

Published on the first day of each month by American Carpenter and Builder Co.; Wm. A. Radford, President, Treasurer and Editor-in-Chief; Wm. A. Radford, Jr., Vice-President; E. L. Hatfield, Vice-President and General Manager; Bernard L. Johnson, Vice-President and Editor; Roland D. Radford, Secretary; S. C. Kellenberger, Dealer Service; Charles G. Peker, Eastern Editor; Delbert W. Smith, E. B. Wolfrom, C. R. W. Edgcumbe, L. H. Reich, O. H. Sutter, Cecil W. Blashill, H. P. Sessions, J. J. Dubro, Advertising Staff.

Publication Offices: Radford Building, 1827 Prairie Ave., Chicago Telephone: Calumet 4770

Eastern Office, 250 Park Ave., New York City Telephone: Vanderbilt 3185

THE

AUDIT

BUREAU

OF

MEMBER

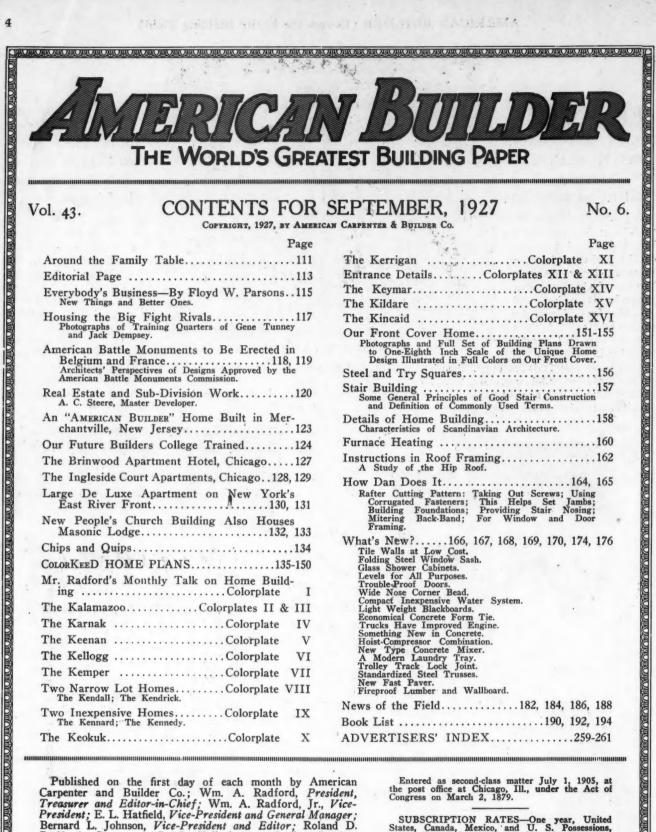
SUBSCRIPTION RATES—One year, United States, Canada, Mexico, and U. S. Possessions, \$2.00; six months, \$1.00; single copies, 35 cents. Foreign countries, \$4.00. PROTECTION FOR OUR READERS—The publishers of the AMERICAN BUILDER reserve the right to decline any advertising they believe is det-rimental to the interest of its readers; to edit ad-vertising copy and to change or eliminate any state-ments that reflect injuriously or cast discredit upon other building products, machinery, equipment, sup-plies or tools. Be sure in writing to advertigers to say: "I say

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ADVERTISING RATES—Furnished on applica-tion. Advertising forms close on the 10th of the month preceding date of publication.

OF

CIRCULATIONS



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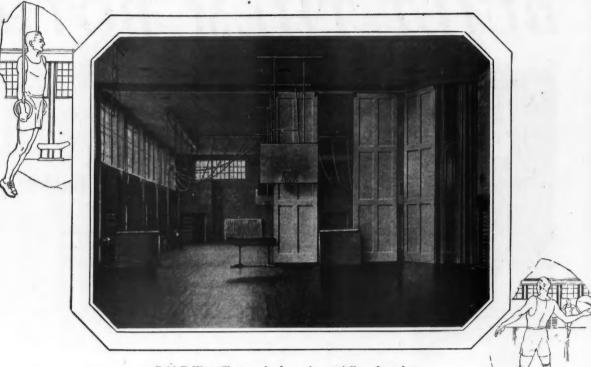
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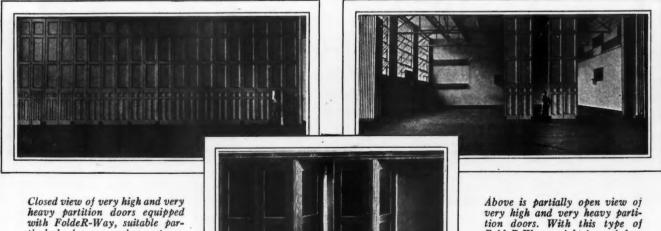


[September, 1927

The FOLDER-WA



FoldeR-Way illustrated above is specially adapted to very wide doors, with weight carried on overhead hang-ers and track which automatically folds doors. No floor track or guide is necessary.



ticularly for gymnasiums, stages, halls, etc., with high ceilings and unusual widths.

6

In the illustration above is the type of FoldeR-Way best suited to school lock-ers, telephone booths, etc. Above is partially open view of very high and very heavy parti-tion doors. With this type of Folde R-Way, weight is carried on floor track and ball-bearing rol-lers. Upper track and rollers act as guide as guide.

method for wide openings

WIDE OPENINGS, at times, present a difficult problem for doorway equipment. But more and more architects and builders are finding that FoldeR-Way partition door hardware is designed with such skill and variety that their task is little more than selection of a type.

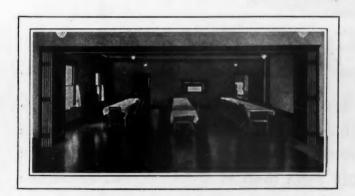
Whether your needs call for massive sliding-folding doors for

gymnasium or hall, or smaller and lighter doors for church, hotel, auditorium, telephone booth or locker—there is a type of FoldeR-Way to meet any and all requirements.

FoldeR-Way is built to slide and fold smoothly and easily, regardlessof weightor size of doors. Our engineers will be glad to help you with your door way problem.

Phie

The R-W book "Sliding and Partition Door Hardware" will prove a ready reference in your files. Contains 100 photographs, drawings and designs of FoldeR-Way methods and uses. Let us send it to you.



Here you see FoldeR-Way equipment designed for doors of medium weight. With this type, doors are moved on ball-bearing hangers in overhead track. Another installation of FoldeR-Way overhead equipment, suitable particularly where doors are of both medium weight and width.



New York · · · AURORA, ILLINOIS, U.S.A. · · · Chicago Boston Philadelphia Cleveland Cincinnati Indianapolis St. Louis New Orleans Des Moines Minnespolis Kanness City Los Angeles San Francisco Omaha Seattle Detroit Montreal · RICHARDS - WILCOX CANADIAN CO., LTD., LONDON, ONT. · Winnipeg

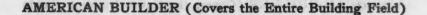


On the continent, Zouri Store Fronts have won a place in smart shopping centers known as the "Fifth Avenues of Europe" for their distinctive appearance and long-run economy. Here, where insistence upon artistic quality and value is even more rigid than in the U. S. A., Zouri has gained preference by its substantial, clean-cut beauty, backed by exclu-



sive features for plate glass protection.

The fortified, extra-heavy copper or bronze frame of a Zouri window assures freedom from distortion, for pressure is distributed equally along the entire width and height by Key-Set Construction. This also prevents disastrous cracks from starting.



An Amsterdam salesroom

As used in Paris

52

Europe

Zouri's success abroad is a further proof that Zouri performance more than fulfills its promise.

> 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.

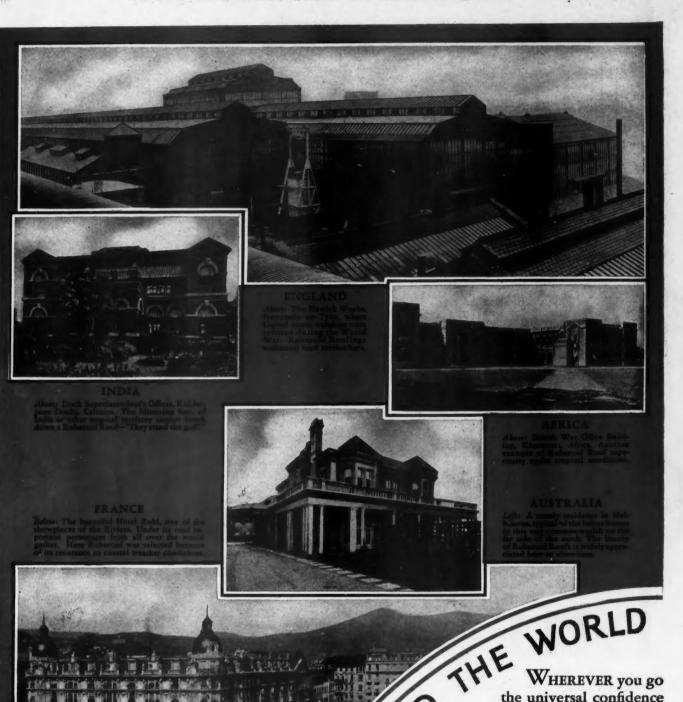


MARTOUGIN



DISTRIBUTORS IN PRINCIPAL CITIES - NAMES ON REQUEST

[September, 1927



WHEREVER you go the universal confidence in genuine Ruberoid Shingles and Roofings is evidenced by the number of homes, schools, hotels, museums, industrial and farm buildings roofed with Ruberoid.

APOUND Ruberoid's leadership rests on the fact that Ruberoid Roofs have made good in every corner of the earth, regardless of weather conditions. Men throughout the world respect its qualities for service and protection.

> The wide range of genuine Ruberoid Products assures the selection of a suitable roof covering for any style of building at prices "friendly" to all pocketbooks. If you are not familiar

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

ROOFINGS

au

Genuine

RU-

SHINGLES ~

MARINE STREET HAVE BEEN AND THE THE

11

WITH send us We will be liter-bub the coupon below. We will send you full descriptive literature and the name of the Ruberoid dealer who can best serve you.

New York Chicago Boston In Canada: RUBEROID (division of Building Products, Ltd.) Montreal

The Ruberoid Co.,	Dept. 1
95 Madison Avenue, New Yorl	City
Gentlemen: I'd like to kno the full line of <i>genuine</i> Ruberoid 1 Send me literature.	ow about Products.
Name	1

Address

1

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

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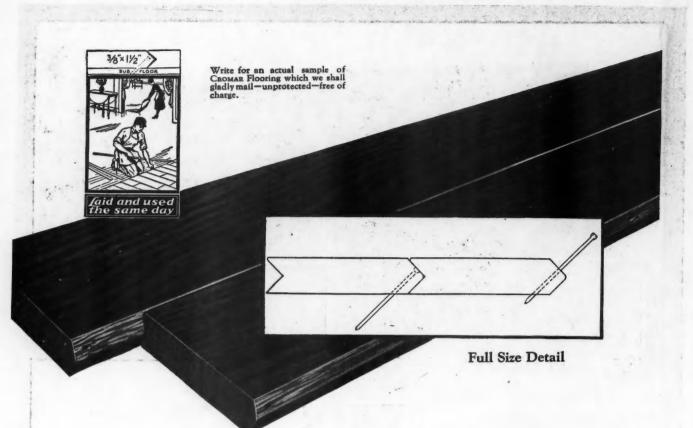
russo.

Genuine

INGLES ~ ROOFINGS

11

RUBEROID ROOFING



This reproduction shows two strips of CROMAR Factory Finished Oak Flooring in ... Full Size

NOTE especially the tiny surface-seam (PATENTED!) between the two strips. This seam is rounded. It is *finished*. It is so shallow that the shaft of an ordinary pin will more than fill it!

That tiny CROMAR seam is one of your strongest arguments to your women customers:—there can never appear square cracks between the strips. Square cracks pack with dirt—making ugly black streaks which cannot be removed. The beauty of a CROMAR floor can never be thus marred.

Observe the improved CROMAR tongue and groove. It fits quickly and snugly. Gives a thick nailing line.

Note also the nail-holes-all ready punched.

And note the flat beveled edge of the tongue, which permits rapid nailing with no need whatever of "setting" the heads.

Details of these and other CROMAR features—which are true of no other flooring—are given on the opposite page. Read them—now! Each should help you to make quicker and bigger sales—



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FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

CROMAR'S Ten Points of prime importance are:

1.-Factory Finished-Like Furniture

Скомая, an oak flooring, miled exclusively from Ap-palachian Oak (a medium-textured oak which better textured at the CROMAR plant by patented machines. Be-ture, all there is left to do is to nail it down.

2.-Finish Stands Hardest Wear



CROMAR patented machines applyfiller, var-nish and wax at the CROMAR plant. Not only is *every* pore of the wood filled, but the filler is actually driven into the oak, under pressure. This prevents the oil of the var-nish from becoming absorbed by the wood. And thus the varnish retains its elasticity and does not flake or scratch white.

"Warping" and "Drying Out" are Prevented 3.

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 sure heard of "drying out" are almost never heard of.

4.-V-Type Tongue and Groove Easy to Lay

5-	
What is a	1

The improved V-joint type of tongue and groove fits quickly and snugly without "blocking." Each nail-hole is punched. The off-centre cut gives a flexible joint and equalizes unevenness in sub-floors. CROMAR lays satisfactorily over a rougher od flooring. sub-floor than ordinary hardwood flooring.

SUB-FLOOR SUB-FLOOR Amage from breaking or splitting. Specially trained floor-

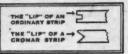
6.-Cleanable Surface Seam

The shallow rounded seam, in conjunc-tion with the CROMAR tongue and The shallow rounded seam, in conjunc-tion with the CROMAR tongue and groove, 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 seam is only 1/40" deep, and is easily cleaned with a brush or dry mop.



7.-"Lip" on Groove Side of CROMAR Strip **Remains Unweakened Even at Time** of Refinishing

CROMAR is made %" thick only The usual objections to thin flooring are entirely overcome in CROMAR by the different shape of the CROMAR "lip" on the groove side. The ordinary "lip" is weakened and often



E SA

"lip" is weakened and often broken during installation by the necessary scraping and sand-ing of unfinished 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.

8.-Convenient and Damage-Proof Bundle

CROMAR Strips are packed face to face, 18 or 24 pieces to a bundle. Bundles are clamped in a press, edges protected with crating, and bound with strap iron to precrating, and bound with strap iron to pre-vent rubbing. Fastened so tightly to-gether, it is impossible for strips to work loose. Thus they are made light-proof, dirt- and dust-proof. Each bundle is sten-ciled with grade and quantity, so that the material can be stored, without uncrating, until ready for use. Loss from broken tongues and grooves, split ends and dam-aged faces is completely eliminated.



9.-Laying Contracts Need Not Be Sub-let

Because the use of CROMAR eliminates the need of any finishing operation whatever, after it is nailed down; and because it is so easily laid that no spe-cially trained floor-layers are needed, the contractor or build-er is enabled to handle the complete job of laying a CRo-MAR floor himself, instead of sub-letting it.



10.-Promotes Extra Sales for Occupied Houses

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 be-cause of the speed with which CROMAR is laid, contractors can handle a greater number of jobs with the same number of men.



A Write for free samples and complete literature concerning the manufacture, the selling to and laying of the only factory finished hardwood flooring on the market.

THE CROMAR COMPANY, Formerly The Crooks-Dittmar Company, WILLIAMSPORT, PA.

OAK FLOORING

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[September, 1927



Business Booster'' Free of Cost

Every builder, dealer in building materials and architect knows how necessary it is to have modern, up-to-date nicely arranged plans to show prospective customers—to excite their interest and make them want to build. "BLUE RIBBON HOMES" has been published to assist and help-to be a "business booster" for our readers.

Splendid Collection of Home Designs

A splendid collection of house plans in a wide enough variety to suit every taste-bungalows, cottages, pretentious residences, summer homes — built of every kind of material — suitable for

cities, towns, villages are shown. Comforts and conveniences of all kindssuch as sleeping porches, verandas, sun parlors, etc., have been given full consideration.

164 Pages-All in Two Colors-Four **Color Art Cover**

No expense has been spared to make this the best and most complete book of home designs ever published. It is a collection that cannot help but stimulate home building and add to the business of every man that shows it to his prospects. Every plan and perspective in this great collection of designs is of a home that has been actually built.

Get This Big Book Absolutely Free

We will send "BLUE RIBBON HOMES" absolutely free, postage prepaid, with each new or renewal subscription to the American Builder. (Extra copies of "Blue Ribbon Homes" may be had at \$1.00 per copy.)

Post Office.....State.....

 USE	THIS	COUPON	AND	MAIL	TODAY	

Pin \$2.00 to This Coupon

American Builder, 1827 Prairie Ave., Chicago, Ill.

This

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Page

Book

Free!

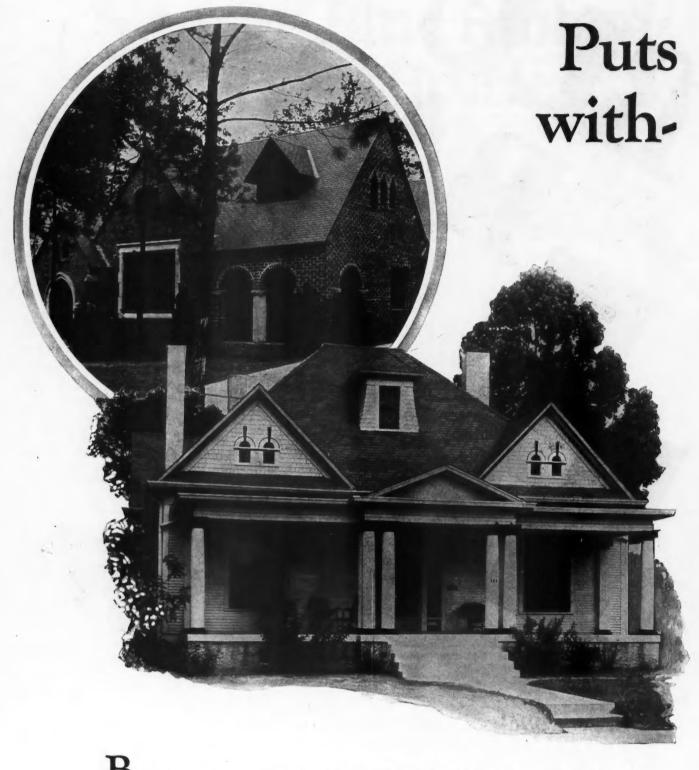
Enclosed find \$2 in payment of my ${new \atop renewal}$ subscription to the American Builder for one year. Also send me Absolutely Free, Postage Prepaid, one copy Radford's "Blue Ribbon Homes."

	Name			
Check your Occupation.		Post Office		
□Building Contractor				
Dealer in Building Materials	1		,	
Architect				

A.B. 9-27

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE





BROAD investigations by the Roofing Fellowship at Mellon Institute of Industrial Research, Pittsburgh, Pa., show that the Carey Cork-Insulated Shingle, laid in the usual manner, three plies, is equivalent in insulating value to practically a half-inch of standard fibre insulating material.

ROOF-INSULATION in the reach of all

EVERY home-owner knows, as you do, that the roof-insulated house is much more comfortable in winter and in summer.

But price has kept insulation off so many roofs.

Now, with the new Carey Cork-Insulated Shingle, price no longer stands in the way—this remarkable shingle puts roof insulation within the reach of all. You can offer all the added comforts of weather-insulation along with weather-protection, at very slight additional cost.

Comfortable, livable homes, under this modern roof

No longer must people toss and fret in stuffy upstairs bedrooms on swelteringsummernights. No need, now, in midwinter, to waste ton after ton of coal heating those same rooms. For the unique Carey Cork-Insulated Shingle keeps the heat out in summer—keeps the heat in, in winter.

A roof of Carey Cork-Insulated Shingles, with their deep shadow lines, will add to the appearance of your houses—make them more salable, too. But above all, when you build these extra advantages into the houses you put up for sale, people are going to think of you as an up-todate builder. And public confidence

> and good will mean so much to you in your business.

Better write at once for samples and full information.

THE PHILIP CAREY COMPANY Lockland, Cincinnati, O.

NGLES

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

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LACQUERS · ENAMELS

Beautiful "crackled" effects ----

Effects of richest beauty are oblained in interiors of the Walter Head residence. Omaha, by the use of Sherwin-Williams interior protective coatings. "Crackled" finishes prevail. The dining room has a light blue "crackle" over a background of ivory, glazed first in light blue, then in Vandyke brown. The beads on the panels are painted red and covered with gold rubbed with steel wood, shellacked, and then glazed in Vandyke brown. A coat of Sherwin-Williams dull varnish completes the job, enhancing its striking richness.



Charming effects for beautiful interiors produced by S-W protective coatings

In the beautiful Omaha residence of Walter Head, there is offered a striking example of how truly beautiful an interior can be made when high quality protective coatings are used.

On every hand, the visitor in this charming residence is struck by the luxurious richness of the wall finish. Not only the walls, but the ceilings and the door frames and window sills have been treated with Sherwin-Williams products.

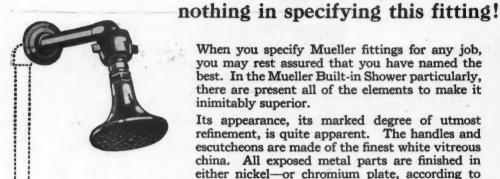
The decorator of Mr. Head's home realized that he was to treat it with the finest quality protective coating available. He naturally selected Sherwin-Williams. Only Sherwin-Williams products could have produced the desired effect of richness, so necessary to give the home its tone of complete luxury. The decorator on this job, the Orchard-Wilhelm Company, Omaha, is but one of thousands in the building trade who have learned the value of using Sherwin-Williams products on all their jobs. Either minor or the most important ones, it makes no difference — Sherwin-Williams products are sure to best meet the needs of the builder and satisfy the wants of the home-owner. Don't experiment longer. Learn now about what Sherwin-Williams products can do for you. Write for valuable information today!

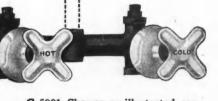
THE SHERWIN-WILLIAMS CO. CLEVELAND, OHIO



FAUCETS ARE THE VITAL SPOTS OF PLUMBING

Its refinement is visible ~its performance is proved!





G-5901 Shower as illustrated consists of: Double valve body cast in one piece. Vitrified china escutch-eons and cross handles. G-5890 cast brass adjustable ball joint shower head with N. P. arm and adjustable set screw flange.

When you specify Mueller fittings for any job, you may rest assured that you have named the best. In the Mueller Built-in Shower particularly, there are present all of the elements to make it inimitably superior.

This means that you risk

Its appearance, its marked degree of utmost refinement, is quite apparent. The handles and escutcheons are made of the finest white vitreous china. All exposed metal parts are finished in either nickel-or chromium plate, according to specification. Surely no more attractive shower fitting can be made.

As to the performance of the Mueller Shower Fitting, we can best refer you to the many thousands of successful installations. It is so finely built, so scientifically made, that its performance is unquestionably positive.

The valves are cast integral, in one piece, their centers are eight inches apart. Each valve unit (all working parts) may be taken out of a shell, from the face of the wall, with an ordinary pipe wrench as the only tool. Valves are marked for the finished wall line and there can be seveneighths of an inch variation in installation. Special escutcheons can be furnished to provide adjustments of two and one-half inches, thus allowing for peculiar and unusual conditions.

The shower head consists of two pieces, the head being held to the body by a patented arrangement permitting easy access for cleaning purposes. Special Mueller joint packing makes a leakproof connection.

We will be glad to send you more complete details of this and other fine plumbing fittings upon request. Write today for catalogs and data.

MUELLER CO. (Established 1857) Decatur, Illinois Branches: New York, Dallas, San Francisco, Los Angeles Canadian Factory: MUELLER, Limited, Sarnia



Whatt's the Answer to Your Estimating Worries

HoltBidding is the modern method of estimating. HoltBid is easy to learn. Only sixty hours makes an efficient HoltBidder.

"How much will this house cost?" is the question most frequently asked—and the one most often dodged. How many hours have you spent figuring plans and then lost the job? How many times have you spent hours figuring up a job and then had your customer decide not be build? How many times have you left out items?

See Special Offer

This wonderful system enables anyone familiar with building to figure the cost of ordinary homes in 30 to 50 minutes.

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How many times have you failed to make extensions? How many times have you had your list figured by a competitor?

How many sets of plans have you bought and then found useless?

How many times has your bill been peddled all over the country?

HoltBid will give you relief from all these worries about estimating.

On Last Page



[September, 1927

Other HOLTBIDDERS Have Said

Clear and Accurate

"I received the HoltBid and found it perfectly clear to me after a few evenings' reading the HoltBidder's Instructions. I have checked it up and find it accurate far beyond my expectations." Exeter, N. H.

Uses While Learns

"Have finished about half of the HoltBid Instructions and like it very much. Already sold one house and figured several other buildings. I find in checking with houses we have completed that the HoltBids check up very closely." Laceyville, Penna.

* * * * *

Most Complete

"In my fifty years of building, I have seen many estimating outfits but HoltBid is the most complete I have seen." Jackson, Miss.

Best and Instructions Very Plain

"I have been giving what time I could conveniently spare to the study of the HoltBid Method of estimating building costs and so far have found it to be the best method I have ever tried. I have not bothered yet about sending in any requests to your Service Department, because you have made your Instructions very plain indeed." Richmond, Va.

It's Great!

"Have just received my HoltBid System and wish to thank you for the layout. I think it is GREAT. I am enclosing \$5.00 herewith to prove my satisfaction as my first month's payment." New York, New York.

HoltBids After 7 or 8 Hours' Study

"I had not put in over seven or eight hours learning to HoltBid before I figured a house and sold it and came out about 2% to the good." Logansport, Ind.







How many times have you been worried like this? Estimating the old way we all know is drudgery.

Your Questions

IS HOLTBID SOMETHING ENTIRELY NEW?

HoltBid is the result of twelve years of painstaking tests by practical men and has never been published in any other form except as a part of HoltBid Service.

IS HOLTBID DIFFICULT TO LEARN?

No. HoltBid has been mastered by some of our members in ten days. We give you a long margin and say it requires from 30 to 60 days to thoroughly learn HoltBidding.

WILL HOLTBID HELP THE MAN WHO HAS HAD YEARS OF EXPERIENCE?

HoltBid is being used by hundreds of experienced men in the building field. They recognize the Holt-Bid Method as the "Modern Method of Estimating." WILL HOLTBID ASSIST THE YOUNGER MAN OF LIIMITED EXPERIENCE? E

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Yes. HoltBid is simple and easy to learn. It is not written in a complicated technical manner. No knowledge of higher mathematics or Geometry is required to learn HoltBid.

WHY IS HOLTBID ACCURATE?

Because HoltBid has combined the actual material list with the square foot system. Each HoltBid unit is based on the actual pieces or quantity of material required.

WHAT ACCOUNTS FOR HOLTBID'S RE-MARKABLE SPEED?

Instead of figuring in pieces, you figure in units of 100 square feet. It is not necessary to list the number of studding, floor, joist, etc. All you need do is determine the number of "squares" of surface.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

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

nswered Here

HOW DO YOU GET A MATERIAL LIST?

After you have made your bid and the customer has accepted your figure, THEN you can take off your "delivery list" or material list from your Holt-Bid estimate.

HOW CAN HOLTBID GIVE THE DESIRED **RESULTS WITHOUT BLUE PRINTS?**

Parts two and three of the HoltBid Instructions show you how to analyze picture plans and determine their major factors of proportion. With this information and the floor plans you can figure just as accurately as from scaled drawings.

CAN LABOR COSTS BE ESTIMATED WITH HOLTBID?

Yes, Labor is included if desired. Part 17 of the HoltBid instructions deals entirely with Labor. You may apply your own wage scale to the Labor Schedule in the HoltBidder's Memo.

Honest Words of Praise

Pays For Itself

"Sold four or five houses and many smaller buildings, due primarily to the knowledge gained from HoltBid Service, so already feel fully repaid for the money spent with you." Waterloo, Iowa.

. . . .

Lands Nice Jobs

"Local attorney says the HoltBid Forms were the best specifications for contracts that could be gotten. I feel that the HoltBid had a lot to do with my landing a couple nice house jobs last year." Amery, Wisc. * * * * *

Even Easy For Beginners

"I sure appreciate your books because they explain in such detail that a beginner like myself should have little if any trouble to under-stand them." Toledo, Ohio.

. Promoted

"I want you to know that I feel the HoltBid System is largely responsible for my recent promotion." Fargo, No. Dak. * * * *

Not Difficult to Learn

Not Difficult to Learn "The HoltBid is well organized and am con-vinced that it is practical and absolutely reli-able—not difficult to master—very much pleased —in the beginning I was skeptical as I could not see how it was possible to fit different localities—now I know I shall obtain great benefits and save hours of hard, tiresome es-timating which has been my previous experi-ence." Littleton, New Hampshire. *****

Greatly Benefited

"It certainly is interesting and I feel greatly benefited already. Can see where it will make building a profession instead of a mere voca-tion." Havre, Montana.

WHO IS THE HEAD OF HOLTBID SERVICE CO.?

Mr. Wm. A. Radford, Editor and Publisher of American Builder, Farm Mechanics, Radford's Cyclopedia of Construction and President of the Radford Architectural Co.

WHAT IS THE ADVANTAGE OF BEING A HOLTBIDDER?

In addition to the immediate value of applying HoltBid, you, as a Registered HoltBidder, have the full resources of our HoltBid Service Department. You are privileged to call upon our staff of Holt-Bidders at any time for assistance in learning to HoltBid, or on any problems in building.

WHY IS HOLTBID CONSIDERED AS AN **INVESTMENT?**

Because your personal efficiency will be greatly increased. Besides the great saving in time in accurately figuring jobs, HoltBid gives you exceptional training in developing sales.

[September, 1927

For Your Examination My Personal Guarantee

GUARANTEE that the HoltBid Method of Estimating Building Costs will be satisfactory to you in every respect. All I ask is that you give it a fair trial, and that is the only condition. If at the end of fifteen days you do not find the HoltBid Method exactly as represented, I will refund the small down payment you have made. During the fifteen days of free examination it is understood that our corps of expert HoltBidders will hold themselves in readiness to answer any question, and to give you true appreciation of the great value of the Holt-Bid Method. In accepting your order I place my full confidence in your intentions to give the HoltBid Method a fair trial.

Brin

WILLIAM A. RADFORD, President, The HoltBid Service Company.

PIN A DOLLAR BILL TO THIS COUPON AND MAIL TODAY

WILLIAM A. RADFORD, President, HOLTBID SERVICE CO., 1827 to 1901 Prairie Ave., Chicago, Ill.

24

Please send at once HOLTBID SERVICE of accurately estimating building costs. Enclosed find \$1.00. If I keep HOLTBID more than thirty days, it is understood that I wish to keep the service and I will pay you \$5.00 per month until the balance of the SPECIAL INTRODUCTORY Price of \$85 has been paid. The HOLTBID SERVICE includes all units, as well as a year's subscription to American Builder, the World's Greatest Building Paper.

Name	•••••
TownState	
Street Address	9-A.B27

(Without the American Builder, we shall deduct \$1.00 from the total purchase price. If you already are a subscriber, we can readily extend your subscription for a year.)

Strong Durable Flexible

Admits Ultra-**Violet Ravs**

¹/₈ the Price of Glass

MANY USES porches, over window ver window screen doors, a y i n g houses, bor oder houses, bor oder houses, bor oder houses, bor oder houses, bor beds, cold frames, hog houses, barn win-dows. Makes homes, poultry houses, etc., winter-tight. Keeps out the cold and storm but admits the healthful ultra-violet rays of the sun. Plain glass filters out these valu-able rays.

Sold by Lumber and **Hardware Dealers**

Most all lumber yards and hardware stores carry GLASS CLOTH. If there is none in your town, send your order direct.

Remarkable Strength and Durability in This Improved Glass Substitute

Hundreds of contractors and carpenters now recommend and specify GLASS CLOTH instead of glass for scores of building uses. It has all the benefits of glass, and none of the disadvantages.

GLASS CLOTH transmits an abundance of soft light-evenly distributed throughout the room. Eliminates spotty glare and shadow. Absolutely winter-

tight. Keeps out all wind, rain, snow and It has remarkable strength. weather. Withstands a blow that will break glass. Best of all, it admits the valuable ultraviolet health rays of the sun. (Plain glass filters out these rays.) Always use GLASS CLOTH instead of glass on poultry houses and brooder houses. Makes hens lay all winter. Baby chicks do better. Ideal for hot beds. Plants grow faster and sturdier.

One-Eighth the Cost of Glass Costs only a trifle compared with glass, yet is better in many ways. Your money buys eight times as much GLASS CLOTH as glass. Comes in rolls 36-inches wide, all ready to use. Easy to attach with light strips. Be sure to get the big free sample and literature showing how to use it for various building purposes.

Test This Big REE Sample

Mail coupon TODAY for sample of the New, Improved, Super-Strength GLASS CLOTH. Just try to tear it! It's as tough as boot-leather. Extraordinarily strong and durable. Much better than glass for scores of building uses—and costs but one-eighth as much. GLASS CLOTH is the only genuine, original, patented glass sub-stitute. Be sure to get the sample and liter-ature explaining how valuable and inexpen-sive GLASS CLOTH is for many building purposes.

Leading Contractors and Carpenters Use and Recommend GLASS CLOTH

GLASS CLOTH has become a standard item of building material with a great many contractors and carpenters. They recognize in GLASS CLOTH a strong, durable inex-pensive material that admits the ultra-violet health rays of the sun, whereas glass does not. It reduces building costs. It is much easier to handle and install than glass. It diffuses a more uniform light throughout the room. Mail the coupon TODAY. Get free sample of GLASS CLOTH. Know just how tough and durable it is. Get free literature explaining the uses and economy of GLASS CLOTH.



TURNER BROS., Bladen, Neb. Dept. T031. Kindly send me sample of the New Improved GLASS CLOTH to-gether with prices, and literature describing its uses and advantages. Name..... Street.,.... Town..... State.....

"IT SPREADS LIKE WARM BUTTER"

To build the best—is the silent creed of every reputable builder or realty builder.

To make the best is the ever present driving force that has maintained Tiger leadership and supremacy all these years.

Use the best—is becoming more and more the order of the building fraternity because they not only realize the futility of "or equal" but the economy of the best in every material—making for quick loans rapid turnover—satisfied ownership.

The Kelley Island Lime & Transport Co. Cleveland, Ohio "World's Largest Producer of Lime"





And—Tiger Mason's, Tiger Agricultural, Tiger Chemical, Tiger All-Purpose Hydrate in 10 pound packages, and High Calcium and Magnesium Lump Limes

Get at the money in roofing! Start a roofing department!

Every new home, garage, barn, stable needs a roof. And there are so many buildings with old shingle roofs that need re-roofing. All of them—new and old —are jobs for you—jobs that you can handle with satisfaction to the owners and with profit to yourself.

Genasco Latite Shingles enable you to take care of all this business to the very best advantage. They are famous not only for the protection they afford, but for their distinctive beauty. They are waterproof, weather-resistant, and fire-retardant—and when used for re-roofing they are laid right over the old wooden shingles.

This "Genasco way" of re-roofing is so desirable because of the patented "key" locking device on every Genasco Latite which holds the shingles tightly against each other. And it saves the time, trouble, labor and expense of ripping off the old roofs—besides making roofing a business that can be handled all year around without exposing the interior of the buildings to the weather.

27

Genasco Latite Shingles are made of tough, longfibred rag felt, heavily saturated and then coated on both sides with Trinidad Lake Asphalt Cement nature's unequaled waterproofer. The undercoating is the famous "Sealbac" feature—exclusive with Genasco—and protects the body of the shingle from condensed moisture, and it also tends to make the shingles adhere closer to each other. And Genasco Latite are beautiful in their four non-fading colors red, green, blue-black, and the new Mix-Tone. Not only have Genasco Latite Shingles outstanding

Not only have Genasco Latite Shingles outstanding merits that make it easy to get business, but we help you all along the line—to apply Genasco Latite, to handle the entire transaction to your advantage and profit. And the complete details are yours for the asking—without obligation. Write us today—use the coupon right now.



AMERICAN BUILDER (Covers the Entire Building Field)

[September, 1927

CONTRACTS FOLLOW

WHEN an iron pipe installation begins to go, the owner usually makes a few repairs and replacements before he tears out the whole job.

Use Alpha brass pipe in your replacements so that when the inevitable complete replacement comes you will receive the first consideration. Since you have been doing the replacement work the owner feels that you know about his plumbing, that you understand the use of brass pipe, and are logically the one to choose for completing the job.

Alpha pipe is a nationally advertised pipe. It has a good will value which you can use, for good materials help to build a good reputation.

Then, too, Alpha brass contains more copper and lead than ordinary brass pipe, which means that it is easier to cut cleaner and sharper threads, and that Alpha pipe can be bent cold without using sand or rosin. These and other advantages make Alpha pipe easier to sell and use, and yet it costs no more than any other brass pipe.

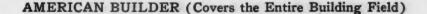
Why we call it "ALPHA"

When brass is seen under the microscope the surface seems to be made of small blocks or crystals of different shapes. Scientists divide these metallic crystals into two classes, "Alpha" and "Beta." Severe service tests have proved

PHA

Brass Pipe

that Alpha crystals are very strong and durable, while Beta crystals are eaten away in time by corrosive water. There are Beta crystals in all brass that contains less than 63% copper. (Muntz tubes contain only 60% copper.) Several years ago we began making a brass with 66% copper (3 parts extra to make sure). This brass we call "Alpha" because it is made up entirely of Alpha crystals, which give it wonderful lasting qualities.



REPLACEMENTS with ALPHA

CHASE COMPANIES

WATERBURY, CONNECTICUT Chase Metal Works — Chase Rolling Mills OFFICES

Boston New York Philadelphia Rochester Pittsburgh Chicago St. Louis Atlanta Newark Cleveland San Francisco Los Angeles Members Copper and Brass Research Association

Chase Companies, Inc., Waterbury, Conn.	2-6134-6
Please send me free of charge a copy of yo Alpha Brass Pipe.	ur book on
Name	
Firm	
Position	
Address	

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

29

[September, 1927



Wonder "10-S" Loader Tank



Wonder "5-S" Without Loader

Wonder Trailer

More Concrete Per Day More Jobs Per Season

WONDER Mixers are built for top-notch speed! They contain many high speed features for getting the concrete into the forms with greater speed.

The easy charging, free flowing skip rushes the materials into the large drum opening —an automatic knockout stops the skip in discharging position and applies the brake—a big handwheel tilts the drum and the mixed concrete pours out quickly and cleanly. It requires but five seconds to discharge!

And there's the famous WONDER figure "8" kneading mixing action. It's fast. It's thorough and insures uniform concrete with maximum strength.

The WONDER track loader with its extension advantages reduces distribution costs husky, dependable engines insure ample power —an accurate measuring, easy operating, fast discharging tank gets the proper amount of water into the drum quickly—there's cushion tired wheels for easy moving—and the WONDER ball bearing drum with its guaranteed drum bearing is assurance of low operating costs.

Watch a WONDER on the job! Note it's speed—how it hustles the materials into the mixing drum and the concrete into the forms. That means More Concrete Per Day—More Jobs Per Season—More Profits for you.

The new WONDER catalog clearly pictures and describes. It contains the outstanding Mixer value of the year. Send for your copy today—also new low prices.

Construction Machinery Co. Nationally Distributed From Convenient Points

103 Vinton Street Waterloo, Iowa

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PACE

The Original Single Opening Tilting Mixer

Will this home be in condition

10 years from now?

H. J. Higbee residence, Detroit. Steel reinforced throughout with YPS materials.

OVERVONE has keen interest in the investment side of building — the possibilities of a profitable, quick sale within the next 10 or 15 years. Owner and contractor now study those materials that are built in "for

good"-materials that can't be added later with complete success.

They learn that plaster over a steel base such as YPS Z-Rib Lath is far the most satisfactory — that it is cheaper to use corner bead than not — that copper steel basement windows cost less than wood sash — that copper steel coal doors save their cost in protecting foundation exteriors — that steel bridging is the least expensive.

In short, they learn the all-important



Architect, Geo. D. Mason Co. Contractor, Geo. W. Auch Co.

value of steel reinforcing as a long-time investment—in boosting resale possibilities!

In working out your home building plans, take advantage of the service the YPS dealer in your town or city is ready to give you. Our latest printed information on the subject is in the new YPS Handbook, a copy of which we'll gladly send you.

Plastering by John McDiarmid

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.

THE YOUNGSTOWN PRESSED STEEL Co., Warren, Ohio Boston—Philadelphia—Dayton—Detroit—Chicago —Los Angeles—San Francisco—Dallas —Denver—Ashville

THE	YOUNGSTOWN PRESSED STEEL CO., Warren, Ohio.
	Please send the new YPS Handbook by return mail and have your YPS Dealer look me up.
Nam	·
Addr	811
Busin	ess
City_	State

romai WATER

[September, 1927



f. o. b. factory, complete with **60-cycle electric motor**



Clip and mail coupon for free literature

Send the coupon today and receive free literature giving full details. The F-M Electric Home Water System is easily installed in any home—only two pipe connections are required. It may be pur-chased under the Fair-banks-Morse Finance Plan if desired, on an initial payment of only \$20 down and small monthly payments. Other water sys-tems in the Fairbanks-Morse line, as favorably priced, include both motor and engine driven units for practically all water serv-ice requirements.

Fairbanks, Morse & Co., Dep 900 S. Wabash Ave., Chicago	L H-9	
Send your FREE Hom Service Book and Sp cular giving full det the New F-M Home E System.	ecial Cir- ails about	
Name		
Address		
Town.	Home Or	
My source of supply i Shallow well Deep well	s: Lake Spring	Cistern
m weep wen		

A complete WATER SYSTEM Priced amazingly low

EVERYBODY wants running water under pressure in the house. And now no suburban or farm home need be without it-this healthgiving convenience so necessary to happy, modern home life.

Fairbanks-Morse has brought the price of a big capacity, completely equipped Electric Home Water System within the reach of all. The low price shown above puts running water in ANY home. Plentiful water under pressure-enough for the whole family's use.

Thousands have marveled at so much quality in a water system costing so little. Yet, due to Fairbanks-Morse volume production, efficient manufacturing methods and world-wide distribution-low price and uncompromised quality can be combined in a system that far outstrips any water system value ever offered.

Biggest capacity for price

See this new home water system! You will be impressed with its advanced design-its smooth, entirely automatic operation-its big, 210gallon-per-hour capacity-its fine workmanship throughout, even to the finish of beautiful delft blue automobile lacquer. Never before have you seen a water system so modern, so trim and compact-so matchless in real value!



Fairbanks-Morse Products

"Every Line a Leader"

Branches and Service Stations Covering Every State in the Union

Expert counsel and advice on water service problems

141 minut 121



Here's the whole works! HE'S ALL SET TO SAND ANYTHING

33

In one hand he carries up the sander that finishes 800 to 1.600 square feet of floor in 8 hours_the sander that does every kind of job-the sander that connects to any light socket, requires no special wiring, needs no truck nor crew to move it.

Power--Speed--Quality--Economy--the Clarke Has Them All!

YOU"LL welcome the big savings of time, work and money brought by the powerful, fast-cutting Clarke Vacuum Portable Sander.

Works in the small places-closets, hallways, bathrooms, stair landings as well as in the wide open spaces.

Works so close to the wall that the baseboard and guarter round cover what's left.

No pressure-no heavy weightthis machine is easy to run, a boy can do it-and the way it bites in-



knocks off high joints-smooths out the low spots-and makes floors good to look at, is something that causes you to know the profit is there.

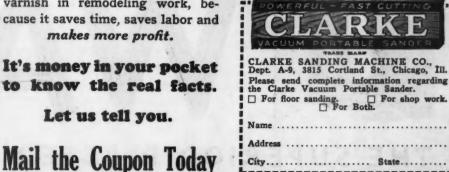
Creates no dust-vacuum suction leaves the air so clean you can paint or varnish nearby.

And think of this! The Clarke is so light you can pick it up in your hand and use it in the shop or on the job for interior trim and assembled jobs.

Thousands of contractors, woodworkers, manufacturing plants are doing better, cheaper sanding with this remarkable machine. They're using it for shop work, bench work, floor work and for removing old varnish in remodeling work, because it saves time, saves labor and makes more profit.

to know the real facts.

Let us tell you.



1			 	
	Address .		 	
	City			
		-		

[September, 1927

609

A sensational success everywhere! The Bestwall (BEVELED) Edge



The great success of Beaver BESTWALL, "the superior plaster wall board," is evident everywhere. Sales have reached the highest point in Bestwall history. This triumph of quality is due to three factors:

First, the amazing strength of Bestwall, produced by the super-fine rock plaster core and tough fibre facing. Second, the exclusive Bestwall Beveled Edge, insuring invisible joints and seamless walls.

Third, experience. Bestwall is made by a company that has more years of wall board experience than any other concern in the business.

Bestwall is fire-resistanthas Board of Fire Underwriters' Approval. It is an excellent insulator, and takes decoration better. Yet it cost no more!

All plaster wall board is not Beaver Bestwall. But you cannot be confused if you call for it by name and look for the cream-colored fibre surface-and the beveled edge. Bestwall is also made with the square edge for those who prefer it. For test sample and literature address our Dept. 1309.

THE BEAVER PRODUCTS CO., Inc.

Buffalo, N. Y. Manufacturers also of Beaver Board, Beaver American Plaster, Gypsum Lath, Gypsum Block, Thermocrete (cellular gypsum), Varnishes and Enamels, Beaver Vulca-nite Asphalt Shingles, Mineral- and Smooth-Surfaced Roll Roofings, Asphalt Paints and Cements.

AV



FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

No more defective doors to sell at a loss



Elmer & Moody Co. Seattle, Wash.

"Yes, we used to have 'junk' doors at bargain prices, but not any more —not since we've been bandling Laminex doors."

ELMER & MOODY CO.

MRATTLE. WARH-

Jan. 28th, 1925

The Wheeler, Osgood Co. Tash.

10

FILE -

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RWA STEN FEB & 1925

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> Yours truly, EIMER AND MOODY COMPANY By Rates & Merchy Bog. 1

FAC-SIMILE

NOT

We called up Mr. Robert A. Moody on December 31, 1926, to as his permission to use his letter. He not only said to go right ahead, bu also that he is just as enthuseistic about Laminex doors as he was when he wrote the latter in January of 1925.

SHRINK.

SWELL

MANY builders tell us that they dislike the annoyance and threatened loss of good will more than they do the expense of repairs when doors give trouble.

Laminex doors save this expense and annoyance for builders and retail dealers because they do not warp, split or come apart—we guarantee them.

We are perfectly willing to guarantee Laminex doors, for unlike ordinary doors, their stiles and cross-rails are built on a core of stress-balancing blocks and any attempt of one block to warp, shrink or swell is immediately counterbalanced by forces in the opposite direction exerted by neighboring blocks. All parts, including the plywood panels, are firmly united with Laminex cement (a secret), which is absolutely waterproof and actually stronger than wood.

Progressive millwork and lumber dealers can supply you with popular designs of Laminex doors from their ample stocks. They will point with pride to the replacement guarantee label and the word "LAMINEX" which appears only on genuine Laminex doors. Fill in and mail the coupon on the next page for valuable literature and a sample of Laminex wood. to test.

OR

WARP

Now you can safely recommend



one panel doors No danger of warping or winding if you use Laminex

ORDINARY one-panel doors are more popular for their style than for the service they. give. It takes mighty sturdy construction to make up for the absence of a lock-rail, and no matter how well built, any solid door is likely to warp.

You can safely recommend Laminex one-panel doors because they cannot sag or warp. You'll never need to take one down and plane it off; you'll never have one split or rattle. Laminex scientific, built-up construction and Laminex waterproof cement (a secret) are responsible.



Have you seen the famous Laminex door soaking test that has been publicly mode in all parts of the coumrys I it proves conclassively had daminex door warp, while a Laminex door warp, uplit or come apart. Ask Laminex one-panel doors are just as beautiful as they are troubleproof; are handled by progressive lumber and millwork dealers; cost little if any more than ordinary stock one-panel softwood doors; and save you the annoyance and expense of going back to refit, rehang and refinish them.

Every Laminex door is guaranteed by the world's largest door manufacturer it must make good or we will. This fact alone should make you hesitate before you take a chance on an ordinary door.

Mail the coupon for valuable literature about the complete line of Laminex doors.

French doors also trouble-proof THE WHEELER, OSGOOD COMPANY, Tacoma, Washington Gentlemen:

Please send me illustrated literature and sample of Laminex wood to test.

Address. ...

Laminex

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

Name....

LAMINEX DOORS



[September, 1927



WENTY-NINE houses, all equipped with Lupton Steel Casement Windows, were recently completed in Washington, D. C., by the Joseph Shapiro Co., development builders. Plans by Jos. W. Geddes, architect. And these, in turn, are but a part of the great number of Luptonequipped homes erected by investment builders who have learned that up-to-date windows attract buyers. People know that Lupton Casements



For this home, nicely adapted from French design, the Lupton \$423 Windows listed at only



taste but the practical windows, too -weather-tight, easy to open and close, handy to clean from inside the room, and convenient to curtain and screen.

Yet, with all these advantages, Lupton Windows are remarkably low in cost. Do you realize for how little they can be installed throughout a house? Let us send free Catalogue No. C-122 giving all details.

DAVID LUPTON'S SONS CO. 2203-5 E. Allegheny Ave., Philadelphia Pioneer Makers of Quality Steel Windows for Every Type of Building



CASEMENT STEEL

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



closed track job at any price for doors weighing up to 250

OORS are the only part of a building that "works." Your reputation as a builder can be wrecked by a balky door.

So you want good door hangers.

You can pay a lot more but you can't get a track and hanger that will handle doors up to 250 lbs. any better than Cannon Ball Junior.

You can save the friends you do work for a lot of money by using Cannon Ball Junior; you can make money for yourself; and not risk your reputation.

Cannon Ball Junior is easiest to hang—saves you lots of time and trouble. It runs easy. The track is perfectly round; the wheels are ball shaped with long roller bearings that can't twist or pile up. Cannon Ball Junior hangers never go back on you. They run even, bear even, wear even, for years and years, no matter how the building sags or settles.

TRACK ANY LENGTH YOU WANT

Track comes in 3, 4, 6 and 8 ft. lengths, with brackets for single track or parallel installations to hang from side wall or ceiling.

Send now for big 228-page catalog, which shows all kinds of door fittings and other things you want to be posted on.



Albany, N. Y. Harvard, Ill. San Francisco, Calif.



Cannon Ball Junior For Garage Doors



1103 Set for folding-sliding doors



-1

1154 Curve-1162 Hangers take doors around the corners Complete Set in box or parts as wanted

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Actual Size

Solid Ball Wheels (Roller Bearing) Lathe-**Turned of Cold** Rolled Steel Illustration below shows how track protects the hangers and how the slot in the bottom of the track lets the dirt, dust, rust and moisture drop out so that

Hangers Can't

Clog or Bind

Self-Cleaning Round

Track 16-Gauge Steel.

39

[September, 1927

Sandusky, Ohio's "Model Home" with Direct Action Red Wheel Gas Range in kitchen.

Architects, Miller & Parker.

Plan Homes for the "95%"

WHEN YOU PLAN and equip kitchens for new houses and apartments, don't forget that over 95% of America's home makers do their own housework. To these women, the kitchen is the most important room in the new home, the Gas Range, with Red Wheel Self-regulating Oven, the most necessary piece of equipment.

The 5% who employ permanent help find that maids are more contented and more efficient where Red Wheel Gas Ranges are installed,

because all oven cooking and baking is done by accurate oven temperatures, measured and automatically maintained by the Lorain Red Wheel. There is no waste, for foods are never burned, never underdone, never thrown out because of spoilage in the baking.

Unless the Gas Range has a RED

Lorain is the first thermostat ever designed for the automatic control of gas range oven heat. Lorain-equipped Gas Ranges are nationally known, having been advertised in the leading national publications for more than eight years.

Over 2100 schools, colleges and universities use Red Wheel Gas Ranges toteach the art of cookery. Each of the six Red Wheel makes, **Clark** Jewel, Dangler, Direct Action, New Process, Quick Meal and Reliable offer a wide variety of sizes, styles and finishes suitable for kitchens

in houses, apartments, schools and every building where cooking is to be done. For specifications, see Sweet's Catalog, 21st Edition, Pages C2977 – C2986 or send for our Handbook on Gas Ranges for Architects and Builders.

WHEEL it is not a LORAIN

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





Sell Houses and Rent Apartments with these two words: "FRIGIDAIRE-EQUIPPED"

If you have houses to sell or apartments to rent -do this: Add "Frigidaire-Equipped" to the "For Sale" or "For Rent" sign. Then watch the results! You'll find that Frigidaire is an important factor in getting favorable decisions-that it is an investment that pays big returns.

Address. . .



This FRIGIDAIRE now only F. O. B. Dayton

Now, a new Frigidaire is offered at the amazing factory price of only \$180. It is the lowest-priced electric refrigerator ever built. See it demonstrated at the nearest Frigidaire Sales office. Or write today for complete information about other Frigidaire models.

FRIGIDAIRE CORPORATION, Subsidiary of General Motors Corporation, Dept. R-110, DAYTON, OHIO

FRIGIDAIRE CORPORATION, Dept, R-110, Dayton, Ohio Please send me complete information about all Frigidaire models. Name ...



Remodels his Home

Here are "before-and-after" views of the Glen Ellyn, Illinois, home of Mr. William A. Hottinger, an illustrator of Chicago. Despite the very pronounced difference in appearance, few changes were made. The eaves were cut down, the porch space thrown into the living room, chimney and entrance added.

The shingles on the walls went on over the narrow siding. The Winthrop Tapered Asphalt Shingles on the roof went on over the old wooden shingles. Winthrops are unequalled for going on over old roofing.

For the roof on this warm gray, wide-shingled house, with cream trim and brownish red chimney, Mr. Hottinger selected Slatefield Blend and then mixed in, with the Slatefield Blend, a few red Winthrops.

The result is individuality—a personal note. No other roof anywhere is exactly like it. Just a few reds among the heather greens, purples and heather blues of the Slatefield Blend. Here's an example of what intelligent remodeling can accomplish and an example of the individuality that can be given a home with Winthrop colors. There are 13—8 solid and 5 combinations. All are lasting. None is artificial. All are natural slate, crushed and embedded in the everlasting asphalt.

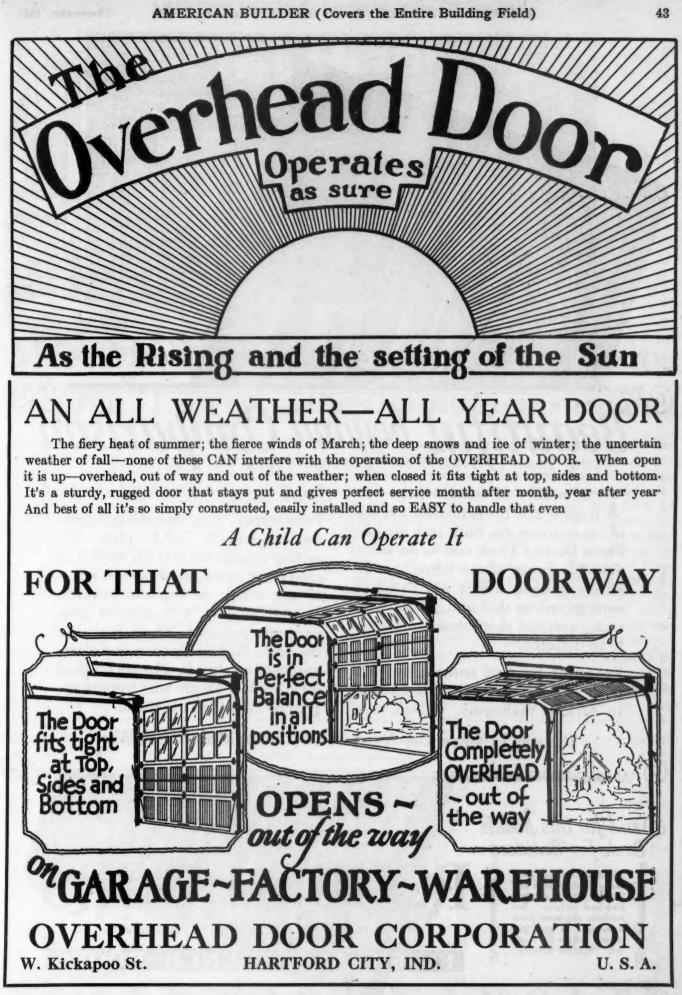
Winthrops are the only tapered asphalt shingles made. The thick butt doubles the wearing thickness. Winthrops lie flat. They do not rot, split, crack nor rust. They are fire resistant and bear the Class "C" Label of Underwriters' Laboratories. They reduce insurance costs. Mr. Hottinger got a rebate as soon as his Winthrop roof was completed.

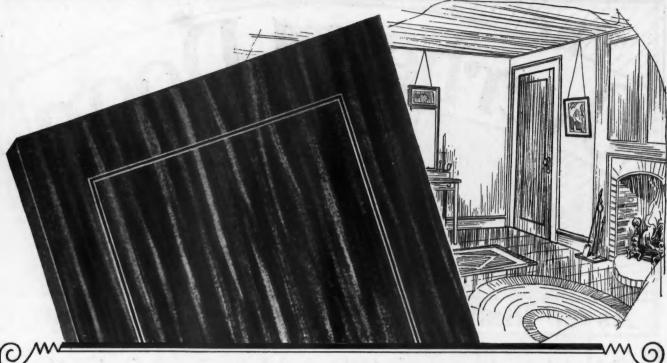
Write for Samples

Winthrops are supplied to most good lumber dealers from our three modern factories, in Chicago, in Detroit and in Lockport, N. Y., but you will find that samples of your own, help with prospective builders or remodelers. We will send you a full set upon request on your business stationery.

BECKMAN-DAWSON ROOFING COMPANY 1032 Brooks Building, 223 W. Jackson Boulevard, Chicago, Illinois







Beautiful beyond Comparison SOUND PROOF FIRE PROOF GUARANTEED NOT TO WARP

THE beauty of finest African mahogany and the permanence of solid construction are built into Roddis Flush Doors. Their cost is no more than for many of our native woods. Finely grained woods are matched with ingenious skill and joined with such precision that joints can scarcely be detected.

Beautiful beyond comparison are flush doors built by Roddis, finished in African mahogany, walnut, oak, birch and other finest of woods.

Permanence, too, beyond comparison is assured. Roddis cross and surface veneers are literally welded to solid cores made up of narrow strips of soft wood. At top and bottom, as well as sides, a hardwood strip prevents moisture from reaching the core. Roddis Doors never warp, sag, swell or shrink. Homes finished with Roddis Doors win instant approval. It pays to use them.

RODDIS LUMBER AND VENEER COMPANY, Marshfield, Wis. Branches in Principal Cities



FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



Meet Mr. Lou Arterburn and "Asbestos George" Lowry...they know their shingles

THESE two live wires are with the Alexander Lumber Company, well-known operators of 110 yards in Illinois. They deliver high voltage in and around Champaign. Mr. Lowry gets his "trade name" from the facts and figures he volcanoes when anyone mentions roofing. If Mr. Arterburn had a nickname, we are quite sure it would be "Eternit Lou."

(September, 1927

For both gentlemen are two of the most enthusiastic and delightful boosters of Eternit Asbestos Shingles we ever met. They're selling Eternits, car after car. There's nothing secret about their system. They've made a real study of roofing and roofing products. They know what's what.

"We've heard nothing but praise for Eternits," Mr. Arterburn writes. "They lay faster than other shingles of their type. They are more flexible, more uniform, more thoroughly seasoned. They really stick... The only people who aren't enthusiastic about this product are those who don't know what it's all about."

And there you are. Mr. Arterburn puts into quick words a great big engrossing fact. Any dealer, contractor, builder or home owner—who gets down to figures—can't help taking Eternits every time. . . . No one will pass up a real opportunity to save money or to make money. It isn't possible to make ten or fifteen years equal a lifetime, at any price. Fireresistant isn't fire-proof! Pretty good can never be as strong as the best. . . Just compare Eternits, point for point, with any other shingle and you'll see what we mean. But be sure the shingle you test is plainly stamped with the trade-mark Eternit.

Mail us the coupon today. There's a lot more to this asbestos shingle business—and we believe you want to know the facts. Eternit, Inc., Philadelphia, Boston, St. Louis, New Orleans, Jacksonville.

ETERNIT, Inc., Dept. A, 15th and Locust Sts., Philadelphia. Please send me full details about the Eternit Dealer Franchise.

Name

Street_

City_

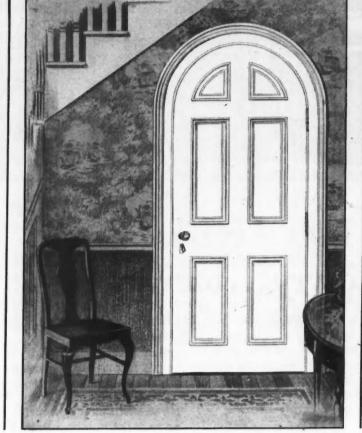
State___

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



ASBESTOS SHINGLES





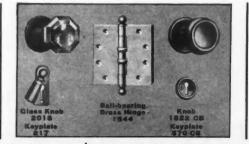
Hardware is important in the homes you build

ONE of the first things a prospective buyer sees as he is shown through a house is hardware—doorknobs, and hinges, and locks. He is trying to determine the quality you have put into the house, and the hardware keeps forcing itself on his attention. He knows that solid brass or bronze will last for decades; that plated hardware soon gives trouble. If you have built with Sargent Hardware, you have insured a good impression on the buyer.

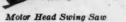
The attractive appearance of Sargent Hardware

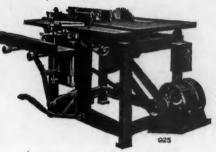
is more than a surface finish because Sargent Hardware is fine material to the *core*. When a buyer sees you have used hardware that will give him satisfaction and service, he will take it for granted that you have built the same quality into the hidden details of the house. Sargent Hardware is made in designs to harmonize with any interior. And it is mechanically perfect—the materials are the best and the manufacture is careful and exacting. Sargent Hardware helps you *sell* houses, assures the finest hardware service after they are sold. Very few things are as much of an asset to a builder as a good word-ofmouth reputation. And Sargent Hardware of timedefying brass and bronze helps you to establish a reputation for carefully constructed houses.

> Write us for the new book of designs, "Hardware for Utility and Ornamentation." Representatives in all cities will be glad to furnish estimates and help you make selections. Sargent & Company, Hardware Manufacturers, 51 Water Street, New Haven, Conn.



FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE





A Portable Variety Woodworker for use on the job.



Hollow Chisel Mortiser with every necessary adjustment.



It cuts and rips both-

Husky but Handy

- 1. The heaviest timbers
- 2. Your operating costs

T HOUSANDS of builders and contractors have cut their operating costs with this combined rip and cut-off saw. It is furnished with either gasoline or electric motor and the extension tables are collapsible. This is a great convenience in moving. It is capable of a large variety of work and will cut the heaviest timbers where you need them cut—on the job.

Like all "American" products, this machine is built to stand up under punishment and its guarantee against flaws and defective workmanship is almost superfluous to anyone who knows the "American" quality-built reputation.

Send for our free catalog for further details on this and other machines. Mark the machine in which you are interested, and mail us the coupon below.

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

Manufacturers of Saw Mill and Woodworking Machinery for use in the shop or on the job.

American Saw Mill Mac 60 Main Street, Hackett		
Gentlemen: Please send me free yo	our booklet on-	_
Variety Woodworkers Band Saws Mortisers	Joiners 🗖	
Check the one in which a few from our complete		
Name		
Address		
		State

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

918

-and in a famous university

Rich with tradition, and in the center of the famous "blue grass" country, the University of Kentucky is the alma mater of many of the men who are leaders of the new era in the South. In its background of natural beauty the school has grown steadily, serving an ever-increasing student body, in an enlarging range of subjects taught.

It is indeed a matter of unusual pride to the United States Radiator Corporation that as new buildings have been erected, Capitol boilers with United States radiators continue to be the choice. For at this institution there is complete technical knowledge and equipment for judging performance.

The University of Kentucky is added evidence that scientific investigation and comparison of heating equipment leads to the selection of Capitol boilers and United States radiators.

UNITED STATES RADIATOR ORPORATION-DETROIT, MICHIGAN 6 FACTORIES AND 32 ASSEMBLING PLANTS SERVE THE COUNTRY For 37 years, builders of dependable heating equipment A view of the University of Kentucky, Lexington, Ky. Ten Capitolsmokeless boilers have already been installed.



FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

AMERICAN BUILDER (Covers the Entire Building Field)

1. 1. 1.10

: 49



[September, 1927

Let's talk about your stake in this insulation proposition Send for the story of how

we are making it easier for you to build and sell

BUILDERS and contractors are finding that Masonite is a star salesman of homes.

For Masonite assures the owner more for his money; it gives him sound, substantial construction, plus superior insulation at no extra cost.

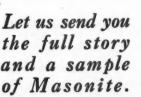
As sheathing, Masonite cuts down labor costs, and entirely does away with the need for building paper.

As a plaster base it is ideal. It practically eliminates shrinking and swelling. Walls plastered on Masonite Insulating Lath remain smooth and even.

Prospective owners will be immediately interested when you show them the broad, sturdy Masonite boards; especially interested when you tell them that these boards are made entirely of wood.

Finally, the fact that Masonite is structural insulation, which adds nothing to the price of your buildings, will help you sell them more quickly-and more profitably!

> MASON FIBRE COMPANY Dept. 119, 111 W. Washington Street Chicago, Ill. Mill: Laurel, Mississippi



Let us send you the full story and a sample

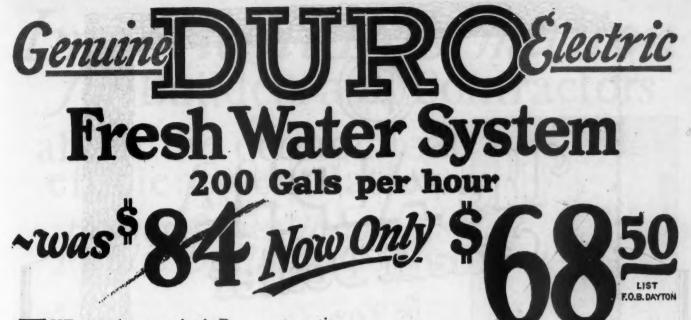
Showing attic insulation

Showing Masonite nailed to rafters

0 1927, M. F. Co.

STRUCTURAL INSULATION

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



THE regular standard Duro automatic electric fresh water system of 200 gallons per hour capacity, now only \$68.50 list, f.o.b. Dayton.

It's a Duro. That means guaranteed quality throughout. That means patented mechanical advantages that you can get only in Duro.

Supplies fresh water direct from well at all times. Strong, uniform pressure for sprinkling, etc. Automatically keeps water pressure at a given point. A complete home water works system—furnishing equivalent of city water service—for well or cistern use. Selfpriming, self-oiling. Costs but one or two cents a day to operate.

> Send for Catalog and New Low Prices on Duro Pumps and Water Systems

THE DURO COMPANY

Dayton, Ohio

EASY PAYMENTS

51

Duro dealers are able to offer unusually liberal terms under the Duro Finance Plan. For an initial payment of only \$6.85 you can have this genuine Duro Electric Fresh Water System installed in your home.

Automatically lubricated. Two-pole automatic

109 Monument Ave.

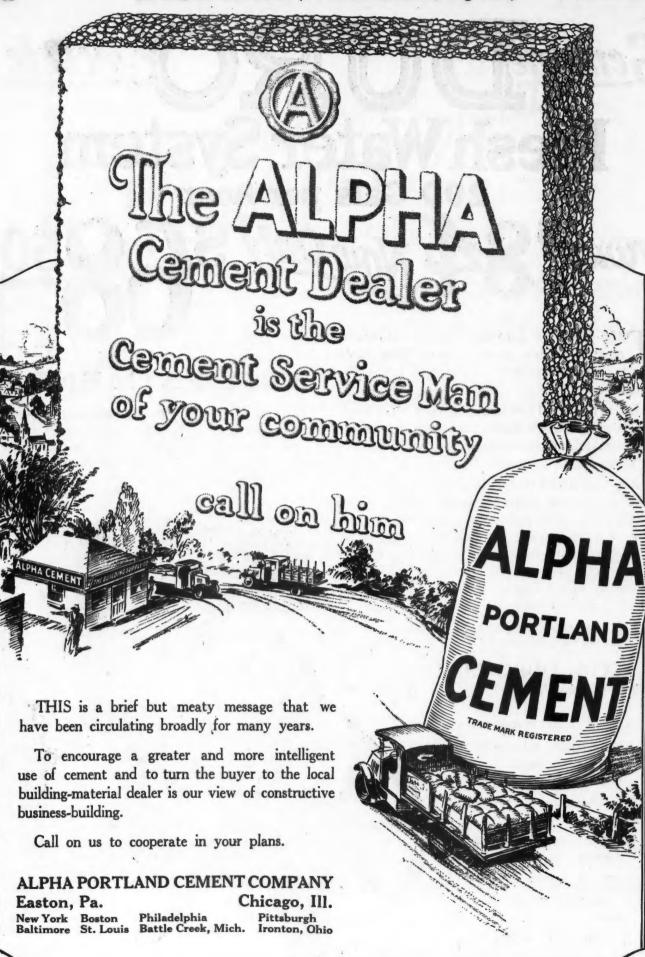
switch.

- Duro Repulsion-Induction motor.
- Long-life, uninterrupted service.
- Low cost operation.

Refinements and improvements.

Guaranteed in writing.

52



11 - teth 'A

AMERICAN BUILDER (Covers the Entire Building Field)

Important Information for Builders and Contractors

about the economical efficient ventilation Homes, Stores, Theatres, Public Buildings, Etc.

F you are specializing in the building of 1, 2 and 3 story structures you should make it a point to investigate the ILG methods of Electrical Ventilation which are positive in any kind of weather, power driven and electrically controlled.

Nowadays no home or apartment is truly modern without an ILGAIR Ventilator installed in the kitchen for the removing of objectionable cooking odors, greasy fumes and excessive heat. It doesn't cost much but it is a big talking

cessive heat. It doesn't cost much but it is a big talking point when it comes to selling and renting to particular home folks.

If you knew the advantages of ILG Ventilation you would recommend it as a built-in feature of every building. Size for size, one ILG Ventilator is equal to 3 ordinary gravity or natural ventilators, whether it's a problem of fresh air supply or one of exhausting steam, gas, fumes, etc.

Our new Builders Bulletin contains a wealth of valuable information for you about ILG Ventilating Equipment—it is a book of diagrams, sectional views, illustrations and simple installation instructions prepared especially for the builder of homes and 1, 2 and 3 story stores, banks, laundries, theatres, garages, factories, etc. Send for a copy of this book today — clip, sign and mail the coupon.

> Buildings, Homes, etc., etc,

One ILG Electric Ventilator makes this lunch rooma joy spot.

ILGAIR ILG ELECTRIC VENTILATING COMPANY 2852 N. Crawford Avenue CHICAGO, ILL. AIR CHANGE DATA Class of Buildings Restaurants and Hotel Kitchens Offices and Stores, depending on Workrooms Air Should Be Changed No fumes or gases in this garage. It is safely and economically ventilated with ILG Electric Ventilators. Every 1 to 2 minutes Every 5 to 10 minutes Every 5 to 10 minutes ding on climate **Every 2 minutes** Every 5 to 10 minutes Every 2 to 5 minutes Garages atres Halls Every 5 minutes Every 2 to 5 minutes Every 10 minutes Halls Laundries Farm Barns One ILG Electric Ventilator makes this bank a delightful 5319003 An inviting basement store corre-ventilated with ILG Electric Ventilat U D for Offices, Stores, Factories, Restaurants, Name Theatres, Public Full Address_

Mork's

Inaugurates a new standard of economy and efficiency in plaster mixing

With "The Standard" Mixer you can mix your plaster with the same efficiency as concrete or mortar, because only in "The Standard" Mixer will you find the all steel narrow drum construction-the fastest and most efficient mixing drum yet designed.

Write for full particulars

The Standard Scale & Supply Corporation First Avenue · Pittsburgh, Penna. DISTRICT OFFICES

New York: 145 Chambers Street Cleveland: 721 St. Clair Ave., N. E.

Philadelphia: 510 Arch Street Chicago: 1840 Michigan Blvd.

"The Standard" was used to mix the plaster for three famous New York Buildings-

CONCRETE MIXER

MORTAR

The Woolworth — the world's tallest. The Equitable — the world's largest. The Park Central Hotel - the world's largest apartment

> -Thus inaugurating a new standard of economy and efficiency in plaster mixing to the entire building industry.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

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Suppose you were able to say this ...

"Here is just one example of the skill and thought that has gone into the building of this house. The cost to heat it will be 1/2 less than other houses the same size because the heating system has been VACUUMIZED."

F a customer is hesitating between two houses, the fact that the house is "vacuumized" may be the deciding factor.

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 . radiator house) to pay the interest at 6% 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 1/2 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 on \$1000.

55

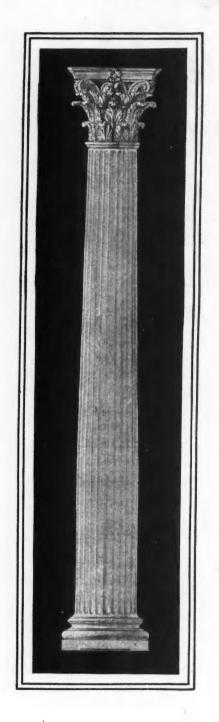
Send for full details

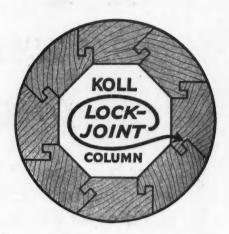
To capitalize this valuable sales argument, get full particulars, including names of reliable heating contractors in your territory. Address your letter to the personal attention of Guy Hutchinson, Vice-President, Hoffman Specialty Co., Inc., Dept. AB-4, 25 West 45th Street, New York City.



[September, 1927

The secret of classic beauty and enduring charm





MANY homes and other buildings, doomed to be plain and commonplace, are given a touch of classic elegance—a note of beauty and charm—by the happy use of a few stately columns.

But you have seen columns that just miss giving this pleasing result. Perhaps the reason was not readily apparent. But somewhere—in the proportions, taper, fluting, finish or materials—there was a note of discord that destroyed an otherwise harmonious ensemble.

Hartmann-Sanders columns not only are architecturally correct to the smallest detail, but they embody an exclusive patented interlocking construction, which places them far in advance of ordinary column conceptions. The joints will not, *cannot* come apart.

The genius of the master craftsmen, who painstakingly fashioned these finer columns, is also available to architects and builders in the creating of artistic entrances and other features.

You are invited to send for catalog Y-47 of columns or catalog Y-52 of model entrances. Hartmann-Sanders Co., 2171 Elston Avenue, Chicago. Eastern Office and Showroom: 6 East 39th St., New York City.

HARTMANN-SANDERS

Pergolas Rose Arbors Colonial Entrances Garden Equipment Koll Columns



IN keeping with present-day tendencies to beautify the bathroom, the MORTON "Venetian" Cabinet—Model F—arouses admiration wherever it is seen. Women are quick to appreciate its beauty, for the attractively etched mirror completely conceals the steel white enameled cabinet. It adds distinction to any bathrooom.

The MORTON "Venetian" is made in four sizes, with mirrors ranging from 18×26 in. to 20×34 in. It is 5 in. deep with four roomy shelves. Special features include an electrically welded cabinet with a finish permanently baked on, sanitary rounded corners, dust-proof hinges and brackets, adjustable friction catch, crystal glass knob, silver plated metal screws of rosette design which are worked into the decorative scheme of the mirror, etc. The "Venetian" is as sturdy as it is beautiful.

MORTON Steel Cabinets are also made in six additional models, four sizes to each, to recess or hang on the wall. All are reasonably priced, including the "Venetian", which offers the architect, contractor and builder an exceptional opportunity to combine utility and unusual beauty in the bathroom.

> Write for Catalog A-4, which shows the complete line, including installation details.





MORTON MANUFACTUR 5161 West Lake Street, Chica	ING COMPANY ago, Illinois
Please send copy of Catalog	g A-4.
(Check business on	r profession)
Architect Building Contractor Building Supply Deale	Hotel Manager Realtor Home Owner
Name	
Address	
City	State





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[September, 1927

THE FINISHING TOUCH FOR THE KITCHEN

Another Mark of A MODERN HOME

Majestic COAL WINDOW

Majestic Coal Windows look better and last longer-they are the recognized leadersmoreare in use than all other makes combined. Construction is guaranteed breakproof-of Certified Malleable Iron and Keystone Copper Steel - rust-proofed. When you use Majestics you are using the best.

This popular new convenience-the Majestic Milk and Package Receiver-holds the spotlight as the finishing touch for the modern kitchen. Women appreciate the Majestic because it saves steps and prevents annoyance, intrusion and theft in the delivery of milk or packages to the home. Deliveries are placed in the Receiver from the outside, the door locking automatically when closed. The packages are thus protected from weather or prowlers and may be removed from the inside whenever convenient. The Majestic can be bought and installed at less cost than you can "build in" a similar convenience on the job. When you use the Majestic Milk and Package Receiver you are giving your client the newest and best.

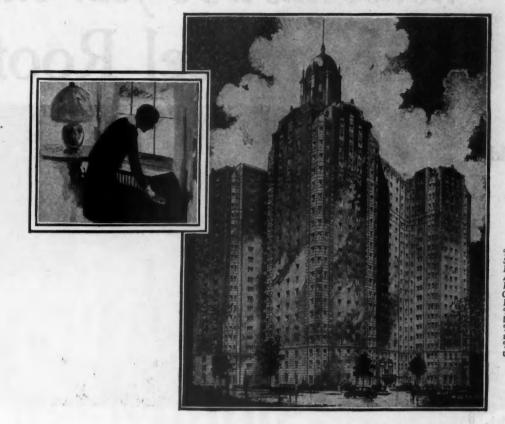


Write for catalog and prices of Majestic Milk and Package Receivers—also Majestic Coal Windows, Underground Garbage Receivers and other Majestic Quality Products you will want to use in the homes you build.

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

Majestic MILK AND Receiver

970 Trane Heat Cabinets in one installation!

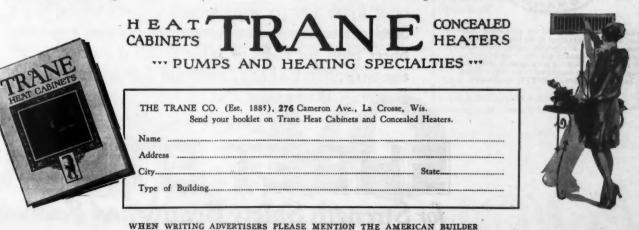


Touraine Hotel, Lake Shore Drive, Chicago. Hooper & Janusch, Architects. Kohlbry-Howlett Co., Heating Contractors. 970Trane Heat Cabinets. 1475 Trane Bellows Packless Valves. 1495 Trane Bellows Radiator Traps. 21 Drip Traps. 1 Trane 4-motor Vacuum Pump.

The Touraine, notable among Chicago's new apartment hotels, affords a striking example of the recognition accorded Trane Heat Cabinets and Concealed Heaters in a single heating season.

The owners of this costly structure sensed the trend toward greater spaciousness and freedom in room decoration—toward vastly improved heating comfort. They specified Trane Heat Cabinets—"Successors to the Radiator" — for installation throughout the building. This revolutionary equipment — not hidden or recessed radiators, not radiator shields or screens — employs an entirely different heating principle. Built in two types — Concealed Heaters, perfectly hidden between the walls — and Heat Cabinets, finished in any tone or grain to match fine furniture. Adaptable to any heating system where radiators are ordinarily used.

Write for booklet showing typical rooms and completely describing this remarkable new development.



[September, 1927

This eighteenth-century house has a 30-year-old Sheet Steel Roof



THERE is abundant evidence of Sheet Steel's durability in exposed service. Take for example the one hundred and forty-year-old house in Skowhegan, Maine, shown above. In 1896 its 28-gauge, standing seam, galvanized Sheet Steel roof was installed. Despite its seven gables this roof has never leaked. It has never been painted (this Committee, however, recommends that Sheet Steel roofs be painted), but the owner, Mrs. C. E. Norton, says there isn't a rust spot on it today after 31 years service. That's typical Sheet Steel performance. For further information regarding Sheet Steel for roofs or other exposed service, write the SHEET STEEL TRADE EXTENSION COMMITTEE, OLIVER BUILDING, PITTSBURGH, PA.



Some other Old Roofs of Sheet Steel

West Ports Steamship Co. Milwaukee, Wis. Roof installed 1896 E. D. Conklin Cold Water, Mich. **Roof installed 1895** Presbyterian Church Shreveport, La. Roof installed 1870 Court House, Peoria, Ill. Roof installed 1876 Taylor residence, Shreveport, La. Roof installed 1878 J. E. Modler, Sterling, Ill. Roof installed 1891 David Allen, Cold Water, Mich. Roof installed 1895 American Auto Painting Co. Grand Rapids, Mich. Roof installed 1906 A. L. Robinson, Pekin, Ill. Roof installed 1906 Chas. Meharry, Attica, Ind. Roof installed 1909 I. H. Brehm, Cold Water, Mich. Roof installed 1897 Thos. Bennett, Rossville, Ind. Roof installed 1911

This trade-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 STREL. TRADE EXTENSION COMMITTEE specification.

THE GUIDE TO LOWER HOISTING COSTS

One Minute An Envelope And a Stamp

-virtually take you to 34 typical hoisting jobs The Novo Hoisting Handbook was written especially for contractors who

want to get everything possible out of their hoisting units. It is full of interesting pictures, facts and information on practically every type of hoisting work. This data is a compilation of hundreds of jobs in every section of the country. Thirtyfour typical hoisting jobs are shown. Fill out and send the coupon today it takes only a minute, an envelope and a stamp. You'll find it a worthwhile investment. And no obligation.

NOVO ENGINE COMPANY, 202 Porter Street, Lansing, Mich. CLARENCE E. BEMENT, Vice-Pres. & Gen. Mgr. Service, parts and sales in over 60 cities

NOVO ENGINE CO., 202 Porter Street, Lansing, Mich. Without obligating me in any way, please send a copy of the Novo Hoisting Handbook. Name Address City State I am interested in a hoist for.



Also Engines and Pumps



An authoritative guide to satisfactory oil heating

Detailed Specifications of the Leading Manufacturers



This is the Emblem of the Oil Heating Institute

It is the symbol of satisfactory public service in oil heating.

Only the manufacturers who are members of the Oil Heating Institute are permitted to use it.

These manufacturers have earned their membership through the enthusiasm of thousands of home owners whom they have provided with efficient and dependable oil heating.

This emblem protects you, and it will be protected, on your behalf, by the Oil Heating Institute. This 80-page book on domestic oil heating is written by national authorities on every phase of the subject. It sells to the public for ten cents to cover mailing costs.

It will be sent free to all realtors and building contractors who request it on their letterhead.

Information on commercial, industrial and process heating will also be sent on request.

OIL HEATING INSTITUTE

350 Madison Avenue, New York City

WASHABLE ... SO THEY OUTLAST IN WEAR AND BEAUTY



College Hospital uses Tontine shades exclusively McKinley University Hospital University of Illinois



Tontine exclusively was chosen to shade the windows of the recently completed McKinley University Hospital of the University of Illinois. Charles A. Platt of New York, and James M. White of Champaign, Ill., Architects. 63

A RCHITECTS and builders agree that window shades must now be proof against three things: water, dirt and handling.

Some shades offer one point—some another—only one can give all three. That shade is Tontine.

- --WATERPROOF-rain can't harm it. --WASHABLE-all dirt and fingermarks can be removed with soap, hot or cold water and a brush
- water and a brush. —CANNOT CRACK or "pinhole" because pyroxylin impregnated—not filled with colored chalk.

For public and semi-public buildings, and even for small homes, no window shade will last as long as Tontine. Its use is real economy. Write for samples and further information.

E. I. DU PONT DE NEMOURS & CO., Inc.

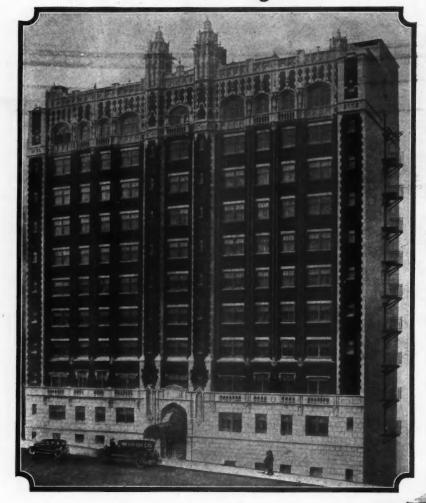
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DU PONT OBSERVES A CENTURY AND A QUARTER OF USEFULNESS TO THE AMERICAN PEOPLE

Seattle's Finest



MURPHY IN-A-DOR BEDS

Owners, architect, builders and interior decorator worked on The Camlin, Seattle's ultra-exclusive apartment hotel, with the single aim of making each of its ninetyone apartments a comfortably luxurious home.

. The Camlin is equipped throughout with Murphy In-a-Dor Beds. They permit spacious apartments on comparatively small floor areas.

Murphy In-a-Dor Beds swing through standard three-foot doors. They are easily installed and a contractor who carefully follows the simple principles has no complaints to adjust. There is variety enough in style and finish to enable the interior decorator or home furnisher to follow a desired plan of furnishing. There is ease of operation and sleepinducing comfort.

Murphy Co-operative Service will help you with your plans to include Murphy In-a-Dor Beds in your apartment building or your home. Write for complete information.

MURPHY DOOR BED COMPANY

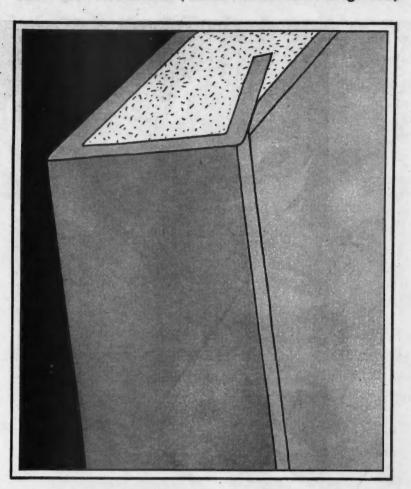


The Murphy In-a-Dor Bed

THERE IS ONLY ONE

IN-A-DOR BED-THE MURPHY

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



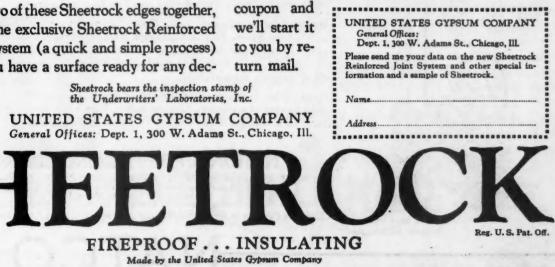
Look at this clean strong nailing edge!

You'll find it on the two long sides of every sheet of Sheetrock. True as a try-square. Sharp-cornered. Reinforced by its foldedunder, triple-thick tough fibre covering.

This edge originated with Sheetrock, and is still a Sheetrock feature as important as the day it revolutionized wallboard manufacture.

Butt two of these Sheetrock edges together, apply the exclusive Sheetrock Reinforced Joint System (a quick and simple process) and you have a surface ready for any decoration. And under that surface you have gypsum-rigid, secure, non-warping-a plaster wall surface - insulating and fireproof.

Everysheet of Sheetrock bears the name and trade mark on the back. A handy sample sheet of Sheetrock for your office use, and full information, belongs in your files, Send



[September, 1927

Ihe Product of FIRE that FIGHTS fire

TO an old saying has been given a new interpretation: "Fight fire with a product of fire." For when fire, the faithful slave, revolts and becomes a threatening tyrant, Natco Hollow Building Tile bars its pathway.

NATCO

THE COMPLETE LINE of

HOLLOW BUILDING TILE

Baptized in incandescent heat, Natco tile—immune itself—shields other materials from flame. In the Burlington Building, it saved the West Side of Chicago. In the Equitable Building it confined a raging conflagration to a portion of one floor, and a shaft. In countless other cases ,it has proved its virtues—justified its use a thousandfold.

Granite-like, it resists other agencies of destruction as well, the ravages of time, the gnawing of corrosion. Greater safety, longer life, is brought to every structure, be it cottage or skyscraper, by Natco Hollow Building Tile.

NATIONAL FIRE PRODFING COMPANY

General Offices: Fulton Building, Pittsburgh, Pa. Branch Offices: New York, Flation Bldg: Chicago, Builders Bldg. Philadelphia, Land Title Bldg; Boston, Textile Bldg. In Canada: National Fire Proofing Co. of Canada, Ltd., Toronto, Ontario The Only Concern in the World Making a Complete Line of Structural Clay Products

Natco Hollow Building Tile is susceptible to use in both steel and concrete construction.

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FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

67 AMERICAN BUILDER (Covers the Entire Building Field) A R D K I T C N H 0 (A CONSTRUCTION OF THE STATE

nbination of six distin Kitchen Maid Units

end Linen Cupba

Broom Closet and Folding Ironing Board Combined

The Batlery-fer service balls and large kitchens

5

Color Variety adds new distinction to these charming kitchen units

han Cab

size of kitche

Alluring new possibilities for effective kitchen planning unfold with the introduction of color in Kitchen Maid Units. Five exclusive finishes to choose from! Dove Gray ... Cactus Green ... Lama Tan ... Travertine Ivory . . . Shasta White. Each with a tasteful decoration of contrasting color. And, if desired, the interior finish may be of one colorthe exterior of another.

Thus, in addition to their exclusive rounded inside corners, smooth doors, concealed hinges and many convenience features, Kitchen Maid Units now offer another important element that will appeal instantly to your prospects.

Since each unit is complete in itself, you may choose as few or as many as fit the needs of the kitchens you plan. If you wish to sell or rent your property more easily and at a better price, write for the Kitchen Maid catalogue.

WASMUTH-ENDICOTT COMPANY, 1309 Snowden St., Andrews, Ind.



Complete Harmonized Equipment for Every Size and Type of Modern Kitchen

Three types of heads Below is an excellent design, with its many small panels and lights, and it is available with square or Gothic as well as round-arched heads. It is Door C-1065 and is made in both white pine and oak.





With broken pediment

For Colonial and Georgian work this new en-trance with broken pediment and fluted pilasters has an architectural quality heretofore unequalled in designs ready to use. The door is C-1020 and is made in white pine; the frame is C-1716 and is made to fit frame or masonry walls.

Six-panel variation Below is a new design (C-3052)—with both square and round-arched heads—to supplement the regular six-panel door that Curtis has always offered in a beauti-fully proportioned design.



More New Doors and Windows by Curtis

HOSE builders who re-L ceived with approval the announcement by Curtis seven years ago of a complete line of woodwork forms embodying designs of genuine architectural character, will be interested in the enlargement of that line by the addition of a great many new designs.

These new designs were detailed expressly for manufacture by Curtis in the office of Frederick Lee Ackerman, New York City, and submitted by him for criticism to a score of the country's



Italian in feeling Here is a distinctive design showing Ital-ian influence, but suitable of course for other types of houses. It is Door C-3041 and is made in birch only and this wood is capable of a variety of finishes. The stiles are 4¼ inches face measurement.

These and many other items of architectural woodwork can be bought ready to use through any Curtis dealer.

foremost architects, whose generous co-operation we wish hereby to acknowledge.

The new items include complete entrances as well as new doors, new exterior moldings and porchwork, new windows, new interior doors and trim, and many new items of cabinetwork. Only a few can be shown here. Some can be seen at most Curtis dealers. These designs are all available in acceptable woods and sizes.

There's a Curtis dealer near you

The leading dealer in woodwork in your community (if you live east of the Rockies) is probably a Curtis dealer. He



FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

will be glad to show you his stock and to give you full information about the opportunity for profit that Curtis Woodwork offers contractors and builders. Write us for the name of nearest dealer and for descriptive literature.

The Curtis Companies Service Bureau 690 Curtis Bldg., Clinton, Iowa

Representing

Representing— Curtis & Yale Co., Wausau, Wisconsin... Curtis, Towle & Paine Co., Lincoln, Nebraska... Curtis, Towle & Paine Co., Topeka, Kansas... Curtis Door & Sash Co., Chicago, Illinois... Curtis Sash & Door Co., Sioux City, Jowa... Curtis Detroit Co., Detroit, Michigan... Curtis Pros. & Co., Clinton, Iowa Lis, Minnesota... Curtis Bros. & Co., Clinton, Iowa ... Curtis Companies, Inc., Eastern Sales Office: 25 West 44th Street, New York City.

Curtis Companies Incorporated, Clinton, Iowa



New round-arched window

The new Curtis windows include several designs, of which this round-acched de-sign is an example. It is made to harmo-nize with sixteen-light double-hung sash. A similar design is made for twelve-light windows and another for casement sash.

Now You Can Buy BASEMENT WINDOWS with -sash instantly removable for glazing rigid frame construction self-centering wedge locking device -special casement sections At these prices, you can't afford NOT to use them! 3 Lights 10"x12" 14"x20" 3 Lights 12"x 18" 95 \$305 3 Lights \$325 10" x 20" Slightly higher in the south and extreme west \$325 DETROIT STEEL PRODUCTS COMPANY B-2276 East Grand Boulevard, Detroit, Michigan er as Detroit, Michigan, Oakland, California, and Toronao, On mis, and Toronto, Ont., Can.

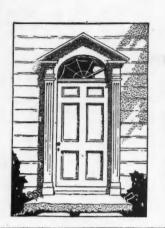
A year ago this announcement of a new price policy made steel basement window history. It placed Fenestra Steel Basement Windows on a price basis which permits their use in even the smallest houses. As a result, builders in every section of the country are today using these better steel windows. They have found that daylighted basements help sell houses, and that Fenestra Steel Basement Windows, conveniently stocked by building supply and lumber dealers, are as economical as they are useful.

DETROIT STEEL PRODUCTS COMPANY 2260 E. GRAND BOULEVARD, DETROIT, MICH.. PACTORIES: DETROIT MICH., AND OAKLAND, CALIF. CONVENIENT WAREHOUSE STOCKS

These

Are the Winners

[September, 1927



HOME OWNERS \$500.00 Kenneth Bates, Mystic, Connecticut. \$100.00

\$100.00
E. J. Welsh, 336 9th Ave., S., Clinton, Iowa.
Samuel B. Curran, 17 N. 26th St., Camp Hill, Cum-berland County, Pa.
Ralph W. Abell, 251 Bryan St., Rochester, N. Y.
Claude Barr, Smithwick, South Dakota South Dakota.

Walter D. Popham, 90 14th Ave., Columbus, Ohio.

LUMBER DEALERS \$500.00

W. Berry, Pres., The Golden Belt Lbr. Co., J. Manhattan, Kansas. \$100.00

H. Holcomb, Holcomb A. Bros., Sycamore, Ill. Aldon Peterson, Denniston & Partridge Co., Newton,

Iowa Geo. E. Martin, Joyce Lum-ber Co., Clinton, Iowa. Geo. F. Bodfish, Jr., Whole-sale Lumber, 146-150

- sale Lumber, 146-150 Haven Ave., New York, N. Y.
- Herman A. Schindler, Adams Bowers Lumber Co., 417 S. Los Angeles St., Anaheim, Cal.

in The Pondosa Pine **Question Contest**

The Pondosa Pine prize question contest has been an entire success. Spurred on by the \$4000 in cash prizes, those who are planning to build, those who hope to build some day, architects, building contractors and lumber dealers from Maine to Florida and from coast to coast literally buried us under questions about the use of Pondosa Pine in building.

This contest has definitely proved two things. An intense and intelligent desire on the part of those who intend to build to know what Pondosa Pine will give them in better homes, better construction, more beautiful finish and trim. An equally intense desire on the part of architects, contractors and lumber dealers to know why they shculd recommend, use and handle Pondosa Pine so they can better serve their clients and customers.

This contest has had two very happy results. Twenty-four question askers have divided \$4000 Twenty-four question askers have divided \$4000 among themselves and are chuckling with glee. Thousands of question askers today know more about good lumber and how to get and how to produce satisfactory building results than ever be-fore. The prizes spurred them to make an effort they might never have made. What they have learned will be valuable to them as long as they live live.

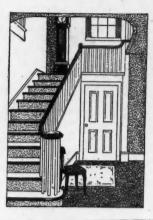
If you did not compete in this contest, you can still obtain, the great benefit it was planned to confer. Go to your architect, your builder or the local lumber dealer and ask him the questions local lumber dealer and ask him the questions you may have intended to send in—or which may have just come to your mind. You can't over-estimate the importance of Pondosa in any build-ing plan. You can't possibly know too much about it.

Pondosa Pine can help you too, Mr. Architect, Contractor or Lumber Dealer to protect your reputation. It gives the most lumber value for every dollar spent by your clients and customers, and with it the satisfaction that lumber ONLY affords. Address Dept. 22, Western Pine Manu-facturers Association of Portland, Oregon.

ondosa Pine

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

The Pick o'the Pines



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\$500.00 W. S. McDonald, c/o McDonald & Co., Hurt Bldg., Atlanta, Ga.

- \$100.00 Harold R. Sleeper, c/o Frederick L. Ackerman, Architect, New York, N.Y.
- J. F. DeYoung, c/o Meanor & Handloser, Huntington,
- West Virginia. Edw. E. Hendrickson, c/o Chas. Z. Klauder, Archi-tect, Philadelphia, Pa. Ernest Irving Freese, 6247 Pine Crest Drive, Los

Angeles, Cal. T. Paul, 51 West 49th Street, New York, N. Y. C.

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- Tenn.



1926

When KING-WALSH Builds to Sell /

Jwenty-one \$15,000 to \$23,500 Homes and Not a Garbage Can

COMPETITION for purchasers is daily becoming a greater factor in the sale of moderate priced homes. It is significant that King-Walsh have deemed it wise to further fortify their reputation for highest ideals in building by installing and advertising the Kernerator as an important attraction of the twenty-one Glenwolde houses.

The Kernerator is the finishing touch to the modern kitchen. It costs nothing to operate. All waste—garbage, tin cans, rubbish of all sorts—is simply dropped through the handy hopper door in the kitchen. It falls to the brick combustion chamber in the basement where a match lights the air-dried accumulation. No gas, oil, wood, coke or any fuel required. Tin cans, bottles and non-combustibles are flame-sterilized for removal with the ashes.

In all of the 360 Model Homes, being built under the supervision of the Home Owner's Service Institute, the Kernerator is also standard equipment.

For detailed information see Sweet's 21st edition, pages C-3054 C-3055. Or 'phone your local Kernerator representative. Offices in eighty-nine cities.

KERNER INCINERATOR CO. 753 East Water St., Milwaukee, Wis.



Garbage and Waste Disposal without Leaving the Kitchen

[September, 1927

HESS Welded FURNACE

Heavy Steel: Every Seam Welded: Leak Proof: Gas and Smoke Tight



We guarantee against leakage at the seams **AS LONG AS THE FURNACE SHALL STAND.**

No other furnace maker offers this guarantee.

Heavy annealed steel body, brick lined firebox, rocking grate bars, large evaporating pan, galvanized casing, poker and shaker included.

Prices much reduced, with trade discounts to contractors and dealers.

The Hess Furnace burns anything, economically, and delivers all the heat. Simpleconvenient and easily regulated. Admirably adapted to any oil burner.

We make, also four sizes of **PIPELESS STEEL FURNACES.**

Send us a sketch of your house, and we will make you a heating plan, **free of charge**, no obligation, showing you how to heat it with a minimum of cost, and a maximum ot efficiency.

Ask for our 48 page booklet on heating. HESS WARMING & VENTILATING COMPANY 1220 South Western Avenue, Chicago, Illinois BRANCHES AT: DETROIT CINCINNATI MILWAUKEE ST. PAUL

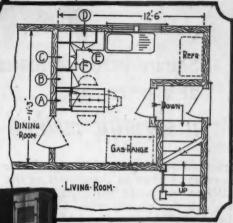
A NEW FLEXIBILITY to Meet Every MODERN KITCHEN Demand



NIKELBOND Standardized Kitchen Units

73

NIKELBOND is a new conception of beauty, convenience, space saving and installation economy. Its beauty is clearly illustrated and its flexibility provides almost unlimited combinations to fit exactly where and as you wish. The slender lines bring new beauty—the paneled ends and standards break the monotony of plain surfaces—and new refinement is added by the NIKEL-BOND plates and solid brass Hardware of simple design, all heavily nickeled and highly polished.



The Heart of Nikelbond

Unit IB-19 (illustrated to the left) is indeed a master Unit. It requires only 19% inches of wall space, yet combines a built-in ironing board, breakfast or utility table and a spacious dish cabinet. You will be delighted with it and maryel at its efficiency.

for You to Build and Sell NIKELBOND embodies not only every convenience heretofore offered the busy housewife but many other exclusive features never

NIKELBOND makes it easier

offered the busy housewife but many other exclusive features never before incorporated in Kitchen equipment. Completely installed, it costs only about one-half that of custom built cabinets. Standardization and quantity production are alone responsible for this remarkable saving.

Only the simplest form of carpentry is required to assemble the various units.

NIKELBOND is truly the application of common sense to every angle of the modern kitchen problem.

Send for the Story of NIKELBOND and see its Unbelievable ADAPTABILITY

It's new — economical — flexible and practical. Contractors, builders, home-owners; in fact, all who have seen NIKELBOND installations declare it the best yet — send coupon at once and see for yourself WHY so many are delighted with it. NIKELBOND offers a place for everything and keeps everything in its place. Investigate for your own profit.

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シアー	Facley & Loetscher Mfg. Co., Dubuque, Iow Gentlemen: Please send WITHOUT OB Booklets checked below with complete data and prices. "IN-THE-DOOR" Ironing Board and Breakfast Unit "ON-THE-WALL" Ironing "ON-THE-WALL" Complete data about	BLIGATION, folders for OORS and stand NIKELBOND KITCHEN UNITS,
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	Your Local Lumber Dealer or Distributor	

FARLEY & LOETSCHER MFG.CO., DUBUQUE, IOWA QUALITYBILT WOODWORK FOR THE BUILDING TRADE FOR 50 YEARS

[September, 1927

Which DoYou Use in Homes You Build?



HE method of using a building insulation is vitally important - just as important as the material itself. When you build insulated homes make sure that you will not be embarassed by questions as to what insulation was used and how it was installed.

74

When you pay for building insulation, you are buying the ability of that material to keep heat in in winter and to keep it out in summer. Be sure that you get all that you should - for it is costly to replace inefficient insulation that fails to repay its cost by saving a full one-third of the fuel every winter.

The FLAX-LI-NUM method of insulating homes gives you the equivalent of ³/₄-inch insulation at the cost of ¹/₂ inch. These semi-rigid sheets are installed between the studs, halfway between the inner and outer walls. The U. S. Bureau of Standards' Letter Circular No. 227 says of the FLAX-LI-NUM method: "The addition of a half-inch layer of insulation in the middle of the air space is the equivalent of adding about a

³/₄-inch layer at some other

As a building insulation, FLAX-LI-NUM offers advantages found in no other material. It has great tensile strength; it will not puncture, tear nor break. The long, tough flax fibres never rot. Hence, FLAX-LI-NUM is permanent. It will outlast the building.

FLAX-LI-NUM is easily and quickly installed holds itself in place while the builder drives home a few nails. There is no waste – and it is almost impossible to install it incorrectly.

Then, too, FLAX-LI-NUM is compressed in the making, but not in installing. The semi-rigid sheets, when built into the wall, lose nothing in the process of installation.

Seventeen years of successful performance are behind FLAX-LI-NUM. When you build your homes compare FLAX.LI.NUM, the material, and the FLAX. LI-NUM method with all others. On every count you will find that FLAX: LI-NUM excels. Specify 1/2 inch in side walls, one inch in roof.

Send for samples and a copy of the book Heat Insulation for Houses.⁴



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Millions read about the superior advantages of Holland Heating Systems in national magazines; other millions know from living in Holland Heated Homes. Full page advertisements in the Saturday Evening Post, American Magazine, Literary Digest, Better Homes and Gardens, and other publications tell readers why Holland Vaporized Warm Air Circulating Systems give clean, pure, healthful heat to every corner of the home.

75

This national advertising is backed by the Holland Furnace Company with its 522 factory branches throughout the country. Autory branches throughout the country. Autory of contractors have found from actual experience that Holland Heating Service solves all their heating problems. Holland heated homes sell more readily because home buyers know that Holland heat is dependable heat. Send for complete information available to contractors and builders.

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> HOLLAND FURNACE COMPANY, Holland, Mich.

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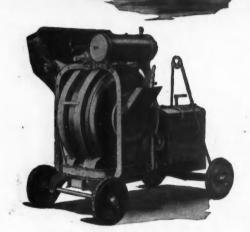
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Kochring 5-S Dandie, Discharge side



Koehring 5-S Dandie. Notice gallon indicator gauge on water tank.

+ ·... 1

Charges from Ground Level!

THE 5-S Dandie needs no elevated platform or runway! Nothing skimped in size of charging skip! That's why it is fast charging without choking! Real mixing action gives you plastic, easy working concrete!



High narrow drum means fast Light Mixer discharge!

The Dandie is a high speed money maker — and built to stand up to all the speed you give it!

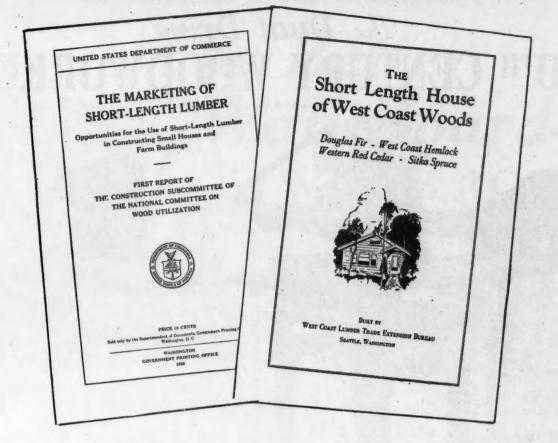
Remarkable Value! Shows whatbigproductioncandoinkeeping quality up and price down! Dandie Mixer - 5-S, 7-S -5-S single cylinder, 7-S two or four cylinder gasoline engine. Power charging skip, or low charging hopper and platform. Rubber tired steel disc wheels or steel rimmed wheels. Complies with A. G. C. Standards.

Know the Koehring Dandie Construction—if you're looking for speed AND reliability AND long service life in a light mixer, get full detailed information on HOW the Koehring Dandie is built. Write for Catalog D-1.

A-3899-1

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May we send you these two important books?

BUILDER'S are taking an increasing interest in American forestry and future forest supply. They are giving valuable cooperation in developing American Lumber Standards and in the work of the National Committee on Wood Utilization. This helps to attain the objects of forest utilization and timber conservation. There is still much to be accomplished, however, and the greater use of short length lumber is one of the most important goals.

Twenty per cent of the framing lumber that goes into the typical American house is less than eight feet in length—twenty per cent to thirty per cent of the sheathing and sub-flooring is cut in lengths shorter than eight feet—and so on. Yet, even at a lower price, lumber mills have difficulty in selling short lengths of lumber.



W3728

Your Retail Lumber Dealer can supply you with these Important West Coast Woods— Douglas Fir - West Coast Hemlock - Sitka Spruce - Western Red Cedar Builders can help materially in the better utilization of lumber, if they will encourage the use of ACTUAL lengths required. This will automatically utilize the shorter lengths which develop in producing the longer—and will require no changes in design or construction to enable the use of these shorter lengths.

The two books shown above, The Marketing of Short Length Lumber and The Short Length House of West Coast Woods, cover the subject thoroughly, including such matter as "What Short Length Lumber Is"; "Actual Savings by Using Short Lengths"; and "How the Use of Short Lengths Will Reduce the Price of Lumber". We will be glad to send you a copy of each of these two books, postpaid. Please address West Coast Lumber Bureau, 562 Stuart Bldg., Seattle, Washington.

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Please send me The Length House of We	e Marketing of Short Len est Coast Woods, without	igth Lumber an ut charge.	d The Short
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[September, 1927

The Dual Drive **20TH CENTURY WOODWORKER**

Rip Saw Guard Removed The "20th Century Woodworker" with the Gasoline Engine mounted

Do You Insure Your Bids?

Many a contract is lost and you never know why. Here's a possible reason:

Just now any kind of construction work is scarce-therefore the buyer is in a position to obtain rock-bottom bids. There may be a very large amount of woodworking in a given contract-bidders may be on a parity on other items-but one may enjoy an edge on the woodworking end. Are you the one -or are you guessing on hand labor and placing yourself in a position to suffer a possible loss in trying to compete with automatic machinery?

Think it over, and then write us about how to insure your bids with the 20th Century Woodworker.

Think of it! Here's a machine, easy to buy, easy to operate, can be moved from place to place, will work from electric current—or by gasoline motor. Will actually saw more than six to eight men can nail in a day.

The Twentieth Century Woodworker is the product of one of the country's foremost machine builders. It's a quality machine throughout—will last and operate efficiently for years.

We also have an interesting story for carpenters, factories, lumber yards, hotels and railroads.

Covered by a guarantee that really guarantees

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The Better Wall Board-WHITE ROCK



THERE are dozens of uses for wall board in the average home but only one wall board best meets the requirements --WHITE ROCK. Only in this board do you have the famous four-ply nailing edge (which holds so much better) and both sides alike (saving cost and time in applying). Ask for free Carpenter's Time Book and name of local dealer.

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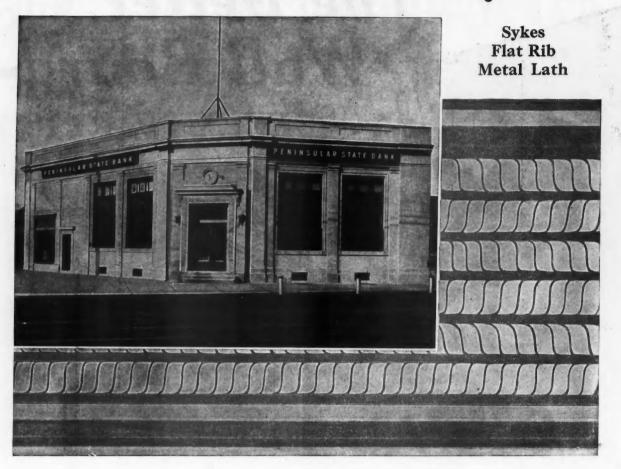
New York, Cleveland Detroit, Pittsburgh Chicago

Both Sides Alike

4Ply Nailing Edge



The Greatest Plaster Saver Of All



HEN the little State Bank in the picture above came to the building of a new and modern home, the officers looked about them, as true economists do, to discover a way to hold construction costs at a minimum. In their examination of building materials they met with Sykes Flat Rib Lath, and realizing, as keen investigators will, that they had laid their fingers on the greatest plaster saver of all, they used it.

Flat Rib Lath—the easiest applied of plaster bases— is composed of small flat ribs on $1\frac{1}{2}$ " centers, connected by herringbone mesh. Its rigidity makes it possible for one man to put the sheets in place unaided and enables the plasterer to spread the wet mortar with amazing rapidity and ease—and to spread it evenly and to a uniform depth. The first coat on Sykes Flat Rib forms so perfect a bond with the lath that the second coat can be added at once. Sykes Flat Rib insures a wall of constant thickness and uniform shrinkage, and obviates all chance of cracks from internal strain. Wherever it is used it effects savings in time and material and helps toward the production of better jobs.

Sykes 3/8" Rib is a further development of the combination of lath with light structural shapes. It permits wide spacing of studs and builds a strong wall.

STRES

"The Pyramids Are Permanent Too"]

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COPPER STORE FRONTS

last longer and cost less than any other front of good construction. Merchants realize the value of an inviting front and can easily be sold on Brasco when you show them how readily and reasonably they can install this sure business builder.

Don't overlook this opportunity. Write us today for free information on profitable store front work. Fall remodeling business now starting.

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Gentlemen:

"As Good As Good Looking"



The Realization of Anticipation



Ambler Asbestos Shindles

The above close up unretouched photograph of an actual roof of dormer and part of main roof of a model home, shows the definite charm and distinctive effect produced by this sturdy asbestos fireproof shingle, known as-

English Thatch

The shingles come in random widths and when applied in irregular courses the heavy ragged butts and rough surface produce a texture roof that cannot be duplicated with any other material, they completely fulfill the owners' and architects' desires for a *serviceable, fireproof* and *artistic* roof. They are made in a variety of non-fading colors: Green, Red,

They are made in a variety of non-fading colors: Green, Red, Brown, Gray, etc. First of all, Tapered Ambler Asbestos Shingles have the taper of the old wooden shingles. They are $\frac{1}{2}$ in. thick at the upper end, $\frac{1}{2}$ in. at butt and 20 in. long. They are strong, rigid shingles, not paper or rag felt, never curl or warp, not affected by zero 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 materials.

FIRE-PROOF

Tapered Ambler Asbestos Shingles are absolutely fire-proof, not merely "fire resistant." Ask your fire insurance agent what the difference is, he will tell you 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 now for complete infor-mation covering these superior shingles.

Made by the AMBLER ASBESTOS COMPANY, at Asbestos, Penna., and sold by the ASBESTOS

SHINGLE, SLATE & SHEATHING CO. PENNA. AMBLER

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Don't hesitate a moment to hold me to this guarantee and notify me within the five-day limit, as we want every set of books we put out to remain only in the hands of appreciative and enterpris-ing purchasers, as this price is made with the sole purpose of placing a set in your town to which we may refer later, and with the understanding that you write us your opinion of it to help secure other business at our regular price.

ma Radfing

President and Editor-in-Chief.

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[September, 1927



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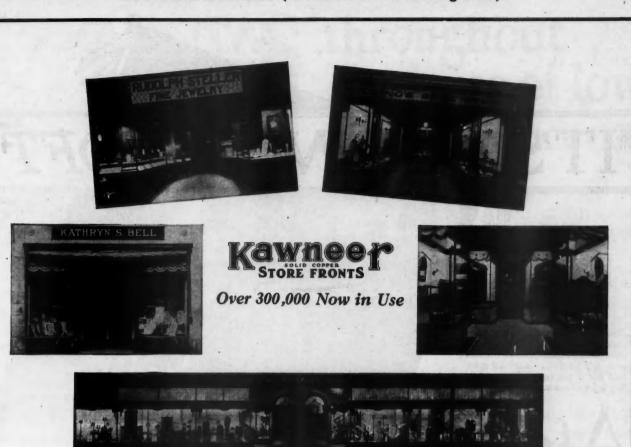


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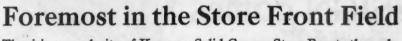
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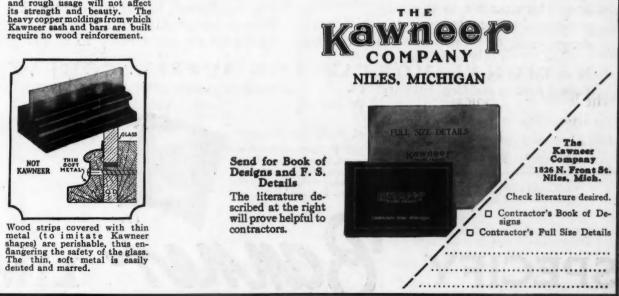


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[September, 1927

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June 3rd, 1927.

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[September, 1927

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H. W. Sewall has achieved his goal of manufacturing independence with a thriving D un tile manufacturing plant at Benton Harbor, Mich. Read Sewall's experiences. Perhaps they have a message for you.

[September, 1927 ·

Now your buildings can escape PLASTER LIGHTNING

(CRACKS IN PLASTER)

All your walls and ceilings are under constant strain

N. J., F. J. Foster, architect. Photo by Kenneth Clark, New Rochelle, N. Y.

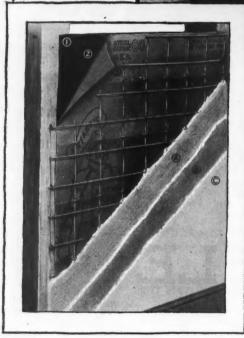
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WHAT is the condition of the walls and ceiling of the room in which you are now seated? Undoubtedly you have visited homes which were artistically arranged but the entire effect lost due to unsightly, structurally poor plaster. STELLTEX assures protection against this cause of trouble, besides adding insulating, sound-deadening and moisture-proofing.

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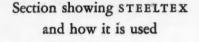
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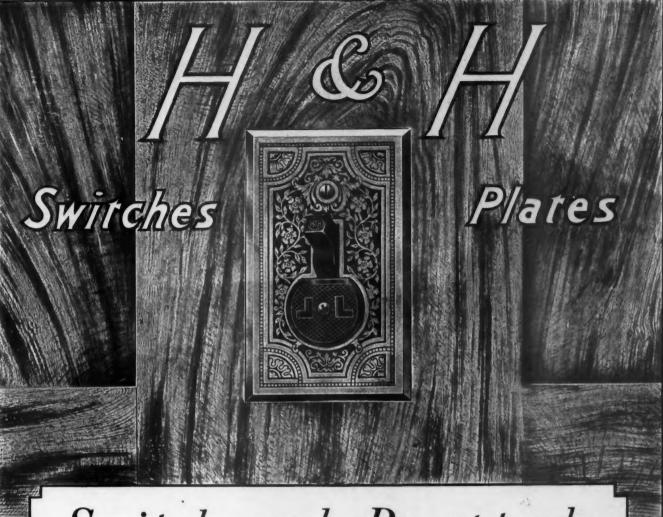
- (1) Waterproof backing
- (2) Waterproof compound
- (3) Second tough backing
- (Furring device
- (5) Rust-proofed steel reinforcing fabric
- A Scratch coat of plaster
- B Straightening coat
- C Finishing coat

STEELTEX supersedes ordinary lath with rigid steel fabric, galvanized (rustproofed), electrically welded—resists strains from all directions. It is nailed to the framework in sheets 50" x 52". The plaster is applied just as over lath. See how the steel is completely embedded.

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STEELTEX STOPS PLASTER LIGHTNING (Cracks in plaster)

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Specify No. 8998 for

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and iron or washing-machine plug. Pantrics - for light and electric

Pantries — for light and electric refrigerator plug. Halls — for light switch and cleaner plug.

Bath Rooms - for lights and electric heater plug.

Bed Rooms — for dressing-table lamp and electric curling iron or vibrator; or for lights and heating pad.

Porches — for porch light and washing-machine plug. Offices—for overhead lights and dictating or multigraphing machine; desk fan or lamp.

FORD

CONN

Here, your prospect sees a double convenience in controlling electric lights and a useful appliance. Glance through the list of uses at left.

The switch may be wired to control only the lighting, with the current in the receptacle always "ON." Or the switch may control the receptacle part only.

Your owner gets a two-fold service through one wall plate — and a beautiful plate at that. The hand-etched Art Plate in Butlers Silver calls special notice to this *ultra* thing in electrical convenience.

Glad to send you descriptive circular on the "8998" Combination, now available with H&H Art Plates in four handsome finishes.

G. HEGEM

[September, 1927

\$1.00 a year

A	Gives
	you
	New
	Ideas
	\$1.00 a year
Established in 1899 Special Fall We offer to send you this magazine the last for and the twelve months of 1928, a total of six send you postpaid, a copy of our big plan b	our months of this year teen numbers, and also book, deluxe edition—
Keith's Beautiful Homes Magazinemagazines100 North 7th St., Minneapolis, Minn.many a buiGentlemen:Under your Special Fall Offer, send me Keith's famous plan book, 200 Beautiful Homes and Keith's Beautiful Homes Magazine for sixteen months for which \$2.00 is enclosed.Mr. E in this with the second s	All for \$2.00 ' is one of the best nationally known in the building field. It has helped lding contractor. . L. Nelson, of Newton, Iowa, writes month as follows: "I built from a an and Keith's service is standard h used in this state." advantage of this offer today
	H CORPORATION h Street Minneapolis, Minn.

98



Here is the McKinney Hinge Strap of Warwick design—a beautiful piece of Elizabethan hardware that increases the value of a house by many times its cost.

Make Your Houses INTERESTING with McKinney Forged Iron Hardware

HE illustrations shown here indicate how character and interest can be added to various types of doors and windows by trimming with McKinney Forged Iron Hardware.

There is a tremendous sales appeal to forged iron hardware. It is one important item in lifting a house out of the rut of ordinary commonplace design — and when *interest* is added, the sales value of a house rises.

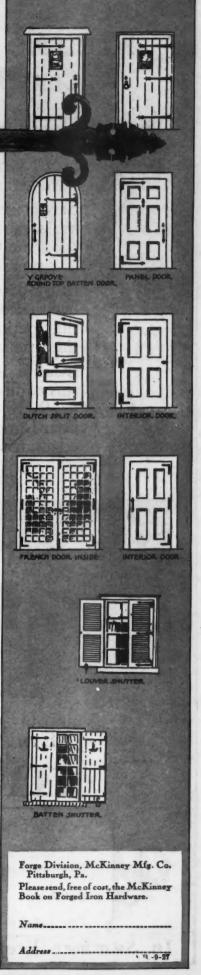
In the past, builders have foregone its use fearing delays in finishing and an over-burdening of costs. Today, McKinney has overcome these two obstacles and the financial and reputation-building advantages of forged iron hardware are within every builder's grasp.

McKinney has so simplified the forging of authentic iron hardware that McKinney pieces are now maintained in stock by most builders' hardware establishments. And by means of this great innovation, prices have been brought down to a point which has made both contracting and operation builders enthusiastic.

The variety of designs and finishes in which McKinney Forged Iron can be obtained makes it ideal for trimming group operations and apartments. Although all pieces are available for equipping a house throughout, charming effects can be obtained by concentrating on the entrance door and shutters.

In the McKinney Book on Forged Iron Hardware you will find much inspiration. Besides giving a complete representation of the entire line, many suggestions of authentic trim are given. Send for this Book.

MCKINNEY FORGED IRON HARDWARE



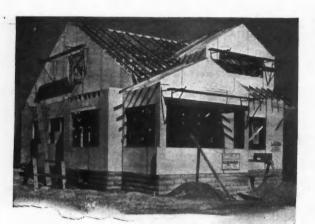
Are the homes you build actually modern throughout?

They may be—almost. But are they insulated? Insulated homes, are as far ahead of the buildings of 20 years ago as the automobile is ahead of the horseless carriage.

Structural insulation—which takes the place of ordinary structural materials and adds insulation at the same time, is being accepted as the most desirable and practical type.

Insulite is the pioneer structural insulation---it has been used successfully for over sixteen years. During that period it has gone through all the tests which time, nature and science could bring about.

Insulite is all wood, being manufactured from pure spruce fiber, fabricated in sheets 4 feet wide and 8', 8' 6", 9', 10' and 12' long, for use as sheathing and wall board, and in a special size 18" x 48" with shiplapped edges, for plaster base.



Official tests made in unbiased laboratories, and on actual jobs have proven that *Insulite Sheathing* properly applied adds greater bracing strength than materials ordinarily used for this purpose, and that *Insulite Plaster Base* bonds with plaster with a grip over twice that of ordinary lath.

If you will put your name and address to the coupon below we will be glad to send you samples and descriptive literature.

The Insulite Co. 1100 Builders Exchange

Minneapolis, Minn. Image Series State Advector of Lason and the series of Lason and the series of t



Over Two Centuries of Distinction

THIS distinctive home has stood for over two centuries—an example of the long life of Pine construction. The Frary House is the oldest home in Deerfield, Massachusetts, the main section being erected in 1683.

Just as time and the elements have proven Pine, so have they revealed the costliness of weak construction and the true character of lumber substitutes. Flimsy building is subsiding and builders are constructing the real American home, built throughout of enduring Pine.

Today Shevlin Pine gives long life to homes. It is not only durable but is easy to work with and lends a distinctive appearance. There is no guesswork about a home properly constructed of this wood. Since the nation's first homes were built, Pine like this has been the most economical building material in the long run.

There is no shortage of the tested building material of our ancestors. The Shevlin interests have selected pine tracts sufficient to supply the nation for years ahead.

Leading lumber dealers can furnish Shevlin Pine in five varieties: Shevlin Northern White Pine, Shevlin Sugar Pine, Shevlin Pondosa Pine, Shevlin Norway Pine, and Shevlin California White Pine. Each is properly seasoned, smoothly milled and carefully graded.

Write for a copy of the new book, "Specify Shevlin Pine." For the architect, builder and dealer it will be full of valuable information and interesting lumbering illustrations.

Shevlin, Carpenter & Clarke Company 900 First National-Soo Line Bldg., Minneapolis, Minn. Chicago Sales Office: 1866 Continental and Commercial Bank Building

Sold in New York by N. H. Morgan, Graybar Bldg., 420 Lexington Ave.



22

Weathertight Frame Mullions

Window frame mullions are vulnerable spots for the entrance of cold air. The new Andersen Frame mullion makes this point weathertight.

A tongued filler piece slips down grooves in the blind stops, forming a double wall against the weather. The space between the filler and the casing acts as dead air insulation. Some builders place insulation material there to increase the protection.

This is only one of several Andersen Frame features giving your clients weathertight windows. Genuine White Pine sills and casings assure long lasting satisfaction. When you build for resale these points aid considerably in selling.

Most dealers can supply Andersen Frames. Let us send you catalog No. 300.

> Andersen Lumber Company Dept. D-9, Bayport, Minn.





Advanced Ideas in Kitchen Equipment

An unlimited number of ways you can add the "Sellers Touch"



No sectional kitchen equipment has won wider recognition than Sellers. Due to scientific arrangement—practical combina-tions—easier installation—un-

usual flexibility and beauty of product itself, Sellers Sectional Kitchen Equipment is today as outstanding as the celebrated Kitchen Cabinet bearing the same name and now used in millions of homes throughout the country.

Note above one of the sectional unit combinations available. The number of these combinations is unlimited. Forty-one different standard sections can be used to make them up. Combinations range from the needs of the smallest kitchenette to the most elaborate installation, including cabinet, refrigerator, side sections and sink cupboards. Flexibility of these splendid kitchen ensembles assures a correct installation for kitchens of any size or style.



A Sellers Kitchen Ensemble-cabinet, refrigerator, side closet, special cabinets

Simple, too, is installation. Just a few bolts to be drawn up, in holes already provided. And a quarter round is all that is needed to finish it off.

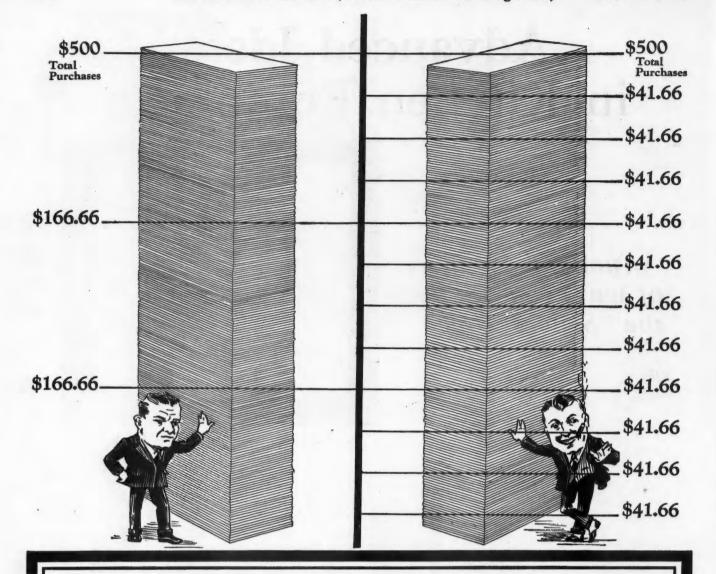
A wide choice of beautiful, colorful finishes, the dependability of seasoned, kiln-dried lumber, the superior manufacturing facilities of Sellers, the many Sellers time- and labor-saving features—all these are offered you. And all enhanced by the years of consistent national advertising and the esteem in which Sellers is already held by the women of America.

Cost? Due to volume production no higher than that of the average manufactured "built-in" outfit.

Our new illustrated book shows in colors the many Sellers units and already has proved helpful to many. May we send you a copy?

G. I. SELLERS & SONS CO. **Department 609** ELWOOD, INDIANA

SELLERS **Please ask** you secretary to write for Sectional Kitchen Equipment this NOW! Sized for your file.



of the pool-car buyer with the Cornell dealer

THE above diagram shows how profit percentages are multiplied for dealers who purchase their fibre wall board stock in small quantities, from near-by warehouses. As an example, each of the two dealers above purchases \$500 worth of wall board yearly. The pool-car buyer invests \$166.66 at a time, gets 3 turnovers and makes a profit of 100% on his average capital investment. But the Cornell dealer invests only \$41.66 at a time and turns

his stock 12 times at the same mark-up as the pool-car dealer. He makes 400% on his average capital investment. This is one of the reasons why more and more dealers are ordering in small quantities through Cornell's remarkable system of warehouse stocks. Let us give you the details.

CORNELL WOOD PRODUCTS COMPANY 190 North State St., Chicago, Ill.





DEPENDABLE Information for Builders

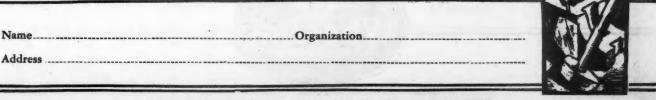
36 pages of authentic information, compiled by the Engineering Department of the NATIONAL BUILDING UNITS CORPORATION, with blueprints, tests, specifications and illustrated suggestions for the use of Cinder Concrete Building Units in varied types of building construction just issued in convenient form for handling and filing.

Your copy is now ready. Your name and business address on the coupon below will bring you one of these books by return mail.

NATIONAL BUILDING UNITS CORP.

Dept. A

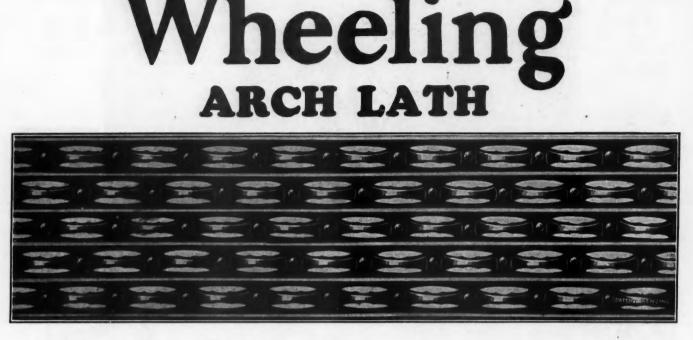
1600 Arch Street, Philadelphia, Pa.



WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILLER

105

[September, 1927



A New Development \checkmark \checkmark Ideal for small



Wheeling Arch Lath meets the present day demand for low cost walls and ceilings that are fireproof and crack-proof.

and Large Buildings—Cuts Plastering and Lathing Costs

WHEELING Arch Lath is a development of thirty-six years' experience in the design and manufacture of building products.

From the start it has enjoyed the enthusiastic endorsement of builders and architects, everywhere. The reason is that Wheeling Arch Lath combines the best advantages of a metal lath and plaster reinforcement. Its low cost permits it to be used in the smallest homes as well as larger homes and buildings.

Easy to apply and work with, Wheeling Arch Lath assists rapid and excellent workmanship, insuring smooth, even coats. By unique contouring of the arches, the keying advantages are increased, plaster is saved and better walls or ceilings are assured.

Let us send you a sample of this product for close-up inspection.

Wheeling Corrugating Company, Wheeling, W.Va.

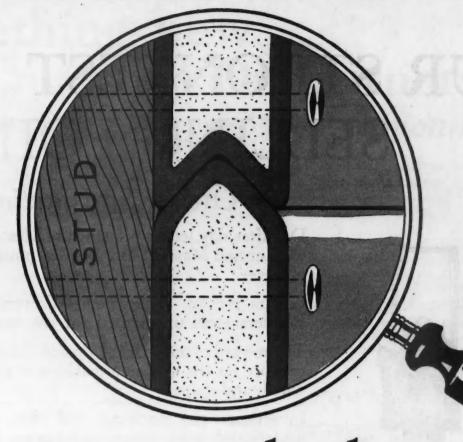
New York Philadelphia St. Louis Kansas City



Chicago Chattanooga Minneapolis Richmond

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

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Any way you look at it-

There is no better sheathing than Gyplap any way you look at it!

Consider the edges. Patented, exclusive, tongue-and-groove joints that seal out wind and weather, and add strength.

Think of the bracing strength. Six times greater, by actual, scientific distortion tests, than ordinary sheathing when nailed in place! Look at the thickness. Full half inch. Won't bulge, buckle or warp. Its gypsum core is fire-fighting—protects wood framing—reduces fire hazards. Gyplap many, many times has saved the structure it sheathed from fire, with never a scorching of the wood studs beneath.

Figure the time it saves—these broad sheets going up so quickly. Not only better construction, but quicker.

Any way you look at it—a better sheathing! Use Gyplap on your next job. May we send you a handy office sample? Just use coupon.

UNITED STATES GYPSUM COMPANY General Offices: Dept. 401, 300 West Adams Street, Chicago, Illinois



Name.....

Address

[September, 1927

OUR STRONGEST SELLING POINT-



Master Floor Sander

Owner Satisfaction

Day after day, letters praising the Master Woodworker and Master Floor Sander, pour into our offices—

The reward of more than 15 years' constant effort to place on the market a machine of remarkable worth and value.

Investigate the machines and then you will understand why owner satisfaction is such a tremendous factor in our sales.

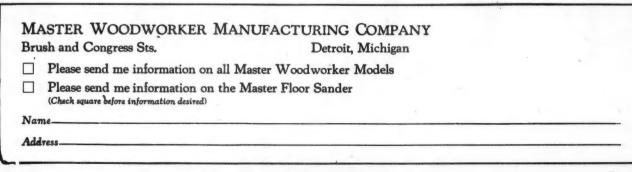
A Few Details

The Master Woodworker, shown at the right, is a complete woodworking shop. It performs the following operations with skill and efficiency: Crosscutting, ripping, dadoing, routing, planing, rabbeting, boring, grinding, stair housing, jointing, moulding, tenoning, mitering, plowing and mortising.

An ordinary power hook-up can be used and the machine can be transported from job to job with ease.

Every Master Woodworker and Master Floor Sander carries an absolute guarantee against defects in workmanship or material. Master Woodworker

Send in the Coupon TODAY for full particulars.



Something new . . . in Oil Burners ~ Greater Simplicity-More Dependable

The Rexoil Automatic is a new departure in oil burner design. A compact, single unit of such dependability that in a house closed up last winter non-freezing temperature was maintained without attention except for the oil supply man to read the gauge at grade entrance and keep the tank filled.

Rexoil can be installed easily with any type of hot air furnace, steam or hot water vapor boiler. One size for dealer to handle. Simple valve adjustment for changing requirements.

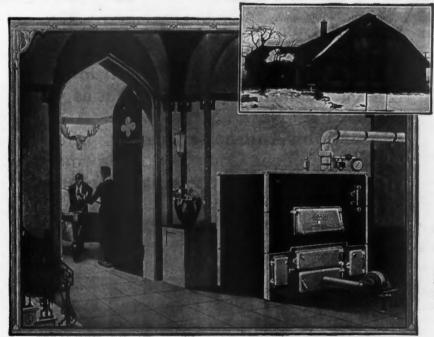
Read This Letter:

"Your oil-burning equipment installed in my residence and applied with a Type 'A' American Radiator Heat Machine is satisfactory: * * * * * * My equipment has splendidly stood the test of zero weather and I am ready to recommend your burner and your service and would be glad to have you use my outfit for demonstration purpose if you would so desire. "Cordially yours,

"HANS BUERK."

Write for description and prices. Investigate this oil burner before you install. If we have no dealer in your locality, we will gladly supply you through your heating contractor. Name of architect and heating contractor appreciated. Reif-Rexoil, Inc., 52 E. North St., Buffalo, N. Y.

Dealers — Write for Selling Plan



Altractive home attractively heated — Owner, Hans Buerk, 234 High Park Blvd., Buffalo, N.Y. Read his letter.

Automatic	REIF-REXOIL, Inc. A.B. 52 E. North St., Buffalo, N. Y.
REXOLS	Gentlemen: Kindly send me full details and prices of your Oil Burner. Name
Heaters THE CHOICE OF MEN WHO KNOW	Address



mortarmixing

Here's another way you can save time and money with BRIXMENT mortar —big job or little job. Mix it in your concrete mixer. Mix and use it as you need it. No lime. No waste. A better job. And better profits. Louisville Cement Company, Incorporated; General Offices: Louisville, Kentucky. MILLS: BRIXMENT, NEW YORK, and SPEED, INDIANA



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fortar

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Use



Builder Shown as Supreme Factor in Home Design

THE AMERICAN BUILDER survey recently completed reveals an astonishingly high percentage of new houses planned as well as erected by builders. Taken on the dollar basis, our builder subscribers planned 70 per cent of the new houses they built, building 30 per cent from the plans of others. On the number basis, the percentages were:

This confirms evidence previously gathered from building commissioners and shows the builder as the supreme specifying and buying factor. He it is who decides, in most instances, just what building material, finish and equipment shall be used in the new houses he erects. Even where he does not prepare the plans, he is still the chief buying factor, but it is surprising in what a large majority of cases he is the sole buying factor to be considered. The material and equipment he buys includes not only lumber, brick, concrete and masonry materials, but also roofing, insulation, millwork, trim, hardware, plumbing and fixtures, wiring, outlets and lighting fixtures, heating plants, piping, paint and varnish, hot water heaters, boilers, radiators, kitchen cabinets, gas ranges, refrigerators and numerous other items, running into a value of hundreds of millions of dollars annually.

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That a large amount of the annual residential building is erected by investment builders for re-sale is well known to those familiar with the building field. The figures of our survey showing these builders as constituting the principal designing factor are a further confirmation.

The returns also indicate that builders plan as well as build apartment houses, two-flats, garages and many other types of structures. The money value of the single dwellings planned and built by builders who are mail subscribers to AMERICAN BUILDER totaled \$1,765,122,828.

Of the apartment houses built by AMERICAN BUILDER subscribers, 49 per cent were planned by the builders themselves who employ, in many cases, their own architects or draftsmen.

Of the duplexes and two-flats reported built, 56 per cent were also reported as planned by our builders.

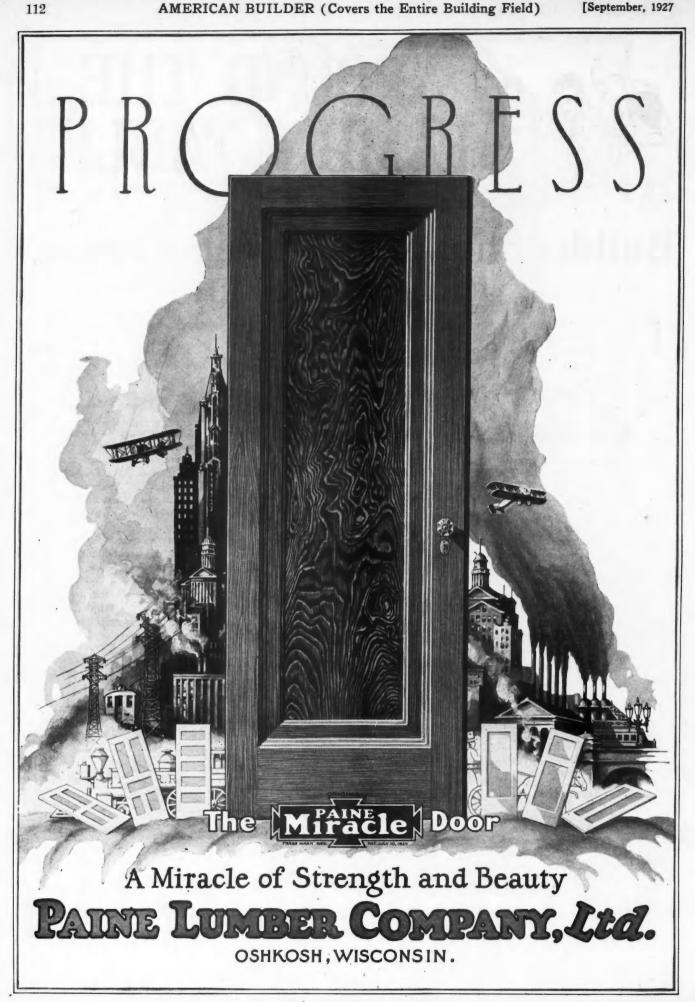
Of the hotels built by our readers, 30 per cent were from their own plans.

The details of the number planned and built by builders, also average values, are shown in the tabulation below, which indicates that the builders themselves designed 65% of all classes of buildings reported, as an average.

Number of Buildings Planned, Number Built by Subscribers And Average Values Shown in American Builder Survey

	Number	Number Planned	% Planned	Average Value
Kind-	Built	by Builders	by Builders	Each Building
Houses	270,816	188,076	69%	\$ 6,517.00
Two-Flats and Duplexes	18,732	10,584	56%	. 9,818.00
Apartment Buildings		3,780	49%	70,474.00
Private Garages	86,352	62,496	72%	531.00
Schools		1,680	29%	45,777.00
Hotels and Restaurants		214	30%	256,619.00
Theaters and Halls		336	25%	64,428.00
Club and Fraternal Buildings	869	0	00%	96,359.00
Office Buildings	1,409	445	32%	28,202.00
Retail Stores, Store Fronts and Business Blocks		8,064	50%	11,995.00
Banks	219	55	25%	30,228.00
State, County and Municipal Buildings		356	33%	68,096.00
Churches		1,048	47%	19,598.00
Hospitals and Institutions	791	267	34%	23,654.00
Warehouses	6,533	2,651	41%	10,167.00
Public Garages	6,233	4,536	73%	9,648.00
Filling Stations	1,295	786	61%	8,413.00
Factories and Shops		1,735	72%	34,377.00
Community Centers	356	0	00%	65,478.00
Farm Buildings	28,173	14,985	53%	1,346.00

NOTE—Miscellaneous groups omitted. Total average planned by builders for all types of buildings, 65 per cent. No construction reports from the 4,313 architect and engineer subscribers are included in the above figures.



FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



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

The July Contract Record

J ULY construction contracts, in 37 states which represent about 91 per cent of the total construction volume of the country, reached a total of \$534,399,900, according to the F. W. Dodge Corporation. There was an increase of three per cent over July of last year, although the figure fell 16 per cent below the previous month, which holds the high record for all time.

"The July record brought the total of construction started during the past seven months up to \$3,722,383,200, this being a two per cent increase over the first seven months of last year," says the report. "This increase is at variance with the building permit records compiled by various companies, which have been showing a decrease from last year. The principal reason for this is that building permit records include little or no engineering work, which has been very important this year. Records of shipments of building materials, as reported by the U. S. Department of Commerce, show an increase this year thus confirming the contract totals.

"Included in last month's record were the following items: \$186,935,100, or 35 per cent of all construction for residential buildings; \$143,915,800, or 27 per cent, for public works and utilities (mainly civil engineering work); \$83,010,100, or 16 per cent, for commercial buildings; \$36,433,600, or seven per cent, for educational buildings; and \$30,302,900, or six per cent, for industrial buildings.

"Contemplated new work reported last month amounted to \$692,959,700, this being a decrease of five per cent from the amount reported in June and an increase of three per cent over the amount reported in July, 1926."

+

Bricklaying by Electric Light

D URING the short days of the past winter and spring electric light has played a large part in the outside work of building construction throughout the country. Strings of lamps installed in the canvas-protected working platforms that are slung alongside a building frame have turned the last hour of the day into a gain instead of a loss. Many construction companies use lights for this purpose, their experience being similar to that of the White Construction Co., whose general superintendent in New York City, H. E. Tear, discussed the subject thus:

"In this vicinity, the working hours of the bricklayers are from 8 A. M. to 5 P. M., whereas practically all other trades stop work at 4:30 P. M., the difference being made up with a half hour lunch period instead of an hour that the bricklayer's rules call for. From the first of December to the early part of February it becomes too dark to lay up brick work satisfactorily later than 4:30 P. M. In view of this, it has been our custom to install electric lights on the exterior hanging scaffolds during this season of short daylight, and, as the scaffolds are protected by canvas against cold, thereby further darkening the working platform, we have found it of material benefit to turn on the lights at or shortly after 4 P. M. The mason work is thereby done with practically the same efficiency during the last hour as would be done during full daylight.

"On several buildings which we erected during this last winter, this plan was followed and we believe that at least one-half of the bricklayer's time was saved to us during this last hour, due solely to illumination. As each operation employed an average force of from 50 to 70 men, together with the same humber of helpers, we feel that it has meant a saving to us of approximately \$80 per working day for each job so constructed. This is of course independent of the safety and working lights installed throughout the interior of the buildings, a great many of which are burned continually throughout the day."

Uncle Sam Recommends Weatherstrips and Storm Windows

PUT weather stripping around doors and windows and save 15 to 20 per cent in your coal bill, says a new publication of the United States Bureau of Standards—in effect. Put on storm windows and save 5 to 15 per cent more. Between the stripping and the extra windows you can effect as much fuel economy as if you were to add half-inch insulating material to the whole surface of the walls and roof. That is one phase of the interpretation building engineers give to Letter Circular 227, just issued by the governmental authority on standards of all sorts.

This circular, the engineers say, goes far toward clearing up the confusion resulting from conflicting claims for different insulation materials, and at the same time points out that fuel and heat may be economized in other ways.

The circular renders an important service in giving the heat losses through different materials for the thicknesses actually used in building construction, along with the heat losses per inch thickness, which as sometimes cited, give an exaggerated idea of the fuel economies possible. It fails, however, to make allowance for the so-called "surface resistances," which also affect results.

The outstanding feature of the circular is Table 3, which shows that storm windows and weather stripping will accomplish as much fuel economy (25 to 35 per cent) as one-half inch insulation over the whole walls and roof of a dwelling. Weather stripping alone accounts for 15 to 20 per cent fuel economy; storm windows added to this means 10 or 15 per cent more.

The estimates of fuel economies with different thicknesses of insulation are based on the addition of these materials to the wall structure; not on their substitution for other materials in the wall. From this it is inferred that the insulating effects of materials that are substituted for instead of added to the normal wall constructions are regarded as relatively small.

AMERICAN BUILDER (Covers the Entire Building Field)

EBRUAR

ANUARY

DECEMBER

[September, 1927





Cold-weather concreting, always practicable, is made more feasible than ever by the use of *High-Early-Strength* Universal Concrete which shortens the period during which protection from freezing is required and makes possible the early removal of forms. For full details send in the accompanying coupon.

Name	 	

Address _____

UNIVERSAL PORTLAND CEMENT CO. 210 South La Salle Street, Chicago Without obligation, please send me detailed information on meth-

Without obligation, please send me detailed information on methods for securing strong concrete in 3 days with the usual materials. AB 9-27 When time is money ... use High-Early-Strength concrete made with standard (not special) Universal Cement

Don't Let Winter Months Interfere With Building Plans

Nowwinter concreting is even more practicable than before. High-Early-Strength Universal Concrete (which has a 3-day strength equal to the 28-day strength of ordinary concrete) shortens the period during which protection from freezing is necessary. It hastens removal of forms.

Having a greater *ultimate* strength in addition to a higher early strength, it also is *permanently* better and stronger concrete, as shown in the diagram.

Don't postpone your plans because they carry construction into winter! Take advantage of plentiful materials and good labor conditions during cold weather. Then in the spring, when other buildings are being started, your job will be completed or well under way.

For full details on *High-Early-Strength* Universal Concrete, made with the *usual* materials, *usual* labor, *usual* equipment and standard Universal cement, all applied according to fully tested methods, send in the accompanying coupon.

> Chicago Pittsburgh Minneapolis Duluth Cleveland Columbus New York Concrete for Permanence

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Everybody's Business

ANCHOLOGINE BUILDERS

New Things and **Better Ones**

E read with astonishment the history of our forefathers. They seemed to be so tied to the customs and practices that were current in their day. Every suggestion of change was re-The garded with suspicion. inscription on the stone over the grave of an eminent citizen of New England in the Colonial days tells of the virtues of the deceased and states that he was "An Enemy to Priestcraft and Enthusiasm."

But might it not have been that these ancestors of ours were just the same sort of folks we are except that they were victims of circumstances? If they did not often get excited, perhaps it was because there was not much to get excited about. We wonder if they would have turned out by the million to greet Lindbergh, and yet it appears that the answer is contained in the record of their time. Turn back the pages and read what happens when the Atlantic was

bridged and the first cable became a proved success. Business was suspended, offices closed, guns fired, people rushed into the streets to hear the news, and bells were rung for an hour in many cities to give utterances of the general rejoicing.

It was years later before Edison produced the first American locomotive to run on current supplied from a power house. The bicycle and the sewing machine were the wonders of the day. Not even the first telephone line with loading coils had been put into commercial use. Nevertheless, people had already commenced to talk about this "new and astonishing age". One great editorial writer was bold enough to look into the future and he ended his visionary recital by saying, "There is even talk of flying machines, and who knows but what such things may be possible in the years to come".

Today we can ride between Bagdad and Damascus over desert waste in a luxurious motor car made in Philadelphia. Tungsten that was only a laboratory curiosity is now mined by the ton and each pound saves the users of electric light in the United States more than \$300,000 a year. The idea back of a little English invention called the "Wheel of Life" has been developed into the great motion picture industry.

The labor leader has become a capitalist, and capitalist a labor leader. The banks of the unions are competing for the fruits of ownership, and labor may finally conquer capital by itself becoming capital.

Forces that yesterday were combatants now have their eyes focused on the same ideals. Not only has the old order passed, but there will never again be any such thing as a new order, for each succeeding month must

Not Snow—Just Green Foliage Photographed on a Summer Night by Invisible Light.

as nuisances. During the war everyone was interested in the experiments with static electricity for the purpose of extracting synthetic nitrates from the air. As an outgrowth of this work some Germans are taking this allpervading electrical energy from space and sending it in the form of currents through the soil to purify and nurture vegetation.

If we are to judge by the results of applying this discovery to a wheat field near Berlin, we may entertain the hope that many farms in the future will be transformed into areas spiked with thousands of antenna poles and networks of wire permitting the utilization of atmospheric electricity as a fertilizing and stimulating agent in the production of crops.

Who would have thought a few years ago that man would find a way to take cornstalks, ordinary straw, the sage brush of the prairie, or the cactus of the desert and convert these things into wardrobe trunks, milk containers and high explosives? Who would have believed that the same vegetable fiber from which we make paper would one day be transformed into materials tougher than horn, lighter than aluminum and nearly as hard as iron? Surely no one dreamed that a way would be devised to convert a kitchen table into silk shirts, durable shoes, unbreakable glass, imitation ivory or a satisfactory automobile paint.

It is no wonder that complacent managements of sleepy corporations are being shaken out of their lethargy by overnight developments in unsuspected quarters. It is time to sit up and take notice when a business like the steel industry finds itself in competition with articles made of paper. Car wheels are being made out of calendered rye-straw board subjected to a pressure of 500

now be regarded as an era that is totally different and distinct from all that has gone before. In London a fellow has a

farm where he raises trillions of germs. Those that are deadly to man he kills by the million so that the chemical quality contained in their dead bodies may be utilized to destroy their living brethren when the two meet in the human blood stream. The germs that are friendly to man and that can be arrayed against our enemies are so petted and pampered in this unique farm that a few of them placed in a glass tube filled with yellow broth will multiply so rapidly that within a single fortnight the tube will contain a population of individual organisms greater than the human population of the earth.

The only thing static about , life at present is that bothersome electrical something which fills the air at times and spoils our reception of an interesting radio program. But even here we find an example of how science is making valuable servants out of things that have only been regarded



tons. After steel tires and iron hubs are added, the finished product is a wheel capable of standing up under heavy railroad service.

In this age of speed there is no time to wait for things to grow slowly. We must force trees to reach a size in 50 years that required a century or more in the past. Efforts in this direction indicate that plant life is greatly benefited by the application of metals to growing vegetation. Manganese, copper, zinc, arsenic and boron greatly stimulate plant growth when not present in excess. In Ireland they have perfected a super-flax seed that promises to help a lot in making linen as cheap as cotton. The fiber grown from this seed is free of the sticky substance that has made hand work necessary in preparing the raw thread.

Often we go ahead and design something to fill a specific need or perform a certain task, and then later discover that our invention has a far greater usefulness in performing work or satisfying a demand than we ever dreamed of in the beginning. The new vitaglass that allows the violet rays to pass through was perfected primarily as an aid to human health. Recently the directors of a zoo became worried about animals that were sickly and illnatured, and when they substituted the health glass for the ordinary window glass in the cages, the animals at once started growing new coats of healthy hair and quickly regained normal vitality.

Vegetables and flowers grown behind these ultra-violet ray windows at a western university not only became more luxuriant, but matured faster. Hens under the glass became healthier and produced more eggs. While the introduction of unskimmed natural light into our lives will mean fewer malformed bones, better attendance at school and less sickness among indoor workers, doubtless it will also mean the production of tropical fruits in northerly latitudes and the eventual elimination of the seasonal factor in the growing of vegetables.

Dr. Coolidge's cathode rays will likely have so many uses before long that they will surpass the X-ray as an asset to life. Ever so many possibilities are developing with this new form of radiation and among these is the likelihood of using the ray to test for impurities in metals. But of supreme importance are the successful experiments which utilized these marvelous waves to turn acetylene gas into a solid yellowish compound, and also to solidify castor oil. Who can say but that these remarkable accomplishments may end up by showing us the way to such an epoch-making achievement as the chemical transmutation of liquids into solids?

Chemists in Denmark have a process ready for commercialization that makes it possible to produce synthetic milk by using vegetable fats to replace the butter fat of cow's milk and at the same time add a sufficiency of essential vitamins. The billions of grasshoppers that have caused such losses to the farmers in South Africa now perish in deep trenches dug across their line of march, and a superior automobile lubricant is being pressed from their bodies. Out on our American prairies rabbits have become so destructive to crops that the animals are rounded up by organized drives. If a plan recently proposed is brought to realization, Kansas and other western states will have rabbit-packing plants that will produce a highly nutritious meat, a base for cosmetics and fur for felt. This will provide an income to offset the estimated yearly damage of \$1.04 per rabbit.

Each day discloses something new that is sure to upset established plans in one industry or another. Twentyfive years ago when platinum was nine dollars an ounce no one wanted it. Gold was supreme in the jewelry business. But everybody wants to wear what looks like money, so when platinum went to a hundred dollars an ounce, it immediately became the rage for jewelry settings. "White gold"—an alloy of gold, nickel and zinc—which may contain as much as 80 per cent base metal, looks exactly like platinum. Nickel also resembles platinum so closely that not even a jewelry expert can distinguish between it and platinum by a mere visual examination. Government officials who are experts in rare metals tell me that lots of folks today are wearing diamonds set in nickel, or an alloy of gold, believing that the setting is pure platinum. Surely here is a market where the average person must be guided by faith. Furthermore, a recent find of platinum ore in the Transvaal may cut the price of the metal in half.

Fortunately, business ethics are improving, and this is particularly true in the jewelry industry. We are too prone to condemn the whole body industrial because of the many little deficiencies that still exist in the great structure we have set up. Little Abie heard people talking about "Business Ethics," and asked his father the meaning of the term. "Well," said his daddy, "I will explain. A customer comes in the store and buys a sixdollar pair of shoes. He hands me a ten-dollar bill. On the way to the cash register I notice that there are two ten-dollar bills sticking together. Now, here's where the 'business ethics' come in—should I tell my partner?"

A tremendous movement is underway to eliminate waste and make life easier, happier and better. But let no one overlook that the present moment is a time of great necessity for analyzing everything we are doing to see if some improvement can be introduced.

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A Modern Version of Old England

THERE is a bit of Old England on the north branch of the St. Clair River about 40 miles northeast of Detroit, Michigan. It is a fashionable subdivision having all the conveniences of

a modern development, yet retaining all the earmarks of an Old English lodge architecturally.

The outstanding example of the ingenuity used in retaining the architectural style is the treatment of the Horton elevated tank, which stands at the entrance to the grounds. The tower of a standard structure of 60,000 gallons capacity is inclosed with a cylindrical shell of 3/16-inch steel



A Tank Tower in Old English Style.

plates, and surmounted with a pagoda roof. The shell, which is of welded construction, extends from the balcony line of the tank to a $3\frac{1}{2}$ -foot masonry course at the base which gives the structure the proper weight and balance. An ornamental doorway with a 2-inch, iron-strapped, plank door and a vertical row of inset windows complete the effect. The covering around the tower and the tank shell are painted the same cream color as the other structures on the property.

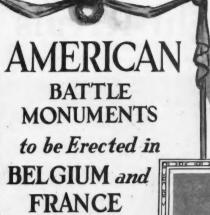
Housing the Big Fight Rivals



Clubhouse and Grounds of the Lincoln Fields Racetrack, Near Chicago, Where Jack Dempsey Has Established His Training Headquarters for the Heavyweight Championship Fight in Which He Will Attempt to Regain His Old Title from Gene Tunney, at Soldiers' Field, Chicago.



Fifty Miles from Chicago, at the Cedar Crest Country Club, Near Lake Villa, Ill., Gene Tunney, Heavyweight Boxing Champion, Is Training to Defend His Title. Elaborate training quarters have been established in this 45-room clubhouse with its 250-acre estate.



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Design Approved by the American Battle Monuments Commission for a Chapel to Be Erected in the Oise-Aisne American Cemetery Near Fere-En-Tardenois, France. Gram and Ferguson, of Boston, are the architects.

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Above—Chapel to Be Erected in the Aisne-Marne American Cemetery Near Belleau Wood, France. Gram and Ferguson, of Boston, are the architects.

To Bight—Chapel to Be Erected in Flanders Fields American Cometery Near Waereghem, Belgium; Architect, Paul P. Cret, of Philadelphia.

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Design Approved by the American Bettle Menument Commission for a Monument to B

Design Approved by the American Battle Monument Commission for a Monument to Be Erected Near Chateau Thierry, France, to Commemorate the Services of American Forces in the Operations in the Aisne-Marne Region. The monument will be 60 feet tall and the colonade 55 feet long. Paul P. Cret, of Philadelphia, is the architect. AMERICAN BUILDER (Covers the Entire Building Field)



Design Approved by the American Battle Monuments Commission for a Chapel to Be Erected in the St. Mihiel American Cemetery Near Thiaucourt, France. It is designed by Thomas Harlan Ellett, of New York.

> Chapel to Be Erected in the Meuse Argonne American Cemetery Near Romagne-sous-Montfancon, France. York and Sawyer, of New York, Architects.

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Above—Design Approved by the American Battle Monuments Commission for a Chapel to Be Erected in the Sursenes American Cemetery Near Sursenes, France. The chapel is designed by Charles A. Platt, of New York.

> Design Approved by the American Battle Monuments Commission for a Monument to Be Erected at Montfaucon, France, to Commemorate Services of American Forces in Operation in the Meuse Argonne District of France. The monument will be 165 feet high and the column 24 feet in diameter. John Bussel Pope, of New York, is the architect.

BARABARE, IT

[September, 1927



A. C. Steere, Master Developer

Something of the Methods He Has Used So Successfully in Shreveport, Louisiana

THREE years ago Broadmoor was nothing more than a cotton plantation on the southern outskirts of Shreveport, Louisiana. Today Broadmoor has more than 250 homes, a community retail center, a golf course with fine club house and a park. Now Broadmoor is pointed out as being a select residential district, free from the city's noises, but less than 10 minutes by motor from the business district.

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Thirteen years ago South Highlands, embracing Broadmoor, was nothing more than a series of pinewooded knolls and vales to the south of the city. Today South Highlands proper contains many fine homes that cost from \$15,000 to well over \$50,000 to build. Figures often speak louder than words. Here are a few:

Assessed valuation of South Highlands, including Broadmoor, in 1916, was \$133,736; in 1926, \$4,871,280; 1927 (estimated), \$5,750,000.

Taxes paid by South Highland, including Broadmoor, in 1924, \$4,212.66; in 1926, \$149,791.86.

South Highlands and Broadmoor have 20.78 miles of gas lines; 104.92 miles of electric service lines; 25.54 miles of water lines; 21.62 miles of sewer lines; eleven miles and over of paved asphalt streets; 10.5 miles of improved hard surfaced streets; approximately 750 homes; a population of about 4,250; one 25-acre park, completely equipped and landscaped with children's playground, etc., valued at about



A. C. Steere, Who Has Played a Leading Part in the Residential Development of Shreveport, La.

had operated about a year, Steere sold out his interest to his partner and struck out for the far West.

He arrived in Los Angeles just when that city was commencing to wake up to its great future possibilities and after working for a time on various construction jobs he landed a position as salesman on a commission basis with one of the largest real estate development firms in Los Angeles. This firm was opening up great subdivisions, paving streets, landscaping them and building hundreds of



A View of Broadmoor, the Principal Development Which Has Been Handled by the Steere Organization, the Valuation of Which Has Increased from About \$134,000 to About \$5,000,000.

\$105,000; another park area of over 12 acres; the Broadmoor golf club house and course, 140 acres; another park area of about 40 acres, estimated value \$60,000.

Back of every worth-while achievement is a man—a dreamer with the initiative to materialize his dreams. The remainder of this story will concern itself with the man responsible for the development of South Highlands (Broadmoor included) with his methods and his achievements.

"A. C. Steere, community builder, was born and educated in Shreveport," said a recent article in the Shreveport Banker. "About two years after attending Vanderbilt University, he formed a partnership with his old schoolmate and lifelong friend, the late Robert R. Emery. The firm, known as Steere & Emery, was engaged in the fire insurance business and did some real estate business. After this firm had operated about a year, Steere

AMERICAN BUILDER (Covers the Entire Building Field)



Mr. Steere Uses Billboards Only on the Property Under Development and These Are All of a Distinctive and Artistic Type Picturing Houses.

homes. He got a true vision of development work in this connection. The Huntington interests were radiating interurban lines out from Los Angeles in all directions. He had an opportunity to see the development that invariably followed in the wake of these interurban extensions.

"Later, while visiting Shreveport, Steere spent his spare time with his old friend and partner, Robert Emery, who kept urging him to return and enter the real estate fields, pointing out the wonderful possibilities that Shreveport offered. Emery sold him on the opportunities, and on January 1, 1907, he 'hung out his shingle' as a real estate agent in Shreveport.

"A few commission sales were made, but the memory of his Los Angeles experience was with him. Development work was his goal. By the middle of the year a number of lots had been contracted for, and houses were well under way by the fall of 1907. Right in the middle of this work the great panic of 1907 swept over the entire country. Steere never stopped the construction of these homes. He completed all houses that were under construction, sold them and never stopped building.

"About this time it was necessary to grade in some lots that were not level, so that a few teams were contracted for. There has never been a working day since that date, weather permitting, that the enormous grading outfits owned by this development company have not been busily engaged, somewhere in Shreveport or the suburbs, in breaking in streets, landscaping and developing property."

This Shreveport development firm has been one of the leaders in, development work in the Southwest. It has probably put as many people into their own homes, graded in and improved as many streets, laid as many sidewalks,



The Fiftieth House Built in Broadmoor by Peyton & Johnson Was Displayed as a "Model" House and Sold Within Two Hours After Being Opened to the Public.

curbs, gutters, water mains, etc., and contracted for as many street railway extensions, as any other firm. "Were all of the various public utilities mentioned," says The Shreveport Banker, "laid end to end, they would stretch from Shreveport over the City of New Orleans and go a good way into the Gulf of Mexico."

Mr. Steere had behind him a real background of experience and observation for development work when he began operations in Shreveport. Of particular value were the ideas and impressions that he had gathered in California. "Choose a good town," is one of the things that he would



A Community Retail Center in Broadmoor Which Houses a Drug Store, Grocery, Confectionery and Filling Station and Is Designed to Harmonize With This Residential Neighborhood.

say to other men, aspiring to do development work. In selecting Shreveport as a field for operation, he came back home to a community that he had known intimately from childhood, to people he knew and who knew him. Incidentally, he began operations in Shreveport at a time when the city was just on the eve of making a very substantial growth—permanent and expansive, but not a mushroom character.

"We have followed a well defined policy in all our development work," Mr. Steere said. "The first plank in our platform is to buy acreage in the path of the city's growth. No amount of advertising and high pressure methods can make people live where they don't want to live. If a developer runs counter to this law of city expansion, he is twisting a rope to hang himself with. Next, we buy right, taking care not to pay too high a price; we subdivide right and sell right at the lowest possible price to the homeowner.

"But then we do not consider that our task is finished. We stay by the tract under development, seeing that the

right kind of people buy holdings so that neighborhoods will be congenial, lending aid in putting in car lines, good schools and playgrounds for the children and parks for both children and adults.

"So far as dollars and cents and profits are concerned, I do not view development work as being any different from the work of any manufacturing establishment. The manufacturer knows what he must pay for his raw material; he knows what it costs him to make the particular commodity and put it into the hands of the consumer." Therefore, he can figure rather closely the selling price that he must charge to make a profit.

"So it is with a developer. Only, I believe, that in this work the personal equations—the likes and dislikes of patrons must be more carefully noted than is true

A Master Developer



This Country Club Has Been Provided in Broadmoor and Is Available to Every Resident Without the Heavy Burden of Expense Which so Often Attends Membership in a Club of This Type.

of the manufacturing business. People demand good schools, good churches, good streets, car lines and whatnot, in their neighborhoods, and it is nothing but sound business for a developer to see that they get the things they want."

Aside from the things mentioned, one of the things that accounts for the success of much of Mr. Steere's development work is financial aid that he extends to home owners and home builders. Of course, many of the purchasers of the building sites in South Highlands are men of some means and thus were able to finance their buildings themselves. This has not been true in all cases of young business men, many of whom have become interested in Broadmoor.

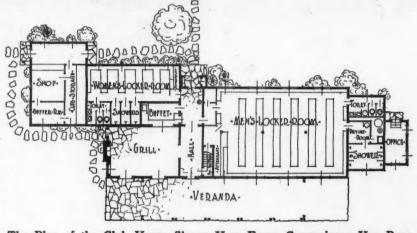
Not only has Mr. Steere financed many

homes for such men, but he even encourages home builders to avail themselves of his financial service.

At least one home building firm has constructed more than fifty homes in Broadmoor, second mortgages on which are handled by the A. C. Steere Company, Inc., for the home builders, no premium being asked, only the regular banking interest being charged.

So well has Mr. Steere judged as to the ability and integrity of those to whom he has granted credit that in the course of 20 years of operation only four houses have been returned to him through mortgage payment lapses, and these were extraordinary cases, caused by death or some unusual misfortune.

As to specific methods of merchandising, Mr. Steere emphatically stated that he is opposed to all high-pressure methods. He never uses them. Practically all of the building plots that he develops are sold to Shreveport people, who buy them for the purpose of building homes upon them instead of for speculative purposes. The purpose in Mr. Steere's mind has been and is to give these people such honest values that they in turn will feel like speaking a good word for his development projects. And this they do. His satisfied customers are his best advertisers. Fully 90 per cent of purchasers of Steere promoted properties



The Plan of the Club House Shows How Every Convenience Has Been Provided for Members, In This Attractive Building.

> have been able to turn over their investments at a substantial profit, counting bad years in with the good.

> Mr. Steere considers the newspaper the best medium of getting a particular message before the public, and newspapers are made the medium of acquainting the people with new offerings. Generous space is taken, especially when a new project is being opened—usually these advertisements comprise nearly a half-page, running the long way instead of across the page. The advertisements are usually unillustrated. Billboards are used but only on the company properties. These boards are larger than those usualy seen, are handsome, painted affairs, showing the pictures of homes, and are electrically illuminated at night. A field office is maintained in Broadmoor, but Mr. Steere's projects are so numerous that he had found it advantageous to maintain central offices in an office building in the business district.

> Some thing has been said about honest values. When the company advertises that certain improvements such as water lines, gas lines and electric connections will go in by a certain date, buyers in Shreveport know that this development work will be done on time. No little pains and expense are gone to to make the different residential districts comfortable, convenient and attractive to the eye. (Continued to page 126)

An "American Builder" Home Built in Merchantville, N. J.

Owner, GEORGE C. KREWSON, JR.

The good work which AMERICAN BUILDER is doing in promoting the building of homes all over the United States is well illustrated by the photograph sent in recently by Mr. George C. Krewson, Jr., and illustrated herewith. This house was built from plans based on a design published in the June, 1925, issue of AMERICAN BUILDER, Homes in Colors, Colorplate I-VII.

This design was called the "Iberia" and was described as— "A house design from Old Mexico suggestive of the Cliff Dwellers. The walled-in garden back of the living room and the big roof balcony are features of this design."

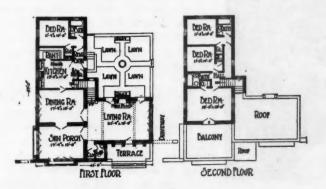
Mr. Krewson, the owner of this handsome and comforta-

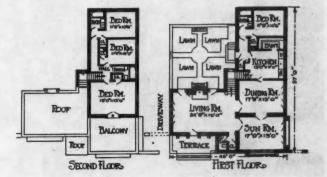
ble home, is in the real estate business at 11 West Park Avenue, Merchantville, New Jersey. He is quite evidently pleased with his unique and attractive home, the floor plans of which are reproduced on this page.

The plan as originally published is shown in the left hand column and, as actually built, at the right. The two plans are reproduced in parallel columns to illustrate a practice often followed by builders; that is, changing plans from right to left hand or reverse, either because the house is built facing east instead of west, north instead of south, or vice versa, or because the owner prefers the reversed room arrangement.



Home of George C. Krewson, Jr., Merchantville, New Jersey. This design, which owes its inspiration to the far Southwest, has many practical advantages for a northern owner like Mr. Krewson, who found the design in the pages of American Builder.





This Is the Floor Plan as Originally Published in American Builder with the Entrance and Living Room at the Left Hand. This Is the Floor Plan of the House as Actually Built and Illustrates a Practice Quite Often Followed by Builders of Changing Plans from Right to Left Hand or Vice Versa.

Our Future Builders College Trained

B UILDERS can probably remember the tail end of the period, but a few years back, when the carpenter, the mason and the other artisans on small jobs constituted practically the only men skilled in building on the average modest residence. The result of the builder's art was then a composite job, to which the individual skill of the different craftsmen contributed in greater or less degree.

Each member of the different building trades then gave his own interpretation of the designer's plans, if any existed, or else, from the rough sketch or verbal order of the builder he produced so much masonry or so much footage of framed lumber according to his own ideas of how best the individual job was done.

Building is now in the van of standardization. Larger communities and many smaller ones have enacted building codes; labor saving machinery, institutional advertising and an awakened public interest have wrought the same changes in the building profession which have over-



A Class from Massachusetts Tech. Making a Field Study of Shoring and Underpinning.

taken all the other manufacturing trades, and nowadays the skill of the oldtime craftsman is replaced by the art of the college trained building specialist to a greater degree with every passing year in a tumultuous age of gigantic building programs.

To meet the newly-created demand for trained specialists, some of the country's greatest educational institutions have organized courses in building, which cover almost every phase of the subject. The courses are usually somewhat of a combination of engineering and architecture and a great deal of attention is paid to actual field inspection of building projects, this consuming a large proportion of the time of the latter years of the courses, which usually cover four years.

The Massachusetts Institute of Technology, worldfamous technical college, provides a four year course, leading up to the degree of Bachelor of Science, in which great stress is laid on actual field work.

The course is under the technical and administrative

direction of Professor Ross Francis Tucker, widely known as an authority on design and construction, and an educator of prominence.

Under Professor Tucker the course has been arranged so that it is based on civil engineering with the mathematics and scientific training associated with that profession. In addition subjects are taken from the course in architecture. Subjects in building finance and management, cost accounting and professional and industrial relations are also included. Finally, a broad course covering three years is given in the analysis, details and assembly of the materials of building. The structures covered include dwellings and industrial structures.

According to Professor Tucker, the course is designed not only to develop professional builders, equipped for the business of building, but to be of real value also to the manufacturers and to the distributors of materials, particularly as a recruiting station for their technical forces. Furthermore, it is intended to make the department of real service to the public, at least to the homebuilder, as a place where the technical side of building may be seen and studied and where he may receive advice as to methods and materials.

The course has a strong professional foundation. It is based on a conception of all the allied subjects which enter into the complex business of building. It is, according to Professor Tucker, an excellent course for the architect who wishes to emphasize the constructional rather than the artistic side of his profession. Inasmuch as the course leads to the degree of Bachelor of Science, it is manifest that the scientific requirements are maintained at the high standards for which the Institute is famous. In addition to the strictly professional work, a large amount of time is given to the essentially practical side of the course.

An intensive and thorough study is made of materials, their details and the sequence of their assembly in the building, their relation to one another and to the analysis of quantities and costs. The course is divided into four parts:

First, wood construction, as represented by the dwelling; second, timber construction as represented by the mill; third, reinforced concrete construction of which the industrial building is typical; fourth, steel construction, of which the office or commercial building represents the type.

Each of these distinct types of building is studied in detail; each is "built" on paper in the same sequence and in as nearly the same manner as it is built on the field.

Wherever possible, the study is made to parallel and closely follow the methods of actual construction.

Materials are studied in their proper order; details of their assembly are worked out largely in isometric projection in order to more thoroughly fix their pictures in the minds of the students.

In the fourth year, the course concerns itself with foundations and the heavier constructional work below grade, excavation, shoring and sheet piling, blasting and the use of machine tools.

In what may be called the executive branch of the course the student studies economics, accounting, building finance, business management, professional relations, job management, and the many details of a commercial nature which enter into what is presumably to be his life work.

It is easily apparent that the student is thereby provided with an extremely broad equipment for the business of building and that there is no branch of building into which he has not gained somewhat of an insight.

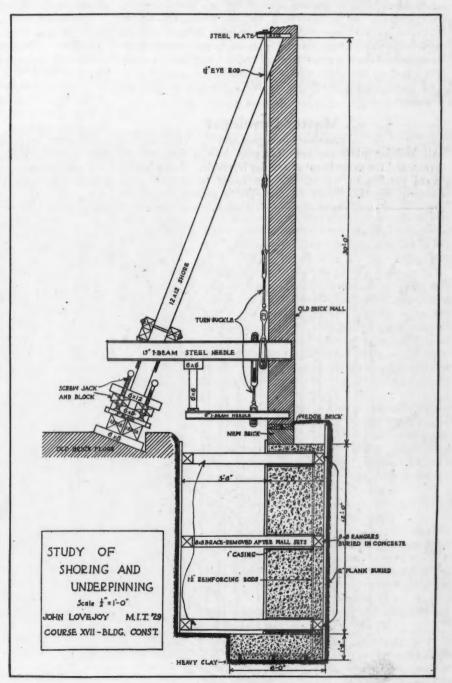
But, according to Professor Tucker, there is a great difference in men, and some of them will be more suited to actual building and its branches than others. The work in the field requires certain types of men. Work in the office requires certain other types, but there are still others who may find their most suitable sphere of activity outside entirely of the construction field, and who will consequently find their way into the manufacturing or the distributing of the materials of building. But in whatever direction they may go, it is certain in his mind that they will find that their technical training will stand them in good stead.

Professor Tucker cites the jerry building of the war period and its aftermath of inflation, as emphasizing the necessity for better educational facilities for the prospective home owner, in order that he may avoid the pitfalls with which the occasional unscrupulous builder may strew his path toward the ownership of a well built home.

It is proposed that there shall be developed in connection with the course under Professor Tucker's direction a representative exhibition of the materials and methods of building, where the public may see proper construction portrayed in its actual form. Unbiased information in regard to any detail of building upon which the prospective homebuilder may seek enlightenment will also be provided.

Thus while the course as established is designed primarily for the training of men to enter successfully into the business of building, it seeks a larger service to the public in general and to the building industry in particular. It seeks to be an integral part of the industry itself.

Professor Tucker states that he believes that better and safer buildings through the land will directly follow the entrance into the field of numbers of men trained in the best and safest methods of construction. He says that



Drawing Room Study Made by One of Students in Field Class Shown on Opposite Page. the enormous fire losses that constitute one of our greatest national wastes can be combatted and practically eliminated by proper building.

The numbers of poorly constructed buildings put up during and immediately after the war will create a situation of need for replacement with better constructional methods and materials used in their successors. Hence, says Professor Tucker, the Institute seeks contact with representative builders and manufacturers and distributors, not only because it has men who will be of value to their organizations but because there is a big work to be done in education for better building.

This extensive work by a world-famous educational institution having the undoubted standing of the Massachusetts Institute of Technology cannot, it is felt, fail to have a wide influence over the building of the future. This is especially true of home building, since that branch of the profession is given large attention in the course.

The old days of the individual craftsmen produced some truly remarkable examples of real artistry and enduring workmanship, as is evidenced by our heritages of the Colonial architectures. The aim of the college courses will be to most efficiently and enduringly perpetuate these heritages through a great army of trained men and through the effect of the great school laboratories to develop new and more worthy traditions of the ancient profession of building. +

A Master Developer

(Continued from page 122)

All building plots are kept carpeted with a fine coat of grass, and the grass is cut at regular intervals. No unsightly weed patches on vacant lots are found in developments fostered by Mr. Steere to prejudice a prospective buyer

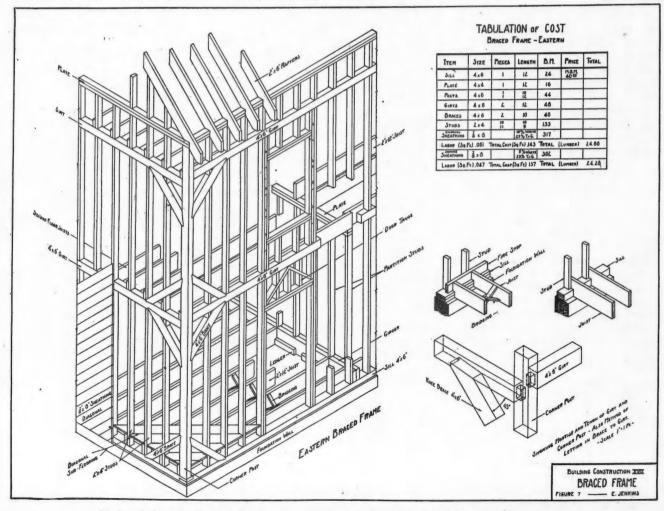
against a purchase. Shade trees are set out and given a good growing start.

In the home building program of Boardmoor, the work of Peyton & Johnson is notable. This firm has built more than fifty homes in Boardmoor, ranging in price, exclusive of lot, from \$5,000 to \$9,000. It was largely the success of J. M. Peyton in building brick veneers that caused him to begin building in Broadmoor. Something different from the usual small frame house was wanted. Mr. Peyton's exteriors are quaint and attractive and are in both brick veneer and stucco finishes. California bungalows and English cottages predominate; Mediterranean stucco finishes, serving to break the monotony.

When Peyton & Johnson built their fiftieth home in Broadmoor this year, they made a Demonstration Home of it. The progress from day to day was photographed, the pictures run in one of the city papers that sponsored the event, and the public was invited to drive out and view the construction of the home. Often there were from 50 to 60 people about the home at the same time.

The foundations, body, roof and all were raised in 11 days' time. Five carpenters and two bricklayers were employed. The carpentry work and the brick work was completed in seven days. The painters and decorators checked out in four more days. The work was supervised by a Shreveport building and loan association, and nothing in the way of permanence, beauty or comfort was sacrificed.

The advertising campaign, run in the newspapers, attracted much attention. Two hours after the house was opened, completely furnished, for inspection, it was sold. It was kept open for display for five days more. The house, exclusive of the lot, cost \$6,750, which figure included a solid paved drive and double garage, shrubbery and landscape work. A. W. ROE.



Study of Eastern Braced Frame by a Student of the New Builders' Course at M. I. T.

Completely Furnished Apartments In This Well Equipped Building

The Brinwood Apartment Hotel, Chicago, Typical of Many Being Built in Cities Throughout the United States

HE apartment hotel, while primarily a large city feature, is being built, in increasing numbers in many cities. The mode of life offered by these apartment hotels seems to have an appeal for those who wish some of the privacy of fixed homes together with freedom from housekeeping responsibilities.

One feature in connection with the building of these apartment hotels is the great number of conveniences usually installed and the fact that most of them are completely furnished at the time of construction and these furnishings included in the building loan appraisal.

The Brinwood, illustrated on this page, is being built at 5441 Kenmore Avenue, Chicago, financed by the well-known bond house, the Garard Trust Company.

The building contains 85 furnished apart-

The Brinwood Apartment Hotel Under Construction at 5441 Kenmore Avenue, Chicago. It has handsomely decorated lounge, lobby and corridors, with elevator service, both freight and passenger. Koenigsberg and Weisfeld, Chicago, are the architects.

Typical Floor Plan of the Brinwood Apartment Hotel, Turned at Right Angles to the Perspective. The use of disappearing beds allows spacious living rooms, having separate service or dining rooms and kitchenettes.

> ments, is 621/2 feet wide by 135 feet long, eight stories high and is of fireproof reinforced concrete construction.

> Most of the suites are of two rooms-a large living room with concealed beds and a combination service or dining room and kitchenette. Two suites on each floor have bedrooms, in addition to disappearing beds in the living room. They also have service and dining room and kitchenette. All, of course, have bathrooms, dressing rooms and bed closets.

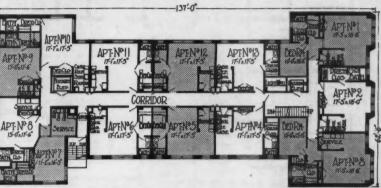
> The exterior is designed in a splendid combination of Gothic and Elizabethan architecture. The use of especially designed terra cotta, with variegated red brick and leaded glass windows for the first floor and bay windows across the upper floors of the building, gives to the entire facade an exceedingly dignified and graceful contour, quite compatible with the interior design.

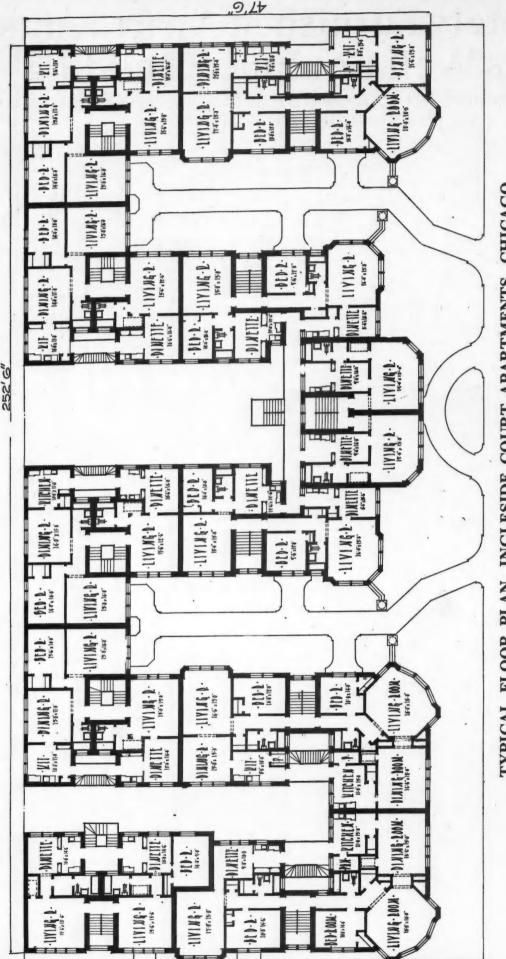
> A large lounge, the ceiling of which is groined, with caen stone fireplace, completely furnished and beautifully decorated, five apartments, electric passenger and freight elevators, storage, trunk, laundry, drying, incinerator, boiler and mechanical refrigeration rooms, occupy the first floor.

> The second to seventh floor contain eighty apartments of two and three rooms.

> The eighth floor contains two seven-room apartments, having unusually large living room with stone fireplace, two master chambers with bath, servants' room and bath, large dining room, sun parlor and kitchen. These are splendidly arranged apartments and due to their elevation have a fine view of the lake and territory for miles around.

> Vestibule, lobby, lounge, corridors and all apartments are attractively decorated and furnished with substantial appurtenances and mechanical refrigeration is used throughout the building. Excellent hotel service is furnished to tenants.





TYPICAL FLOOR PLAN, INGLESIDE COURT APARTMENTS, CHICAGO

THIS typical floor plan of the Ingleside Court **L** Apartments, Chicago, shows that the architect, Mr. A. C. Lund, has been successful in providing ample light and air-for a large number of families on a somewhat shallow lot, 47 feet 6 inches by attractive living quarters-rooms of generous size with feet 6 inches. on 252

for grass, shrubbery and flowers in front as well as in the two main courts, which have front entrances. There are two other courts opening towards the rear The building is set back from the street far enough

and service entrances and stairways are provided reaching every suite. All told, there are 20 stairways in the building. The area of the site is so well utilized that a good income-producing building has resulted, with probably 250 rentable rooms arranged in suites of 3, 4 and 5. These are the sizes most in demand in the large cities at the present time.

It will be noticed that there is cross-ventilation in every suite with excellent daylighting from numer-

ous windows of good size.*

Elevator apartment buildings are necessary in the

impression. On the contrary, the building is attrac-tive in appearance and a distinct gain—an architectural asset—to the neighborhood. For photographs of this tionally well equipped, but it must be admitted that the arrangement of apartments in a building of this height and shape is far more attractive and homelike. The irregular arrangement of the front and the five wings of this building are exceptionally pleasing, and there is no monotony of walls to give a bleak building see opposite page.

more congested districts and many of them are excep-

AMERICAN BUILDER (Covers the Entire Building Field)

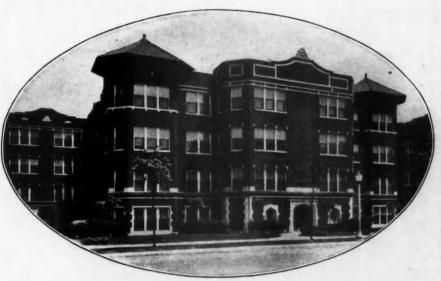
[September, 1927

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Attractive Design for a Large Apartment Building

A. C. LUND, Architect

THE Ingleside Court Apartments, Ingleside and 81st Street, Chicago, though of the typical court type, do not have the box-like appearance of so many court buildings. This has been overcome by the very irregular outline of the front wall. Each part has also been treated differently. Although it covers the full area allowed under the zoning ordinance of the city of Chicago, it does not appear to be at all crowded on the lot. The courts have been given a roomy appearance by setting back



Close-Up View of the Central Portion of the Front, Ingleside Court Apartments, Chicago. The projecting bays and contours of this building provide architecture of an unusual and pleasing variety. Besides the light colored stone facing, a touch of color is provided by the tile roofs, octagon in shape, and adding the effect of towers marking the two main courts.

the central wing, and setting the sun parlors at the end of each wing in a diagonal position.

There are 69 apartments, 3, 4, and 5 rooms. Individual apartments have large rooms, and the maximum of light and air, afforded by the court type of plan. Every apartment faces the street or a front court. Ample closet space has been provided, and the smaller apartments are equipped with disappearing beds. The kitchens have either pantries or kitchen cases. The bath rooms are of tile and

have built-in tubs and pedestal lavatories. Oak floors and hardwood trim were used throughout. The building is heated by a battery of two boilers, so that only one boiler need be fired during chilly fall and spring days. The high basement provides light and roomy laundries, storage compartments, as well as three basement apartments.

Plate Glass Protects Stained Glass Windows

PLATE glass, in large sizes, has been installed throughout Sacred Heart Church, Flower City Park, Rochester, N. Y., as a protection for the many stained glass windows in the building. The installation of plate glass, instead of the rough or ribbed glass commonly used for this purpose, greatly enhances the exterior of the building since it permits the art glass to be viewed from the outside. This is the second church in Rochester to use plate glass in this way.



General View of the Ingleside Court Apartments, Located in Chicago's Far South Side. The architecture is exceptionally pleasing and the orientation and daylighting particularly good. The building contains 69 suites of three, four and five rooms and is well finished and equipped. Attention is called to the typical floor plan on the opposite page which shows skillful arrangement. A. C. Lund, Architect.

Large De Luxe Apartment on New York's East River Front

CROSS AND CROSS, Architects

N EW YORK'S East Side has for years been associated with tenement houses of the poorer sort, freight wharves, tugs, steamers and the sort of dwellings which one might expect amid such surroundings. But the district is undergoing a significant change, sumptuous apartment houses taking the place of the usual squalor in a dock district.

A development of this sort is the splendid, large co-operative apartment building pictured on this page and known as Number One Sutton Place South. Here the tenantowners of this building are assured of unobstructed light and air on the river side of the building and the further advantage of a private wharf for the accommodation of yachts, speed boats and the like. Most of these owners can afford craft of this character, which means that an avenue is always open through which to escape the heat and dust of the city, being able to embark at will unobstructed by crowds or traffic. Furthermore, they have



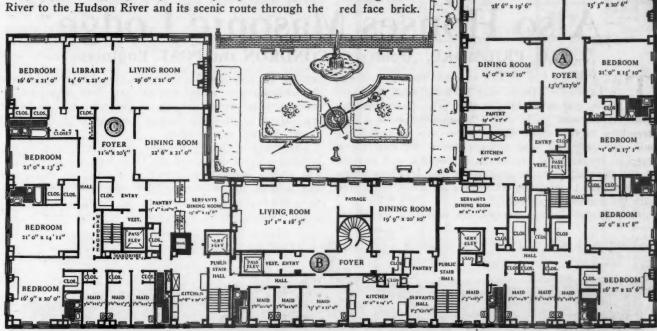
New York Co-operative Apartment Building Known as Number One Sutton Place South. This luxurious apartment building displaced the former slum surroundings of New York's East Side waterfront. It has an overhanging garden and private wharf on the river.

The exterior

walls of the

building are of

direct access to Long Island Sound by way of Hellgate; also to the lower reaches of New York Bay and the open ocean beyond or equally ready access by way of the Harlem River to the Hudson River and its scenic route through the



Typical Floor Plan Shows That Every Living Room, Library and Dining Room Commands a View of the River. The garden on the river front is enclosed between the two wings.

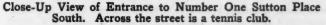
Palisades and past West Point to Albany.

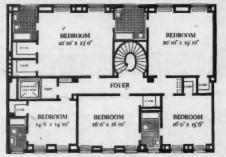
For those who remain at home, the site is one of the coolest in Manhattan; the building is equipped with every luxury and convenience and there is a garden overhanging the East River enclosed between the rear wings of the building. A few hundred yards to the north of this apartment build-

ing, the Williamsburgh Bridge spans the East River which, at this point, has two channels divided by an island which shows as a background in our picture.

The building has open frontage on all four sides, planned in the shape of a "U," with two simplex apartments on each floor and a duplex in the center of the "U" running through two floors; also maisonettes on the ground floor and a very large apartment covering 50 per cent of the roof.







Plan Showing Second or Bedroom Floor of Duplex Apartment on Plan Directly Above.

Each Wing of the Building Has Its Entire Floor Area Devoted to One Suite, with Four Master Bedrooms, Four Bathrooms and Either Three or Four Maid's Rooms.

The three lower stories are faced with limestone. The entrance hall, to which the covered driveway leads, is treated in walls and floors of Bottocino marble. Five large windows look out from this hall across the garden to the river beyond. This hallway is about 25 by 60, continued at each end by extensions to the hall leading to the passenger elevators of the north

and south apartments. There are three passenger elevators, each serving its own tier of apartments.

As the building is 100 per cent co-operatively owned, each tenant has arranged his own apartment to suit himself and many of the rooms are beautifully paneled and decorated with rare antique mantelpieces and tapestries.

Perhaps the unique feature is that facing east across the river, it will have permanent sunlight which cannot be affected by any construction in the future. It was the pioneer building on the river front for high class tenants and is now succeeded by similar enterprises at Tudor City, Beekman Place and Eighty-sixth Street.

Examination of the typical floor plan shows that the suites are quite large and commodious, there being only two and one-half suites per floor, the center suite extending two stories in height with a circular stairway connection. The second floors of these suites is devoted entirely to bedrooms.

It will be noted that every living room, library and dining room has a view out over the river. The suites in the south wing have four master bedrooms, four bathrooms and four maids' rooms. Those in the north end of the building have four master bedrooms, three bathrooms and three maids' rooms. The duplexes have five master bedrooms and four bathrooms on the upper floor and three maids' rooms and bath on the lower floor.

The occupants of the suite on the top floor have a unique dwelling place--practically a roof garden with no neighbors,

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LIBRARY

LIVING ROOM

New People's Church Building Also Houses Masonic Lodge

J. E. O. PRIDMORE, Architect-CONDRON and POST, Engineers

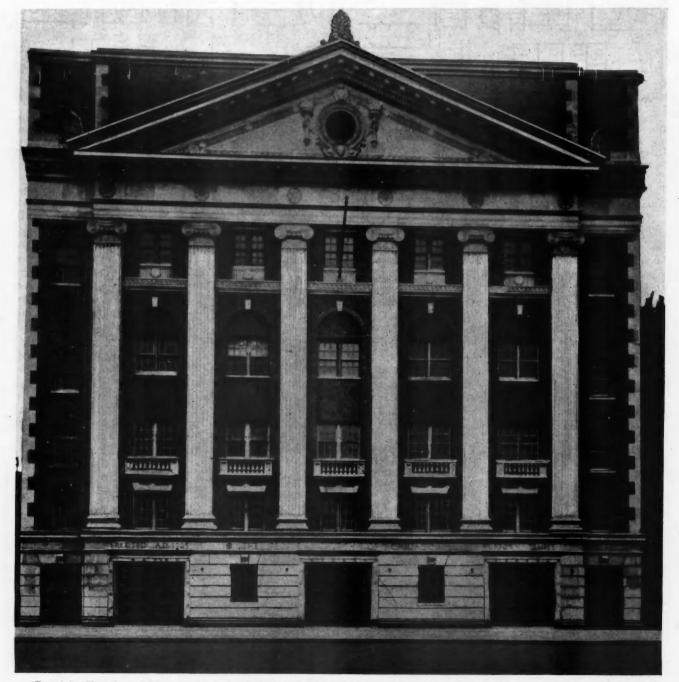
The People's Church and Uptown Temple Building on Lawrence Avenue near Sheridan Road, Chicago, has an unusual feature, in that, prior to its erection, arrangements were made with a Masonic lodge for a long term lease of two upper floors. These were designed and built especially for the accommodation of this secret fraternal organization. However, it proved a nice solution of the financial problem involved in the erection of the new structure by providing an income feature in connection with the building investment.

The voice of Doctor Bradley, the pastor, is, doubtless,

familiar to many AMERICAN BUILDER subscribers throughout the United States, as the services have been broadcast by radio, even before the erection of this splendid new building. He is heard every Sunday forenoon over "WMAQ" except during warm weather.

The People's Church occupies the lower portion of the building and basement, and the lodge halls the upper part. The church auditorium consists of main floor, mezzanine and balcony and seats over 1,800 people, all well within sight and hearing of the preacher and choir.

The church interior is carried out in wood paneling, the



People's Church and Uptown Temple, Chicago, Which Has Some Unusual Features. The two upper floors are leased to a Masonic lodge, which has been helpful in financing this handsome new church building. Doctor Bradley, the pastor, is a famous preacher whose voice is familiar to radio listeners all over the United States.

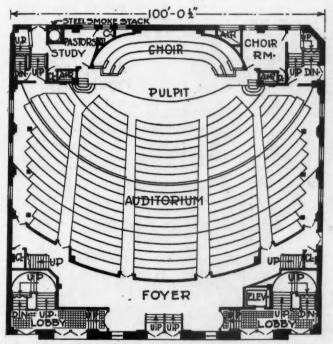
AMERICAN BUILDER (Covers the Entire Building Field)

walls up to main cornice being paneled; the fronts of mezzanine and balcony are also richly paneled in birch.

The semi-circular walls of choir have a high paneled wainscot finished handsomely in birch. The main church ceiling is barrel vaulted and ornamented with bands of decorative plaster. The choir ceiling is in the form of a half-elliptical dome.

The basement of the church has been especially designed, ventilated and waterproofed for Sunday School use and for the social activities of the church, and also contains the boiler room, kitchen, ventilating plant, etc.

the boller room, known, roused in the segment of the innovations in this church design is a smoking room, indicating the liberal policy of the church officers. This smoking room, of course, is located in the basement in connection with the social activities of the church on week days. There is also a ladies parlor and separate toilet facilities. The plan includes a check room—a modern feature in church buildings, first introduced by another liberal denomination. In fact, church designers of today are introducing many comfort features formerly unorthodox, but which, in reality, do not detract from, but rather



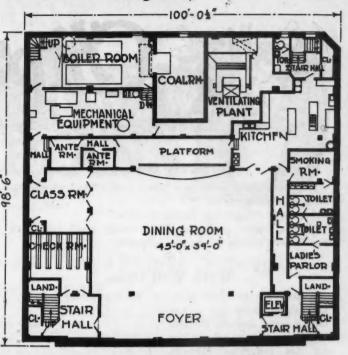
This Church Auditorium Is Ideal in Size and Arrangement. The seating capacity is 1,800, including main floor, mezzanine and balcony. Pulpit and choir have a special design which adds greatly to the acoustic values of the auditorium.

add to the dignity of the services by eliminating unnecessary movement and distractions within the auditorium.

The lodge halls above the church are reached by wide terrazzo and iron stairs at each end of street frontage, as well as by elevator.

The lodge hall portion contains one very large two-story lodge hall and two smaller halls together with parlors, platforms, side stage and all of the sundry rooms, closets, toilets, etc., which go to the making of a complete lodge installation.

The engineering problems involved in the construction of this building were, in many ways, similar to those of a large theater with office floors above, as the floor loads of the lodge halls had to be carried to either side of the large church auditorium on the main floor. This was accomplished by the engineers, Condron and Post, without any interior columns obstructing the view of the congregation. The balcony is carried on cantilever trusses from columns in the front wall of the building and having a bearing on columns at the line of the foyer. Four interior columns at the front and back of the auditorium carry the

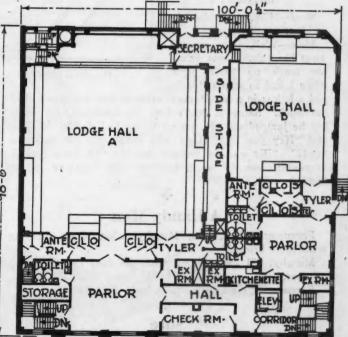


Basement Plan of the People's Church Building Showing Provision for the Sunday School and Social Features of the Church. The basement was especially waterproofed to make it suitable for this purpose.

floor loads of the upper lodge room floors. The distance between these columns is spanned by 60-foot Pratt trusses The construction of the building generally is of steel

frame and brick. The mezzanine, balcony and lodge floors are a combination of structural steel and reinforced concrete.

The design of the building generally is in the late English Renaissance style. The front has the first story in rusticated stone work with handsome doorways; above the first story, the whole facade is of brick with bold pilasters in stone running up four stories in height and surmounted by stone entablature and pediment.



Main Masonic Lodge Floor. Lodge Hall "A" is two stories in height and smaller lodge halls are provided on this and the floor above. Kitchenettes, parlors, check rooms and toilet rooms are also provided on these two lodge hall floors.

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Perfectly Useless

Mrs. Newrich (looking over house plan): "And what's this thing here going to be?"

Architect: "That's an Italian staircase."

"Just a waste of money. We probably won't ever have any Italians coming to see us."-Answers. ----

Work Well Done

A southern old lady saw old 'Rastus setting out with

his fishing tackle for a day on the river, and she thought it a fitting time to rebuke him for his notorious idleness, since she and everybody else knew that his entire family was supported by Rastus' old wife as a washerwoman.

"Rastus," she said severely, "do you think it is right to leave your wife hard at work over the wash tub while you pass your time fishing?"

"Yassum, ma'am," replied the old darky earnestly. "It's all right. Mah wife don't need any watchin.' She'll wuk jes' as hard as if I was dah!"

20

Shure!

Boss-Mike, how did the accident happen?

Mike-Well, boss, ye see, 'twas like this. I was drivin' me truck up State street when I had to stop suddenly,

and a fellow in a big Packard crashed into the rear end of like is calling on those dealers." me truck. Shure it didn't hurt his machine very much but he jumped off and ran up to me and shakin' his fhist said "Hey you little Harp, why didn't you put out your hand?" "Put out me hand!" says I. "Ye dang fool, if ye couldn't see the truck, how the devil could ye see me hand?"

A Handy Man

Foreman: "Here, you, Murphy, what about carrying some more bricks?"

Murphy: "I ain't feeling well, gov-nor; I'm trembling all over."

Foreman: "Well, then, lend a hand with the sieve."

----Sure

A certain newspaper that made a practice of answering inquiries from readers received this one:

"Please tell me what is the matter with my chickens. They go to roost apparently well. The next morning we find one or more on their backs on the floor, stiff, combs white and their feet in the air."

It was the editor's busy day and this was the answer his reader received:

"Dear sir, your chickens are dead."-Kreolite News.

For Every Floor

The bride of a month spent considerable time experimenting with the making of Welsh rarebit. One morning the janitor knocked at her door. "Pardon me, lady," he said, "but you must stop throwing those pieces of linoleum

in the garbage can. 'Taint to be used for thrash, you know."

A Tip on Psychology

A colored porter in a hotel was asked why rich men usually gave him small tips while poor men were liberal. "Well, suh, boss," he an-swered, "I don't know, 'cept the rich man don' want nobody t' know he's rich, an' the po' man don' want no-body t' know he's po'."-Almanac.

Why Call on Them?

Ralph: "How do you like the new job as a salesman?" Tom: "Oh, it's dandy. You

meet some fine fellows at the hotels and have lots of fun in the evenings, but what I don't

According to Darwin

An Irishman was seated in a train beside a pompous individual who was accompanied by a dog.

"Foine dog ye have," said the Irishman. "Pwhat kind is it?"

"A cross between an Irishman and an ape," the man replied.

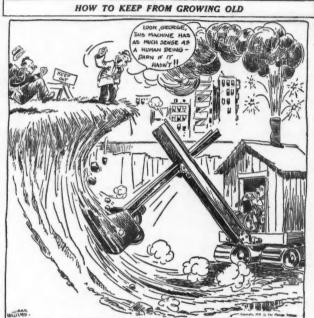
"Sure, an' it's related to both of us," the Irishman rejoined .- Science. +

Calling in the Cash

The man who has something good to sell And goes and whispers it down a well Isn't half so likely to collar the dollars As he who climbs a tree and hollers.

-Farm Market Sayings.

Getting the other fellow's customers away from him is not nearly so important as keeping our own customers safe and satisfied .- Wood Construction.



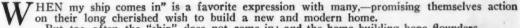
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"Financial Independence Is Won Through Saving For The New Home."

-William A. Radford



"When my ship comes in" is a favorite expression with many,—promising themselves action on their long cherished wish to build a new and modern home. But too often the "ship" does not come in; and the home building hope flounders. Now the trouble with such planning—or lack of planning—is that home building is looked upon as an expense and a luxury—something on which to spend accumulated savings; instead of being, as it really is, the surest means of getting ahead.

e surest means of getting anead. Home building or home buying in the great majority of cases is the first important step toward financial independence. Instead of waiting for your "ship to come in" before undertaking to ac-quire your own home—you rent payers should make a start now, today, and pay that rent money to yourself as landlord and owner. Thus your financial ship can come in helped along by your own savings and foresight.

The active men of the building industry are doing a great work in carrying this message to the home seeking public. They are salesmen of the best commodity in the world—the true American Home!

In putting your savings into a new home, or in ad-vising others to build, make sure that the building is well planned, well built and up-to-date in its equipment. There is nothing more pathetic than to see hard earned money thrown away on cheap, ramshackle construction. The man putting his savings into a home has the right to expect that home to stand up and give him a lifetime of service without expensive repairs or extortionate up-keep cost. It is the well-built and easily-heated house that is the most easily paid for.

Then in addition to good, lasting con-struction, if the new home can have style—the good looks that come from good architectural design; and if it can have inside those items of modern equipment which present-day American standards demand, then the new home will really be a sound and permanent investment, growing more valuable with the years. Like ships of old bearing rich cargoes, the well planned home brings into port for its owner a cargo of financial independence and lasting satisfaction.

Tike Ships of Old Bearing Rich Car goes, Colorkeed Home Plans are Rich in Their Mo ny Modern 160me Equipment uggestions



The KALAMAZOO

Six-Room Colonial Home with Attached Garage Illustrated Above, ColorKeeD Floor Plans on Page Opposite

THE most convenient garage and the one most easily heated is the kind attached directly to or made a part of the

house. It is a good fire precaution to use metal lath and plaster on the walls and ceiling of the garage or motor room, giving particular care to the ceiling and to the partition separating it from the rest of the house.

This design requires 36 feet in width since the house proper is 28 by 24 feet wide, and the garage 20 by 12. The driveway goes straight in, and in addition to the double door entrance there is a rear entry at the back connecting also with the house proper through the dining room. Above the motor room there is a large well lighted bedroom on the same level as the other rooms of the second floor.



Detail of Front Entrance

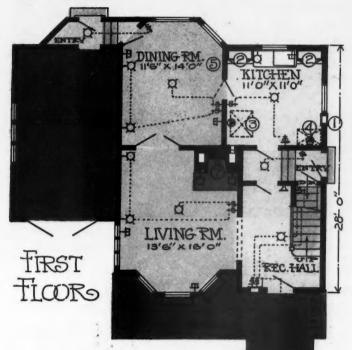
The layout of this design, both exterior and interior, is very satisfactory. The open brick terrace

serves as a front porch opening into the large reception and stair hall. There has been a reaction against the big roofed-over porches of fifteen years ago because they darken the rooms. The advantages of sun light for health and cheerfulness are better appreciated today and this design puts sunshine into all rooms. The Color-KeeD plans with their recommendations for modern equipment make plain the first and second floor arrangements and also the modern basement plan. The basement is a very impor-tant part of the modern home, containing as it does the heating plant, laundry and many other modern mechanical items. The ideas

ColorKeeD Floor Plans of "The KALAMAZOO"

embodied in this basement plan should be considered as applying to every other home design in this collection.

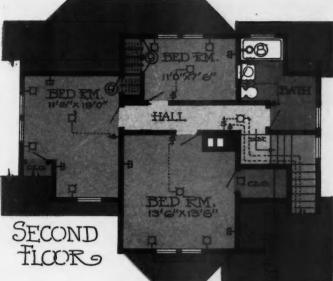
Lack of space on the other pages prevents our showing the basement plan; but each can be worked out with size and outline similar to the first floor plan, and the needed accommodations located for heating plant, fuel storage, laundry, cold cellar, workshop or play room, and trunk storage. A grade entrance or outside basement door and stair should always be provided as it is not satisfactory to have to use the kitchen stairs and the kitchen as a run way when taking out ashes, putting in the winter store of vegetables, etc.



KEY TO ELECTRICAL SYMBOLS CEILING OUTLET A FLOOR RECEPTACLE CHERACKET OUTLET OSPECIAL OUTLET CONVENIENCE OUTLET SISWITCH

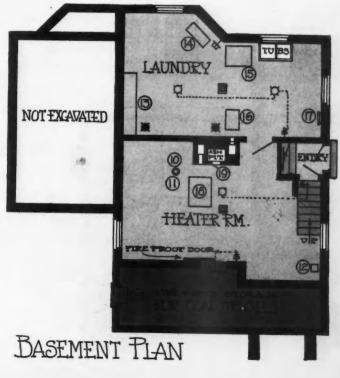


Color Key to Plans Living Room Dining Room Kitchen Pantry Halls Closet Bed Room Bath and Lav. Porch Roof Basement Fruit Cellar Fuel Room Stairs



Key to Equipment

- 1) Ventilating Fan
- Kitchen Cabinets
- ③ Gas or Electric Range
- ④ Electric Refrigerator
- ⑤ Thermostat
- Built-in Mail Box
- ⑦ Fireplace Throat and Damper
- (1) Tub Shower
- (9) Efficiency Wardrobes
- Water Softener
- 1) Hot Water Supply
- Water Meter
- 13 Laundry Drier
- (1) Ironing Machine
- (5) Washing Machine
- Laundry Stove
 Electric Panel
 Heating Plant
 Cast Iron Cleanout Doors
 Coal Chute
 Weatherstrips
 Storm Sash
 Screens
 Lighting Fixtures
 Convenience Outlets
 Oil Burner
 Water Supply System
 Radiant Gas Heaters
 Casement Windows
 Dishwashing Sink





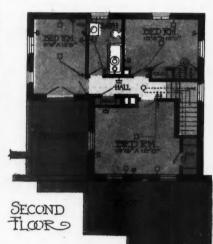


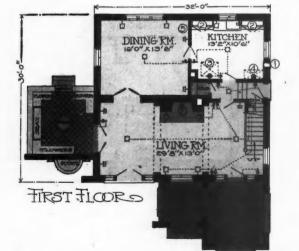


Closet Bed Room 100 Bath and Lav. Porch Roof

The KANRAK

A PUEBLO or Spanish Mexi-can design of unusual inter-est featuring a large living room opening onto a private garden terrace. There is also a large pleasant dining room and a well arranged kitchen on the first floor. Upstairs the ColorKeeD plan shows three bedrooms and bath, the smaller bedroom opening through double doors onto the balcony or roof garden.





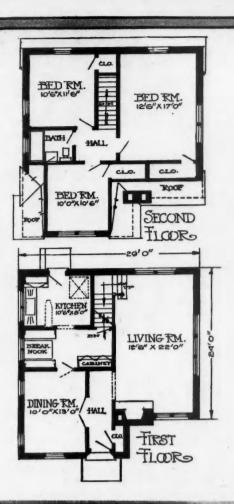
Key to Equipment

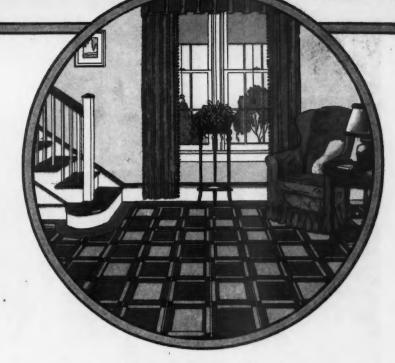
- Ventilating Fan
 Kitchen Cabinets
 Gas or Electric Range
 Electric Refrigerator
 Thermostat
 Built-in Mail Box
 Fireplace Throat and Damper

 Damper
 Tub Shower
 Efficiency Wardrobes Weatherstrips Storm Sash Screens Lighting Fixtures **Convenience** Outlets **Electric Panel**

Washing Machine Clothes Drier Coal Chute Heating Plant Oil Burner Water Supply Syste Water Supply System Hot Water Supply Water Softener **Radiant Gas Heaters Casement Windows Dishwashing Sink**

COLORPLATE 2K-V





The KEENAN

A BRICK home of delightful charm—a flavor of the early English. The pattern brick work in the gable, the ornamented chimney, the antique shutters, and the blended color roof unite to raise this design out of the ordinary. Inside six fine rooms are provided, besides the bath room, breakfast nook, entrance hall and several large closets. The stair goes up from one corner of the living room, as pictured in the color sketch above.





The KELLOGG

A FOUR-APARTMENT building, two apartments on the first floor and two on the second, each apartment containing four rooms and bath. Overall dimensions are 41½ feet by 40 feet wide, making this a practical design to go on a fifty-foot lot with space left for a driveway.



Key to Equipment

Porch

Roof

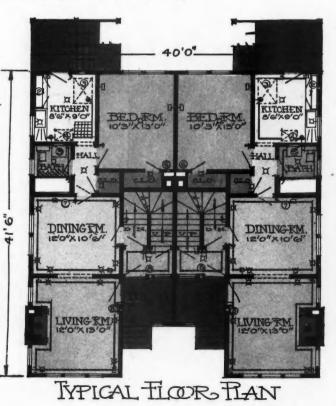
Halls

- Ventilating Fan
 Kitchen Cabinets
 Range
 Refrigerator
 Medicine Cabinet
 Clothes Chute
 Thermostat
 Built-in Mail Boxes
 Fireplace Throat and Damper

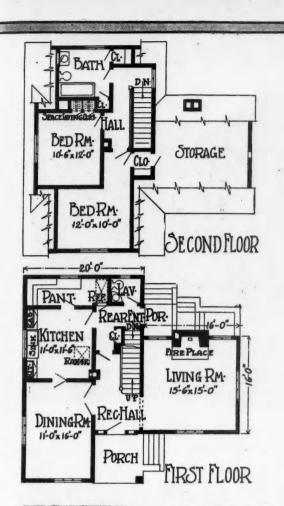
- Damper Weatherstrips Storm Sash Screens

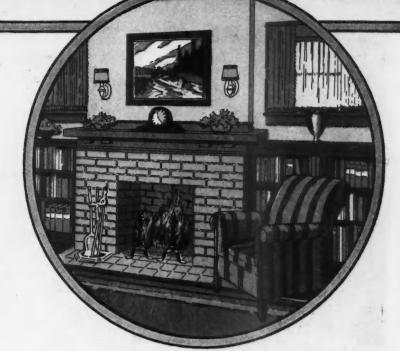
Lighting Fixtures

Convenience Outlets Electric Panel Washing Machine Clothes Drier Coal Chute Heating Plant Oil Burner Water Supply System Hot Water Supply Water Softener Radiant Gas Heaters Casement Windows **Dishwashing Sink**



COLORPLATE 2K-VII



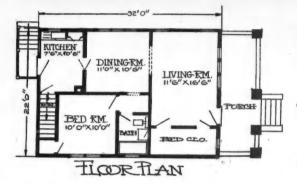


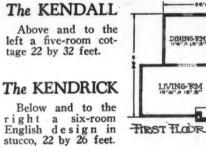
The KEMPER

THIS modern home designed in the manner of the Irish peasant cottage is rich in art atmosphere. From its commanding position on a terraced site and with its casement windows, tinted rough stucco walls, shingle thatched roof and paneled doorway, this little home is charming in its appeal. Inside, the arrangement is very satisfactory with three rooms downstairs and three rooms and bath upstairs. The color sketch above suggests a pleasing treatment for the fireplace side of the living room.

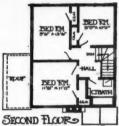




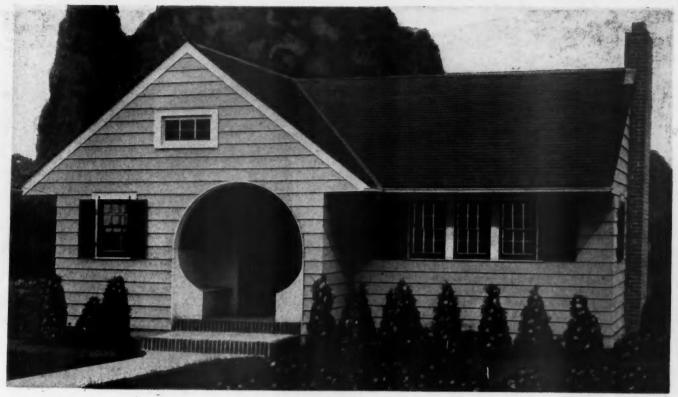


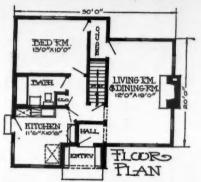










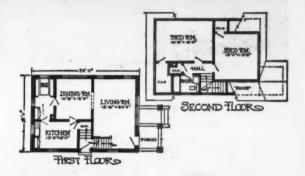


The KENNARD

Above and to the left a unique cottage of three rooms and bath.

The KENNEDY

Below and to the right a five-room brick home for a narrow lot.







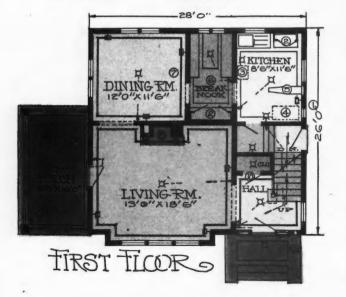
The KEOKUK

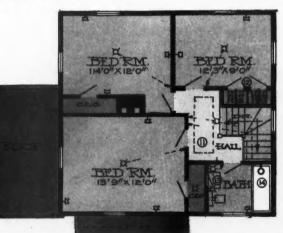
GOOD example of the simple Colonial style, 26 by 28 feet, not counting the open porch. The ColorKeeD floor plans show six well arranged rooms with many special features. A



Living Room Dining Room Kitchen Pantry Halls

Closet Bed Room Bath and Lav. Porch Roof





SECOND FLOORS Key to Equipment

(12) Efficiency Closets(13) Medicine Case

14

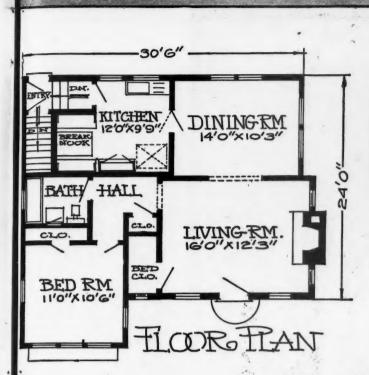
Ventilating Fan
 Kitchen Cabinets
 Refrigerator
 Range
 Ironing Board
 Breakfast Nook
 Thempotent

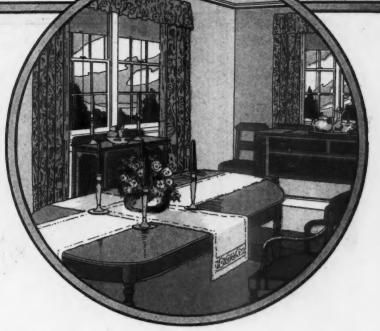
- Š
- Thermostat Fireplace Throat and Damper Built-in Mail Box Mirror Door
- Built-in Mail Box
 Mirror Door
 Disappearing Stairs

Tub Shower Weatherstrips Storm Sash Screens Lighting Fixtures Convenience Out-lets Electric Panel Washing Machine Clothes Drier

Coal Chute Heating Plant Oil Burner Water Supply System Hot Water Supply Water Softener Radiant Gas Heaters Casement Windows Dishwashing Sink

COLORPLATE 2K-XI

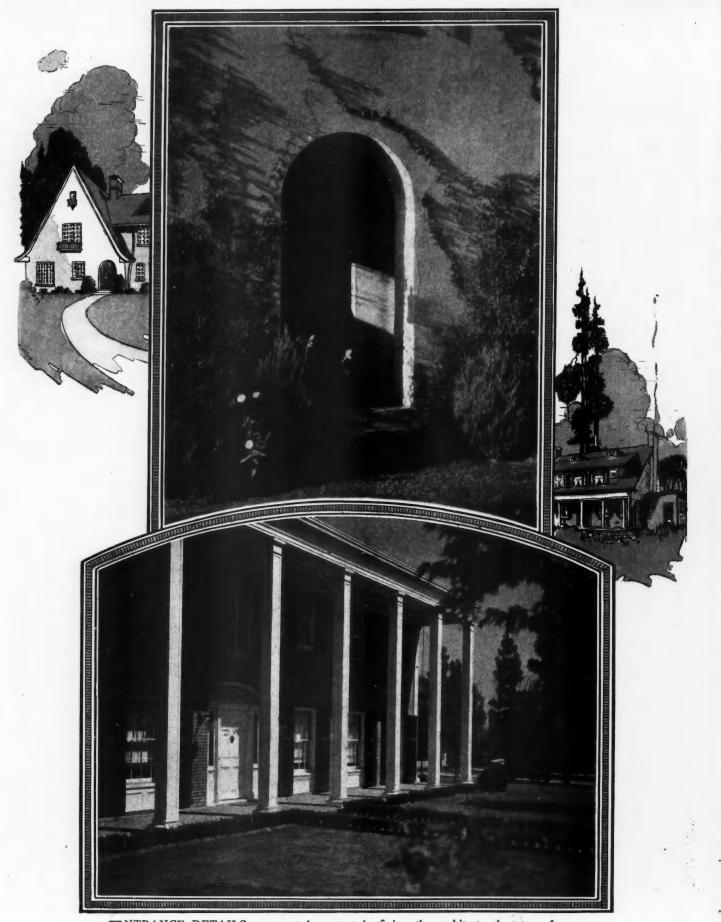




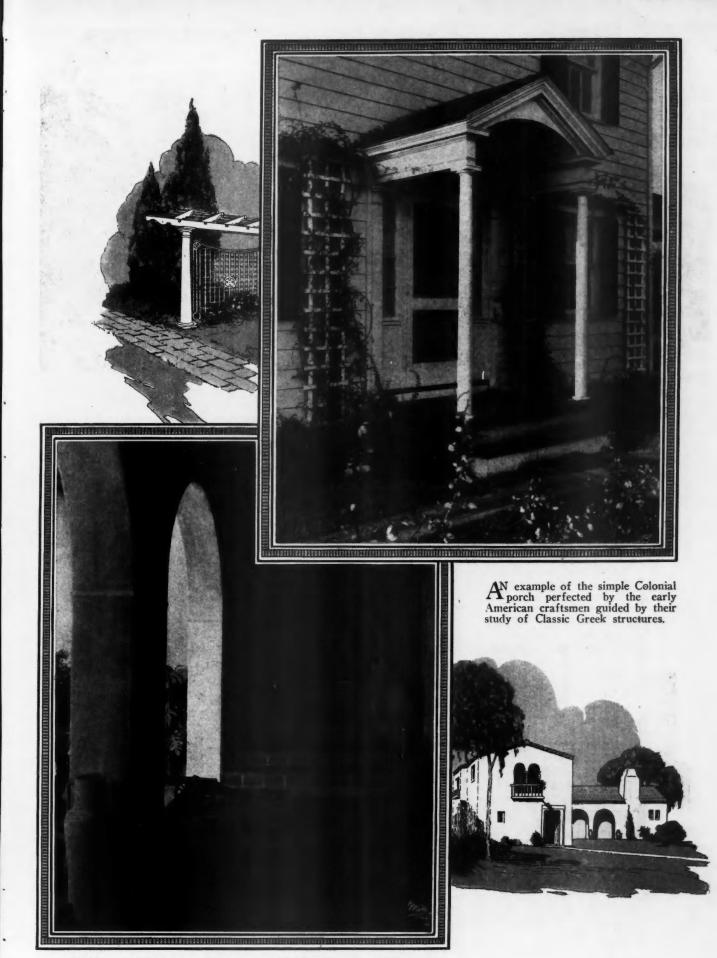
The KERRIGAN

IN their quest for novelties the architects evolved this combination of rough stucco for the gable ends and vertical boards and battens for the side walls. It gives a pleasing color scheme, sharply contrasting with the massive red brick chimney. The floor plan is just as interesting as the exterior, showing a four-room layout with five-room efficiency. The color sketch above illustrates the fine dining room.

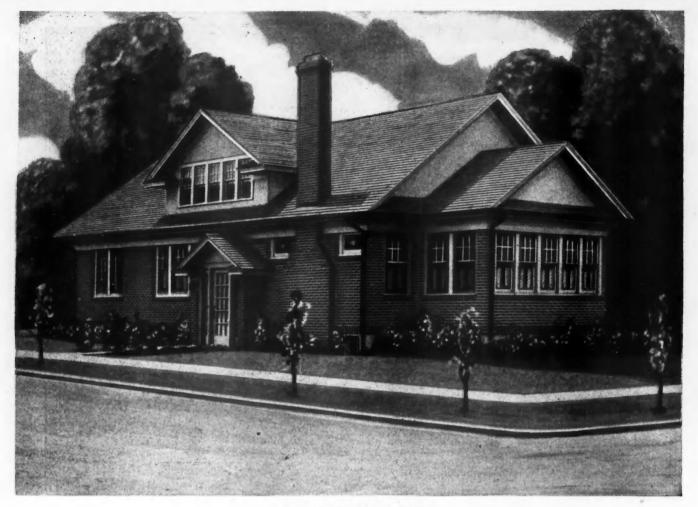




ENTRANCE DETAILS are most important in fixing the architectural status of your new home. The arched opening and massive door, pictured above, typify the old Spanish missions, while the two-story columns and formal balance of shuttered windows fix the lower photograph as of the Southern Colonial or Georgian style.

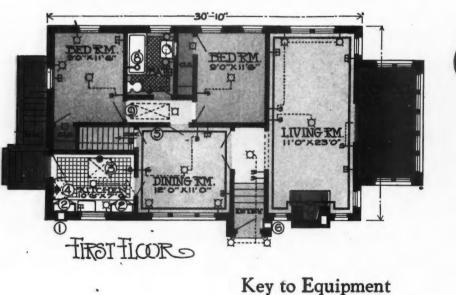


A MAN'S HOME is his castle, it is said; in this case evidently his fortress as well. Although guarded by a cannon this entrance smiles a welcome.



The KEYMAR

A BRICK bungalow of the type so popular in Chicago and in many other cities. The width is a little over 25 feet so it will go on a narrow building site with light and air on all four sides. The main entrance is at grade with the steps inside, a welcome change from the customary outside high porch. The living rooms in this layout are cheerful and roomy while the sleeping rooms are well insulated for quiet and privacy.



(7) Fireplace Throat and Damper Tub Shower



- Ventilating Fan
 Kitchen Cabinet
 Range
 Refrigerator
 Thermostat
 Built-in Mail Box
 - Disappearing Stairs Weatherstrips Storm Sash Screens

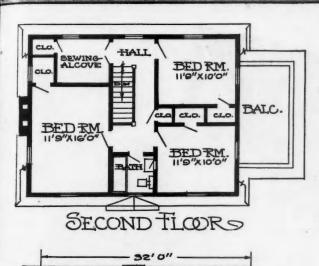
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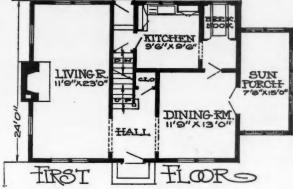
(9)

Lighting Fixtures Convenience Outlets Electric Panel Washing Machine Clothes Drier Coal Chute Heating Plant

Oil Burner Water Supply System⁴ Hot Water Supply Water Softener Radiant Gas Heaters Casement Windows Dishwashing Sink

COLORPLATE 2K-XV





The KILDARE

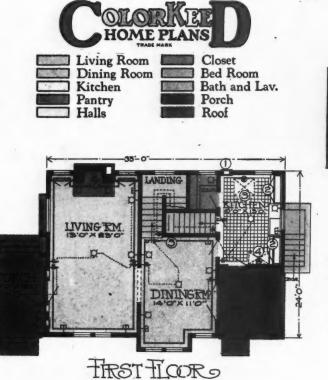
AT.

THE Dutch Colonial home of moderate size has many friends. The lines are softened and the eaves brought low, giving a very homelike, restful air. This design follows the conventional lines with details very carefully worked out. A pleasing novelty is the use of shutters for the entrance door matching the window shutters at the upper windows. The massive stone chimney and the brick entrance terrace anchor this home effectively. The floor plans show a very well handled interior.



The KINCAID

A^N attractive home of English lines containing six rooms and bath. A graceful sweep of the roof over the entrance porch, together with the half timber paneling in the gables and the arched openings onto the porch, are notable features of this design.



Ventilating Fan
Kitchen Cabinets
Range
Refrigerator
Thermostat
Built-in Mail Box
Fireplace Throat and Damper
Tub Shower
Disappearing Stairs Weatherstrips Storm Sash Screens

Lighting Fixtures

```
SECOND FLOORS
Key to Equipment
Ventilating Fan
Kitchen Cabinets
Range
Refrigerator
Thermostat
Puvit in Mail Ror
```

Clothes Drier Coal Chute Heating Plant Oil Burner Water Supply System Hot Water Supply Water Softener Radiant Gas Heaters Casement Windows Dishwashing Sink



A House Like This Need Never Be Sold—It Will Sell Itself to Anyone Who Is Looking for a Home of Distinction

I T SEEMS hardly worth while to waste words commenting on Our Front Cover Home this month for the photograph and plans, shown on this and the pages that follow and in colors on page one, speak so ably for themselves that little remains to be said. To call special attention to a few of the many details which add beauty and convenience to this charming house is all that can be done.

Here is a house possessing an abundance of charm both in style and treatment. The wide, white painted siding, the vestibule and chimney of face brick, the Colonial entrance, perfectly harmonized, and the many paned casement windows of the sun porch, suggesting the light and airy rooms they screen, all combined to catch the eye and instantly win our admiration.

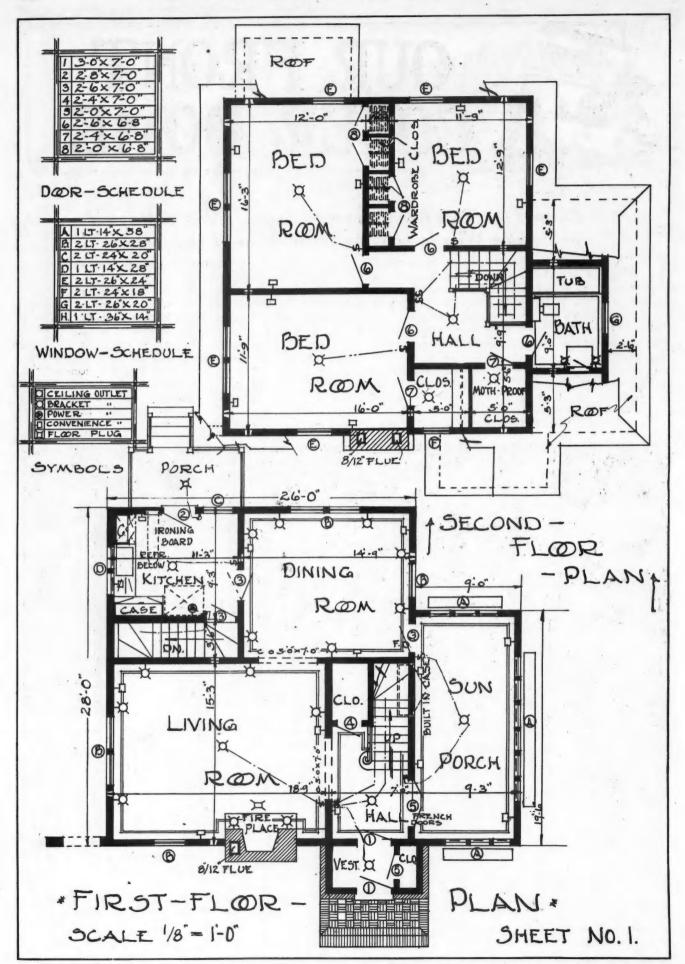
The floor plan is noteworthy for its well placed entrance vestibule and stair hall, its cozy living room, compact kitchen and convenient dining room with doors from both living room and dining room admitting to the sun porch.

Above stairs there are three ample bed rooms and bath, not to mention the large, moth-proof closet. The latter, like other appointments of both first and second floor, shows the thoughtful planning which has, in this design, provided all those special items of equipment that make the home thoroughly modern and assure a large amount of satisfaction to the future owner.



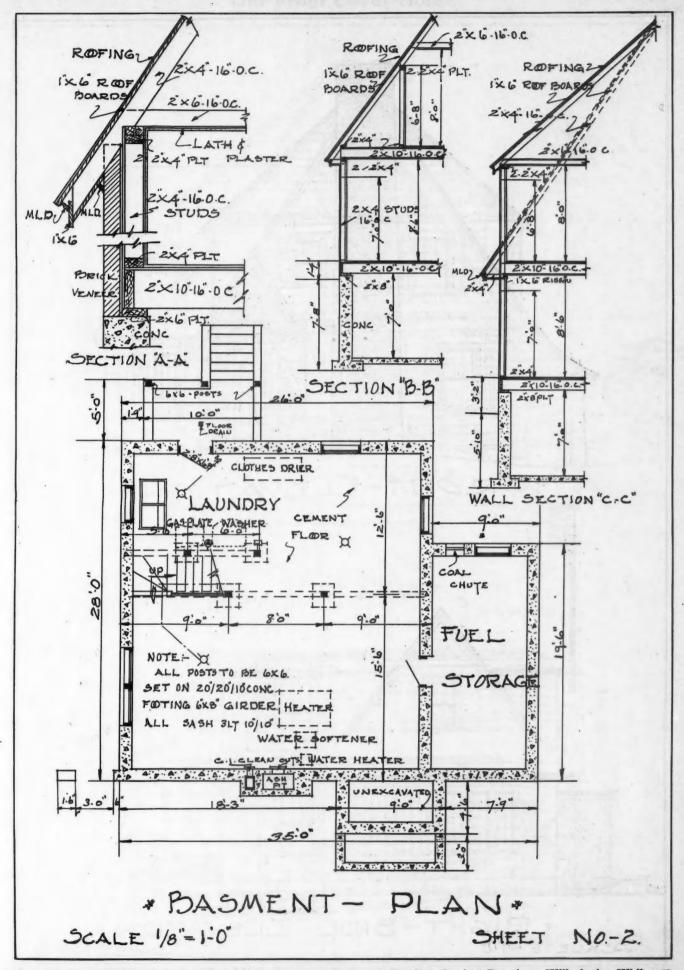
A Charming House in a Beautiful Natural Setting. Here is a combination that fulfills every external requirement of an ideal home. For the answer to the question as to how the interior will appear, turn to the pages which follow.

[September, 1927



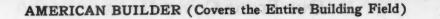
Floor Plans of Our Front Cover Home Tell a Story of Skillful Design Resulting in a Remarkably Compact, Convenient and Complete Home.

Our Front Cover Home

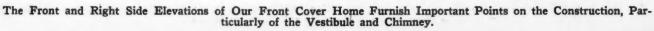


For the Actual Building of the House This Basement Plan and Detailed Section Drawings Will Assist While on the Next Pages Will Be Found Elevation Views.

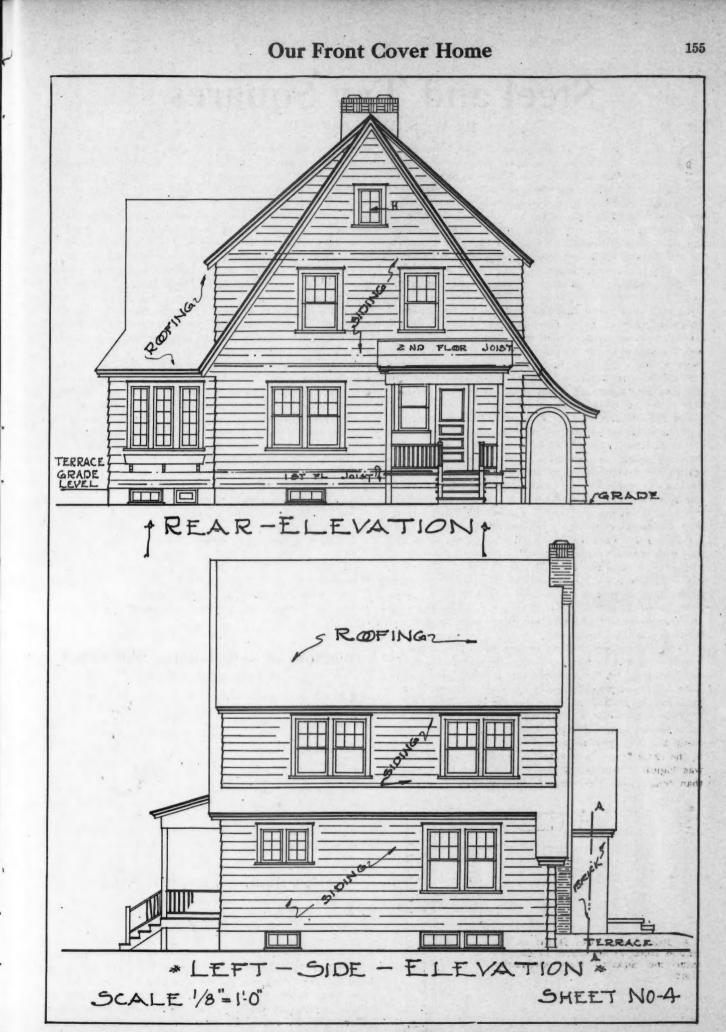
153







154



As in the Front Elevation, That of the Rear Shows the Treatment of Roof Lines Which Is So Important in Producing the Effective Style of Our Front Cover Home.

Steel and Try Squares

1.0

By W. S. DAVENPORT

O UR steel and try squares have not been much improved or changed for many years. The only changes that I recall are a recent introduction of a 2-foot aluminum square and the adoption by woodworkers of the metal workers' 12-inch sliding blade square. This has a reach of about 10½ inches and the average reach of the older fixed blade try square is 7½ inches, ranging between 6 and 10 inches. There are larger try squares, but I think that for longer measurements most woodworkers use the 2-foot steel square.

The try square is meant for finishing work where the edges of the work are planed and true. For laying out stock with rough sawn edges the body of the try square is somewhat short to get a good average bearing. Boards are still common up to a foot wide, but not over a foot. Hence a square should have a reach on the tongue of just about a foot, very little more and not a bit less. The next smaller steel square is 18 by 12 inches with a reach of less than a foot and the 2-foot square is the only one we have to lay out stock of the usual size.

The 2-foot square was not designed for this purpose. It is primarily a trigonometrical instrument, the right hand of the building carpenter. The long blade is made wider than the tongue to give more purchase in holding it up against the downward pull of the tongue. This makes the steel square irreversible in practice because it is unnatural and objectionable to grasp it by the narrow light tongue and hold it against the heavier pull of the blade. If the tongue is too short we shove it along and continue the line.

If the square were designed for laying out stock up to a foot wide it would have different dimensions. As it is, the tongue is too long and also the blade. Laid up against the edge of a board the lower end projects down below it, or if not, then the upper end is above the board over a too great length and the contact is insecure. The huge size and clumsiness of this square are unnecessary for this use, which is a quite common use.

These ideas occurred to me last summer while laying out boards of several thicknesses and widths up to a scant foot, and I began to cut down two squares to get the best dimensions for my purpose, the more interested because my purpose was not unusual at all. I cut the blade little by little to $10\frac{1}{2}$ inches inside which proved to be a little short, and on a second square I stopped at 12 inches. The tongue being the same, this gave me a square with the two arms of the same length and I fell to wondering whether this was logical. After all if try squares have body shorter than tongue and steel squares have tongue shorter than

A Steel Square, Cut Down as Indicated Here, Is Suggested to Supplement the Squares Now Ordinarily Used. blade there may be a use for a square in between with the arms of equal length. This the more, since neither pattern is reversible to give us a choice of two length on an arm, or at best only awkwardly reversible, when used as a try square.

I did not quite like the looks of this cut-down square with a 2-inch blade and $1\frac{1}{2}$ -inch tongue. So I cut off a $\frac{1}{2}$ -inch strip from the inside length of the blade and another $\frac{1}{2}$ inch from the end of the tongue thus arriving at a perfect symmetry, a square 12 by 12 inches inside, $1\frac{1}{2}$ inches wide on both arms and weighing only 18 ounces. It held perfectly easily and looked as though it had been born that way. The symmetry proved to be quite pleasant when the square was used lying on a surface, as it need not be turned over to get any possible position; just moved about on the surface.

Another advantage in a square turned out this size by manufacturers would be that two of the outside scales, on one side, could start from the outside corner and the two on the other side from a point opposite the start of the inside scales, as shown in the sketch. This is useful in running a line parallel to the edge to rip a board narrower.

I believe that this square would be useful to more woodworkers than the 18 by 12-inch, although of course it would not replace the 2-foot square. The 18 by 12-inch square would be more easily reversible if both arm and body were $1\frac{1}{2}$ inches wide, but even so for this particular purpose it would be still better with a couple of inches off the blade and onto the tongue.

For my own use I would have it with all eight scales in eighths of an inch. It would never be as interesting as the 2-foot square; nobody would write a book about it in two volumes, it would not read blue prints, cut octagons on 10-inch square timber, figure board feet or lay off roof rafters, but it would be quite handy in laying out the usual sizes of stock.

+

Windows of New Building Will Admit Ultra-Violet Rays

WHEN the new building of the Equitable Trust Company, now under construction in New York City, is completed it will offer one feature which is unique in large office buildings. The windows of the entire 18 floors of this building are being glazed with a special type of glass which admits a large percentage of the ultra-violet rays which are excluded by the ordinary window or plate glass. Since the ultra-violet rays, in sunlight, are the rays which have the greatest influence for health, it is expected that this will increase the efficiency of the workers employed in the building and reduce the amount of time lost through sickness of employes.

* New Lumber Fireproof Process

A NEW process of fireproofing and drying lumber has been developed by the Fireproofing & Lumber Drying Corporation, of New York, which, according to the reports that have reached the National Lumber Manufacturers' Association engineers, are worthy of thorough investigation. Samples of maple, fir, yellow pine, white pine and white oak fireproofed by this process and tested at the engineering laboratories of Columbia University are reported to have passed, satisfactorily, the requirements of the New York City Bureau of Buildings for fireproof wood to be used in skyscraper interiors.

Some General Principles of Good Stair Construction and Definition of Commonly Used Terms

By C. V. OLSON,

Instructor in Carpentry at the Lane Technical High School, Chicago

This is the second of a series of articles on stair building, by Mr. Olson, which will be published each month.

O BE able to lay out stair work successfully we must take into consideration every phase of the particular stair we are about to build.

Plans do not indicate the construction of the stair and unless the specifications give specific instruction, the nature of the building would have to guide the builder as to the type of construction, kind of material and type of stair best suited for it.

It would be impossible to set down any set of rules and expect them to apply to all conditions as found on the job. Rules are given simply as a guide to the builder and it is the ability to use good judgment in applying them as well as good workmanship that differentiates mechanics.

To have a stair with good proportion is our first aim. Such a stair should have steps whose rise plus run plus rise would equal 24 inches. Another rule used is to have the rise plus run equal 17 inches, or not more than $17\frac{1}{2}$ inches. With this as a base it can readily be seen that a rise of 7 inches to $7\frac{1}{2}$ inches would make a good step. A rise over 8 inches should rarely be used and then only in a stair which has only occasional use.

Knowing that a step having a rise of

7 inches makes an ideal step, we therefore use 7 as a trial divisor to determine the number of risers required. Let us assume that we have a total rise of 74 inches, this divided by 7 will give 10 with a remainder of 4, therefore 10 would be the number of risers required. The remainder 4 is simply forgotten. To find the height of each riser all that is necessary is to divide the total rise by the number of risers. With 74 inches as the total rise and 10 as the number of risers we would have a rise in each step of 7.4 inches.

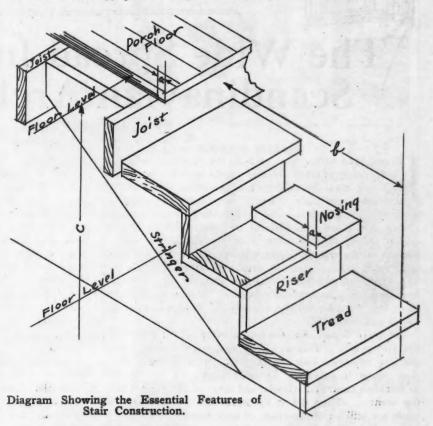
Where decimals are obtained and the result must be changed to the 8th or 16th part of an inch, a quick and practical way to make the change would be to take a pair of dividers and step off the required distance on the steel square. All good squares have the 10th and 100th scale stamped thereon. Then step off the distance on the rule and take a reading.

Another method of changing 10ths to 16ths would be: Multiply the number of 10th by 16 and divide by 10 and the result will be in 16ths.

In the above problem to change .4 to 16ths you would multiply 4 by 16 and divide by 10 the result will be 6.4 sixteenths or for practical purposes 6 sixteenths. Therefore the height of the risers would be 7 and 6 sixteenths inches.

If the decimal multiplied were hundredths instead of tenths the result would have to be divided by 100 instead of 10 as in the above case.

Having determined the number of risers and the height of each, our next step is to find the total run. As each



flight of stairs has one more riser than it has treads, in the above case we would have 9 treads. Applying our rule of proportion and substituting 7 and 6 sixteenths inches in place of the word rise it would read as follows: 7 and 6 sixteenths plus tread plus 7 and 6 sixteen inches equals 24 inches. Worked out further it would read 14 and 12 sixteenths inches plus the tread equals 24 inches, therefore, to find the tread we subtract 14 and 12 sixteenths inches from 24 with 9¼ as a remainder. Therefor the tread would have a run of 9¼ inches. As there are 9 treads the stair would have a total run of 9 times 9¼ inches or 83¼ inches.

In a case where a certain run is required the total run is divided by the number of treads. If it is found that the result is not in good proportion it will be necessary to work it out further by trying either one more or one less riser.

By referring to the sketch please note that the nosing (a) of the porch floor is the same as that of the treads. The projection of the tread (nosing) should equal the thickness of the tread.

The total run is the run of all the treads or the distance from the face of the first riser to that of the last (b).

The total rise is the distance from one floor level to that of the next (c).

Outside stairs should have treads pitched slightly to shed water. No attempt, however, should be made to show this on the layout. This can readily be obtained when cutting as explained in the last issue.

[September, 1927



The Wide Spread Influence of Scandinavian Architecture

By V. L. SHERMAN, Lewis Institute of Technology

I has been shown that each of the types so far noted have been affected by the hands of the Northmen. Then it must be that such a spreading influence has come from a particularly hardy race, especially so when proportions in population and land holdings are considered. Presumably some will smile at this discussion of Scandinavian architecture as taken from my standpoint, but, to prevent misunderstanding, let me say that the abiding types come from those which take the heart rather than the eye. The appreciation of the Northern style is inborn in the Scandinavian. To define the beauties to him is merely to show him what he already knows. To propound it generally is somewhat difficult.

The early Danish kings were not only ardent Christians, but strong-arm militants. Their zeal would make a present day reformer look rather soft. And in their efforts they found it necessary to build towns by aggregation, to establish churches, schools, and most of all efficient trading centers. They did it to perfection. Those parts of trade are still on the increase of importance.

To study Scandinavian architecture for larger work it would be necessary to study the large and old time towns' with their mixture of Gothic and Roman and farther East. It would seem sometimes that curves predominate to take away the eye strain when looking up. Possibly this is from the Greek and comes by way of Russia.

But the house is the thing in which we are interested. In Fig. 1 we have the most important part of any home, and the part which really casts the type, the kitchen. There is nothing inadequate in the Scandinavian kitchen. The grate has been replaced by stove, but the arrangements are as before, and, as I hope, they always will be, for a comfortable welcoming room which provides an appetite rather than entices it. The Northern people are hearty eaters. There is plenty of sunlight, there are warm floors, plenty of griddle space and a large oven, and proverbial cleanliness, Gulickson's Kitchen, 16 feet square, with its stove on one side and the barometer near the door. The women leave their finished work, but the men stay by the large open windows talking ships. The kitchen may be much more than a workroom.

The summers in the North country are not well understood by those in lower latitudes. Like the English, the Scandinavians use clusters of windows that open up to the long hours of sunlight. This may be noticed in Fig. 5. The sun is up for longer hours in the summer, the crops may yield much faster, and the stranger from the South is disturbed because no pitch black night comes around. Some day soon Scandinavia will be the greatest of all summer resorts. The French doors in Fig. 7 show how the whole southern side may be opened to the sun.

In the towns stone and brick predominate. The roofs are largely tile. These roofs are of fairly heavy material and solidly built. In Fig. 6 is shown a picturesque roof of tile plentifully reinforced by cement. There is not that appearance of slickness about it so common at the present day; and it seems a question whether or not, with small houses, such a roof is not rather better in its coarseness than the smoother type. Smoothness on the roof goes best with an entirely smooth building. Broken slate, irregular tiled roofs, and thatching are generous coverings and more homelike.

But the mark of this type of architecture is wood. Timber is one of the greatest stocks, and its use in building is so prevalent that it cannot be left out of any picture. Scandinavians know wood and can handle wood naturally. Timbering with them is more of an art than work. The countries to the south of them drew from that originally, and the consequent similarity in wood structure can be seen. But the Scandinavians go farther than the rest. The framing is not only heavier, but much more a part of the structure inside as well as out. In Fig. 5, at the left, a stuccoed brick wall is corbelled over the first story. All of the beams and struts are not apparent in the sketch, and are not apparent when looking at the wall itself, but they form the real wall above the foundation.

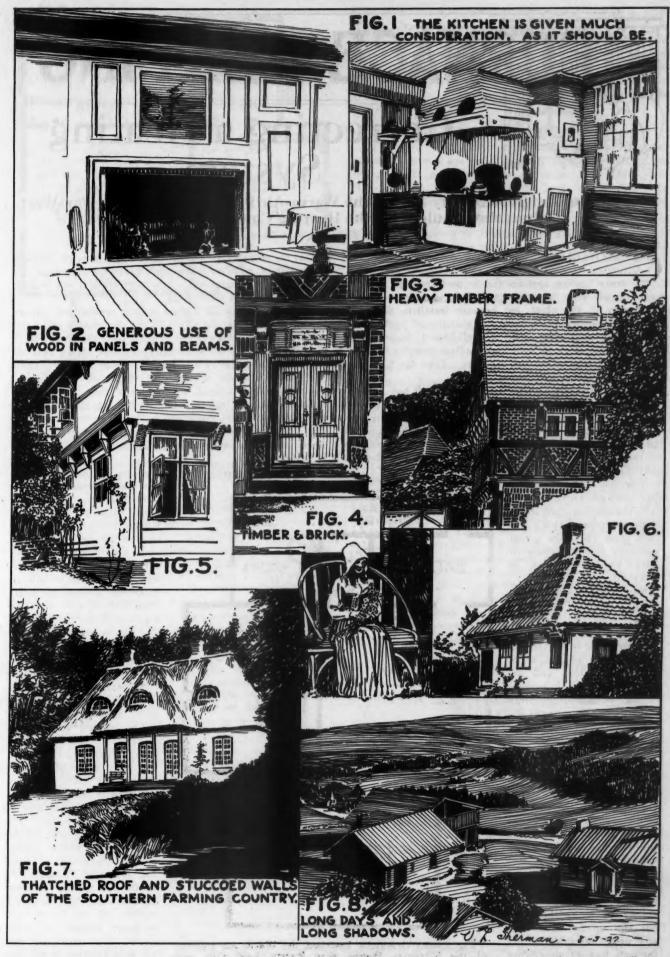
In Fig. 3 the timbering is shown. The beams are a decorative feature with mouldings, set-backs, and shoulders. It is heavier timbering than the English. Perhaps the Scandinavian home of the larger size has more height than the English or French type; or perhaps that is only my impression; but it does seem that the Northern home is set higher at the floor level and that steps and porches are used. The sites of the towns of Scandinavia are on more rugged ground. The entrance shown in Fig 4 again shows the use of wood. This doorway is an old one as the steps will attest. Stone and brick form the approach and rails except for a heavy post at either side. Such posts are usually well decorated with carvings. The heavy columns and beams about the door are set flush with the wall of the first story, but project above that for the inevitable projected second story wall. To the right is a plain brick wall, to the left a large leaded 'casement.

One feature the sketches do not show, one which has a good deal to do with this style is iron work. Forging, from bolts to delicate grills, is all in the day's work for the Northern builder. Much of the timbering is bound by bolts, pinned snug in place.

In Fig. 8 are shown the smaller homes of timber.

Details of Home Building

Taxtened at 10



Some Characteristic Features of Scandinavian Architecture.

DOLLA DENTE TO B 1900

[September, 1927



Changes in Design Necessary Before the Warm-Air Plant Installed in a Far-West Bungalow Could Give the Heating Comfort Intended

This Department by R. C. Nason, Heating Expert, appears every month in American Builder

CONSIDERING the prevalence of accurate information on heating it is little short of amazing that so many heating systems fail in performance. One is forced to conclude, too, that the difficulty comes not from inadequacy of the plant, but because installers disregard cardinal principles, often with the abandon of backwoodsmen who have never seen a well-heated home. The result is great inconvenience and needless expense to home owners, contractors and artisans alike. Take the Kitterage house, for example.

Out near Tacoma, Wash., there is a small but prideful suburb of B—— where small homes, simple but beautiful, are going up in dozens these days as rapidly as time permits their erection. B—— is only one of the thousands of fairylike settlements dotting the landscape of our country on every side. They might almost be called the sleeping quarters of fast growing, bustling cities, of which Tacoma

is only one. To such places tired suburbanites speed each evening on completion of their business duties and from them the same group starts out each morning to catch the seven-eight or seven-fifteen.

Now it chances there lives - one Frank Kitin Bterage who has built his home and equipped it with the best to be had. He had heard of the advantages of warm-air heating and selected this method because of its flexibility, moisture giving, even temperature and economical characteristics. He asked the general contractor to include the heating in his contract and placed full responsibility in him. The contractor, anxious to justify the trust, in turn, secured the services of a small furnace dealer in the town, an old friend and one in whom there was placed equal confidence.

It is inconceivable that the furnace contractor should slip up on the work, but slip up he surely did and most miserably, either through lack of experience or desire to pare his expense so that his profit would be correspondingly greater. Results of the failure, however, proved yet again the old adage that cheapest in the beginning is rarely cheapest in the end, as details here traced will reveal.

Before describing the revised heating arrangement shown in Fig. 2, and found necessary before the heating plant was accepted, let us glance at the original plan shown in Fig. 1. First note that the warm air registers were placed near the exposed walls, a feature which rarely brings success because here the cold winds of winter, driving their way through the tiny cracks around windows and even through the walls themselves, make it difficult for the slowly moving warm air current to reach the walls. It is for this reason that warm air leaders and their registers preferably are placed near inner walls and the heat supplied to the rooms at this point.

It will be observed, too, that carrying the heat leaders to

the outside walls necessitates long pipes. In such ducts rubbing, or internal, friction reduces the velocity of flow of the heat supply and the temperature becomes lowered by dissipation, or radiation, to the atmosphere through the metal. Thus cellars are often the warmest rooms in the house, and that is exactly what occurred in the Kitterage The heat radiated home. from the leaders kept the cellar warm, to be sure, but in so doing left the living room above uncomfortable,

The furnace was located incorrectly. To place it in a convenient and out of the way place the installer placed it near the south wall and extended a pipe much too small to the nearest wall to secure an air supply. The prevailing wind was on the north side, which always has the tendency to drive the heat out through the south side of the building. In this case only the south portion of the house, the bedroom, kitchen and bathroom, all of which are near the first location of the furnace, were warmed, but the

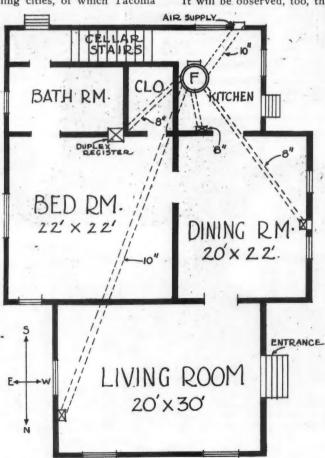
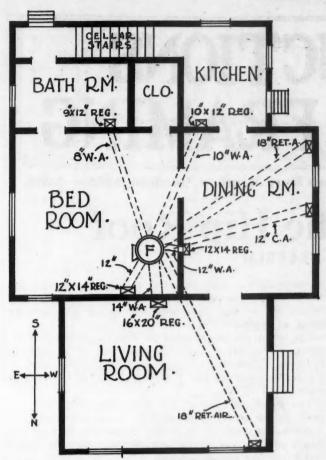


Fig. 1.—As Originally Installed, the Warm Air System of the Kitterage House Was Poorly Laid Out and Inefficient.



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Fig. 2—The Revised Heating System of the Kitterage House Corrected All the Original Faults and Gave Complete Satisfaction.

dining and living room, more important from the standpoint of comfort, were cold at all times.

The modern trend in furnace practice is to reclaim some or all of the interior air for the furnace air supply. Had this been done here it might have been possible for the plant to perform satisfactorily in certain months with the aid of a mechanical fan. As it chanced the heating engineer—though he scarcely deserves the name—took the entire supply from outdoors, making no use of the heat already within the building which could well have been used with a saving of the coal pile and comfort for the occupants.

Attention likewise is directed to the small size of the warm air pipes. These, with the exception of those to the bathroom and kitchen, were too small and sufficient

heat could not have been brought through them except with an oversized heater and a mechanical fan and then the register-air temperatures would have been well above 200 degrees Fahrenheit. This represents poor practice, for the present mode is to employ large volumes of warm air at moderate temperatures, say, between 150 and 190 degrees Fahrenheit, with the latter as a maximum.

The installer violated another rule, that is, the small size of the fresh air intake pipe in relation to the gross area of the warm air distributing pipes. It is now rather generally known that the fresh air intake should possess an area at least 80 per cent that of the combined area of the heat leaders. In the original plan there were three 8-inch pipes and one 10-inch, making a total of 228 squares inches, 80 per cent of which would have been 183 square inches, or the equivalent of at least a 15-inch pipe for air supply. It is doubtful if sufficient air could have been passed through the 10-inch supply inlet installed to provide sufficient volume of warmth to keep the leaders full. Circulation was indeed found to be extremely sluggish.

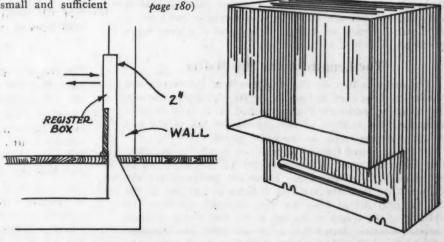
The Remedy and Revized Plan

To make a long story short, it was necessary to dismantle the entire system. The only part retained was the heater which, possibly by chance rather than intent, had been installed large enough to perform its expected duty had it been given the opportunity a good heater deserves.

In Fig. 2 is shown the revised layout. The heater was set on a level, cement foundation about in the center of the cellar and the fresh air intake extended to the western wall. The air-supply was supplemented by two 18-inch round ducts, one going to the north, where it took cool air from a corner of the living room, and the other to the dining room on the west, where a floor register was installed.

The two 18-inch ducts give a combined area of 508 square inches, whereas the combined area of the heat leaders is 486 square inches. Under the new air supply arrangement, therefore, the two recirculating ducts can be used or, if preferred, one recirculating and one 12-inch outside air duct, the combined area of the two being 367 square inches, which approximates 80 per cent of the gross area of the leaders.

The warm-air leaders and their registers were changed so that the heat supply now enters the rooms near the inside walls. This permits the use of short pipes having a minimum of frictional resistance and almost no loss in temperature in getting the heat from the furnace bonnet to the rooms. The leaders were enlarged in size so as to offer capacity for a fair volume of heat at a moderate temperature rather than a small supply of baked air, as was the case previously. The only warm air leaders of any considerable length are those extended to the bathroom and kitchen. As both are small rooms, they require little heat. The 10-inch pipe to the kitchen might have been made 8 inches, yet as all pipes have hand operated butterfly dampers their areas can be diminished or pipes entirely closed during hours when the rooms are not occupied. Attention is called to the register sizes in the revised plan and the fact that these are adequate to admit the full quota of heat without serious obstruction to flow.



(Continued to

Fig. 3—Incorrectly Designed Register Box for a Wall Register. It is too shallow at the top.

Fig. 4—Correctly Designed Stack Head and Register Box. The throat should be no less than five inches.



A Study of the Hip Roof By JOHN T. NEUFELD

GR ULES are like leaves, and where they most abound, much fruit beyond is rarely found."

This may be said to be true, to a certain extent, of the rules in roof framing, especially if the rules are not clearly understood.

In order to get familiar with the hip rafter we have shown three different views of the hip roof, or parts of a hip roof.

The first is a "plan roof," that is, a view as we would have if we looked directly down upon the roof.

The second is an "isometric view," or what might be termed a picture.

The third is an isometric view of a part of a hip roof.

In view No. 1 we should especially notice the position of the hip rafters, as this will be discussed first. The hip rafter runs at an angle of 45 degrees with the plate, and also makes an angle of 45 degrees with the common and jack rafters, unless the roof is odd shaped. This is in regard to its horizontal position. The plan view does not show the angle that the hip rafter makes vertically.

The hip rafter therefore makes an angle with the plate both vertically and horizontally. The vertical angle changes with the pitch of the roof—while the horizontal angle remains the same on all roofs regardless of pitch. (This does not mean that the side cut is the same on all rafters.)

The run of the rafter is used as a basis for figuring the length. This has been discussed in the articles on common rafters. We should notice in Fig. 3 how the run of the hip compares with the run of the common rafter. Fig. 3 shows that the run of the hip is 16.97 inches for each foot run of the common rafter. This is the diagonal distance across a square whose sides are 1 foot each. This is so near 17 inches that it is very often taken as 17 inches.

The Length of the Hip Rafter

The methods used to find the length of hip rafters are similar to those used to find the length of common rafters. In order to understand any method it is necessary to remember the relation of the run of the hip to the run of the common rafter as described above.

In Fig. 3 dotted lines have been run parallel to the plate and 12 inches apart. The run of the hip also is shown or indicated by a dotted line. From the points where the dotted lines intersect the line indicating the run of the hip, vertical dotted lines are run, in order to show the relation of the length of the hip to the run of the common rafter. Another dotted line is shown called the "measuring line" or "working line." The distance between the points where the vertical lines intersect the measuring line indicates the length of the hip for one foot run of common rafter. Note that this is not for one foot run of hip but for one foot run of common rafter. All calculations are usually made with the run of the common rafter as a basis.

The length of the hip rafter per foot run of the common rafter in this case is 17.69. The total run of the common rafter is 6 feet. The total length of the hip rafter is 6×17.69 inches = 106.14 inches. This is 8 feet $10\frac{1}{8}$ inches.

The length per foot of the hip rafter varies with the pitch of the roof. The following short table serves to illustrate the variation and the comparison between the length per foot run of the common rafter and the length of hip per foot run of common.

PITCH	Rise per Foot	Length per Common	Length per Foot Run Common Hip	
1/6	4"	12.63"	17.43"	
1/4	6"	13.65"	18.00"	
1/3	8"	14.42"	18.76"	
3/8	9"	15.00"	19.21"	
5/12	10"	15.62"	19.69"	
11/24	11"	16.28"	20.22"	
1/2	12"	16.97"	20.78"	

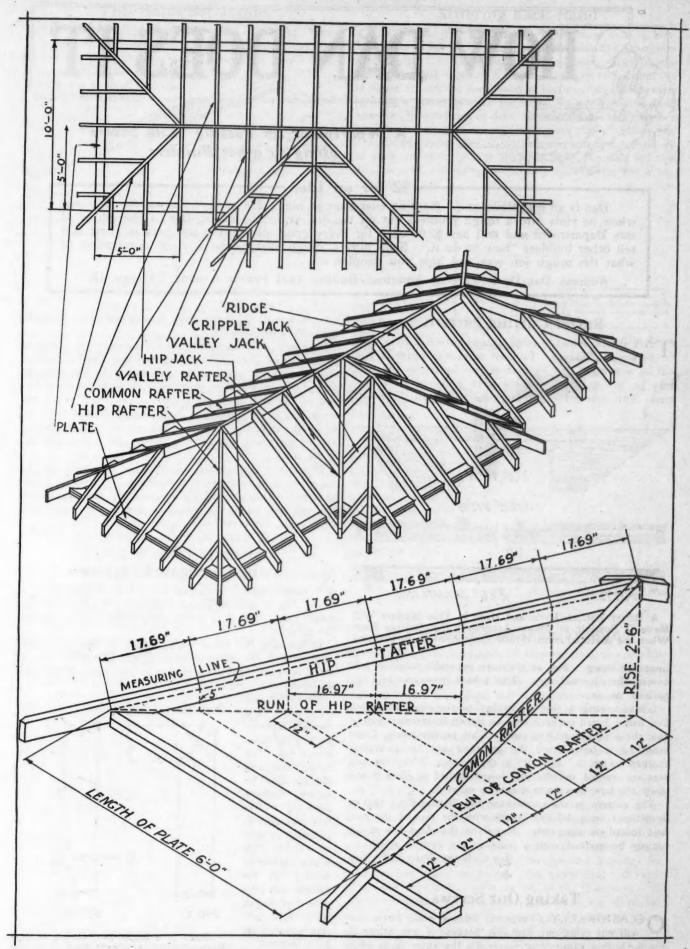
Problems

- (1) What is meant by the run of the common rafter?
- (2) What is meant by the run of the hip rafter?
- (3) What relation in length has the run of the hip rafter to run of the common rafter?
- (4) What is the length of the hip per foot run of common rafter for a 3% pitch roof? For a roof with a 10 inch rise per foot run?
- (5) Find the length of the hip rafter for the following roof: Span of roof 20 feet. Rise per foot run 6 inches.

Answers

- The run of the common rafter is the horizontal distance that the common rafter covers. It is usually one half of the span of the roof.
- (2) The run of the hip is the horizontal distance covered by the hip rafter. It is at an angle to the run of the common rafter.
- (3) The length of the run of the hip is 16.97 inches for each foot run of the common rafter.
- (4) For a 3% pitch roof the length of hip per foot run of common rafter is 19.21 inches. For a roof with a 10 inch rise per foot run the length of hip per foot run of common is 19.69.
- (5) The length of hip per foot run of common rafter as given in the table is 18 inches. The length is 10 × 18 = 180 inches or 15 feet.

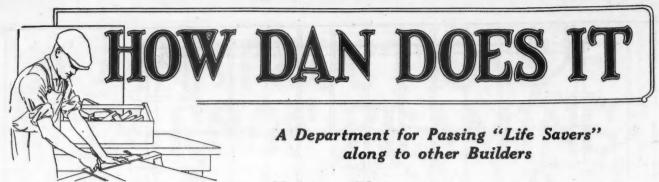




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[September, 1927



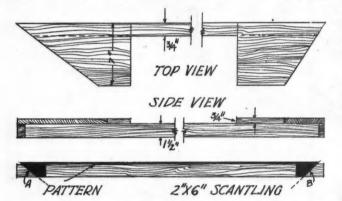
\$2 for an Idea -

Dan is an ingenious cuss. Nothing ever stumps him. He always knows the way out when he runs into a tough problem out on the job or in the office. Dan is the editor of this Department and will pay \$2.00 each for every good idea he can use here to show and tell other builders "how to do it." Send him a rough sketch and a short description of what the tough job was and how you handled it.

Address Dan-Do-It, care of American Builder, 1827 Prairie Avenue, Chicago, Ill.

Rafter Cutting Pattern

THE sketch shows a rafter pattern which I have used to good advantage. In most cases one rafter is laid out on a straight two by four or two by six, as the case may be, sawed to the required pitch and used for a pattern. This serves the purpose very well if all the scant-



A Rafter Pattern Made and Used in This Manner Will Make It Possible to Obtain Accurately Cut Rafters Even When the Material from Which They Are Cut Is Warped.

lings are straight but, as they are generally more or less bowed, the cuts will vary. This I have overcome with the pattern shown.

I take a strip $\frac{3}{4}$ by $1\frac{3}{2}$ inches, of the required length and nail a board on each end, as shown in the sketch, and saw these to the desired pitch. This readily bends if the scantling is bowed and the scantling can be accurately marked, as at "A" and "B" in the sketch. When the rafters are erected and the roof boards nailed in place it will draw the bow down and make an exact fit.

The pattern is shown without the "lookout" as that is sometimes on a different angle with the rest of the roof and spiked on separately. But if on the same line it can simply be marked with a gage to the desired width.

JOE C. BOYER, Park Falls, Wis.

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Taking Out Screws

OCCASIONALLY a carpenter finds a wood screw that will not come out, probably because it was driven in too far with a hammer, or received a few extra turns when it was inserted. Then again water may have gotten in to the threads of the screw, causing the wood around it to rot. Whatever the cause, such screws can easily be taken out with a screw-driver.

First locate the threaded part of the screw as nearly as possible; that done, drive a nail into the wood in such a manner that the point of the nail will strike the threaded part of the screw. Then turn the screw with a screw driver and, if the nail has been driven as described above, the screw will come right out. Any kind of wood screws can be lifted out in this way, even lag-screws. Of course, the size of the screw will have to govern the size of the nail to be used.

When it is not possible to drive the nail so it will hit the screw at a right-angle, then the nail should be driven at some other angle; keeping in mind that the more nearly the nail will strike the threaded part of the screw at a right-angle, the better will be the results.

H. H. SIEGLE, 222 S. Constitution St., Emporia, Kan.

Using Corrugated Fasteners

I F screen frames are mitered together at corners as at A, Fig. 1, the corrugated fasteners will hold more securely than if one piece of the frame abuts squarely against the other.

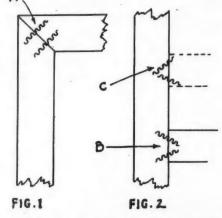
In fastening the center rail of frame, set the fasteners as at B, Fig. 2. If driven in as at C, the triangular piece of wood between them has a chance to split and pull out, thus loosening the joint.

The frames

should be painted before putting the screen on. The screen moulding should also be painted before applying. This will save time in painting, as well as allow the whole surface of wood to be painted and prevent the screen wire from getting smeared up. E. J. WILSON,

Gen. Del.,

Portland, Ore.



There Is a Right Way and a Wrong Way of Applying Corrugated Fasteners to Screen Frames as Clearly Shown in This Sketch.

This Helps Set Jambs

"HE accompanying sketch shows my method of making a templet for setting inside jambs. Usually three tools are used in doing this work-the square; the level and the straight-edge. By drilling



square and the level they can be screwed onto the straightedge. By doing this the jambs can be plumbed, squared and straightened all in one operation, thus eliminating the troublesome part of handling these tools separately.

R. P. PATTERSON, 343 N. 7th St., Price, Utah.

20 **Building Foundations**

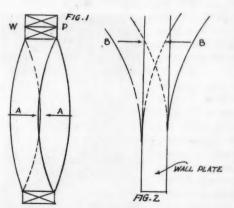
N digging for the foundation of a 150 K. W. unit for a power house of the West Kentucky Coal Co., at Wheatcraft, Ky., the engineer excavated to a depth of five feet as indicated on the plans but at this depth the excavation was still in soft stuff. A bar was forced through the muck a distance of four feet to an underlying shale formation. This was about three o'clock in the afternoon. The engineer got some post hole diggers put down a few holes with these to the shale, quickly filled them with concrete, tamped cinders into the muck between them and covered the entire bottom with a few inches of concrete. This was accomplished by quitting time. The next morning the brick foundation for the generator was started up. This seemed to me, at the time, like a "life saver" so I am sending it along for what it may be worth.

L. H. SMITH, 1505 Race St., Philadelphia, Pa.

Using Warped Timbers

I N setting studs it will often be found that a good many of them are warped or "bowed" out of shape. To make a straight wall with them, set alternately with the bow inside and outside of the building. Then when the sheathing or siding is nailed on it will draw the studs into line as shown by the arrows A, A, in Fig. 1. Use only straight studs at the corners or intersecting walls and also around all openings.

Wall plates, if built of warped scantlings, may be made fairly straight by reversing the two crooked pieces and forcing them into position as indicated by the arrows at



This Sketch Illustrates a Method of Making a Straight Wall from Warped Studding.

B. B. in Fig. 2. Time and trouble can be saved, however. if only straight material is selected for wall plates. Sort out your framing stuff before cutting it up and save the good straight pieces for use where they are most needed. - E. J. WILSON, 521/2 N. 2nd St., Portland, Ore.

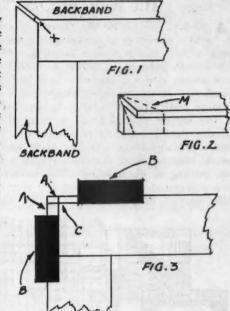
Mitering Back-Band

SINCE most door and window casing now used in bungalow finish is of only 5%-inch thickness, therefore easily split, it is almost impossible to neatly fasten backband by nailing through it into the edge of the casing. It is better to nail the back band to the studding and header, insuring a better hold for the nails. In using this method, however, it is difficult to draw the mitered corners together for the reason that when drawn back tight against the casing and plaster by thus nailing, the side and top pieces of band will each tip back slightly toward the wall and this displacement will leave a noticeably bad joint at the miter, as shown at "X"

in Fig. 1.

To remedy this cut the pieces a little long and cut the miter "M" about 1/8 inch under as shown at "O" in Fig. 2. The side pieces should be nailed on first. The top piece is then placed in position and nailed down at the center before nailing the ends.

To mark the pieces for mitering use a short block of backband as shown at "B," Fig. 3. Scribe the marks "A." The intersection of these



Here Is a Way to Miter the Backband to Obtain a Neat Snug Fit.

two lines at "C" gives the point at which to mark the heel cf the miter on top and bottom pieces.

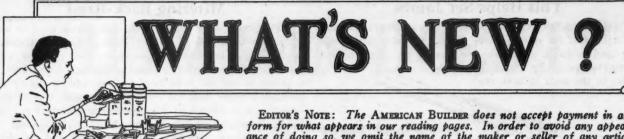
E. J. WILSON, Portland, Oregon. +

For Window and Door Framing

THERE are two methods of framing door and window openings in use, as a rule. One is to frame the openings into the walls before they are raised into position. The other way is to raise the walls into position, leaving the framing of the openings to be done afterwards. Each of these methods has its advantages.

The method of framing the openings after the walls are up can be simplified by using a templet to mark the studding to be cut out. Take, for instance, a 2x4, and at a point 6¼ inches higher than the height of your front door nail a cleat, say a lath with a straight edge, keeping the straight edge up for marking. Let the cleat extend about 4 inches beyond either edge of the templet pole, thus making it possible to set the templet against a 2x4 from either edge and do the necessary marking. The 6¼ inchesallows 31/4 inches for the double-header and 3 inches for clearance for setting the frame. The upper cleat will mark all the openings in line with the top of the front door.

Now establish the point where the studs are to be cut at the bottom of the window openings, in order to allow 15% inches for the header and still leave the opening just right for the frame to go in. Should there be more than one size of windows, then nail an extra cleat for each extra H. H. SIEGLE, 222 S. Constitution St., Emporia, Kan. size.

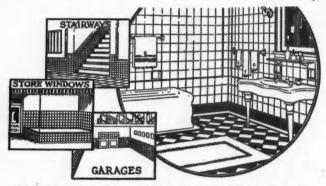


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Tile Walls at Low Cost

A SUBSTITUTE for tile, recently placed on the market, offers a number of advantages in addition to its economy of first cost and of installation. This material is a hard, stiff, fibre board which is described as absolutely non-porous, non-warping, water and moisture-proof and an insulator. It can be sawed, planed and nailed the same as lumber and is easily installed by any carpenter.

The surface of this board is obtained by a process of glazing during manufacture. It is not a paint or varnish but a permanent and enduring finish which will not chip, crack, craze or warp, nor show cracks in the corners from the settling of the building. The mouldings used with it are guaranteed to take care of any settling. The smooth hard surface does not have a glassy glare. All that is



This Illustrates Some of the Ways in Which This Economical and Effective Substitute for Ceramic Tile Can Be Used.

necessary to keep it clean is to wipe it off with a damp, cloth, but it can be washed with any alkali soap or washing compound. The more it is washed the brighter the finish becomes, it is said.

This board is furnished in sizes 32 by 48 inches, 48 by 48 inches, 48 by 60 inches, 48 by 72 inches and 48 by 96 inches. All special panels are made in sizes up to 32 by 48 inches only. Five standard plain colors are available, green, blue, white, gray and cream, and four standard tint finishes, mulberry, green, blue and pink. It is also made in stipple and natural wood grain finishes for paneling in the 32 by 48-inch size.

This tile has recently been used with complete success in the bathrooms of a private yacht. The ceramic tile which it replaced had been dislodged by the vibration caused by reversing the propeller.

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Folding Steel Window Sash

THE metal sash shown in the accompanying illustration has been developed by a leading manufacturer to meet the demand for a hollow steel sash to be used with its wellknown folding window hardware. This sash is made of Armco, rust resisting steel. The sides and top and bottom members are of steel tubing, formed to standard sash details. The inside of the tubing is painted before assembling the members to make the sash. All of the hardware



is of solid brass and is assembled to the sash in the factory.

The sash are fitted into a combination wood and steel frame at the factory with all h ard ware attached. This eliminates any possibility of incorrect installation and it is a simple matter to slip the unit into the rough opening and frame it in.

Folding Steel Sash, Developed to Meet a Specific Demand.

With these sash you are assured of a perfect installation and the cost of installation on the job is small. The sash open on the inside of the room or porch and slide and fold to the side leaving an unobstructed opening. The windows may be set at any desired angle for ventilating purposes if desired and when closed are weather-tight. The operation of the windows does not interfere with the screens or storm sash. They are furnished in units of two to 10 sash and in 10 different sizes of sash.

* Glass Shower Cabinets

S HOWER doors and shower cabinets of glass and metal are being widely used in the most modern bathrooms and are features which add much both to the appearance of the well appointed bathroom and to the comfort and convenience of its users. Both the doors and cabinets are made of heavy glass set in frames of nickel silver which are proof against rust. Either beveled or frosted glass can be furnished, it is stated, at an additional cost.

The shower doors, designed to be used with built-in, recessed showers, are made in standard sizes, two feet two inches by six feet or six feet six inches and can be swung on either the right or left-hand side. For stalls having no opening at the top they are furnished with a ventilating

grill. For stalls already completed in other sizes than those mentioned, special sizes can be furnished to order at special prices.

The cabinets are used in five different models. Four of these are designed to be used with tubs and the other for bathrooms where limited space demands the greatest economy of space and does not permit the use of a recessed shower.

The same company also manufactures a medicine cabinet, in the same style as its shower cabinets and doors, to give an attractive and uniform appearance to the bathroom.



One Type of Glass Shower Cabinet to Be Used with the Usual Tub.

Levels for All Purposes

THE making of leveling instruments is a fine art, a work for scientific craftsmen, but the instruments must be used by builders, contractors, engineers, highway contractors and farmers who are not specialists on optical instruments and who must use them under the roughest field conditions. For this reason leveling instruments, to give satisfactory service, must be accurate, simple and rugged.

Accuracy and simplicity are fundamentals of the policy long adhered to by a manufacturer who makes a line of such instruments, one model of which is illustrated. These instruments are of the

> latest type and, included in the line, the architect, contractor, builder, drainage engineer, highway contractor, millwright and farmer can each find a model particularly suited to his needs. With it he will r e c e i v e complete instructions making its use simple and easy so that anyone can secure

perfect results.

These levels and tran-

sits incorporate many exclusive refinements, it



One of a Very Complete Line of Levels and Transits Meeting All Builders' Requirements.

is said. In the finest builders' level the crossbar is drop centered and centered and cast integral with the standards, making inaccuracy impossible. The spirit level glass always rests safely below the telescope out of harm's way, whether used as a level or

a transit. Extra fine, powerful telescopes are used. Only ten seconds are required to make the change from level to transit position and there are no loose attachments to fasten by thumb screws, nothing to get out of order. The instrument is always accurate and dependable.

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Trouble-Proof Doors

I T opens out of the way and stays open. It will not blow shut in any wind and, in the same way, it stays closed. It does not take up any useful space and it is easily and quickly operated by anyone. It cannot scrape the floor and will not jamb in ice or snow regardless of the weather conditions. It fits snugly at top, bottom and sides and it will not twist, pull or sag out of shape. It can be locked and unlocked from either side. No change in the building is required for its installation.

That is the way in which a door is described which is primarily intended for garages, but which also serves for many other types of building, such as warehouses, where a wide doorway is required. This door is carried in stock to fit an opening 8 feet wide and either $7\frac{1}{2}$ or 8 feet high, but prompt delivery is given on all orders for special sizes. It can also be furnished with an automatic electric opener with switches arranged at any number of places and operating by means of a push button.

The door proper is made up of panels hinged together with a special combination hinge. A door 8 feet high has, four panels and as the height is increased more panels are added. It is mounted on ball bearing rollers, reducing friction to the minimum, and these rollers operate in a special steel track. It is impossible for the rollers to leave the track. Two coil springs perfectly counterbalance the door in all positions so that a woman or child can raise or lower it with ease. When raised it is overhead where it is entirely out of the way. A Yale lock is furnished in combination with a locking device which bolts both sides of the door by a quarter turn of the handle. It is unlocked automatically by a turn of the key. Hinges, lock and all hardware are on the inside, protected against weather and rust. The panels are hinged



Many, if Not All, the Troubles Connected with Garage Doors Are Eliminated by an Installation Like This.

together at the rabbet joint and set horizontally across the opening, eliminating any tendency to bowing to pressure or opening of the joints when the door is closed.

Wide Nose Corner Bead

S INCE the introduction of corner bead with expanded metal wings, some years ago, there has been a demand for a similar corner bead with a wide nose, especially for use in hospitals, hotels, schools and other institutions where broad, heavy, curved corners are desired for sanitary reasons and for the protection of plastered walls against heavy furniture, carts, wheel chairs and other objects which must



ly. Such a corner bead has recently been made available. This corner bead has been developed over the course

be moved frequent-

of two years of experiment and can now be delivered from stocks. It possesses all the advantages of the narrow nose bead and is covered by the same patents. The wings are 23/4 inches wide and the nose is curved to a 34-inch radius with a 1-inch face. It is furnished in No. 24 or No. 26 gauge galvanized steel or Armco ingot iron in standard lengths of 6, 7, 8, 9, 10 and 12 feet and is packed in crates, approximately 500 feet to the crate.



Expanded Metal Corner Bead with a Wide Nose for Curved Corners.

The manu-

Second, the

exposed mov-

ing part. This

means more

than merely

Compact Inexpensive Water System

HOME water system has just been announced which A is a distinct departure in design and appearance from any other home water system on the market. The usual conventional design, consisting of an exposed pump with a tank placed alongside on an extended base, has not been followed. With the cover in place none of the pumping mechanism is visible, all being completely enclosed and protected. In addition to these features, this system, made by a company known for the quality of its pumps, is offered at a remarkably low price and on monthly installment terms.



This Complete Home Water System Is Entirely Enclosed in a Housing Finished in Delft-Blue Automobile Lacquer.

protection to the equipment. It means safety for children or anyone who may be around the plant. This enclosure is also in line with the underwriters' recommendations everywhere.

Third, the plant is unusually accessible. To get at the pump, motor or switch, simply lift the hood. To get at the valves, simply remove one stud bolt and the entire water bonnet can be lifted off. To service the pump it is not necessary to break any pipe connections.

Fourth, appearance. The plant is covered by a hood of symmetrical lines and the entire outside is finished in delft-blue automobile lacquer.

While this water system is new in the sense that it is different in appearance, the company states that it is not new in the sense that it contains any untried principles of pumping water. It has a large capacity being made in sizes of 210 and 420 gallons per hour, the smaller size being recommended for summer cottages, average homes, farms, yachts, or the general requirements of a family of five to seven persons.

Light Weight Blackboards

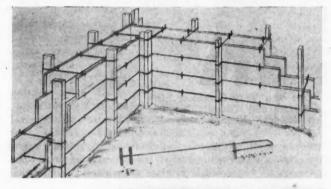
BOTH natural slate blackboards, for schools, and two types of composition blackboards are being marketed by one firm specializing in school equipment. The two latter types are described as the next best blackboard to natural slate and possess certain advantages over natural slate. They are much less expensive, are far lighter to ship and are more easily installed.

One of these is a blackboard formed on a heavy gypsum board and the other on a wood fiber board, and the surface is said to give ten years' service in ordinary school use. It is formed of a correct proportion of carborundum and other abrasive ingredients to catch and hold the crayon to produce clear, clean marks, but not with a strong enough "bite" to waste the crayon. It may be used with any of the usual types of crayon.

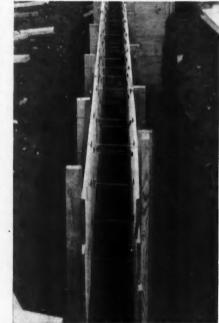
These boards are available in much longer lengths than natural slate, running up to 8 feet for the gypsum board and up to 12 feet for the fiber board and in 3, 31/2 and 4-foot widths. They may be cut to size either before shipping or at the point of installation.

Economical Concrete Form Tie

ELIMINATION of considerable labor in erection of concrete forms and the speeding up of such construction work at greatly reduced cost are claimed by the manufacturers of a new patented wall tie, which they have recently perfected and placed on the market.



Contractors who have seen and used the tie with success claim they have saved 60 per cent of the cost of wall construction under ordinary conditions. Use of the tie permits alternating of the studding thereby cutting the number of uprights needed under the old plan, in half. Cost of wire, cutting it to required lengths, shaping it around the studding and making and placing of wooden spreaders and the use of nails in the forms are but a portion of the



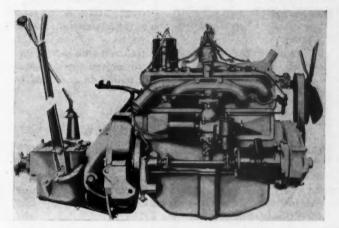
Fast Work and Low Cost Are Given as the Features of This Concrete Form Tie.

extra labor which is eliminated by use of the ties. Lumber used with these ties may be used any number of times, by reason of the fact that no nails are used in employment of the wall ties. They consist only of a stout piece of wire, bent to fit about a stud at one end with flanges at the other end, which fit on the concrete wall form. When the wall has dried sufficiently the ends may be clipped and thrown away, leaving the boards available for further use.

Trucks Have Improved Engine

A NEW and greater performing, four-cylinder engine has replaced the older power unit in one of the best known trucks. More power, greater speed, quicker pick-up and smoother, quieter operation at all speeds, as well as greater gasoline economy are claimed for this engine. The chief reasons for this are said to be improved vaporization due to the design of the new intake and exhaust manifolds with a "hot-spot" and to the new combustion chamber with a sloped head.

This new engine is used in all this manufacturer's models including 34, 1, 1½ and 2-ton models. It is fitted with a



A New Power Plant for One of the Leading Makes of Motor Truck Affords Greater Efficiency and Economy.

sturdy, heavy duty transmission and a large single plate clutch specially designed for truck service. The bore and stroke dimensions of the new engine are the same as for the old model. A large, chrome-vanadium crankshaft, with five main bearings is used.

The engine supports have increased rigidity which makes for smoother operation and reduces vibration to a minimum. The distributor is mounted on top of the engine eliminating the possibility of trouble from water and dirt and the water pump has been placed at the rear of the engine so that from the pump the water goes directly to the rear end of the cylinder block, which is the hottest part.

*

Something New in Concrete

 \mathbf{F}_{of}^{OR} some time a concrete composition having a number of distinctive characteristics has been in use in England and it is now being introduced in this country. This material is a form of concrete consisting of a combination of chemically treated sawdust and portland cement. It can be placed by tamping, by mechanical pressure or by cement gun. It is handled and placed in the same general way as ordinary sand and gravel concrete.

The distinctive characteristics of this composition include light weight, about half that of ordinary concrete, a better wearing surface, high fire resistance, high sound insulation. It also may be sawed, nailed or screwed like hardwood and may be colored and polished as desired.

This material is successfully used for precast units for buildings, such as block, bricks, roofing tiles, shingles, floor tile and partition blocks; precast flat roofing slabs to which other roofing may be nailed; for sidewalks, roads, factory floors, railway platforms, freight cars and other places where high resistance to abrasion is demanded; in the form of lumber for making frame houses, garages, and other buildings, bridges, sheet piling, fence posts and similar construction.

The company which is licensing the manufacture of this material states that standard briquettes have a tensile strength of 300 to 400 pounds per square inch at seven



This New Concrete, Made of Chemically Treated Sawdust and Portland Cement, Is Light in Weight and Offers Several Other Features of Special Interest.

days; a compression strength of about 1,800 pounds per square inch at 28 days; an abrasive resistance, with a Dorry Hardness testing machine, superior to ordinary sand and cement mixtures; discoloration and friability to a less depth than shown by gypsum block after a fire test; an absorption of only 4.6 to 7 per cent; a modulus of rupture, at 28 days, of over 500 pounds per square inch, in a transverse bending test on slabs of various thicknesses; contraction and warping less than sand and cement mixtures; a holding resistance of 187 to 240 pounds per square inch, as compared with 164 pounds for pine, with 10 gauge nails driven in $1\frac{1}{2}$ inches.

These claims are based on tests made by Columbia University and by the company in its laboratories in this country and England.

Hoist-Compressor Combination

TO meet the requirements of a definite class of steel erection jobs, where heavy, permanent installations of equipment are not practical because of heavy moving charges, or where tonnage to be handled is too small to warrant a permanent installation, a leading manufacturer has developed a combination hoist and air compressor unit.

The use of this combination eliminates the necessity of having a separate air compressor unit for running the air tools essential in steel construction work and requires only one engine to run both the hoist and compressor. The machines are mounted on a common frame, the engine being placed between the hoist on one end, and the compressor on the other end of the frame. The units are furnished either truck or skid mounted, either single or double drum type and with or without air compressor receiver.

Reduction of initial and operating costs was a prime motive in the development of this combination hoist and compressor, it is stated.



A Hoist-Compressor Combination for Steel Erection Where Permanent Installations Are Not Practical.

Steel Casements for Residences

THE steel casement shown in the illustration is a specially designed window which is made in standard shapes and sizes for use in small and medium sized houses, or even in larger buildings where the windows are of the usual standard shapes and sizes. It is in no sense a makeshift or cheap commercial window adapted to domestic work but a well built casement, the moderate cost of which is due to the fact that it is a standardized window.

This casement is of the two point weathering contact type, built of steel with sections 50 per cent heavier than the standard cottage casement, it is stated. When properly set, it is absolutely weathertight in the most exposed locations, even against air infiltration in extremely cold weather.



This Steel Casement Is Made for Windows of Standard Size and Is Therefore Available at Moderate Cost.

Special attention has been given to rolling the steel so that the most accurate compliance with measurements may be relied upon.

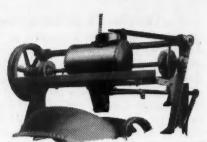
Leaded casements are also available the cost having been reduced by manufacture in large quantities and in standard sizes to a point close to that of steel muntins, glazed with selected sheet glass. The muntins are also furnished as standard when desired.

The hardware on these casements is of good design built for heavy usage. The fastener has a two-point lip so as to permit slight ventilation without rattling. The adjuster has both upper and lower bars of bronze. The pivot hinges are drop steel forgings bushed with hard bronze and are fitted to the corners so as to look a part of the metal casement. Single or odd casements for installation above the first floor are fitted with projecting, hinges which permit the glass to be cleaned on both sides from within the room.

* Simple Measuring Tank for Mixer

A MANUFACTURER of a well-known line of single opening, tilting mixers has recently brought out a new water measuring tank which is designed to solve the problem of water requirements for concrete mixing. It puts the correct amount of water in the mixing drum, when it is needed and in the shortest possible time. It has no threeway valve to leak and no complicated mechanism to get out of order, no tilting or moving of the tank to wear out a hose connection.

This tank is simple in design and easy to operate. It discharges the water into the mixer at the rate of two gallons per second and measures accurately. One lever controls the entire operation. When this lever is pushed down the outlet is closed and the tank fills for discharge. To discharge the water it is only necessary to push up the lever, pausing a moment at the half-way position to permit the water to discharge, then pushing it clear up, quickly returning it to the first position. This opens the outlet valve and then the inlet valve. The inlet valve is closed



A Simple, Accurate, Water Measuring Tank for Concrete Mixers.

automatically when the proper amount of water has entered the tank.

To regulate the amount of water a thumb screw on the float is loosened and the float is moved up or down till the marker opposite the correct figure on the scale is level with the top of the tank.

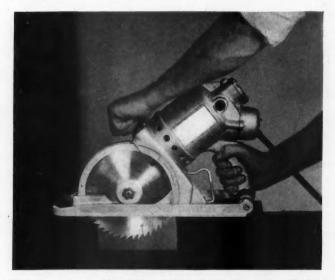
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A Safe Power Hand Saw

LIKE other power operated tools which have played such a large part in the development of building construction, the electric hand saw has been perfected to a point where it is a highly efficient, powerful and safe machine which increases the volume of work turned out by the carpenter to a tremendous degree. The saw shown in the illustration is one of the latest models with a universal motor which makes it usable on either alternating or direct current and any frequency. Maximum efficiency has been obtained by connecting the motor direct to the saw spindle.

The guard is locked in position and covers the blade at all points. When the operator wishes to cut, he releases the safety guard by means of a trigger placed near the grip. When the cut is finished and the saw is lifted from the work, the guard automatically drops and locks in position, covering the blade, and will not open until released by the trigger. This assures absolute safety.

This tool is compact and convenient with one handle of the type on a hand saw and the other like the handle for guiding a plane. A splitter follows the saw blade and drops into the cut, helping to guide the saw. A depth gauge can be set to cut accurately to any desired depth. A standard, 8-inch, round hole blade is used, and the ball bearings used throughout are of the same size and standard make. The gears run in grease, quietly and without overheating.



Here Is a Power Hand Saw Which Is Designed for Perfect Safety Together with Efficient Operation.



An extension table with porcelain enamel top, ranging in size from 20 x 24 to 25 x 48, depending upon the size of the cabinet.

A large size flour L bin, very easy to fill.

3 A high grade flour sifter which always sifts flour freely.

4 Alarge bread drawer of metal with snug-fitting, sliding top. . . .

5 A complete set of crystal glassware, nine pieces, for salt, coffee, tea and spices.

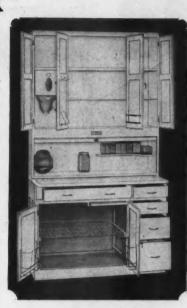
6 Roll sugar bowl which "faces" any way the user wants it, with handy aluminum scoop.

. . .

7 Linden wood bread board,odorless, tasteless, everlasting.

. . .

8 Cook book holder -keeps cook book on eye level and open to recipe.



HE ITEMS listed here, or their "equivalent," must be available some place in every kitchen.

You will find all of them in Napanee Dutch Kitchenets. And you will find them designed and arranged by those who have made a study of kitchen practices-to effect concentration of effort and lightening of the kitchen work.

These"extras" are offered

to you in Napanee equipment, together with hardwood lumber construction throughout and superior cabinet work-at practically the same price you pay for ordinary cupboards. There is no question of the extra value which Napanee equipment adds to a kitchen, nor of the very real influence which Napanee equipped kitchens have upon the women of America in readier purchases of homes or steadier rentals of apartments

COPPES BROS. & ZOOK, Nappanee, Indiana

DUTCH 🕑 KITCHENET

Built Like Fine Furniture

on most models. One is partitioned. 15 Two large draw-ers for linen. Convenient shelf

16 for spice jars.

Regular cupboards, shelves and compartments for food stuffs.

OUR GOLDEN ANNIVERSARY YEAR

THE NAPANEE LINE is complete and flexible. There is no line which offers a greater variety of practical units, styles and sizes than this permitting combinations to fit exactly where, and as, you wish them.

Ask us for complete information on our Architectural Service Department which has been developed to aid you in planning your kitchen. Use the coupon

hism		OS & ZOOK, Nappa omplete information rvice I am	
Name	[] Architect	[] Contractor	[] Owner
Addre		•	
City_		State	

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

O Hooks for paid

10 Sliding wood tray in base for

heavy utensils – gets utensils in and out

11 Sliding wire shelf in base

compartment for light

2 Wire racht base compart-

ment door - for flat

13 Convenient, rig-id rack on upper

compartment door for

4 Twolargedraw-ers for cutlery

without effort.

utensils.

utensils.

extracts.

and unpaid bills.





They asked for it by name! the new "Three 8's" sink

The swinging-spout faucet of graceful octagonal design is finished in Chromard, an exclusive platinum-like metal finish that cannot tarnish or corrode.



The quickness with which women grasp the significance of a new home convenience was demonstrated recently at the Chicago Better Homes Show. Visitors by the score asked for this new "Standard" sink by name.

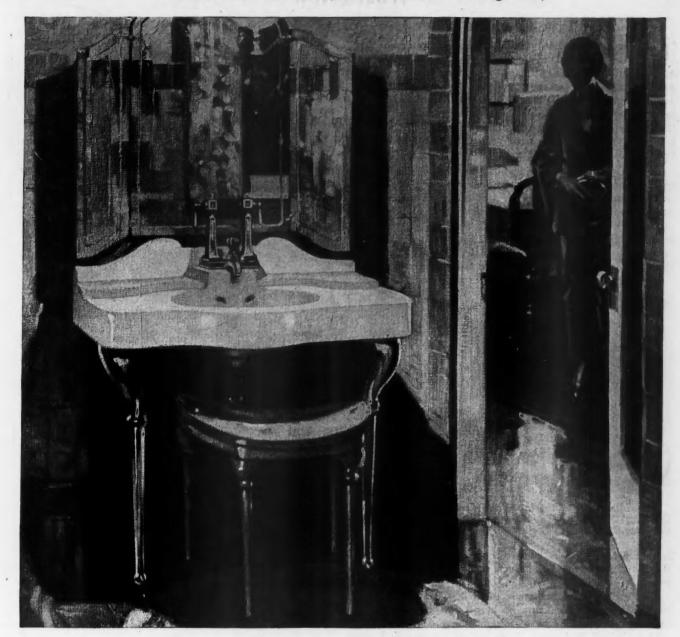
Its under-the-window design and the enduring beauty and ease-of-cleaning of its Acid-Resisting Enamel caught their interest immediately.

Now, when they rent or buy homes and apartments they will look for the sink with these features: 8-inch low back that fits easily under a deep window . . . the 8-inch deep sink compartment that takes the deepest pan—the 8-inch deep front that beautifies the whole sink. They are going to ask if the enamel is Acid-Resisting Enamel which cannot be roughened or discolored by fruit or vegetable acids . . . if the swinging-spout faucet is finished in Chromard, which cannot tarnish or corrode. They will look for the directly attached garbage container.

This modern sink is an important factor in selling or renting homes or apartments—old and new. Visit a "Standard" Showroom to see the three styles and seven sizes—or write for interesting booklet today. Be sure to specify Acid-Resisting Enamel, as many other "Standard" models are also made in regular enamel. The trademark "Standard"A-R, identifying Acid-Resisting Enamel, is impressed in every "Three 8's" sink.

Standard Sanitary M)fg. Co. PITTSBURGH

AMERICAN BUILDER (Covers the Entire Building Field)



This lavatory gives the home an *extra* dressing table

Even the best arranged homes or apartments rarely have adequate dressing facilities for the family and guests. The need for an extra dressing table is frequently felt—and often embarrassing.

With the new "Templeton" lavatory, by "Standard", the bathroom now becomes a dressing room. This design, of an original, distinctive beauty, provides dressing table convenience. There is ample space on the broad top and raised back shelf for toiletries on shaving things. The wideset crystal legs permit the dressing bench to be drawn close with comfortable knee-room.

In appearance too, the "Templeton" rivals a period dressing table. The flowing grace of line in the curved back and legs, the stately faucets of plain or hand-hammered metal that bring a new decorative note to the bathroom, make this lavatory outstanding in beauty.

It is the largest lavatory ever modeled and fired in one-piece of genuine vitreous china an achievement of the master potters of "Standard". The top is 36x20 inches and the bowl, 19x12 inches.

The "Templeton" will add character and distinction to any home or apartment—and make it easier to sell or rent. See it at a "Standard" Showroom. Also look at the "Pemberton", another exclusive lavatory design. Write for illustrated booklet. Î

The stately faucets of the "Templeton" are finished in Chromard all-over smooth, in Chromard with bammered panels, and in Chromard with bammered gold panels. The Chromard finish cannot tarnish or corrode.

Standard Sanitary Mfg. Co. PITTSBURGH



WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

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New Type Concrete Mixer

THE growing tendency to require less water in the concrete mix and to keep the batch mixing for a longer period, the minute and a half mix, places new demands upon mixing equipment and has resulted in the design of two new mixers by one well-known manufacturer. These mixers enable the contractor to conform to the new type of mixing specifications without cutting down his daily yardage. They have been given rigid field tests before being placed on the market.

These two mixers are identical except for size. The smaller machine has a capacity of seven cubic feet of mixed material, or 10 cubic feet of unmixed material to the batch. The larger size has a capacity of 10 cubic feet mixed or 15 cubic feet of unmixed material. The longer mixing time requires a more rapid charge and discharge action to maintain the daily capacity. To accomplish this the drum diameter of the smaller mixer has been



This Mixer Was Developed to Meet the Requirements Growing Out of the Tendency to Use Less Water in the Concrete Mix.

increased to 50 inches, permitting a $22\frac{1}{2}$ -inch opening on the charging side and a 20-inch opening on the discharge side.

The higher drum has made possible an increase in the size and number of mixing buckets. The increased drum opening permits the use of a semi-round discharge chute with a pitch of 50 degrees. This achieves speedy discharge, cutting the time of this operation with benefit to the mixing time and no detriment to the hourly capacity.

Bevel gears actuated by a hand wheel from either side of the mixer have been substituted for levers, making operation of the discharge chute easier. The discharge chute automatically locks in either the mixing or the discharge position and is automatically released.

The frame of the machine has been made heavier, being built up of seven-inch steel channels, arc-welded and reinforced with steel gussets. Field engineers have noted points of possible breakdown on the machines in the field and these have been strengthened and altered to make the replacement of worn parts a simple matter.

+

A Modern Laundry Tray

THE old fashioned laundry tray had straight sides and back and a sharply sloping front, adapted to use with a wash board. The wash board has long since been replaced by the washing machine but in spite of this fact the laundry tray remained unchanged until the tray illustrated here recently made its appearance. This tray is thoroughly modern and has a number of features that recommend it.

It is a four way tray which has slightly sloping sides all



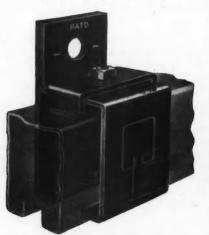
Really Modern Laundry Tubs Designed to Fit Modern Conditions and Requirements.

around and, being set out from the wall instead of against the wall, is equally accessible all around. There are no faucets in the sides of this tray so that there is nothing to catch and tear the clothing and it is easily kept clean. This latter point is aided by the fact that it is finished in a new acid resisting enamel which was recently perfected by this same manufacturer.

The faucet is placed above the tray, where it is out of the way. It has an entirely separate connection for the hose supplying water to the washing machine and a swinging spout so that water may be run into the washing machine and also into either side of the tray at the same time. The supporting legs are not only sturdily built but they are adjustable so that the tray may be adjusted to any height that is most comfortable for the woman using it. Because of the slope of the sides the clothes are easily removed and the capacity is greater than with the old style trays in which the bottom was cut away by the sharply sloping front.

Trolley Track Lock Joint

I T is now possible to obtain a trolley track which is virtually a one-piece track, regardless of length, according to the announcement of a certain well-known manufacturer.



This Lock Joint Makes a Virtually One-Piece Trolley Track.

This is made possible by means of a newly perfected lock joint which locks the lengths of track together permanently and so tightly that the hangers will always operate smoothly and without trouble. This loch joint is designed for use exclusively with this company's trolley track and is obtainable only with their brand of track. Its construction is shown in the accompanying illustration.

The anchor holes act as guides

HE anchor holes are accurately punched in every Johns-Manville Asbestos Shingle. The nail holes are already punched too. When the first row of shingles is laid the anchor holes point out the place for each successive shingle. The job's so simple and the instructions so clear there's no chance of a mistake. Any carpenter can do the job and do it right the first time.

There are a lot of re-roofing opportunities all around you. Easy work to get and easy work to do when it's done the Johns-Manville way.

JOHNS-MANVILLE CORPORATION, Madison Ave. at 41st St., New York

Public opinion is swinging to firesafe roofs. Johns-Manville Asbestos Shingles are steadily climbing in popularity.



WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

New Hydraulic Oil Jack Line

A N announcement has recently been made of a complete line of hydraulic, oil-power jacks, ranging from a compact 1½-ton model to a mighty 60-ton industrial unit, to be produced and marketed by a well-known manufacturer of wrenches, grinders and pumps. Under another name these jacks have been made and distributed for the past five years on the Pacific Coast, meeting with consistent favor so that their dependability and freedom from trouble have been



tested and proved. With the large facilities of the manufacturer now introducing these jacks, intensive, national distribution will be effected immediately.

The hydraulic principle has been further improved and standardized by the new manufacturer and includes a simplicity of mechanism with lifting power far beyond rated capacity and with exceptional ease and safety of operation, it is stated. An exclusive patented feature is a simple valve unit which plays a large part in giving practical utility to the hydraulic principle as ap-



Above, One of the New Line of Hydraulic Oil Jacks; Below, the Jacks in Use on a Construction Job.

plied to jacks. This valve is located below the pump, and in an instantly accessible position for cleaning or replacement.

In the smaller sizes these jacks provide a positive, easy lifting tool, light and portable that can be placed and operated as a one-man job. Special low built models with double or telescopic, extra high lift are included. It is said that a child of five years can easily raise an ordinary automobile or light truck with the 1½-ton model.

The long bayonet grip handle holds and places the jack at long range. Short strokes raise the ram with positive lift and hold. Lowering is done automatically with controlled release valve, the speed governed by the operator. The handle is used to open the release valve for lowering, to control the drop and to withdraw the jack. Horizontal use is entirely practical.

The complete line of jacks consists of 10 models, in nine capacities, single and double lift, light and heavy duty, low and high built. The industrial models, ranging from 18 to 60 tons, handle vast tonnages without loss of time or danger.

* Fireproof Lumber and Wallboard

LUMBER and wallboard may now be fireproofed and dried by a new process for which very strong claims are made by the company which has developed it. This company has supplied its chemicals, which it says cannot be analyzed, to impregnating concerns which have tested them with the ordinary apparatus. In addition the company has constructed a special apparatus with which to treat lumber up to 20-foot lengths, as well as wallboard. Tests of lumber so treated, made by the engineering laboratories of Columbia University, report that the material meets the requirements of the New York City Bureau of Buildings for interiors of skyscrapers.

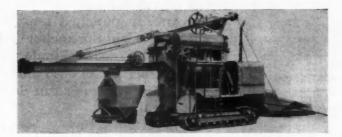
The company claims its process will dry lumber up to 1¼-inch thickness in 24 to 48 hours; that varnish, shellac, enamel or paint does not scale off lumber so treated; that the treated lumber machines as readily as untreated lumber and without injury to tools, saws or cutters; that the compound is non-poisonous, does not hurt the hands, is healing to cuts, sores and burns, and if swallowed is not injurious; that it is not corrosive to nails and screws; that the lumber processed retains its natural color and will not warp or rot; that a six-room bungalow can be fireproofed from foundation to ridgepole for the same money that five years insurance would cost in any large city, affording safety at low cost.

The company also states that wallboards of all kinds can be more scientifically fireproofed and dried after being made than during manufacture and that any thickness of wallboard can be treated and dried in one hour, making it stand a higher electrical contact, adding 80 per cent to its tensile strength and improving its sound-deadening qualities and the adherence of paint to its surface.

* New Fast Paver

A NEW fold back top, power take-off and six-cylinder motor in one unit and a governor booster are some of the important features on a new 1927 model paver manufactured by a company known for its mixers. The new paver is announced as the fastest ever built by this company. In addition to speed, new features have been added to synchronize the charging and discharging to keep two batches going through the paver all the time.

All operating levers are bronze mounted to permit smooth easy operation and control and are so grouped as to permit two or more operations to take place at once. Charging, discharging and getting water into the drum are now done in the time ordinarily devoted to charging alone. To accomplish this it was necessary to time accu-



This New Paver Incorporates a Power Take-Off as a Part of the Unit in Addition to Other Improvements.

rately all three operations and allow for variations on different jobs. The operator now has at his command a faster mixing cycle which can save as high as 40 paving minutes in a day's work.

The new fold back is entirely power operated and may be raised or lowered in a few minutes' time. The water system rests crosswise on the foldback top and the complete unit is lowered without dismantling the entire system. Water control is very rapid and accurate to the pint, requiring but seven seconds to discharge the correct quantity into the drum.

This Book Tells How to Buy For Bigger Profit



Buying Right means the difference between making Real Money and just breaking even.

No builder ever made a permanent success using cheap materials. True Economy means getting the finest possible materials at the best possible prices. Getting all you can for your money—in Materials — in Advertising value—in Sales help —in Service.

Are You Buying Right? Consider What Johnson Offers the Builder

3.

A highly specialized line of the finest Interior Finishes possible to manufacture.

2. A long established nationally advertised name—"Johnson Finishes Used" has a world of meaning even to your women clients.

> Atlanta 16 West Peachtree Pl. Ivy 4343 Boston S. Boston 4505-4506 Cleveland 852 Summer St. 1645 Superior Ave. Dallas Superior 2130 2900 Main St. 7-1600 1846 Arapahoe St. Des Moines Main 6959 1435 W. 29th St. Drake 8233 3155 Grand River Ave. Glendale 4780 Kansas City 2433 McGee Traffeway GRand 5375 1151 Santee St. WEstmore 8701

Service through 20 Factory Branches in all parts of the country.

4 ACTUAL WHOLESALE PRICES to the Builder on the regular advertised Johnson line. No special "painter's brand". No small "trade discount"—But real rock-bottom prices on the highest grade materials made.

Johnson's Interior Finishes Varnishes Enamels Undercoats Wall Finishes Wood Dyes Waxes

Fillers

Cut Your FLOOR Costs

Ask for the new Johnson Floor Book. It tells about all possible Floor treatments, WHEN and WHY to use them, covering capacities, proper methods of cleaning and refinishing. A gold mine of practical information for every Builder.

A Convenient FACTORY BRANCH is near you

-		
	Louisville 115 South 6th St. Milwaukee	City 6943
	936 Third St. New Orleans	Lincoln 911-912
	500-506 Magazine St.	Main 6563
	46-48 Lispenard St.	CANal 7593
	1407 Harney St. Philadelphia	Atlantic 1634
	410-412 Commerce St.	Lombard 8498
	Pittsburgh 926 Duquesne Way	Atlantic 0638
	San Francisco 1250 Folsom St. St. Louis	Hemlock 1150
	2116 Locust St.	Central 8677
	St. Paul 1930 St. Anthony Ave.	Midway 2822
	314 Bell St. Seattle	ELiot 5020

Clip this coupon to your lotterhead or business card

S. C. JOHNSON	& SON,
Dept. A. B. 9	Racine, Wis.
"The Wood Finishing	A uthorities"
□Please mail Wholesale Johnson's Interior Fini tails of your FREE offic the Johnson Electric Fl □Please mail the new Book—no charge—no	ishes. Also de- er to Builders on oor Polisher. Johnson Floor
Signed	

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

AMERICAN BUILDER (Covers the Entire Building Field)

[September, 1927

1DIe

1 The 7 products shown in this advertisement are those used in the famous "Genfire 7-point Houses" throughout the country. If you wish further information on all of these products write us and we will send complete literature.

e e

It's the

178

This specially designed mesh of Herringbone Doublemesh Metal Lath keeps fine plaster effects free from cracks and lath marks. Eight steel strands to the square inch guide the plaster around and through the lath, forming a lasting bond. Herringbone also adds fire protection.

Galvanized or Painted Steel

INGOT



GF 16, a Waterproof Foundation Coating for Waterproofing Basement Walls

IRON



Duplex Steel Bridgng-neater, cheaper and more rigid than wood bridging

2

errir Doublemesh



GENFIRE Basement Windows of Steel for more light and ventilation

4

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

AMERICAN BUILDER (Covers the Entire Building Field)

mesh that counts

CONCEALED from view—the lath behind the plaster is after all the deciding factor in the quality of construction. A good plastering job simply can not be done except on a good base and the best base for plaster work

crease structural rigidity throughout the building, secure a high degree of fire resistance, and in addition employ a lath that saves time and plaster in application.

Confidence in this lath has already

is HERRINGBONE DOUBLEMESH METAL LATH. When the job is done on this lath you assure its high character at once. You build permanent freedom from cracks, definitely in-



made it the favored lath among America's leading architects, contractors and builders. Write us and we will send you complete information and a sample of this product.

GENFIRE STEEL COMPANY [The General Fireproofing Building Products]

YOUNGSTOWN, OHIO

Manufacturers of a Complete Line of Firesafe Building Products, also Waterproofings and Concrete Preservatives



WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Furnace Heating

(Continued from page 161)

Recommendations were based on the fact that only about 50 per cent, or somewhat more, of the gross area of register faces can be taken as free area, the grill work occupying the remainder.

In installing side wall registers in halls it might be well here to offer a word of caution as it is not uncommon, especially when there are upper floors, to restrict the area of the pipes immediately behind the registers, usually known as register boxes. Fig. 4 is a much better design. The same considerations apply whether registers are intended for admission of warm air or as outlets for cold air.

Pipes connecting to side wall registers should always be as full as possible and it is upon the fullness of area that successful supply or exhaust of air depends. Unfortunately it is not the largest portion of the free area of a duct or opening that determines the volume of air passed through but the most restricted section. Were a full 90-degree elbow or its equivalent to be installed, as shown in Fig. 4, little resistance to flow would be interposed, but when the area is cramped at the outlet bellying out of the pipe further along does not serve to increase the flow to any marked extent and in the manner some artisans expect.

The volume of air passed through a pipe or register is the result of velocity times the area of the opening. In warm air heating systems when no mechanical fan is used the air flow is almost negligible, only a fraction of an inch as measured on the water gage, sometimes barely enough to move the fluid in the gage. Thus when the area of the throat of the pipe or register box is clamped, as in Fig. 3, so little air passes through that it amounts to little more than that of a human breath blown down the pipe at its largest area. Yet, to return to the unfortunate case of the Kitterage house, its misheating and revised layout, the cost and inconvenience caused was, it is needless to state here, out of all proportion of the value of the work had it been done properly at the start. The monetary loss to the contractor under such circumstances cannot always be measured in terms of dollars and cents. The owner made the contractor responsible for the success of the entire job. Although the heating contractor admitted his fault and made the revisions without charge the prestige of the general contractor suffered along with that of the installer.

*

Plan Contest Announced

THROUGH the U. S. Department of Commerce an announcement has been made of a plan competition for the proposed Free Port of Barcelona, Spain. This competition will be open to all competent persons whatever their residence or nationality and plans may be drawn in either Spanish, French, English, Italian, German or Portuguese. The competition will close at 12 p.m. December 9, 1927, and final decision will be in the hands of a jury composed of representatives of the engineering and building professions of Spain and of government officials.

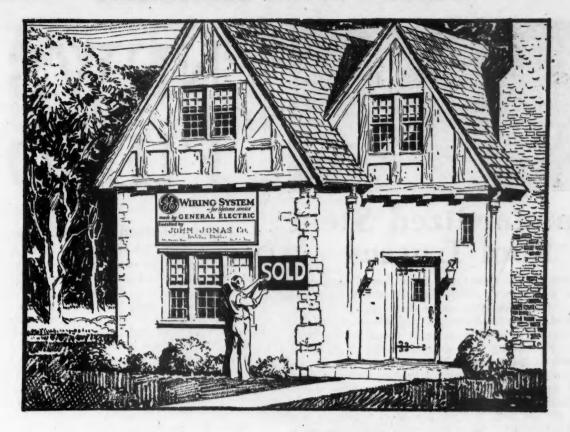
All plans awarded prizes will become the exclusive property of the Consortium which may modify them in any manner it sees fit. Those not awarded prizes may be withdrawn. The jury will be empowered to declare the competition void if it sees fit. Should the jury decide several plans contain ideas and dispositions available for the purposes of the free port, it may award each of the offers a prize of 10,000 pesetas. Prizes of 100,000 pesetas, about \$19,000, and 25,000 pesetas will be awarded to those offering the plans chosen.

According to the press statements, the cost of the project is estimated at more than 200,000,000 pesetas or \$38,500,000.



AMERICAN BUILDER (Covers the Entire Building Field)

181



Profit begins when the house is SOLD

Speed up selling with the G-E Wiring System

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

Merchandise Department General Electric Company Bridgeport, Connecticut



Here is a selling idea that builders have put to the proof everywhere. Install a G-E Wiring System in every house you build—and you have one of the strongest selling appeals a modern house can have.

General Electric advertising has stirred up a demand for better wiring. Hundreds of model homes with G-E Wiring Systems are drawing crowds of men and women. And wise builders everywhere are using this same G-E Wiring System—to draw customers—and make them buy.

For lifetime service

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

GENERAL ELECTRI

AMERICAN BUILDER (Covers the Entire Building Field)

[September, 1927 .



Standardized Steel Roof Trusses

Practically all orders for Massillon Trusses are shipped from stock. Immediate shipment when required. Standardization makes this possible.

With Massillon Roof Trusses, long spans are laid out and designed as readily as short spans with simple beams. No waiting for a structural engineer to detail and estimate the trusses. You can layout and design your own jobs from the printed loading tables or send us full data and have our engineers prepare them. Standardization makes this possible, speeds up the job.

You get the best in structural steel trusses in the Massillon Product. All members are made from heavy hot rolled sections. Even the struts are made with

1/4 inch minimum thickness of metal. Modern structural arc welding is used for shop The shorter connections. trusses are shipped in one piece ready for placing. The longer trusses are shipped in sections for ease in handling and erecting. All field connections are fitted with turn-Standardization ed bolts. lets you build with Massillon Roof Trusses at a cost approaching that of the cheapest truss construction.

The "Massillon Roof Truss Pamphlet" with 1 o a d i n g tables and designing data on curved chord and "A" type

78 foot trusses shipped in two sections for ease in handling and erecting.

trusses mailed on request. Send us a sketch in asking for quotation.





Inspect Buffington Harbor

O^N August 17, the Western Society of Engineers conducted an inspection trip to visit the Buffington Harbor of the Universal Portland Cement Company. Over a thousand architects, engineers, contractors, dealers and public officials made up the party with the Engineers' Society of Milwaukee, the American Society of Civil Engineers, the American Institute of Architects and other leading organizations in the construction field represented.

This new deep-water harbor of the Chicago plant of the Universal Portland Cement Company is the first private harbor to be built on Lake Michigan in twenty years and one of only three such harbors on all the Great Lakes, the others being at Gary, Ind., and Calcite, Mich. It will permit this company to receive and store large quantities of raw material, insuring continuous production, and to ship cement by water as well as by rail to ports on all the Great Lakes.

Humiston Heads H. B. Ives Co.

A^N announcement from the H. B. Ives Company, of New Haven, Conn., manufacturers of builders' hardware, states that at a recent meeting, held at the company's offices, Mr. Lauren A. Humiston was unanimously elected president to succeed Mr. Hobart Ives, who died in June, 1926, and who founded the firm 51 years ago.

+

New Plant in Operation

A NEW plant has recently been completed and occupied by the Minneapolis Heat Regulator Company, 402 E. 28th Street, Minneapolis, Minn. The unit at the left of the tower in the accompanying illustration has not yet been built, but will be erected when the demand for more space warrants it. The present plant starts at the tower and includes the old plant, at the extreme right. The new unit contains about 68,000 square feet, bringing the total plant area up to about 128,000 square feet. Ten years ago this company's entire plant contained only 20,000 square feet.



New Plant of the Minneapolis Heat Regulator Company.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

--- IT'S TOUGH STUFF-this Carney Cement!



"THEY started wrecking the brickwork from the roof with chisels and hammers. The mortar was so tough and hard, and adhered to the brick so well, that they had to resort to air drills as the only way to make speed. No brick could be saved on account of the mortar still adhering to the brick."

So said Thos. Henritze when he was talking about wrecking a ten year old Carney laid wall for the purpose of tying-in the Cleveland Hotel with the new Cleveland Union Station.

Mr. Henritze continues: "I also used Carney Cement on the ten million dollar Union Trust Building, Cleveland, the six and a half million dollar American Insurance Union Building at Columbus, and the twelve to fifteen million dollar Union Station, built at Cleveland, with excellent results as to economy, quality and durability."

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



Since 1883

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



WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Inland Steel Appointments

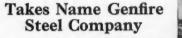
THE Inland Steel Company, Chicago, announces that Mr. Frank R. Meyer, Jr., has been appointed assistant vice-president in charge of sheet steel sales. He will succeed Mr. Walter C. Carrol, who resigned August 1 to become president of the National Association of Sheet and Tin Plate Manufacturers. Mr. Walter F. Brumm, who has been in the company's St. Louis and Kansas City office for several years, will take over Mr. Meyer's position as district sales manager. It is also stated that Mr. H. H. Straus, who has been in charge of the Chicago Heights, Ill., plant for the past five years, has been appointed vice-president.

Fireproofing Building Products becomes a part of the Genfire Steel Company.

cies, products and everything connected with General

Inso Board Now in Production

THE Stewart Inso Board Company, of St. Joseph, Mo., recently announced that it would start shipping Inso Board by August 15. The construction of the company's mill has been completed and final details for production worked out. The first year's output has been contracted for and plans are already being discussed for increased production.



HE name of the General THE name of the Building Building Products, Youngstown, Ohio, manufacturers of metal lath, steel joists, concrete reinforcing, steel sash, waterproofing compounds and similar products, has been changed to the Genfire Steel Company. This change affects the name only and has been made to avoid possible confusion with the General Fireproofing Company, also of Youngstown, which manufacturers steel office furniture and equipment. The officers, personnel, poli-



The New Plant of the Stewart Inso Board Company Recently Completed at St. Joseph, Mo., and Now in Production.





The "FOR SALE" Sign Comes Down Quickly

HOUSES built of Brick—Walls of Brick all the way through and all the way 'round—sell rings around houses of less substantial construction. America believes in Brick.

There is a decided swing to Brick among long-experienced builders who build to sell because there is a decided swing to Brick among home-buyers. To the builder it's simply a case of quick sales, rapid turn-over of capital and bigger profit. To the buyer it's simply a case of wanting a better home.

Beauty recommends Brick. So does strength. So does the fact that Walls of Brick are *fire*-proof, *gale*-proof, *flood*-proof, *time*-proof. Build with Brick and you'll make more money and earn an unassailable reputation for sound, lasting construction. Send for the literature listed below.



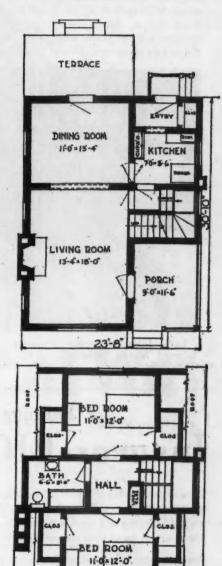
The Common Brick Manufacturers' Association of America 2131 Guarantee Title Building CLEVELAND, OHIO



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The "ATCO"

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

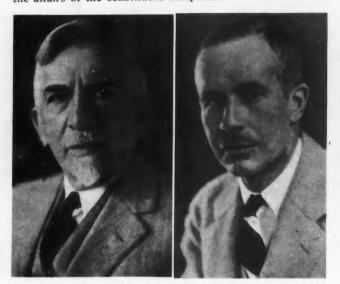


Send for the Brick Books listed below NOW!

Brick Books for Your Use
"Your Next Home" - (New Edition) Photos and Plans 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 Dwellings of Brick"10c
"Hollow Walls of Brick"-FREE
"Homes of Lasting Charm"-25c
Check above, and send for any or 11 of these books.

Big Merger Effected

A NEW coalition in the heating industry has just been effected in the merging of six concerns to form the National Radiator Corporation, chartered in Delaware and capitalized at an amount in excess of \$25,000,000. John H. Waters, formerly President of the National Radiator Company becomes Chairman of the Board and Edward Norris, formerly President of the Utica Heater Company, becomes President of the consolidation. Other officers will be appointed from those who have successfully administered the affairs of the constituent companies.



Left—John H. Waters, Chairman of the Board—Right— Edward Norris, President of the New National Radiator Corporation.

The new corporation acquires the properties of the National Radiator Company and Union Radiator Company, of Johnstown, N. Y.; the Gurney Heater Manufacturing Company, Framingham, Mass.; the Continental Heater Company, Dunkirk, N. Y.; the Utica Heater Company, Utica, N. Y.; and the Niagara Radiator and Boiler Company, North Tonawanda, N. Y., and involves 10 plants owned by these companies.

Milcor Building in Chicago

A BOUT October 1 the Milwaukee Corrugating Company, of Milwaukee, Wis., will move its Chicago quarters from the building it has occupied for the past 2½ years to a new and larger location in a fine modern fireproof structure at the corner of Western Avenue and West Forty-third Street. This move has been made necessary by the rapid expansion of this company's business. The new building is a three story and basement structure of reinforced concrete occupying a space 90 by 200 feet and containing 75,000 square feet of floor space. The exterior is of face brick with terra cotta trim and the construction is such that three additional stories may be added when required. There is also sufficient vacant land in the lot for further expansion.

Myers Holds Sales Convention

THE F. E. Myers & Brother Company, of Ashland, Ohio, held a four-day sales convention at its factory July 26 to 29. The convention was attended by its representatives from various cities throughout the country and by its foremen and included reports of the past year, plans for the coming year and an inspection of the factory.

Painting the modern, improved DeVilbiss way Insures BIGGER PROFITS for You

How to provide for a worth-while increase in your profits: the easier, improved DeVilbiss way of painting will most successfully solve that part of your business problem.

Use of the DeVilbiss Spray-painting System enables you (1) to do more work, without increasing labor costs; (2) to give your customers an improved and cleaner class of work, on a greatly speeded-up schedule; (3) to make the work easier for your men, while increasing the production of each; (4) to become recognized as the progressive, outstanding painting contractor in your community.

There is further assurance of bigger profits in using the DeVilbiss Spray-painting System. DeVilbiss equipment is correct and complete in every detail; is built of highest quality materials by skilled workmen; is simple and dependable in every operation; is warranted to give long and satisfactory service. Then there is available to you at all times the unequaled DeVilbiss engineering and service facilities, developed out of over 35 years' manufacturing experience.

Investigate now the increased, profits to be made painting the DeVilbiss way. Complete facts will be promptly mailed to you. Address—

THE DeVILBISS COMPANY

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New Easy Practical Way That Has Doubled Pay in 2 or 3 Months!

Thousands of Men in the Building Trades Have Discovered An Altogether New Way to Double and Triple Their Incomes! Surprising, Yes—But True! Almost Over. Night They Have Stepped Into In-teresting, Big-pay Jobs—Become Foremen and Superintendents—Or Are Making Big Money in Business For Themselves. The Same Wonderful Opportunity is Now Offered You. Don't Send One Penny. Just Mail the Coupon For Full Set of Valuable Blue-Print Plans, Big Free Book, and Complete Details.

But you don't get one penny more than you're entitled to. Every boss on the jobevery foreman, every superintendent—is making plenty more than just your wage scale—you can figure pretty well for your-self what a lot of real money the contractor

do these men get more money for their work than you do? Why do they clean up \$6,000 to \$15,000 a year or more? It's simply because they're trained in the "head-work" side of Building and Contracting work. They can read Blue-Print Plans. They know how to lay out and run jobs.

Out and run jobs. Get This Big-Money Training Many men think the only way they can get practical "head-work" training is on the job. Per-haps that was true once. But thousands of Chi-cago Tech. graduates have proved that the idea is all wrong now. You know yourself that a man can spend 5 or 10 years working with his tools and never get a real chance to learn the things he must know, if he is ever to get into the big-pay class. Anyhow, it's a long, hard, slow process-on the job. But it's all different—the new Chicago Tech.

Y OU MEN who work with your tools in But you don't get one penny more than you're entitled to. Every boss on the job-making plenty more than just your wage scale—you can figure pretty well for your-self what a lot of real money the contractor and the builder clean up. Why superimentation of the search of valuable Bule-Frint Flans, Big Fr Builders' Course way—amazingly different! It's Builders' Course way—amazingly different! It's guick, easy, certain. Right at home, you get real Blue Prints used on actual jobs to examine and keep for reference. In language you can under-stand, as plain as A-B-C, everything is told you and worked out for you in concise, practical home lessons—no textbooks to study—you are taken by experts right through every step of Plan Reading, easily it is just like play. You don't need even a grade school education to understand every word and absorb every fact.

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NOTE: We do not employ solicitors—No salesman will call on you.

READ!

"Since starting the Build-ers' Course I have been raised to Superintendent and my pay raised 100%." P. F. Blair, Okla.

"I owe a lot of credit to your course. Am now listed as a Brick Con-tractor and made about \$3,800 clear money this summer."

E. F. Baker, Ohio.

Dept. M-120

CHICAGO TECHNICAL SCHOOL FOR BUILDERS 118 E. 26th STREET CHICAGO, ILL.

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FREE

News of the Field

[September, 1927

New Johns-Manville President

HE Johns-Manville Corporation announces the election of Theodore F. Merseles as president. H. E. Manville, who has served as president since the death of his brother, T. F. Manville, in 1925, has been elected chairman of the board of directors. Mr. Merseles, who retires from the presidency of Montgomery Ward & Co., will continue as a di-



Theodore F. Merseles, Who Has Been Elected President of the Johns-Manville Corporation.

rector of that company and as chairman of its executive committee.

New David White Company Building

THE David White Company, Inc., of Milwaukee, Wis., has now completed and is occupying its new and larger building at 315 Court Street, Milwaukee. The construction of this building was made necessary by the rapid expansion of the company's business during the past three years. The new building is of brick and affords a spacious display space, executive offices and salesroom in addition to the manufacturing space for turning out leveling instruments and maintaining blueprint, photostat and photo reproduction service.

Cordery Products Issues Licenses

PATENTS obtained by Frank Cordery, of Toledo, Ohio, for the manufacture of building units using cement, cinders or slag and acidulated water are now held by Cordery Cinder Products, Inc., Passaic, N. J., which is disposing of licenses and territorial rights.

* Paramount Buys Building

THE Paramount Electric Company, formerly located at 251-251-Z Market St. Philadelphia, Pa., has purchased a building of its own and moved into new and larger quarters at 930-Z Arch Street, Philadelphia.

*

Open Branch Office

I N order to provide better sales and service facilities for its customers in northern New Jersey and certain adjacent counties of New York State, the Ingersoll-Rand Company, of New York City, has opened a branch office at 236 High Street, Newark, N. J. F. K. Armstrong, formerly connected with the company's New York sales branch, has been appointed manager.

The Youngstown Pressed Steel Company, Warren, Ohio, presents its 1927 booklet of metal fireproofing products including illustrations and specifications.

The Russell & Erwin Mfg. Co., New Britain, Conn., offers a catalog booklet of its "Russwin" door closers.





THE eleven mills of the International System operate under an "open-door" policy. Architects, engineers, contractors and other users of cement are invited to visit the most convenient mill of the International System and inspect the famous International Wet-Blending Process, in order to see for themselves the reasons for the super-quality and uniformity of Lone Star Cement.

INTERNATIONAL CEMENT CORPORATION, New York

One of the world's largest cement producers - 11 mills, annual capacity 14,700,000 barrels.

These ten subsidiary companies operate the eleven mills which comprise the International System:

ALABAMA POBTLAND CEMENT COMPANY ABGENTINE POBTLAND CEMENT CO. Buenos Aires, Argentina THE CUBAN PORTLAND CEMENT CORPORATION INDIANA PORTLAND CEMENT COMPANY THE KANSAS PORTLAND CEMENT COMPANY Kansas City, Mo. KNICKERBOCKER PORTLAND CEMENT CO., Inc., Albany, N. Y-LOUISIANA PORTLAND CEMENT COMPANY New Orleans, La. TEXAS PORTLAND CEMENT CO. Dallas and Houston, Tex. URUGUAY PORTLAND CEMENT CO. Montevidee, Uruguay VIRGINIA PORTLAND CEMENT CORPORATION Norfolk, Va-

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

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 Stover Manufacturing & Engine Co., 16 East St., Freeport, Ill., has prepared a pamphlet catalog 2440, of its complete line of fireplace fixtures.

Hunt-Helm-Ferris & Co., Inc., Harvard, Ill., covers in its latest catalog No. 90, the complete Star line of barn equipment which it manufactures.

"Everything for the Fireplace" is the title of catalog 16-26 of the Colonial Fireplace Company, 4604 Roosevelt Road, Chicago, covering its complete line as indicated.

The Park Manufacturing Company, Worcester, Mass., offers a pamphlet covering its line of Blount door checks.

"Fenestra Horizontally Pivoted Windows" is a new pamphlet published by the Detroit Steel Products Company, 2250 East Grand Boulevard, Detroit, Mich., and containing specifications, types and sizes and installation details.

The International Steel & Iron Company, Dept. 18, Evansville, Ind., has published its supplement 22, under the title "International Service," for the use of designers, manufacturers and engineers of structural steel and iron.

The Franz Manufacturing Company, Dept. A-8, Sterling, Ill., has published a new catalog No. 14, covering its complete line of builders' hardware.

The J. E. Porter Corporation, Ottawa, Ill., offers two large circulars illustrating and describing its haying tools, door track and hangers, garage door sets, and barn equipment.

The Donley Brothers Co., 13910 Miles Ave., Cleveland,

Ohio, offers the twelfth edition of its catalog dated 1927, covering the Donley Devices for completely equipping the home.

The Kewanee Manufacturing Co., 307 Tremont, St., Kewanee, Ill., offers an architects' catalog covering its non-breakable coal chutes and a small pamphlet on the same subject.

"Alemite Industrial Lubricator," published by the Alemite Lubricator Company, 2646 N. Crawford Ave., Chicago, contains a number of interesting and informative articles on the use of Alemite lubrication.

The H. W. Covert Company, 243 East 44th St., New York City, offers its catalog No. 8 under the title "Covert Fireplace Construction."

The Armstrong Cork & Insulation Company, 24th St. and Allegheny River, Pittsburgh, Pa., offers a pamphlet under the title "Armstrong's Corkboard for the Insulation of Roofs—Insulating Efficiency," which is number one of a series.

The McCabe Hanger Mfg. Company, New York City, in its catalog No. 24, presents its line of door hangers and track, overhead carrying devices, expansion bolts, ball bearing wheels and rolling ladders.

The Wagner Manufacturing Co., Cedar Falls, Iowa., offers its general catalog No. 25, covering door hangers and tracks, overhead carrying systems, fire door fixtures and hardware specialties.

The Century Electric Co., 1806 Pine St., St. Louis, Mo., offers a pamphlet on its repulsion start induction single phase motors.

"Willis Products," is the title of catalog No. 8 of the Willis Manufacturing Co., Dept. 128, Galesburg, Ill., presenting its sheet metal products.

Can You Use \$50.00?

Users of Cabot's Quilt find that they save at least this much in firstcost in a \$10,000 residence, by reduced size of heating system and less plaster. And the men who buy "Ouilted" houses report annual savings of fully \$50.00 in coal or oil. These figures are backed up by official scientific tests at Massachusetts Institute of Technology. Cabot's Quilt shuts out the most cold, at the least cost.

BETTER INSULATE THOSE NEW HOUSES WITH

Cabot's Quilt

IN SUCCESSFUL USE FOR OVER THIRTY YEARS

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MANUFACTURING CHEMISTS - BOSTON - MASS. - U. S. A. - NEW YORK - CHICAGO PHILADELPHIA - KANSAS CITY - LOS ANGELES - MINNEAPOLIS - SAN FRANCISCO - PORTLAND Cabot's Creosote Stains - Stained Shingles - Old Virginia White - Waterproof Collopakes

-[Send for New Architects' and Builders' Quilt Book B-9]-

for Economical Transportation

World's Lowest Ton-Mile Cost for Builders

Whether you need a truck for fast, economical delivery over city streets—

—whether your problem is the transportation of ton loads over all types of highways—

-or whether you need a truck for any sort of special purpose-

—you can secure a Chevrolet Truck, with a type of body to meet your particular needs, that will give you the world's lowest ton-mile cost.* Go to the salesroom of the nearest Chevrolet dealer and see for yourself how the sturdy, powerful Chevrolet chassis is designed and built to reduce operating and maintenance costs. Observe the deep channel steel frame,

*Ton-mile cost is the cost of transporting a ton of material one mile—or its equivalent. heavy banjo-type rear axle, and long extraleaved, semi-elliptic springs—all constructed to operate under the severest usage. Note the powerful valve-in-head motor — dependable, efficient and long-lived.

Here, in every feature, is a type of construction once undreamed-of in a low-priced commercial car—

-ruggedness, strength and modern design which assure you the long-time, over-all operating efficiency that has made Chevrolet the world's most popular gear-shift truck!

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN Division of General Motors Corporation

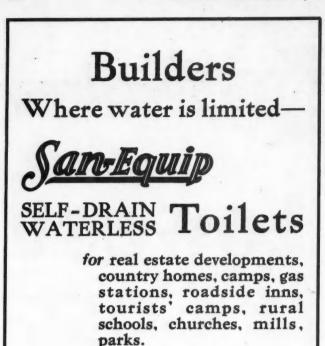
> -at these low prices!

1/2-Ton Truck \$395 Chassis 395 1-Ton Truck \$495 1-Ton Truck \$610 Chassis with Cab 610 All prices f. o. b. Flint, Mich.

THE WORLD'S LARGEST BUILDER OF GEAR-SHIFT TRUCKS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

[September, 1927



It is now an obligation to protect home and family against the dangers of typhoid and other infectious diseases by providing a safe and up-to-date method of sewage disposal wherever the water supply is limited or difficult to secure.

Chemical Treatment of Sewage

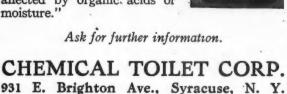
The sewage is liquefied and sterilized by contact with a powerful solvent and deodorant—disposal is thus made safer and easier. The method is so perfected as to require only a simple arrangement for storage and for discharge after treatment.

San-Equip Self-Drain Waterless toilets do not require emptying or handling of sewage. There are no valves or other machinery to repair.

Only a small amount of sterilized liquid is discharged daily and is thus safer and easier to care for than would be a full tank of sewage at one time.

All Storage Tanks Are Rust-Proof

Chemists' analysis of mineral enamel: "Not appreciably affected by organic acids or moisture."



Taninh.

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.

"Cinder Concrete Building Units" is the title of a new booklet which has been published by the National Building Units Corporation. 1600 Arch Street, Philadelphia, Pa. It is a comprehensive treatment of this subject, including specifications, diagrams and a list of the plants licensed to manufacture cinder concrete units under the Straub and Bo patents.

The Milwaukee Corrugating Company, Milwaukee, Wis., has published a new catalog, No. 20-D, devoted exclusively to its Milcor 34-inch Stay-Rib reinforcing lath. This is a supplement to the 1927 edition of the Milcor Manual and is a technical data book for architects, engineers and contractors.

The Larimer Company, Aurora, Ill., offers a catalog pamphlet illustrating its line of door checks for various types of doors.

The Universal Form Clamp Company, 972 Montana Street, Chicago, has published a catalog, No. 200, of its various concrete building accessories for forms and centering and for reinforcing as well as inserts, anchors, etc., and also four pamphlets on its form clamps, T and L heads and shores.

The Incandescent Supply Company, 468-472 W. Broadway, New York City, offers its catalog No. 115 of luminants for residential, commercial and institutional purposes.

The Blackhawk Manufacturing Co., 148 Broadway, Milwaukee, Wis., has published a booklet announcing its line of "Big Lift" jacks.

The American Concrete Institute, 2970 West Grand Boulevard, Detroit, Mich., has published, in book form, the proceedings of its Twenty-third Annual Convention, 1927. Price to non-members, \$10.

The Milwaukee Corrugating Company, Milwaukee, Wis., has issued a new catalog, No. 20-D, devoted exclusively to its Milcor 3/4-inch Stay-Rib reinforcing lath.

The A. L. Sayre Company, Newark, N. J., offers an illustrated catalog No. 9 of its line of hardware specialties and mechanics' tools.

The Pelton Water Wheel Company, 100 Broadway, New York City, offers its Bulletin No. 19, a descriptive catalog of Pelton water wheels for all types of installation.

The Rhinelander Refrigerator Company, Rhinelander, Wis., publishes a handsome bound volume under the title the "Rhinelander Handbook of Refrigeration" by Forest O. Riek, which is, in addition to being a catalog of this company's refrigerators, a very complete treatise on the subject of refrigeration.

The Asbestos Shingle, Slate & Sheathing Company, Ambler, Pa., offers a trade priced list of its roofing slates, shingles and sheathing, revised to July 1, 1927.

The Link-Belt Company, 910 S. Michigan Ave., Chicago, has published a "Link-Belt Conveyor Data Book 615," containing very complete information and a catalog of its conveyor equipment.

The Fiwale Equipment Mfg. Co., Inc., 64 Reade St., New York City, offers its catalog No. 26 of Fiwale screen hardware.

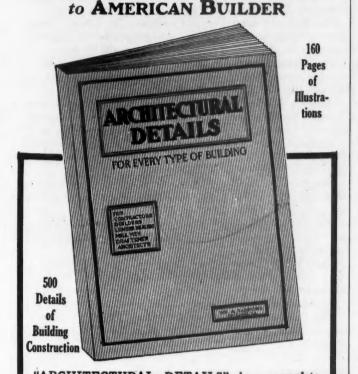
"Builders' Hardware" is the name of catalog No. 20 of the National Manufacturing Company, Sterling, Ill., with which is included a supplement.

The Holland Furnace Company, Holland, Mich., offers a pamphlet describing its improved window chute.

The Akron Barrow Company, 3140 E. 65th St., Cleveland, Ohio, offers a pamphlet describing the new Akron coal chute.

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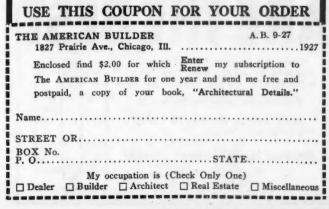


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Books, Bulletins and Catalogs for You

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 Mechanical Properties of Timbers," by C. J. Hogue, is a booklet published by the West Coast Lumber Trade Extension Bureau, 560 T Stuart Bldg., Seattle, Wash.

The Associated Tile Manufacturers, 220 Graybar Bldg., New York City, offer a pamphlet, in colors which is their regular monthly pamphlet on ceramic mosaic.

The Frank Adam Electric Company, St. Louis, Mo., offers its Catalog No. 41 of fuse blocks, knife switches and flush range switches.

Albert Pick & Company, 208-224 West Randolph Street, Chicago, has prepared a booklet on the subject "Some Thoughts About Hospital Food Service Equipment" which should prove valuable to anyone designing a hospital or planning its equipment.

The Engineering and Construction Publishing Company, 221 East 20th Street, Chicago, has published a "Road and Street Catalog," which is a consolidation of manufacturer's catalogs of highway, road and street materials, construction plant and maintenance equipment for 1927, together with a data section of engineering information and economic methods on the design, construction and maintenance of highways, roads and streets, compiled by Halbert P. Gillette, and also a geographical index of dealers and distributors. It is sent free to anyone having buying and specifying power in this field.

"American Appliances and Novelties of Construction," by Gardner D. Hiscox, M. E., published by The Norman W. Henley Publishing Company, 2 West 45th Street, New York City, is described as a complete work and a continuation, as a second volume, of the author's book entitled "Mechanical Movements, Powers and Devices." Being more special in scope than the first volume, inasmuch as it deals with the peculiar requirements of the various arts and manufactures, and more detailed in its explanations because of the greater complexity of the machinery selected for illustration. Price \$4.00.

The Faultless Sash Holder Company, Inc., Indianapolis, Ind., offers a small pamphlet describing its automatic sash holder, designed to replace weights, pulleys and cords.

The National Steel Fabric Company, 706 Union Trust Bldg., Pittsburgh, Pa., offers an illustrated descriptive pamphlet on the subject of its reinforcing plaster base.

The Barber Asphalt Company, Philadelphia, Pa., has prepared a small booklet on the manufacture and use of its Genasco Sealbac shingles.

"Georgia Marble" is the handsome now catalog of the Georgia Marble Company, Tate, Ga., which contains 68 pages of useful agricultural data, pencil delineations, and details and color plates reproducing its line of marbles. It will be sent upon request to any architect who desires to receive a copy.

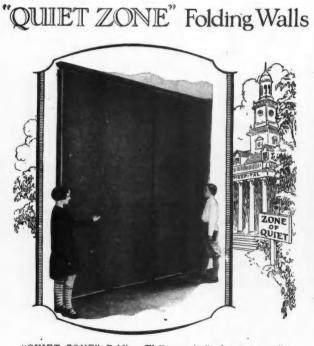
The Forest City Bit & Tool Company, Rockford, Ill., offers its 1927 catalog, No. 21, covering its hollow mortising and wood-boring tools.

The United Hardware & Tool Corporation, 74 Reade St., New York City, offers its catalog No. 30 of tools, hardware and abrasives.

The Norton Door Closer Company, 2900 N. Western Ave., Chicago, publish a catalog No. 17 covering its very complete line of door closers and an accompanying booklet of instructions for installing and repairing them.

The Crouse-Hinds Company, Syracuse, N. Y., offers a catalog booklet, Bulletin No. 1G, of its panel boards and cabinets.

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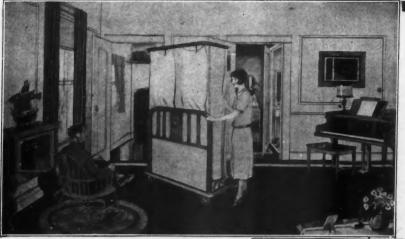


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[September, 1927

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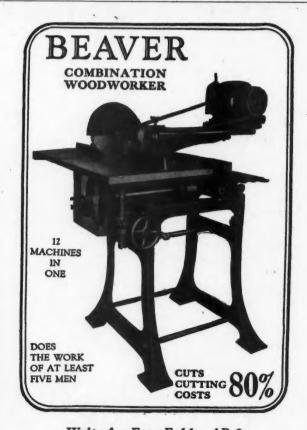
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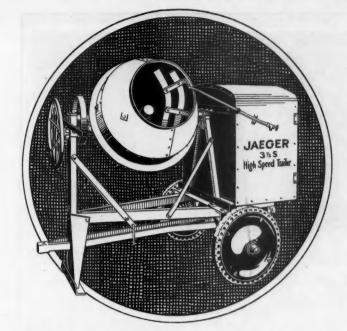
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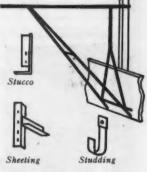
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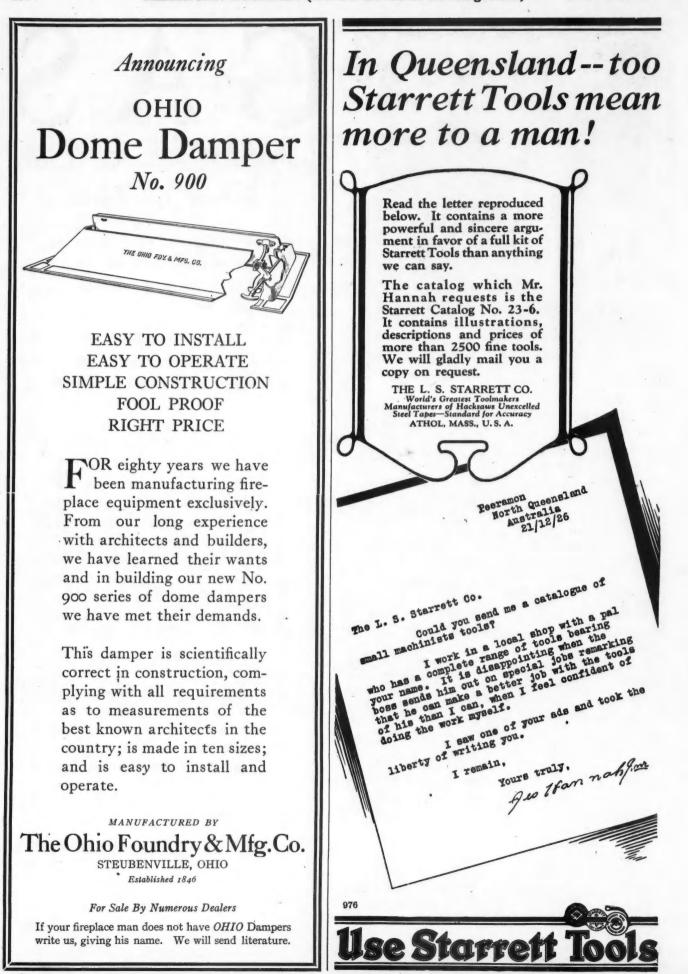
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[September, 1927





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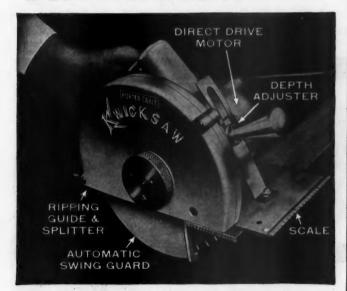
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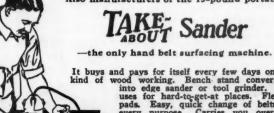
10,000 R.P.M. means smooth cutting. All parts of aluminum or alloy aluminum.

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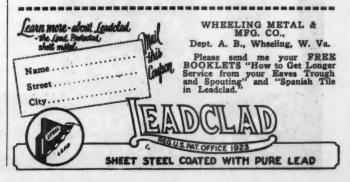
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[September, 1927





hot water service-

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They are made entirely of heavy Lake copper and hence last indefinitely even under the most severe water conditions. They are guaranteed in writing for 25 years.

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They operate equally well with heaters using gas, electricity, kerosene oil or coal, and therefore are not dependent upon fuel supply conditions.

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Full information including specifications of Dahl-quist Patented Aquatherm Copper Range Boilers with or without heating units are embodied in the Data Book sent free on request.

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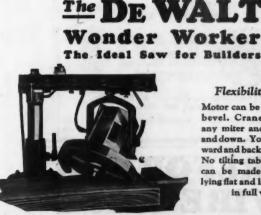


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South Boston, Mass.

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[September, 1927



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When used for enclosing sun and sleeping porches and for glazing windows, CEL-O-GLASS brings the stimulating Ultra-Violet rays indoors. Provide a "health room" in every house you buildsimply by installing a CEL-O-GLASS window. CEL-O-GLASS is the most practical material for glazing windows and doors in tool houses, field offices, garages, factories and other buildings. No breakage. Easy and economical to use. Comes in rolls. Fine for temporary and emergency enclosures. Try it!

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ACETOL PRODUCTS, INC. 21 Spruce St., New York, N. Y.



. Co 31, 1927 CONSTRUCTION Crowkens

"I have paid as much as \$1000.00 for many of my tools that have not saved me the money your Syntron Hammer has"

This is one of the thousands of unsolicited letters we receive from Syntron users. Taken as a whole, they all say the same thing and that is this—"For drilling, chipping or channeling in concrete stone or masonry, Syntron is an indispensable tool." Let Syntron save for you on those jobs that crop up daily in your work. It has a hundred or more different uses and saves 90% in time and costs wherever used.

SYNTRON Motorless Electric Hammer

A portable electric hammer that drills 3 inches in the hardest concrete a minute. Operates from any light socket. Has only one moving part. Pays for itself in the first 40 hours' use. After that it returns a 100% dividend on the investment every 40 hours.

> Also Syntron Heavy Duty Hammer Powered by Syntron Gas-electric Power Plant. New! Syntron Electric Hand Saw

Rips 2" oak 420 sq. in. per minute. Cross cuts 3" oak 300 sq. in. per minute. 99% safe. Write for details.

> SYNTRON COMPANY Dept. A-13 400 Lexington Avenue, Pittsburgh, Pa.

Send full details, performance records, etc., on Syntron Electric Hammer, as checked. No obli-

THIS WILL BRING YOU DETAILS!

gation, of course.

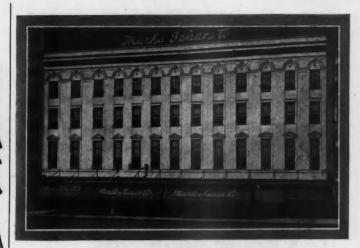
Name

Address ...

Firm

	Type F60-9 pounds drilling capacity 5%".
-	m are seand

- drilling capacity 11/2".
- Type A 60-17 pounds drilling capacity 1".
- TypeR60-20 pounds drilling capacity 2".
- Type RCSpader.
- Type R-2-30 Riveter.
- Type RR-1-30 General Utility Heavy Duty.
- D Type R-1-30 General Purpose.



Making old buildings look new!

Bondex makes Marks Isaac's Department Store bright and clean

There are hundreds of buildings in your city just like the Marks Isaac's building in New Orleans which need a coat of Bondex to make them new again. Nice, profitable jobs waiting for somebody!

Builders, contractors and painters are enthusiastic about this waterproof cement paint. It is just the thing for old as well as new buildings. Brick, stone or stucco walls all take Bondex. It produces a permanent, waterproof finish in any of 16 attractive colors or white.

If you have a building which you want to beautify, use Bondex on it. One coat will produce a handsome, even colored exterior at a very modest cost. For Bondex can be applied by brush or spray.

Bondex is not a new product. It has been thoroughly tested in all parts of the country on thousands of buildings. Year after year a Bondex waterproof surface withstands all kinds of weather. Each rain serves but to freshen it. It's fine for basement walls and damp exteriors, too. Let us send you a liberal sample for you to try.

Reardon's	THE REARDON COMPANY, ST. LOUIS, CHICAGO
BO	NDEX
	ENT PAINT
	Other Reardon Products: Solarite, Cresto, Lumnite, Alfresco, Wall Size
	THE REARDON CO. 103 Clinton Street, St. Louis, Mo.
BONDEX	Please send me your FREE Booklet and a sample of BONDEX.
CEMENT PAINT	Name
	Street
	Business

City & State______ WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

[September, 1927





Stocked by Hardware and Equipment Dealers Everywhere

More work per man less repairs longer life—

-economy

RANSOME 10-S STANDARD BUILDING MIXER

RUGGED!

The Ransome 10-S Standard Building Mixer—with power loader and automatic water tank—is built to meet the most exacting requirements for speed and durability. Before buying a 10-S, study the outstanding features of the Ransome 10-S.

Large capacity drum—51 inches in diameter by 39 inches wide, inside measurements. Steel Plate Shell and flanged heads electrically welded. Drum Rollers—car wheel iron chilled —Timken Roller Bearings—High Carbon Shaftings. Loads and discharges quickly.

And controlled with one set of levers located at the drum end of mixer. Just the mixer you've wanted!

Write for bulletin today.



RANSOME CONCRETE MACHINERY CO. 1850—SERVICE FOR 77 YEARS—1927 DUNELLEN - - - NEW JERSEY Accept NO Substitute

> Such improvements as 10 spoke selflubricating wheels—Riveted channel steel legs equipped with shoes— Interchangeable parts—Standardized units—Handle clamps—Double cornered trays—Hard maple handles are exclusively of Sterling origin, and represent the refinements in construction which make Sterling wheelbarrows always the most satisfactory for handling concrete and building materials—yes—and your men will wheel more per day less labor cost per job.

> > Write for Catalog.







Section of a Quarry-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 construction. Send for our illustrated

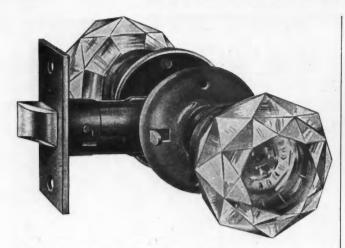


WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

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AMERICAN BUILDER (Covers the Entire Building Field)

[September, 1927



Destined to be the World's Most Popular Interior Latch



With LOCKING ROSETTE

For bathroom, bedroom and all other doors where locking from only one side is required, the new Dexter tubular latch with locking rosette possesses unequaled advantages for both the builder and owner.

Saves 4/5 of Installation Costs

Just one unit to install, requiring no mortising. Just bore two holes, slip in the parts and the job is done perfectly at 1/5 the ordinary installation cost.

Locking Rosette Offers Perfect Security and Convenience

Just a finger touch on the slide locks the door securely. There are no keys to lose.

Trouble Proof

Like all Dexter tubular latches this latch is simple in construction, positive in action and trouble proof. Working parts are practically indestructible.

Beautifully Harmonious

Procurable in any finish of brass, with plain glass, cut glass or brass knobs in any combination, these latches will grace any interior.

Advantageously Priced

Write for name of dealer where you can inspect them.

NATIONAL BRASS CO.

1601-9 Madison Ave., Grand Rapids, Mich.



SAFETY---SERVICE ---and ECONOMY

L ONG life and good service are two outstanding characteristics of Kimball Straight Line Drive Elevators. Nearly half a century of such service has brought many complimentary letters to us. Mr. F. D. Higginbotham, Manager of the Dooly Block in Salt Lake City, writes:

"In the month of October, 1914, Kimball Passenger Elevators were installed in this building. They have a capacity of 2500 pounds and a speed of 300' per minute. We have not been without service a single day during thirteen years."---This is just one example of Kimball Superiority.

Inquire about Kimball Straight Line Drive passenger and freight elevators---motor and machine assembled as an integral unit. Permanent alignment of motor and machine guaranteed.

Valuable descriptive pamphlets sent free upon request.

989-97 Ninth St., Council Bluffs, Ia. Elevator Builders for

LL BROS. CO.

45 Years



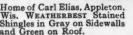
Compare the value of WEATHERBEST Stained Shingle Sidewalls with other materials

Note on the old house at the right the ordinary effect of clapboards compared to the character expressed in this house with WEATHERBEST Stained Shingle Sidewalls. When you add to this more attractive effect, the extra

value of the soft-color tones in these 100% straight grain red cedar WEATH-ERBEST Stained Shingles, you will appreciate the growing practice of using WEATHERBEST Stained Shingles on sidewalls as well as roofs. Their superior quality is such that they should not be compared to ordinary stained shingles.

That also explains why they are being put on right over old sidewalls to add new value to old property. Such remodeling and reshingling costs less than two paint jobs.

Send coupon with 10c in stamps or coin for valuable information on remodeling and new building. WEATH-ERBEST STAINED SHINGLE Co., Inc., 130 Main St., North Tonawanda, N. Y. Western Plant-St. Paul, Minn. Distributing Warehouses in Leading Centers.





WEATHERBEST STAINED SHINGLE Co., Inc.,

130 Main St., North Tonawanda, N. Y.

Enclosed is 10c (stamps or coin). Please send
WEATHERBEST Color Chart,
Portfolio of Photogravures 213

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

[September, 1927



The texture and pattern of "Perfection" Brand Oak flooring make possible a finish that is seldom found on any other flooring.

You can depend upon "Perfection". In three modern plants operated by skilled lumbermen, only the finest oak is selected. After proper seasoning and kiln-drying, it is perfectly milled and matched so that it lays smooth and stays smooth. It is graded and handled so carefully that upon arrival anywhere, it is always in perfect condition. Leading lumber dealers gladly feature this nationally advertised brand.

ARKANSAS OAK FLOORING CO., PINE BLUFF, ARK.





Where Do You Place the Damper?

Some masons place the fireplace damper on a level with the fireplace opening. Others say six to eight inches above the opening. Some put it at the front, others at the rear.

The position of the Damper often determines the success of the fireplace. Also the selection of the right type of damper is important.

We don't know where you place your dampers but if you are having fireplace troubles, we suggest that you place the damper according to instructions given in the Donley Fireplace Plans. These Plans are to be found in the new Donley Book of Successful Fireplaces— a book that should be read by every fireplace builder. It contains construction photographs, 59 fireplace designs, many of brick easy to duplicate, also complete description of equipment necessary to a successful fireplace. Send 25 cents, stamps or coin, for your copy.

The Donley Brothers co. 13910 Miles Avenue Cleveland, Ohio

ONLEY

DEVICES Complete the Home 

Like A Goat Burnhams Eat Anything

E^{AT} anything from low grade soft to high grade hard. Anything from fuel oil to furnace oil. Right on up the line to gas!

Eats 'em all, and digests 'em all in a perfectly painless way. In fact they take the pains out of coal bills.

Take 'em out by making long coal bills short.

We can prove it. Want the proofs?

Burnham Boiler forporation Irvington, New York Representatives in all principal cities of the United States and Canada

Learn Plumbing and Heating at Home



Former Apprentice Now Earning \$360 to \$400 a Month

"When I enrolled with the I. C. S.," writes H. D. Dunn, "I was an apprentice. At the time I took the course the boss laughed at me, but in less than two months I could tell him things once in a while. And a few months later he decided to take up an I. C. S. course himself!

"I now have my own plumbing and heating business and my income is between \$360 and \$400 a month."

Mr. Dunn is just one of thousands of men who have found that the best way to earn promotion and a larger salary is through the home-study courses of the International Correspondence Schools.

The Plumbing, Heating and Ventilation Courses are particularly attractive right now because of the unprecedented boom in building. These courses cover the entire needs of the trade and they are written by men who have spent years in doing the very work you want to do and who know the quickest, easiest, best way to show you how to solve every problem.

Just mark and mail the coupon and we will gladly send you free booklets describing the I. C. S. Plumbing, Heating and Ventilation courses or any other course in which you are interested.

Box 8163-C, S	al University" cranton, Penna.
for the position or in the subject be	part, please tell me how I can qualify fore which I have marked an X:
Complete Plumbing and Heat- ing Course Complete Plumbing Course Complete Heating Course Complete Inspectors' Course Electrical Engineering Mechanical Draftsman Mechanical Draftsman Machine Shop Practice Rafiroad Positions Gas Engine Operating Civil Engineer Surveying and Mapping Metallurgy Mining Staam Engineering Radio Architects' Blueprints Contractor and Builder Architect Draftsman	Curse Short Plumbers' and Steam Fitters' Curse Steam Fitters' Course Ventilation Dusiness Management Industrial Management Dersonnel Organization Traffic Management Business Law Banking and Banking Law Accountancy (including C. P. A.) Nicholson Cost Accounting Bookkeeping Spanish French Stort Secretary Better Letters Show Card Lettering
Concrete Builder	Stenography and Typing Business English Civil Service
Automobile Work Airplane Engines Agriculture and Poultry Mathematics	Ballway Mail Clerk Common School Subjects High School Subjects Illustrating
Name	
Street Address	

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

City

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Withins Proc

[September, 1927



EXCUSE ME -but I just wanted to remind you to keep your WILLIS Catalog

No. 8 always handy—it's chuck full of valuable reference data, illustrated with two hundred pictures-the authoritative reference book on architectural sheet metal goods for any man who draws a pen over paper or a saw through pineyour best guide for plain and ventilated skylights; wire glass; skylight and window guards; mar-quise; ventilators; vanes; cupolas; metal batten strips; gutters; troughs; conductor pipe; elbows; shoes; ridge rolls; caps; rolled valley; metal lath; roofing; ceiling; finials; coal chutes; garbage receivers; tinsmith toolsif some smart architect or builder has borrowed your copy, and won't bring it back, write us for another—the pleasure's all ours-and you really need it handy all the time.

Dept. 128

No wall looks complete without Clay Wall Coping. No wall is complete without it

CLAY PRODUCTS ASSOCIATION Chamber of Commerce Building · CHICAGO

EASTERN CLAY PRODUCTS ASSOCIATION Colonial Trust Building . **PHILADELPHIA**

SEND FOR LITERATURE



Wall Coping

AB 9-Grav

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Galesburg, Illinois

Why put yourself or your men in the way of serious accident, working on wooden scaffolding, when Trouble Saver Steel Scaffolding gives you many times stronger support?

Not only that, but Trouble Not only that, but Trouble Saver Adjustable Steel Trestles. Sup-port a ton weight. Eight sizes, giving a range Trouble Savers in height by 3-inch lifts from 16 in. to 12 ft. may be obtained

rust Your Life to

at a cost no greater than it takes to wood-scaffold a single job-and Trouble Savers outlast countless sets of wooden scaffolding.

Trouble Saver Steel Scaffolding Products: Adjustable Steel Trestles, Carpenter Brackets, Wood and Asphalt Shinglers, Stucco Brackets, "One Man" Ladder Jacks, Sectional Steel Scaffolding, Bolt Brackets, Mortar Board Stands.

Write for prices, full information and details of our 30-Day Trial Offer.

THE STEEL SCAFFOLDING COMPANY 1101 Governor Street Evansville : Indiana



THE STEEL SCAFFOLDING CO., 1101 Governor St., Evansville, Ind. Please send me prices and full information on ers-also details of your 30-Day Trial Offer. Name..... Address.....

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



Trouble Saver penter Brackets. S port a ton weight, nails; hook are the studding. r Car-s. Sup-ght. No around



and A. Shin-be halt the sed on t teepest root



CARDINAL TOGGERY RACKS give the space of two closets in one. They 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 Cardinalsbecause they add a finishing touch to homes and make them really modern.

Cardinals are important selling and renting features. Their cost is small, their benefits great. They are all heavy-gauge metal, all-nickeled, 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 yourself 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 CHARLES FISCHER SPRING CO. 244 Kent Ave. Brooklyn, N. Y. Telephone, Greenpoint 18,000

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

[September, 1927

For low-cost, high quality **Concrete Building Blocks Ideal Vertical Stripper**

Strong, dense, uniform size, plain blocks are economically made on this stripper-type outfit. Its output includes a range of sizes of blocks and wall tile. These are tamped thoroughly and stripped out of the mold box by a simple mechanical stripping device that is so compact as to

218

keep the mold box low. The offbearing height is exactly correct for efficient operation-28".

The equipment produces plain units for plain or stuccoed walls or for back-up for brick. Their use results in real building economy and the demand for them grows constantly.

Ask for Block Machine Catalog

Products Plant Mixers

The Ideal Batch Mixer (of the open drum, paddle type) has come to be regarded the standard mixer for products plants because of its simplicity of operation and its long life. Made in 9, 14, 18 and 42 cu. ft. capacities. Ask for special mixer folder.



Ornamental Molds

For casting beautiful concrete urns, flower boxes, lawn benches, sun-dial ped-estals, bird baths, columns, balusters, etc. Tight-locking, leak-proof. A profitable side line for builders. Ask for catalog illustrating complete line of ornamental products.









[September, 1927

Section Con

A New Way to **Mix PLASTER**

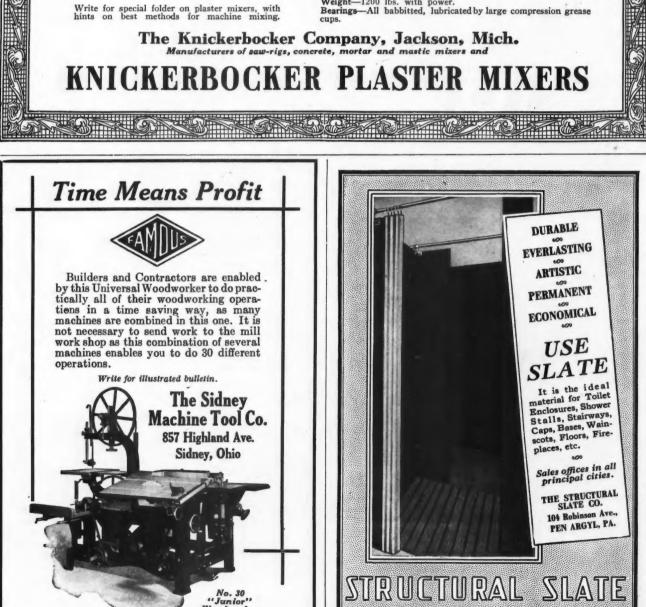
A new machine, designed according to the directions of some of the most efficient plastering organizations in the country.

Large enough to handle a one-bag batch of gypsum plaster, small enough to travel on the ordinary material elevator.

Grill over drum to rest sacks uponcharge machine while it is running -discharge the batch on one side -tilt drum to opposite side to clean with water.



Power—One cylinder, hopper-cooled LeKO engine electric motor. Dimensions—Length, 5 ft. 5½ in. without tongue; 8 tt. 6 in. With tongue. Width, 42 in. Shoveling height, 46 in. Wheels, 30 in. diameter, 4 in. steel wheels or 30 in. diameter cushion tired wheels or Ford wheels with Timken bearings, 30 x 3 in. pneumatic tires. Weight—1200 lbs. with power. Bearings—All babbitted, lubricated by large compression grease cups.



FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



WARM air heating, through the developments of the past few years, is now unquestionably the most efficient for residences, small and large.

The new Series "C" Moncrief, designed to include all that is latest and best in warm air heating development, is today without doubt America's foremost warm air furnace.

Write to us or to our nearest representative for interesting booklet, "What's New in House Heating."

Free Service for Builders

Our Engineering Department is glad to draw up heating plans and specifications according to the Standard Code for any job – no charge or obligation. Send in your plans.

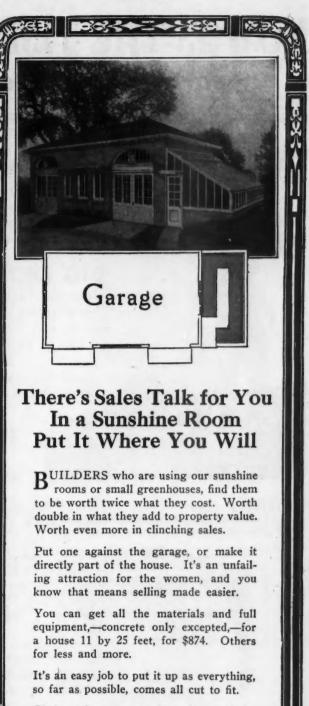
The Henry Furnace & Foundry Co. 3471 East 49th Street Cleveland, Ohio



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H U

62.



Glad to give you complete plans and the facts as we have found them in the build-ing field.

Hitchings Gampany General Offices and Factory: ELIZABETH, N. J. New York 136 Liberty Street Wilkee-Barre 402 Coal Exchange Bidg. Albany, N. Y. Postoffice Box 921

(Please print plainly-Name and Address) Send me full facts about your Sunshine Room.

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[September, 1927

NOW IS THE TIME TO STOP *carrying that tool box!*

222

Step out of the wage earning class---Get into something for yourself.

FLOOR SURFACING-The American Universal Way

offers you this opportunity. It will give you a good steady income of \$4.00 and more an hour for your time the year 'round. You will be free from bosses and irregular, unsteady work. You'll have a permanent business of your own.

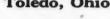


BIG DEMAND NOW

There are thousands of feet of flooring in buildings that have been constructed this summer that must be surfaced at once and more thousands of feet of old flooring that are to be resurfaced this fall and winter. This is the best time of year to start. As the down payment on the latest model American Universal is only \$75.00, it will be easy for you to get started and let the earnings pay for the machine. Don't delay as now is the time to get going.

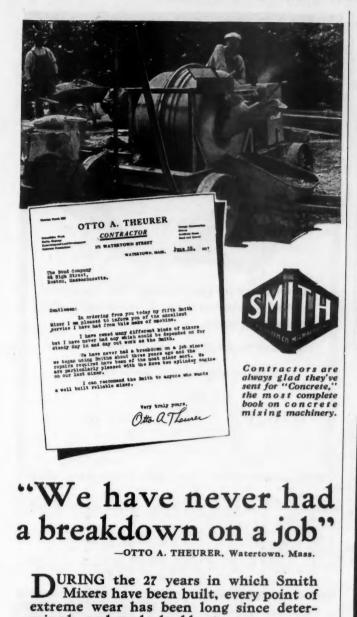
Write at once for full details.

The American Floor Surfacing Machine Co. 515 So. St. Clair Street Toledo, Ohio





FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



mined—and made doubly strong. Thus Smith Mixers, in any size from 2¹/₂ to 112 cu. ft. capacity, give a dependable, trouble-free service that makes them the choice of successful contractors the

No other mixer can approach a Smith for sustained speed—and long life. There are features of a Smith that you should know all about.

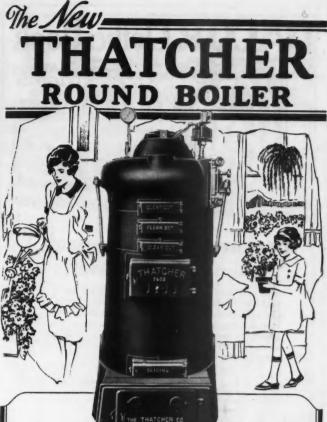
The T. L. SMITH COMPANY 1026 32nd St., Milwaukee, Wis.

Sales Offices and Service Stations in all Principal Cities

world over.

Send for this Mixer Catalog No. 526 Today!





Add Selling Value to the Homes You Build

WHEN you take a prospect into the cellar of a house you have built, you can point with pride to the Thatcher Round Boiler, because you know that it will measure up to his highest expectations of heating efficiency with minimum care and attention.

The "staggered" fire travel which spells fuel economy and high heating efficiency by utilizing the hot gases and smoke instead of allowing them to escape up the chimney; the sensitive and automatic drafts, checks and dampers; the large feed door and deep fire pot which make firing easy and less frequent are features that will impress your prospect and add selling value to the house.

Write for full information and descriptive literature about the new Thatcher Round Boiler and other Thatcher Products.

The Thatcher Company Since 1850 NEWARK, N. J. - 39-41 St. Francis St. NEW YORK - 21 W. 44th St. CHICAGO - 241 N. Clark St. THATCHER

IS-FURNACES-RAN

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

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AMERICAN BUILDER (Covers the Entire Building Field)

[September, 1927



The New Lansing 3-B Trailer Mixer



Send for a copy of our complete catalog on Equipment for Contractors

Has adjustable tongue -1^{1}_{2} H. P. Lansing Engine-Cushion Rubber Tires-Capacity 3 cubic feet -Weight 1080 lbs.

THE New Lansing 3-B is a sturdily constructed, dependable, low-cost mixer. It is easily and quickly hauled from one job to the next. It mixes thoroughly and fast. It is easily loaded or dumped from either side. The drum can be locked at any desired position to handle wet or dry material. The reliable Lansing engine with high tension magneto is easily started in the coldest weather. Contractors will find the new Lansing 3-B most eco-nomical for jobs requiring thirty yards or less of mixed concrete per day.

LANSING-COMPANY, LANSING, MICHIGAN BRANCH WAREHOUSES Chicago Boston New York Philadelphia Minneapolis San Francisco Kansas City				
ARCHITECTURAL DELAILS DELAILS FOR EVERY TYPE OF BUILDING	Experimentation Bits State Stat			
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absolutely FREE, postpaid. Offer good in U. S. and Canada. Add \$2.00 to Foreign Countries. Clip	STREET OR BOX No. P. O. STATE My occupation is (Check Only One) Dealer Builder Architect Real Estate Miscellaneous			

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ASE MENTION THE AMERICAN BUILDER

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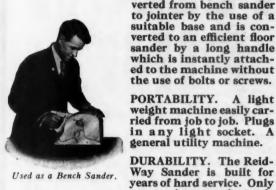
[September, 1927



FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



These features are responsible for the remarkable popularity of the REID-WAY SANDER



CONVERTIBILITY. The Reid-Way is quickly converted from bench sander to jointer by the use of a suitable base and is converted to an efficient floor sander by a long handle which is instantly attached to the machine without the use of bolts or screws.

PORTABILITY. PORTABILITY. A light weight machine easily carried from job to job. Plugs in any light socket. A general utility machine.

one moving part, the sand-ing drum itself. No belts,

chains, gears to wear out.

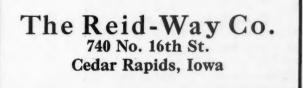
ing drum itself.

Used as a Bench Sander.

ECONOMY. Contractors everywhere have found the Reid-Way a splendid investment because of low first cost, due to remarkable simplicity, to negligible operating cost and the tremendous sav-ing in sanding costs due to the elimination of practically all hand work. The Reid-Way is a money-maker wherever there is a reasonable amount of floor or bench sanding.



Write for circular describing this valuable tool. No obligation of course.



American Steel & Wire Company's

WIRE FABRIC

"The Steel Backbone for Concrete"



Every Concrete floor slab in the Salmon Tower, New York's new 31 story office building, is made permanent—absolutely safe with Wire Fabric Reinforcement.

SHORT span concrete arch floor sys-tems, Wire Fabric Reinforced, contribute largely to the safety and permanence of the modern skyscraper.

In the Salmon Tower Building-New York's new 31 story building-684,000 square feet of American Steel & Wire Co.'s Wire Fabric was used and this is but one of many current examples that definitely indicate the trend in Concrete Floor Slab Construction.

Cold Drawn, High Strength Wire Fabric Reinforcement, gives greatest efficiency with minimum labor cost. It provides definite assurance of protection from fire, load and quake. Additional information gladly furnished upon request.

SALES OFFICES

CHICAGO	
CLEVELAND	Rockefeller Building
CINCINNATI	Union Trust Building
MINNEAPOLIS-ST. PAU	L
Merchan	ts Nat'l Bank Bldg., St. Paul
ST. LOUIS	
KANSAS CITY	
OKLAHOMA CITY	First Nat'l Bank Bidg.
BIRMINGHAM	
MEMPHIS	
DALLAS	Praetorian Building
	Pirst National Bank Bidg.
	Walker Bank Bidg.

A A A COMPLY	
NEW YORK	30 Church Street
BOSTON	
PITTSBURGH	
PHILADELPHIA	Widener Building
	101 Marietta Street
WORCESTER	
BALTIMORE	
BUFFALO	
WILKES-BARRE	
	2067 E. Slauson Ave.
	Geh & Alder Sta
	4th Ave. So., & Cons. St.

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WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

[September, 1927





Save That Attic Loss

HE owner pays for the attic whether he uses it or not. A box stairway to reach the attic wastes space below. BESSLER turns the attic into a regular room and so adds \$1,000 to the value of the house without taking up any space below; it slides easily up out of the way when not in use. If the owner is not thoroughly satisfied after thirty days' trial, it may be returned for refund of purchase price. Send for particulars

The Bessler Disappearing Stairway Co. Akron Ohio





=BANKS= **REMOVABLE STEEL CLOTHES POSTS** FOR WASH DAY

If your Dealer or Jobber can't supply you, write for folder describing Banks (Patented) Removable, Green Enameled, Ornamental Clothes Posts, Pulley Poles and Flag Poles.

Made of the highest grade Carbon Steel Tubing obtainable. The "Ace of Clubs Top," our Trade Mark, identifies. Prices within the reach of every home owner. Cost less than wooden posts and will last as long as the house.

We also have a Patented Parkerized Process, absolutely Rust Proof clothes post. Not subject to weather or age and retaining its bright gray or green finish. Write for prices.

Banks Steel Post Co., 128 Wakeman Ave., (North) Newark, N. J.

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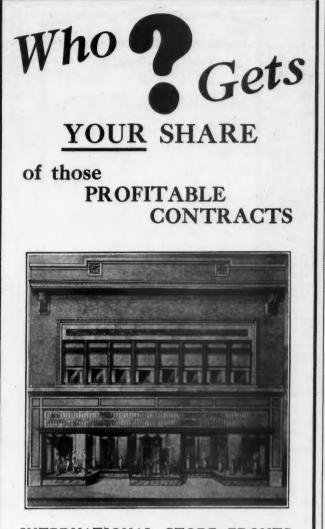
a day!

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LUCKY ACE

SEE THAT YOU

GET IT BEWARE OF



INTERNATIONAL STORE FRONTS PREVENT ERRORS IN OUOTATIONS

Complete free plans and bids from us on International Store Fronts (for new or old buildings) save you the time of making estimates-and make it easy to submit a prompt and accurate bid which will get the business, at a price which means sure profits for you.

FREE ENGINEERING SERVICE FREE PLANS

We furnish building designs, free of charge to reputable contractors, which brush away the last reason an owner may have for de-lay in signing a contract. Our constantly maintained large stock of materials and immense fabrication plant insure prompt delivery of correctly fitting steel and iron construction materials.

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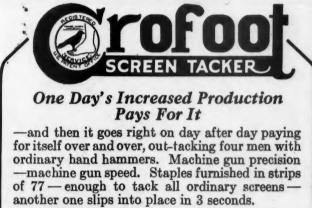
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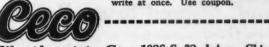
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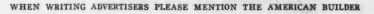




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Majestic Steel Cabinet Co. Household Steel Cabinet Headquarters 4211 Belle Plaine Ave. Chicago



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LOUISIAN

502 Carondelet St.-

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Louisiana Red Cypress "The Wood Eternal"

insures long-lived construction and low-cost maintenance. They instantly appreciate the increased worth of homes built of this enduring lumber.

When it is used for sills, siding, porch flooring, stepping, door and window frames, there will be no unsightly defects cropping out after a few years, such as shown in the above illustration.

It should be noted that there are different kinds of Cypress with varying degrees of durability.

The careful builder can protect the quality of his work and secure the lasting goodwill of his customers by constructing all exposed parts of Louisiana Red Cypress. This is the genuine tidewater growth, and the true "Wood Eternal"-a fact which should be advertised in selling the homes you build as it makes an effective talking point with prospective buyers.

Valuable information for builders is given in "Specification Data for Structural Uses of Tidewater Red Cypress (Coast type)." We will send copy on request.

Also ask us for literature on Louisiana Swamp Tupelo, the longwear flooring lumber and economical trimwood for interiors.



New Orleans, La.

COMBINATION BATH



SEAT BATH, FOOT BATH, SHOWER BATH, CHILD'S BATH.

Semi-Vitreous Porcelain and Enameled Iron Ware.

Dr. Herman M. Bundesen, 7414 Oglesby Ave., Chicago, Ill., installed one of these fixtures in his new residence several years ago, and remarks as follows:

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Mrs. Bundesen is equally as enthusiastic as the Doctor, and states—"It is a wonderful bath."

Ask any jobber or plumber for complete details, and write us for descriptive circular.

Wheeling Sanitary Mfg. Co. Wheeling, W. Va.

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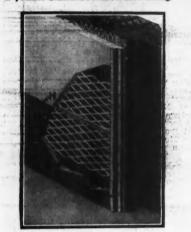
NOTICE TO ADVERTISERS

Forms for the October number of the American Builder will close promptly on September 10. New Copy, changes and orders for omissions of advertisements must reach our business office, 1827 Prairie Ave., Chicago, not later than the above date, if new copy is not received by the 10th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts.

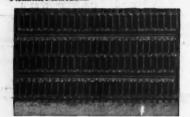
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Section of wall exposed to show Milcor Products, essential to Better Plastering: — "A", Expansion Corner Bead No. 1 [Par'd]; "B", Expansion Corner Bead No. 2 [Par'd]; "C", Stay Rib Metal Lath No. 1; "B", Milcor Concealed Metal Picture Molding.



Showing Milcor's popular new metal trim which replaces wooden trim for doors and windows: -- "F" Exposed molding of Expansion Casing No. 6 [Par'd] and "F-r", the expanded metal wing of same; "H", Exposed bead of Expansion Base Screed No.3[Par'd] and "H-r", the expanded metal wings of same; "G" --Netmesh Metal Lath.



Milcor Stay Rib Metal Lath No. r In addition to this lath, the Milcor Line includes 36" Stay Rib No. 2, 34" Stay Rib No. 3 and Netmesh Idiamond expanded] metal lath. Available in steel, "Coppered Metal", or ARMCO Ingot Iron, painted or galvantzed, or in zinc or copper.





Where one goes the gang goes!

STOP them! Fire and his henchmen pick the unprotected homes and buildings. There lies their strength—in the weakness of shoddy construction. Indifferent plastering on unsafe plastering bases never did and never will represent anything but danger and undue expense, eventually — and sometimes before there is time to move in!

Last winter, in Milwaukee, on the eve of the day the owner was preparing to move into a supposedly high grade new home, FIRE stalked in and gutted the entire interior! The plastering had been done on a base of wooden lath. The heating plant had been started, to help dry out the building. Overheated flues started the trouble. FIRE had another feast — nothing to stop it! Plenty of encouragement! Thousands of dollars lost. And deep chagrin, instead of happiness, for all concerned.

Plastering on metal lath prevents such losses. It saves lives. It keeps out FIRE, Cracks and Dust Streaks, permanently. It insures lasting beauty for plastered walls and ceilings inside and for stucco outside.

The cost is so little and the value so great that the common sense of building this way for safety and permanent beauty is plainly evident. Stop these depredatory plotters. You know how!

MILWAUKEE CORRUGATING COMPANY, Milwaukee, Wis. Chicago, Ill. Kansas City, Mo. La Crosse, Wis. Boston, Mass.



