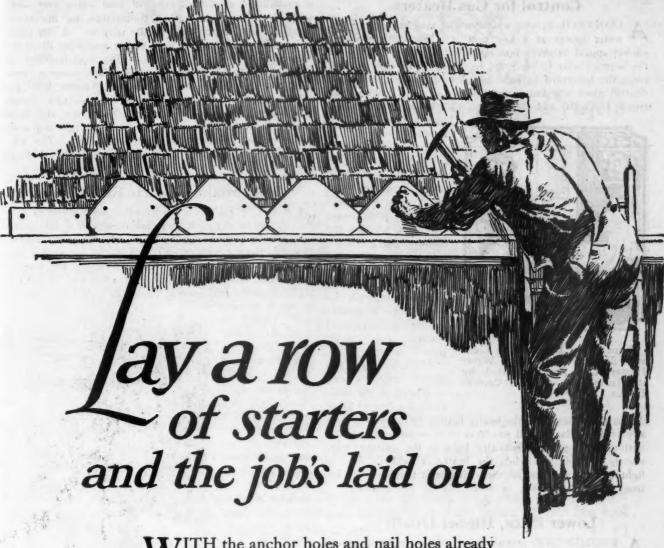
Perfect balance in these machines produces smooth running and avoidance of excessive wear and tear. Alemite lubrication is provided and high grade rubber cushioned



There Is Real Economy in the Use of This Mortar and Plaster Mixer the Smaller Size Being Capable of Serving Either Five or Six Plasterers or Ten to Twelve Masons and Keeping Them Busy.

tired, disc wheels. The machines can be furnished without road wheels and axle when a narrow mixer is desired for 0

The National Sanding Machine Company, 545 Vedder Street, Chicago, offers a complete catalog describing and illustrating its line of flooring sanding machinery and two circulars devoted to its new National, Jr., sander and its special usefulness.



WITH the anchor holes and nail holes already accurately punched, each Johns-Manville Asbestos Shingle acts as a guide for the next one. Just follow the anchor holes and you can't go wrong. Any carpenter who tackles the job can do it right the first time.

In every community there is a tremendous field for re-roofing over the old shingles, as well as the field for new construction. A lot of this business can be secured with Johns-Manville Asbestos Shingles.

JOHNS-MANVILLE CORP., 292 Madison Ave., at 41st St., New York
Branches in all large cities For Canada: CANADIAN JOHNS-MANVILLE CO., LTD., TORONTO

Publicopinion is swinging to firesafe roofs. Johns-Manville Asbestos Shingles are steadily climbing in popularity.



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JOHNS-MANVILLE Asbestos Shingles

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

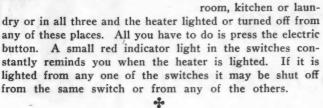
### **Control for Gas Heaters**

A CONTROL system which can be attached to any gas water heater at a low cost is a convenience which should appeal to every household but most particularly to the woman who is burdened by many daily trips to and from the basement to light or turn off the heater. This control gives you hot water when you want it without a trip to the cellar and assures you that the heater will never

be forgotten and left lighted too long.

The thermostatic control can be set at any point on the tank and when the hot water reaches that point the thermostat will shut off the gas automatically. You can measure the amount of hot water you want and just that much will be prepared, no more. This eliminates the waste of gas from heating more water than is needed.

With this system electric switches may be placed in the bathroom, kitchen or launded or turned off from do is press the electric tin the switches con-



Trips to the Basement to Light

and Shut Off the Hot Water Heater Can Be Eliminated by

the Installation of This Control

Device.

### Lower Price, Higher Quality

A PROMINENT manufacturer of contractors' equipment has recently announced improvements in his smallest size concrete mixer which are of particular interest coming, as they do right after a cut of \$60 in the price of this mixer. The announcement states that this combination of lower price and higher quality has been made possible by greatly increased production which leads to economy in manufacture.

This mixer is a two-wheel type, but can also be furnished with four wheels and with a side loader. It has

In Spite of a Big Reduction in Price as a Result of Large Scale Production, a Number of Improvements Have Recently Been Made in This Line of Concrete Mixers.

a guaranteed mixed capacity of four cubic feet and is adapted to the work of all contractors, no matter how small the jobs which they handle may be. A hot riveted, structural steel frame is used and a one-piece drum yoke housing for the drive pinion. The specifications also include a 12-inch bronze bushed drum bearing, geared tilting mechanism for easy tilting and Alemite lubrication.

The Alemite lubrication is one of the new features, added since the price reduction. There are also bronze bushed bearings in the pinion drive, drum axis and wheels, all lubricated by reserve-supply oil chambers. The wheels are steel disc equipped with puncture-proof cushion rubber tires.

### New Model Electric Refrigerator

A NNOUNCEMENT has recently been made of a new model in a well-known line of electrical refrigeration units which is said to be a marked advance in the construction of electric refrigerators. This is a cabinet model designed particularly for use in apartments and homes of the smaller type. The outside dimentions are: Height 56½ inches; width, 26½ inches; depth, 22½ inches. The price

is quite reasonable. There is nearly 5 cubic feet of food storage space and the shelf area is approximately 7 square feet. This unit is said to consume little current, in fact not much more than would be consumed by burning an ordinary electric light continuously.

The cabinet has an all-steel exterior and is insulated with 2 inches of corkboard. It is finished with gray lacquer, a color quite widely used today for kitchen furnishings. The freezing unit

This Illustration Shows Something Entirely New in the Electric Refrigerator Field. It is especially designed for apartments and small homes where expense is an important consideration.

uses the regular tank construction and has all the features found in the standard units made by this company. There are two trays for freezing ice cubes and delicacies.

The condensing unit is very efficient and compact and is so light in weight that it can be lifted by one man without difficulty. A 1/6 horsepower motor is used and has been refined to the point where it is as quiet in operation as a larger motor. The light weight of the complete refrigerator makes it easy to move about so that the owner may take it with him in case he moves and it is ready to go to work in the new location as soon as it is plugged in.

The Chamberlain Metal Weather Strip Company, 1644 W. Lafayette Boulevard, Detroit, Mich., has recently published a revised catalog of details and specifications designed for the architect, builder and engineer and a circular for the information of the general public containing complete information in regard to its metal weatherstrip products.

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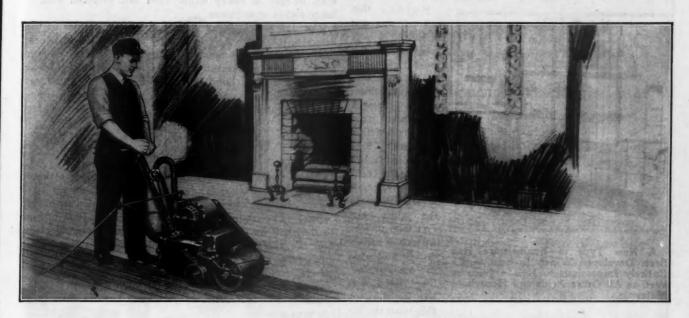
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# Mr. Contractor

Why Pass Up Substantial Floor Surfacing Profits



Floor surfacing—and resurfacing has become a big business.

More than \$50,000,000 of it to be done every year.

Contractors and builders who do their own floor surfacing the American Universal way are getting their share of this big and rapidly growing industry—

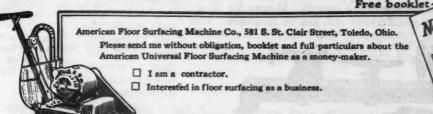
# American Universal

is electrically operated — does the work quickly — puts perfect surface on new floors or old—keeps men busy during dull seasons and avoids delays in building operations waiting for slow, unsatisfactory hand scrapers. Pays for itself in increased profits in a few months.

> Many men devoting entire time to floor surfacing are making \$20 to \$40 a day

Don't pass up this opportunity-Mail the coupon.

THE AMERICAN FLOOR SURFACING MACHINE COMPANY
581 South St. Clair Street, Toledo, Ohio
Send for this
Free booklet



### **Acid Proof Enamelware**

ONE prominent manufacturer of enamelware has just brought out an entirely new type of enamel which is said to be harder and more durable than any enamel ever before used in this country for plumbing fixtures. It is stated that this is the only enamel that cannot be roughened, discolored or harmed in any way by fruit and vegetable acids, cleansers, inks or other materials in ordinary home or

office use.

A New Type of Enamelware Has Been Developed Which Is Said to Be Entirely Impervious to Lemon Juice as Well as All Other Acids and Household Materials.

Before this enamel was announced it was subjected to the most rigid tests by the laboratories of the company's research department and by the Mellon Institute. These tests included the "lemon test." Lemon juice, it is said, destroys the gloss and roughens the surface of all ordinary enamels in one minute. The juice was left for days on this enamel after

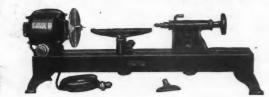
which a soft pencil was smudged across the surface. The pencil marks were as easily removed from the part where the lemon juice had been as from the part of the surface that had not been subjected to the action of this strong fruit acid, proving that the enamel had not been harmed in any way.

It is stated that this new enamel is the result of more than 20 years of exhaustive study, research and investigation, both here and abroad, by the manufacturers. This included a study of the mineral baths in certain European health resorts. These are of an enamel, new to this country, which resists the action of mineral water. It was this European enamel that led to the development of the new enamel.

### A New Bench Lathe

A NEW 8-inch electric bench wood lathe has been placed on the market by one of the well-known manufacturers of woodworking machinery. The specifications of this new machine include a maximum swing of 8 inches; maximum swing over tool rest, 6½ inches; face plate diameter, 5 inches; standard length bed, 36 inches between centers. The beds are furnished in any length.

A standard ¼ horsepower motor is used with 110 volt, 60 cycle, one-phase alternating current. Motors for direct current and odd specifications also can be furnished. The



This New 8-Inch Bench Lathe Has Recently Been Placed on the Market by a Prominent Manufacturer of Woodworking Machinery.

headstock is a well-known motor with new wick oil bearings. A ball-thrust bearing on the spindle takes all end thrust from turning. The speed of the motor is 1,800 r.p.m.

The length of the machine over all is 38½ inches; height, 13 inches; weight complete net, 75 pounds; weight crated, 100 pounds. The bed is built of heavy structural steel. For control the lathe is fitted with a snap switch, conveniently attached to the head stock. It is supplied with 10 feet of heavy motor cord and armored plug for lamp socket attachment.

The tail stock is of heavy design. It fits on and between, the rail beds and lock by the hand wheel beneath the bed. The quill is reamed for No. 2 Morse taper and has a screw movement of 2½ inches. It locks in any position by the thumb lever. The equipment of each machine includes one 5-inch face plate, one spur center, one tail center, one 4-inch tool rest, and one 10-inch tool rest

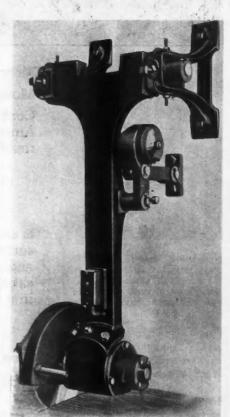
### A New Swing Saw

THIS swing saw, manufactured by a leading maker of saw mill machinery, is for use with saws up to 16 inches diameter with a maximum depth of cut of four inches. The frame is of the channel type. It is clamped to the shaft by means of "V"-shaped, self-centering clamps and the shaft turns on the hanger boxes. The machine

may be suspended from the ceiling or side wall.

The counter-balance is automatic, returning the saw to the back position from any point and holding it there. It is arranged to give an even, uniform pull for the full stroke of the saw and also acts as a safety stop at the end of the forward movement. A guard completely covers the saw above the working depth, the outside cover being removable for changing saws.

The motor is contained within the head. It is self-ventilating and protected from chips and dust. Air is taken in through a sieve at the outer

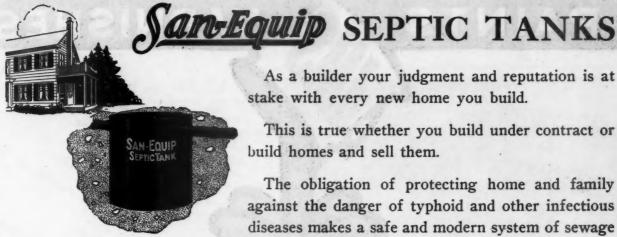


Here Is a Swing Saw Which Can Be Used with Saws Up to 16-Inch Diameter and Cuts to a Depth of 4 Inches with an Even, Uniform Pull.

end and discharged through the motor into the hood which covers the saw. The motor is a one horsepower, three phase, of the ball bearing type, but a larger motor will be furnished when required. The motor is provided with a magnetic starter with push button control.

# Why YOU Builders

should always specify the standard



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Following are interesting paragraphs from a letter by a noted director of rural sanitation. (Name upon request.) He is without bias or prejudice in any way and he has had intimate experience for years with several thousand septic tanks.

### An Interesting Slant

"The use of septic tanks must be considered from two main standpoints: 1. Installation. 2. Service after installation.

"Improper installation is the greatest single source Therefore, the most valuable tank is the one that lends itself most readily and naturally to proper installation. In this item, the metal tank is in a class by itself.

"They are easy to install, being light in weight; one man can handle and install them; because of this easy installation, they are cheaper.

"In practice, we get better installations from them than other types.

"You will note that our experience from the 'Installation' viewpoint is entirely in favor of the metal tank.

"Under the heading 'Service' I cannot tell you very much for the reason that practically none of our properly installed tanks has ever given any Inasmuch as our metal tanks are practrouble. tically all properly installed, we have never had any trouble with them that I recall now. Most of our trouble comes from what might be called 'bootleg' tanks, generally made by unlicensed plumbers, concrete workers, or 'jacks-of-all-trades.' These tanks are generally of the home-made variety."

As a builder your judgment and reputation is at stake with every new home you build.

This is true whether you build under contract or build homes and sell them.

The obligation of protecting home and family against the danger of typhoid and other infectious diseases makes a safe and modern system of sewage disposal of the greatest importance.

In fact, the most important of all the home equipment is buried in the ground—the septic tank. If it's a concrete or tile (in which you wouldn't store even gasoline) and is cracked by frost, there are no indications of danger until it is necessary to call a physician.

Builders everywhere are recommending and using the San-Equip heavy gauge copperoid iron tanks.

First, because of superior reliability and a desire to give honest, efficient service to their customers.

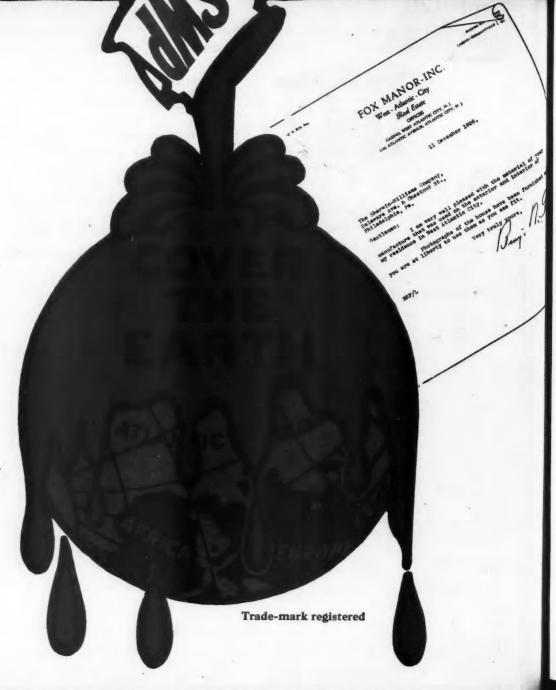
Secondly, because of the convenience of having the complete plumbing job handled together in one contract, saving time on supervision and getting the detail off their hands.

San-Equip is known to be a reliable advertised septic tank. It will help you sell your homes.

No matter where you build, you can have San-Equip Septics installed right along with the other plumbing fixtures. Ask your plumbing dealer to figure the complete job including a San-Equip Septic.

CHEMICAL TOILET CORP. 901 East Brighton Ave.. Syracuse, N. Y.

# SHERWIN'S PAINTS ARNISHES



LARGESTIN

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

# ACQUERS · ENAME

Residence of Mr. Benjamin R. Fox. Albany Blvd., Atlantic City, N. J. Architect and General Contractor, Mr. Benjamin R. Fox; Paint Contractor, U. Hilborn, Pleasantville, N. J.

serior of



Striking wall texture effects secured with paste made of S-W Zilo, whiting, and plaster paris, high-lighted with S-W colors.

### When a man's his own contractor his choice of paint is significant

"I am very well pleased with the materials of your manufacture used on the exterior and interior of my residence at Atlantic City," writes Mr. Benjamin R. Fox.

This magnificent residence was built from the plans of the owner, Mr. Benjamin R. Fox, who was also contractor on the job. When it came to decorating his home, Mr. Fox's experience with Sherwin-Williams finishes guided his decision to use S-W finishes throughout. His letter proclaims his satisfaction with the results.

On painting jobs where cost is not a consideration, as in this case, and again on jobs where cost is a major factor, S-W finishes meet the needs of the case. That is because these finishes are made in volume that reduces consumer cost and are manufactured under rigid laboratory control in a plant where customers' satisfaction is a tradition of more than 60 years' standing.

You can trust S-W finishes—enough people trust these products to make this company the world's largest paint maker. That is your guaranty of paint satisfaction!

> THE SHERWIN-WILLIAMS COMPANY CLEVELAND, OHIO

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### Cork Insulated Shingles

A NEW product which is attracting attention is a recently developed cork insulated shingle. It is said that this shingle not only incorporates all the approved features of roofing material but also insulates the house which it covers against extremes of temperature. It is this insulation feature which makes this new product of special interest at this time when insulation is occupying such a conspicuous place in the building industry.

The manufacturers point out that their product is of special value because of the fact that many authorities state that 60 per cent of the avoidable heat leakage of a house is through the roof. It is assumed that the new shingle will reduce this leakage and thereby effect a considerable saving of fuel while, at the same time, providing a warmer home in winter and a cooler one in summer.



Composition Shingles with Cork Insulation on the Under Side Are the Latest Contribution in the Roofing Field.

This shingle is constructed of separate layers of cork, saturated felt, slate and waterproof asphaltic cement, combined under heavy pressure. The manufacturers state that it was tested for fire resistance by the Underwriters' Laboratories and approved with a "C Label." They also state that its insulating efficiency has also been thoroughly tested, investigations at the Mellon Institute of Industrial Research showing that, laid in the usual manner, three plies, it is equivalent in insulating value to ½ inch of standard fiber insulating material, 4½ inches of slate, 10 inches of sandstone, or 8 inches of concrete.

Handsome color effects, including a rich, new, blended effect are available in this new shingle which is 50 per cent thicker than the ordinary shingle. This depth affords a shadow line which makes a strikingly attractive roof.

### New Portable Electric Saw

HERE is a portable electric saw which is furnished complete with either a ½, 1 or ½ horsepower motor, requires no special wiring and can be used anywhere, operated from the nearest light socket. It is light, safe, portable, compact, powerful, rigid, accurate and inexpensive and weighs, complete with the ½ horsepower motor, 290 pounds.

A stop rod with adjustable collars is provided to enable the operator to make the stroke of the saw short or long as the work requires. These collars are spring cushioned to prevent any jerk or jar on both forward and return movements of the saw. The saw is brought forward by means of a foot treadle, leaving both the operator's hands free to handle the material being cut. It is claimed that with this saw the operator can nearly double the output over that possible with a hand pull and with much greater safety.

A sawdust chute is provided to secure safety for the operator and it carries away the sawdust and waste material, keeping the machine and motor clear at all times. The machine is fitted with two wheels at the rear, making it easy for one man to move it anywhere desired. An adjustment for regulating the motor belt instantly is provided, the motor being mounted



Here Is a Light, Compact and Rigid, Portable Electric Saw.

on a sub-base. It is drawn down by means of a hand wheel. No idler is used. A guard over the saw assures greater safety.

The motor is a heavy duty type, single or three phase, 110 or 220 volts, direct or alternating current. Both ends of the motor are fitted with a fine brass screen, keeping dust out of the motor yet allowing air to circulate.

A mitre gauge is furnished, enabling the operator to cut any angle desire.

### All Steel Cabinet Line

ONE of a line of all-steel, bathroom cabinets which are beautiful in appearance, correct in design and practical in their usefulness, is pictured here. These cabinets are finished in a pure white enamel, hard baked and durable, which will not chip, peel, crack, discolor or stain. The material used in construction is a high grade, heavy gage, steel, coated to insure against corrosion.

In addition to the standard line of cabinets made by this company, including seven different models, cabinets of special sizes or designs can be furnished to meet any particular requirements. All these cabinets are equipped with locks instead of the usual glass knobs, if desired. The seven standard models include both wall and recess cabinets.



One of a Line of All Steel Cabinets of High Grade Construction and Design.

# Swimming Pool Built Entirely by Electric Welding

LECTRIC arc welding is fast reaching a point where its use is accepted as the logical process for joining of metals on many major jobs. An apt illustration of the place welding is coming to occupy is evidenced from the statement of L. A. Wilkin, engineer in charge of installing an all-welded swimming pool job in the new building of the Standard Club of Chicago.

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"We have built so many welded tanks for oil storage that we knew before we started on this swimming pool that it would be just a matter of routine to produce exactly what they wanted," said Mr. Wil-"Correct design, proper materials, first-class welding equipment and good operators are the things that we watch on such jobs, and given these perquisites there is no question as to whether or not the welds will be successful."

The company making this installation, due to its familiarity with tank construction, found no particular or new weld-

ing problems in the recent job. After the contract had been secured, company engineers commenced without delay on the layout. The original plans have been used intact and no problems have come up in the course of the work which could not be easily met by welding.

This casual acceptance of the success of welding is simply the result of knowledge of the subject. But a few

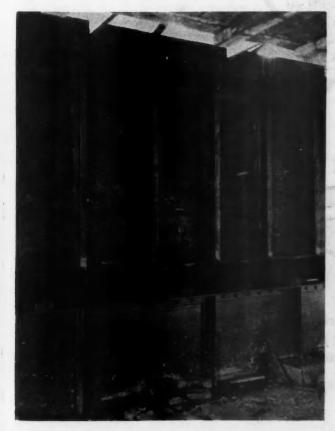


A General View of One End of the All-Welded Swimming Pool Installed in the Standard Club of Chicago.

years ago each job of welded construction was almost an adventure. Today it is becoming an accepted practice to use welding in practically any place where the joining of iron and steel is involved.

Along with the acceptance of electric welding has begun to develop a spirit of faith in this advanced process on the part of architects and engineers. There have been so many repeated examples of its dependability, success and economy that with some additional education on the proven strength and simplicity made possible by welded construction they too will begin to take it for granted that welding is preferable in many instances and specify its use in many new fields. Much of the change which has come about during recent years has been due to the improvements of welding equipment. Given skilled operators and correct material even, success could not be certain so long as the welding machines could not be absolutely depended upon constantly for producing good welds. Improvements have been made and today welding equipment is available which always produces the desired weld at production speed. One improved welder is said by experts to have provided the

(Continued to page 237)



Welded Seams.



An Exterior View of the Walls of the Pool Showing the This Close-Up Shows the Neatness of the Work Done by

ERETIGER FINISH and other associated Tiger building limes other than the best, Tiger leadership and the World's largest Producers of Lime would, long ago have become history.

The Kelley Island Lime & Transport Co.
Cleveland, Ohio
"World's Largest Producer of Lime"



# The Famous TIGER FINISH

And—Tiger Mason's, Tiger Agricultural, Tiger Chemical, Tiger All-Purpose Hydrate in 10 pound packages, and High Calcium and Magnesium Lump Limes



# New roofs right over old shingles—profitable business for YOU!

It's easy to get the re-roofing jobs that are all around you, if you do the work with Genasco Latite Shingles. Their distinctive features give you a decided advantage, for home owners appreciate that they save the dirt and expense of ripping off the old shingles. And because Latite Shingles make such attractive roofs they are in demand for new homes, too.

Genasco Latite Shingles are both weather-proof and fire-retardant. They are made of tough long-fibred rag felt, saturated and then coated on both sides with Trinidad Lake Asphalt Cement—nature's unequaled waterproofer—and finished with a surface of red, green, blue-black, or "mix-tone" granulated slate. The coat-

ing on the under surface forms the famous "Sealbac" an exclusive Genasco feature, which makes the shingles adhere closer to each other, and also protects them against the attacks of condensation underneath.

Our series of full page color advertisements in the Saturday Evening Post make known the advantages of Genasco Latite to ten million readers every insertion. The business that results is all additional for you and makes it possible for you to start a roofing department.

You will be interested in our complete plan, worked out in every detail, which will help you not only to get this business, but to handle it easily and profitably. Write us today—use the coupon at the bottom of the page—NOW!

The Barber Asphalt Company

New York Chicago Pittsburgh Philadelphia St. Louis Kansas City San Francisco



The patented "key", invisible on the completed roof, locks each shingle tightly to those underneath.



The turned-under corner holding the "key" makes a double-thick butt that adds distinction.



Latite Shingles

Write your name and address at the bottom of this page and mail the coupon to us

The Barber Asphalt Company, Philadelphia

Please send me full information regarding products I have checked:

Genasco Latite Shingles Genasco Roll Roofing

Genasco Sealbac Shingles Genasco Building Papers

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

#### Cove Tile Fixture Base

B EAUTY of design is one of the striking characteristics of modern plumbing fixtures and this beauty is given a finishing touch which enhances it to a marked degree when installed with the cove base seen in the illustration. This base provides a sanitary and artistic connection between the fixture and the floor.

It is made of a smooth white, or colored, non-absorbent, enameled, vitreous composition in sections of various sizes and shapes, straight lengths, angles and curves, to fit all installations. It is impervious to liquids and moisture and will not stain, crack or craze. The rounded cove conforms



The Finishing Touch for Modern Bathroom Fixtures Is Supplied by This Cove Tile Base.

to the outline of the fixture and forms a smooth, unbroken, flowing surface which is as easily kept clean and sanitary as the fixture itself. There are no angles in a bathroom equipped with this base.

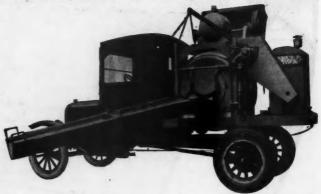
To install the base the fixture is set ½ inch from the finished floor line. The cove has a ½-inch rise and 1-inch spread and is placed so that the top edge conforms to the outline of the fixture and the lower edge of the cove forms a template to which the floor finish is worked.

#### Mixers for Truck Mounting

TWO models of a well-known line of concrete mixers have been adapted to truck mounting to make possible a greater flexibility and faster mixing, at lower cost. The manufacturer of these mixers states that a mounted mixer has all the good qualities of an ordinary machine plus the advantages of pouring direct into the form and the ability to move along with the progress of the work.

These mixers are not built into any truck but are separate units which may be mounted and dismounted at any time. They may be mounted on the contractor's own truck if the job calls for it or used as stationary units if a truck cannot get close to the work. This flexibility makes possible the use of the truck for hauling purposes at any time. The two models so adapted are the ½ to 1-bag size and the 1-bag size, both of which have been thoroughly proven in the mixing field.

Not only is the cost per yard lowered with this equipment, by keeping the mixer near the job and the material piles, but with a truck mounted mixer equipped with an 8-foot distributing spout, the mixed concrete can be poured directly into the forms on many jobs. This eliminates wheeling the batch from the mixer to the forms and re-



Mixers Adapted to Truck Mounting Are Now Being Made by One Well Known Manufacturer.

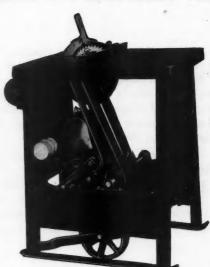
duces the number of men required. No time is lost in handling and wheeling the batches, which means more mixing time, more yards per day and more profits.

#### Gas Operated Power Saw

I N the illustration is seen the new, gas operated, model of a portable saw the electrically operated model of which has been widely popular for all around work. In this model the electric motor is replaced by a gasoline motor which is started by a foot pedal, making the starting as easy, it is said, as that of the electric machine. This

type of power makes the saw user entirely independent of the electric current supply so that the machine may be used anywhere.

This machine, like the electric model, is a light and easily portable one but sufficiently sturdy to handle all kinds of sawing on the ordinary construction job. Every cut is handled with speed and a c c u r a c y whether it be rafters, joists, stair stringers, studs or sheathing, s a s h,



A Saw Already Popular in the Electric Model Is Now Being Made for Gas Operation.

casings, windows, door or cabinet work. With this saw, the manufacturers say, you do not waste time marking and squaring the boards or holding them with your knee, which means fast, accurate work. The operator stands erect and the saw is moved, not the material being sawed.

This saw is built of steel throughout with a top 24 by 32 inches and a stand 38 inches high. It has standard, self-adjusting, ball bearings, running in dust and oil tight cases with oil reservoir. Gauges of steel for shipping, cross cutting and mitering are provided. An 8-inch, all purpose blade is regularly furnished and any standard saw may be used. Special blades can be furnished when desired.



# Help for Builders

in choosing correct roof color

How will it look when it is finished? Now builders can tell definitely, surely in advance exactly how the roof will look upon the finished house.

ipial an ed

The Richardson Booklet and Harmonizer shows you in actual colors 108 combinations of roof, walls and trim. They make the selection of a beautiful color scheme easy.

Send for these valuable aids. They will help you plan and make selling easier. They are free to builders. Mail the coupon for your copies now.

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RICHARDSON ROOFING

for Economical Transportation





# Only Chevrolet offers such Quality and Economy

At these sensationally low prices, Chevrolet offers prospective truck buyers the advantages of numerous quality features! Among these are: the flexibility and handling ease of a three-speed gearshift transmission—the power and smoothness of Chevrolet's valve-in-head motor—the durability and efficiency of Chevrolet's rugged rear axle, and springs set parallel to the load. And a host of mechanical advancements-including AC oil filter, AC air cleaner, new positive oil pump and new improved dry-disc clutch—all combine to assure even lower operating and maintenance costs. Truly, no other truck so low in price so successfully meets the public demand for quality and economy as do the Chevrolet trucks of today!

CHEVROLET MOTOR COMPANY

Division of General Motors Corporation

DETROIT, MICHIGAN

#### at these Low Prices!

1-Ton Truck Stake Body \$680

1-Ton Truck Panel Body \$755

1-Ton Truck \$610

1-Ton Truck \$495

1/2-Ton Truck \$395

All prices f. o. b. Flint, Mich.

World's Largest Builder of Gear-shift Trucks



**BLU-BAG** 

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Quality

from Stone

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THE quality, purity, uniformity, plasticity and sand carrying capacity of our brands of lime are so outstanding that we unhesitatingly pack them in distinctive, easily identified Blue Bags.

If you want the best finishing and building hydrated lime it is possible to obtain anywhere at any price, insist on a brand in the Blue Bag. There is a building supply dealer in your vicinity who handles it.

The Woodville Lime Products Company
Toledo, Ohio



The English Cottage type in charming Coral Pink

# Making stucco beauty permanent

HEN prospects ask for "something new"—can you show them how great strength and durability may now be combined with the rich, warm beauty of colored stucco?

You can, with our specially prepared booklet, "The Renaissance of Colored Stucco" sent free to responsible builders.

It gives valuable information on the present trend to colored stucco—describes the hidden reasons for stucco failures—points the sure way to success on every stucco job. Illustrated with full color plates, diagrams, etc.

Send for your copy today. Please use the coupon.

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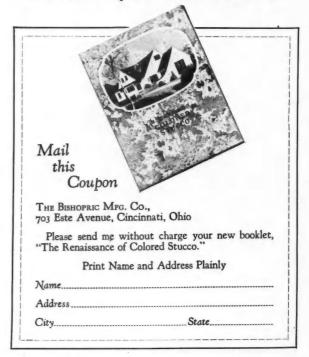
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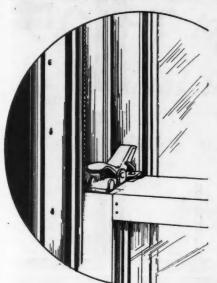
# B I S H O P R I C

#### Simple Positive Window Lock

THERE have been many types of window fastener offered to the public which has long desired a window fastener which would permit one to simply forget the window and feel confident that it would keep out intruders and keep quiet at night. Each one of these has had its good points and some have had their bad points but now there comes a manufacturer offering a window lock which he claims will meet every demand placed upon it and is, at the

same time, simple and inexpensive.

This lock is illustrated by the accompanying sketch. It is said to be thief-proof, rattle-proof, simple, positive and efficient. The lip of the fastener is simply inserted between the windows and is screwed or nailed to the top rail of the bottom sash (in either corner) and is ready for work the moment it is in place. Two screws or nails, and a screw driver or hammer, are all the tools required



Here Is a Simple New Window Lock for Which Great Efficiency Claims Are

to attach it. With it in place one need never again lie awake at night unable to sleep because of the rattling of windows in the wind nor worry for fear the windows are not locked or will be jimmyed open.

#### A New Rust Resistant Metal

A FEW years ago a well known steel manufacturer brought out an alloy which was a pure iron base with copper added to it, designed to combine the advantages of purity plus the advantages of the copper addition in rust and corrosion resistance. Though this metal has proved highly successful this company has continued to seek still further improvement and has now announced another forward step.

To the former metal an addition of molybdenum alloy has been made which, according to the manufacturers, places this new metal as far ahead of its former copper bearing alloy as that metal was superior to the products that preceded it.

Molybdenum is not only the most effective alloy that can be used in this combination to secure greater resistance to rust and corrosion, it is said, but is also the only alloy, except copper, found in large quantities in America. Before the war the value of molybdenum as an alloy was known but it was during the stress of war conditions that methods were developed whereby it could be employed successfully in the manufacture of iron and steel.

Molybdenum steel, it is stated, has proven far superior to other steels in resistance to rust and corrosion and in strength to resist shocks and is the most durable sheet metal made from iron ore. It possesses excellent working and forming qualities.

The addition of copper as an alloy imparts to the iron its characteristic resistance to rust, forms a true alloy and does not separate when it cools. The addition of molybdenum intensifies these effects and also imparts certain qual-

ities of its own. It insures a homogeneous structure in the sheet and minimizes the injurious effect of sulphur, now conceded by authorities to be one of the principal contributing causes of sheet corrosion. It also gives the alloy steel increased tensile strength and high resistance to shock or impact, a great advantage in load carrying structures.

#### **Knock-Down Work Bench**

I N the accompanying illustration may be seen a work bench, which is made by a prominent manufacturer of steel bench legs, and is shipped complete, in knock-down

form, for ready assembly. This is designated as a home work bench, an accessory much desired in present day homes with their garages, radios and boys who may be kept busy in a worthwhile way experimenting with their home-made radio sets.

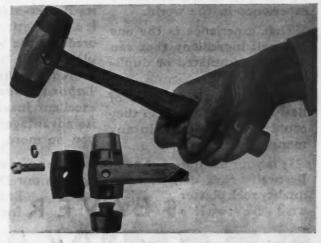


Work Bench Furnished in Knock-Down Form for the Home or Garage.

This bench is not, however, a toy. It is a sturdy affair which will prove just as satisfactory to the older members of the family and can well be used in any shop where a small bench is required. As shipped it includes the two steel legs with nuts and bolts for assembling with a screw driver, the four planks for the top with necessary bolts, and a steel drawer with a tray for the smaller tools. It can be put together in a few minutes. Its cost is quite small and it should last indefinitely when installed in basement or garage as one of those little extras which make the house more desirable and more salable.

#### Interchangeable Soft Tip Hammer

FOR every kind of work where a soft nose hammer is required the one shown here will prove valuable. It is remarkably simple in construction with nothing to wear out except the tips which are easily replaced. These tips are



Interchangeable Soft Tips Make This Hammer Suitable for All Kinds of Work Where Soft Tips Are Required.

interchangeable and are furnished in rubber, lead, copper and composition, making the hammer suitable for all purposes. The extra weight in the head increases the striking power and practically nullifies the tiresome rebound when striking with the resilient rubber tip.

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To the user of plaster wall board:

is the name that should mean the most to you!

wall board that should mean most to architect. builder and owner because into each giant slab of it goes the oldest and most thorough wall board manufacturing experience in the world.

That experience is the one Bestwall ingredient that can never be simulated or duplicated.

Even were the makers of Bestwall willing to do so they could not transfer it, in any manner, to others.

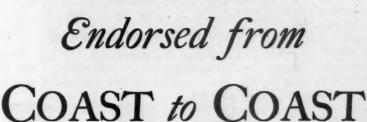
It is your assurance that in

BESTWALL is the plaster wear-proof facing of smooth, tough, Beaver-made fibre you get everything that you expect or consider necessary in a plaster wall board.

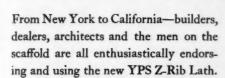
> Bestwall is easy to identify its Beaver-made facing gives it a distinctive CREAM-colored surface which no other plaster wall board has. Approved by the Underwriters' Laboratories, Inc.—and an excellent insulator. With all its advantages Bestwall costs you no more.

For sample and literature Bestwall's rigid core of finest address our Dept. 1303. The quality rock plaster and Bestwall's BEAVER Inc., Buffalo, N. Y.





a metal lath that competes with wood



#### Overheard in the Field

A New York builder—"Just right, your new Z-Rib Lath is what I've been looking for." Pennsylvania contractor—"Think so much of Z-Rib that I will use it on my future jobs." Ohio dealer—"Greatest improvement ever made in flat rib lath." Michigan plasterer—"Z-Rib retains more plaster on the face of the lath, and if plasterer doubles back he can do so more efficiently than with any other flat rib lath." A California architect looked at a sample and specified on his next job, "YPS Z-Rib shall be used."

#### Its Instant Popularity Easily Explained

For years building contractors and architects have wanted an improved flat rib lath. In Z-Rib Lath the YPS Engineers

FREE

sample and folder

You can only judge the merits of YPS Z-Rib Lath by actually seeing and handling a sample. Use the coupon.

have eliminated all slipping of plaster by designing both the mesh and the rigid rib to hold the plaster firmly. The Zshaped rib brings a type of lath in which every inch of the steel is actually holding the plaster and reinforcing the wall. This, we believe, is the reason for its immediate coast to coast endorsement. You have a number of questions. Actually seeing and handling a sample will answer them. Clip, sign and mail the convenient coupon below for a free sample and literature.

Other YPS Products—Metal Lath—Channel—Corner Bead—Stuccomesh—Economy Stucco Nails—Copper Steel Coal Doors and Basement Windows—Steel Bridging—Joist Pin Anchors—Expanded Metal.

THEYOUNGSTOWN PRESSED STEEL Co., Warren, Ohio.

Boston—Philadelphia—Dayton—Detroit—
Chicago—Los Angeles—San Francisco



The Youngstown Pressed Steel Co., Warren, Ohio. Please send me a sample of YPS Z-Rib Lath and Folder.

Name____

AB 3-27

#### **New Electric Ranges**

THE increasing use of electricity for cooking has led to development of many new models of electric cooking appliances. Where space saving and efficiency are among the essentials, electric ranges in wall and shelf type models are gaining wide popularity, particularly in apartments and in homes of the most modern, compact type, these models are ideally adapted to meeting the requirements in a satisfactory manner. They can be fitted into standard kitchen units or incorporated in the built-in fixtures, occupying no floor space at all. Another advantage of such an installation is the fact that there are no stove legs to sweep

and clean around.

The model shown here is a new one just brought out by one of the oldest manufacturers of electrical cooking devices whose production is entirely in the electrical cooking device field. While this company has, in the past, had a limited line of wall ranges, the increasing demand on the part of architects and builders for models of this type has influenced them to bring out a variety of new designs to meet all requirements.



inches wide, 36½ inches high, 20 inches deep, from front to back, 21½ inches deep, including switches, 6½ inches from shelf to cooking top. The weight is approximately 170 pounds. The oven is 16 inches wide, 11 inches high, 13½ inches deep. It is aluminum lined and is equipped with two burners, the upper burner being a broiler.

This New Electric Range Is Made by

a Prominent Manufacturer in the Elec-

tric Field in Designs to Meet All Re-

quirements.

#### **New Glazing Compound**

A GLAZING compound has been perfected to be used in the place of putty which, it is claimed, eliminates all the disagreeable and objectionable features of putty, yet retains all the primary qualities for which putty was originally conceived. This compound is not a putty but an entirely new product. Its advantages are described in the following way, by the manufacturers.

It does not harden on the sash and crack loose but becomes an integral part of the sash so that reglazing should not be necessary. The assured life of the oils used in its manufacture and its consequent elasticity practically guarantees no cracking or breaking from expansion and contraction. It can be removed easily when necessary. Though its first cost may be greater than that of putty it is economical to use.

This compound is composed of selected materials combined with specially prepared oils which, immediately after application, form a protective and elastic surface film, thus preserving the valuable properties of the oils. Paint may be applied over the compound immediately without danger of staining. It is of the same consistency as putty and is used in identically the same manner.

#### An Aid in Roof Framing

THE accompanying illustration shows a pair of neat little attachments which have been brought out by a well known tool manufacturer for the carpenter's steel

square. Because of their small size, low price and handy utility they are proving popular with carpenters everywhere. These attachments, known as stair gauge fixtures, are, as their name implies, exceedingly useful for laying out stair stringers



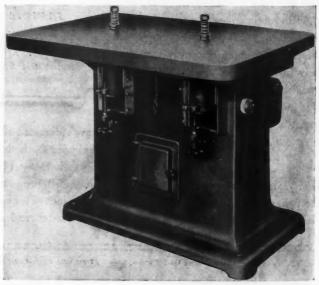
A Simple Device to Be Used on the Steel Square as an Aid in Roof Framing.

and as a gauge for valley cuts, hips and rafter work. A turn of the knurled thumbscrew clamps them securely to the square for use. They are light but strong and take up very little room in the tool box.

#### A New Shaper Machine

HERE is a new, motor driven, double spindle shaper which is the latest addition to a well-known line of woodworking machines. It is a high speed machine capable of rapid production on the average shaper job. The table is 30 by 40 inches, properly machined and fitted with removable rings. The spindles are placed 20 inches apart. They are of high carbon crucible steel, accurately ground and provided with thrust bearings and tapped out to receive the projecting part or for the use of special points and small cutters. The spindles may also be fitted with chucks to use either router bits or drills. Spindle speeds from 7,200 r.p.m. to 9,000 r.p.m. are provided. Yokes are fitted with extra capacity ball bearings. They are thoroughly protected for oil and against dirt and fit into dove-tailed ways with adjustment for changing the height as required.

Either of two types of motor drive can be furnished. Where a speed of 7,200 r.p.m. is considered ample, the machines are equipped with 120 cycle motors on the spindle.



Recently Added to a Leading Line of Woodworking Machines, This Shaper Is Designed for Rapid Production.

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Airplane view of the new linoleum plant of the W. & J. Sloane Manufacturing Co. at Trenton, N. J. The world's most modern linoleum plant.

# A New Line of QUALITY LINOLEUM

THE house of W. & J. Sloane, for 84 years distributors of quality floor-coverings, now offers to builders and contractors a new linoleum of their own manufacture.

Made in the world's most modern linoleum plant by new and improved methods, W. & J. Sloane Linoleum represents a definite advance in this growing industry.

Greater density, more pliability, a smoother surface that is easier to keep clean,—all of these are the result of the fine workmanship, selected materials and extra-processing used in making W. & J. Sloane Linoleum.

The patterns, all new, original and in keeping with Sloane traditions of design, offer a broad selection for all types of rooms and buildings.

It is our intention to initiate, during 1927, a practical service for builders who are called upon to supply linoleum estimates. In the meantime, we will gladly supply you with lithographs of patterns and quality samples. Write our selling agents at the address given below.

W. & J. SLOANE MFG. CO., Trenton, N. J.

# W. & J. SLOANE HE LINGLEUM OF QUALITY

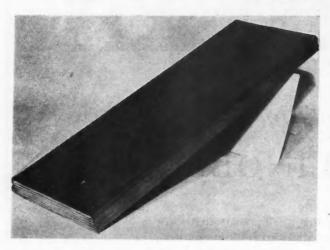
W. & J. SLOANE, Sole Selling Agents . 577 FIFTH AVENUE at 47th ST. . NEW YORK CITY

#### Gypsum Lath in Bundles

GYPSUM lath, in bundles that are handled by the lather with the same ease that wood lath is handled, has been announced by one of the important manufacturers of gypsum products. Each bundle contains lath for the covering of 32 square feet of wall or ceiling surface. The individual pieces of lath come in two sizes. One size is 16 inches by 48 inches and of these there are six in a bundle. The other is 16 inches by 32 inches and of these there are nine in a bundle. Each bundle weighs 60 pounds.

This bundled lath was developed after months of study, on actual jobs with the workmen, to learn what was wanted by the lathers and plasterers. Each piece is 3% of an inch thick, has a three-ply nailing edge and can be plastered on either side. It can also be applied vertically in closets, corners and angles. The kraft paper covering is sufficiently porous to prevent slipping under the trowel while the plaster is being applied.

The edges of the individual pieces are rounded to make for easy handling. The boards can be butted together,



Gypsum Board in a Form Easily Handled by the Lather Is a Decided Improvement in the Wall Board Field.

as tests recently conducted show that the adhesion of gypsum plaster to plasterboard is greater than to any other type of lath, it is said, and consequently keys are not needed. If, however, it is the trade custom to space the boards, this can be done, but the spacing should be a full 3% of an inch to give the joints a strength equal to the body of the wall.

According to the manufacturer's announcement this lath is practically unbreakable in the bundle and is not subject to damage in the piece. It requires only half the number of nails required for wood lath over an equal area and because of its pure gypsum core it can be scored as satisfactorily as it can be sawed. The bundles permit quick estimate by the contractor of the material on the job, easy transfer from room to room and easy storage in the dealer's warehouse.

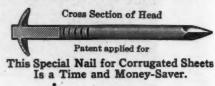
#### For Nailing Corrugated Sheets

PICTURED here is a cross section view of a new nail designed especially for the application of corrugated sheets and V crimp sheets. No lead or lead washers are needed with this nail as its construction provides for a mechanical change in the shape of its head when the nail is set, eliminating in this way all need for lead.

This nail is formed from one solid piece of nail wire. The head is not a washer but instead an integral part of the nail. This feature is of importance for it eliminates the danger of the head flying off or coming loose. For protection against rust this nail is heavily coated.

Among the features which the manufacturers claim make this nail a distinct advance in nails for corrugated sheets, is the fact that there are about twice a many of these nails to the pound as there are lead constructed nails to

the pound. This means that in actual construction work they are only about half as expensive to use.



#### Ten-Year Smoke Pipe

THE need for frequent renewal of the smoke pipe between the furnace and chimney is one of the troubles of the average home owner. The scale in winter and rust and corrosion during the idle summer months soon eats out ordinary piping. Nothing is more inconvenient than to have the furnace pipe give way during the winter when a good hot fire is burning, as the time taken to repair the pipe is considerable and in the meantime the house is filled with smoke and the fire goes out.

A solution of this trouble has been found in the development of a new, rust-resisting sheet from which pipes that will last indefinitely are made. No trouble is experienced by the sheet meal men in working up this new metal as any shop using ordinary galvanized sheets can handle it with their standard equipment.

This new metal is a chrome iron and has the same general characteristics, so far as rust and corrosion resistances are concerned, as stainless steel. It has also the ability to withstand a temperature of about 1,500 degrees Fahrenheit without having any scale form on the surface.

The sheets are carried in 24-gage, 24 inches wide and 120 inches long, with a white pickled finish, and can be readily formed into elbows, 45 degree bends and straight lengths of pipe, as the material is soft enough to be double seamed without difficulty. The average cost of this material is about 3½ to 4 times that of galvanized sheets, but the long life which can be expected from it more than offsets this cost.

In using a smoke pipe of this material it is not necessary to take it down in the summer since the soot and products of combustion which have accumulated during the winter

will not have any detrimental effect during the period , of summer idleness. Being able to guarantee smoke pipe for 10 years is a distinct advantage, and such a guarantee is perfectly safe when backed up by the manufacturers of this metal.

The new metal is also useful for many other purposes, such as oven linings and gas stove bottoms, where its ability to withstand continuous heat without forming scale is a great advantage.



Smoke Pipes Made of a New Rust Resistant Metal Sheet Are Guaranteed for 10 Years Against Corrosion.

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# Builders know

the advantages of using the genuine Brown's SUPERCEDAR CLOSET LINING

1—Highest quality

2—Best known

3—Nationally advertised

4—Not higher priced

Supercedar is the super closet lining. It is made from genuine "Tennessee" aromatic red cedar. It is 90 per cent or more red heartwood (the white [sap] wood contains no "oil of cedar"). ti is carefully air-seasoned to retain 100 percent oil content. It is accurately manufactured with tongue-and-groove sides and ends. It costs no more than ordinary cedar closet lining. You can get it from your lumber dealer, who either has it or can get it quickly from warehouse stock near him. Use Supercedar

in place of lath and plaster in closets, no paint, no paper.

**Apartments** with Supercedar Closets have quicker appeal to both buyer and renter.

Houses and

#### GEORGE C. BROWN & CO.

MEMPHIS, TENN.

WORLD'S LARGEST MANUFACTURER of TENNESSEE AROMATIC RED CEDAR

This Full Column Advt. SATURDAY EVENING POST March 26th, 1927



Plans and sent FREE

Thousands of families now specifications their attics. The cost of building one is within the means of every household—

means of every household—
moths can cost you a great deal more in a single
season. We will send you the plans and specifications drawn by a leading firm of architects; your
lumber dealer can furnish the Supercedar closet
lining and other materials; any good carpenter
can build it quickly; and thereafter you are assured maximum protection against the moth.

Brown's Supercedar closer lining is made of

Brown's Supercedar closet lining is made of genuine "Tennessee" aromatic red cedar by the world's largest manufacturer of that most wonderful wood. The aroma of Supercedar, so pleasant to you, suffocates the moth worm that would devour



a Supercedar stor-age closet in the attic you should at least have one or more of your bedroom closets lined with Supercedar at once. Don't take chances. The moth comes uninvited, lays its eggs in woolen garments, silks and furs so that when the larvae (worms) hatch out they will have food at hand. One moth worm can utterly ruin a fifty dollar overcoat in a week! Call your lumber dealer at once; have him tell you how easy it is to apply Brown's Supercedar right over the present walls of your closets. Be sure you get Brown's Supercedar because it is guaranteed superior quality, comes in dust and damage-proof fibre boxes and costs no more than

closet lining about which you know little or nothing. If your dealer hasn't Brown's Supercedar in stock write

Supercedar comes in this SUPER PACKAGE -protects contents from dust, dirt, breakage, or shortage in shipping or dealer's warehouse.

In New Homes apply Supercedar direct to studding in closets, wall, ceiling and inside of door. Use 13/16 (Supercedar) for the floor. The more Supercedar exposed in the closet the more attractive the aroma will be to humans and the more deadly to moths. Do not varnish or paint the Super-cedar. The saving of lath and plaster, paint or wall paper usually equals the cost of the Supercedar and its application. Therefore, generally speaking, Supercedar closets in new homes and apartments do not add extra

Build a Supercedar Storage Closet in attic. Make it about 3½ x 6 ft. with snug fitting door. Write George C. Brown & Co., Memphis, Tenn., for blue print and specifications prepared by a leading firm of architects.

Dealers carry in stock, or can quickly get Supercedar Closet Lining in sealed cartons of 21/2" face containing 48 feet or 31/4" face containing 64 feet. estimate quantity required for any job figure same as you do oak flooring.

Sold in sealed packages with size and quantity plainly marked. Not genuine Supercedar unless so labeled and guaranteed by George C. Brown & Co., Memphis, Tenn., world's largest producer of Tennessee aromatic red cedar.

#### Terra Cotta Chimney Pots

In this day when attention is being given to beautifying the long neglected roof, and roofing materials are being used in a variety of colors that rival the spectrum, chimney pots that harmonize in color have a particular decorative value. They add the finishing touch to any chimney and are always interesting, adding immeasurably to the architectural interest if the color and design are right.



Properly Designed Chimney Pots Add the Finishing Touch to Chimney and Roof.

The designs may be varied ranging from the greatest simplicity to the distinctly novel. There are the simple designs for Colonial dwellings, the styles of the English Gothic, Tudor and Georgian periods, taken directly from the old manor houses of England, and many others. Such chimney pots of terra cotta may be had to meet any requirement.

These chimney pots are modeled and molded by hand and pressed by hand in the best terra cotta body. The colors are mixed on the body by firing and cannot fade. The texture is, purposely, not too smooth and there is an intentional variation in color. Because of this fact the making of each pot is started only as the order is received.

While the regular designs presented by the makers cover a wide range of flue sizes, chimney pots of larger size may be required and can be furnished, an estimate being made upon request. Regular designs can be adapted to these or a special design can be executed. One of the regular designs, which is typical of this line, is illustrated here. The colors range from red through buff, gray, white, slate blue, black, green and dark blue with variations matched to special order as nearly as possible.

#### +

#### A Hammer With a Shock Absorber

DROP forged from the highest grade alloy steel, scientifically tempered, hand finished and with the best grade, pure white, second growth hickory handle, with excellent balance so that the hammer fits the hand; so far



The Rubber Cushion Set Into the Eye of This Hammer Prevents Fatigue.

the description might apply to any one of numerous high grade hammers which are well known to all, but here is where the similarity stops. This hammer has one feature which is absolutely distinctive and that is its rubber cushion.

This rubber cushion is set into the eye of the hammer and acts like a shock absorber

on a car, it kills the sting that hurts and tires the user's arm. It is said that this shock absorbing feature makes a remarkable amount of difference which is noticeable the first time this hammer is used, and eliminates stiff arms for the man who must use a hammer all day long.

The rubber cushion is put in to stay, too, it can't come

out, so the manufacturers say, and they agree to replace any hammer if the head ever comes loose. It is not affected even by changes in temperature or weather which shrink or swell the wood handle. The expansion and shrinkage are taken up by the rubber, keeping the head tight under all conditions.

#### **Domestic Gas Heating Plant**

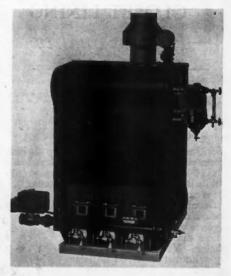
In spite of the fact that the cost of gas for fuel is somewhat higher than that of other fuels, there has been a steady and rapid increase in the demand for gas fired, domestic heating plants and there is every reason to believe that this demand will continue to increase. The users of this type of heat prefer it because of its cleanliness and convenience, because it requires no storage space for fuel and because the fuel is paid for as used instead of being purchased in advance. It seems highly probable that, with the increased number of gas heaters in use, the gas companies will introduce special rates which will, at least partially, equalize the cost of this type of fuel.

Because of these facts the announcement of a new domestic gas heating plant, for either hot water, vapor or steam systems, is of particular interest. This new boiler is made by a company which has been conspicuous in the heating field for many years. It embodies a number of

features which are distinctive and recommend it to the prospective purchaser.

These boilers are easily assembled and erected on the job and require a basement head room of not more than 5 feet and less floor space is required for a given load than with any other boiler of equal capacity, it is claimed.

The insulating jacket is composed of a highly efficient cellular insulating mate-



A Domestic Gas Heating Plant Made by a Company Long Conspicuous in the Heating Field.

rial, finished with a sheet of vitreous asbestos. It is finished in maroon copper lacquer and secured to the boiler by heavy metal strips in brushed brass finish, the whole presenting a neat, attractive appearance.

This is said to be the only gas fired boiler in which the burner can be adjusted vertically. Because different kinds of natural and artificial gases require different distances between the burner and crown sheet for efficient combustion, this insures a proper relation to the water backed surfaces above the burner, giving the most efficient operation on any kind of gas.

The operation is entirely automatic, all controls are electric and positive. The main burner control valve is magnetically operated and always closes in the event of current failure. An automatic device shuts off the gas should the water in the boiler fall below a safe operating level. When additional water is supplied, the boiler automatically resumes operation. The steam pressure regulator, operating through the same switch, may be set to maintain a positive pressure of from a few ounces to several pounds.

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# Perhaps the World's Tallest

By A. K. CHENOWETH

NE of the most perfect examples of concrete in the United States is the great silo on the farm of the late Humphrey Jones, located near the town of Mt. Sterling, Madison County, Ohio, and considered the largest silo in the world.

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ld el. ly The structure is 114 feet in height and is of the monolithic type or one-piece construction from top to bottom. It is 24 feet in diameter and on the top is a water supply tank that will contain 50,000 gallons. The silo was erected under the direction of the late owner of the farm as an experiment and was considered the baby silo of eight others that were planned.

The silo was built by J. E. Andrews, of Washington C. H., Ohio, a general concrete contractor who had constructed silos and other monolithic structures in several parts of the country and who was noted for his excellent workmanship and reliability. The silo was built to provide winter feed for the hundreds of cattle kept on the Jones farm.

Contractor Andrews, in speaking of the building of the silo, states that he quit the silo at 114 feet at the request of the owner, otherwise he could have gone much higher. The starting point of the great structure was a solid concrete foundation, three feet deep and 12 inches in width. Steel rods, 5% inch in thickness and fastened at both ends, were laid in the concrete to keep it from spreading after the great pressure such as all silos are subject to had been placed upon it.

The forms used in the building of the mammoth concrete structure were designed to build 3 feet of wall at one fill. They were constructed of 2 by 4-inch cross members and 7%-inch siding, lined with sheet iron. The forms were raised by a hoist and all sections when up at once. The contractor states that he has used since that time the 3-foot forms of the same make with great success. Planks

2 by 10-inch were used on top of the sections being constructed.

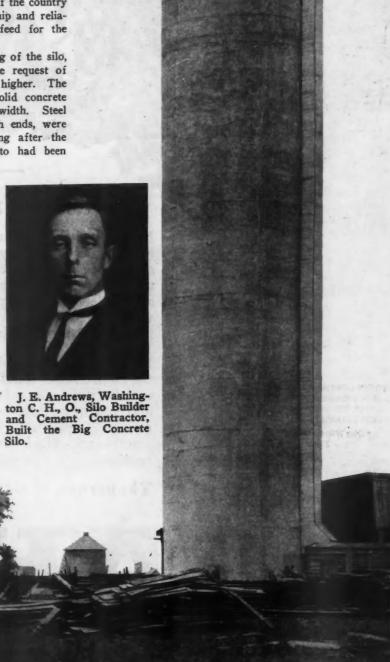
The nearer the top of the silo was reached the more difficult the task, but the silo was completed without a single mishap of any consequence and with complete success. The supply

tank on the top of the great

structure is 4 feet high and the same measurements as the silo outside.

The chute was on the side of the silo, running from the top to the bottom and was built by Contractor Andrews after the owner of the farm had searched in several cities for men who would take the job. It was built of 8-inch siding and was painted.

(Continued to page 245)



Great Concrete Silo Near Mt. Sterling, O., Said to Be Largest Silo in World.

# Built to fit



—for Lumber and Building Material

Next to food, shelter is humanity's greatest necessity. For our homes, offices, stores, factories, churches—our shelter at work, at rest or at play—we look to the lumber and building material industries.

More than 40,000 dealers in the United States stand ready to deliver materials wherever and whenever the builder orders. Dependable motor trucks are vital to this readiness.

Thousands of Graham

Brothers Trucks in this service have demonstrated their ruggedness and power. They stand up. They stay on the job. Operating costs are low.

Graham Brothers Trucks and Commercial Cars meet 91% of all hauling needs. You may buy them complete with bodiestofit your requirements. Service is available—always and everywhere. Initial cost is low. Graham Brothers build more trucks than any other exclusive truck manufacturer.

#-TON COMMERCIAL CHASSIS - \$ 670 1-TON CHASSIS - - - - 885 1½-TON CHASSIS - - - - 1245 2-TON CHASSIS - - - - 1445

*Disc Wheels With Dual Rear, Optional Prices f. o. b. Detroit

# GRAHAM

SOLD BY DODGE BROTHERS DEALERS EVERYWHERE



1927

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# your business

### Graham Brothers 2-Ton Truck has the Power, Speed and Stamina you need— Loads are Pay Loads—Costs are Low

Day after day more and more Graham Brothers Trucks are proving their exceptional value in the hauling of lumber and building materials.

They stand up. They have ample power. Operating and maintenance costs are low. Initial cost is low because of Graham Brothers tremendous production.

The 2-Ton is a favorite. Many lumbermen and supply dealers are using it with disc wheels, dual in the rear. This is optional equipment. It affords greater traction in soft going.

GRAHAM BROTHERS

EVANSVILLE - DETROIT - STOCKTON
A DIVISION OF DODGE BROTHERS, INC.
GRAHAM BROTHERS (CANADA) LIMITED, TORONTO, ONTARIO



# BROTHERS TRUCKS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

## Complete Model Home Built By Peru High School Boys



Peru's Boy Built Home, Planned and Built Complete by the Boys of the Peru, Indiana, High School, Was the Feature Attraction of the Own Your Own Home Day Celebration During National Thrift Week.

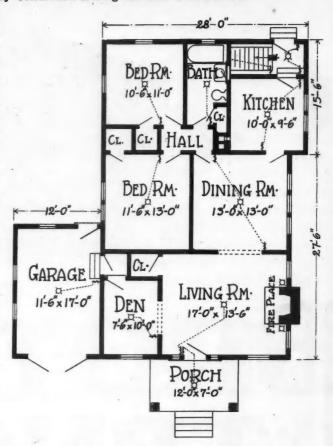
INE eager and enthusiastic high school boys composing the manual training class of the Peru, Ind., high school recently completed building a beautiful, modern five-room home which was dedicated with fitting exercises at which more than 1,000 townspeople were in attendance. Peru's Boy Built Home is the culmination of plans formulated by a committee of realtors in featuring "Own Your Own Home Day" during the Y. M. C. A. observance of National Thrift Week.

A realty committee of Peru invited the gift of a building lot on which a home could be erected. A friend of the high school, realizing the worthwhileness of the project, donated the desired lot. When the proposition of building a house on the acquired lot was presented to the woodworking students they accepted with enthusiasm.

The enterprise was started April 19 and June 22 the house was completed and turned over to the committee to be furnished complete for the opening day. The nine students working under the supervision of their instructor, Paul Crodian, finished the house in 44 working days. Furnishings were donated for a four days' period by merchants of the city in which time more than 2,000 people came to inspect the accomplishment of the boys.

After getting the realtor committee's idea as to the general scheme of the proposed building, sketches were made of the floor plans and perspective drawings of the finished house. All sketches, plans, estimates, details and specifications of the Boy Built Home were done by the boys of the architectural drawing classes of the high school under the direction of Eber L. Moore, supervisor of industrial work in the Peru schools.

When all alterations were made on the sketches, the boys were started on the working drawings, which consisted of first floor, basement floor, elevations and three detail sheets. Tracings and blue prints were made of all



The Girls of the Domestic Science Class Were Consulted and the Plans Were Drawn by the Boys According to Their Suggestions.

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bus, mixe plans drawings and, to give a better idea of the finished house, a model of cardboard was constructed. The very best construction was figured in this house and much practical thinking was done by the young architects in formulating the plans.

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Every detail necessary to make an ideal home was attended to by the student builders even to the planting of a garden at the rear of the house. Geraniums border the foundation and walks and a well-sodded lawn has been placed over the entire lot.

Hardwood floors were placed throughout the house. The floor plan was settled on after consulting and being advised by each member of the domestic science class of the high school. The girls gave the youthful builders their ideas as to the easiest working arrangement and the plans were made accordingly.

The entire front of the house is taken up by a living room and den adjoined in the rear by a dining room and a bedroom. Opening off the dining room is a kitchen which would delight the most critical housekeeper. It contains a built-in ice-chest and cupboard, the two of which occupy one entire wall. In addition to the above mentioned rooms there is another bedroom, a sizable bathroom and a garage in the front of the house connected with the living room by an inside door. A fine concrete driveway leads into the garage.

Material for the house, equipment and cash were furnished by business houses and friends in Peru. All materials and equipment were given free and what skilled labor was necessary was donated. The plumbing, bricklaying and electrical wiring was done by trained craftsmen but everything else was the work of the nine boys.

The home has been offered for sale by the Peru Realtors Association and when sold the profits will be presented to the High School Athletic Association to reduce the indebtedness on its athletic field.

PAUL F. THOMPSON.

#### Electric Welded Pool

(Continued from page 217)

means which made possible always satisfactory welds.

On the Chicago swimming pool job it is said these machines were an important factor in the assurance of the commercial welder that they would be able to carry through the job without a hitch.

In drawing up plans for this pool, special attention was given to provision for strength and tightness, insuring an ample factor of safety. The pool, 60 by 30 feet, with a bottom sloping up toward each end, rests directly upon I beams which run the length of the tank. In order to have greater rigidity, bottom plates were designed to extend out from the walls so that channel irons could be welded to them and tack welded to the sides. Floor plates were made a part of the supporting I beams by leaving a 3%-inch gap between plates along the centers of the beams and welding this long valley up flush with the surface. Intermediate I beams were tack welded to the plates.

Bottom edges of the wall plates were welded continuously to the floor plates both inside and outside of the tank. At the corners of the tank the wall plates were connected together by angles and the wall plates were welded to these angles continuously in two lines.

Throughout this entire job there is not a rivet. Both the joining done in the shop and that necessary in erection was accomplished through the use of the welders.

The Jaeger Machine Company, 521 Dublin Ave., Columbus, Ohio, offers three new catalogs covering Jaeger tilter mixers, for concrete, plaster, mortar, pavers and placing plans; the Jaeger non-tilt mixer 10-S; and the Jaeger plaster mixer, bulletin P 26.



is the best good-will asset any builder can secure. A home trimmed with autumn brown birch—floored with birch—inspires enthusiastic praise from the owner to his friends, creating a steady volume of profitable new business.



Wisconsin and Michigan birch assures all-round satisfaction for large or small job. It works up with but little waste, lends itself to the finest workmanship, stays in place, and stands hard wear, as well as abuse, because of its practically "mar-proof" hardness. It will pay you to also learn more about Rotary-cut birch veneers; obtainable in large, beautiful, non-checking panels.

Ask us for particulars. We'll also send a copy of the new Birch Brochure FREB upon request—contains valuable tables upon Physical Properties of all American Hardwoods.

THE BIRCH MANUFACTURERS
201 F. R. A. Building Oshkosh, Wisconsin

"Beautiful Birch for Beautiful Woodwork"



#### **Hold American Homes Congress**

THE American Homes Congress, the first gathering of its kind ever held in this country, will take place in Des Moines, Iowa, March 8 to 11, 1927, under the auspices of the General Federation of Women's Clubs. Many prominent speakers are on the program and details of financing, building and furnishing the home will be considered. A large and interesting exhibit of everything for use in the home for service, comfort and beauty will be a feature of the congress with daily demonstrations of educational value. Exhibits will be made by some of the government bureaus as well as by manufacturers of various lines of home equipment.

#### Wasmuth-Endicott Consolidation

A N announcement recently received from the Wasmuth-Endicott Company, 1302 Snowden Street, Andrews, Ind., states that consolidation of the Wasmuth-Endicott Company and the Wasmuth-Goodrich Company, Peru, Ind., has been effected. This consolidation, combining the facilities of three plants at Andrews and Peru, Ind., and Waterloo, Ontario. Can., makes possible a doubling of the output of the Kitchen Maid units which are the specialty of the Wasmuth-Endicott Company.

#### Death Takes H. B. Sargent

O N February 3rd, Henry Bradford Sargent, president of Sargent & Co., New Haven, Conn., died after a short illness. He had been connected continuously with Sargent & Co., of which Joseph Bradford Sargent, his father, was the founder and first president, since his graduation from Yale University in 1871.

On February 1st, Chris. J. Smith, Jr., representative of Sargent & Co. in the southeastern states, died suddenly at his home in Baltimore, Md. He had been with this company since 1904.

#### Roofing Business in Cuba

A N announcement from the Asbestos, Shingle, Slate & Sheathing Company, Ambler, Pa., states that its secretary and sales manager, Ralph E. Frey, is making a business trip of several weeks through Florida and Cuba. This company reports large shipments of corrugated asbestos roofing to Cuba during the last few months.

#### **New Cement Mill Opened**

THE Louisville Cement Company, Louisville, Ky., has recently opened a new mill for the manufacture of its Brixment cement at Brixment, N. Y. This mill was required to relieve the burden on the original mill at Speed, Ind., and to offer a convenient source of supply for

the eastern market. The location at Brixment, the new name of the former town of Akron Falls, was selected because of the local deposit of rock material.

#### Correcting an Error

O N page 245 of the February issue of AMERICAN BUILDER the address of the Wagner Manufacturing Company was given, in the company's advertisement, as Cedar Rapids, Iowa. This, of course, should have been the well-known address, Cedar Falls, Iowa.

#### T. L. Smith Distributors

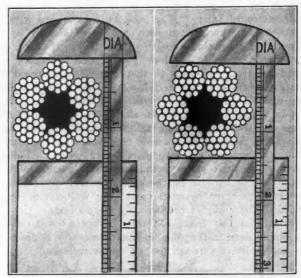
THE following new distributors for the T. L. Smith Company, of Milwaukee, Wis., have been announced: John McNeilly, 335 South High Street, Columbus, Ohio, as distributor for the Ohio territory; the New Mexico Road Machinery Company, of Albuquerque, N. M., for the southwestern territory; the R. H. Hyland Co., 221 W. Huron Street, Chicago.

#### How to Measure Wire Rope

By WALTER VOIGTLANDER, Rope Engineer

THERE is only one way to measure wire rope correctly and that is shown in contrast to the incorrect method, by the accompanying illustration. It is highly important that the proper size of rope be employed since an undersized rope will not give the degree of service that should reasonably be expected, while an oversized rope represents needless investment and will not properly operate over sheaves grooved for smaller ropes. More important, however, is to have the rope and sheave properly fitted.

Wire rope should not be allowed to travel over a sheave wherein the groove is too small for its diameter. A pinching sheave groove will do more damage to a wire rope in one hour than a properly grooved sheave in an entire week or more. Sheaves grooved 1/16 of an inch larger than the diameter of the rope will lengthen the life of the rope several times as compared with rope life on pinching sheaves. Since sheaves are cheaper than good wire rope, there is small economy in continuing the operation of improperly grooved sheaves or drums. Also the tread diameter of sheave or drum affects rope life. Large diameter sheaves should be used wherever possible.



Correct

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Contrasting the Correct and Incorrect Methods of Measuring Wire Rope.

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Thes from build This men \$15,0

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DRAIN (LUALIDED) RESTOR HO CAN READ BLUE PRINT

AND RUN JOBS AT \$4,000 TO \$12,000 A YEAR

SEE how easy it is now for any man to get ahead in the building game. Nowhere else does such simple training count for so much. Nowhere else are there so many countless thousands of openings as there are with contractors, builders and real estate firms, who are constantly calling for practical men who can read blue prints. Seven billion dollars will be spent this year for building. Trained men are at a premium in this gigantic industry. Untold thousands are needed at steady salaries far above the wage scale.

DAYS' EASY TRAINING PUTS YOU ON THE WAY TO A BIG-PAY

O longer is it necessary for build-ing tradesmen to spend years ing tradesmen to spend years learning all the "mysteries" of blue print plan reading. For now you can months that has taken others years to pick up "on the job." We train know.

you at home in spare time by the fascinating "blue-print-method" with lessons that are as easy to read as your newspaper. You do not need more than a common school education. There is no hard, grinding study—the whole course is just like

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IF YOU LIVE IN OR NEAR CHICAGO

Visit our School for Builders, open day or evening. A thousand men attend each year. Enter any time. You can get the same train-ing at home, by mail. Same plans; same les-sons; same instructors. The coupon brings all facts Free.

#### SIMPLE AND EASY AS A-B-C

These plans and lessons come to you from the oldest and largest school of building construction in the country. This is the kind of training that puts men quickly into the \$5,000 to \$15,000 a year jobs, and in contracting businesses of their own. You learn from actual blue print plans-

learn how to read all the plansestimate all the costs—and supervise the entire construction of a building. get the blue print training in three You learn everything a foreman, superintendent or contractor has to

#### A BIG-PAY JOB-OR YOUR OWN BUSINESS

With this quick, easy training, the building field is wide open to building tradesmen who want to become foremen and superintendents or who would like to go into business for

playing some interesting new game. themselves. Burgert, Ill., stepped into a Foremanship at a 200% increase in salary. Clifford Scholl went from laborer to Ass't Superintendent in 8 months. Marchand, La., writes: "My salary is now increased 196%." After finishing his raining, Baker,

#### IICAGO TECHNICAL OOL for BUILDERS

DEPT. C-120, CHICAGO TECH BLDG. 118 E. 26th ST. CHICAGO, ILL. Ohio, made \$3,800 clear profit in 3 months as a Contractor. Depke, R.I., increased hissalary 700% in 12 months.

DONT

If you really want more money—if you hope to own a business of your own-if you want quick advancement in the building businessdecide now to get this training that you must have for a real success.

EE Book

Chicago Technical School for Builders, Dept. C-120, 118 E. 26th Street. Chicago, Ill.
Send me without obligation, your free book, "How to Read Blue Prints" and full details of the course and the opportunities in the Building field. It is understood that no salesman will call on me.
Name
Address
CityState

#### **Erecting New Factory**

A NEW plant is now under construction in Cincinnati, Ohio, for the John Van Range Company, of that city, now associated with Albert Pick & Co. It will be ready for occupancy within a few months and will be used exclusively for the manufacture of John Van Range kitchen equipment as used in hotels, restaurants and hospitals. The new plant will be composed of two sections, a single story manufacturing section and a four-story administration, sales and warehousing section, and will occupy a plot of a little less than 15 acres. Its design and equipment will conform with the most advanced standards for this type of building.

#### Restriction Is Raised

RECENT announcement by Paul M. Beacom, developer of Beacom Manor, Miami, Fla., states that all restrictions against wooden frame houses will be waived in the future, in that development. This change is directly traceable to the activities of the Southern Pine Association and the Lumbermen's Credit Bureau, whose erection of a model house in Beacom Manor has shown the desirability of wood construction. Prior to the erection of this model house all structures in Beacom Manor were of other than wood construction.

#### Makes Record Shipment

DALY SULLIVAN, president of the Sullivan Com-F. DALY SULLIVAN, president an order which he pany, of Memphis, Tenn., reports an order was for a believes to be the first of its kind. This order was for a full carload of the combined accelerating, hardening, waterproofing and anti-freeze compound which this company

manufacturers for use with concrete work. The shipment was for use on the Dixie Highway and city streets in West Palm Beach, Fla., to assist in opening these thoroughfares at the earliest possible moment.

#### **Keller Joins Sales Force**

HE New York Blue Print Paper Company, 96-102 Reade Street, New York City, announces that O. B. Keller, who for many years was associated with the Keuffel & Esser Company, has now joined its sales department.

The Edward N. Riddle Company, Toledo, Ohio, has published a handsome catalog illustrating its decorative lighting fitments designed for both artistic character and practical utility in the home.

"Design and Control of Concrete Mixers," the publication of the Portland Cement Association, 33 W. Grand Avenue, Chicago, has been revised and enlarged in a second edition recently published.

"Refrigerated Drinking Water for Mills, Factories, Shops, Hotels, Hospitals, Schools, Institutions, Public and Office Buildings, Stores, Etc.," is the title of a booklet prepared by the Armstrong Cork & Insulation Company, Pittsburgh, Pa., to fit the A. I. A. filing system.

The Peerless Manufacturing Co., Inc., Louisville, Ky., has published a new catalog No. 27, covering its line of fireplace furniture and with many illustrations in both black and white and in color.

Eastern Offices, Inc., 347 Madison Avenue, New York City, owners and operators of the new Graybar Building, which is now nearing completion in New York, have published a booklet as "A Souvenir of the Celebration Commemorating the Completion of the Steel Structure of the Graybar Building, October 8, 1926."

### Contractors Get Reinforcing Steel, Metal Lath, Wire Mesh, Channels, Etc., All From One Source



#### COMBINED SHIPMENTS SAVE TIME AND MONEY

You can order direct from Ryerson all of your steel building materials. Whether your job requires several hundred tons of reinforcing bars or just a few special products, we can make immediate de-Mail the coupon for complete livery. information.

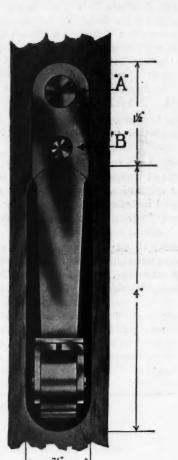
Reinforcing Bars Wire Mesh Accessories Stirrups Metal Lath Steel Joist

Channels Structurals **Bolts** Steel Forms

Corner Bead, etc. Plates Sheets Rivets Picture Moulding Small Tools

Detroit Cincinnati Cleveland

# The AUSTRAL SASH SUSTAINER



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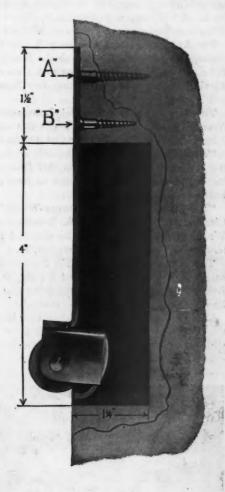
Ky.,

lack

ork ing, oubomthe Showing mortise cut in edge of sash with SASH SUSTAINER in position.



Side rail of sash broken away to show mortise and position of SASH SUSTAINER.



The Giant



in Armor

Send for a Sample Pair

Used in City Houses, Rural Houses, Bungalows, etc.

STRONG—COMPACT—EASILY OPERATED—CUTS ONE-THIRD OFF THE COST OF YOUR WINDOWS—COSTS ONLY HALF AS MUCH FOR APPLICATION—REQUIRES ONLY HALF THE LABOR—AUTOMATICALLY SUSTAINS THE SASH IN ANY POSITION.

Here's a Big Opportunity

Over 5,000 builders are now using the Austral Sash Sustainer.

WE WANT TO PLACE THE AUSTRAL SASH SUSTAINER IN THE BUILDER'S HANDS; when he sees what it is he will appreciate its superior advantages.

Ask your mills for plank frames with sash mortised for AUSTRAL SASH SUSTAINERS and save time and money.

AUSTRAL WINDOW CO.

101 Park Avenue

New York

AUSTRAL WINDOW CO. 101 Park Avenue New York

Gentlemen:

Please send me a

sample pair of AUSTRAL

SASH SUSTAINERS for
which I am enclosing 50 cents
(this covers actual production
cost together with postage and
handling).

Name

Concern.

Address.

#### Books, Bulletins and Catalogs for You

THE literature and publications listed here are available to the readers of American Builder. They may be obtained from the firms mentioned and will be forwarded without cost except where a price is noted.

The Philip Carey Company, Lockland, Cincinnati, Ohio, has published a pamphlet containing a reprint of an article by L. E. Whitaker, published in Power, under the title "Choosing Economical Thickness of Heat Insulation."

The Armstrong Cork Company, Linoleum Division, Lancaster, Pa., has recently published a booklet under the title, "The Art of Home Furnishing and Decoration," by Frank Alvah Parsons, president of the New York School of Fine and Applied Art.

The Great Lakes Industrial Laboratories, 622 Madison Avenue, Toledo, Ohio, offer a circular supplying complete information on their Rex cement products improver.

"Watertight Concrete" is the title of Bulletin No. 301 of the National Lime Association, 927 15th St. N. W., Washington, D. C., presenting the use of lime for the making of waterproof concrete.

"The Identification of Furniture Woods" is Miscellaneous Circular No. 66 of the U. S. Department of Agriculture, Washington, D. C. It may be obtained from the Superintendent of Documents, Washington, D. C. Price, 25 cents.

The Marschke Company, 1516 Pioneer Building, Dept. A, St. Paul, Minn., has published a pamphlet, entitled "Make Better Use of the Attic," presenting the story of the collapsible stairs which it manufactures.

"Seeing Concrete America" is a new booklet published by the Portland Cement Association, 33 W. Grand Avenue, Chicago, picturing varied use of concrete throughout the country.

The Associated Tile Manufacturers, 2100 Seventh Avenue, Beaver Falls, Pa., have published booklet No. 5 in the series of "Architectural Monographs on Tiles and Tilework," which covers the subject of "The Ceramics of Saracenic Syria, Turkey and Egypt," by Rexford Newcomb, Professor of History of Architecture, University of Illinois.

The American Concrete Institute, 2970 West Grand Boulevard, Detroit, Mich., offers the following printed papers presented at its 1927 convention: "Report of Tests on 300-Foot Reinforced Concrete Company," by Earle D. McKay; "Notes on Concrete-Wacker Drive, Chicago," by Arthur R. Lord; "The Reinforced Concrete Column," by Phil J. Markmann; "The Coarse Aggregate in the Concrete as a Field for Needed Research," by Herbert J. Gilkey.

The Indiana Flooring Company, 234 Rider Avenue, New York City, has issued another page for its catalog folder illustrating a "triple matt" design in teakwood.

The Trane Company, La Crosse, Wis., has just published a very handsome and complete bulletin No. 14, covering its line of heating specialties, illustrating in colors its new heating cabinets and including a reprint of a series of articles on Vacuum Pump Heating Systems by R. H. Anderegg and M. William Ehrlich.

The U.S. Department of Commerce has published its Simplified Practice Recommendation No. 16 on the subject of Elimination of Waste-Lumber. It is sold by the Superintendent of Documents, Washington, D. C. Price, 15 cents.

The Thatcher Company, 39-41 St. Francis St., Newark, N. J., has published a useful little booklet under the title "Helpful Hints on Choosing Your Heater" and also offers a pamphlet "Economical Warmth," describing its water heaters, furnaces and ranges.



#### Your Profits Increased

painting the improved DeVilbiss way

Faster painting, more jobs done in present working time, less cleaning up—that way your profits are increased painting with the DeVilbiss Spray-painting System.

The greater satisfaction of your customers with the improved quality of painting, 'as well as with the short time jobs require, brings increased profits through widespread endorsement of your work and methods.

DeVilbiss equipment is practical, complete and reliable. Its operation and upkeep costs are negligible items. Your men will like to paint with it and you'll like the DeVilbiss service. We'll gladly mail you further FACTS regarding DeVilbiss equipment and how painting with it will increase your profits. Address—

THE DeVILBISS CO.

238 Phillips Ave.

TOLEDO, OHIO

New York Chicago Detroit Philadelphia San Francisco

DeVilbiss Spray-painting System

Cleveland Indianapolis St. Louis Milwaukee Minneapolis Windsor, Onterio

#### Comparing Quality of Brush-painting and DeVilbiss Spray-painting

Showing enlarged cross sections of brushed and sprayed paint films



The brushed surface shows ridges and thin streaks (brush marks). The paint film wears down unevenly and does not protect the surface any longer than those thin streaks last.



The uniform sprayed coat wears down evenly. This strong, unbroken film of paint is still saving the surface long after the thin brushed streaks of paint have disappeared.

# Fillmore-Wiley Successful Makers of Concrete Tile

By A. J. R. CURTIS

EW manufacturers in the field of masonry building products have succeeded in building up a more staple business in the short space of two years than has the Fillmore-Wiley Company, which specializes in the production of a special cement tile at Los Angeles, California. Hugh H. Fillmore, president, was formerly district engineer of the Portland Cement Association in charge of its Southern California and Arizona territory, and E. F. Wiley, secretary and treasurer, was formerly Mr. Fillmore's chief assistant and concrete products specialist.

When the Fillmore-Wiley Company was organized the remark was freely passed that Los Angeles was not a very good market for concrete products and the supply already exceeded the demand. Now with two years of successful achievement behind it, the Fillmore-Wiley Company feels that it has "just begun to grow" and that the already extensive use of its output through the southern

California metropolis and its suburbs is merely a sample of what is coming in 1926.

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The success of the Fillmore-Wiley Company is not due to chance. From the start the company has had uphill sledding—no use to deny that—but continuous adherence to certain fundamental principles has undoubtedly been the means of building up its reputation and the demand for its product. For the sake of brevity—so that "he who runs can read" some of the outstanding principles—in addition to having a good product—to which this company owes its success are enumerated as follows:

1. Up-to-the-minute advertising. Every advertisement forcefully conveys a thought that focuses the interest of prospective buvers.

2. Clean-cut, well-informed salesmen. Mr. Fillmore knows that methods formerly used to close 100 tile orders won't do for 50,000 tiles sales.

3. Attractive downtown display.

4. A clean and attractive factory with

ample stocks. Cull stocks are removed—not exhibited to the public, as in the case of so many concrete products plants.

5. Every effort is made to get the important jobs, particularly those which carry prestige. The finest homes, schools, churches, garages, store and factory buildings are the ones this company goes after.

 An up-to-date office building built of the company's own product and equipped with all modern appliances for speedily transacting business.

7. Fast trucking service—saving money for customers by avoiding delays and shut-downs.

8. Centrally located manufacturing facilities.

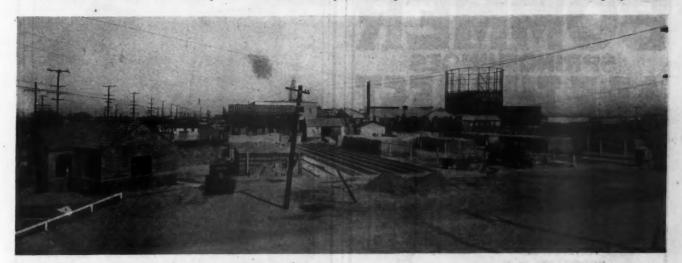
9. Manufacturing process reduced to most economical basis.

10. Extensive efforts made to acquaint the trade with

(Continued to page 245)



Hugh H. Fillmore, President of the Fillmore-Wiley Company, of Los Angeles, Calif., at His Desk in the Company's Office Building Which Is Built Entirely of the Special Cement Tile Which This Company Makes.



Casting Yard of the Fillmore-Wiley Company, of Los Angeles, Calif., with the Office Building at the Extreme Left.

This is an orderly and generally attractive plant which has proven a big business asset.

#### Books, Bulletins and Catalogs for You

THE literature and publications listed here are available to the readers of American Builder. They may be obtained from the firms mentioned and will be forwarded without cost except where a price is noted.

P. & F. Corbin, New Britain, Conn., has published a new general catalog No. 27, covering its entire line of locks and builders' hardware. This is a large, handsome book bound in hard covers and completely illustrated.

"Screen Hardware" is the title of the new catalog No. 26 offered by the Fiwale Equipment Mfg. Co., Inc., 64 Reade Street, New York City. It contains a complete list and illustrated descriptions of this company's screen hardware.

"Industry's Electrical Progress" is an interesting and informative booklet published by the Cutler-Hammer Mfg. Co., 1266 St. Paul Avenue, Milwaukee, Wis,

The White Door Bed Company, 130 N. Wells Street, Chicago, has issued a large folder illustrating its kitchen cabinets and showing space-saving kitchen plans.

"Metal Spanish Tile and Shingles" is the title of the new catalog No. 72 of the Edwards Manufacturing Co., 401-407 Eggleston Avenue, Cincinnati, Ohio, illustrating in colors its line of metal roofing products.

The Brecher Co., 433 W. Jefferson Street, Louisville, Ky., offers a booklet under the title, "A Collection of Artistic Mantel-Pieces," which illustrates the various styles of mantel-pieces made by this company.

Schlagen Bros. Co., 2435-41 Irving Park Boulevard, Chicago, has published a new catalog of its builders' brass hardware, bathroom fixtures, hose fittings, and special goods made from brass, bronze and aluminum.

The Hart & Cooley Company, New Britain, Conn., offers a new catalog covering its line of wrought steel registers and grilles with complete illustrations and descriptions.

The Miami Cabinet Company, Middletown, Ohio, has published a new catalog describing and illustrating its complete line of Miami pure white cabinets for bathrooms, kitchens and laundries.

John Boyle & Co., Inc., 1317-19 Pine Street, St. Louis, Mo., offers a new circular illustrating in colors the awning fabrics, hardware and supplies which it manufactures.

The Combination Woodworking Machine Co., 154 N. Desplaines Street, Chicago, has published a booklet on the subject of its woodworking machine under the title, "Buy One Machine Instead of Eight."

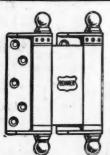
"Boss Mixers, Pavers, Hoists," is the title of a new catalog GC-27 issued by the American Cement Machine Co., Inc., Dept. 236, Keokuk, Iowa, illustrating its complete line and giving all specifications.

"A Spark May Cost a Farm" is the title of a booklet offered by the Asbestos Shingle, Slate & Sheathing Company, Ambler, Pa., pointing out the value of its roofing products, particularly as applied to farm buildings.

The American Concrete Institute, 2970 West Grand Boulevard, Detroit, Mich., offers the following printed reports presented at its 1927 convention: "Economic Advantages, Field Control of Quality of Concrete"; "Aggregates"; "Proposed Building Regulations for the Use of Reinforced Concrete"; "Tentative Standard Specifications for Concrete Curb and Concrete Curb and Gutter"; "Researches on Concrete Materials and on Plain and Reinforced Concrete"; "Standard Building Units."

The McGraw-Hill Book Co., Inc., 370 Seventh Avenue, New York City, has published a complete catalog of the books which it has published covering a wide range of technical and business subjects.

The Frank S. Betz Co., Dept AB, Hammond, Ind., has just issued new catalogs on its White Kraft kitchen units and White Kraft bathroom cabinets.



#### Buy the Best HARDWARE For Hard-wear

For more than 50 years Bommer Spring Hinges have maintained their leadership and proven their superiority over all others.

They have kept pace with the times, because they have been kept up with the times whenever improvement was possible.

# BOMMER SPRING HINGES ARE THE BEST

They are in universal demand—easiest to apply and the most satisfactory spring hinges made.

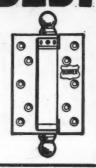
Your Dealer handles them.

Send for New Catalog 47. It is a big help in ordering.

Bommer Spring Hinge Company

MANUFACTURERS

BROOKLYN, N. Y.



# "Removed Four Radiators"—Two More "Never Used" The Pastor says, this saving in heat is the result of INSULATING the roof and walls of his church with Cabot's Insulating "Quilt" "This bullding was covered all over with Cabot's Quilt, with the best results. The roof, which is an open one inside, showed no signs of frost. The same amount of radiation was good frost. The same amount of radiation was upon in the building as the heating engineers usually install. We have removed four radiators all ready . We have retained two which are never used. We attribute this saving to your Quilt." St. Flemes Anglass.



Insulated with Cabot's Quilt-St. Thomas Aquinas, Halifax, N. S.

#### CABOT'S QUILT SAVES COAL

Two tons of coal will do the work of three or more, because Quilt insulates the heat and prevents it from escaping. Figure out how much this will save you every Winter as long as the house stands. Quilt holds the heat like a fireless cooker.

Send for sample of Quilt. Free. It's a "comforter" that keeps the whole family warm.

SAMUEL CABOT, Inc.

SAMUEL CABOT, Inc.
141 Milk St. Boston, Mass.
101 Park Avenue, New York
5000 Bloomingdale Ave., Chicago
Kansas City Minnespolis

Cabot's Creosote Stains, Waterproof Cottopakes, Old VirginiaWhite, Double-White, et



The Residence of F. C. Brittan, Jr., of Pasadena, Calif., Is One of a Large Number of Attractive Homes in That Los Angeles Suburb Built Entirely of the Fillmore-Wiley Tile.

(Continued from page 243)

the product-its dimensions, methods of use, etc.

11. A product which possesses quality, economy and distinctiveness.

The Fillmore-Wiley Company succeeds largely because its staff knows the product which it is selling. Hardly a question can be asked to which any Fillmore-Wiley men cannot make immediate reply. The size of the unit varies from that of other units sold in competition. A salesman must be able to calculate quickly the equivalent wall volumes or areas covered by brick, clay tile, and concrete block and tile of other sizes. He must know the equivalent weights, relative costs, comparative speed of handling and laying and a volume of authentic technical data pertaining to the behavior of his own and competing products.

Salesmen of this particular organization are required to be familiar with every important structure in which the company's product has been put, so that prospective customers may be given the advantage of the valuable experience gained by the many who have built of this tile, in that vicinity, in the past.

#### Tall Concrete Silo

(Continued from page 233)

Six experienced concrete men, several laborers and five months' actual working time were required in the building of the silo, which with all equipment is estimated to have cost around \$5,000

Mr. H. Jones died some time after the building of the great silo, but not until he had witnessed the first filling of the silo in which 150 acres of good corn were sent up the ensilage cutter pipe and it was found that 25 feet of the great concrete structure remained empty.

Mr. Andrews is a bit proud of the building of this silo. He says that it is the largest in the country and his statement has never been questioned. He is a firm believer in monolithic concrete construction, claiming that the one-piece concrete structure cannot be improved. He has been in the concrete business for many years and has built concrete structures of all kinds in many parts of the country.

#### Lubrication of Wire Rope

By WALTER VOIGTLANDER, Rope Engineer

THE cores of practically all good brands of wire rope, both the preformed and non-preformed types, are thoroughly impregnated with a commercial chemically neutral rope oil. While the core retains a liberal supply of this lubricant which gradually oozes out as the rope is used, still, frequent application of a good lubricant during service is necessary to prevent the core from becoming dry. A dry core will both wear and crush quicker than one that is thoroughly lubricated. It will also absorb moisture readily with the result that the core will deteriorate rapidly and the inner wires corrode,

The smaller the sheaves or the heavier the tension on the rope, the more often should the rope be lubricated so as to prevent the too rapid wearing of the core in the first case and the excessive crushing in the latter case.

A good lubricant will retard corrosion of the wires, slacken deterioration of the core, reduce internal friction and decrease external wear. The lubricant should be thin enough to penetrate the strands and the core but not so



Unloading the Fillmore-Wiley Product Is a Quick and Simple Operation, Entirely Without the Breakage Which Accompanies the Dumping of Brick and Many Kinds of Building Block,

thin as to run off the rope. Ordinarily, a thick semi-plastic compound applied hot (in a thinned condition) is best wherever possible. It will penetrate while hot, then cool to a plastic filler, thereby preventing the entrance of water. In this way the inner wires and core are both preserved and lubricated.

To properly lubricate with a heated lubricant, it is necessary to have the rope run slowly through the tank of heated oil so that proper penetration is effected. Where this is not possible, an application of a thinner unheated lubricant will give better practical results than the use of the thick heated oil.

It is always well to lubricate the rope just after installation and before running in service, particularly if the ropes have been kept in storage for some time, in which case it is likely to have become dried out and so subject to excessive wear and crushing.



#### Sell Homes Easier Rent Them Faster

Cardinal Toggery Racks give the space of two closets in one, keep toggery smooth, hats in shape, shoes off floor—all in plain sight, within easy, instant reach. Cardinals lighten woman's work. No more stooping to move footwear when she sweeps. Housewives like Cardinals—because they add a finishing touch to home and make them really modern.

Cardinals are important selling and renting features. Their cost is small, their benefits great. They are all heavy-gage metal, all-nickelled, strong, beautifully made and look the part of quality—through and through. Attached in ten minutes, fit all doors, last a lifetime.

#### CARDINAL Toggery Racks

are a necessity in the small apartment, an added convenience in large ones—and in all houses, city and country, they not

only save closet-room—but make it. You can see for your-self the appeal in them to every family, large or small.

Write today for prices and quantity discounts. For a very small outlay, you can add a big profit factor. Cardinals have a mighty persuasive force—the instant you swing open the closet door. They are certainly a big talking point.

## The CHAS. FISCHER SPRING CO.

240 Kent Ave., Brooklyn, N.Y. Telephone, Greenpoint 10,000



### 7 Reasons Why Fireplaces Smoke

THERE are a dozen reasons why fireplaces smoke. Here are seven of the more important ones: (1) The wrong size damper; one that's not as long as the fireplace opening. (2) Too small a flue. (3) Too low a position of the damper. (4) Chimney too low in relation to ridge of roof. (5) No damper, or improperly formed throat. (6) Absence of, or poorly constructed smoke chamber. (7) Trees too close to chimney top.

All of these fireplace evils and their remedies are discussed in the new 5th Edition of the Donley Book of Successful Fireplaces just published. In it also are 50 new fireplace designs, complete fireplace plans, details and construction photographs. Donley Fireplace Equipment, including the Donley Damper, is described and illustrated.

This is the most instructive book on fireplaces to be had anywhere. Builders can secure a copy of this valuable fireplace book by sending 25 cents in stamps or wrapped coin.

Donley Catalog sent free if requested.

The Donley Brothers Co. 13910 Miles Avenue . . Cleveland, Ohio

"REG. U. S. PAT. OFFICE"





#### Pay Yourself a Bigger Salary

The money you can save by using

#### Reliable Scaffold Brackets No holes to plug after they are removed

on every job will mean that much more in the envelope you hand yourself on Saturday.

If you are in business for profit you cannot overlook them. Strong, sturdy, they are built to last a lifetime. Used on frame, brick or stucco. The big fellows use them. Our files are full of letters like this:

"Elite Mfg. Co. Ashland, Ohio.

Sirs:

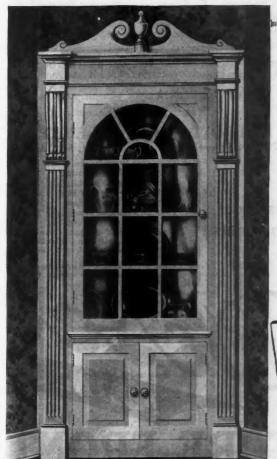
We have used your Steel Scaffolds the past two years and find we can save from \$75 to \$200 on every job on wasted materials used in the old Wood Scaffold.

We don't think we could do without them at any price.

Yours very truly, (Signed) D. B. KIZER"
Const. foreman Indiahoma Gins
Chickasha, Okla.

Get our catalog and price list. We gladly ship C. O. D. so that you may examine the brackets before you pay a penny.

#### Elite Manufacturing Company, Ashland, Ohio



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#### **Built-In Woodwork**

Will add charm and comfort to any home-Greatly reduce building costs-Vastly increase sales value-

Give investment builders added sales arguments.

Made in a wide variety of designs and sizes. Radford Kitchen-Units are the most practical, sanitary and economical of all kitchen cupboards. Beautiful designs of Colonial cupboards, attractive breakfast nooks, mantels, ironing boards, medicine cabinets are some features of the Radford Built-In Woodwork line.

Our beautiful new catalog with many designs in color will be sent to you without obligation.

The Radford Company OSHKOSH, WIS., U.S.A.

Send for This Catalog



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Gentlemen—Please send me your new catalog on Built-in Woodwork.

Name ..... Address .....

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



# LIGHT ELECTRIC ELEVATORS

These Elevators are quickly and easily installed in your building. They are easy to operate and give as fine a service as elevators costing many times as much.

They are built in several capacities, ranging from 1,000 to 3,000 lbs. Each elevator is built for the task it must perform and is fully guaranteed to serve in an efficient manner.

A moderate priced, sturdy, well designed elevator built in all sizes and capacities. An outfit truly worthy of the name "Kimball" it bears.

Especially adaptable for retail stores, bakeries, creameries, mortuaries, hospitals, factories or wherever safe, light, fast, inexpensive elevator service is demanded.

Prompt shipment, quick installation, meeting all state and insurance safety requirements, and guaranteed satisfaction is Kimball Light Electric Service.

There is a Kimball Elevator built for every requirement

## KIMBALL BROS. CO

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KANSAS CITY DETROIT SOUTH BEND ST. LOUIS CLINTON DES MOINES NEW ORLEANS DULUTH MINNEAPOLIS DENVER SALT LAKE DALLAS OKLA, CITY FORT SMITH



# Set the Stage for Tenants, too—

In many a theatre you will find the resultful working combination of stage craftsmanship inside and Desco craftsmanship outside.

The owners of hundreds of "palaces of pleasure" have found that the choice of truly effective store fronts pays in drawing and holding desirable store tenants—just as good showmanship in the theatre pays in drawing and holding large audiences.

The Hillstreet Theatre, in Los Angeles, is a striking example. Here, too, high-class vaudeville and photoplays draw big crowds inside, and the ever-changing vaudeville of merchandise in the stores "goes over big" with buyers, aided by Desco. G. Albert Lansburgh was the architect for this fine building; McDonald & Kahn the contractors.

Put "Desco" on your specifications and you put the best front on your structure.

There is a distributor near you, and a New York City stock of Desco materials is carried at 562 West 52nd Street.

We'd like to work with you on your next store front job.

#### DETROIT SHOW CASE CO. 1670 Fort Street, West Detroit, Michigan

Facts about Desco Fronts Their cost is moderate.
They are simple in design.
They are easy to install.
Their beauty is enduring.
They are made of copper.
They give long service.
They assure glass safety.
A wide range of designs is available.
Their merchan dising effectiveness makes each installation a salesman for you.
They bring maximum volume of business and greater profit to the

DESCO

STORE FRONTS

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# Clinch the Sale With a Sunshine Room Like This

T looks like a millionaire's plaything, but in reality adds only \$738 for materials to the cost of the house.

Plus cost of erection, which is easily done by your own men.

Or we will quote you on the job complete, including erection.

As the plan shows, this Sunshine Room was set against the open side of an interior room. It gives more than double its own area of sundrenched indoor garden and living room space.

Worth twice its total cost in increased property value.

Vastly more than that in sales appeal.

We've worked it all out from your side. Let's get down to brass tacks together.

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Send me full facts about your Sunshine Room.

Send me full facts about your Sunshine Room.

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Efficiency and Economy

#### Gold Medal Scaffold Machine

#### Play Safe-With the Gold Medal Junior

For cement finishing, stripping forms from concrete work, stone carving, setting stone, erecting iron or asbestos siding, in fact where-ever light duty swinging scaffolding is required, use the dependable Gold Medal Junior Safety Swinging Scaffold.

Fibre rope is untrustworthy. You cannot tell by its appearance whether or not it is dependable, because it may be weakened by dry rot or eaten to the heart by unseen acid. But the Gold Medal Junior is always safe. It is supported by two galvanized steel cables.

The new Gold Medal Catalog describes and illustrates ladders, horses, trestles, light-duty scaffolding, ladder brackets, scaffold iron, scaffold brackets, in fact everything in ladders and scaffolding equipment for the contractor. Mail the coupon for your copy NOW.



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The Gold Medal Junior is raised by a direct drive rachet and lowered by a worm and gear mechanism. The dual control securely locks the scaffold at all times and prevents slipping or running down. No litches are necessary as with blocks and falls.



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Ladders and Scaffolding for Every Purpose

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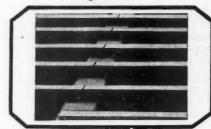
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For bridging joists 10 times faster than wood. A tension bridging proven stronger than wood. No nails, no fitting. A big

#### Joist Hanger for I-Beam

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A steel hanger that keeps floors absolutely true by providing maximum support. Ties joists together across I beam. Double-shrinkage of joists eliminated. No framing—speedily installed. 1/2 the cost of wood.

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Use this durable utility material in place of glass where there is danger of breakage. It is weatherproof, flexible, highly translucent, and economical.

CEL-O-GLASS is the most practical material for temporary enclosures. Can be used over and over again. Better than glass for tool house and field office windows and doors. Many other uses make it indispensable to contractors and builders. Comes in rolls. Tack it up anywhere.

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#### CASEMENT **INDOWS**

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Permanent, rust-resisting firesafe, easily operated windows that give 100% ventilation. Popular, attractive and low in cost. Stock sizes combine to fit every demand.

STANDARD SIZES

For sturdiness and firesafety in garages, service stations, stores, and all industrial and commercial buildings. Single or double, swing or sliding types.

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Double the daylight for the basement. Weathertight, firesafe and permanently rust-resisting. Furnished in four standard sizes. Easy to install in any foundation.

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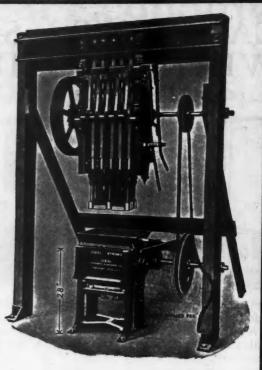
# Now for Spring Now for Action Now for Pro

No matter what you did over the winter, a new season is at hand, offering new opportunities with the aid of the simple, speedy, profit-making

#### Ideal Vertical Stripper

DOMINATE the field-produce shapely, salable Block and Tile and SELL them in volume.

> Get complete information about the Stripper-right now —learn how you can enjoy power stripping at no additional cost—as well as low, convenient off-bearing height—and thorough tamping with the Ideal 10-Bar Tamper. This machine is supplied with attachments for making drop-





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Backed by fifty years experience in the making of highest grade saws, each Huther Saw has a quality built into it that insures maximum length of service.

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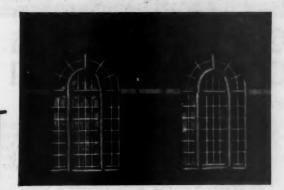
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> INTRICATE windows present no problem for Idaho White Pine-the finest white pine grown. Its graining, softness, workability make it especially suitable for such jobs. But even the simplest window is better and more lastingly made from this superior lumber. Its texture absorbs paint readily and holds it longer-thus protecting sash and frames from weather deterioration.

Insist that your fabricated trim-inside and outside-be made from Idaho White Pine. Use it for cornices, mouldings, porches and siding. It is specified for the country's finest buildings. It is used in the industrial field for pattern making. Every trade-marked and speciesmarked stick of it has been thoroughly seasoned, carefully milled and rigidly graded by the same great modern mills that produce Pondosa, the popular pine. Be sure the Idaho White Pine you buy is so identified. If your dealer hasn't a plentiful supply of it, write us for name of nearby dealer who has.

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**ELECTRIC HAMMER** 

BANG! BANG! And







Bushing rough con crete surface

Drills 3 inches into concrete a minute. Saves 90% on many operations because it chips or channels as fast as ten men. Here are a few places where SYNTRON saves: - chipping for plumbing lines; cutting new doorways; fitting steel sash; roughing up; removing board marks from concrete; cleaning bricks; installing stair treads; putting up fire escapes, or wire conduits, etc., etc.



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A very popular International-Designed Building built at a surprisingly low cost.

#### **PRODUCTS**

Store Fronts Public Garages Steel Trusses Steel Columns Steel Girders Skylights

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INTERNATIONAL DESIGN

#### Lands Contracts For Where Other Methods Fail

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Thousands of building contractors have proved to themselves that International Steel Service actually will sell a prospect when all other methods fail.

International Steel Service consists of (1) Free building designs to any reputable contractor, (2) estimates on the cost of structural steel and steel building products used in the building, (3) prompt manufacture and delivery of structural steel and steel building products, fabricated to fit exactly.

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Write for our booklet showing over 50 garage buildings of International Design

#### International Steel and Iron Company

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Successes of Life are for those who reach out for them. Are you content to make a small profit slowly on hand labor or—a large profit quickly by means of a modern machine?

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BRINGS IT TO YOU



Get It On Free Trial Just \$25.00 brings it to you on 10 Days Free Trial; should you not be perfectly satisfied reDoes It Faster—Better—Cheaper This mixer puts you in the position to do all kinds and classes of concrete value of the old, expensive shovel and mixing board method, enabling you to faster, to do more work, to do bigger work, to do better work and cheaper with a broofit on every single job.

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The most practical and efficient Mixer in America. With the "Magic" and two men you can do as much work as you formerly did with six men. You can do it easier, quicker and better, producing an absolutely uniform batch every time. Loads and dumps from either side.

New Trailer Type — Half-Bag Capacity

Drum mixes 4½ to 5½ cubic feet of loose material per batch—
guaranteed full half-bag capacity. Direct gear driven. Improved gear dump. New Trailer Type with disappearing
Trailer Bar. Fitted with 2½ horse power, 4 cycle, horizontal
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The road to bigger profits, bigger business, bigger success is open to you The opportunity to make yourself a big man is before you. Don't sit idly by while other men are forging to the front. Get the facts. The simple act of signing and mailing this coupon may be the turning point in your career. The time to act is NOW.

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NOOD BOARD

# Be Prepared for Spring Profits With the Free-O-Dust Floor Surfacer



Hundreds point to the great Free-O-Dust Super Surfacer as an additional wage earner or as the start of a successful business. The floor surfacing field is not crowded. There is very little competition, and with this automatic floor sander the work is easy, pleasant and profitable.

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The Free-O-Dust has exclusive features—collects every particle of dust—sands right up to the base board—vibrationless—no special attachments—one man can transport the machine—and many other features.

Mail the Coupon
No Obligation

Get all the facts. Send the coupon today. Let us tell you what other contractors are doing with their floor surfacing problems.



### Rotary Machine

For sanding wood floors where an exceptionally high finish is required—also for surfacing and polishing marble, terrazzo, etc., waxing and polishing and for scrubbing. A different attachment for each operation

do the	work of above.	bo	oklet men	"A I with	Day's	Work"	which O-DU	shows ST Su	hover 8	v I can Surfacer
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Please send me free information on the handy Rotary Machine at right.

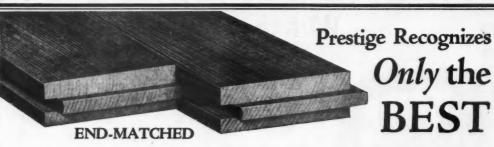
I am interested in going into the floor sanding business.

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Splendid home of the eminent Maryland Casualty Company, Baltimore, designed by Otto G. Simonson, architect, and finished throughout with E. E. Jackson's famous flooring... An impressive tribute to the superior quality of this

flooring stock, which comprises Selected Virgin Long Leaf Timber—Skillful Manufacture——Correct Drying—Accurate Machine Work and Perfect Matching. Samples, specifications and name of nearest dealer sent on request.



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The concrete floors in the Yale & Towne plant are permanently waterproofed, hardened and oilproofed with "ANTI-HYDRO."

In addition to hardening and waterproofing concrete, "ANTI-HYDRO" also lowers the freezing point to 15 degrees F. all in one operation, making it possible to pour concrete and lay masonry work during freezing weather. This saves valuable time and permits you to finish your contracts on schedule.

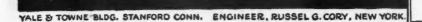
"ANTI-HYDRO" is very easy and economical to use. Being a liquid integral compound, it mixes readily with the gauging water—any unskilled workman can

For 23 years "ANTI-HYDRO" has been put through every test on every type of concrete hardening and waterproofing work. Results are guaranteed permanently. Use "ANTI-HYDRO" on your next job.

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Consult our Engineering Department for Specifications and data on any particular difficult waterproofing or hardening job,



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Saw table raised, showing Emery wheel saw guard and drill attachment



Planer attachment on saw table.

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Dado head - attached for grooving.



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-The 8" Combination Saw will rip, cross cut, bevel, miter, drill, rabbet, grind, buff and polish; and with attachments that can be bought extra, will groove, mortise, tenon and plane. and polish; and with attachments that can be bought extra, will groove, mortise, tenon and plane. Capacity of Dado head up to 2 inches. The attachments are easily and quickly adjusted. The saw and motor when set up ready for work occupy very little room. The ½ H. P. 60 cycle 110 volt A. C. motor can be run from a light socket and provide power for other purposes when the saw is not in use. A cut up to ½ inches can be made with the 8" Combination Saw without planing. The ideal machine for shop, factory or home, complete with attachments: 12"x16" table, 8" Combination Saw, iron pulley for saw table, 10" ripping fence, adjustable cut off miter gauge, motor specifications as above, 1½" endless leather belt, wood pulley, 8 ft. cord and plug, 6" buffing wheel, ¾ jaw drill chuck, 5" emery wheel, 6" sander, saw guard and 2" dado insert, \$35.00, F. O. B. Phila. Height 16", shipping weight, 100 lbs.



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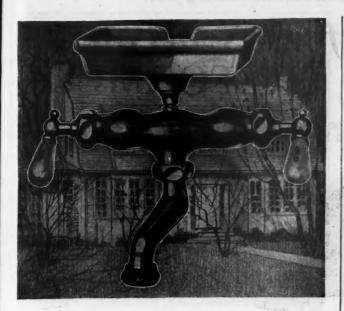
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Better faucets are being made. New ideas are being introduced. Women, the real home buyers, know these things. They are buying those homes that are modern.

Hays Mova faucets are absolutely new ideas in faucets. A swinging spout kitchen faucet illustrated with Hays Safety Strainer, this prevents splashing and dripping, also a cushion that reduces dish breaking hazard. No other faucet has this.

Hays Mova basin faucets are equipped with both a soap dish and drinking glass receptacle, beautiful, harmoniously designed receptacles. No other faucet has such a feature.

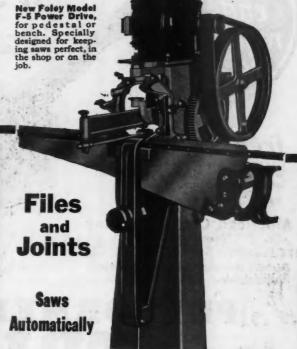
These are ideas, conveniences, that women want and we are telling more than a million housewives about these new faucet ideas every month. Use Hays Mova faucets and you are using another selling influence. And they cost no more than any other good faucet.

All Hays Products are sold through the wholesaler of plumbing supplies to the plumbing store. Be sure the name of "Hays" appears on your faucets.

Send for folder which describes our wonderful line of faucets and our concealed bathroom equipment. Sent free.

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The only machine that files and joints a hand saw. Automatically evens up teeth as it files. Puts old saws into perfect condition. Saws last longer and cut better. Filing time is cut in half.

### Files All Saws--

Cross-cut, rip, back, panel, mitre box and all other hand saws: band saws  $\frac{1}{4}$ " to  $4\frac{1}{2}$ ": eventoothed, circular saws 3" to 16"—all, 3 points per inch and up. Re-tooths old hand saws.

#### **Guaranteed!**

The new Foley is guaranteed to file saws as claimed, if, in 30 days, you are not entirely satisfied we will refund your money.

We have many contractors, builders and carpenters in every state in the Union using Foley Files. Names on request. Write today-Use the Coupon.

FOLEY SAW TOOL CO., Inc.

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Please send me complete description of the Foley Filer.

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There is no secret about the remarkable performance records established by Tru-Lay Brand Wire Rope. Its ability to resist unstranding and kinking, to give greatly increased service, to lower operating and maintenance costs and its ease of handling—are due to just one thing—the exclusive Preformed principle embodied in its construction.

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[REG. U. S. PAT. OFF.]

CUTYOUR COSTS-SAVE WORK-WAGES

REALIZE IT! HAND-SAWING IS COSTING YOU INCOME, REPUTATION!
Why pay out of the profits that should jingle in your own pockets, wages to unnecessary help? Expend vitality, strength in back-breaking hand sawing? Facts arefacts. Old methods are costing you too much. Equipped with this Saw Rig bigger success, income, prestige, reputation are within your easy grasp. It has done it for others. Why not for you?

THE UFFY SAW-GASOLINE ENGINE SAWRIG

Simple, efficient, economical. Arbor type saw; moves through lumber; not lumber through saw.

Rigid all steel table, top 24x32 in., and frame. Compact, air cooled power unit. Mounted on wheels.

CROSS-CUTS, RIPS, MITERS, - EASY PORTABILITY - POWERFUL GASOLINE MOTOR

Fitted with 8 in. all purpose saw that cross cuts, rips, miters. Takes any material up to 1x15 and 2x12 in. Works up 8000 to 10,000 ft. of lumber a day.

You take it anywhere—to second floor or down in basement. Step on lever and it is raised onto its wheels and moved to any place. Weighs only 225 lbs.

Powerful ¾ H. P, air cooled, gasoline engine, single cylinder, 4 cycle; built in flywheel magneto; simple set jet caburetor. Lever starter. Never misses. Fuel capacity, 1 gallon.

DOES THE WORK OF FOUR MEN FOR 25 A DAY!

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Besides doing the work of 4 men and better, it more than pays for itself on the first job. For only 25c a day—a gallon of gasoline and little oil—you can save 85% of hand sawing labor on an ordinary job, save 12% of total cost to owner, and do TEN times more work. Gets you the jobs.

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HOICE forests in the Pacific Northwest, the West and the South provide the raw material from which lumber bearing this trade-mark is made . . . . Nature developed a remarkable combination of qualities in an extensive stand of Douglas Fir in the Pacific Northwest, the source of supply for a large production of lumber bearing this trademark. . The buyer may have faith that this trade-mark represents lumber from the best timber ... plus the qualities that skilled and experienced men can put into its manufacture. That is the aim . . . and the accomplishment . . of this trade-mark. Ask your retail lumber dealer.

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Long-Bell trade-marked oak flooring has been used for years in making beautiful floors throughout the country. It is produced by skilled men in modern plants from the best oak lumber . . . Long-Bell trade-marked lumber products include: Douglas Fir Window Frames . . . Western Hemlock Lumber . . . Southern Pine Lumber and Timbers . . . Southern Hardwood Lumber and Timbers, Oak Flooring . . . California White Pine Lumber, Sash and Doors, Box Shooks . . . Creosoted Lumber, Timbers, Posts, Poles, Ties, Guard-Rail Posts, Piling.

The Long-Bell Lumber Company
R. A. Long Bldg. Kansas City, Mo.
Lumbermen Since 1875



### Miami De Luxe. America's Premier Bathroom Cabinet

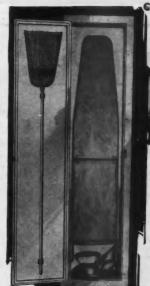
"A splendid example of architectural ingenuity embracing the rare dignity of a masterpiece, yet cleverly complete in all of its appointments." Thus a prominent American architect describes the Miami De Luxe Bathroom Cabinet.

Miami Cabinets are made of Armco steel and are indestructible. Made in many styles and sizes which reflect our ideals and interpretations of the art of cabinet construction. The designer of Miami products has kept constantly in mind sanitation, convenience, quality and

beauty of design. Finished in "Crystal Snow"—a distinctive and exclusive Miami Process.
The finish that will not retain a stain.

The Miami Laundry Queen illustrated here is constructed of heavy Armco metal of a size to fit between standard studding. It is compact, rigid and has three adjustments for height. It has a steel body, wood board, triple height adjustment, sleeve board and electrical connection and broom holder—all in one.

We are equipped to design and manufacture special cabinets of every description. Specifications and prices will be furnished on request. Write for catalogue #6 for a reference of our finest cabinets. Use the coupon.



Miami CABINET CO.

THE MIAMI CABINET CO. 1700 Grand Ave. Middletown, Ohio

Gentlemen:
Please send me your new catalogue \$6. I am interested in your cabinets.

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The Improved Schlueter Floor Surfacer is designed to your specifications. It is built to the job by a maker of floor machinery with a quarter-century of experience.

It has no cumbersome weights to be lifted; no hand levers to be manipulated. It is automatic! The roller conforms to varying floor surfaces. Uniform smoothness results—no chatter marks.

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NOTE: For your convenience all grades of sand paper carried in stock

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really has to read this advertisement. But I believe you will be better off for reading it. And if you're not I'll never ask you to read another.

"I just want to tell you that this business can not progress, it can not even operate, without customers.

"Customers pay our expenses and pay our salaries. They buy my groceries, shoes for the kids, hats for the wife and gas for the Ford.

"Without customers I, and my fellow workers, would be without a job. Without jobs there would be no Willis Manufacturing Company.

"That hits us fellows right where we live. That makes us realize that it is vitally necessary that we remember, at all times, that you are entitled to the very best we have in material, workmanship and service.

"So with every snip of the shears, with every tap of the hammer, there goes a pride

in workmanship I know you will never find any other place. Galesburg is not very big. We are not overburdened with factories. If we lose out here we might have to move to some other town. And we don't want to leave old Siwash.

"We fellows in the factory take care of the product. The boss watches the price. And he does a good job of it, too. So write to him for our sheet metal products catalog on permanent, light weight, metal skylights that fit, without cutting or trimming, the very first time you slap 'em in the frame."

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POWER OPERATED STRIPPERS POWER TAMPERS FACE DOWN BLOCK MACHINES HAND OPERATED STRIPPERS ELEVATORS AND FEEDERS

Write for new general catalog just off the press illustrating and describing our complete line in detail, sent free.

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combine these many outstanding advantages

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- Reinforced Drum Yoke-for longer
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Let us give you complete specifications and prices on our trailer mixer. Write for Catalog.



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# Applying BONDEX in Colombo, Ceylon!

ERE is a photograph of native workmen painting an imposing Ceylonese gateway structure with Bondex.

Notice the crude bamboo ladders and the new way of painting-from the bottom up! The native on the ladder has a queer urn-like paint bucket and he is using a small broom for a brush; but he is doing a good job at that!

Painting stucco and cement work is much easier and safer in the United States . . . and we know it is much more profitable!

Are you getting your share of Bondex jobs? Jobs that bring at least twice the profit that ordinary jobs do! If you aren't, write for the free Bondex booklet and sample and get started now!

> THE REARDON COMPANY -:- CHICAGO ST. LOUIS





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The Reardon Co. 103 Clinton Street, St. Louis, Mo. Please send me your FREE Booklet on BONDEX. City..... State.....

Other Reardon Products - Solarite, Cresto, Lumnite, Alfresco, Wall Size



### A Prominent Contractor Builds and see what flooring he chose

RED R. JOHNSON, prominent contractor in Los Angeles, has built for himself, what is considered the most beautiful Spanish home in Beverly Hills.

To gain such prestige, every detail of his house must be in harmony. For his floors, he turned to the leading lumber dealer, who advised "Perfection."

From past experience they have found that this well-known brand has a beauty of grain and texture that takes a superb finish. It lays beautifully and retains this same original beauty even after generations of use.

Fortunately, the same brand of oak flooring that is so highly prized by builders of the more expensive homes, is within the means of every home builder. "Perfection" costs no more than a number of other brands.

There's a size and grade of "Perfection" Brand Oak Flooring for every type of structure, new or old. For full information write today.

Arkansas Oak Flooring Company PINE BLUFF, ARK.



PERFECTION'

Brand Oak Flooring



are now demanded on better-class homes

# -use Jersey Copper

AND don't forget that the owners of ordinary homes, as well, are fast turning away from the short-lived painted and metal-coated steel screen cloths.

Why bother with inferior screen cloth which rusts out in a year or two, when you can add to your reputation by using Jersey Copper Insect Screen Cloth?

Jersey Copper is 99.88% pure, and lasts indefinitely. Can be left up all year 'round. Winter can't harm it. Jersey's proved durability assures satisfaction to home owners—your customers.

Woven from Roebling copper wire, 99.88% pure, Jersey Cloth has stiffness and tensile strength exclusive to the Roebling process. No alloy lessens its durability, as in the case of so-called "bronze"—a mixture of copper and zinc lacking the uniformity of pure copper.



Bothbright and dark finish. The latter is non-glaring, nearly invisible in screens, and stays that way. Specify 16-mesh (recommended by U.S. Public Health Service).

Examine Jersey Copper in the roll—at your hardware merchant's. If he can't supply Jersey, write us. We will tell you where you can get it, and will send you a free book about copper for screens.

The New Jersey Wire Cloth Company
614 South Broad Street, Trenton, New Jersey
Stores and Agencies in Leading Cities
All Grades of Wire Cloth Made of All Kinds of Wire

# Jersey Copper INSECT SCREEN CLOTH

MADE OF ROEBLING COPPER WIRE-99.88% PURE

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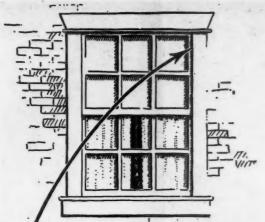
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# Good for a Century and Better Rockford Sash Pulleys

OPERATE surely, noiselessly and easily. Our mahogany finish sash pulley passed U. S. tests that equalled 100 years of wear. Screws furnished in same finish as pulley if desired.

Made of heavier gauge metal, an examination reveals their superior workmanship and distinctive finish. They insure years of satisfactory service. Despite these outstanding qualities their price is the same as any other pulley on the market.

You owe it to yourself and your customer to investigate. Get a sample and compare it with the pulley you are now using—you can't tell much from pictures.

# National kock Co., Rockford III.

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Nationally known for Economy

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Take advantage of our liberal time plan and pay for the "Beaver' out of its savings.

You will find it the best investment you ever made.

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Please send particulars about the "Beaver" Wonder Woodworker.

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We also manufacture larger Combination Woodworkers-4° and 6° Jointers — 16° Band Saw — Saw Table with Gasoline Engine.

Write for Catalog

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



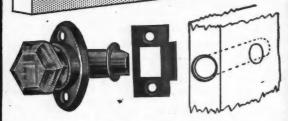
# Combine Unequaled Efficiency with Unapproached Beauty!

The thorough practicality and marked advantages of Dexter latches are well attested to by the fact that the World's

that the World's largest manufacturers of show cases have adopted them as standard equipment.

Every progressive builder who investigates these latches quickly recognizes in them one of those smaller features that add so materially to the distinctiveness—and salability of a home.

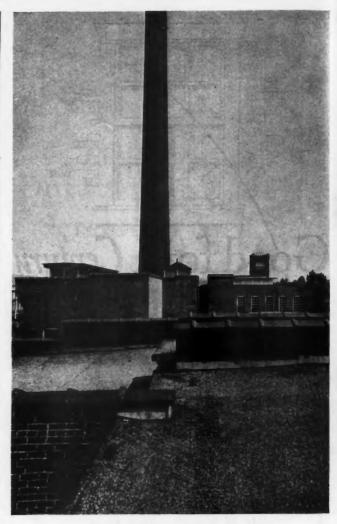
Write now for your dealer's name and descriptive literature.



To Install Simply Bore Two Holes

NATIONAL BRASS CO.

Madison Ave, Grand Rapids, Mich.



# Longer life for buildings' walls

PROTECT the walls of your building from the attacks of rain, sun and frost and you increase their life. Give them this protection by covering with Vitrified Salt Glazed Clay Wall Coping.

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HE Ransome 7-S Standard Building Mixer has met with the approval of builders throughout the world. It is made to withstand rough handling. Loads, mixes and discharges speedily—easily moved from place to place.

A Ransome job throughout in design and construction.

Write for Bulletin No. 110-C

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No. 100-DOME DAMPER Made all sizes.

Dome Dampers (five types), Flat Dampers, Ash Pit Doors and Dumps



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Manufacturers of Fireplace Furnishings for Coal and Gas

For eighty-one years manufacturing and designing fireplace equipment.

Production devoted to fireplace goods

If your dealer does not carry Brilliant fire products, write us for prices and complete information.

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Steubenville, Ohio Established 1846 -

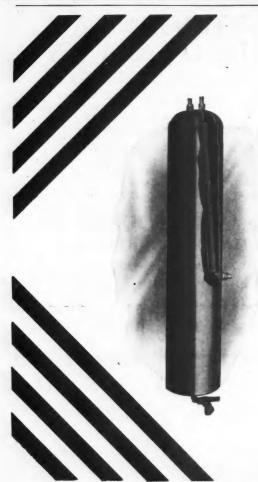
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# "Stood the Test of Manchester Water for 32 Years"

He also writes, "The usual life of a boiler in this town is from 12 to 18 years."

Painted, dented and made homely by careless hands, this **Dahlquist** copper boiler, still serviceable, was replaced by another—polished and new.

Evidence in unsolicited letters that come to us proves that our 25-year guarantee leaves ample margin for even an increase.

Since **Dahlquist** assumes liability against natural boiler defects during this period, those who specify our patented Aquatherm Copper Range Boiler actually guarantee their own recommendation.

Copper boilers are made in capacities of 5 to 5000 gallons

DAHLQUIST MANUFACTURING CO. 55 West Third Street, South Boston, Mass.

# **CORKBOARD**

Our Reputation in the Walls

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It's What You Can't See That Counts!!

> It makes no difference if Refrigerators look alike; performance proves otherwise. You cannot see the Life built into them —you must buy on Faith.

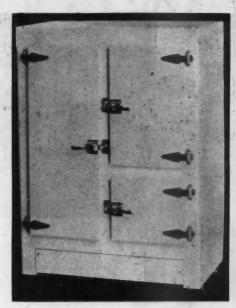
—you must buy on Faith.

[Every "ROBINSON" owner knows that his refrigerator is exceptionally well built. If he should break it open he would find every part, down to the smallest hidden nail, soundly and conscientiously made. Every owner knows how little attention such a Refrigerator requires for it has received more attention than it needs before leaving the Factory.

There may be others that are more expensively made, but there are no Refrigerators made better than "ROBINSON."

Over 36 Models to choose from. Write us today for details.

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No. 375P—Seamless Porcelain Lining. Interior Lining of Vitreous Porcelain on ARMCO Ingot iron in one entire piece, with round corners. Walls are lined with one inch of Corkboard. Doors have smooth, unpanelled surfaces—compression rubber gaskets. Hardware of heavy cast brass and nickel finished. Made with Rear or End Icing Door.

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### Pay as you Save

Exclusive territorial privi-

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for details.

The speed and accuracy possible with this remarkable Beckmann will save you an average of \$2.00 or more a day on every job. Pay for the instrument out of this saving. Terms to suit you.

Set up your Beckmann and use it the day it is delivered. Start saving money and doing better work right away.



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ANY porch, front or back can be made over into an attractive sun parlor or sleeping porch at small cost. However, experience will tell you that the rental or resale value of a dwelling increases considerably after such an improvement has been made.

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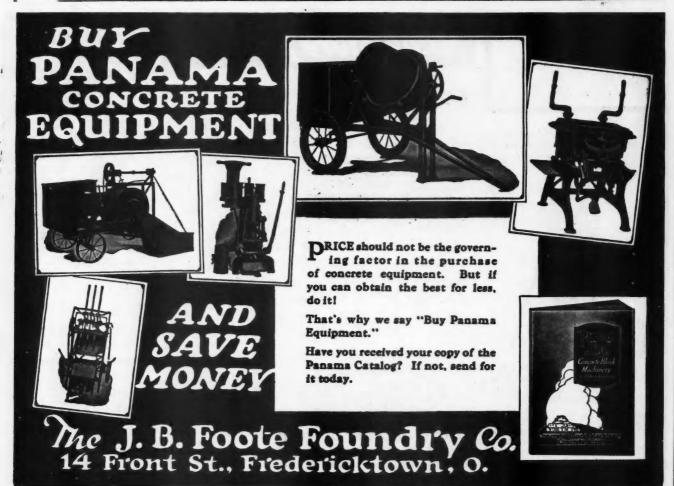


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# Compare before you buy

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Before picking any mixer - write us. Your name and address on a post card will bring you a lot of facts about Stewarts — things you are interested in knowing about mixers before buying. Write us today.

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This adaptation of the beautiful and harmonious roof of yesterday, to the methods of construction of today permits the more general use of this charming roof of romance.

All the architectural beauty of Spanish Earthen Tile is retained in Leadclad, which, when properly painted, defies detection except by a very close inspection.

In the use of Leadclad Spanish Tile no detail of appearance is sacrificed but an appreciable saving is effected through the lighter construction of the building, the much lower price of the tile and the lesser amount of labor is required in erecting.

amount or labor is required in erecting.

Its heavy coating of pure lead presents a surface to the elements that will resist rust and corrosion for generations. Its tough core of sheet steel provides strength to resist shock from a carelessly thrown stone or falling chimney brick.

Leadelad Tile will not twist, buckle or get out of alignment. The expansion protection against fire or water and when properly connected with the spouting is absolutely lightning proof.

Its thick, heavy coating of pure lead places Leadclad Spanish Tile in the preferred class of permanent roofings.

Write for the Leadclad Booklet, "Defying Age and Time"—it's free, together with complete information regarding Leadclad Spanish Tile.

WHEELING METAL & MFG. CO., Wheeling, W. Va. Gentlemen: Without obligation, please mail, me a free copy of "Defying Age and Time," and information concerning the Leadelad products checked below. earn more-about Leadcla ☐ Leadclad Shingles ☐ Leadclad Spouting Leadclad Spanish Tile □ Leadclad Siding US PAT OFFICE 1923 SHEET STEEL COATED WITH PURE LEAD

# Park Screen and Storm Door Closer Patent Applied for

The PARK Screen and Storm Door Closer is recommended for ordinary screen doors and inside doors of light weight, such as bathroom, pantry and toilet.

It can be used on either side of the door without changing the bracket, also between two doors where the space is only two inches.

The PARK Closer is universal, that is, right or left hand and designed with ball and socket swivel and knurled ratchet, it has a finer and wider range of adjustment than any other Closer of similar constuction.

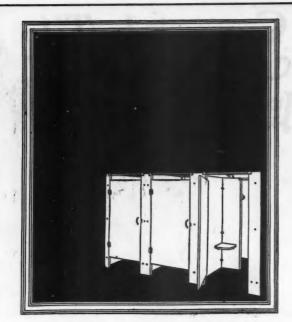
It is easy to apply and guaranteed to give satisfaction for vears

Packed one in a box; one dozen in a carton.

Write Dept. Q for prices. Or see your nearest dealer

### PARK MANUFACTURING CO.

Worcester, Massachusetts. U. S. A.



TYPICAL snowy white installation of Struco Slate. Natural Slate to be sure,—but with a permanent durable finish that will not chip, craze or discolor. Struco Slate is made in all colors and combination of colors.

Architects are invited to write for complete data on Struco Slate. Address

THE STRUCTURAL SLATE CO. PEN ARGYL, PA. 104 Robinson Ave.



Cabranette 5'-61/2" Alcove Kitchen Unit In Vitrified Porcelain Enamel

The Alcove Kitchen Unit shown above is the smallest of the complete Cabranette Units, and is adaptable to

of the complete Cabranette Units, and is adaptable to the one and two room hotel apartment.

There is a Cabranette Kitchen Unit designed to meet every kitchen need, and to fit any size Apartment or Residence Kitchen.

The Plan Service Department of this Organization is available to Architects and Builders for the preparation of drawings and details in connection with the layout of Cabranette Equipment in their kitchens.

Booklet describing our complete line in detail with dimensions will be sent on request.

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Manufacturers of Porcelain Kitchen Equipment and Medicine Cases

304 North Michigan Avenue, Chicago, Illinois

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### OLD EUROPEAN SLATE ROOFS

Exactly duplicate the old slate roofs of Europe with their rich colorings and strong natural texture.

Roof Suggestions on Request

KNICKERBOCKER SLATE CORP'N E. J. JOHNSON, President

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DOUBLE HUNG WINDOWS

## "Another thing

The windows are all hung with the famous

can be applied to any type of archi-

tecture and possess many advantages for both user and builder.

# SAMSON SPOT SASH CORD

T'S another talking point when selling the house-visible evidence that you have used good materials.

Windows must be useful, and their continuous usefulness depends upon the kind of sash cord used.

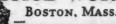
Samson Spot Sash Cord is a wise investment in customer satisfaction. Its Colored Spots identify it for you—its firm even braid, uniformity, and smooth finish make it easy to install, and insures years of trouble-free service.

> Let us send you samples and a table showing proper cord and pulley sizes.

Trade Mark Reg. U. S.

Made by SAMSON CORDAGE WORKS

88 BROAD STREET





# REMODE

Give the children an attractive indoor place to play. The attic is ideal; they can romp to their hearts' content, without disturbing the household. Oak Flooring, laid over the present unsightly floor, helps to make a real room out of the attic, and keeps it clean and sanitary besides.

### Make More Money

In addition to the opportunity that every unimproved attic affords, you can make money by interesting your friends and neighbors in "toning up" the home, by laying Oak Floors in every room that has old, worn, ordinary floors. Quote by the room, not by the thousand feet, and prove how inexpensive the remodeling job will be. You can get in touch with a local Oak Flooring dealer, get samples and prices, and figure yourself the cost of laying and finishing. Then call on prospects.

### We Will Help You

We will supply you with free illustrated literature to show prospects. Also technical booklets for your use, showing how to figure accurately the amount of flooring required on a job, with grading rules, standard measurements, proper handling, laying and nailing, etc., etc.



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Please send me 'The Story of Where to Use Oak Floors."	Oak Floors," and "How and
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# Crescent Universal Wood Workers satisfy particular users.

You want the substantial construction you will get in the Crescent Universal Wood Worker and you need the many conveniences and ample capacities it will give you. Your customers want the best work it is possible for you to turn out at a reasonable price and you must make some profit from doing that work. The most logical thing for you to do is to buy Wood Working Machinery that is thoroughly practical, simple in construction and that is built to give you many years of satisfactory service.

Ask today for circular of Crescent Universal Wood

Ask today for circular of Crescent Universal Wood Worker. The machine will help you to increase your profits and turn out more work.

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# SAVE MONEY On Paint Jobs



Spray your paint. Hand brushing takes too long where speed, cost and quality are a factor. Binks Portable Spray Painting Equipment makes light work of painting that is difficult by any other method. Bough brick, stucco, plaster, new wood or weather-worn wood, corrugated steel, etc., are quickly and thoroughly reached by the pressure of the spray. And, what's more, the work is done \$15.05 times faster than brushing, depending upon the nature of the work.

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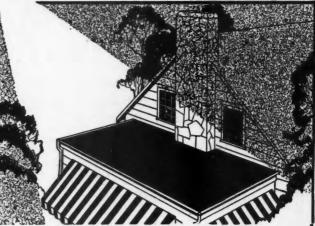
Investigate this opportunity to add painting profits to your building contracts. Full details and valuable information will be mailed upon request. Write today.

BINKS SPRAY EQUIPMENT CO.

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is a specially prepared roofing canvas treated in such a manner as to increase its tensile strength and wearing qualities. It is absolutely waterproof. It is laid without a white lead bedding and will not crack or buckle or peel.

For the routs and floors of piazzas, sun-parlors, aleeping-porches and all flat roofs "BAYONNE" has no equal.

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1927

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It appears on every roll of Speed grits DURUNDUM and Speed grits GARNET

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# You Profit In Two Ways!

To help make a new house sell quickly, put "White-Steel" Medicine Cabinets in the bath-room, kitchen and lavatory! Buyers accept their beauty, sanitary features and splendid quality as evidence of the completeness and fineness of the entire home. Result: a speedy turnover of your investment.

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#### HENZIN METAL

— the base of "White-Steel" Cabinets—made by our secret process, has great adhesive and rust-resisting qualities. Six coats of enamel, each baked separately, produce a lustrous, permanent finish.





**Expansive Screw Anchors** 



**Expansion Bolts** 

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What are the compelling reasons why ACKERMAN-JOHNSON Expansive Screw Anchors have become the most popular type with Electricians and the various Trades Mechanics everywhere?

Because in comparison with the work and uncertainty in setting the older type Expansion Bolts for making fastenings to concrete and masonry generally, it becomes an actual pleasure to set the ACKERMAN-JOHNSON.

Because there is distinct fascination in so easily setting so small a device with a realization of the tremendous load it can hold.

Because there is great satisfaction in leaving a job knowing it could not have been better done.

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It is wonderful what a remarkable transformation takes place when an "Edwards" Metal roof is properly applied to a house—all of the charm of the old Spanish Terra Cotta Roofing Tile is preserved even to the color.

The house takes on a new lease of life. It seems a better place to live in. An Edwards Metal or Tile Roof is a real commercial asset and will bring a better return in rent or sale.

or sale.

Edwards Metal Roofings made to have the appearance of wood shingles, tile, slate, or any other roofing effect, and none of these fine artistic effects will cost any more than a plain, commonplace roof.

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When an Edwards Roof is laid, it is there to stay.

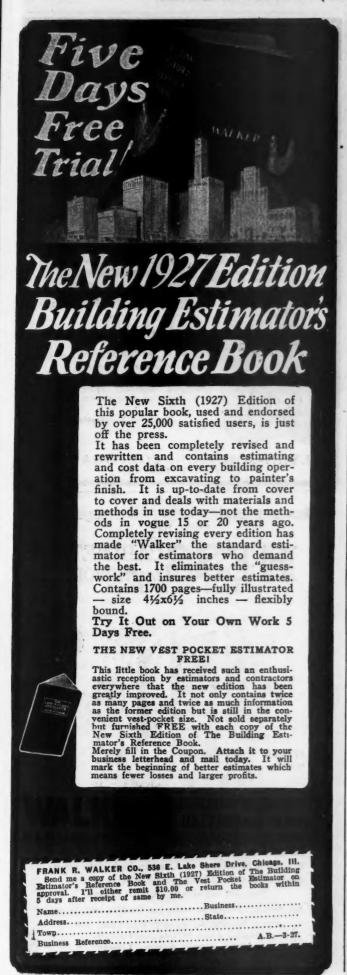
Send for our literature-it explains.

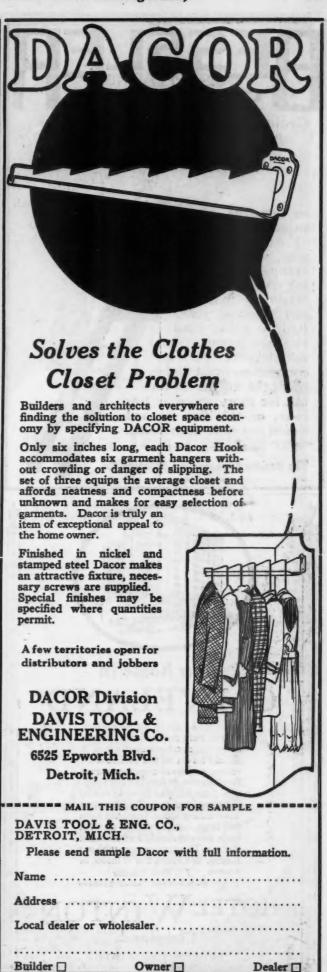
The Edwards Mfg. Co.

The World's Largest Manufacturers of Metal Roofing, Metal Ceilings, Metal Garages, Portable Buildings, Roll-ing Steel Doors, etc.

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Slides up into the ceiling when not in use



Growing in Popularity

In 1926, the sixteenth year of our business, we sold many more Bessler Disappearing Stairways than in any previous year. People must find them convenient and valuable: builders and contractors must find in them the answer to the call for more space at less cost, or this fine record would not have been made.

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The Bessler Disappearing Stairway Co.

Akron, Ohio

# Bronze Door Holding Equipment Standard Equipment in the Foremost Buildings in America



**ARISTOCRAT OVERHEAD** DOOR HOLDER

For installation on entrance doors opening out. The last word in modern equipment. 'Up over the heads

RAWLINGS AUTOMATIC DOOR HOLDER and BUMPER

Built in two types for floor and wall installation. wall type—excellent equipment for doors opening back to wall or partition. Floor type—splendid equipment for doors opening from 90 to 165 degrees.





Fulcrum or Leverage principle. Simple-Noiseless in operation.

Ideal equipment on doors of every description, especially doors operating with checks or door closers.

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GLYNN-JOHNSON CORPORATION
LA PORTE, INDIANA



Your home in

Your home there, to be perfect, should be in the center of theatre. shopping, and business districts. It should be on all the main motor routes, and have complete garage facilities too. It should have a popular-priced Coffee Shop served by the same kitchen as the luxurious main dining room. It should have 600 large, outside rooms, all with bath. Its rates should be from three dollars. The service goes without saying, We mean the Winton, of course. J. L. Free, President W. S. KOONES, Managing Director

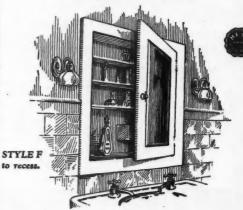
HOTEL

Cleveland

PROSPECT AT NINTH



and MIRRORS Snow-White Steel



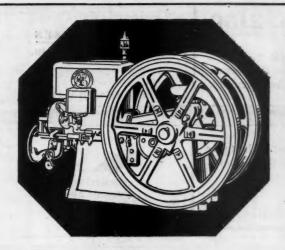
HESS Snow-white Steel Cabinets are unequalled for their fine workmanship and for the beautiful satin like enameled finish, hand rubbed like the finest furniture. Used in high class apartments, hotels and homes everywhere.

Samples submitted without charge.

See Sweet's Index; or write for booklet and prices.

HESS WARMING & VENTILATING CO. Makers of Hess Welded Steel Furnaces.

1220 S. Western Avenue, Chicago



# Out of sight out of mind

If any one of the many advantages common to the Hercules Engine stands out more prominently than another, it is the ability to labor on and on, absolutely independent of attention.

With the Hercules, out of sight is actually out of mind. You have the satisfying assurance that, once started, it will vigorously perform its appointed task until it is either turned off or "dies" from lack of fuel.

This quality of consistent operation has met the approval of nationally known manufacturers of portable contracting machinery such as gravel screens, concrete mixers, conveyors, pumps, etc. If you will write us we will gladly inform you which manufacturers equip their products with Hercules engines—in other words, which products you can buy with perfect safety.

THE SERVEL MANUFACTURING CO.
Hercules Products Division
EVANSVILLE, INDIANA

# HERCULES





### "YANKEE" BIT EXTENSION No. 2150

Stands abuse and follows through

Bits will not loosen and pull out in work

CANNOT JAM.—A Yankee feature prevents jamming of bit in the socket. It will accommodate a large range of square shanks and hold them securely.

FOUR SIZES 15-18-21 and 24 in.

Follows ! in. Bit and Larger



NO JAWS to break. The square shank is held firmly by socket. The taper end of shank is accurately machined. The tool is nickel-plated throughout.

Ask your dealer to see it. You will at once recognize its unique construction and efficiency.

NORTH BROS. MFG. CO., Dept. A., Philadelphia, Pa.



A postal will bring you our Tool Book

Please mention this magazine.

# MARSCHKE

**COLLAPSIBLE STAIRS and LADDER** 



Comes all complete with casing, jambs and ceiling panel, all fitted ready to put into the opening in the ceiling. No fitting, no bolts; just a few nails and it is ready for use. Can be easily and quickly installed by anyone who is handy with tools.

Prices-\$25.00 And Up.

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# Limaco All Steel Ironing Board and Cabinet

Install With Eight Woodscrews and a Few Minutes

Limaco features give to the home that finishing touch so readily appreciated by the prospective buyer.

The contractor should see in the Limaco Ironing Board two savings—the low first cost and the saving in time and labor. Quantity prices to dealers and reliable contractors.

Ready assembled. Made of heavy gauge steel sheets and assembled by welding process.

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LIMA, OHIO

New York Representative
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UTILITY WINDOWS
This Bayley Utility Window is moderate in cost. Usable in buildings of many types and for many purposes. Ideal for garages and similar small structures. Yentilators center pivoted. Each unit has 4 lights 12x26 and 3 lights 13x20.

B AYLEY-SPRINGFIELD STEEL WINDOWS are easily sold wherever they are shown. Construction features make for strength and economical installation. Require less time and labor to install than wood windows and therefore profits are greater. Quantity production makes it possible to price at very close figures.

Designed for all types of buildings. Have many-advantages over wood windows. Bayley-Springfield products are the result of 45 years' experience in architectural ironwork.

Write for full description and prices. Stocks carried at branches in principal cities.

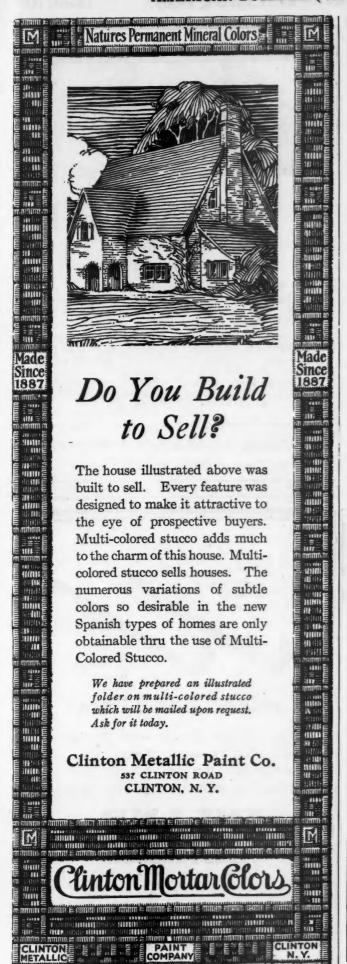
THE WILLIAM BAYLEY COMPANY
128 North Street, Springfield, Ohio

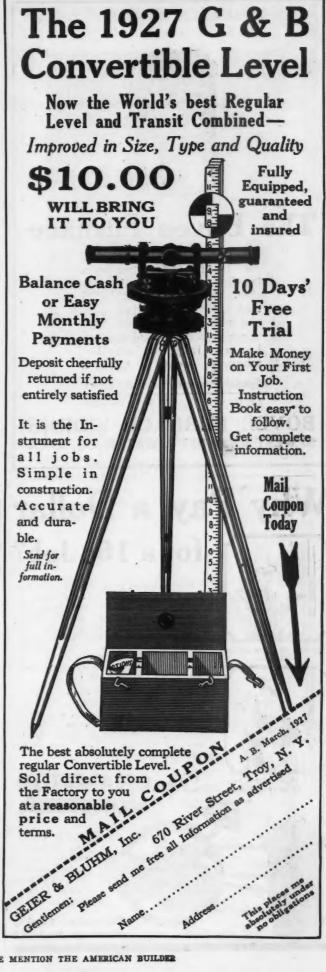
44 years of service to builders and architects

Bayley-Springfield Steel Windows



WINDOWS FOR BASEMENTS
The Bayley Window for basements in residences, apartments and other buildings. Cost no more than wood, yet give 50 per cent more light—made in four standard sizes.





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## The Bovee Furnace

The 1927 building season will soon be on! Before you begin building operations get the facts about the BOVEE FURNACE with a 30 year record of superior heating performance. For churches, schools, banks, stores, houses, large or small—wherever heat is needed.

Special Proposition to Contractors.

Get the facts. Write us today.

BOVEE FURNACE WORKS 50 WEST 8th STREET, WATERLOO, IOWA

# KEWANEE

announces a new and better

### STEEL BASEMENT WINDOW

The Kewanee Steel Basement Window gives 75% more light than the old-fashioned wood basement window. It is more durable, convenient, efficient, and costs no more.

The frame is of rigid one-piece steel construction equipped with improved cam-action lock and improved type of hinge, which permits convenient removal of sash for cleaning. Construction throughout of Copper Steel, insuring freedom from warping, shrinking, swelling, rotting. Made in sizes to fit any construction. Write for full information

Dealers: Write for Agency Proposition and Liberal Discounts.

### KEWANEE MANUFACTURING CO.

307 Tremont Street, Kewanee, Illinois

MAKERS OF KEWANEE COPPER STEEL COAL CHUTES

# Why Pay a Dollar



Only two mortises an hour this way.



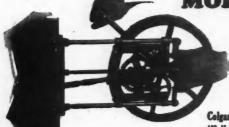
Better than twelve mortises an hour this way.

## for a 16c Job?

Few men can cut better than two good mortises an hour with brace and chisel. At \$1.00 an hour for labor that means each mortise costs 50c a piece. With the Champion Mortiser you can easily cut twelve mortises an hour which at \$1.00 an hour is less than 8ca piece or a saving of 40c a mortise. In-other-words, for every 125 mortises with brace and chisel you're paying better than \$60. for a \$10. job!

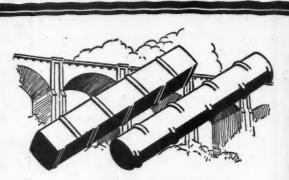
Stop this wastel Get a Champion! It cuts any size mortise in any wood perfectly, whether full of knots or dowel pins. Quickly and easily adjusted, simple to operate. Once set, no chance to go wrong. Anyone can turn a crank. Weighs but 25 lbs. Carried anywhere.

The CHAMPION MORTISER



Try the Champion. Shipped on tendaystrialany-where. Literature upon request, Send today, NOW!

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### **Inland Bond Bars**

New Billet Stock—all grades—Rounds and Squares—lengths up to 85 feet—weights same as plain bars

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Billets Bars Plates Shapes Sheets Rails

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No. 101C Instrument

Starrett

That's why you'll always find Starrett Tools where you find good workmen doing good work. The name Starrett stands for accuracy, convenience and the ability to stand up under long, hard usage.

Here are some of the tools that every carpenter and builder needs. Ask your hardware dealer to show you 'em. And write us to send you a free copy of Catalog 23"6" describing and illustrating these and over 2000 other fine tools.

THE L. S. STARRETT CO. World's Greatest Toolmakers Manufacturers of Hacksaws Unexcelled Steel TapesStandard for Accuracy

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### Simplify Mason's Time with a **Covert Smoke Chamber**

THE smoke chamber is one of the most essential details of chimney construction, and often one of the most troublesome. If improperly built, a smoky fireplace is the inevitable result. Hence its design and construction should never be left, in any degree whatver, to chance.

The Covert Smoke Chamber is in reality a scientifically designed form over which the mason builds up his brickwork. This not only saves time for the mason, but assures an accurate, properly dimensioned chamber, with smooth interior surface.

The Covert Smoke Chamber can be used with any make of damper, and is being freely specified by leading architects.

If you do not know all about this smoke chamber, you should clip and send in this coupon at once.

TEAR HERE :

The H. W. Covert Company 243 East 44th St., New York City

Gentlemen:—Please send me complete information on Covert Dampers and Covert Smoke Chambers.

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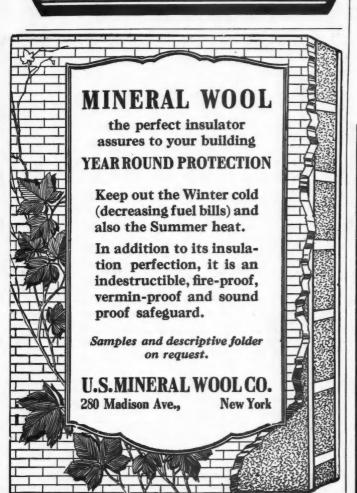


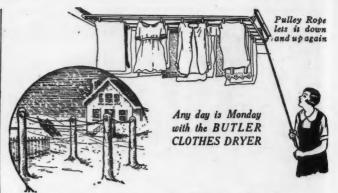
THE DAYTON PUMP & MFG. CO-DAYTON, OHIO, U. S. A. A.B. 3

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THE WATER





# BUTLER CLOTHES DRYER Takes the Brr Out of March Drying Puts the \$\$\$ Into March Buying—

MARCH sales are bound to improve where the Butler Clothes Dryer is installed on the Kitchen or Laundry ceiling.

"Mrs. Prospect" need not worry about the snow and wind out-of-doors with this famous *Indoor* Dryer. Every builder and apartment owner should install them—they cost very little—and sure do increase values.

Fireproof—Sanitary. Drys clothes any time, any weather. Made of finest rust-resisting steel. Equipped with forty-eight patented clothes pins. As much drying space as the average clothes line. Strongly built. Easy to operate. Beautifully finished; shipped ready to install.

Write us regarding special introductory offer 2

#### BUTLER LABORATORIES, INC.

Executive Offices and Factory

4201-17 Avenue H

Brooklyn, N. Y.

A few choice territories still open for distributors. Write for details.



### Make More Money on Fly Screens

The SIMPLICITY Woodworker enables you to make fly screens for every type of wooden door and window at lower cost. You can take rough lumber and turn out a finished screen of any style with this one machine. We guarantee the SIMPLICITY to do this work in a practical and quick way.

### Does All Kinds of Woodworking

The SIMPLICITY combines eight machines in one—28 different and practical woodworking operations (including thickness planing) on this one

machine. Contractors take it right out on the job. Makes hundreds of articles. Equipped with electric motor, gasoline engine or belt drive.

"Buy One Machine Instead of Eight"

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# At Home'Mid the Finest Bathroom Surroundings—

927



H-1402

This shower has been featured for years in Speakman National Advertising and is the finest two-valve shower that we make.

Valves have renewable high seats—washers are swivel disc type, waterways are full size, escutcheons and handles are extra heavy.

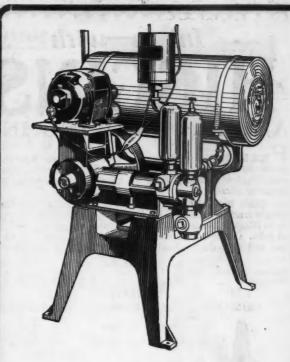
This H-1402 shower can be put over any built-in tub, and over any type of bath fixture. It comes assembled with the Speakman Deshler Bath Fixture and is known as the H-2355 combination.

Glad to send you literature on this and other Speakman products; also to work with you on any of your bathroom problems.

SPEAKMAN COMPANY
WILMINGTON, DELAWARI

# SPEAKMAN SHOWERS and FIXTURES

"Safe to build in the wall"



# Homes Sell Quicker when Paul Pumps are on the job!

RUNNING water is the first-wanted modern convenience in homes beyond the water mains. Put in a dependable water system and you remove all resistance on that score.

Paul Private Water Systems have a quarter century reputation for dependable, satisfying performance. Now the Bulldog Systems combine Paul quality features with compactness and low cost. Every builder can make money by using Bulldog Systems.

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Send at once, Bulletin on Paul Bulldog Water Systems for Deep or Shallow Wells.

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PRESERVE your rough pencil sketches and your details with Higgins' Drawing Inks blueprint them.

For quick blueprint reference, specify tracings which are made up in Higgins' Black and Color-ed Inks. On the blueprint each line will reproduce clearly to

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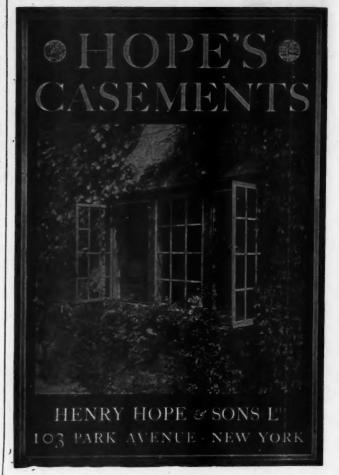
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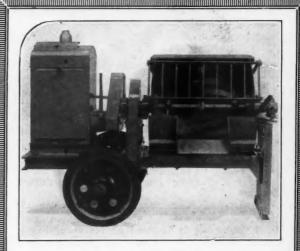
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# MYERS Home Water Sy



THE F.E.MYERS & BRO.CO. ASHLAND, OHIO.



### Atlas Mortar and Plaster **Mixers**

"Atlas", The Contractor's Friend, portable trailer mortar and plaster mixers are designed to give maximum service for years at a minimum cost of upkeep expense. The "Atlas" mixes better in a fraction of time, saves on materials and cuts labor costs. Sold at a low figure.

Let us mail you our catalogue and prices.

ATLAS ENGINEERING CO. 3037 Galena St.

MILWAUKEE,

WISCONSIN

927



to Transit

## White's Improved

CONVERTIBLE LEVELS

# \$9500 Lead in Design, Quality Ten Days' Workmanship and Power

Before you buy a level, investigate and compare the many exclusive advantages offered by White's Convertible Levels. They have been favorites with the progressive builder for many years. There's a White Level to suit your needs and at a price you will be glad to pay. Two popular models are shown here.

#### New Model No. 2020

This new one-piece combination White Level is universally acclaimed the most perfect leveling instrument of its kind ever constructed; has many exclusive features and refinements not found in ordinary levels.

### New "Duplex" No. 2052

This simple, accessible level makes the change from level to Transit instantly, by simply pressing a lever. Has adjustable telescope standards cast integral, and many other features that permit speed and accuracy.

Dealers in All Important Cities

DAVID WHITE CO., INC 901 Chestnut St., MILWAUKEE, WISCONSIN



No. 2052—New Duplex Model in level position.



Write for catalog describing the complete line



Section of a Qua ry-Cleft-Slate Roof

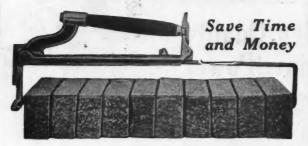
# Quarry-Cleft-Slate The Roof of Old World Charm AT LOW COST

Possessing all the well known qualities of genuine natural slate and with the added attraction of being "something different" which gives your entire building an upto-date and permanent appearance.

Keep abreast of the general movement for permanent construc-The age word had particularly on tion. Send for our illustrated literature.

VENDOR SLATE CO., Inc. EASTON, PA.

# BRIKARIERS



Why dump a load of brick and damage them when they can be unloaded safely with "BRIKARIERS"?

With FULLER "BRIKARIERS" you can handle ten brick at a time, decrease breakage, speed up loading and unloading and increase satisfaction among workmen.

Contractors are pleased with FULLER "BRIKARIERS" because of the great savings. Put FULLER "BRIKARIERS" to work for you and have your brick handling problems solved. If your dealer does not have "BRIKARIERS" write for circular and prices.

THE BUILDERS' MATERIAL CO. 603 So. Third St. Cedar Rapids, Iowa



The HERRICK refrigerator in the home means comfort whether ice or electric refrigeration is used. Food is always appetizing.

Ice suggests the use of the HERRICK with the outside icing feature. The iceman never enters and in winter months the refrigeration of the HERRICK costs nothing.

Electric refrigeration can be installed in any Herrick, insuring comfort thru efficient operation and genuine refrigerator satisfaction which can be experienced only by Herrick users.

HERRICK REFRIGERATOR CO. WATERLOO, IOWA 105 RIVER STREET :-:





Invest \$23.00 - Clear \$1334.00 Yes, Mr. Ledoux did just that. Big profits? Certainly! No ex-perience necessary. Put your spare time to work on this side line. Soon you will devote full time to it.

Utility Molds, \$14.80 up

The Utility line includes complete molds for making vases, flower boxes, bird baths, sun dials, ornamental porches, chimneys, etc., etc.
Write for big Utility Catalog "A," giving full information and prices.

Concrete Equipme



Send for Catalogs

# Just Off the Press.

Monarch 1927 Price List,

showing general price reduction on all complete water systems.

Also announcing

a new Monarch of intermediate size for general supply, capacity 275 gallons per hour-larger than the well known 200 gallon size, but smaller than the 400 gallon unit.

The Monarch is recognized as a strictly quality line of pumps and systems, and every architect, builder and contractor is urged to familiarize himself with the Monarch line.

Write for Monarch Catalog, No. 103, and 1927 Price Sheet, No. 10.

THE MONARCH ENGINEERING COMPANY

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# The New Home

HAS ADDITIONAL PROFITS FOR YOU

ARE you prepared to bring that extra profit to your business? This easy revenue you can get with Invincible House Lining.

### **INSULATION**

Right now someone is figuring on using insulation. Who is going to get that order? Who is going to get that extra profit? Who is going to get the credit for handling this wonderful insulation? Once you have sold Invincible House Lining, you will then realize what it will do for your customer in first cost, comfort and fuel-savings, also give you added prestige, not only in the insulation field, but as a dealer.

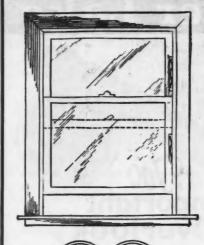
### COMPETITION

Invincible House Lining has no competitor from a standpoint of insulation value, price, quality, durability, and ease of handling or installing.

NOT A WALL-BOARD, BUT REAL INSULATION

IF YOU BUILD, USE INVINCIBLE HOUSE LINING

INVINCIBLE HOUSE LINING CO.
JANESVILLE WISCONSIN



# Chicago Sash Holder

No weights pulleys or cords

Practical
Easily installed
Inexpensive

Saves half the expense on Porch Enclosures

Pat. Pend

1. They are absolutely dependable.

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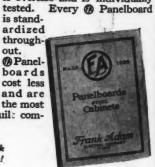
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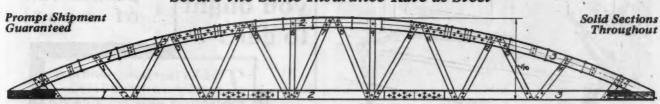
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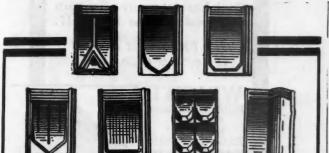
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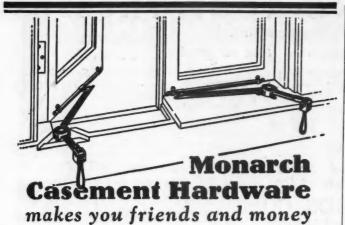
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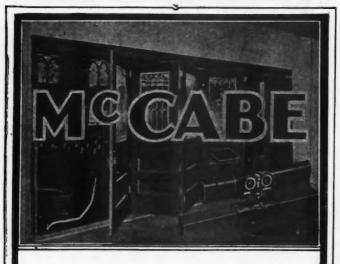
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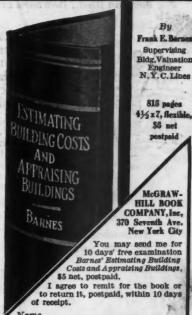
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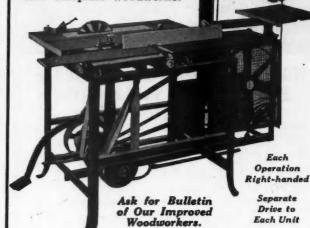
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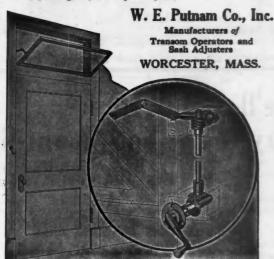
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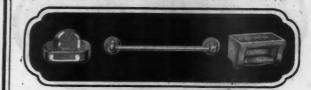
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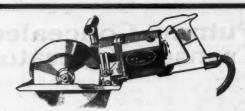
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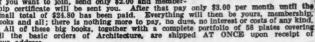
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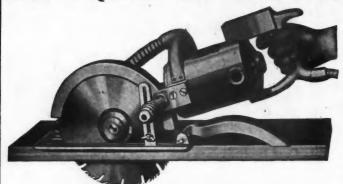
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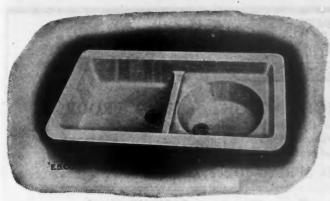
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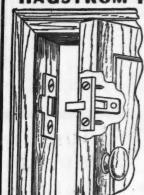
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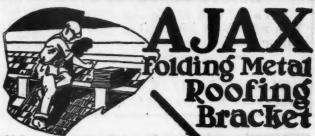
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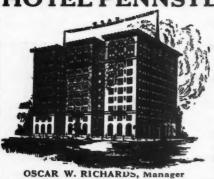
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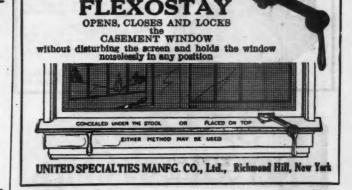
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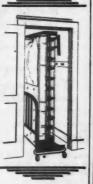
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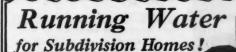
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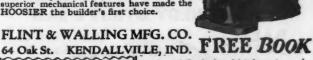
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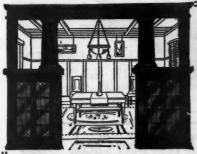


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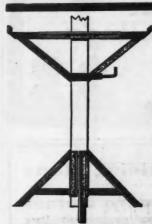
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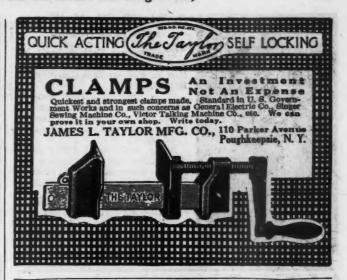


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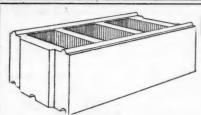
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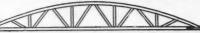
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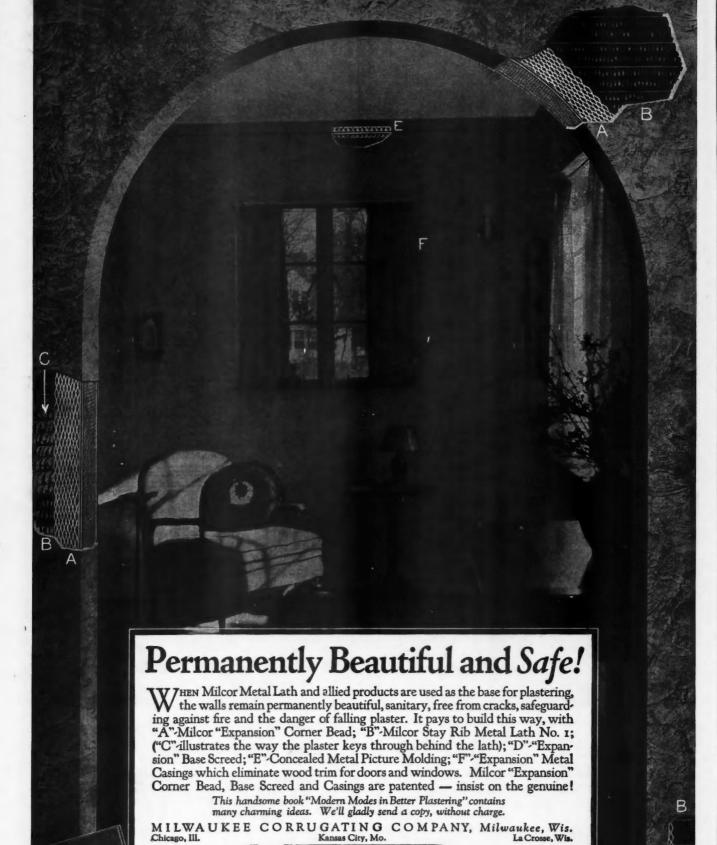
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