

AMERICAN BUILDER

THE WORLD'S GREATEST BUILDING PAPER

Vol. 45.

CONTENTS FOR AUGUST, 1928

No. 5.

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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. Pekar, *Eastern Editor*; Juan Homs, *Export 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, R. E. Clement, *Advertising Staff*.

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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 detrimental to the interest of its readers; to edit advertising copy and to change or eliminate any statements that reflect injuriously or cast discredit upon other building products, machinery, equipment, supplies or tools.

Be sure in writing to advertisers to say: "I saw your advertisement in the AMERICAN BUILDER."

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MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS

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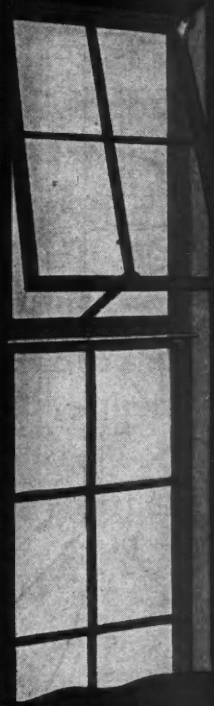
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MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS

UTILITY *and* ECONOMY



Simple Combination Units for any Window Opening

Trusc
fal bu
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and an
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desire

Trusc
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the fic
every
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with th

units are on the architecturally beauti-
fully practical for any building. They
are completely assembled at the factory
and shipped in a compact, convenient
package. They are made of heavy
material and are designed for all
weather conditions.

Units are easily and quickly installed in
any construction saving labor and time. No
special tools are required. The units are
designed for easy installation and the
units are shipped complete with all
hardware.

*See Illustrated Catalog and Architectural
Plans, Model No. 1, Trusc Steel Company*

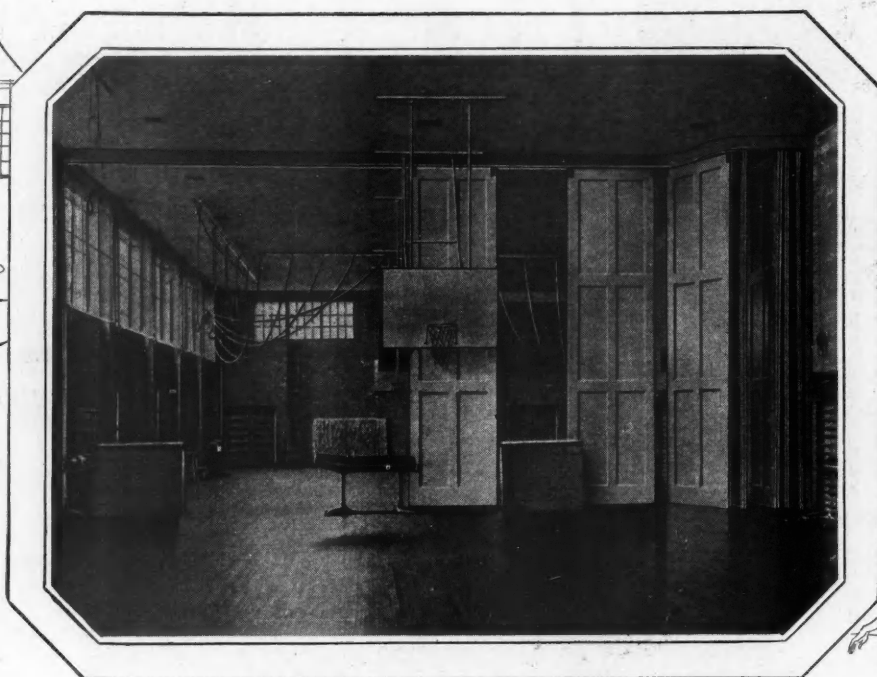
TRUSC STEEL COMPANY FABRICATED WINDOWS

Trusc Steel Company, Youngstown, Ohio, has
developed a new type of window unit which
is both practical and beautiful. These units
are made of heavy material and are designed
for all weather conditions. They are
completely assembled at the factory and
shipped in a compact, convenient package.
They are easily and quickly installed in
any construction saving labor and time.
No special tools are required. The units
are designed for easy installation and the
units are shipped complete with all
hardware.

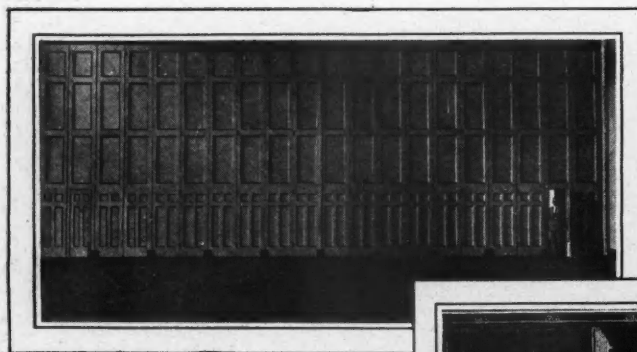
TRUSC STEEL COMPANY, YOUNGSTOWN, OHIO
ESTABLISHED 1899

The World's Largest Manufacturer of all Types of Steel Windows, Hardware and Office of all Principal Cities

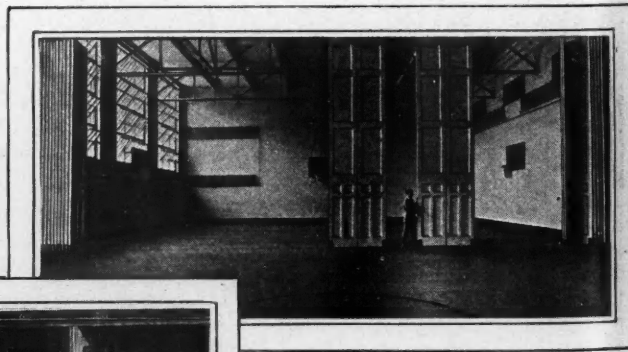
The FOLDER-WAY



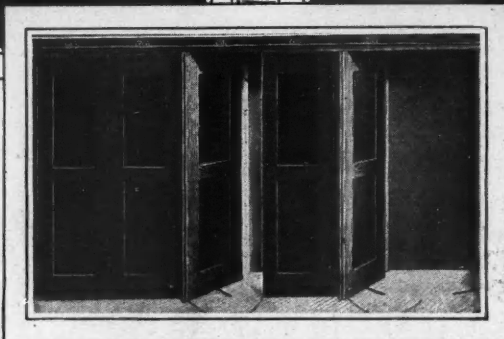
FoldeR-Way illustrated above is specially adapted to very wide doors, with weight carried on overhead hangers and track which automatically folds doors. No floor track or guide is necessary.



Closed view of very high and very heavy partition doors equipped with FoldeR-Way, suitable particularly for gymnasiums, stages, halls, etc., with high ceilings and unusual widths.



Above is partially open view of very high and very heavy partition doors. With this type of FoldeR-Way, weight is carried on floor track and ball-bearing rollers. Upper track and rollers act as guide.



In the illustration above is the type of FoldeR-Way best suited to school lockers, telephone booths, etc.

method for wide openings

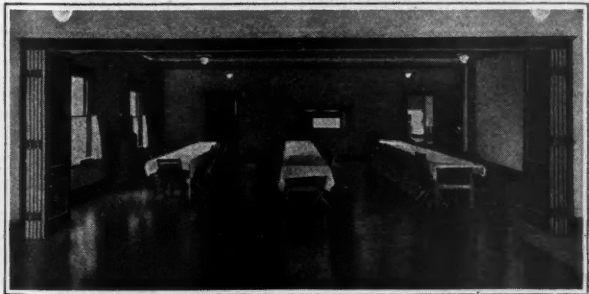
WIDE OPENINGS, at times, present a difficult problem for doorway equipment. But more and more architects and builders are finding that FoldeR-Way partition door hardware is designed with such skill and variety that their task is little more than selection of a type.

Whether your needs call for massive sliding-folding doors for

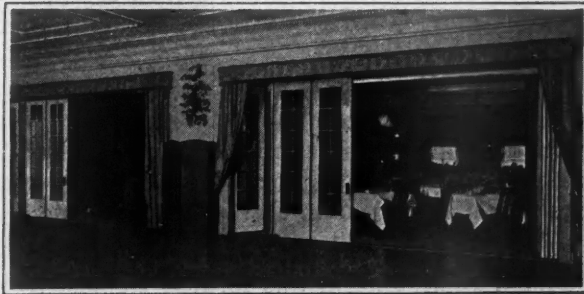
gymnasium or hall, or smaller and lighter doors for church, hotel, auditorium, telephone booth or locker—there is a type of FoldeR-Way to meet any and all requirements.

FoldeR-Way is built to slide and fold smoothly and easily, regardless of weight or size of doors. Our engineers will be glad to help you with your doorway problem.

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.

Richards-Wilcox Mfg. Co.

A Hanger for any Door that Slides.

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

See How Easy to Build of Stone

*Why not get into this profit field as
other builders are doing? Send for
free plan books now*

PLEASE write us today for full information about Indiana Limestone Random Ashlar construction. The popularity of this beautiful natural stone for both residence and commercial structures is increasing daily.

If you get started ahead of the other fellow, you have an opportunity to establish yourself as the leading authority on stone construction in your community. It will mean profits and prestige for you that otherwise some competitor of yours will get. Don't let this chance go by. Other contractors are taking up stone construction with great success.

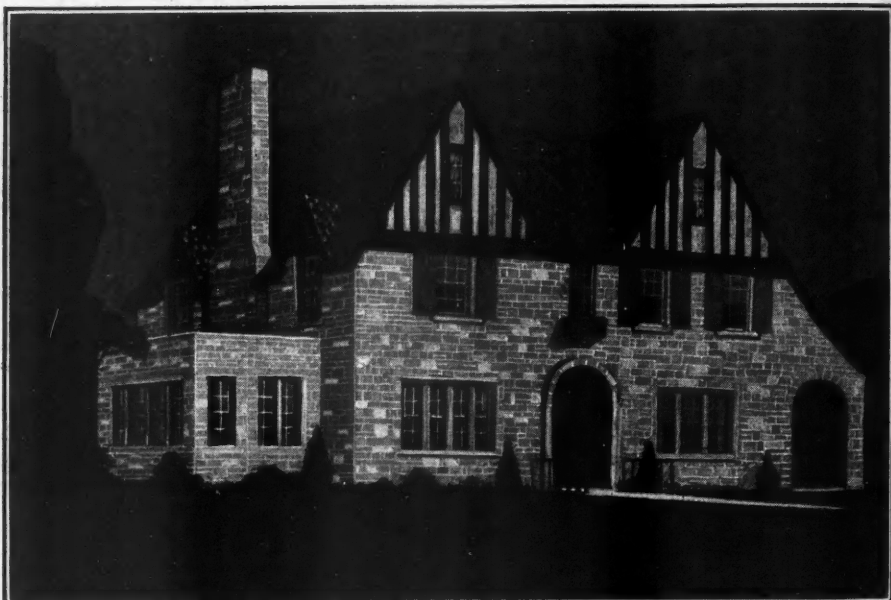
Used as Veneer

For ordinary residence construction, Indiana Limestone Random Ashlar is used as a veneer. The stone is prepared in sawed strips right at the quarry, sawed on four sides—face, back, top and bottom.

Indiana Limestone in this form is shipped from the quarries direct to the job. There it is broken to length, jointed and laid up in the wall. A stone-mason or a bricklayer can do the work. Expensive stone cutting is reduced to a minimum. The only place cut stone is needed is for trim. Frequently even this is not necessary. No carefully prepared drawings of the jointing layout are needed either.

Jointing Made Easy

The stone is jointed to the required lengths by a remarkably simple operation. A portable hand-operated electric carborundum saw is used in place



Farley residence, Detroit, Michigan. Originally designed for brick, this beautiful home is being given even greater beauty by use of Old Gothic Indiana Limestone Random Ashlar.

of the old mallet and chisel. Or an ordinary buck saw may be used. The saw is used to cut a groove in the face of the stone. Then it is turned over and a tap with the mallet breaks it cleanly along the line of the groove. One man with an electric saw can usually keep six stone-masons busy. Your stone-masons spend all their time on the wall laying up stone, instead of on the ground jointing it.

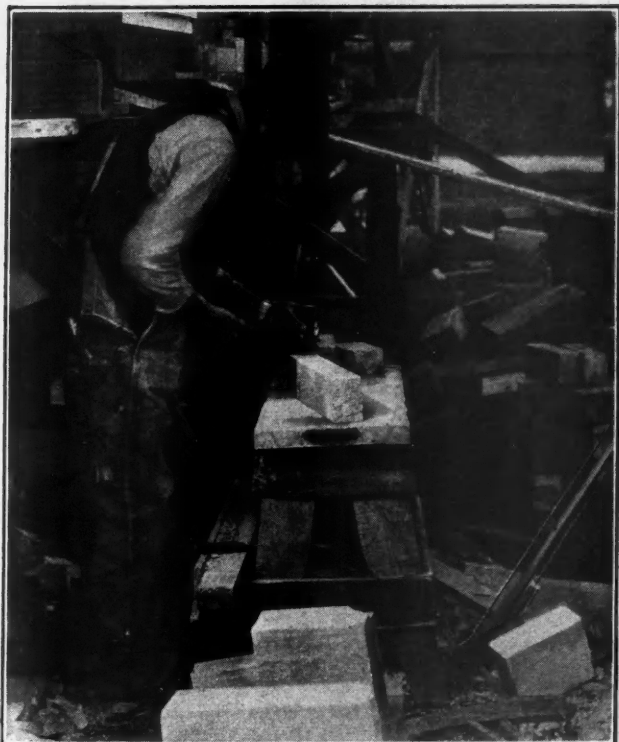
Indiana Limestone used in this way is applied as a veneer to stud frame walls with galvanized metal ties, the same as a veneer of face brick work. This method is so simple that construction goes ahead with maximum speed.

The cost of a residence with Indiana Limestone Random Ashlar facing is only 5% to 6% more than when some other less desirable and distinctive material is employed. Resale value is much higher.

INDIANA LIMESTONE COMPANY, GENERAL OFFICES: BEDFORD,



Laying up the stone in the Farley residence shown here. We co-operate with you on your first Indiana Limestone job so that you have no difficulty in learning how to use this beautiful stone.



Jointing stone with ordinary buck saw.

We are interested in working with live contractors and Home Building operators. There is a big demand today for "something different" in homes, especially something substantial with which there is no exterior upkeep cost. We know that Indiana Limestone offers the biggest single profit opportunity in years to the builder who will act quick. It gives him a chance to get the jump on his competitors.

Write for Plan Books

Let us send you plan books and full information on construction. Without obligating you in any way, we will post you thoroughly on this wonderful home building proposition. For convenience, fill in your name and address on the coupon below, and mail it today.

Fill In, Clip and Mail

Box 757, Service Department,
Indiana Limestone Company, Bedford, Indiana

Send me full information on Indiana Limestone for
Random Ashlar facing for residences.

Name.....

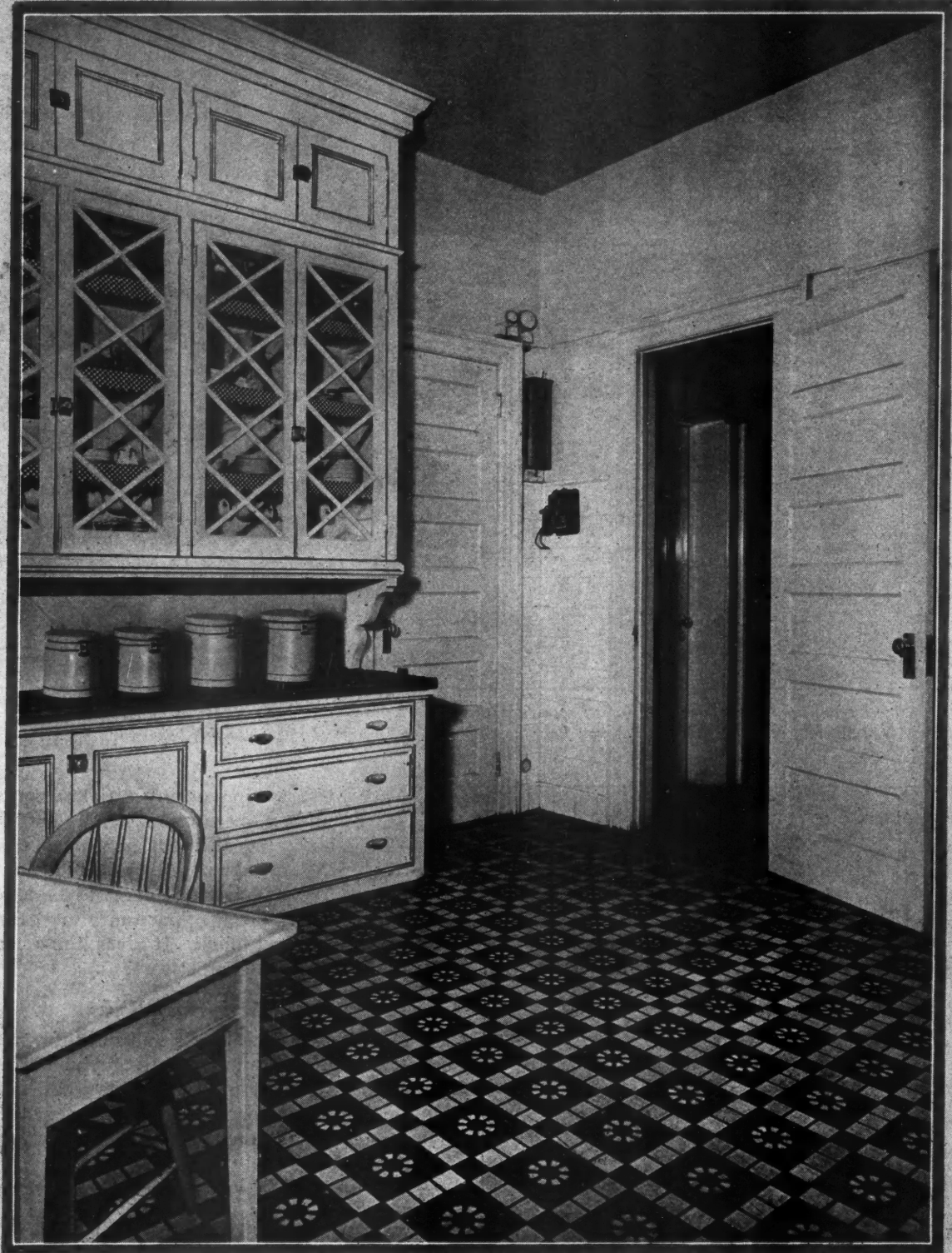
Address.....

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

INDIANA . EXECUTIVE OFFICES: TRIBUNE TOWER, CHICAGO

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

CLINCH THE SALE WITH MODERN FLOORS BY SLOANE



More often than not, it's the things that add "eye-value" that make houses sell more quickly. Floors of W. & J. Sloane Linoleum are an example. They add immensely to the appearance of a new house or apartment and every woman knows how practical they are. It also helps if you say "Made by Sloane," for these floors are nationally advertised. For any information you may need on linoleum floors, write our Contractors Service Department, 577 Fifth Avenue, New York City. W. & J. Sloane Manufacturing Company, Trenton, N. J.

W. & J. SLOANE LINOLEUM

FREE - This Definite GUIDE to Greater Profits

"POINTING THE WAY"
has already brought thousands
of dollars in extra profits to Con-
tractors, Carpenters and Builders

NEVER in the history of Sanding Ma-
chines has anything like "Pointing
the Way" been published.

It contains Facts—Pocket-Book facts—
Profit facts—practical operation facts—busi-
ness building facts—time saving facts—
never before published.

It brims with practical, workable suggestions
for everyone in the building and woodwork-
ing field.

Make Lean Months Profit Months

It shows the simple, easy way to cut down
expenses and increase profits. How to get busi-
ness and hold business; how to make the lean
months profit months; how to change money-
losing months into money-making months.

It tells not only what to do, but how to do it.
It livens up directions by interesting descrip-
tion, brightening and clarifying them by clear
cut illustration.

It shows what work the Clarke will do—how
it will do it and why—and backs every state-
ment by the testimony of users. You'll find
letter after letter from big industries; from
contractors; school managers, telling how the
Clarke day in and day out, performs every-
thing in the sanding field—in quality work

—in
quan-
tity work
—in labor
saving—in
money-making.

Proof By Use

Every statement about the
Clarke or the work it will do is
backed by definite-positive proof.
Every business getting suggestion is
gathered from actual experience. Nowhere in
"Pointing the Way," from the first page to
the last, can you find one misstatement, one
unproved theory.

Practical Money-Making Information

That's why "Pointing the Way"—rich in
colors, abounding in illustration—is the most
up-to-date treasury of useful money-making
information ever offered to practical men.
Thousands of dollars have been invested
in collecting facts, and publishing
"Pointing the Way,"—but it's
FREE to you. Get it. Use
the coupon NOW.



Do not buy
any sander, at
any time, at any
place, at any price,
until you see what
work the Clarke
can do for
you.



CLARKE SANDING MACHINE CO.
Dept. A-28, 3815 Cortland Street, Chicago, Ill.

Originators, and, for 11 years Manufacturers of
Portable Sanding Machines

Clarke Sanding Machine Co.,
Dept. A-28, 3815 Cortland St.,
Chicago, Ill.

Please send me illustrated copy
of "Pointing the Way to Greater
Profits," which shows actual Proof
of Performance and money-making
facts of the Clarke Vacuum Portable
Sander.

Name

Address

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

150
Eternit roofs
chase the
"price bugaboo" off Long Island!



A group of homes that the East Flushing Realty Company has erected. A close-up view of a single home is pictured below

IF THERE'S a competitive building territory in this country, it's Long Island! Feverish activity sends up homes at rapid pace. Development builders vie with each other for public favor. And they base their sales talk on *price*. Using that very weapon, the East Flushing Realty Co., Inc., proved to "home-shoppers" the true economy of Eternits by building 150 Eternit homes!

"We are glad to say a word for Eternits," writes Mr. Emmerman, president, "after all they have said for us. Money speaks—and so do Eternits. The average home-buyer here cannot stand the price of slate roofs. We have found, however, that Eternits have all the advantages of slate roofs without the cost.

"We want to say here and now

that Eternit Asbestos Shingle roofs on our last 150 homes are the most satisfactory that we have ever had. We find because of greater strength and toughness we effect savings on application costs. That's a mighty important item, too, because a few dollars saved here and there, on a large number of houses, count up."

110 more Eternit homes!

Saving to the builder—satisfaction to the buyer—that's the reason for the continued success of Eternits. And it *will* be continued, says Mr. Emmerman. "We are planning to build 110 houses this year, and you can rest assured Eternit roofs will be specified!"

Eternits will not wear out. Neither will they rot, curl, raise, or warp. And they are absolutely fireproof. The special Eternit

process—evenly distributing asbestos fiber throughout Portland cement—makes Eternits stronger, tougher, and more resilient.

And in addition to all this, Eternit shingles are absolutely fadeless. By an exclusive Eternit process, each fresh, rich color—Emerald Green, Autumn Bronze, Colonial Gray, Quarry Blue, Indian Red, and Heatherblends (a combination of five special colors)—retains its charm in all weather.

Let us send you more information about Eternits. Address Eternit, Inc., 15th and Locust Streets, Philadelphia. Offices and warehouses at Houston, Jacksonville, New Orleans, St. Louis. Factory at St. Louis.

Eternit

Reg. U. S. Pat. Off.

ASBESTOS SHINGLES
ABSOLUTELY COLORFAST



ETERNIT, Inc., Dept. A, 15th and Locust Sts., Philadelphia, Pa.

Please send me full details, roofing directions and samples.

Name _____ Street _____

City and State _____ Dealer's Name _____

Are You Making the Most of Your Basements?

Selling the Master Model Homes Shows the Strong Sales Appeal Exerted by the Well Equipped Modern Basement

By **BERNARD L. JOHNSON,**
Editor, American Builder

THE old fashioned basement, that damp and dingy dungeon thickly powdered by coal dust and ashes and dimly lit by grimy window glass will soon be as extinct as the Dodo bird; quite to the contrary, the modern home owner is able to quarter the hired girl in a light and airy bedroom three feet removed from the furnace and use the rest of the converted space for everything from a hot house to a shooting gallery, according to L. Porter Moore, president of the Home Owners' Institute.

The Institute, engaged in building model demonstration homes in key cities throughout the United States to show the public the advantages of using nationally advertised, trade marked materials and equipment, has collected valuable data on the *kinds* of homes that appeal to the rank and file of people from New York to San Francisco. The *AMERICAN BUILDER* has been presenting each month the findings of various surveys conducted by the Institute, this article being the third in the series.

Some wise home owner covered a sheet of paper with figures and decided that his investment in the cellar was proportionately equal to that in the main rooms of the house, but that the return on this investment in real estate value, rental valuation and living comfort was disproportionately small. On that day this home owner partitioned off his heating equipment, waterproofed his wasted investment, and moved his children's toys off the best Oriental rug to the clean dry floor of the cellar.

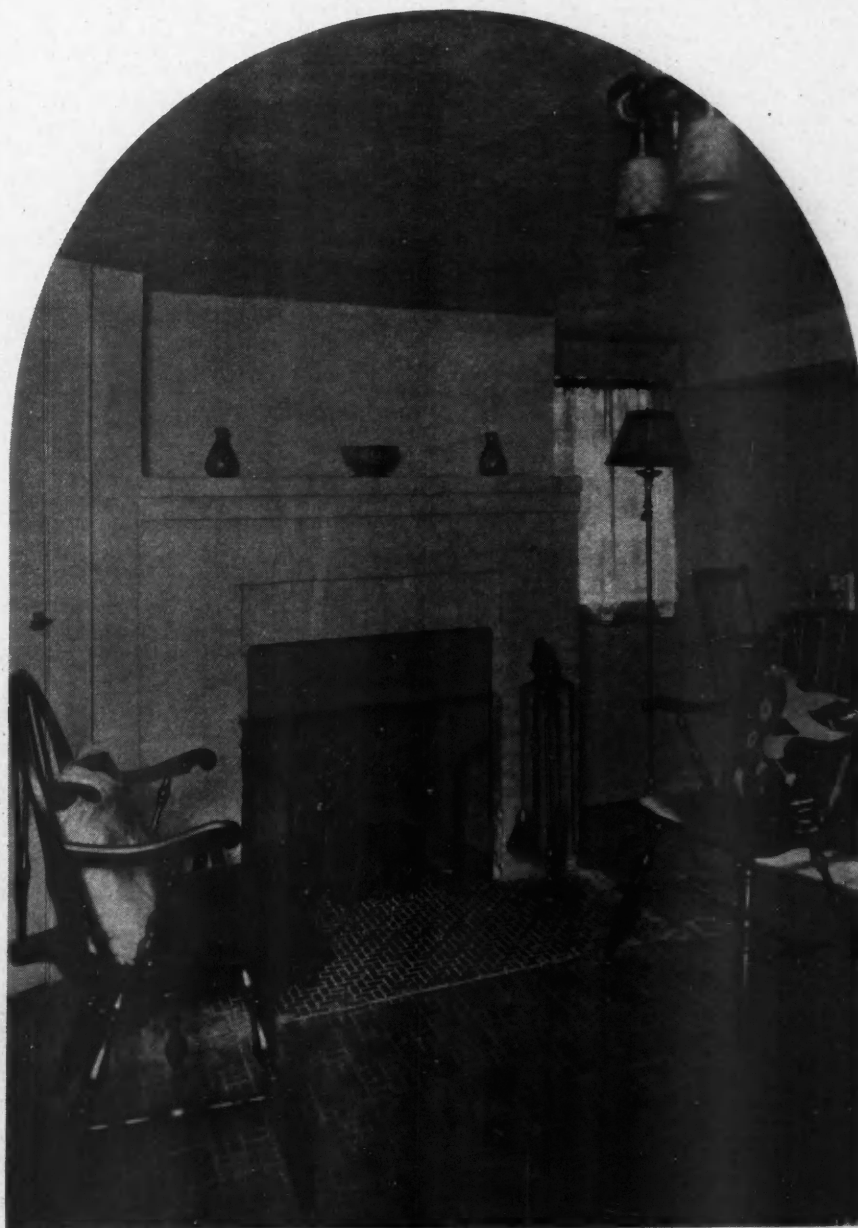
In this day of compact quarters when waste space has been reduced to a minimum and room sizes have shrunk, when small houses are demanded because land values are rising, two or three extra rooms are as welcome as the flowers that bloom in the spring.

"People who were brought up in old fashioned roomy houses that boasted living rooms, libraries, studies, and dens, now find themselves and their children and their children's friends wedged in a 12-foot living room. And now all over the country, the woman with young children, the man with a hobby, and the servant who wants privacy are descending down the despised cellar stairs and relaxing underneath the heating pipes," says Mr. Moore.

But why wait for the home owner

to wake up to the unused space underneath his feet? Why not deliver an extra floor to the home buyer? Why not give him a clean, light, dry, airy basement all ready for the emergency bedroom or the billiard table or both?

Mr. Moore thinks that any little extra expense in this connection pays and he has the reactions of hundreds of thousands of prospective home owners to support his theory. Accordingly, the Institute Master Model houses are planned so that the basements can be utilized to the fullest possible extent by the ultimate owners. "Model"



This Basement Den Is Made Cosy and Inviting by the Open Fire, Special Flooring and Good Lighting. Model home by the West First Street Building Corporation at Freeport, Long Island.

basements are features of the model Institute homes. These basements are furnished and fitted in order to show visitors what can be done in other homes the builder hopes to construct.

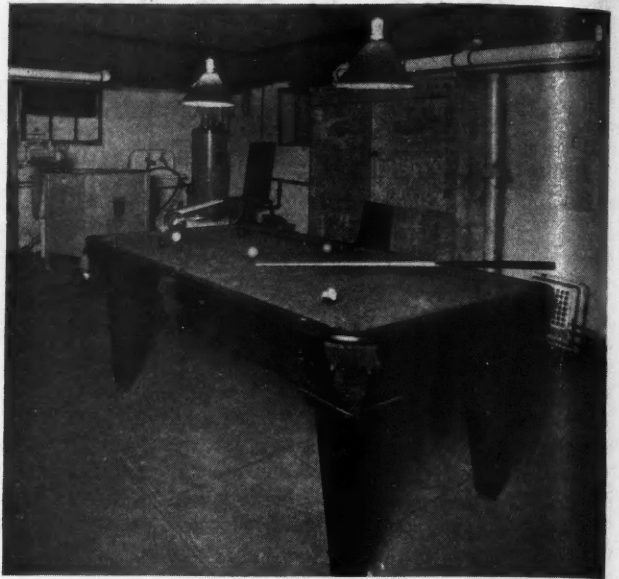
The basement can be utilized by any builder without extra cost by proper planning in the first place so it may be partitioned off and utilized later if funds are not available at the time of construction.

"There is \$1,500,000,000.00 invested annually in cellar construction by home builders in the United States. Only 40 per cent of this space is utilized for boiler, coal bins, and laundries; and 60 per cent, or \$900,000,000.00 worth of construction is used for a dumping ground by people who are learning to know better.

"Taking a particular case, let us consider a model home opened recently at Sunset Estates, Summit, N. J. This Colonial frame house of seven rooms, breakfast alcove, and two baths cost \$20,033.00, not including the value of land, grading, seeding, and planting trees and shrubs. It contains 34,000 cubic feet. The cost per cubic foot was just about fifty-eight cents. The basement contains 6,900 cubic feet. The proportionate cost of the basement, therefore, is slightly more than \$4,000.00. Such basement space is too costly to remain idle."

Or looking at this problem the other way, people can build their houses one-third as small and by utilizing the basement, secure an equal amount of space—a good sales argument for the progressive builder who has the courage to turn out such houses.

And, aside from the comfort factor, there is a safety factor that should not be overlooked and which will appeal to the serious minded prospect. Ninety per cent of



The Model Laundry in the Background, with Game Table in Front, Reveals the Dual Purpose of This Basement.

residence fires originate in the basement from defective flues, hot ashes, improperly installed heating plants, and other causes. This hazard can be greatly reduced by careful construction in the modern basement to be used for work or living rooms. Details of this construction will be described later.

"The builder must not only produce a liveable basement, but he must be able to point out to prospects the many, many ways in which this new space can be utilized. Perhaps the most popular use for this reconverted space is for a children's play room, where growing children can romp and run with no danger to the nice living room furniture. Next in appeal, and a use which can be worked out in connection with the play room for the mother who does her own washing, is the complete basement laundry. Here a woman can work in comfortable attractive surroundings and keep her eye on her children at the same time.

"Tubs should be installed in a convenient part of the basement, which may be partitioned off by the builder or later by the owner, depending on the funds available by both at the time of the sale. Provision should be made for all the modern laundry equipment, including an electric clothes washer and an ironing machine. The family wash has long been done in the basement, but women refuse to do their ironing in a semi-dark and semi-damp atmosphere. Consequently, they have denied themselves the electric ironing machine because there is no place to put this equipment in the ordinary kitchen. For the more progressive family, a dryer can be placed in the modern basement laundry, this being another large piece of equipment that could never be stored in the average 1928 kitchen.



The "Four-Way" Laundry Tray That Will Increase the Efficiency of a Basement Laundry. The wash can be plunged from the tub to the rinse water, from the rinse water to the blue water, and from the blue water to the clothes basket without moving the washing machine, which is, of course, included in any such prepossessing workshop.

"The latest laundry tubs are installed in the center of the laundry room instead of against the wall, and because they are accessible from all sides, are called 'Four-way' laundry trays. The fact that all sides of these tubs are open makes the task of washing easier as it cuts down on the steps back and forth that are necessary in order to complete the various motions of changing the soiled shirt in the laundry bag to the clean bundle in the clothes basket.

"The electric washing machine can be pushed up to the 'tray' so the wringer swings over both compartments. The housewife can then transfer the clothes from the washing machine to the rinse water, from the rinse water to the blue water, and from the blue water to the clothes basket without running hither and yon, as she is apt to do in the room in which the tubs are built against the wall.

"The trays are equipped with swinging faucets that fill both compartments, with a separate connection for the hose that fills the washing machine. These faucets do not project inside the 'tray,' but are just above it, which eliminates the hazard of torn clothes on 'inside' faucets. The faucets and spout are finished in non-corroding, non-tarnishing chromard, a great protection for the family linens.

"The thought of a billiard room is appealing to thousands of families and this is an appeal that reaches every member of a household. Lack of space has made it necessary for many people to abandon the idea of this form of relaxation, and the builder who has so planned his basement that a billiard room could be installed at little expense other than the equipment will find the suggestion a happy one as he shows a prospect around.

"Many men have some mechanical hobby and like to have a place where they can build radios, mend furniture, experiment with chemicals, or work on machinery. There is no place for a 'workshop' in the modern home, but there is a place for it in the basement.

"With children growing up and additional space required in the main portion of the house, the light, dry, clean basement is the place for the maid's room, to which a shower

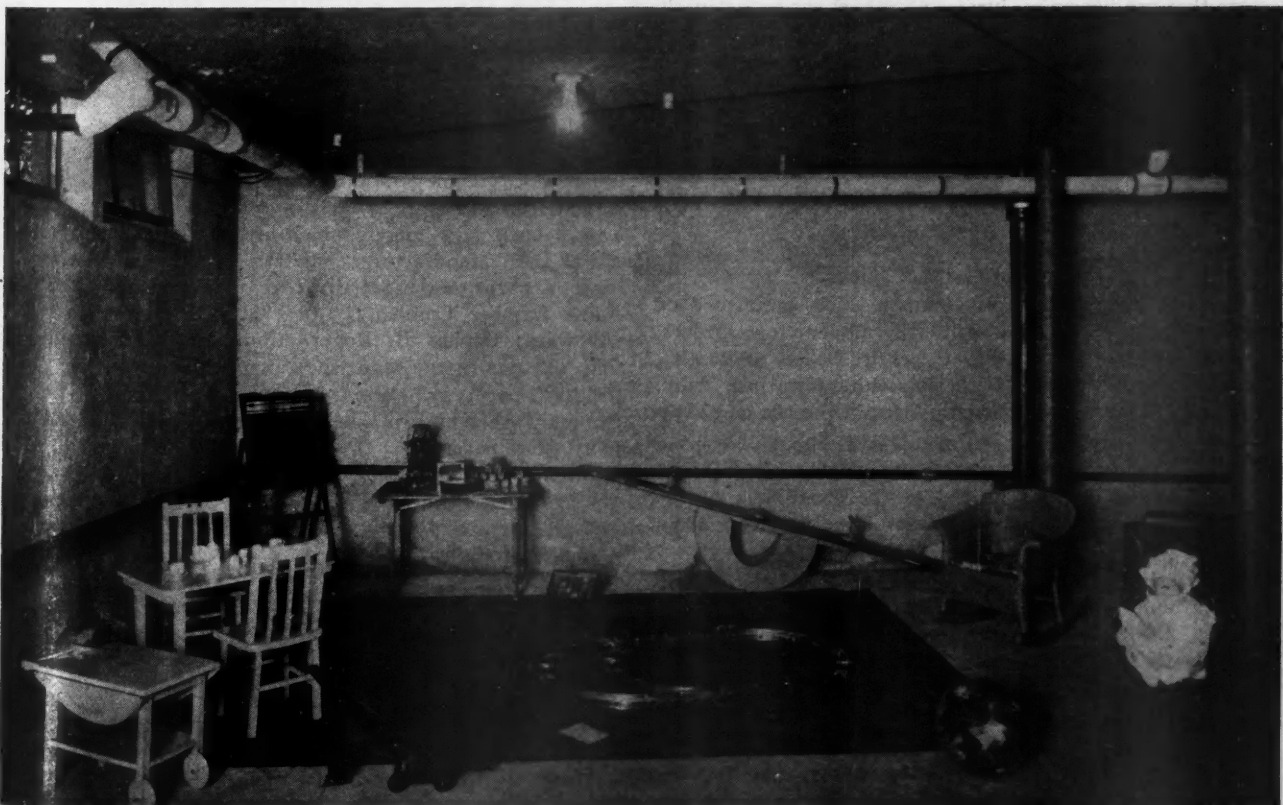
or even a bathroom can be added. Other portions of the basement can be fitted up as a miniature gymnasium with hand balls and dumbbells, with a shower attached, or as a storehouse for preserves. One family built a greenhouse in a 'reclaimed' cellar, using the side of the house that received the most sunlight during the winter months. Another family engages in target practice in a beautifully fitted shooting gallery a few steps from the furnace.

"All of these things are suggestions that will be welcomed by the American family that has learned the compensations of recreation. Show a man a home in which he can relax and play, as well as sleep and eat, and you have gone a long way towards securing the signature on the dotted line. Show a woman with five children a little extra room than she would ordinarily expect, and you have gone a long way towards securing her consent that puts the signature on the dotted line.

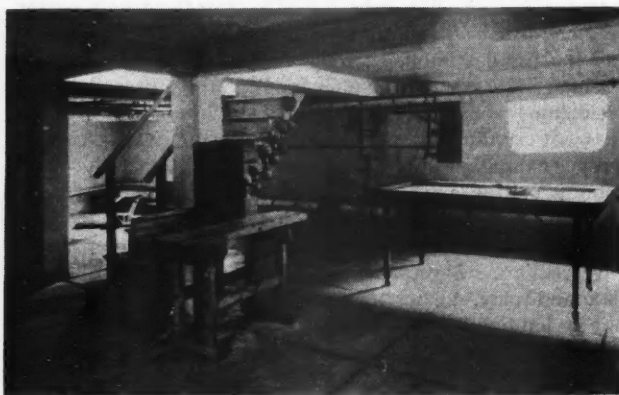
"Perhaps the first step in creating this extra floor in a house is to plan on the efficient handling of the sore spot that kept the cellar what it was for so many years—the furnace. Manufacturers that foresaw the trend of the times in this connection have produced a new sectional coal-burning boiler with a smooth, washable, bright red porcelain jacket that looks more like a giant colored victrola than a heating plant. Available at popular prices this vivid piece of equipment fits in with a decorative scheme that may be undertaken in the basement rooms. The use of this boiler keeps the cellar free from coal dust, ash and unpleasant fumes. The coal can be stored in a private compartment behind substantial walls and a small wheelbarrow can be used to transport the fuel to the heater and to dispose of the ashes.

"Oil or gas heaters can also be used for the modern basement. The fuel for these types of equipment can be stored in an underground tank outside of the house, and the furnaces are automatically fired.

"In this connection all furnaces should be equipped with heat regulators that minimize the trips necessary to care for the fire and save fuel expense.



Children's Play Room in the Basement of the New York Herald-Tribune's Master Model Home, Sunset Estates, Summit, New Jersey.



A Corner in One of the Home Owners' Institute Model Homes at Philadelphia, Pa., Showing Gymnasium Equipment, Work Bench and Billiard Table.

"Having eliminated the dust and dirt, it is next necessary to insure a pleasant and dry atmosphere and more daylight than filtered into the shadowy recesses of the old-fashioned cellar. In connection with the actual planning of the modern basement it is well to digress here for a moment and point out that provision should be made for ample head room. The foundation should be waterproofed, of course, as no family can spend any time at all in unhealthy damp air. The poured concrete foundation is most easily waterproofed and has economy and strength to recommend it. Concrete block foundations can be waterproofed in much the same way, the compound being mixed with the concrete of the blocks. Basements of common brick are dry as a bone and common brick should be used also for the combustion chamber for the incinerator, which any housewife would rather have than a diamond ring. The installation of an incinerator is just another example of making the most practical use of the cellar space by putting in it the materials, products and equipment that will make life more comfortable and efficient for the prospective owner—two factors that are becoming increasingly important in American family life.

"Returning to the reference to the reduced fire hazard in the carefully constructed basement, the partitions used to separate the various rooms can be made fireproof at an economical cost by using solid plaster partitions reinforced with metal lath and channels. Of course a fireproof first floor is ideal, but good protection can be obtained by using a metal lath and plaster ceiling, which gives a positive stoppage to fire as contrasted with the ordinary wood lath, which actually serves as fuel for the flames.

"Partitions may also be of common brick, unfinished or painted. If placed, as they should be, under cross girders, they will materially strengthen the entire house, preventing the possibility of sagging, with its resultant warped floors, doors and windows and cracked plaster in the rooms above.

"Under all circumstances, metal lath should be used over the furnace room and coal bins, which aside from its fire resistive qualities, is an aid to the cleanliness of the upper rooms, as it prevents the dust of the basement from filtering through the floor.

"Around the fruit cellar, where extra insulation is required, a hollow wall is desirable to maintain uniform temperature. Built of metal lath attached to both faces of steel studs, plaster is then applied to the metal lath on each face.

"Windows should be placed so as to give plenty of light and air. Steel basement windows of the double weather-strip type will exclude draughts. Where the contour of the lot permits, ordinary steel casement windows may be used. In both types the greater proportionate glass area will increase the light. Steel basement windows admit more

light than the old-fashioned wooden type. They never warp or stick and, because of their construction with a cam-acting latch and multiple contact weathering, give both security from unauthorized entrance and protection from draughts.

"Finishing materials include the new plaster finishes, concrete paints, acid stains for concrete walls and floors, insulated lumber, tile and slate. Walls may be lined up to the ground level with a dado of insulating lumber in panels, giving an interesting effect.

"It should also be remembered that if a portion of the basement is to be fitted up as a billiard room, den, radio room or card room that a fireplace will greatly add to its cheer and the informal decorative treatments are most appropriate and least expensive. Since the chimney is extended into the ground anyway, a fireplace does not entail much extra labor or material.

"Special attention should be paid to the wiring system in the house for which the modern basement is planned ahead of time. Provision should be made for sufficient outlets, as basements are usually poorly equipped in this connection and billiard tables, bridge tables and laundry equipment should have accurately placed electrical lighting. It is a great help to the housewife or laundress to have a good overhead light where the ironing is done, as on dark days or in the evening it is easy to scorch the family wash if the lighting is poor.

"Brass pipe, discussed in the January issue of the American Builder as a sales aid to the modern house builder, can only be proved to be in the house because of its exposure in the basement."

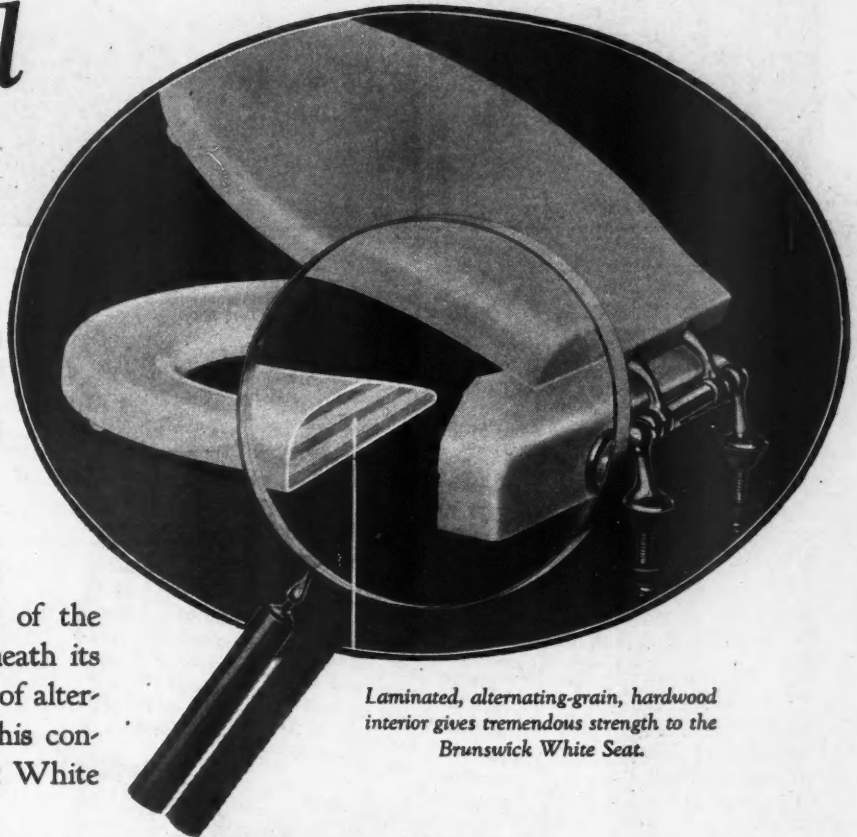
The following products and equipment are used in the Institute homes model demonstration basements: American Brass Company, brass pipe that can only be proved to be in the house because of exposure in basement; American Radiator Company, new "Redflash" boiler and "Ideal" water heater, to make basement warm and livable; Common Brick Manufacturers' Association, brick basements and dry combustion chamber for incinerator of common brick; General Electric Company, wiring system; Hurley Machine Company, division of the General Electric Company, "Thor" washer and ironer; Johns-Manville Corporation, Asbestical pipe covering for heating system, new insulating board for partitions and basement lining, including the ceiling; Kelley Island Lime & Transport Company, plaster finishes; McKinney Manufacturing Company, decorative forged iron hardware, which is rust-proof, and brass and bronze butts and hinges, which are rust-proof; Associated Metal Lath Manufacturers, metal lath for reinforcing ceiling and partitions, especially over coal bins and furnaces; Paine Lumber Company, Ltd., "Miracle" doors that will not warp; Cephas B. Rogers Company, lighting fixtures that will not rust; Standard Sanitary Manufacturing Company, "Four-Way" laundry tray and Standard electric clothes washer built in four-way tray; Truscon Steel Company, steel basement windows, lighter than wood, will not warp and give greater percentage of light in basement; Minneapolis heat regulator and Kerner incinerator.

In the basement, with its heritage of dirt and dust, are profits for the wide-awake builder who studies the trend of the times.

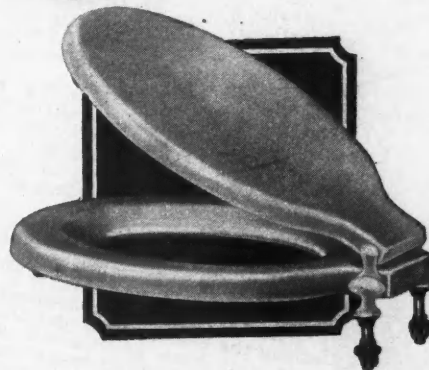


This new Brunswick White Seat

Helps Sell Your House



Laminated, alternating-grain, hardwood interior gives tremendous strength to the Brunswick White Seat.



Booklet FREE

Write for illustrated booklet telling you more about this finest of white seats. Use the convenient coupon.

FILL IN, CLIP AND MAIL

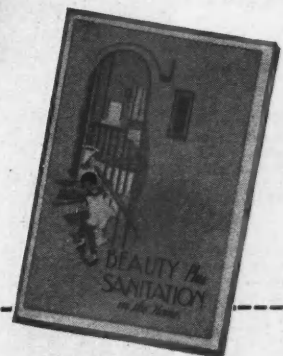
Dept. 275, Seat Division
THE BRUNSWICK-BALKE-COLLENDER CO.
623 South Wabash Avenue, Chicago

Send booklet showing the Brunswick White Seat.

Name.....

Street.....

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



STUDY the unique construction of the Brunswick White Seat. Underneath its gleaming white surface is an interior of alternating-grain layers of hardwood. This construction means that the Brunswick White Seat will not warp, split or crack.

This type of construction is found in the Brunswick White Seat and in no other. It is a big talking feature. One that will make your house or apartment easier to sell or rent.

The Brunoid white surface of the Brunswick White Seat is also a remarkable development. Sanitary as a piece of china, it will not crack, chip or craze. The white of this seat is the same shade as that of the other bathroom fixtures, another strong talking point.

We guarantee the Brunswick White Seat for 5 years. Its cost is low. Specify the Brunswick White Seat in letting your contract for plumbing. Any manufacturer of plumbing supplies can furnish it. Don't accept a substitute.

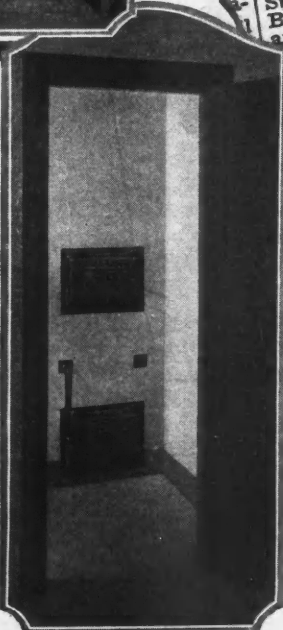
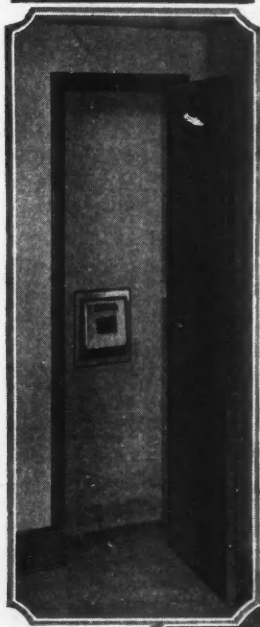
The Brunswick White Seat

By the makers of the famous
Whale-bone-ite Seat



New apartments erected by Amalgamated Clothing Workers' Union, at Sedgwick Avenue, Bronx, New York City.

The handy, hopper door on every floor are hidden in a small corridor closet.



One of 29 Kernerator Basement Combustion Chambers, in air tight room (Pat. App. For). This feature insures perfect draft control, safe, low flue temperatures and complete combustion without odor.

THE group of six model apartment houses, with rooms renting for \$11 a month, built by the Amalgamated Clothing Workers' Union in the Borough of the Bronx will be formally dedicated today with appropriate ceremonies. This project, which has resulted in what is considered by experts to be the finest and largest development in low rent housing in the entire city, involved an expenditure of about \$1,325,000.

The six units, which are located on Sedgwick Avenue between 300th Avenue and Dickins Avenue from North Van Cortlandt Park, contain 1,185 man to 3,000 women, provide relief for 303 families from the congested sections of the city.

The State Board of Housing recently announced its approval of the amalgamated project and appointed Aaron Rabinowitz, President of Spear & Co., to represent the State Board as one of the directors of the amalgamated.

Discussing the project and its effect upon future housing of the cheaper type in this and other cities Mr. Rabinowitz said yesterday: "The Amalgamated apartments are among the best accommodations that have ever been constructed in this city for families of wage earners, and demonstrate most forcibly the possibilities of the State Housing law.

"A central heating plant—oil burners—with an average consumption of 1,000 gallons a day has been installed. This now supplies 28,000 square feet of radiation with a capacity of 40,000 square feet.

"Each apartment is equipped with electric light, hot water, bathrooms with high grade modern fixtures, including tub and shower. The kitchens are equipped with gas ranges and ice boxes, ample closet space and all modern conveniences, including incinerators, have been provided.

"Too much praise cannot be given the Amalgamated Union and its officers, Sidney Hillman and Joseph Schlossberg, for this excellent example of what can be done by an organization which is willing to pledge its credit for the benefit of its members."

Darwin R. James, Chairman of the State Board of Housing, announcing approval of the project, said: "It is most heartening to see the approval of this project by the citizens of the city."

SAVINGS the Kernerator Makes in Apartments

- 1 Eliminates the cost of a staff of at least 4 men and a garbage department to take care of so many apartments.
- 2 Entirely does away with the expense of buying, cleaning and replacing garbage cans.
- 3 Eliminates the filthy method of taking foul-smelling, insanitary garbage to the basement on the same dumb-waiter that carries fresh, clean foodstuffs — meat, milk, etc.
- 4 Banishes every disagreeable feature of garbage and rubbish collection by wagons — the noise and the nuisance of delays.
- 5 Eliminates the space-taking basement rubbish pile — cause of 75% of fires in residential construction.
- 6 Saves cost of painting, vermin extermination and other measures of sanitation necessary to keep neat and presentable the vicinity where garbage cans are used.
- 7 Helps to renew leases, saves the loss of having apartments vacant, sometimes months, before new tenants sign up and the expense of redecorating and repainting when apartments are vacated.

The success of the Amalgamated Clothing Workers' Union project will undoubtedly be the forerunner of many similar ventures. This is indeed a reality, for another large group in New York City have plans drawn for buildings to cost \$1,500,000, for which Kernerators are also provided.

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303 Apartments - and not a single Garbage Can!



FOR years and years one of the problems in great cities has been — and is today — how to relieve the housing congestion in the poorer sections, and enable the children and adults to get the vitalizing fresh air and pure sunshine. The Amalgamated Clothing Workers' Union, New York City, has shown the way by erecting six units of modern and attractive apartment buildings near Van Cortland Park, New York. More than 90% of the apartments were leased at only \$11 a room per month, before even the first shovel-ful of earth was excavated.

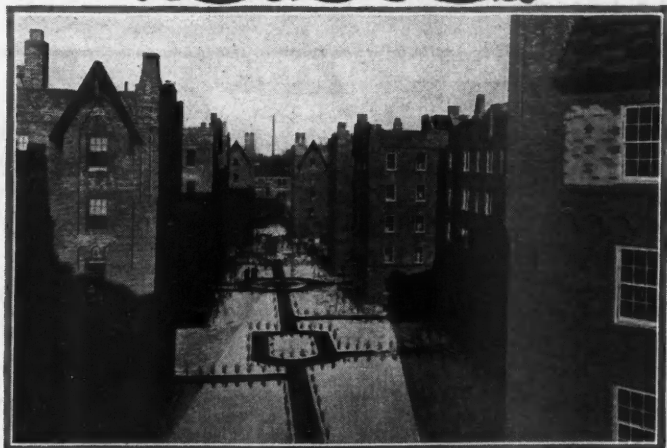
There is no doubt that the foresight of the architects and builders, in providing the latest modern conveniences, is one of the big reasons why renters get the very best in living comfort for such small rentals.

The Kernerator Chimney-fed Incinerator for garbage and waste disposal is an outstanding example! In this entire group of buildings — with its 1,185 rooms — there isn't a single garbage can!

All garbage and waste, dropped into Kernerator handy hopper doors on each floor, falls to basement combustion chamber. There it is air dried automatically and destroyed by burning. An occasional lighting is all that's necessary — a match does it! No fuel of any kind required — no odor, no upkeep.

Kernerator engineers are ready to offer the benefit of their long and varied experience in incineration — without obligation. Write for literature, or better still arrange for an interview in your office.

KERNER INCINERATOR COMPANY
753 EAST WATER STREET MILWAUKEE, WISCONSIN
(Offices in 89 Cities)



Interior court and gardens of this finest and largest development in low rent housing in the entire city of New York. Abraham E. Kazan, President. Springsteen & Goldhammer, Architects. A. C. W. Corporation, Builder.

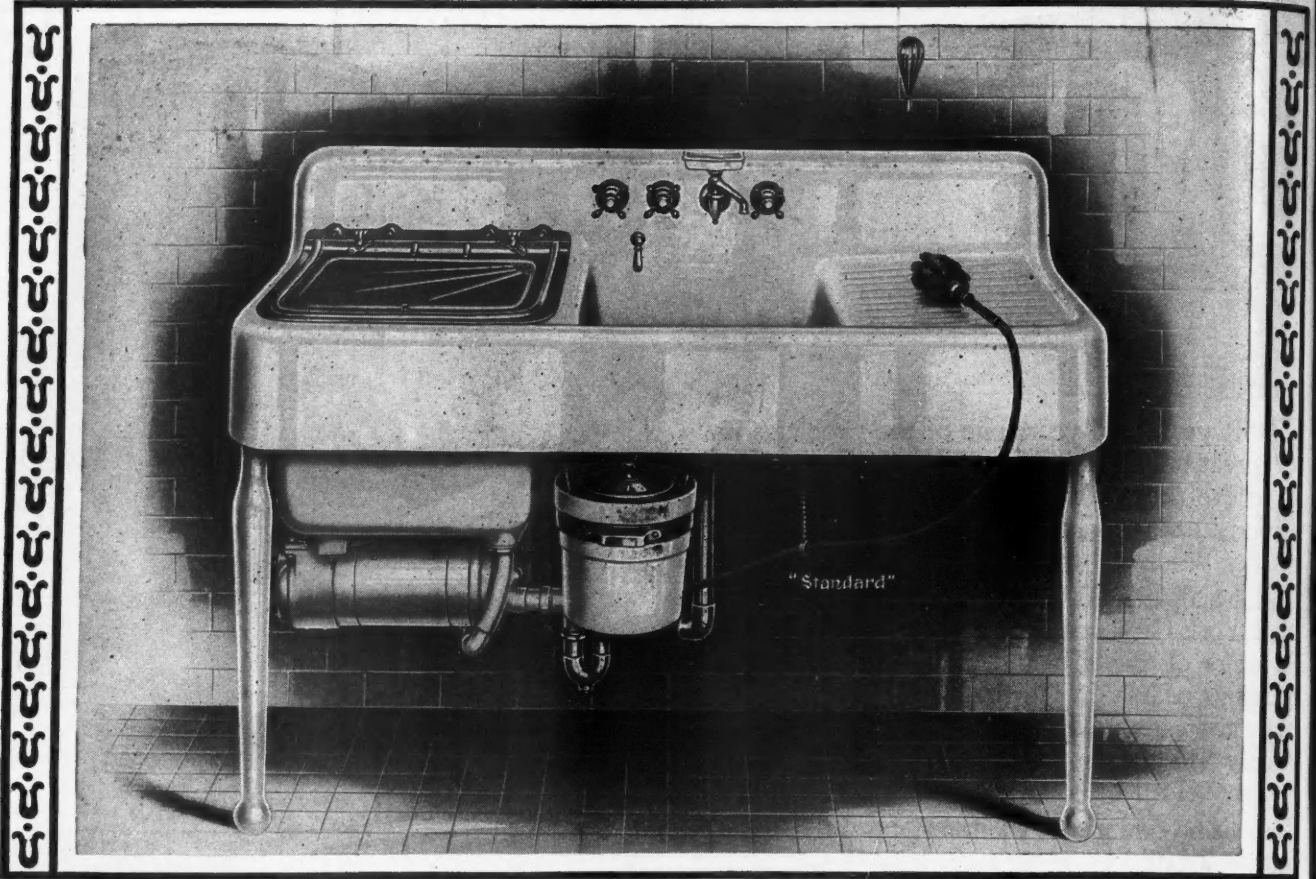
The sweet, fresh air around this beautiful, modernly designed apartment will never be tainted with foul odors and garbage cans or wagons!

KERNERATOR

REG U S PAT OFF

THE CHIMNEY-FED INCINERATOR

For Garbage and Waste Disposal



When the basket which holds the dishes and silverware is removed there is nothing in the compartment but the spray nozzles. There is no complicated machinery to lift out and replace when the compartment is cleaned; nothing under which the food particles and grease from the dishes can accumulate. The wire basket is light and easy to handle, and is scientifically designed to hold the greatest amount of dishes for quick and thorough cleansing.



The "Standard" Electric Dishwasher and sink is different from all others

The water action is provided by a centrifugal pump operated by an electric motor. The water circulates through this pump and is sprayed on the dishes from a correctly designed nozzle. Inside and outside of every dish is reached and quickly cleansed by this forceful spray.

Every time the water passes through the pump it must first pass through a strainer. This catches the food particles and keeps the water clean.

There is another reason why the "Standard" Electric Dishwasher and Sink cleanses more thoroughly than others. The basket which holds the dishes and silverware revolves slowly so that all surfaces of each dish are turned to the spray. No particle of dirt can escape the forceful action of the soapy water as it is sprayed on and over the dishes.

The "Standard" Electric Dishwasher and Sink is made with the dishwasher on the right and the sink and drainboard on the left, P 6900; the dishwasher on the left and the sink and drainboard on the right, P 6901.

The public will welcome the superior and exclusive features of this "Standard" Electric Dishwasher and Sink. Installed in the homes you build, it will make those homes easier to rent and easier to sell.

"Standard"
PLUMBING FIXTURES

The Finest Dishwasher and the most modern sink

The sink is the famous "Standard" "Three 8's" design, made of Acid-Resisting Enamel. The 8-inch back fits under a deep window. This gives the housewife the full benefit of the direct light, the air and the view. It makes possible a much better arrangement in the kitchen. The sink compartment is 8 inches deep. This does away with much over-the-rim splashing. This extra depth also provides plenty of room under the faucet for tall pitchers. The 8-inch front gives the whole sink a more massive and beautiful appearance.

Acid-Resisting Enamel

A most notable feature is the Acid-Resisting Enamel of which the whole unit is made. Acid-Resisting Enamel is the most durable and beautiful enamel ever developed. It is glass-like in its composition and appearance. Glass-like in its properties too. Smooth, non-porous, hard. No cleanser, no mineral in the water, not even the acids common to fruits and vegetables can roughen or discolor it.

So, with Acid-Resisting Enamel and the "Three 8's" design, and a dishwashing unit with perfect mechanical principles and construction, you have a fixture that will last for years—and be beautiful and efficient always.

The Flexible Shaft— an ingenious labor saver

What about the skillets and pots and pans and milk bottles? The flexible shaft with its revolving brush gets them clean quickly, easily. This flexible shaft is one of the most useful and labor-saving devices that has ever been invented for the housewife. The brush can be removed and a whipper inserted in the holder. With this electrically driven whipper it takes but a few seconds to whip cream and mix salad dressings. No other dishwasher has this convenient, easy-to-operate flexible shaft.

Standard Sanitary Mfg. Co.
PITTSBURGH



The dishwashing compartment is emptied quickly of waste water, and dishes are rinsed from a separate nozzle in the tray. Therefore no rubber hose is necessary for rinsing the dishes.



An innovation that will appeal to every housewife is the flexible shaft with two labor-saving attachments, a brush and a whipper.

"Standard"
PLUMBING FIXTURES

*Beauty
begins*



when Tiger finishes!

NO HOME is in salable condition until the final coat of plaster is applied.

Interior beauty really begins only when Tiger finishes.

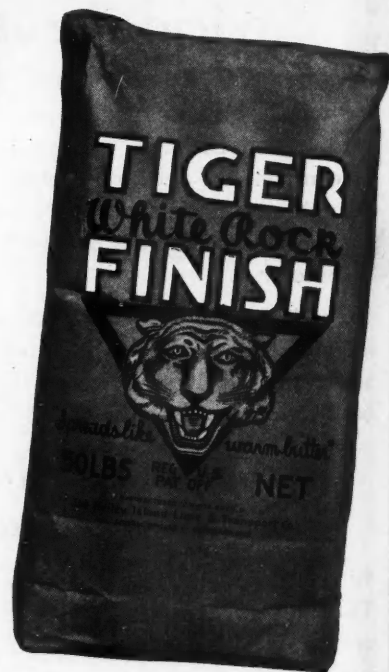
Tiger Finish plastering speeds sales and puts price in the background. Buyers accept it as definite assurance of perfect walls and ceilings—from smooth white finishes to rough texture surfaces.

All Model Homes built by the Home Owners Institute are plastered with Tiger exclusively. One, sponsored by the San Francisco Chronicle, is pictured above.

Let Tiger help sell your homes.

THE KELLEY ISLAND LIME & TRANSPORT CO.

"World's Largest Producer of Lime"
Cleveland, Ohio



*"Spreads like
Warm Butter"*

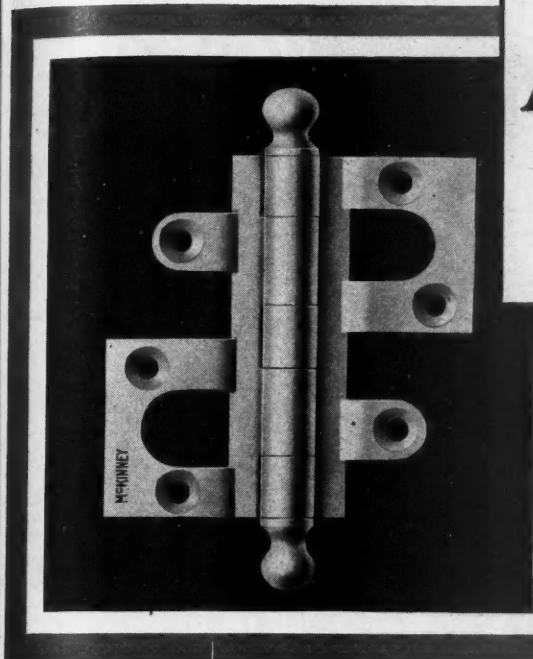
The Famous

TIGER

[And — Tiger Mason's, Tiger Agricultural, Tiger Chemical, Tiger All-Purpose Hydrate in 10-pound Packages, and High Calcium and Magnesium Lump Limes. Also Quick-slake (Ground Quicklime) in paper-lined jute sacks.]

FINISH

No
Mortises
to
Cut



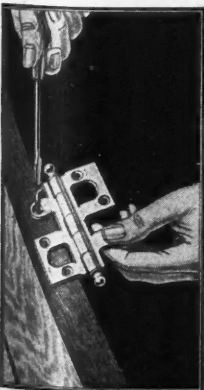
It's a cinch to hang a door
in less than 10 minutes
with this new

McKINNEY "NON-MORTIS" BUTT

Pictures tell the story. The leaves of the Non-Mortis Butt close one within the other, to the thinness of a single leaf. With no mortises to cut and the self-aligning feature of this Butt, you can breeze through any job with a speed that will surprise you.

After you've marked the location for the butts, you screw them in position. The swedging of the leaf aligns the hinge automatically. No mortising. Your men can't go wrong. When the door is hung, there is no difference in appearance. The barrel of the hinge is not changed in any way. *See the illustration!*

For any job where costs count, this new Non-Mortis Butt means a big time and money saving. It is now ready in all standard finishes and two weights. Sizes for doors: 3" x 3", 3 1/2" x 3 1/2", 4" x 4"; for cabinets: 2 1/2" x 2", 2 1/2" x 2 1/2". Also supplied in prime coat cut out for painting. Write today for complete DATA Sheet on the Non-Mortis Hinge. McKinney Mfg. Co., Pittsburgh, Pa.



This new hinge means a big time saving and a big money saving on any kind of operation. Send for the Data Sheet today. It shows complete pictures and time tests. Read all about it. Write today. Use the coupon for convenience.

You won't have to
cut a single mortise.
That's the reason for
its name
"NON-MORTIS"

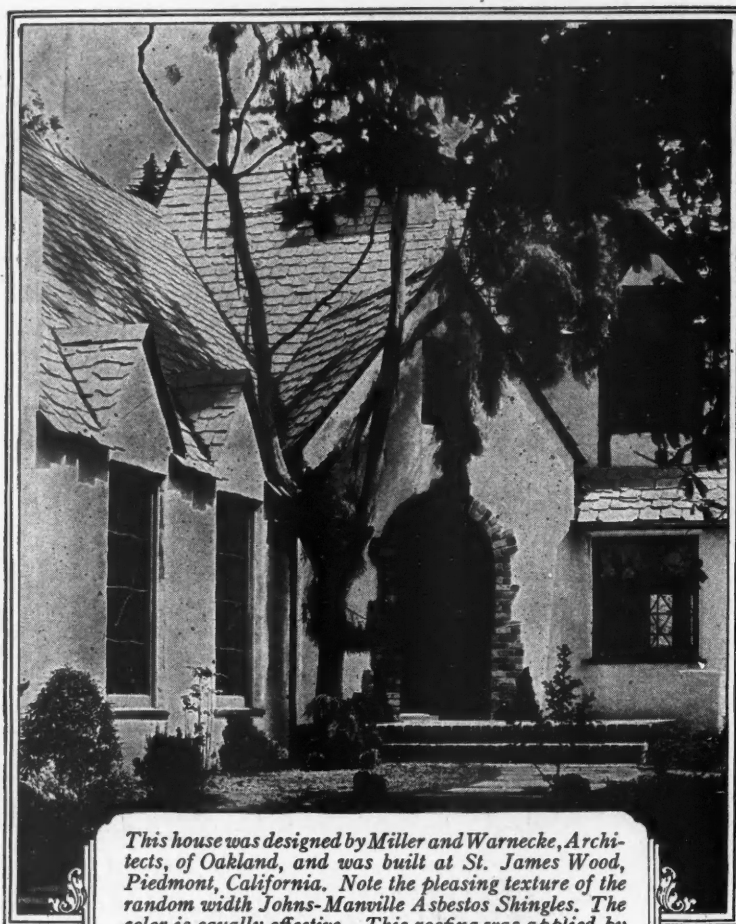
Another Winner!
Have you seen the McKinney Quicklock? A most convenient latching and drive in. \$5 retail. Check the coupon for the story.

McKINNEY MFG. Co., Pittsburgh, Pa.

Gentlemen: -

- Send me a copy of the Data Sheet on the "Non-Mortis" butt-hinge prepared especially for contractors and carpenters.
- Also information on Quicklock.

Name.....
Street.....
City.....
State.....



This house was designed by Miller and Warnecke, Architects, of Oakland, and was built at St. James Wood, Piedmont, California. Note the pleasing texture of the random width Johns-Manville Asbestos Shingles. The color is equally effective. This roofing was applied by the General Roofing Co., Oakland, California.

ROOFS TO MATCH ANY COLOR SCHEME

*You can achieve any effect with Johns-Manville
Asbestos Shingles, yet offer your prospects
a Permanent, Fireproof Roof*

The day of somber, colorless houses is gone. Gay stucco, brilliant paint, colorful roofs are not only accepted, but demanded. Unless you offer such modern effects, your houses will be slow sellers, and bring lower prices.

The difficult problem so often is the roof. Shall color be limited to the narrow, trite range of natural slate for the sake of its fire resistance? Shall inflammable wood be used for the sake of color? Johns-Manville Asbestos Shingles meet this

situation squarely and sanely. Their wide range of tints offers every color or color combination you could ask for. Their combination of asbestos fibre and cement provides a roof everlasting and fireproof.

We welcome inquiries from builders and maintain a department which will be glad to discuss your roofing problems without any obligation on your part. Address: Johns-Manville Corporation, 292 Madison Avenue, New York City.



MASTER *of* ASBESTOS
Johns-Manville
ASBESTOS SHINGLES

No house is considered modern unless it has perfect refrigeration

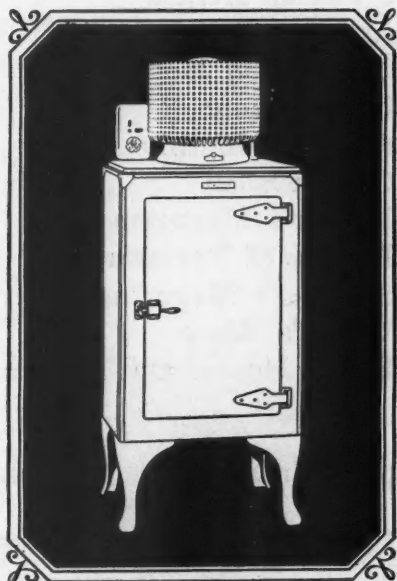


IF you were to build two identical houses and put a General Electric Refrigerator in one of them and not in the other, which one would sell more quickly? The answer is obvious!

Whichever model you choose, you are assured of one thing—that it is of standard General Electric quality—produced, made and guaranteed by General Electric.

Progressive builders and architects are specifying General Electric Refrigerators in ever-increasing numbers . . . for every type of home . . . from modest bungalows to impressive mansions and towering apartment buildings.

The size range is complete. There is the small de luxe apartment model. There are the 5, 7, 9½, 13 and 17 cubic foot sizes.



This is the new de luxe apartment house model . . . finished in porcelain, inside and out. It has the same mechanical perfection as the larger models. While only 24 inches wide and occupying but 3½ square feet of floor area, it has 6 square feet of food storage space.

Supremely easy to install, too. No plumbing, soldering or extra wiring is needed. Just plug it into any convenience outlet. It operates with unusual quietness. This is a vital feature, of course. Important, too, is the fact that all the machinery is safely enclosed in an air-tight steel casing.

For complete specifications just write us for Catalog AB8.

GENERAL ELECTRIC Refrigerator

A Nation-Wide Program to and to Educate Home Buyers to

These and Other Big-Circulation National Magazines are Continually Carrying a Message of Better Homes and Better Heating to Millions of America's People



The Saturday Evening Post
 Good Housekeeping
 Country Gentleman
 House and Garden
 House Beautiful
 Delineator
 Christian Herald
 Arts and Decorations
 Garden and Homebuilder
 Country Life
 Atlantic Monthly
 Golden Book
 Harper's Magazine
 Review of Reviews
 Scribner's Magazine
 World's Work
 Better Homes and Gardens

*Advertising That Will
 Stimulate Home Buying*

This extensive advertising, appearing regularly in national magazines, is a real service to the public. It safeguards the home comfort and health of the nation; it promotes better homes and therefore more homes; it means consequently, increased business for the members of the building industry.



AMERICAN RADIATOR

Make America "Home Conscious" the Advantages of Radiator Heat

EARLY in 1928 the American Radiator Company initiated a million dollar advertising campaign—one of the most important and far-reaching programs ever inaugurated in the interest of better homes and better heating for America's people.

Reaching Millions of Readers with a Message of Greater Living Comfort

Striking double page and single page advertisements in four colors have been carrying, and will continue to carry, a message of greater Home-Ownership and modern Radiator Heating to millions of people through the Saturday Evening Post, Good Housekeeping, Country Gentleman, House and Garden, House Beautiful, Better Homes and Gardens, Christian Herald, Delineator, Red Book, Atlantic Monthly, Golden Book, Review of Reviews, World's Work and other national magazines.

At the present time the building industry and the people of our country face a crucial period. Ours is an age of extravagance—an age in which the luxuries of life lure families from the more important consideration of owning a home of their own.

Our Common Problem

This is a real problem and a serious one—one which not only challenges the attention of every forward-looking builder, but which demands the closest kind of co-operation to bring about its solution. The message of

better homes and greater living comfort which we are carrying to the Home Buyers of America is destined to exert a tremendous influence in encouraging the buying of more and better homes. It will serve to make our people "Home Conscious" and to make Home-Ownership a bigger and more vital thing in American life.

Spreading the Doctrine of Home-Ownership

This is the doctrine of Home-Ownership which we are spreading month after month, and will continue to spread for years to come. We know you will endorse this great program and lend it your whole-hearted co-operation for all that it means toward promoting the welfare of the building industry and the establishing of a higher standard of health and living comfort for America's people.



The Ideal
Redflash Boiler
Tapped for
Excelso Heater

CORTO
The Radiator Classic

The Ideal
"Hotcoil"
Gas Water Heater

★ Approved by Good Housekeeping Institute

COMPANY

MAIL THIS COUPON FOR DETAILED INFORMATION
AMERICAN RADIATOR COMPANY
Advertising Department
40 West 40th Street, New York City. Amer. Bldr. 3-28

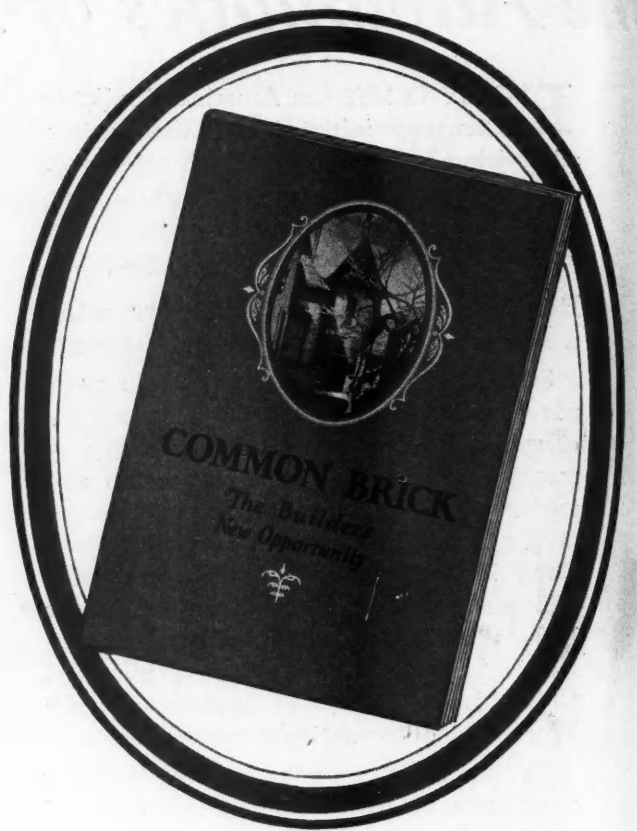
I would like to receive your Sales Helps and detailed information on how I can tie up most effectively with your national campaign for better homes.

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

STRIKING NEW FACTS about COMMON BRICK all in this FREE BOOK

YOU will be surprised at the strides made in brick construction! New methods of laying brick that effect striking economies, new effects that bring a wide range of beautiful textures, new developments that demonstrate the superiority of common brick—all these are covered in our latest book just off the press. "Common Brick—The Builder's New Opportunity," should be in the hands of every one interested in the building industry.

Only a limited edition of this valuable book has been published. Send today for your complimentary copy. The data offered is the result of years' of study, compiled by authorities. Many of these facts are entirely new, and all are practical, worthwhile suggestions for builders, contractors, real estate operators, etc. The coupon below brings it to you without charge. Other helpful booklets are listed below at cost prices.



BRICK *forever*

Preferred by Architects

COMMON BRICK MANUFACTURERS ASSOCIATION of AMERICA
AU-2151 GUARANTEE TITLE BLDG., CLEVELAND, OHIO

These District Association Offices and Brick Manufacturers Everywhere Are AT YOUR SERVICE

Boston.....11 Beacon Street
Chicago.....605 Builders Bldg.
Cleveland—Ohio Association
2124 Guarantee Title Bldg.
Denver.....1735 Stout Street
Detroit....400 U. S. Mortgage Trust Bldg.
Hartford.....226 Pearl Street
Los Angeles, Calif.
634 Chamber of Commerce
New York City...1716 Grand Cent. Term.

Clip and Mail This Today

Without charge please send me a copy of "Common Brick—the Builder's New Opportunity."

I am enclosing cash or stamps for the booklets checked below:

- "Homes of Lasting Charm"—25c
 "Skintled Brick"—15c
 "Multiple Dwellings of Brick"—10c
 "Farm Homes of Brick"—5c
 "Brick, How to Build and Estimates"—25c
 "The Heart of the Home (Fireplaces)"—25c
(Enclose \$1.00 if you want all the books.)

New Orleans, La....727 Canal Bank Bldg.
Norfolk.....112 West Plume Street
Philadelphia.....1420 Walnut Street
Pittsburgh.....524 4th Ave.
Raleigh, N. C.
508 Commercial National Bank Bldg.
Rochester.....Post Office Box 773
(New York State District)
Salt Lake City.....301 Atlas Block
San Francisco.....301 Sheldon Building
Seattle, Wash.....913 Arctic Bldg.

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



The Worlds most Complete
MIXER
 Service

WONDER-Marsh-Capron

Now—one capable and responsible organization is ready to supply your entire mixer needs. The combination of **WONDER** and Marsh-Capron guarantees a service on mixers never before obtainable from any other single source.

The Right Mixer—Gets the Job Done Quicker

In the **WONDER** Line of Tilters or the Marsh-Capron Line of Non-Tilters—you will find a mixer—literally “built to order” for your particular job or jobs. You will find in the mixer you select the latest improvements and many exclusive features that make for new speed and endurance—for convenience and economy.

There are real advantages—lots of them in this, the “World’s Most Complete Mixer Service.”

No longer is it necessary to search the entire mixer field for the particular equipment you need—you know now that in the **WONDER-Marsh-Capron** Line you will find exactly the mixer to suit your requirements—the right mixer to get any job done quicker.

CONSTRUCTION MACHINERY CO.
 103 Vinton Street, WATERLOO, IOWA

CONSTRUCTION MACHINERY COMPANY,
 103 Vinton St., Waterloo, Iowa.

Send me the facts on—

- Wonder Tilting Mixers
- Marsh-Capron Non-Tilting Mixers
- Mechanical Hoeman Plaster Mixer

Size _____ Type _____

Name _____

Address _____

City _____





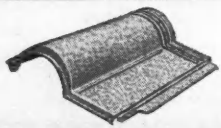
Beautiful
FIRE-SAFE
 Walls and
 Ceilings
with

ARCH LATH

CONFORMING to correct principles of design and fabricated from a solid sheet of steel, Wheeling Arch Lath has proven a worthy successor to inflammable plastering bases. It has so many advantages to offer the architect, builder and contractor in addition to its fire safety that it is quickly becoming one of the most

popular laths on the market. It has adequate stiffness for rapid plastering, provides superior keying of the plaster and brings about an important saving in material and labor. There is no house, no building of any kind, for which Wheeling Arch Lath is not highly suitable. Write for a sample and complete information.

WHEELING CORRUGATING COMPANY · Wheeling, West Virginia
 Branches: New York Philadelphia Chicago Minneapolis St. Louis Kansas City Chattanooga Richmond Des Moines



Have You Seen the New Spanish Metal Tile?

Beautify your home with a roof suggestive of picturesque old Spain. Specify Wheeling Spanish Metal Tile. It is proof against lightning, rust and leaks. Lowers rates of insurance and is practical and permanent, artistic and beautiful. Write for full information.

Copyright 1928. Wheeling Corrugating Company

Building Materials Backed by a Generation of Experience



Mr. A. L. Parker, the general manager of the Hotel Peabody, Memphis, writes "I desire to express our very great satisfaction with the Bruce *CELLized block floors laid at the Hotel Peabody.

"Laying in Everbond directly over a concrete floor slab is a very decided advantage. The finished floors present a beautiful appearance and have been much commented upon.

"We anticipate being able to use considerable quantities of this flooring in remodeling and new construction work in the future."

Three sizes: 6 $\frac{3}{4}$ -in., 9-in., and 11 $\frac{1}{4}$ -in., squares—in all grades. They take a more beautiful and lasting finish with less finishing materials.

Oak Floor Planks, and the usual narrow-face flooring are also obtainable *CELLized.

This design Oak Floor—laid and finished cost only 40^c per square foot

Bruce *CELLized Oak Floor Blocks are solving the problem of floor upkeep in the Hotel Peabody in Memphis. In guest rooms they are replacing perishable floor coverings at a cost of only 40c a square foot, the old covering being made into rugs.

The result is not only a beautiful floor which suggests home atmosphere, but a permanent one; sound deadening under foot because the blocks are laid in Everbond,—a plastic cement without nails. The expense of this tight, level, and quiet floor is less than any floor covering suitable for hotels.

Contractors and realtors find this floor ideal for all forms of big construction as well as homes. It combines style, permanence, and economy.

In new construction, oak blocks laid directly over concrete save the material and labor cost of wood sub floor, screeds, and cinder fill; also approximately 2 $\frac{1}{2}$ inches in height per story, without loss of headroom. This combined saving exceeds the entire cost of the floor, laid and finished.

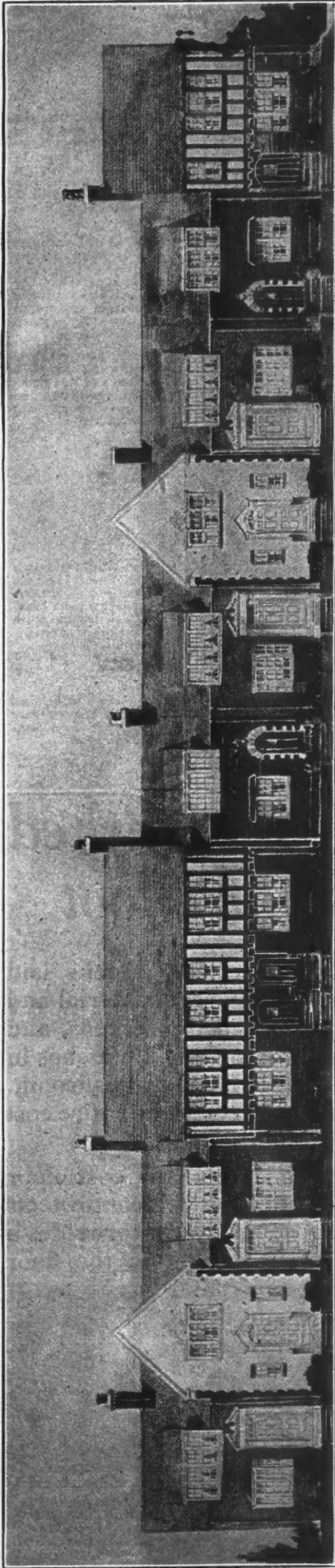
*CELLizing has made this low cost floor possible—a deep-cell treat which protects oak from the effect of moisture—provides a unit block that will stay tight in the floor without contracting or expanding. Insect, rodent, and decay proof. Write for full information.

E. L. Bruce Co.
MEMPHIS, TENNESSEE
Largest manufacturers of oak flooring in the world



Write for this free book "A Flooring Achievement" fully illustrated.

Bruce *CELLized Oak Floor Blocks



An interesting and attractive group of homes, recently built and quickly sold by O'Brien & Walsh, Inc., Long Island City, N. Y.

“—but don't cut out the Radiantfire Mantels!” these home salesmen all exclaimed

THE SALES CAMPAIGN made a brilliant finish. Each of these attractive homes was sold. Now for the next ones. Could costs be reduced? The builders called in the salesmen and asked what they could spare.

With one voice came the answer: “Save somewhere else if you want to—but be sure to install Radiantfire Mantels!”

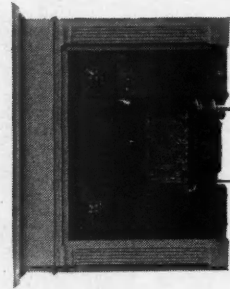
These salesmen spoke from experience. They had seen how their prospects admired these mantels for their beauty. They knew the appeal of “fireplace” to all who want a home. They had felt the keen interest of purchasers, as they pointed out that these efficient heating units reduced fuel bills, by making furnace fires unnecessary during many weeks of spring and fall.

THREE FIREPLACES FOR THE PRICE OF ONE

Install them wherever gas is available—no skilled labor, no tile-setting needed—no chimney or ashpit to build. Put Radiantfire Mantels in living room, dining room and bedroom for the cost of one ordinary fireplace.

ordinary fireplace. Their classic simplicity harmonizes with all interiors. Their instant heat is clean, odorless and healthful—for a fraction of furnace upkeep. Write now—let us send you full information.

NOTHING ELSE AT
THE PRICE
ADDS SO MUCH



The **HUMPHREY** Radiantfire Mantel

No smoke—No odor No ashes—No dust

GENERAL GAS LIGHT CO., KALAMAZOO, MICH.
New York · 44 West Broadway
San Francisco · 135 Bluxome Street

\$98 to \$105 pays for The Humphrey Radiantfire Mantel—complete with wooden mantel (either white or mahogany finish) with Radiantfire, paneling, hood and fender of stainless steel in gleaming silver finish. O'Brien & Walsh, Inc., say, “We get \$200 more per house if equipped with The Humphrey Radiantfires.”



*acknowledged
advancement
in sheet metal*

*a heavy lead coated sheet
obtainable in flat sheets and
various formed products
for sheet metal work on
all types of buildings*

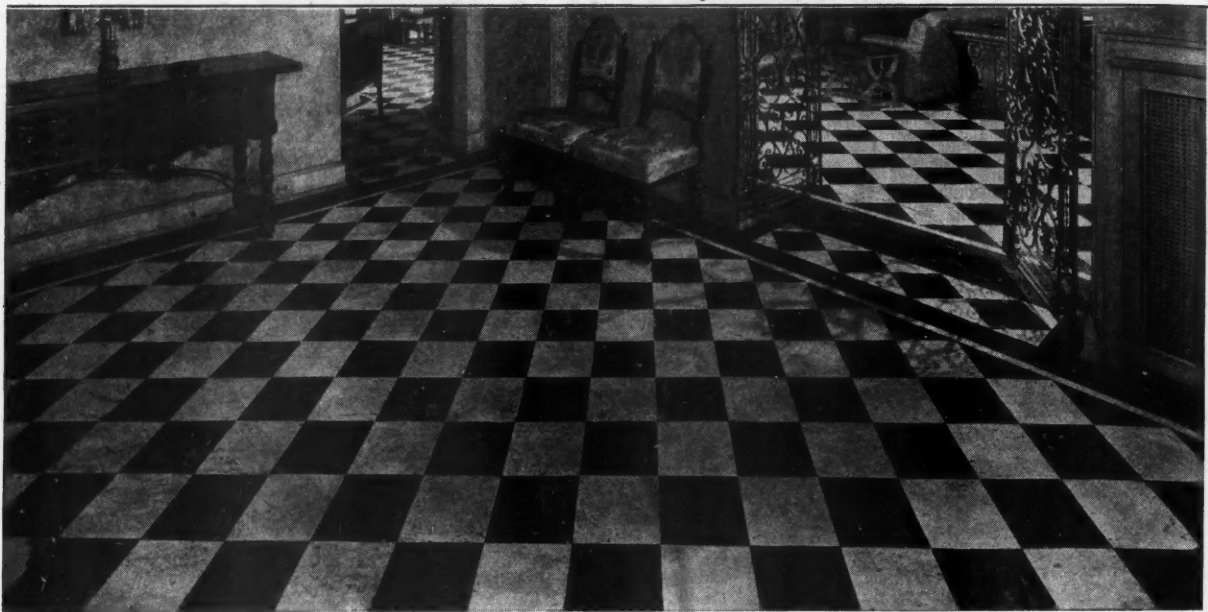
DIVISION OF CONTINENTAL STEEL CORPORATION

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

IF IT ISN'T A HUMPHREY, IT ISN'T A RADIAN FIRE



Camera tells the story of a fine floor



Adaptability of Goodyear Rubber Tiling to any room in the house shown in this interior picture of Charles F. Henry residence, Chicago. Architects, Thebar & Fugard, Chicago. Installation by E. E. Davis Company, Chicago

In a bungalow atop the Delaware Towers Apartments in Chicago, Charles F. Henry has created a beautiful home.

One sweeping decision in favor of Goodyear Rubber Tiling settled the whole floor question and settled it right. The considerations were beauty of design and texture, quietness under foot and a surface lending itself to laboratory cleanliness.

The floor here shown is one of the more conservative patterns. Good-

year Rubber Tiling is obtainable in a wide variety of designs, including many attractive two- and three-color combinations.

This modern floor material has a broad range of successful application which includes stores and offices, restaurants, clubs, hospitals and schools. Quality and long wear considered, the cost is low.

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

The Greatest Name in Rubber

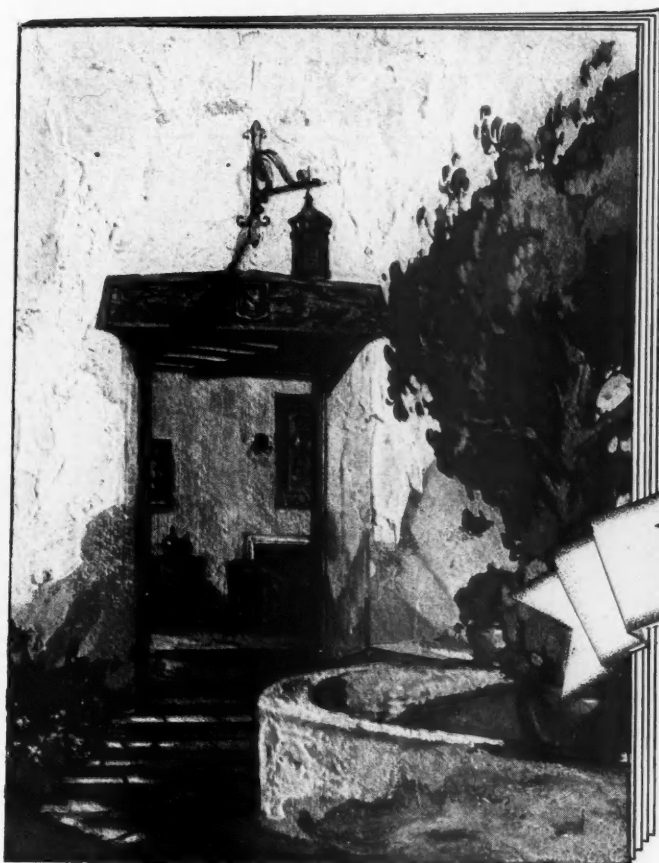
GOODYEAR

RUBBER TILING

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

Copyright 1928, by The Goodyear Tire & Rubber Co., Inc.

An accepted practice adapted to the *protection of plaster*



Now plaster can be reinforced with steel exactly like concrete. How this is done is described in the beautiful book, "Better Walls for Better Homes."

You will value this book highly. It shows how your walls become salesmen, when you build to sell. It shows how customers can be better satisfied when you build on contract.

Your copy awaits you
it is free

EVERY builder knows the value of reinforcing concrete and will be quick to appreciate the advantages which similar reinforcing gives to plaster. More than 200,000 installations of STEELTEX have proved it successful.

STEELTEX is used in place of lath. It is a fabric of rust-proofed (galvanized) cold-drawn steel, combined with a double, waterproofed backing. When plaster is applied, a furring wire provides space for the plaster to spread under the fabric as well as over it. The steel is completely embedded. The backing not only produces automatic backplastering, but provides effective damp-proofing, sound-deadening and insulating qualities.

STEELTEX in sheets 50" x 52", is nailed to the studs. "Better Walls for Better Homes" gives complete details. Send for it.

New — Steeltex for Floors

STEELTEX for Floors, recently introduced, has already been used in numerous important installations. Heavier than other types of STEELTEX. Quickly applied over any type of beam or joist. Its obvious advantages include maximum construction speed, elimination of forms, prevention of droppings, uniform reinforcement throughout the slab, better curing, etc. The booklet, "STEELTEX for Floors," contains full details with working drawings. Send for your copy.

National Steel Fabric Company

DIVISION OF
Pittsburgh Steel Co.

3108 Union Trust Bldg. Pittsburgh, Pa.
The world's largest manufacturers
of welded steel fabric

National Steel Fabric Co.
3108 Union Trust Bldg., Pittsburgh, Pa.

Without obligation send
 (check) *Better Walls for Better Homes*
 (check) *STEELTEX for Floors.*

Name _____

Street _____

Place _____



STEELTEX

THREE TYPES — SAME PRINCIPLE — SAME PROTECTION
for plaster... for stucco... for floors and roofs (concrete and gypsum)

NOW PLASTER IS REINFORCED WITH STEEL — EXACTLY LIKE CONCRETE

INTERNATIONAL CASEMENTS



Residence
Fieldston, N. Y.

Dwight James Baum
Architect

COTSWOLD — A Metal Casement of Moderate Cost

HOME SEEKERS are keenly alive to the comforts and refinements possible in modern construction, and an appealing detail is often the deciding factor in a prompt sale or rental of a house. International Cotswold Casements, which are carried in stock in all Standard shapes and sizes, are not expensive, yet provide a very effective talking point when showing the property. When installed by International erectors, they are guaranteed weatherproof.

SEND FOR OUR DESCRIPTIVE LITERATURE

INTERNATIONAL CASEMENT CO INC

JAMESTOWN, NEW YORK

AGENTS IN PRINCIPAL CITIES

IN CANADA: ARCHITECTURAL BRONZE & IRON WORKS, TORONTO, ONT.



The new H&H Catalogue

HERE'S data on all our new developments of the past year or more—besides up-to-date listings of all your old standbys in the H&H line of Switches and Wiring Devices. It's a book good jobs will be specified from this year and for years to come.

The catalogued items will give you the lead in Style and Quality at the prices listed. You'll be able to match competitive prices with goods above the competitive class, in service to owners and tenants.

To make sure you'll get an early copy of the Catalogue, will you fill in and mail us the Coupon at right?

To THE HART & HEGEMAN
Mfg. Co., Hartford, Conn.

Gentlemen:

SEND ME an early
copy of your new
"Catalogue T."

Name

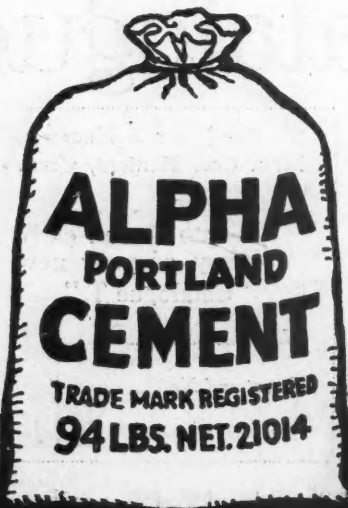
Street and No.

Town & State

THE HART & HEGEMAN MFG. CO.
HARTFORD, CONN. MAKERS OF ELECTRIC SWITCHES SINCE 1890

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

The ALPHA brand
stands today for 37
years of experience
in making and fur-
nishing cement.



Alpha Portland Cement Company

Baltimore	Battle Creek, Mich.	Birmingham, Ala.
Boston	Chicago	Easton, Pa.
New York	Philadelphia	Pittsburgh
		St. Louis

use ALPHA cement

THAT'S THE WAY TO SAW!



There's no trick about it. Just plug **SKILSAW** in the nearest electric light socket, put the blade to the wood, press trigger and ZIP — **SKILSAW** rips or crosscuts thru 2" dressed lumber as fast as you can mark it with a pencil. The motor is 1/2 H.P., and yet this **SKILSAW** (the new model J) weighs only 10 lbs.

THE PRICE IS \$60.

You don't have to break your back any more with an old fashioned hand saw.

Those days are gone forever. We'll prove it.

Send us the coupon. We want you to try **SKILSAW** on your own work FREE.

SKILSAW is made in four sizes. There is one to do all of your sawing. It will do it anywhere, because you can carry it about as easy as any tool you've got.

SKILSAW INC.
3822 RAVENSWOOD AVE.
CHICAGO

Without obligation I will gladly watch a 5 minute demonstration

Name _____

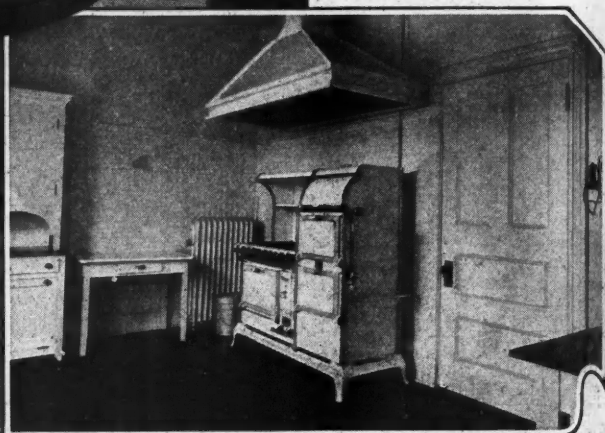
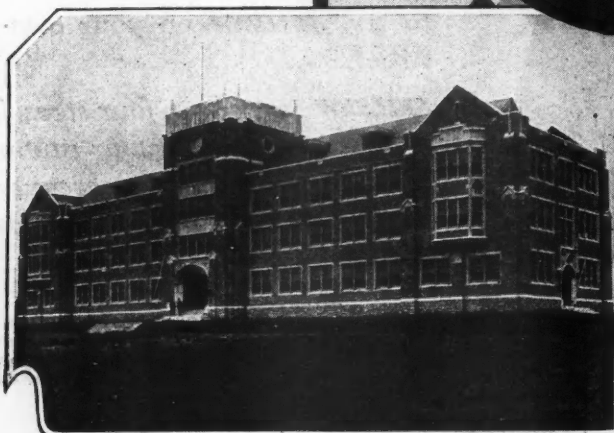
Address _____

Plan the Kitchen to Please Particular People

Ozark Wesleyan College,
Carthage, Mo.; Architects,
Bonsack & Pearce, St.
Louis, Mo.; Builder, George
Fuller-Greene Construction
Co., Kansas City, Mo.

Unless the Gas Range
has a RED WHEEL
it is NOT a LORAIN

Kitchen, Ozark Wesleyan
College, Carthage, Mo.,
showing Lorain-equipped
Quick Meal Gas Range as
installed.



DO YOU PLAN your kitchens with the housewives of Yesterday in mind? You should plan them to meet the exacting demands of particular people—the home managers of Tomorrow.

The home managers of Tomorrow are now students of home economics. In 2500 schools and colleges tens of thousands of these young women are learning Time and Temperature Oven Cookery by means of gas ranges equipped with the Red Wheel.

From daily experiences these young women know that the modern kitchen must have accurate, dependable oven heat control. They know that much of their future happiness will depend upon smoothly-run kitchen affairs and perfectly cooked foods. When they select a home of their own they will insist upon a gas range equipped with the Red Wheel.

If the kitchen of any home or apartment you

build is not furnished with one of these stoves, the home seeker may go elsewhere to find one that is!

Red Wheel Gas Ranges are known *everywhere* because they have been widely advertised in women's leading national magazines for the past nine years. Thousands upon thousands of housewives the country over use them daily with perfect satisfaction.

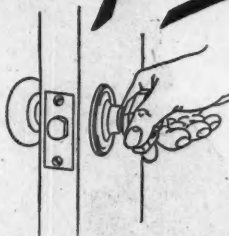
Six famous makes of gas ranges are equipped with the Red Wheel Oven Heat Regulator (Reliable, Quick Meal, New Process, Direct Action, Dangler and Clark Jewel).

Each make offers a wide variety of sizes, styles and finishes suitable for kitchens in houses, apartments, schools, churches and other buildings where cooking is to be done. For specific data see Sweet's Catalog, 22nd Edition, Pages C3245-54 inclusive.

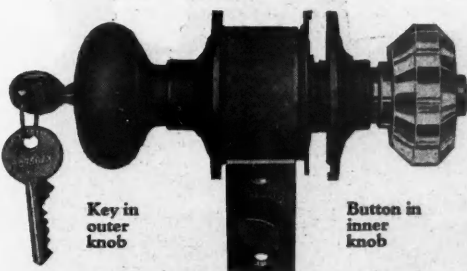
AMERICAN STOVE COMPANY, 233 Chouteau Avenue, St. Louis, Mo.
LARGEST MAKERS OF GAS RANGES IN THE WORLD

LORAIN RED WHEEL

ANNOUNCING additional NEW *types* - NEW *patterns* in **SCHLAGE** *Button* **LOCKS**



To LOCK:
just press the button
in the knob.
To UN-LOCK:
just turn the knob.



Key in
outer
knob

Button in
inner
knob

Type AY with pin tumbler cylinder

Can be master-keyed and grand master-keyed to meet any requirements. Key changes practically unlimited. Locks from within by pressing button in inner knob. Unlocks from within by turning inner knob. Unlocks from without by key in outer knob. Self-adjusting to door thickness. Factory assembled, all ready to slip into door. 3 keys. Glass, metal, or opal knobs. All standard finishes. 8 other types.

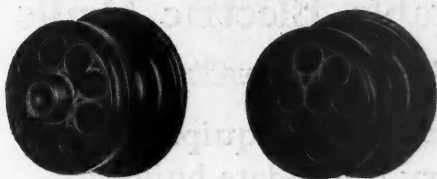
THE hundreds of thousands of Schlage **BUTTON** Locks already installed by contractors and builders have established their value as a sales feature, and created a demand for additional types. In response to this demand we announce *Type AY* with pin tumbler cylinder, and 2 new trims—*M-1 Gothic* and *M-2 Colonial*. *Type AY* makes SCHLAGE Locks adaptable for master key installations where a wide range of key changes is required. It is one of the most moderately priced cylinder locks on the market, and in addition has all the exclusive SCHLAGE advantages. 8 other types of SCHLAGE Locks. Mail coupon for catalog.

SCHLAGE LOCK CO., Mfrs.

General Offices and Factory - San Francisco, Cal.
NEW YORK CITY 71 Murray Street
CHICAGO 549 W. Randolph Street
PHILADELPHIA 2401 Chestnut Street
DETROIT 439 Penobscot Building

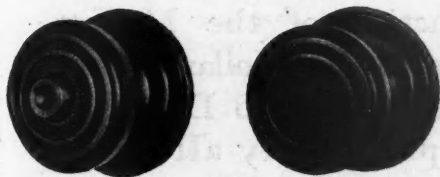


INSTALLED in 1/8 the time required by old-fashioned mortise locks. Simply drill 2 holes, slip in the lock, and draw up on 2 machine screws. No complicated mortising. No adjusting. No screws in spindle, knobs, or escutcheons.



M-1 GOTHIC design in SCHLAGE metal trim

At left, Schlage GOTHIC trim with locking button in knob. At right, same trim without button or key. Knob face, solid cast brass or bronze.



M-2 COLONIAL design in SCHLAGE metal trim

At left, Schlage COLONIAL trim with locking button in knob. At right, same trim without button or key. Knob face, solid cast brass or bronze.

MAIL THIS COUPON NOW

to SCHLAGE LOCK CO., San Francisco, Calif., for prices and complete information on SCHLAGE Locks for

AB-8

Building

Name

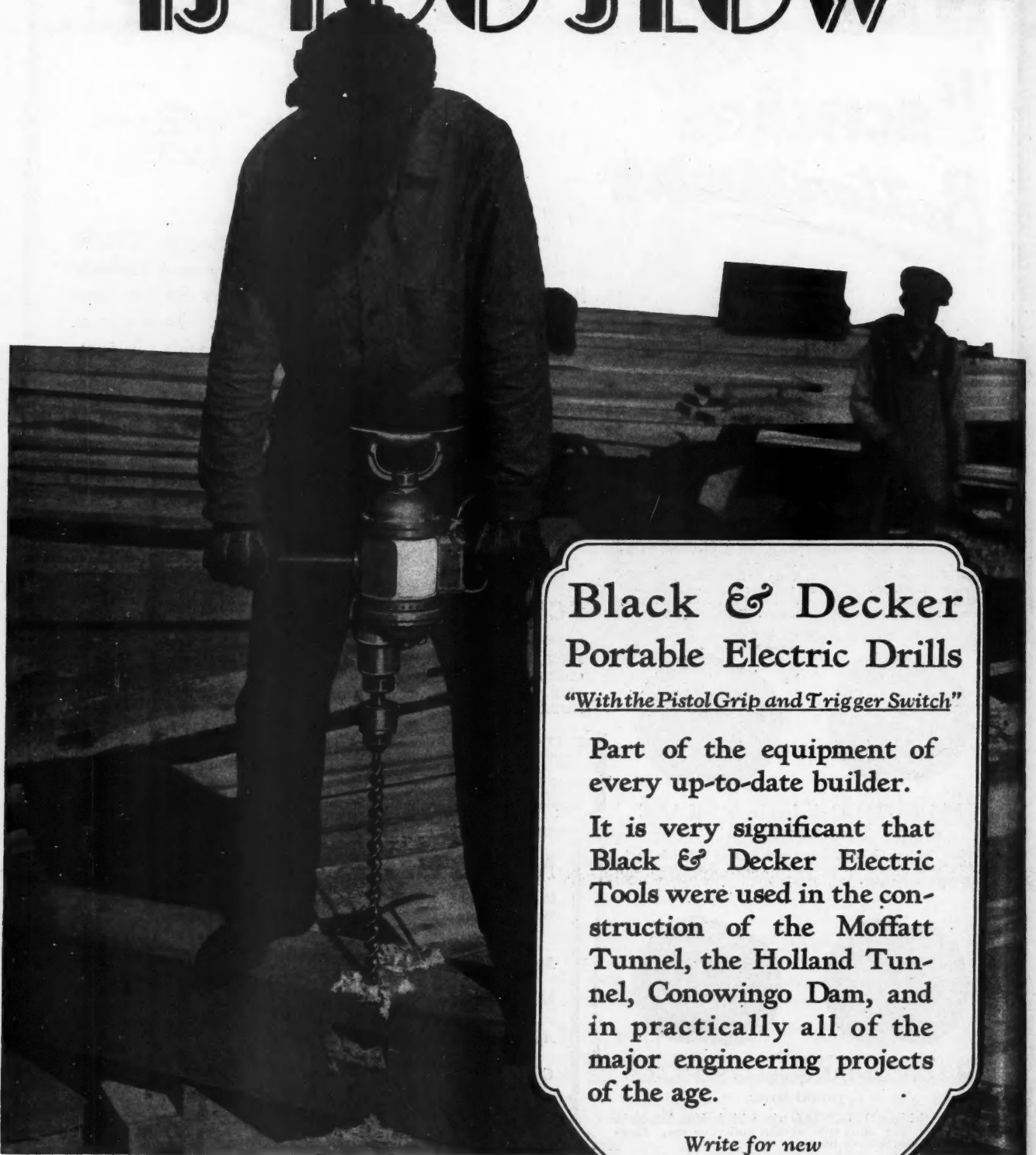
Address

City

State Business

The MODERN Lock for MODERN Buildings

THE "BRACE AND BIT" IS TOO SLOW—



Black & Decker Portable Electric Drills

"With the Pistol Grip and Trigger Switch"

Part of the equipment of every up-to-date builder.

It is very significant that Black & Decker Electric Tools were used in the construction of the Moffatt Tunnel, the Holland Tunnel, Conowingo Dam, and in practically all of the major engineering projects of the age.

Write for new
1928 catalog.

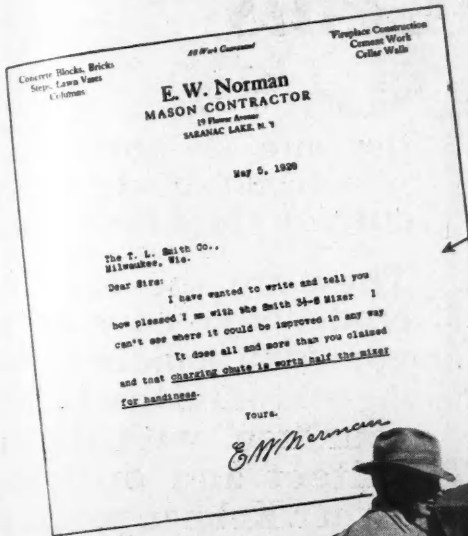
The BLACK & DECKER MFG. CO.

TOWSON, MD., U. S. A.

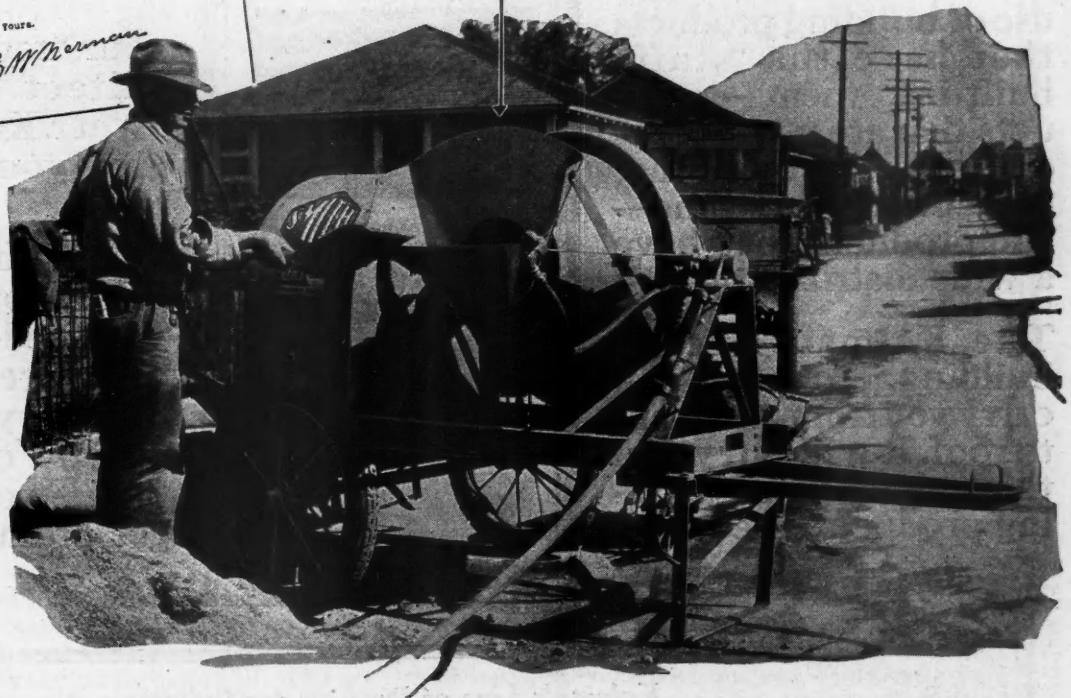
Black & Decker Mfg. Co., Limited, Toronto, Ontario

Black & Decker, Limited, Slough, Bucks, England

Mr. Norman—Mason Contractor Hits the Nail on the Head



"That Charging Chute is Worth Half the Mixer for Handiness"



THE Smith 2½-S and 3½-S Mixers each have a charging chute that makes loading both faster and easier. Waist high, with a wide opening, it saves many minutes a day and the men are still working fast at quitting time. Another time-saving, profit-making feature is the "end-to-center" mixing action that gives you better mixes in less time. Exactly the same as the big

mixers used on the world's greatest construction projects.

Discharge is faster, too. The Smith Double Cone Tilting Drum has been unequaled for fast discharge for 28 years. Just a tilt of a lever and dry or wet batches come shooting out. Get a Smith for Speed—get a Smith for Dependability—get the Smith Catalog NOW!

Write for the Large Free Smith Catalog



The T. L. SMITH COMPANY
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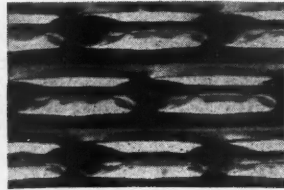
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Results for the Contractor in Dollars and Cents

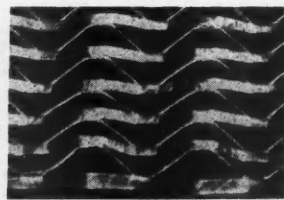
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Making a profit today includes the choice and use of building products that have the "stuff" built into them — products that are widely recognized — products that can cut erecting time — and products that have a wide distribution.

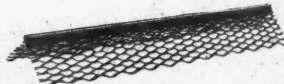
The Kalman line of building products will carry you from basement to roof. It will carry you through a line of building products, the quali-



Troff Kalmanlath



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Kalman Expansion Corner Bead



Kalman Wing Corner Bead

ties and economies of which can substantially cut your building costs.

They are the kind of products you'd want in your own home or building—the kind that boosts your "rep" with the architect and building owner. Kalman products give you these advantages.

Check the Kalman line below for the products you need—then go after the nearest dealer, or, if necessary write, phone or wire our nearest office — you can always get prompt delivery.

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Dome Dampers
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Chimney Thimbles

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KALMANLATH



A Dash of Red IN A ROOF OF *Greenish Blue*

This house has a Winthrop roof of Slatefield Blend—a blend of cool harmony—heather green, heather blue and purple. A few sea greens and blue blacks were scattered through and then, in contrast—about a dozen turkey reds.

The result is strikingly beautiful. The architects, Walker & Angell of Glen Ellyn, Illinois, have achieved a roof of personality for their client, Mr. F. E. Duggan of 727 Forest Avenue, Glen Ellyn.

Grey stone, reddish buff brick, cream stucco and brown timber work have been brought into unity with the roof and the entire structure has been fitted by the roof into its surroundings.

You can accomplish equally pleasing results for any house with Winthrop Tapered Asphalt Shingles. There are all necessary colors—some solid, some blended—a score



of them—all natural non-fading slate, crushed and embedded in the everlasting asphalt that coats the heavy felt cores.

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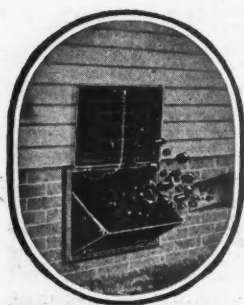
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COUNT the homes for sale on any street—and you'll quickly realize that this is a *buyer's market*. Plenty of houses for sale—but not the kind that measure up to the new standard of value which home-buyers now demand. Things once considered "luxuries" are now necessities. Folks look for the features which contribute to convenience, comfort and economy—small details, perhaps, but mighty important ones when it comes to the dotted-line talk. To sell readily, a home must fairly shout "*greater value*" from cellar to roof. Successful builders know this, and plan their homes to include a number of popular features such as the Majestic Coal Window, Underground or Built-in Garbage Receiver, Milk and Package Receiver, Fireplace Damper, etc. Although they add but little to the cost of a home, Majestic products create an impression of greater worth that helps close deals.

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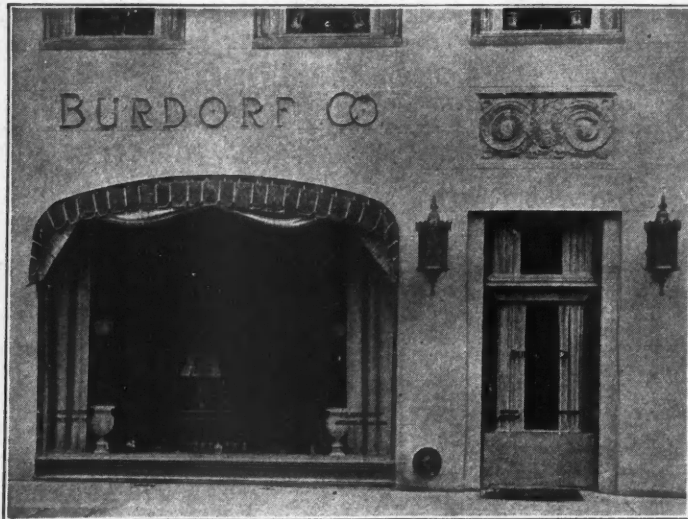
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BURDORF BUILDING, LOUISVILLE, KY.

Sanders and Weinedel, Architects

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We welcome the opportunity of submitting drawings and details.

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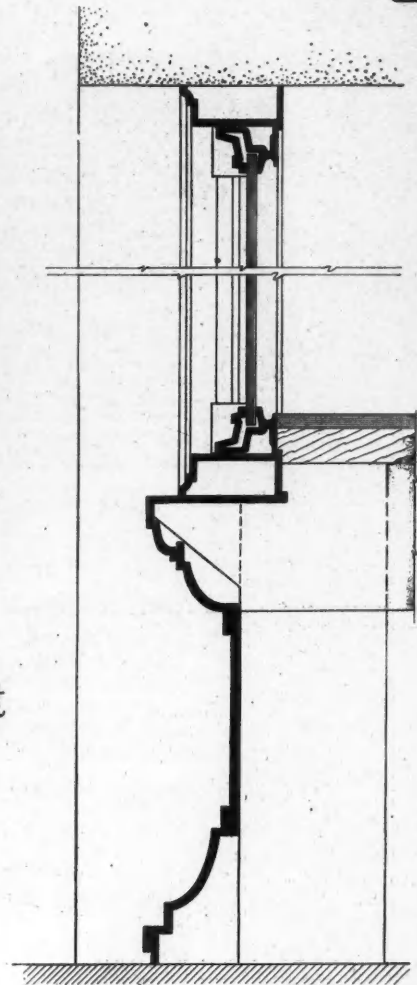
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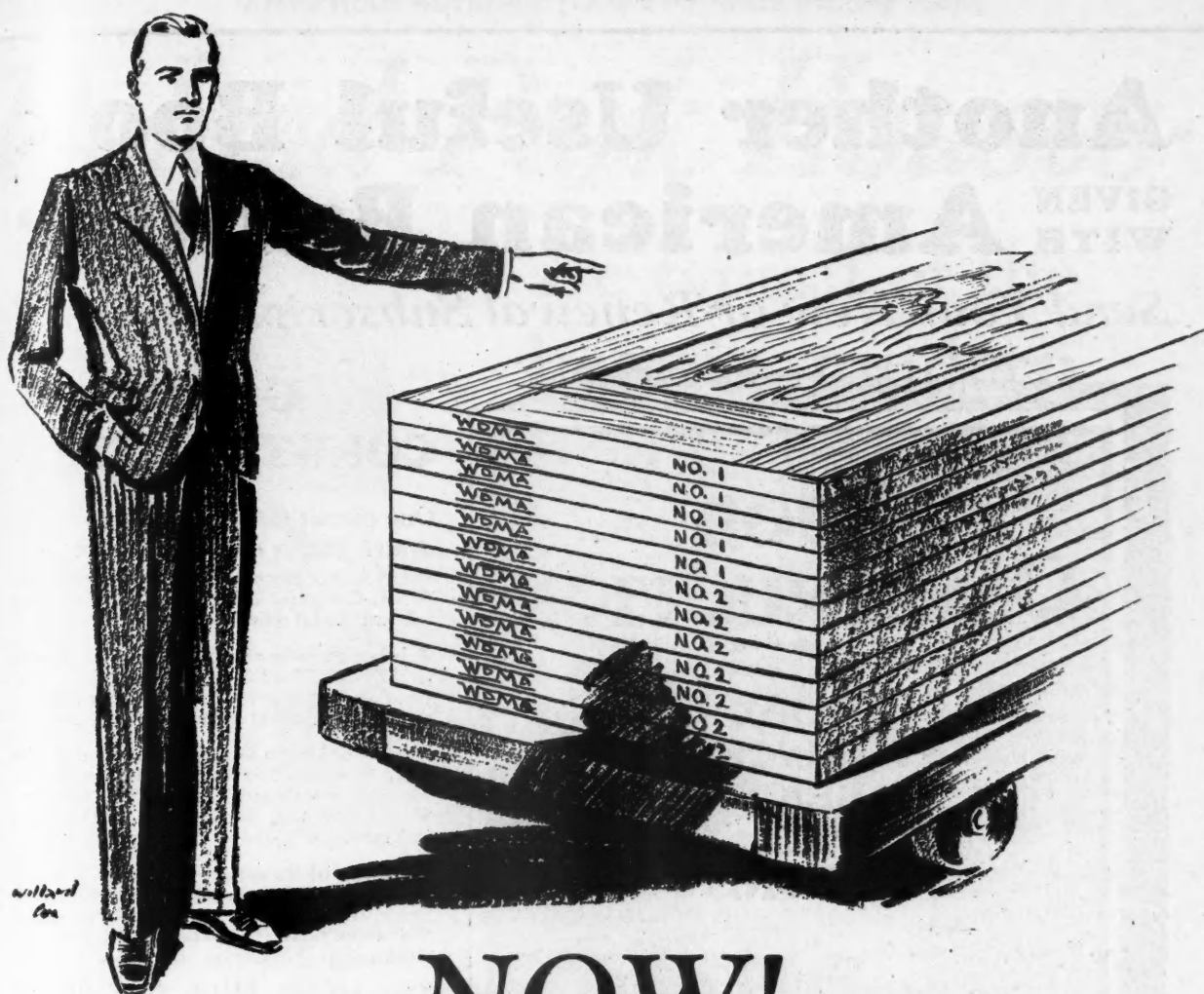
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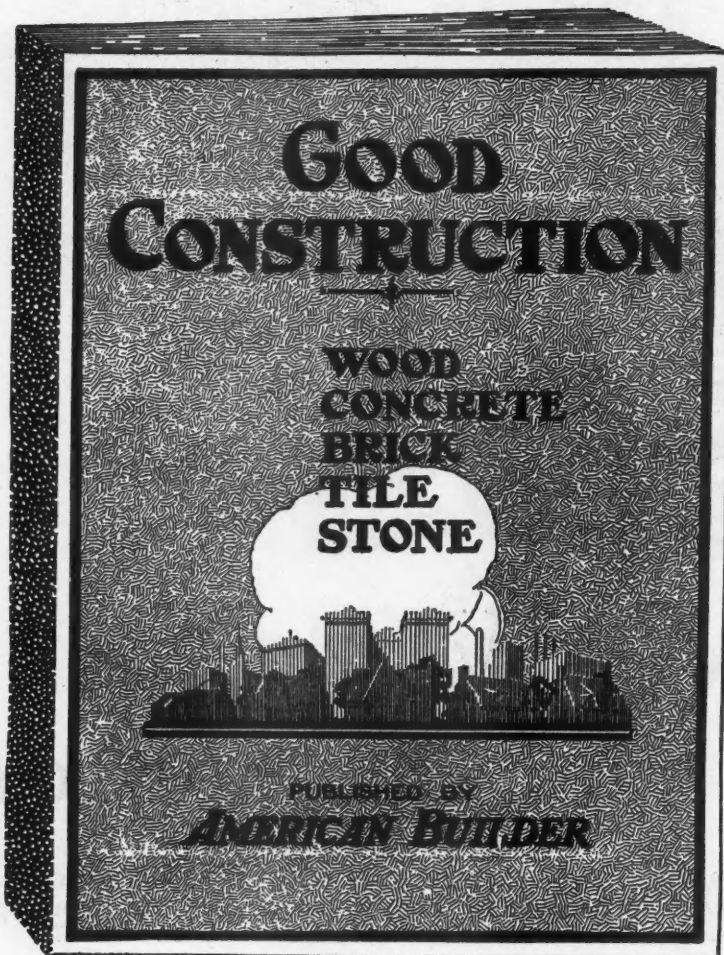
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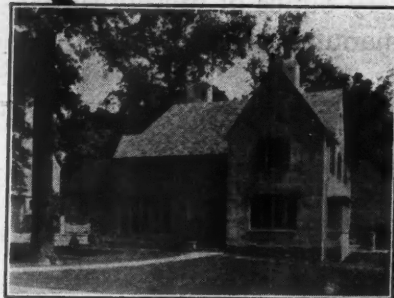
are typical of the best in modern home building



Top illustration—residence in Taplow Road, Roland Park, Baltimore, Md. Palmer & Lamdin, Architects, Baltimore; Thomas & Cross, Builders, Baltimore. Next three illustrations—Residences in Paddington Road, Roland Park, Baltimore. Designed by G. W. Beecher, Architect, Baltimore; built by B. F. Bennett Bldg. Co., Baltimore.

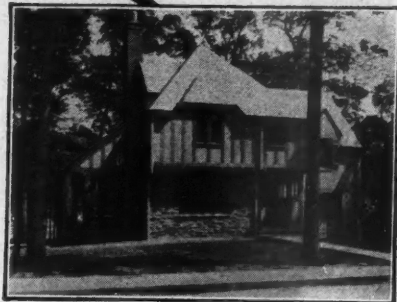
The Roland Park development in Baltimore, Maryland, is one of the finest residential sections to be found anywhere.

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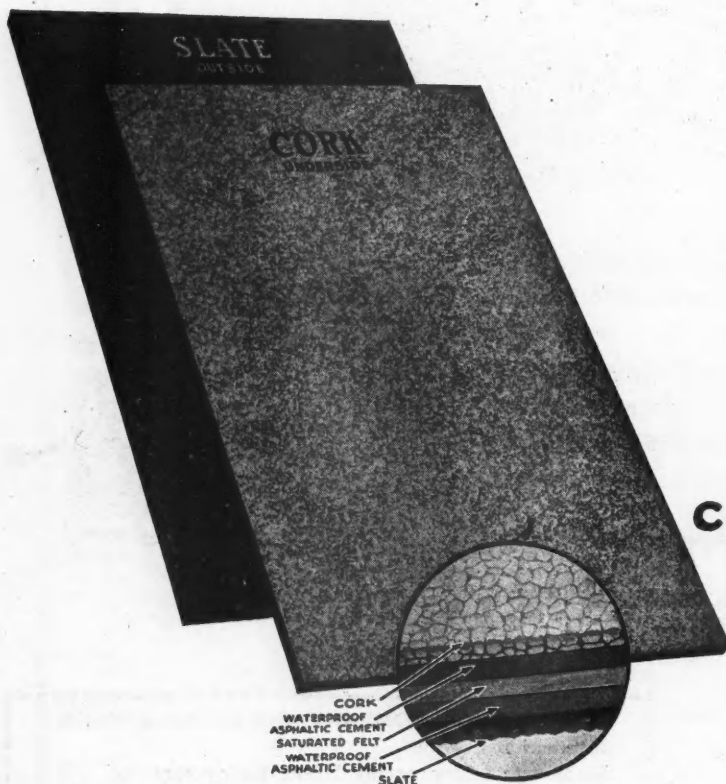
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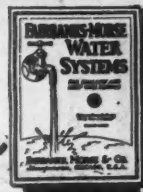


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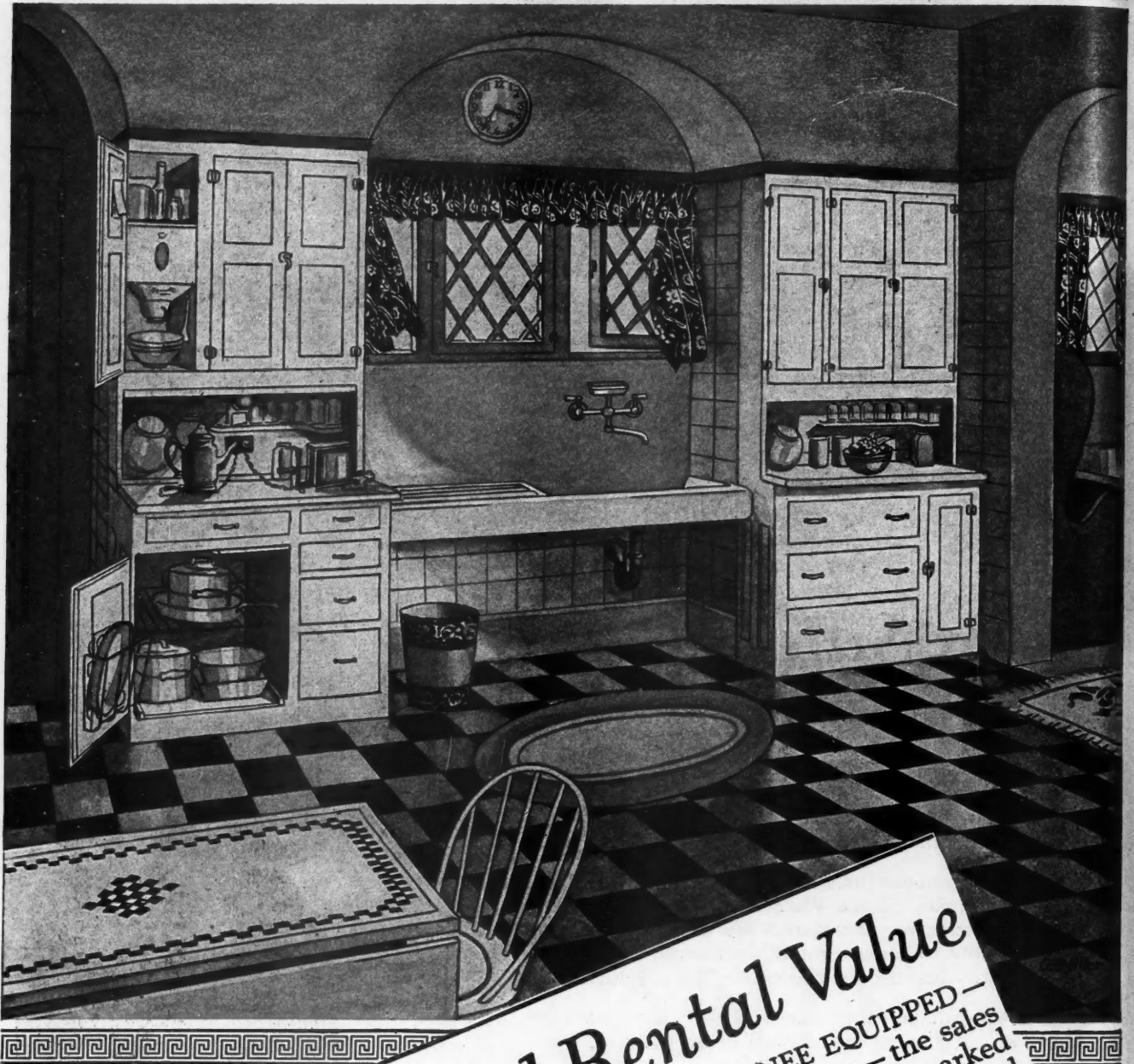
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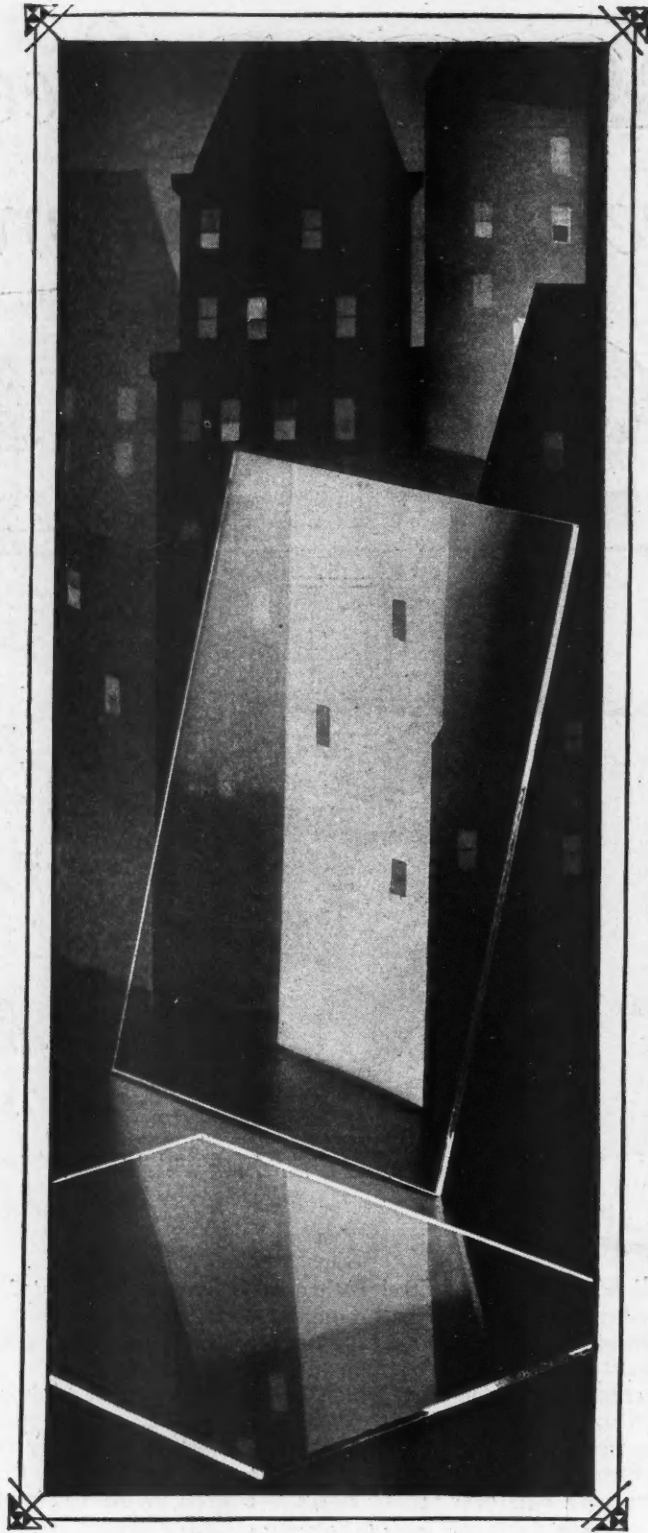
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One of the nine beautiful Masonite Homes in Whitcomb & Keller's Sunnymede, South Bend, Indiana. Architect: H. Russell Stapp

Another big builder specifies Masonite, the thermostatic wood

ABOVE is shown one of nine attractive, modern homes in Whitcomb & Keller's beautiful Sunnymede, all of which are insulated with Masonite, the thermostatic wood.

Sunnymede is one of the finest residential sections in South Bend, Indiana, and like so many other builders, Whitcomb & Keller have

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You too will find that it pays to insulate homes with Masonite; homes of every type and size.

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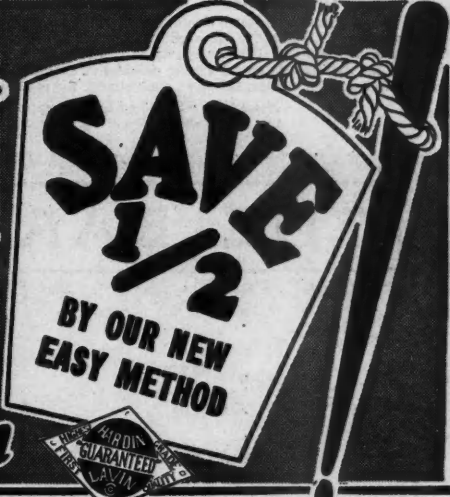
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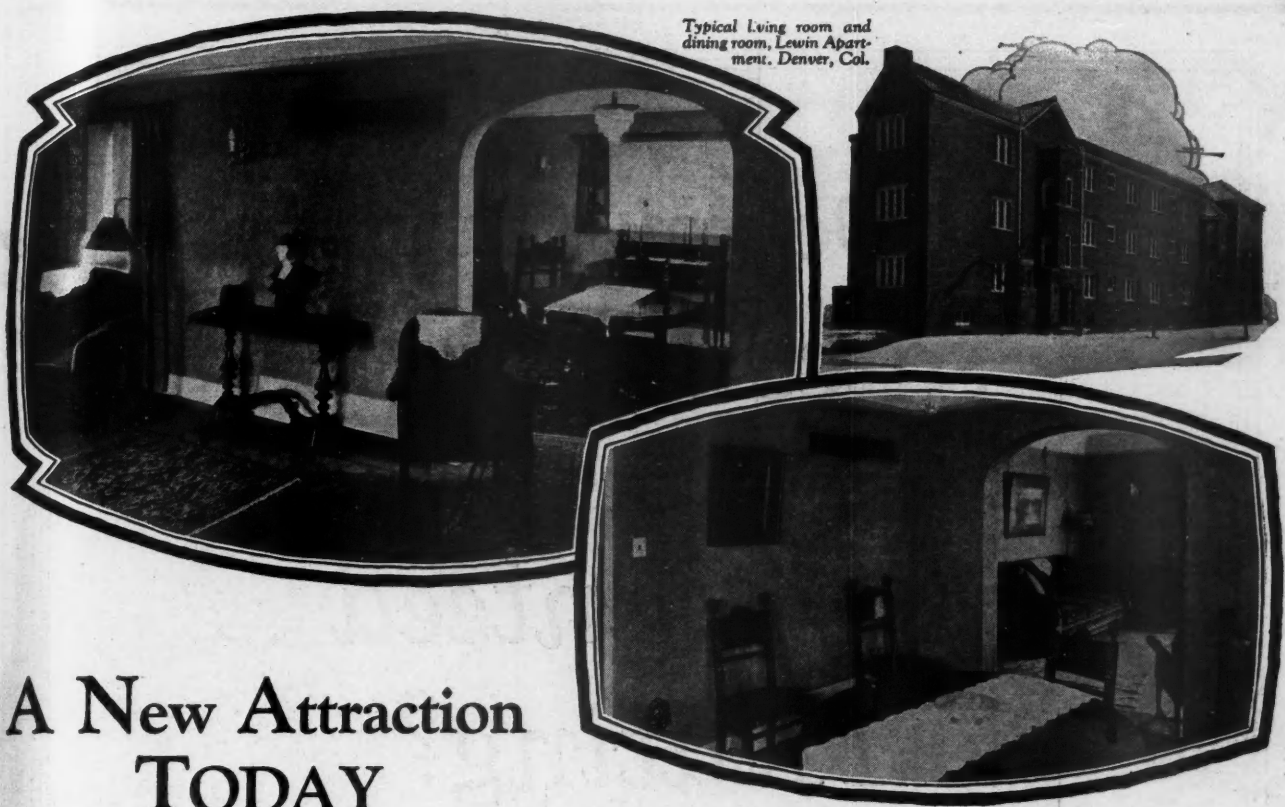
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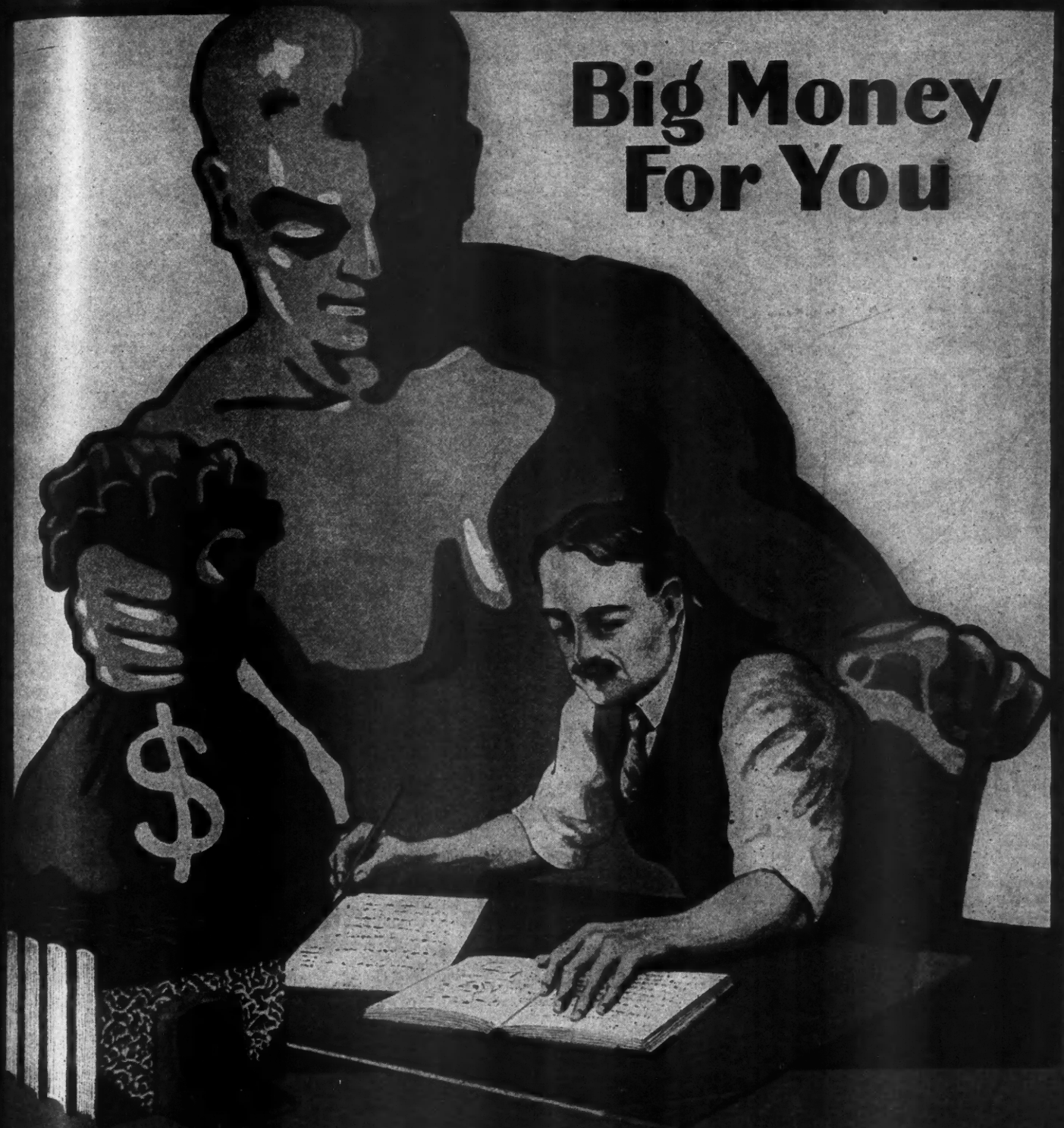
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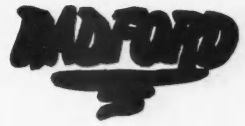
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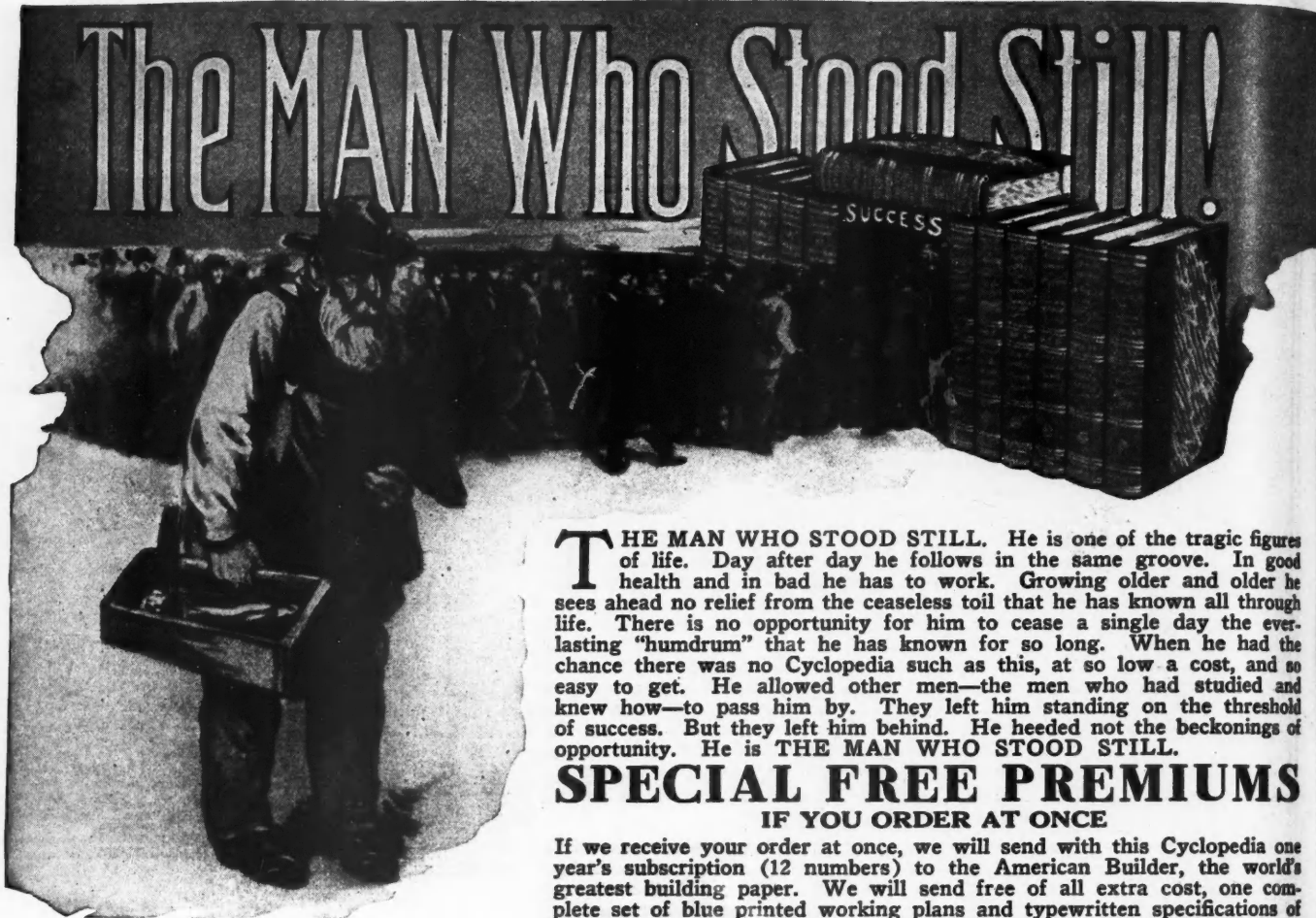
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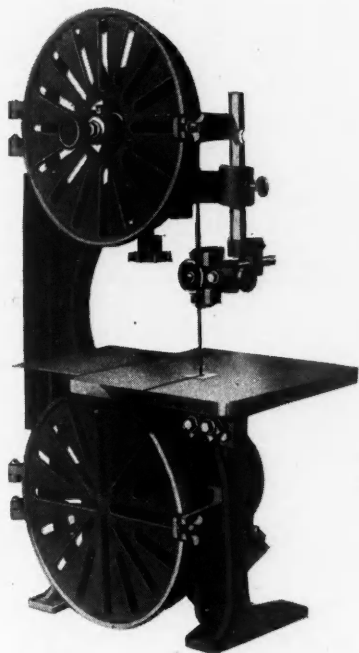


Fig. X-9—Bench Band Saw. 12" and 16" sizes. Indispensable in almost any shop. May be operated from a lighting current or by belt from any kind of power. Handy—A adaptable—Sturdy.

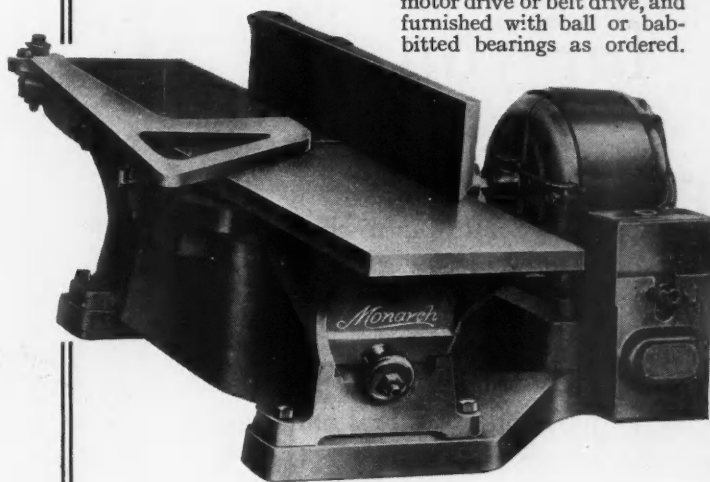


Fig. X-15—6" Bench Jointer. Strong, yet light, built for hard continuous industrial use. Arranged for direct motor drive or belt drive, and furnished with ball or babbit bearings as ordered.

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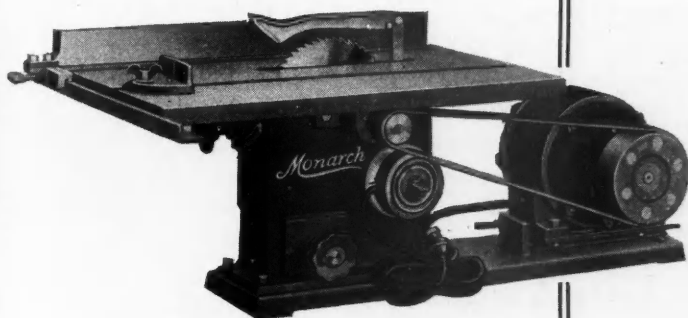


Fig. X-17—Bench Variety Saw. Not built to a price for occasional home use, but a thoroughly dependable industrial machine with highest grade machine work yet moderate price. Table tilts to any angle up to 45 degrees. Fully enclosed motor with fused switch.

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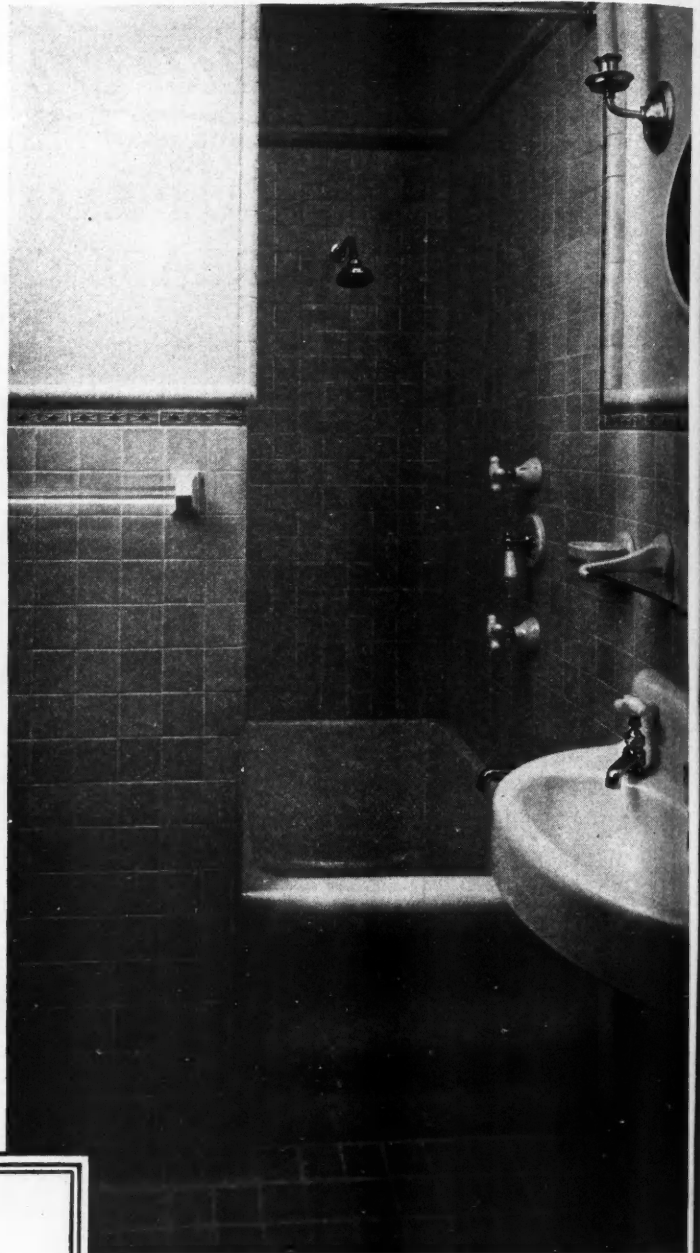
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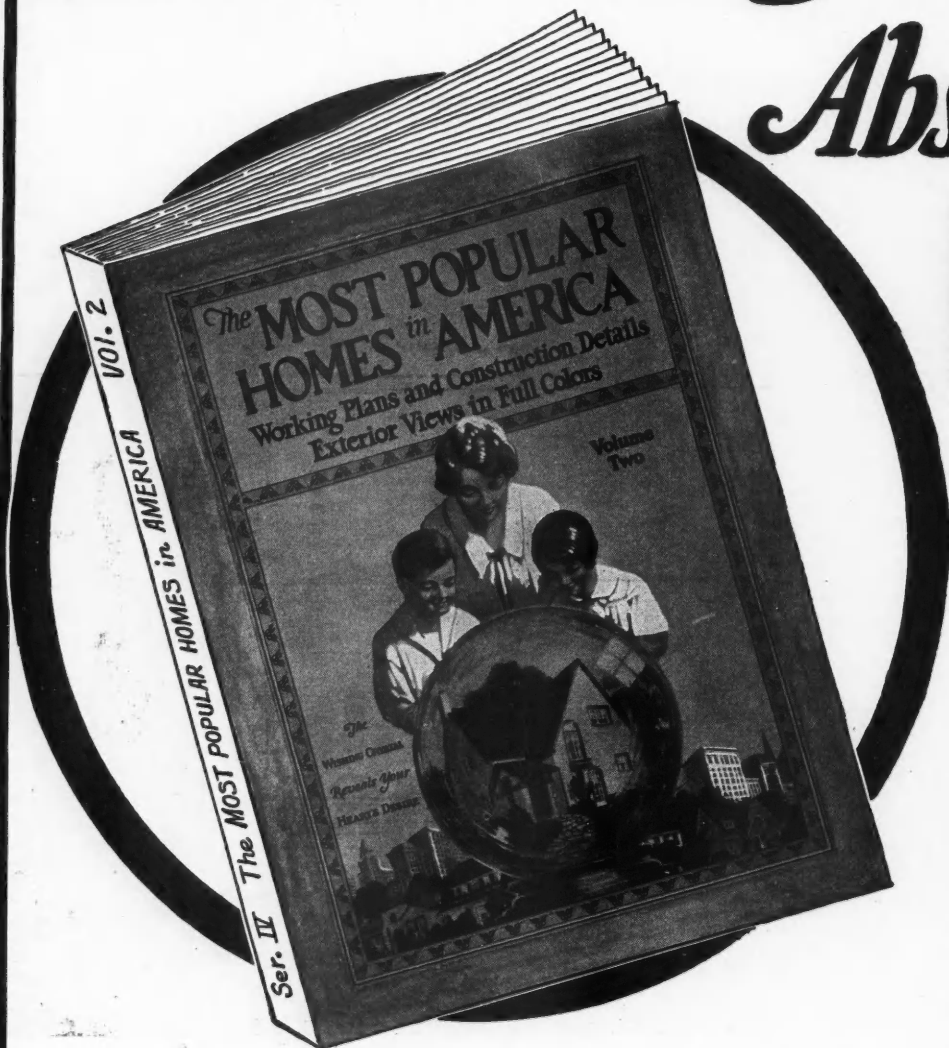
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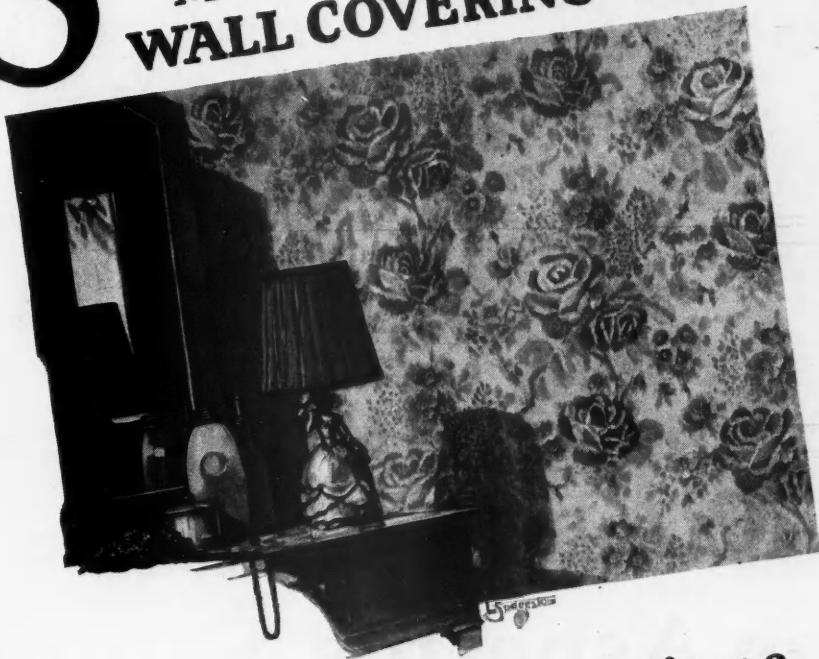
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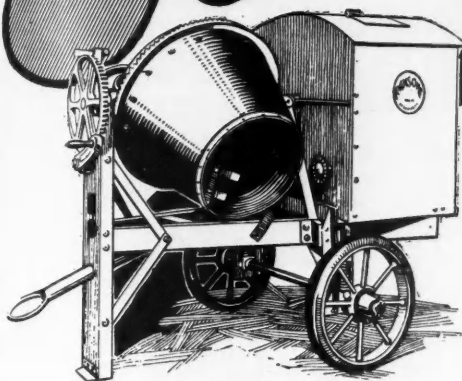
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5-S Standard
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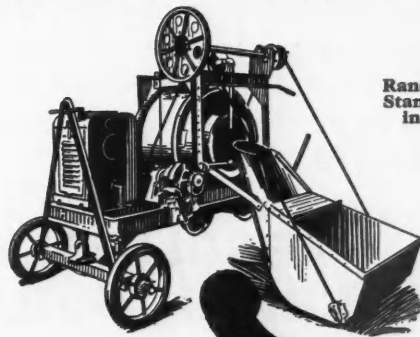
Some These two
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have the **STUFF!**



Ransome 3-½-S Tilter mounted on Trailer

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that sends in the Winning Run

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Ransome Concrete Machinery Company, Dunellen, N. J.—Dept. A. B.

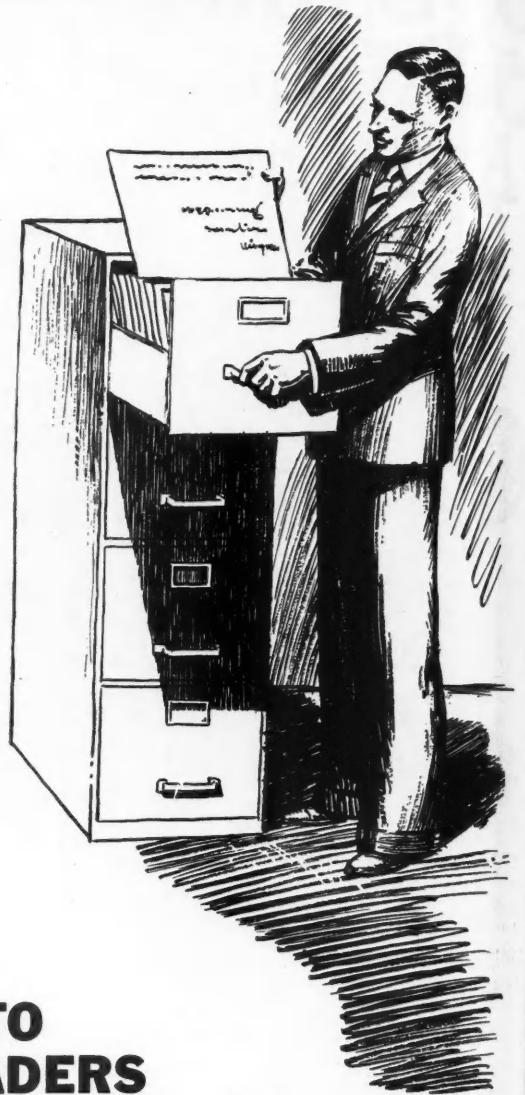
Without obligation, send me full information about the Ransome 3½-S Tilter, 5-S Mixer, 7-S Mixer, 10-S Mixer.

Name.....

Address.....

KEEP YOUR CATALOG FILE UP-TO-DATE

New appliances, materials, machinery and equipment are constantly being brought out and perfected by manufacturers. Your file should contain the latest catalogs of these articles. When a client asks you about some new improvement—you have the information at your finger tips. Perhaps you contemplate enlarging your scope of activity—your catalog file will contain suggestions as to the machinery or equipment best suited to your needs.



What Information Do You Need? American Builder Will Get It For You

If you are interested in power shop equipment, heating systems, plumbing supplies, water supply systems, lighting systems, elevators, school or church or theatre equipment, farm building equipment, building hardware, home conveniences or anything that is used in constructing or equipping any kind of building—the American Builder will help you get all information. Just send the coupon below telling us in what you are interested.

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The American Builder Service Department will gladly put its readers in touch with reliable manufacturers of appliances, machinery, tools, building materials and supplies of every description. In order to get the best and quickest results, please be sure to print or write your name and address plainly and also check your occupation in the coupon below.



THIS COUPON WILL BRING YOU ALL INFORMATION

AMERICAN BUILDER, 1827 Prairie Ave., Chicago, Ill.

AUGUST

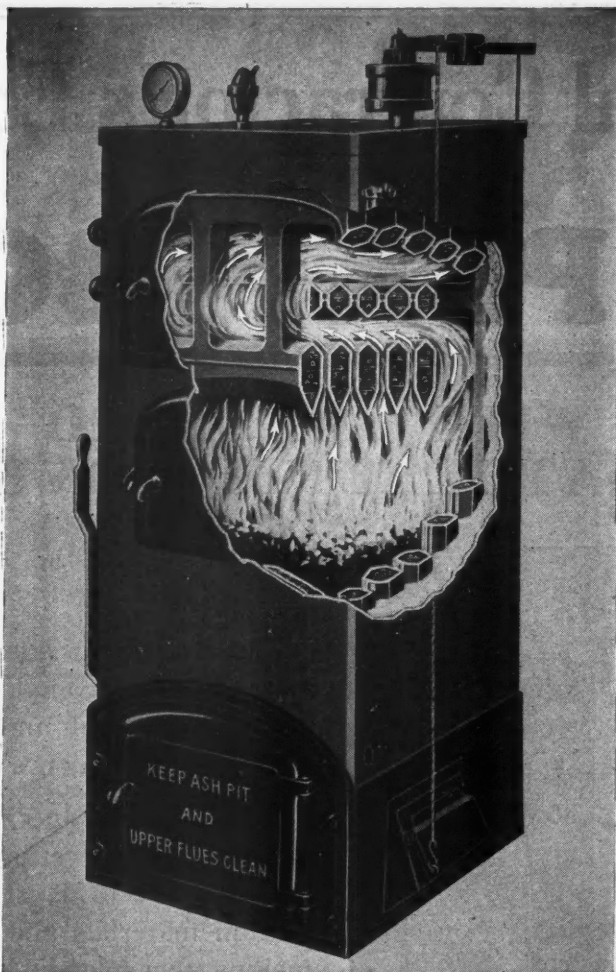
Gentlemen: Please put me in touch with manufacturers whom you know to be reliable and can furnish goods promptly. I am in the market for the following items:

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Name.....

Address.....

Please check your occupation. Building Contractor Dealer in Building Materials Prospective Home Builder Architect



The NATIONAL JACKETED BOILER

This Boiler has a trim, durable, dust-defying empire green jacket, that houses a dependable, efficient boiler. It burns hard or soft coal, coke, oil, or gas. It is furnished for either steam, vapor, or hot water systems. Handsome and effective.

OUTSTANDING POINTS

Attractive—Durable empire green enamel finish, black trim.

Insulated—A thick layer of rock wool between jacket and boiler.

Efficient—The double set of three flue-ways provides a long forward and back fire travel.

Convenient—Exceptionally deep fire box permits heavy fueling; requires infrequent attention.

Dependable—Its heating qualities have been demonstrated on many and varied installations.

Time-Saving—Large doors make firing and cleaning easy.

Adaptable—Efficiently burns hard or soft coal, coke, oil, or gas.

Versatile—For use on steam, hot water, or vapor systems.

THE JUNIOR MEMBER OF A LARGE FAMILY

The National Jacketed Boiler is the junior member of a large and highly regarded family. With its snappy, durable empire green finish and glossy black trimmings, it is up-to-the minute in appearance. And it has the National family traits of quality, dependability, and effectiveness.

Its large fire box holds a heavy fuel charge; frequent attention is thus made unnecessary, and

combustion efficiency is boosted. Fire travel is long, so the gases can give up their heat. A heavy layer of rock wool insulation cuts heat losses. Large doors make firing the boiler, and cleaning flues and ash pit simple, easy tasks.

The National Jacketed Boiler wins admiration by its appearance, earns respect by its performance. It's all you expect of a National Product.

NATIONAL RADIATOR CORPORATION

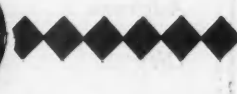
Manufacturer of Radiators and Boilers

Ten Plants devoted to National Service through these Branch Offices and Warehouses:

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| Buffalo, N. Y.—259-265 Delaware Avenue | Cleveland, Ohio—935 E. 63rd Street | New York, N. Y.—55 W. 42nd St. | Philadelphia, Pa.—121 N. Broad St. |
| Chicago, Ill.—2445 N. Keeler Avenue | Cincinnati, Ohio—Spring Grove and Elmira Avenue | Pittsburgh, Pa.—1509 Arrott Building | St. Louis, Mo.—1042 Central Industrial Ave. |
| Indianapolis, Ind.—431 W. Georgia St. | Johnstown, Pa.—221 Central Ave. | Richmond, Va.—3032 Norfolk St. | Washington, D. C.—2205 Fifth Street, N. E. |

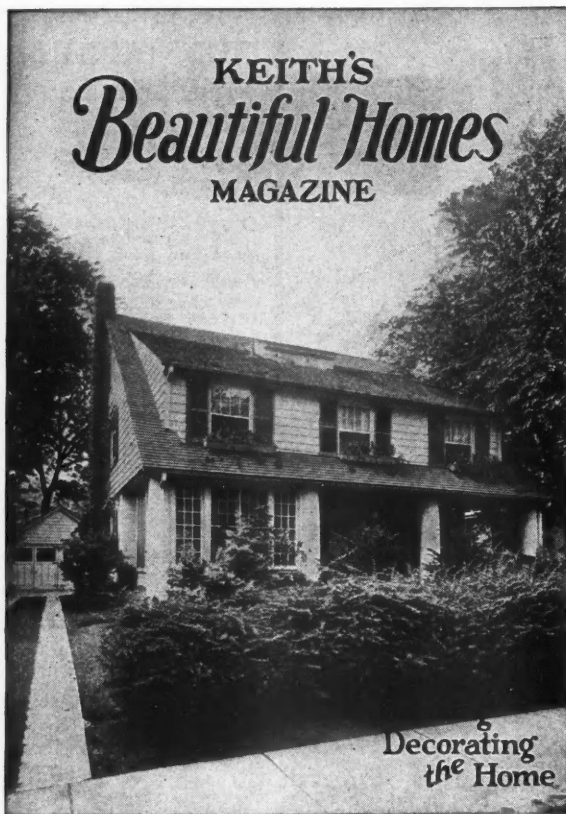


NATIONAL JACKETED BOILER



Special Contractor's Edition OF OUR **BIG PLAN BOOK**

**WITH EMBOSSED
LEATHERETTE COVER**



is now offered the building trade at a reduced price.

The 200 homes shown in this book with floor plans and complete descriptions, have actually been built and therefore tested for economy, convenience and good design.

This book is a special deluxe edition in a stiff board leatherette binding. It contains besides the 200 plans, many practical articles on materials and planning the home, making up a splendid book of 278 pages.

This edition may now be obtained with Keith's Beautiful Homes monthly magazine for the special price of \$2.00 postpaid.

Beautiful Homes magazine is the same page size as American Builder. In the year it publishes over 100 plans of Beautiful Homes of moderate cost and just the type and style you will find most persons will want to build.

This liberal offer brings you twelve numbers of this well known magazine and a copy of the big plan book, a total of 300 plans, all postpaid, for \$2.00.

----- MAIL TODAY -----

KEITH'S BEAUTIFUL HOMES MAGAZINE
100 North 7th St., Minneapolis, Minn.

Gentlemen:—

Send me a copy of Keith's leatherette bound edition of **Beautiful Homes Plan Book and Keith's Beautiful Homes Magazine** for one year for which \$2.00 is enclosed.

Name _____

Address _____

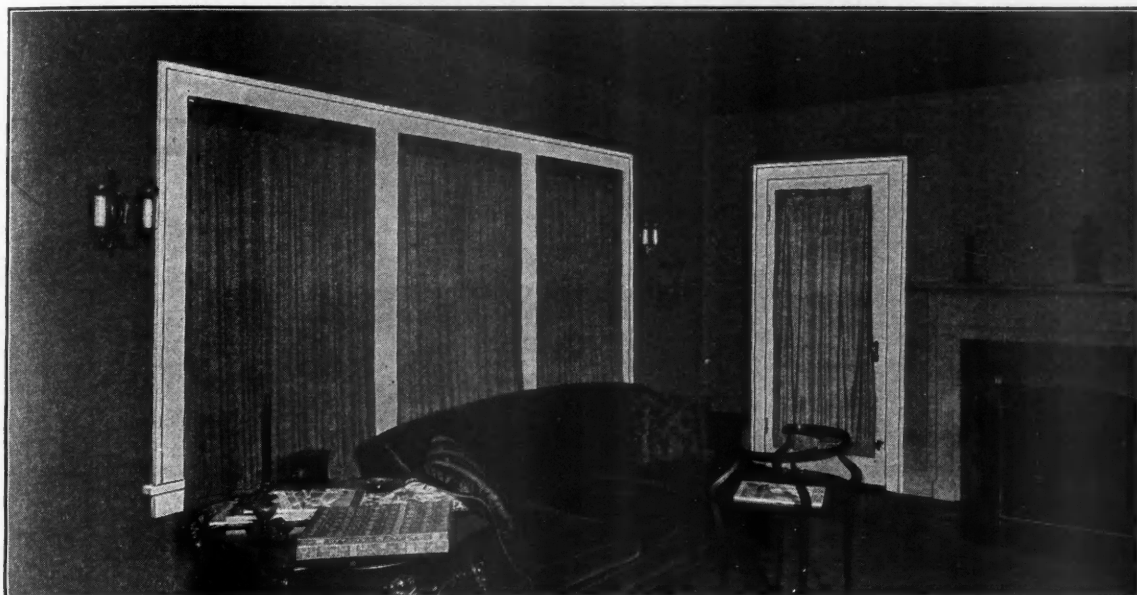
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A.B. 8-28

... *used by the best builders*

TRIMPAK

The Ultimate Interior Trim



Living room, the William M. Kirby residence, Kansas City, Mo.

Good trim is absolutely essential to attractive home interiors. It forms a harmonious bond between wall finish and draperies. TrimPak, the finest interior trim, is used by good builders as an added selling point, which the public is quick to appreciate.

Careful builders, proud of the homes they build, order TrimPak, interior trim for doors and windows on all their jobs, confident that the finished job will be up to the best standards of appearance and durability. In New England, on the Atlantic Seaboard, in the Middle West, the South, and the West, in 37 states, the best builders are using TrimPak as the final answer to their demand for quality interior trim.

And to their surprise, it doesn't cost them any more than ordinary trim! TrimPak is accepted as the best and most satisfactory trim today without a second thought, but back of that acceptance is much careful planning and supervision.

In the selection of a mill to make TrimPak, ideal manufacturing conditions are the first requisite. The contents of every carton

must be of uniform texture, cut from perfectly-dried stock, accurately milled and complete in units required for assembly. Prompt service on shipments must also be maintained, so that TrimPak dealers may keep their builders supplied promptly.

Because TrimPak is assembled, cut to approximate length, and packed in two strong cartons for each opening, the builder's order is placed in much simpler manner, and may

be deferred until the day before the house is ready to trim, for the dealer can fill an order for the average house in less than an hour. There are no waits for additional stock due to damaged pieces or miscouunts. It's all in the packages, ready for the carpenter.

Using TrimPak, three carpenters can completely trim a 6-room house in one day, which every builder will recognize as a considerable saving in time over old methods. When the painters come along, they find TrimPak already sanded and clean, because it was protected in the cartons.

TrimPak is sold by lumber dealers everywhere in all woods and patterns. If you have not used TrimPak, and wish to save money on your trim and get a better job, your request on the coupon below will bring the full story.



good trim helps sell good homes
(and costs no more)

Ask your lumber dealer about TrimPak, or use coupon at right

TrimPak Corporation

44 Whitehall St., New York, N.Y.
624 S. Michigan Ave., Chicago, Ill.

TRIMPAK CORPORATION, 44 Whitehall Street, New York, N. Y. AB-828
Please send complete information on TrimPak

Name _____

Address _____

Please check the square that identifies you, so we may reply most intelligently:

Architect Builder Contractor Retail Lumber Dealer Home Builder

Copyright, 1928, TrimPak Corporation

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

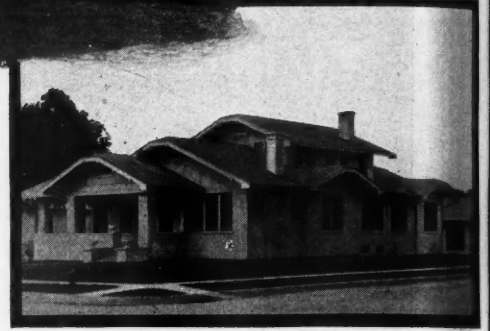
A semi-Colonial type residence in Tulsa, Oklahoma, roofed with pressed steel shingles.



An unusual type of bungalow with cement stucco walls. Sheet steel roof with standing seams.



A handsome brick residence at Two Rivers, Wisconsin, with roof of Spanish Mission tile formed from sheet steel.



For

EVERY TYPE OF ARCHITECTURE there is a pleasing form of Steel Roof

Have you noticed the rapidly increasing extent to which steel roofing is being used?

Not only is that a fact with regard to residence roofs. It is also true of roofing for churches, schools, apartment buildings, factories, and buildings for many other kinds of occupancy.

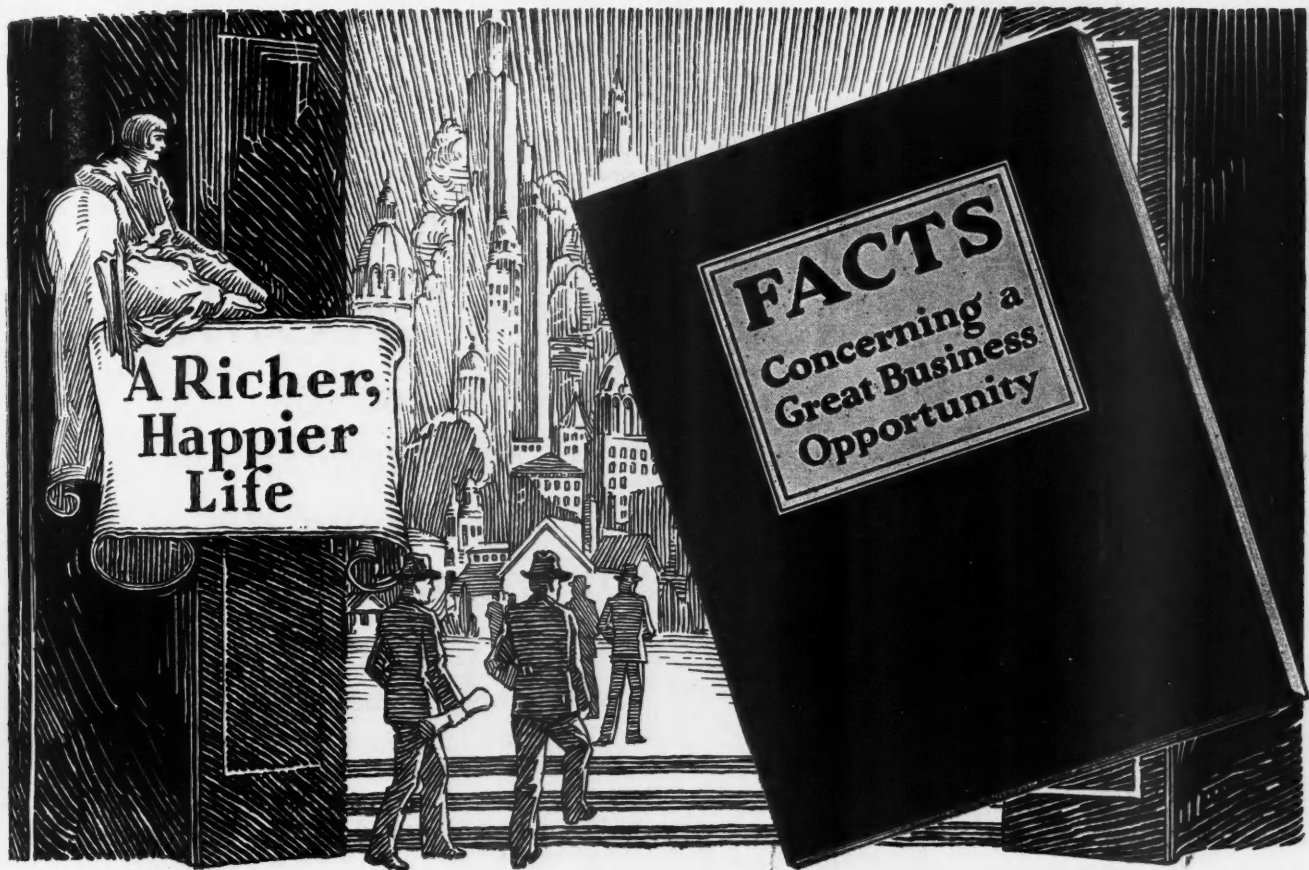
What other material combines to the same extent the roof essentials of fire safety, protection against lightning, durability, strength, economy and attractive appearance?

Sheet steel roofing provides *all* of these desired qualities.

For information regarding steel roofing, address The Sheet Steel Trade Extension Committee, Terminal Tower Building, Cleveland, Ohio.

SHEET STEEL

for Strength Safety Beauty and Economy



How men from all walks of life have won Manufacturing Independence

If you are ambitious to rise above mere working for a living, if you want the satisfaction and independence of a manufacturing business of your own, send for the book pictured above.

It tells an amazing story of a manufacturing enterprise that has opened the way for hundreds—a business almost unlimited in scope, in which men can, and do start with limited capital and expand rapidly, turning \$1,750 into \$100,000 for example, as a Pennsylvania plant did in five years. Multiplying an original investment of \$3,000 thirty-three times in three years, as two men did in Kansas City. Building a \$100,000 business in four years from a start of one machine—the accomplishment of a St. Louis manufacturer.

Such achievements are not exceptional among the more than 400 manufacturers in the country who are making and selling a building unit so superior, so economical and so

practical that it has literally swept the nation in just a few years.

A Proven Path to Follow

Remarkable as past successes may seem, the manufacture of this material today offers greater opportunities than ever. Tried by the acid test of use in millions of dollars' worth of construction of all kinds, it has surpassed every expectation and proven every claim. Methods of manufacturing and selling have been tested and developed to a perfection usually attained only by giant corporations. The product has the added advantage of 40 beautiful colors, a feature that broadens the market and multiplies the earning capacity of every plant.

Probably no manufacturing business today offers so well charted a road to success. Certainly no other offers the opportunity to start so small in an enterprise so big in proven earning possibilities.

Manufacturing franchises are rapidly being granted. Act before someone else qualifies in your locality. Send for the book of opportunity shown above. Do it right now. Use the coupon.

W. E. DUNN MFG. CO.

415 West 23rd Street

HOLLAND, MICHIGAN

Will you join 400 local independent manufacturers?



W. E. Dunn Mfg. Co., 415 W. 23rd St., Holland, Michigan.

8-28

Send me your book telling how men from all walks of life have won manufacturing independence supplying a better building material in their cities.

NAME

ADDRESS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



When you sell
CROMAR ✓ ✓

*you can promise the
greatest resistance to
rough day-in and day-out
wear, because ✓ ✓*

Any two carpenters can lay a CROMAR Oak Floor in a day. CROMAR is scraped, sanded, filled, varnished (2 coats), treated to resist moisture, and polished — at the factory. CROMAR makes you completely independent of floor finishers. No subletting—you handle the entire job yourself.

CROMAR reaches you Crated — not merely bundled—in compact, easy-to-handle packages. One length to a package. There isn't a more satisfactory flooring to handle — whether it's for residential work or apartments, churches, bedrooms of hotels, etc. — whether it's for a new building or a relaying job.

And CROMAR is so easy to lay! A flexible V-type tongue and groove makes for speed. Fits quickly and snugly without "blocking" — and permits laying over uneven sub-floors. Nail-holes are punched. And the beveled tongue prevents damage in nailing.

A tiny, rounded surface seam — smaller than the shaft of an ordinary pin — makes cleaning easy and prevents square cracks to pack with dirt. A tremendous advantage which CROMAR alone can offer.

There are other CROMAR advantages — write for complete literature which tells and illustrates them all in detail.

*Write for free samples
and complete literature
concerning the manu-
facture, the selling and
laying of the only FAC-
TORY FINISHED
hardwood flooring in
the world—*



Patented Machines apply filler, 2 coats of varnish and the moisture-resisting compound, at the CROMAR Factory.

One of your biggest advantages in selling CROMAR to an owner is that you can show him (or her) exactly what the floor-finish looks like—you can let the owner see it, feel it, test it by scratching and hammering. No guess work about CROMAR. And the lasting beauty and long-wearing quality of the CROMAR-finish are a life-long advertisement for you.

The CROMAR machines which apply the filler, varnish and moisture-resisting compound are patented and are the only ones in the world. First, they drive the putty-like Silex filler deep into all the pores of the oak strips—under tremendous pressure. (No human muscle has force enough to even approach the efficiency of this machine operation). In this way, all the millions of pores are sealed. Then the 2 coats of varnish are applied—and the oil in the varnish cannot seep into those sealed pores. The oil therefore stays in the varnish—keeps it alive and elastic so that it can't grow brittle and flake off. The proper filling of oak also prevents the varnish from "pitting." You will never find pinholes in CROMAR varnish which are caused by the top coatings sinking into unfilled pores.

Furthermore, these CROMAR machines are unailing in precision. They cannot apply too much finish in spots or too little; they cannot grow tired or forget or become careless. No human hand can equal in excellence the work of these machines.

Then a special CROMAR compound is applied which prevents moisture from working its havoc. Thus you have with CROMAR the complete assurance of laying a floor which will give the greatest possible satisfaction for the longest possible time.

THE CROMAR COMPANY • • Williamsport, Pa.

CROMAR
FACTORY FINISHED
Oak FLOORING

This door
will never
stick / / /



Laminex doors are now being manufactured of Philippine hardwood (commonly called Philippine Mahogany) as well as of Douglas Fir.

it's guaranteed trouble-proof

ORDINARY doors swell and stick because wood expands when wet. Laminex doors cannot swell or stick, because they are built by a process which eliminates this trouble.

Laminex construction takes advantage of the fact that wood cannot swell lengthwise—it can only expand in width. So, we cross the grain of adjoining sections in a Laminex door in such a manner that any tendency of one piece to swell in width is immediately counteracted by neighboring pieces.

Laminex stiles and rails, built up on a core of blocks between flawless layers of Laminex wood, are welded together permanently by our secretly compounded Laminex waterproof cement.



This is the famous Laminex door soaking test, which is being staged publicly by retail lumber dealers in all parts of the country. It proves conclusively that dampness can never make a Laminex door warp, split or come apart.

Laminex cement is the secret

Laminex cement, which is absolutely waterproof and actually stronger than wood, is the secret of the immunity of Laminex doors to moisture. This marvelous cement securely welds all parts of a Laminex door together, so that the various units exert their neutralizing forces on each other.

Laminex doors are guaranteed

Each genuine Laminex door bears our yellow replacement guarantee label and the name "LAMINEX." Look for guarantee and the name on the doors. Progressive millwork and lumber dealers can supply you with Laminex doors in all popular designs, at reasonable prices. Fill in and mail the coupon today for our new book about Laminex doors.

LAMINEX DOORS

REG. U. S. PAT. OFF.

Will not shrink, swell or warp

THE WHEELER, OSGOOD COMPANY, Tacoma, Washington
 Gentlemen: Please send the illustrated Laminex book with different ways of finishing doors. L.1128

NAME _____
 ADDRESS _____
 CITY _____ STATE _____
 I buy _____ doors per year.

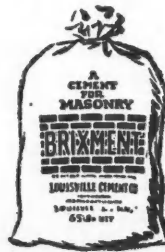
no more slaking

BRIXMENT combines in one material all the advantages of portland cement and lime *with none of the disadvantages.* It's strong, it's plastic. It requires no slaking, no soaking. It can be mixed and used as soon as delivered. It spreads smoother and faster. It makes cleaner, neater joints and sticks to the brick.

These economies and many other advantages described in two handbooks, "BRIXMENT for Mortar" and "BRIXMENT for Stucco". Send for them.

LOUISVILLE CEMENT CO., Incorporated
General Offices: LOUISVILLE, KY.
Mills: Brixment, N. Y. and Speed, Ind.

DISTRICT SALES OFFICES
1610 Builders Building, Chicago
602 Murphy Building, Detroit
1015 Chestnut Street, Philadelphia
301 Rose Building, Cleveland



BRIXMENT

for Masonry *and Stucco*

AROUND *the* FAMILY TABLE



Duty First

A man with all the earmarks of a laborer was smoking thoughtfully and watching a large building in process of construction. Being short-handed, a foreman approached and asked:

"Hey, you; want a job?"

"Yes," was the reply, "but I can only work in the mornings."

"Why can't you work all day?"

"Well," the man explained, "every afternoon I got to carry a banner in the unemployed parade."—*Successful Farming.*



That's Asking Too Much

Boss—"Do you get here every morning at 8:30?"

Stenographer—"If you got here yourself, you could find out."—*D. Dillon Akers.*



Finally Proved

Two backwoodsmen in Maine knocked at the door of a house at the edge of the forest. "Hello, Ed!" said one of them to the farmer who came to the door. "Say, we come across the dead body of a man over there in the hollow an' we kinda thought 'twas you."

"That so? What'd he look like?" asked the farmer.

"Well, he was about your build—"

"Have on a gray flannel shirt?"

"Yep."

"Boots?"

"Yep."

"Was they knee boots or hipboots?"

"Let's see. Which was they, Charley, knee boots or hip boots. Oh, yes, they was hip boots."

"Nope," said the farmer. "'Twasn't me."—*The Open Road.*



Small Items Don't Count

A careful contractor, bidding in competition with a bunch of fly-by-nighters, rushed into an architect's office to explain that he had forgotten to send in all his bid.

"The bid I sent in didn't include the brick work, plastering and cement work," he explained, excitedly.

"Oh, that's all right," said the architect, "you weren't low anyway!"—*Kreolite News.*

Limited

A gentleman slipped on the top stair of the subway and started sliding to the bottom. Half way down, he collided with a lady, knocked her off her feet and the two continued the journey together. After they had reached the bottom, the lady, still dazed, continued to sit on the gentleman's chest. Looking up at her politely, he finally exclaimed, "Madam, I'm sorry, but this is as far as I go."



This Covers the Ground

"You say the Smiths are going to build a house soon?"

"Yes. You see, they haven't the plans made, but they have a spot to build it on."

"Well, of course, that's a lot."—*Pelican.*



Fair Enough

The doctor took one glance at his new patient. "You'll have to call in another physician," said he.

"Am I as sick as all that?" gasped the patient.

"No, but you're the lawyer who cross-examined me last March when I was called to give expert testimony in a certain case. Now, my conscience won't permit me to kill you, but I'm hanged if I want to cure you, so goodbye."



Just for Tomorrow

'Twas the night before pay-day, and all through my jeans I hunted in vain for the ways and the means; Not a quarter was stirring, not even a "jit"; The kale was off duty, the greenbacks had quit. Forward, turn forward, O Time, in thy flight, And make it tomorrow just for tonight.

—*Kiwanis Chronicle, Springfield, Mass.*



Hint for Salesmen

"Don't you know," said Charlie Hedger, "that you can't sell life insurance without a license?"

"Boss," said the ducky, "I knowed I couldn't sell it, but Ah didn't know the reason."—*Spokane Ad Club.*



"How can I drive a nail without hitting my fingers," asked the woman customer of the lumber clerk. She got expert advice. "Hold the hammer in both hands," he said.

PAINTING THINGS

By DOUGLAS MALLOCH

*How much a little paint will do!—
A little stain or varnish, too.
'Twill make a table fairly smile,
And make it last the longest while,
And keep a house as good as new.*

*About the easiest way, I guess,
To fill a home with happiness
Is painting things. The woodwork gleams,
And all the furniture just seems
To always wear its nicest dress.*

*I guess, while mother's painting things,
That that's the reason why she sings.
For folks are like the places where
They live; and when a desk or chair
Looks happy, happiness it brings.*

*Yes, when they smile, then folks smile, too;
For always, when my mother's through,
She lets me look, and I can see.
Myself, as smiling as can be—
How much a little paint will do!*

[Reprinted by permission of "Woman's World."]

Rot Proof

Crack Proof

Enduring

Composition Capital with sharp lines and fine architectural detail.

Stopped flutes and apophye at top of shaft.

Union Metal Columns are protected against weather conditions by being galvanized with lead and zinc spelter, both inside and outside.

Corinthian flute with flat top (sharp Doric flute provided on Doric designs).

Vertical joints of all columns are double lock seamed with seam rolled on inside so that all outside surfaces are smooth and clean.

Entasis (modified taper giving an outcurving or bulging effect).

Section of fluting showing beautiful, clean-cut lines due to Union-Metal steel die construction.

Stopped flutes and apophye at bottom of shaft.

Double roll Attie base with bottom square member.

Cast-iron top ring.

Galvanized steel cylinder carries weight from top ring to pressed steel shaft.

Cast-iron bottom ring. This construction relieves composition capital of all weight.

All columns are provided with priming coat of best grade reinforced red lead before leaving factory. Any color of finishing coat can be applied after erection.

8 inch, 10 inch, 12 inch, 14 inch, diameter columns made of one-ply 22-gauge galvanized steel. Large columns, 16-inch to 42-inch diameter, made from two-ply 22-gauge laminated steel construction. Special construction from 42 inch to 60 inch diameter.

Details of stopped flute outward curvature or apophye and lower end of shaft where it fits over cast-iron base flange.

Cast-iron base, smooth and clean.

THE UNION METAL MFG. CO.
GENERAL OFFICES AND FACTORY, CANTON, O.
Branch Offices—New York, Chicago, Philadelphia,
Cleveland, Pittsburgh, St. Louis, Los Angeles, San
Francisco, Jacksonville.

UNION METAL COLUMNS

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



Formerly AMERICAN CARPENTER AND BUILDER

1827 Prairie Ave., Chicago—120 West 42nd St., New York City

Construction Records Broken

JUNE construction contracts, in the territory east of the Rocky Mountains, broke all previous June records, according to F. W. Dodge Corporation. New building and engineering work contracted for in June, in the 37 Eastern states (including about 91 per cent of the total country) amounted to \$650,466,200. This figure was the second highest monthly total on record. It was 3 per cent ahead of the June, 1927, record, and was only about 2½ per cent under the total for the preceding month of this year.

The June contract total made another record. It brought the total amount of new construction work started in these states since the first of this year up to \$3,444,867,500, which was the largest first six months' total on record. The increase over the first half of last year was 8 per cent.

The June contract record included the following important classes of work: \$258,083,700, or 40 per cent of all construction, for residential buildings; \$130,852,400, or 20 per cent, for public works and utilities; \$93,942,200, or 14 per cent, for commercial buildings; and \$63,536,700, or 10 per cent, for industrial projects.

Contemplated new work reported in June amounted to \$1,030,095,000, being 17 per cent in excess of the May, 1927, total, and 41 per cent ahead of the June, 1927, record.



Second Mortgage Money Cheaper

REDUCTION in second mortgage rates is announced by Republic Realty Mortgage Corporation, Chicago, effective Monday, July 9. It is the fifth time in six years that this corporation has taken similar action.

The regular interest rate continues at 6 per cent per annum, and the discount rate deducted when the loan is made is as follows: 4½ per cent for a one-year loan, 8 per cent for two years, 11 per cent for three years, 13 per cent for four years, and 15 per cent for five years. Principal and interest are repaid in equal monthly installments over the period of the loan.

As a result of this reduction it is claimed that millions of dollars have been saved borrowers in the Chicago vicinity. It has been the announced policy from the outset to lend at lowest cost, passing on to the borrower the benefits of large volume, sound finance and efficient operation.

Organized in 1922 by a group of prominent business men who recognized the need of standardization in the second mortgage field, Republic Realty Mortgage Corporation is now the largest institution in the Middle West specializing in secondary finance, with capital and surplus of more than \$1,000,000 and \$3,600,000 in outstanding loans.

In connection with the new schedule of rates the corporation announces that it will accept loans of longer maturity. While formerly three years was the maximum term for which second mortgage loans were usually made, the new schedule provides for four- and five-year loans as well.

The latest reduction gives further evidence that the sec-

ond mortgage business can be successfully conducted on sound and conservative lines with decreasing margin of profit, thus making secondary finance available for an increasing number of requirements.



Air Mail Rates Reduced

IT will cost only one-quarter as much to send average business or social letter by air mail on and after August 1 as it does now. On that date the rate will be reduced from 10 cents a half ounce to 5 cents for the first ounce or fraction and 10 cents for each succeeding ounce or fraction. This means that the ordinary letter may be sent anywhere in this country for 5 cents and that an air-mail package which now requires \$2.00 postage may then be sent to any part of the country for \$1.05.

Any mail matter not liable to damage by freezing may be sent by air mail. Registered, insured and C. O. D. matter is carried by air mail, as are packages not exceeding 50 pounds in weight and not exceeding 84 inches in length and girth combined. Special delivery stamps still further expedite delivery of domestic air mail. Air mail may be deposited in any mail box, but time must be allowed for collection and transportation to the postoffice and air-mail field. Distinctive air-mail envelopes are desirable but not compulsory, but the words "Air Mail" or "Via Ail Mail" must be clearly marked on the envelope or wrapper.

This new low rate holds out greater possibilities for the business man. Twenty-eight air-mail routes, over 12,457 miles, serving 62,000,000 people directly and millions more indirectly, are available. Each 24 hours the air-mail planes fly 24,914 miles and their daily average load now exceeds three tons. Air mail averages more than 100 miles per hour and planes are flown night and day in all kinds of weather. By the greater use of this excellent service American business can aid in still further increasing the service available.



Television Broadcast Inaugurated

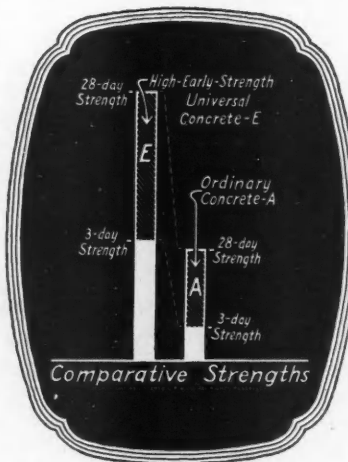
ONLY a few years ago radio broadcasting was just being inaugurated, a new marvel of scientific discovery, which has in a short time affected the daily lives of almost the entire population of the civilized world. Hardly has the novelty of radio worn off when another marvel is introduced which will, in all probability, have an equally widespread effect on life.

WGY, the Schenectady broadcast station of the General Electric Co., has inaugurated a regular schedule of television broadcasting. Three afternoons a week, Tuesday, Thursday and Friday, from 1:30 until 2 P. M., eastern daylight-saving time, television programs are being broadcast over the wave of WGY, 379.5 meters. In starting this service WGY becomes the pioneer television broadcasting station of the country.

High-Early-Strength Universal Concrete

is made
with the usual
Universal
Cement

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EVERYBODY'S BUSINESS



Consequences of Success

By FLOYD W. PARSONS

KNOWING something of the mistakes of yesterday reduces the likelihood of our drawing hasty conclusions concerning tomorrow. We have now climbed high enough into the foothills of a new civilization to be able to look down upon some of the paths we have followed. Below us we see the thickets and forests of tradition and ignorance that were so nearly impassable. Clearly disclosed on the landscape behind us are a multitude of myths and prejudices that influenced our steps and sent us wandering aimlessly over roundabout routes.

Others are trying to tell us about ourselves. Bernard Shaw says America is a doubtful experiment. Unfortunately he insists on believing that employers in our country today hold the same ideas and follow the same methods that prevailed in the years gone by. He overlooks that the fundamentals of capitalism in America have undergone a radical change. Instead of adhering to the old policy of high prices and low wages, modern management in the United States has turned definitely to a program of low prices and high wages. Here we have a departure so revolutionary that the socialists of Europe must overhaul their economic philosophy if they would get a proper viewpoint of conditions on this side of the ocean.

If we have learned one thing better than all others, surely it is the futility of forecast. Before attempting to visualize the future we must get a true perspective of the past. We must distinguish between realities and fictions. We must tear the curtain aside and make yesterday a living thing. We must understand what human nature did in the years gone by in order to anticipate what it will do in the years to come.

Literary frankness and honesty is a commendable development of recent times. We gain much by reading about the punch bowl of Ben Franklin, the bill for election liquor rendered to George Washington, the letter from Cotton Mather demanding that William Penn's ship be captured and he and his Quakers sold into slavery, and the arguments presented by John Hancock to prove the necessity of providing rum for the Continental Army.

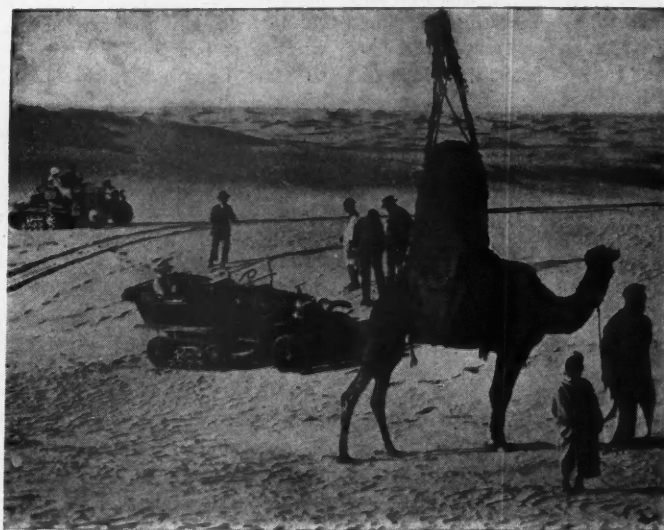
We are all the better for knowing the true story of Paul Revere's ride, and for understanding how Colonial immorality caused rum to flow at funerals, weddings and ordinations. For a long time we held firmly to the notion that our forefathers revolted to preserve their liberty. Now the facts appear to indicate that they rebelled to fill their pockets. At least there is no longer any doubt that one of the greatest factors in bringing on the American Revolution was the attempt to stop rum-smuggling in New England.

It may be a cause of regret to many that the Declaration of Independence was probably caused by appetites rather than souls, but there is more danger from hiding the truth than from letting it be clearly exposed. Why perpetuate illusions? There is no greater nonsense than the assumption that wherever there is stomach there cannot be soul. We are fortunate in that the modern historian refuses to be guided by fallacies. He insists on painting the picture as it is rather than as we would like it to be.

We make no mistake in assuming that life will be an ever-increasing succession of surprises. We are not nearly as wise as we think we are. We are nowhere near the day when it will be possible to effect any important or rapid change in man's inner nature or physical self. The human body differs in only a few respects from other animal organisms. When we base our speculations on observed fact, it is impossible to say why we are here or why we continue monotonously repeating ourselves generation after generation, giving all our attention to providing food and shelter, and to acquiring a mate in order that another individual may be reproduced.

We can no more speak with confidence concerning the nature of life in 1950 than the people of 1900 could visualize today. We know what has been accomplished in the first quarter of the present century, but we have no idea what will be the ultimate effects of our achievements. Of one thing we may be sure—new advances will be along paths never trodden before. The road before us will turn and twist and branch off in many directions—not go straight ahead.

Each passing year will



Old Meets New Even on the Desert.

bring us to the ends of many lanes. There are limits to how fast we can grow, how much we can eat, how many clothes we can wear, how much we can read and how many hours we can play. The consumption of fruits and vegetables by the American public is now almost twice what it was twelve years ago. Improvements in food-preservative methods brought about an 80 per cent increase in the shipments of perishables, while the increase in total population was only 12 per cent. Lettuce increased 440 per cent, grapes 216, citrus fruits 270 and celery 188 per cent. Chicago now gets white potatoes from 37 States, cabbage from 22 and cantaloupes from 14. Who would be willing to predict that all of the figures will show as great increases in the next decade as in the one past?

Fifty years ago the individual production of grain per acre in the United States was 1,200 pounds; now it is more than 25,000 pounds. Afternoon editions of daily papers come out at 9 A. M. Several automobile companies are already exhibiting 1929 models. The craze for color has broken out in every quarter. The newest design of a well-known piece of office equipment is now being presented in beige, green, maroon, blue and brown, all finished in Duco. Old-time champions of the prize ring thought nothing of fighting once a month and were glad to get a few thousand dollars as their share of the proceeds. The modern champion has to be urged to do a battle a year and then in selecting his opponent always keeps one eye on how big the fellow is as a drawing-card.

The evidences of change are on every side. Even the style in street-hawking has undergone a revolution. In the old days the fakirs were glad to make five dollars a day. Now they consider it a bad week if they fail to clean up \$150. They have no overhead except the necessary allowance for a small fine in a different district every week or two. One investigator reported recently that New York City has 5,000 street fakirs, half of them averaging \$5,000 yearly.

Even the old-time sandwich man is being forced out of business by smart individuals with more subtle methods. Elegantly dressed in evening clothes, the modern edition of the human street sign saunters along displaying an advertisement on the front of his shirt when he applies an electric current. With the current off he is a "gentleman" walking along smoking his cigar in a leisurely way. How unlike he is to the gaunt figure of yesterday sandwiched between two painted signs.

Truly, the fight for Uncle Sam's dollar has become a battle of wits. Prosperity has puffed us up and caused thousands to believe that the pitfalls on the road to fame and fortune have been removed. The gyrations of the stock market have blinded many to the increasing number of problems that are now up for solution. It is bewildering to the average person to read that an investment of \$8,000 in du Pont stock had increased to \$88,480 from the close of 1921 to the end of 1927; \$3,475 in American Can during the same period increased to \$42,675; \$4,400 invested in McCrory Stores grew to \$49,704. The gains on 11 important stocks in the period mentioned extended from 304 to 1,128 per cent without including the cash dividends that were paid.

With such facts before them is it any wonder that Mr. Citizen and his wife threw their old copy-book maxims out the window and adopted the common notion that we are now in for a series of "ups" with no valleys anywhere in sight. Where we used to talk in millions, the conversation is now in billions. Keene and Gates were pikers compared to the big traders of today. A large insurance company at the end of 1927 had 52 per cent of its funds in common stocks. Great corporations that had been piling up surpluses for years have now become literally investment trusts. A recent survey disclosed that 150 American companies had approximately three billion dollars in invest-

ment securities, mostly common stocks.

The chief factor that has brought about the present situation has been the excess of productive capacity. There has been no reason or incentive for business to invest surplus funds in enlarging plants and extending production facilities. Many concerns have found it more profitable to purchase outside securities than to buy their own. The idea is not new. During the violent boom in Great Britain from 1887 to 1890, the speculative rage extended into nearly every kind of promotion. Hundreds of British corporations had become what we now call investment trusts. Everything went well so long as the market continued to rise. But the real worth of an investment trust is shown in a declining market. The British boom was followed by a crash that was felt throughout the world. Heaven help the investment trust that starts at the peak of a boom.

The chief threat to American business today is from overconfidence in the handling of new problems. Science never has known where it was going and at no time has marched confidently forward to a predetermined goal. All we have been able to do is stumble onward, enslaved by the mechanisms we have created. Who among us is able to explain the "miracle" of wages rising while commodity prices fall? Where is there one who has a sound and practical answer to the problem of unemployment?

We have entered a power age in which machines have liberated us from brute burdens. A way has been found to so increase and cheapen production that the so-called common people are able to enjoy a large share of the good things of life. Sixty-eight men now produce the same average output as 100 men did in 1914. Assuming that our factory output was 100 at the commencement of the World War, and the index of factory employment was 129, the output figure at the commencement of the present year had risen to 170, while employment had dropped to 115. This represents the greatest displacement of labor that has ever taken place in world industry.

In four years the output on our farms increased 10 per cent while the number of workers decreased 5 per cent. During this same short period, notwithstanding the growth of both population and production, there was a decrease of 2,200,000 workers in four of our major industries—manufacturing, mining, farming and transportation. In ten years the increase in individual output in our country has extended from six per cent in the manufacture of boots and shoes to 211 per cent in rubber tires.

Prosperity has its price. Success brings increased responsibilities. We have accomplished wonderful things and now reach a day when we must prove the wisdom of our policy. As to what may be the solution for our present high degree of economic unbalance is no easy guess. We cannot go on forever shortening hours and increasing wages. It is not at all certain when we will again be able to start new industries of such importance as radio, airplane and automobile manufacture.

Europe is staging an amazing comeback and in a comparatively few months has drawn a half-billion dollars in gold from our vaults. She also proposes to go in for machine methods and mass production, and this means keener competition for the markets of the world. We cannot increase loans to speculators another 2,000 million dollars, and it is certain we cannot continue to ship money to Europe without taking from her a much greater quantity of manufactured goods than we export.

The opportunity open to America has never been equalled. But to make the most of it we must proceed with a full understanding of the multitude of difficulties that are to be overcome. Let us not belittle the problems that are up for attention or close our eyes to the big jobs ahead. In the meantime, let us have more caution and a little less of the cocksure spirit exhibited in recent months by our gambling fraternity.

Store Remodeling Pays Owner Big Dividends

Business Increase Takes Effect Immediately



When This New Front Was Added to the Meyer Jewelry Company's Store and the Interior Remodeled, the Business Increased 40 Per Cent, a Convincing Record for Contractors to Present to Other Store Owners Whose Buildings Are in Need of Modernization.

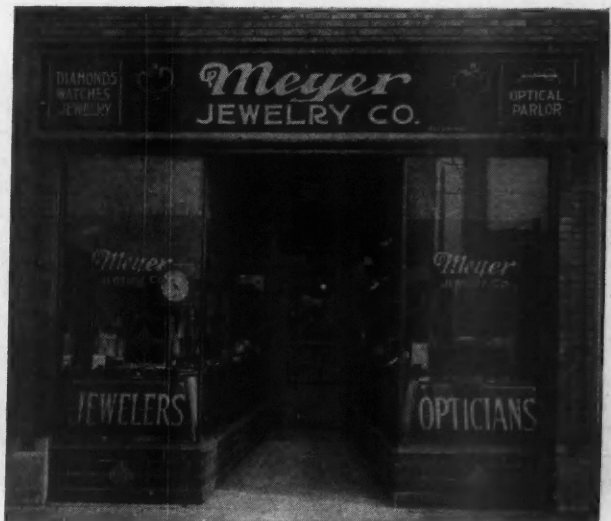
THAT an increase of 40 per cent in nine months in the sales of a jewelry store may be directly attributed to remodeling, with changes in layout and furnishings, may seem impossible to the skeptical. Yet Meyer Rosenbaum, proprietor of the Meyer Jewelry Store at 8015 Ferndale Avenue, Detroit, secured this result after remodeling his store recently, and he is convinced that it is no mere coincidence but that the changed appearance of the store is largely responsible for the result secured.

The Meyer store is located five miles from the business center of the city and is strictly a community store. The building itself is a one-story brick affair. In the remodeling process an entire new front was put in. The base and trimmings are of verde antique marble, while the window work is of all copper construction with display windows occupying all available space.

The back of the windows is made of paneled glass set back 30 inches from the glass, thus giving ample display room and at the same time allowing the light to reach the interior. Several movable dividers allow the display of more than one type of merchandise at one time without one detracting from the other.

The entrance has a pleasing alcove effect with a dome

(Continued to page 100)



The Meyer Jewelry Company Store, Before Remodeling, Was Typical of Thousands of Stores Throughout the Country, Which Offer an Excellent Field of Work for the Live Contractor Who Is Out After Business.

Now Comes Something New in Wrecking Methods

How an Ingenious Contractor Hauled a Crane and Skullcracker to the Top of a Four Story Building and Speeded Up Wrecking Operations

CONRAD LURIE, Cleveland wrecking contractor, is said to be the first building wrecker to use a truck crane and skullcracker to tear down a building by operating the crane from the top of the building and removing it floor by floor as it works its way down to the ground.

Lurie contracted to wreck the four story Armour Packing Company warehouse in downtown Cleveland. He planned to use a crew of 50 men with pneumatic drills, sledges and picks. When two weeks' work showed only a small section of the comparatively light weight roof broken through, it appeared that his three-month contract would have to be extended, at the expense of a daily penalty and dangerous loss of profit.

Lurie was worried. This pace would require eight or nine months to wreck the building and haul away salvage. The entire building was used as a refrigerator, consequently brick walls were two feet thick and lined with cork, and floors were of two layers of eight-inch reinforced concrete with a layer of cork in between, thus the floors would require even more effort to break through than the roof did. Each floor was 80 feet by 150 feet square.

Visions of financial loss bothered Lurie until he stumbled on the idea of raising a light crane with about a 1,500-pound skullcracker to the top floor. Soon a portable five-ton crane mounted on a truck was found and rented by the day for the duration of the job. This crane belongs to Painton & Martin, local crane service company, whose business is the rental of such equipment. Lurie



A Five-Ton Crane, Mounted on a Five-Ton Truck, Being Raised to the Fourth Floor of the Armour Building in Cleveland. A 1,500-pound skullcracker was swung from the end of the crane boom to demolish the building. In the foreground are two winch trucks pulling the crane up two 20 by 20-inch, 62-foot skids.

believed that this 10,000-pound capacity crane could swing and drop a skullcracker with sufficient force and repetition to give him greater daily capacity and thus insure his ability to fulfill the contract without being ensnared by the penalty clause in it.

Then came the problem of raising this truck crane to the fourth floor. Riggers were consulted and found skeptical. Such a thing had never been done before. However, the Wahl Moving & Transfer Company of Cleveland finally agreed, provided they did not have to assume risks, to try to pull the truck crane up two heavy pine timbers to the top floor. Cables were thrown around snatch blocks up on the roof and run down to winches on two trucks below.

Wahl delivered and raised to a 40-degree incline two, 20 by 20-inch timbers 62 feet long, this on the afternoon of May 10. Next morning the crane was driven to the location by the crane operator all ready to be raised.

Two, one-inch cables from the winches on two five-ton trucks were thrown around snatch blocks on fourth floor and then run down to the crane. The truck crane was to be pulled up rear wheels first. The cable ends were fastened to the back of the truck frame.

When all was ready the rigger foreman signaled the winch truck driver to pull, and the crane started to creep slowly up the timbers. At the wheel of the truck being raised was the crane operator who intended to guide the truck up the narrow timbers to the top.



The Crane Has Just Swung the Skullcracker and a Large Section of Wall Is Falling Out. In 10 days the crane completely knocked away one entire floor and walls, which it was estimated would have taken 100 men 30 days to wreck.



About 10 Per Cent, or Less, of the Time the Crane Used Its 1/2 Yard Clamshell Bucket to Clear Away Broken Parts That Fell on the Floor Instead of Over the Side of the Building.

After raising the crane each several feet the winches would stop and timbers, cable, blocking and truck crane wheel would be inspected for strain and stability. When the unit was about 15 feet up the timbers, the operator who was guiding the crane truck decided definitely that a safer place for him to be was on the ground. Consequently for the rest of the 62 feet distance the truck was guided by ropes thrown around the hub and spokes of each front wheel. Riggers pulled on the ropes to turn the truck wheels. Finally the crane was rolled over the top end of the timbers onto the concrete floor of the building. There it stayed. Before the day was over all riggers' equipment was cleared away and the crane was ready to go to work the next morning.

Credit must be given to Claude Jenkins, the crane operator, for his ability to swing and drop the skullcracker accurately. By wigwagging the boom back and forth momentum was gained for the weight. Then suddenly, with a final swing of the boom and release of the crane holding drum brakes, it would fly out to its mark beyond. At each crash perhaps 18 to 24 square feet of wall, 24 inches thick, would break off and drop to the ground four stories below. Thus in one stroke of the skullcracker would be done an amount of work comparable to labor of two men for an hour and a half. Often a wide brick panel between two windows would fall at one time. About 5 to 10 per cent of the time a 1/2-yard clamshell bucket was used to clean up concrete dropped to the floor below.

Like a fisherman flycasting for bass the crane would swing the 3/4-ton iron skullcracker and let it fly for 20 feet beyond the end of the boom. Something had to break! It was brick wall, reinforced 24-inch concrete floor, 30 pillars of concrete that gave way and 12 days after the crane started to work the entire fourth floor and walls were demolished and the crane was ready to be lowered to the third floor. All extending walls had been broken away and the fourth floor was broken through entirely except for one corner on which the crane was left standing. A welder with an acetylene torch was cutting

off broken ends of the one-inch reinforcing rods.

The problem of lowering the crane to the third floor, which was 12 feet below, was almost parallel to the problem of raising the crane to the top of the building. Two 20-foot timbers, 12 by 12 inches square, were set in place by riggers and one winch truck similar to the two first used, lowered the crane down to the third floor. Four hours' time was consumed in this move. Then the crane was ready to demolish the third floor.

After 10 days more (June 11) the third floor was entirely knocked away except for the small corner on which the crane stood and the same moving process took place with the result that on June 12 breaking of the second floor walls was started.

Just one day after the crane started to work on May 11 on the fourth floor Lurie dismissed 38 of his hand workmen. He found that they were only bothering the efficiency of the crane. However, he retained 12 of his original men to tear down mouldings and doors, sort salvage, etc. As

wreckers they were too expensive, for the crane was doing the work of 100 men at one-eighth of their cost.

Lurie is now supervising the wrecking. His wife keeps the books, his son cares for the salvage and the whole family takes a bit of pride in being the first wrecking contractors to use such a large piece of equipment in their business.

Today, June 23, the crane is ready to be run down to the ground floor. This is just a repetition of lowering the crane from the fourth to third floor and from the third to the second floor.

Another crane with a half yard bucket is loading the debris into trucks to be hauled away. Union terminal engineers are ready to survey the ground for railroad tunnel approaches to the station. Almost all of the material in the building that was worth anything has been salvaged and sold; and, best of all, the time penalty clause in the Armour Building wrecking contract is unnecessary because Conrad Lurie's wits served him an idea that is a money maker.

E. THIEMER GEDDES.



Here the Crane Is Being Lowered from One Floor to Another on Two 12 by 12-Inch, 20-Foot Timbers. One winch truck below is doing the lowering. Conrad Lurie, the contractor handling the job, is standing in the foreground.

Syndicating

"The Mark of Quality Buildings"

How a Milwaukee Construction Company Established a Quality Trademark and Is Now Extending Its Service Through Licensed Builders in Other Cities

By KENT LIGHTLY

ABOUT two years ago a firm of Milwaukee contractors, who had established considerable reputation in their locality for the construction of quality homes, looked about and saw that practically all reputable merchandise carried a trademark, and that this insignia had a definite commercial value. An investigation throughout the building industry showed that little of the sort had ever been tried in respect to finished houses—a unique situation, for no other large industry of the country is without its trademarked products.

The result, of course, was the origination of a symbol designed to identify easily homes built by this firm, the Hercules Construction Company. This mark was appropriate to the name of the concern, representing Hercules and the Nubian lion, and was duly copyrighted and registered.

The design was cast in a small bronze plaque, which is attached onto the baseboard of the finished home inconspicuously and yet where it is easily found. It is a guarantee that the house has been constructed under a strict standard set of specifications which call for the highest grade materials and an established quality of workmanship.

The plan has been so successful in Milwaukee that now the idea has been syndicated, and in 15 cities throughout the country "Hercules Homes" are being erected by Hercules builders. Nearly every week brings in new subscribers to the Hercules plan, and according to R. N. Weil, general manager, who is directing the activities, it is expected that between 75 and 100 builders will be using the service before a year is out.

In assigning the right to use the Hercules trademark this firm makes a careful investigation of the reputation of the builder to determine his ability to execute the specifications required and guaranteed when the plaque is attached. In addition to the right to use the trademark, every builder in the syndicate is furnished with all the plans, promotion matter, advertising copy, etc., which made the original venture so successful.

There are many complete plans in the Hercules Company's files and all of these are available to each subscriber. Blueprint specifications accompany each.

The firm also maintains an architectural service so that, should the prospect desire a home not represented in the plans on file, he may have one designed according to his personal wishes. This individual plan then becomes available to all other Hercules builders, although there is a restriction that only one house from each plan may be erected in a single city.

Each subscriber is given a portfolio of actual photographs illustrating the buildings already erected, which has proved an excellent means of getting new customers.

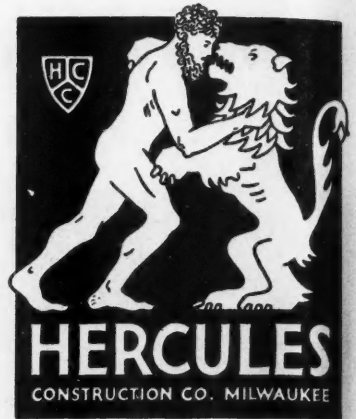
This service is kept up-to-date by monthly mailings of new photographs and complete plans of new homes. The subscriber is also provided with booklets and form letters to use in following up the inquiries received from newspaper advertising. An advertising mat service goes out to subscribers every two weeks. Forms for contracts are also supplied, as well as a simplified accounting system.

The architectural department is augmented by an interior decorating and landscaping service, so that each of the individual builders has available a service which, in all probability, he would be unable to give without this co-operation.

The advantage of such a program to the subscribing builders is almost inestimable. Costs are all figured in advance and then proved by actual experience in each case. The builder can tell his customer with complete confidence exactly what he can give him for the sum he is willing to spend. The ads he receives represent tested copy which has brought the best results in other cities. The same is true of the other promotion matter.


The test advertising campaign conducted by the Hercules Construction Company in Milwaukee brought inquiries at a cost of less than \$10 each. This is remarkably low when you consider that the inquiries come from persons interested in building homes at a cost of \$10,000 or more.

The Hercules Construction Company acts as a clearing house for its subscribers, according to R. N.




THE MARK OF QUALITY BUILDINGS

This Trade Mark, Cast in a Small Bronze Plaque, Is Attached to the Baseboard in Every Hercules Built House as a Guarantee of Quality.



Hercules Built Homes

are identified by their individualized character of design, and by a bronze plate in the form shown below.



Write for booklet "In Evidence" which tells why in building or buying this mark is your warranty of satisfaction.

Hercules Construction Co.
Grand 3327 309 Century Bldg.

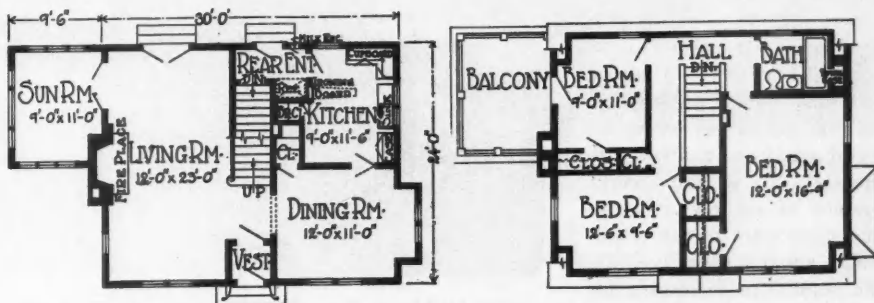
An Example of the Type of Advertising Used with Marked Success by the Parent Company and Now Available to All of Its Subscribing Builders.



A Typical Hercules Built Home, Constructed from Plans Which Are Furnished to All of the Subscribing Companies. Special designs are also prepared for prospective builders and these become available to all subscribers with the limitation of building but one house from these plans in each city.

Weil. Close contact is kept with the various subscribers and the results of their experiences are made known through circular letters.

Each of the subscribing builders pays a percentage of its gross business to the home office, where a definite sum is set aside for national advertising purposes. The new plan has not been functioning long enough for national advertising to have appeared as yet, but according to Mr. Weil the Hercules trademark and what it stands for soon



The Floor Plans Show the Quality of Designing Which Goes Into Every Plan Prepared for the Use of Hercules Builders.



The Preliminary Sketch Prepared to Show How the House, Illustrated by the Photograph Above, Would Look When Completed.

will be promoted through national advertising mediums.

With the rapid development of this plan, it is reasonable to believe that before long the building of homes may enter a merchandising stage where houses will be built and sold on a definite standard, just as automobiles, shoes and clothes are. It means virtually a "tailor-made home" development in the industry.

Fifteen cities now have Hercules builders. These are: Indianapolis, Ind.; Cincinnati, Ohio; Columbus, Ohio; Louisville, Ky.; Nashville, Tenn.; Atlanta, Ga.; Memphis, Tenn.; Kansas City, Mo.; Baltimore, Md.; Philadelphia, Pa.; New Haven, Conn.; Providence, R. I.; Boston, Mass.; East Orange, N. J., and Milwaukee, Wis.



DRY ROT

A Disease of Wood That Can Change An Asset To A Liability

by Elizabeth Fonde'

"HELLO! Is that Mr. Blake's office, the contractor?"

"Yes," a woman's voice answered.

"Is he there?"

"No. Will you leave a message?"

"This is Mrs. C. P. Sullivan, 167 Magnolia Avenue. Please tell Mr. Blake to come out to my house as soon as he can. My floor is giving way. The leg of my refrigerator has broken through!"

This is a hurry call for a new kind of doctor, the contractor who removes dry-rot and treats sick houses.

There are new diseases of mankind in plenty and there are new pests that attack growing things, scales and bugs and such. But wood is not living matter. That it should be subject to disease is a novel idea to most people. Yet it is a fact that must be accepted. Wood is subject to disease; a house can be sick and its illness is a serious matter.

The malady is called dry-rot because it seems to attack dry timbers above ground. But as a matter of fact it originates in moist wood usually in contact with the soil. By a water-works system of its own it conducts moisture to the wood-work above, thus creating the conditions necessary for its further growth. Its pipelines are systematically laid. The main trunk may be as

broad as a man's wrist, but flattened. Under the microscope the minute tubes are revealed. They ramify into threads or "veins."

When Mr. Blake answered the call to 167 Magnolia Avenue, he pulled the refrigerator leg out of the hole and shifted the heavy weight to another part of the floor. Then he went down on his knees and began to explore with his fingers and his pocket knife. He stuck and dug into the flooring until he had a litter of rotten fragments and firm splinters about him and until he had found how far the rotteness extended. When he got up Mrs. Sullivan began to ply him with questions, but she elicited nothing from him but grunts. The "doctor" was not ready with his diagnosis.

He went out into the yard and looked round the house. The exploring knife and fingers came into play here and there. A pause marked his progress round one corner where a conductor-pipe came down. Then, his coat removed, the big man unexpectedly disappeared under the house with a flashlight in his hand. He had to wriggle under. The house was built, as the latest fashion in houses requires, close to the ground. When he emerged some time later he was considerably the worst for wear. But he was ready to talk.

"You stayed so long you frightened me, Mr. Blake. I

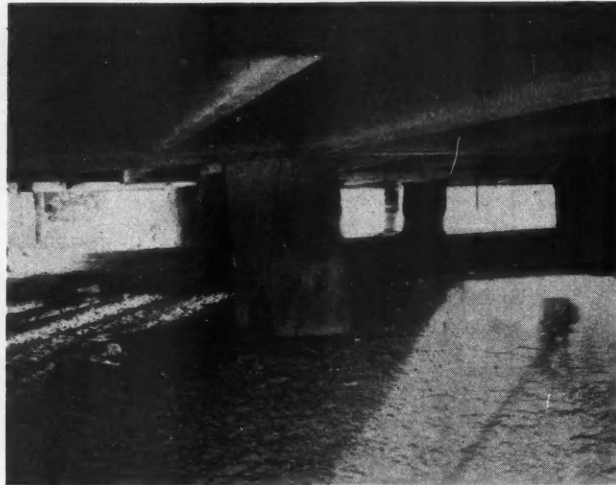


Fig. 1—Heart Pine Posts Placed, Green, to Support a Bungalow. The dry-rot fungus entered these posts from the soil, rotted out their centers and spread up the partition walls for at least 12 feet.



Fig. 2—Tile Surfaced Porch Floor, Showing a Large Crack in the Tile, Due to the Rotting Out of the Form Lumber Left in Position Beneath.



Fig. 3—Dry-Rotted Pine Floor Laid Over Brick. A new floor would not last more than a year or two unless treated with a wood preservative.

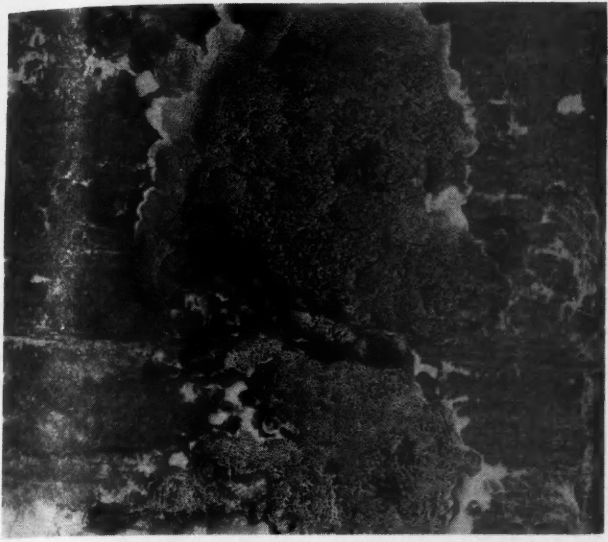


Fig. 4—Typical Fruit Body of the Poria Incrassata on the Underside of Pine Flooring in a Warehouse.

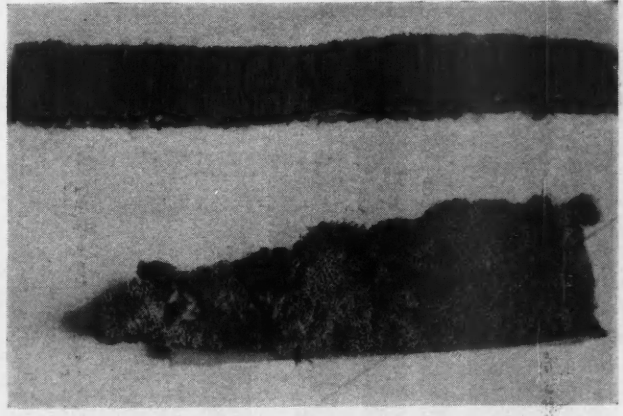


Fig. 5—Part of a Fruit Body of Poria Incrassata from Beneath a Floor in a Lumber Shed. The upper figure is a cross section showing the tubes.



Fig. 6—Root-Like, Water-Conducting Growths of Poria Incrassata, Showing Their Method of Attachment to the Soil. The board, taken from a basement cupboard, was very close to the ground. Note how the fungus "roots" have spread out at the surface of the soil. Infection, starting at this point, ran to the second floor and necessitated extensive repairs.

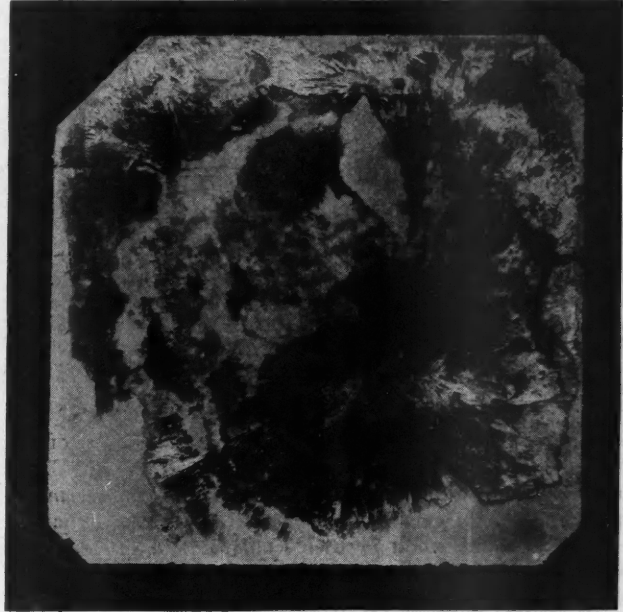


Fig. 7—Cement-Asbestos Shingle Warped and Discolored by the Dry-Rot Fungus After a Few Weeks' Contact with a Decayed Cypress Floor.

thought you had got stuck. What did you find?"
 "Not much. There is a wet place under your refrigerator. You have a dry-rot infection. It has got into the flooring, as you saw. The floor joists and the sills at that point are gone."

"What has got to be done?"
 "We will take up the floor and get out every bit of infected wood. We can splice the joists and the sills to avoid too much tearing out. Then there will be hot creosote treatment for the cuts and the new pieces of wood set in will be creosoted timber."

"That sounds like the dentist and like the tree surgeons. They both charge so much. What will this cost?"

"I can't say until we open up. It looks as if there would not be a great deal. There is the spot round the refrigerator and another at the northeast corner of the house, where you have had a leaky gutter and a clogged downspout. Fifty dollars—may be less. But—"

"But what?"

"The conditions here are a cordial invitation to Old Man Trouble."

"What do you mean?" Mrs. Sullivan answered, indignantly. "We had this house built ourselves; it is made of the best materials. Mr. Sullivan saw to that. It is not old."

"No, I see it is not. But whoever planned it forgot to guard against dry-rot infection or did not know about it. There is wood without damp-proofing between it and the ground and without enough ventilation. A lot of wood-trash has been left lying under the building; the wooden forms for the cement steps have not been removed; they are still in place under the house. You will get off lightly this time but I advise you to have the foundations ventilated; your ventilators are shams, made to look at; they are too small. The whole area under the house should be cleaned and sprayed with hot creosote. It will cost you something but it is like fire insurance or typhoid serum."

"What will happen if we don't do anything?"

"If you let things alone, it is quite likely that you may really go through the floor some day. And then you will have to spend a thousand or two on repairs."

"Then I shall sell," said Mrs. Sullivan with a laugh that indicated that she was not much impressed.

"Oh no you wont," was the reply. "That will be the time when you can't sell. Nobody buys a house with dry-rot. Even the suckers are beginning to learn. It would be like buying a sick turkey for Christmas, a sick turkey as big as a house and costing about forty cents per cubic foot."

All owners of wooden buildings whether dwellings or places of business share Mrs. Sullivan's problem. All

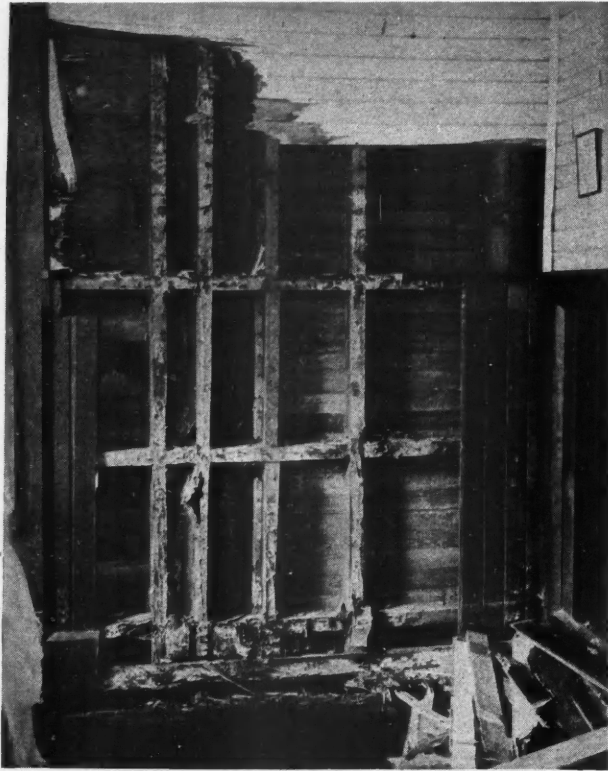


Fig. 8—The Wainscoting on This Wall Appeared Sound, but When Most of the Wainscoting and Some of the Ceiling Was Removed the Fungus Extended Up the Studding About 6½ Feet. It entered the building by means of a small strip of lumber which extended from the ground into the wall.

lumbermen are concerned because of the appetite of the rot for woods of all varieties, heart as well as sap. Brick men and hollow-tile makers and users, and cement manufacturers are not exempt. There are few buildings that are entirely without wood in their construction. Bedding the wood in concrete or putting it behind facing-brick or stucco makes favorable conditions for dry-rot. The geographical areas most affected are the South and the Pacific Northwest. The same abundant rainfall that produces their magnificent forests hastens the growth of dry-rot—a cycle of restoration and destruction.

Mrs. Sullivan had to talk the matter over with Mr. Sullivan who found the situation hard to grasp. He was proud of his house. He had watched over its construction; he knew it was good for it had cost enough. So there were several conferences with contractor Blake. A Government bulletin passed from Mr. Blake to Mr. Sullivan. The order for repairs was given. And, reluctantly, the order for preventive measures followed when the cutting of rotten wood with stringy white cob-webby whiskers hanging to it, had brought conviction. Seeing is believing with dry-rot as with other things.

The bulletin that Mr. and Mrs. Sullivan studied with interest is a comparatively new one, February, 1925, Circular 78, by C. J. Humphrey, Pathologist, Office of

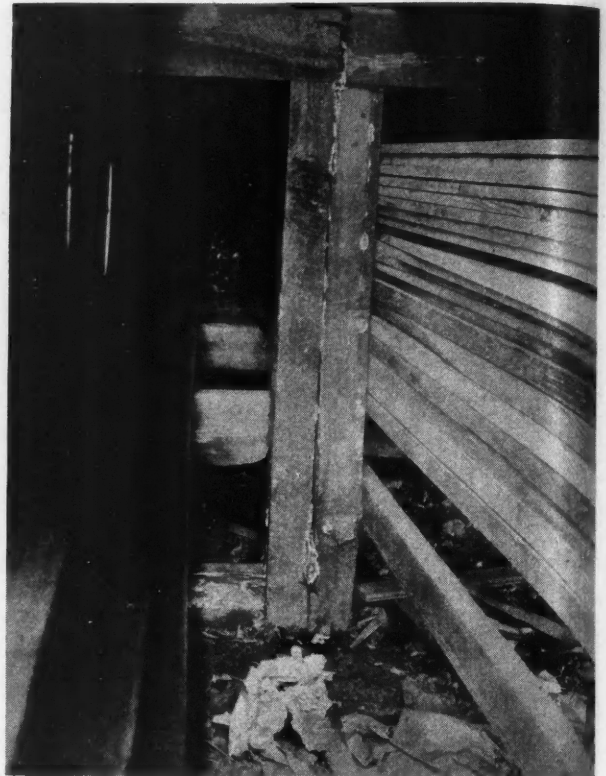


Fig. 9—A Post in a Retail Lumber Shed Thoroughly Infected with Dry-Rot and Showing Fruit Bodies of *Poria Incrassata* Running to the Top. Infection will be transmitted, in the course of a few days, to the sound stock piled against it.

Forest Pathology, and L. E. Miles, Plant Pathologist, connected with the Extension Service, Auburn, Alabama. They made the study—DRY-ROT in BUILDINGS AND STORED CONSTRUCTION MATERIALS AND HOW TO COMBAT IT. It is very completely illustrated with photographs made by Bureau of Plant Industry, U. S. Department of Agriculture, a number of which are reproduced on these pages. The reason for their undertaking is given in the pamphlet: "Dry-Rot has become a serious menace to lumbermen and builders in the Southern states and on the Pacific Coast."

Fine white hairy filaments, usually flattened as they have extended between timbers till they show on the wood like white tracings of great rivers on a map, that is Dry-Rot, *Poria incrassata*, as it first appears. It is found associated with the wood that has disintegrated under the touch of its clammy tendrils. Perhaps it looks less like a river system than it does like the great limp vine that it is. But this description fits only the sterile stage.

When the spore-bearing stage is reached *Poria* forms crusts that may become half an inch thick on the surface of the wood. "When growing on the under side of floors in darkness the fresh fruit bodies are fleshy and succulent in consistency and pale olive-gray with a dirty white to pale yellowish margin (Fig. 4). The surface is

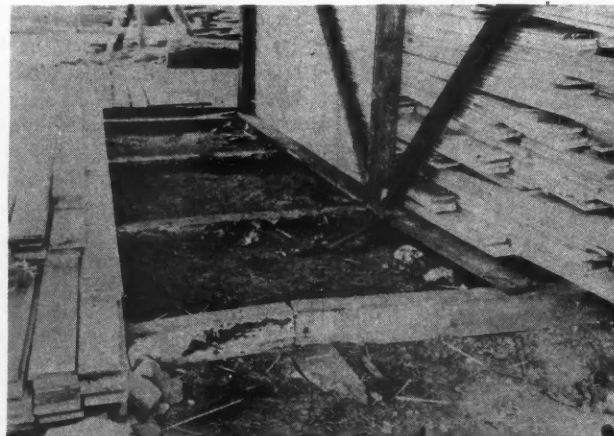


Fig. 10—The Dry-Rot Fungus, *Poria Incrassata*, in the Foundations and Running Up the Post of an Open Shed in Southern Alabama.

poroid and when the crust is broken by bending sharply, the interior is seen to be composed of closely arranged vertical pores or tubes.

"As the plant ages and dries it turns brown or brownish-black and ultimately becomes so brittle as to be easily pulverized between the fingers. * * * The odor of slippery elm bark given off by dried fruit bodies is quite characteristic."

Houses a hundred years old and over are found scattered here and there about our country. Their timbers are sound. The wood hard and dry with years has a metallic ring when it is struck; it is like the wood of violins. But it has been kept dry and no infection has touched it. Also, it was cut from thoroughly-aged virgin trees. The favorite victim of dry-rot is the almost new frame house placed fashionably low to the ground with a cellar of masonry under one part only providing enough room for the heating system. If the house is brick veneer or stucco-on-wood instead of tile, conditions are most inviting for the disease. A house of brick or stone, not veneered, may have sills or floor joists so placed that they will succumb to dry-rot.

Once started and with conditions right, dry-rot proceeds like a slow fire. A few years will suffice for serious inroads. The cost of repairs in advanced cases is prohibitive. The real estate man who has learned his lesson by experience calls in the dry-rot expert and asks for an examination of the building with an estimate of the cost of putting it in order. The examination itself costs from \$10 to \$20. If the report is entirely unfavorable it is usually not put in writing. The contractor has learned from experience that he will give serious offense to the owner by condemning his property. The unfavorable report is passed by word-of-mouth, "Keep off that house. It is reeking with dry-rot."

Herein lies the explanation of a certain class of houses that will not sell though their outward semblance is attractive. The "FOR SALE" sign itself stands in the weather till it gets dingy and if it happens to be nailed to the building, it has time to catch the infection and to disintegrate along with the house. Painting over the rot to hide it is a device so transparent that it deceives only the least observant.

Dry-rot is a voracious feeder. When its appetite for a varied diet becomes generally known, the oft-quoted ostrich will have to retire into the background and really hide its head in the sand. For Messrs. Humphrey and Miles, the Government investigators, vouch for a diet list that includes asphalt shingles and tarred roofing for an appetizer, crates of sash, kegs of nails, boxes of hardware, stored books and documents, valuable electrical instruments, etc. Instead of coffee and nuts *Poria incrassata* finishes off by discoloring cement-asbestos fire-proof shingles and attacking the galvanized surface of barbed wire fencing, (Fig. 7.) These things have been found in infected warehouses undergoing slow digestion in the coils of dry-rot.

The contents as well as the buildings constitute a loss when dry-rot gorges upon them.

It was the economic loss entailed that attracted the attention of the United States Government. The first study only within recent years. Where does the infection come from? That question is like others regarding the origin of species. But the investigators had no difficulty in trailing the white snake to its immediate lair. The report states that drying sheds and storage place for lumber, the distributing points, were quite frequently found infected. Photographs of dry-rotted floors and disintegrating column bases of lumber sheds and depots are a striking feature of the bulletin. (Fig. 9 and 10.) It seems logical to conclude that the germs are widespread like tuberculosis and that they will develop in almost any wooden structure that offers the right conditions.

The estimated losses from cases already reported to the Extension Service Bureau have run above \$200,000. The conclusion is that, in the state most carefully surveyed, "the probable loss runs up to several millions." Only an extended investigation over many states could give a basis for the sum total for all the states affected.

Anthrax, the dread disease of sheep and cattle, extends to the human family. People become infected, suffer and die of it. *Poria incrassata* on first consideration would seem less malign. Wooden buildings almost never collapse suddenly on their occupants. But it will not do to conclude that there is no danger to life and limb. There is authentic record of one lady who fell through a rot-infected church porch after the other members of the congregation had crossed in safety. And the newspapers from time to time carry stories of the collapse of galleries and grandstands when crowded with spectators. Some of these accidents are doubtless due to faulty construction or to overloading, but dry-rot lurks as the possible



Fig. 11—Water-Conducting Strands on the Underside of the Pine Flooring, Laid Over Brick, Shown in Figure 3.

malefactor until an alibi is established. The damage suits that follow accidents are chargeable to the culprit along with the "physical pain and mental anguish."

The insidious nature of the disease gives rise to many difficulties in combatting it. There was a man living in a stucco Spanish-type bungalow built with what looked like malice aforethought to serve as a subject for dry-rot. He had been living in the house for several years when he took unto himself a new wife. In preparation for her coming he had the outside of his home refinished, stucco cracks repaired, etc. But the lady of his choice preferred that he should wait and let her "express herself" in the interior finish. It was so arranged and so carried out in beautiful and expensive detail.

One day there was a call for Contractor Blake. Cracks had appeared in the plaster at one corner of the dining room and cracks in the recently repaired stucco without. What did cracks mean by coming when everything was new and lovely? Mr. Blake was asked to stop the cracks forthwith. But he had not made the previous repairs and

he did not see the case that way.

"It will not do any good to stop these cracks. Something made them come. Your house is on solid ground; there does not seem to be anything wrong with the footing. I am afraid you have dry-rot."

"Can't you fix it?" asked Mr. Owner.

"Yes. But I shall have to get to it first. Shall I tear away your outside wall or the plastering and wainscot?"

It seemed that he was to do neither.

"You must not touch those outside walls; they cost money and they have just been fixed by Mr. So-and-So."

"I have just got straight inside—my papering, my new hardwood floors, my beautiful white enamel," wailed the new wife.

"We want you to fix it," they both agreed.

"You want the impossible," said the contractor. But what he muttered to himself was, "I'm no rat."

And so the matter stood till the dining room floor took a gentle slope toward the weakened corner. Then Mr. Blake was called again. But there was another hitch because the owners insisted on knowing how much the work would cost before it was undertaken. Mr. Blake was equally insistent in refusing to say.

"There is no possible way to estimate. It will have to be a time-and-material job. But I will show you at every stage that I am not doing unnecessary tearing out."

The contractor won and work was started. The wainscot was removed first and, against the background of the outer shell, the studding and corner posts stood revealed like wooden soldiers in a row. But the poor wooden soldiers were suffering from a leprosy that had caused their legs to slough off below the knee or thereabout. Mr. and Mrs. Owner looked on in astonishment as Mr. Blake crumbled the wood in his fingers.

"What has been holding up that wall?" demanded the owner.

"Providence," replied the contractor. "But I will get some temporary bracing in right now. With dry-rot it does not do to overtax Providence."



Store Remodeling

(Continued from page 91) extending out beyond the building line. The dome is constructed of copper with antique plaster finish on the inside.

The ceiling is a flat white. The walls are of antique rough design in plastic plaster in polychrome tints so subdued as to be restful to the eye. Three central columns are similarly finished down part way, the remainder being of solid walnut similar to the other furnishings. The floor is covered with checkered cream and slate linoleum, giving a tile effect and eliminating dust and noise.

Most of the \$25,000 spent in remodeling went into the fixtures, which are solid walnut.

H. L. SPOONER.

Bridle Paths for Homebuilders

THE bridle trail, originating in the zigzag of loose animals pasturing on the mountainside, is one thing. The bridle path with its oiled bed of cinders or gravel, is quite another. They are about as different as an unkempt dirt road and a modern paved concrete highway, according to W. Ross Campbell, of Los Angeles, realtor and chairman of the advisory board of the Bridle Path Association of California, speaking at the annual convention of the National Association of Real Estate Boards. What the average family nowadays, in buying a suburban home, really wants to buy is accessibility to attractive bridle paths and golf courses and the opportunity of living the kind of life they imply.

The home buyer wants the street improvements and sewer installation that the subdivider has provided, the trees he has planted and all the rest, but they take these things now as a matter of course. Such services are the commonplace of residential developments. The subdivision that embodies wide bridle paths of gravel or composite granite, where riders two abreast or four abreast may find exhilarating exercise without expending a half day to reach their recreation, is the subdivision which looks like home to the home makers of today.

Construction cost and maintenance cost of bridle paths is inconsequential in comparison to the cost of street improvements, which have come to be taken for granted in the high grade subdivision, Mr. Campbell pointed out.

Bridle paths should be lined with evergreen trees on one side and with shadowless lights on the other side so that the recreation of riding may be available at night. Running out of the city of Los Angeles for a distance of 40 miles there is now being planned a 200-foot wide boulevard, with a 40-foot bridle path, to be lined in this manner, with evergreen trees at one side, some of them in this case to be orange trees. All along this system of motorway and bridle paths small estates of from two acres up will give country homes to city workers.

The movement toward daylight saving is making it possible for more indoor workers to take advantage of bridle paths. Riding academies are being educated to the fact

that it is to their interest to make an attractive rate for a single hour's ride rather than a two-hour rate, since the average city rider can afford only the time for a one-hour ride.



Cleans and Polishes Oak Floors

OAK floors and other woodwork can be cleaned and polished very easily and economically by the use of equal parts of vinegar, sweet oil and turpentine, according to the Oak Flooring Bureau, Chicago. These ingredients can be purchased at any paint store. The object of using this preparation is that the vinegar eats the dirt away, the sweet oil gives luster to the finish and the turpentine acts as drier.

FREE INFORMATION SERVICE

for

Home Planners and Home Builders

THE ColorKeed Home Plans presented in this magazine have many special points of excellence which are of particular importance and timeliness to those of our readers who right now are facing the home building question—with its joys and its problems.

We illustrate these home designs and show the room arrangements, but our space for description is so limited that we are not able to cover all points. We know there is much additional information desired by subscribers about to build, which would be very valuable to them. Since we have all data pertaining to these ColorKeed Homes we are glad to offer our readers a free service of information, whether questions pertain to the estimated cost, the method of construction, suitable materials to use, special equipment or features, or any other information whatsoever.

Limited space in the magazine prevents publishing all this information; but if you will write AMERICAN BUILDER Home Planning Service, 1827 Prairie Ave., Chicago, we will be very glad to give you direct by mail any information desired.

The VALCOUR

THIS house design with shingles in thatched roof effect is a favorite and deserves to be. The interior is arranged very cleverly to take advantage of all the space.

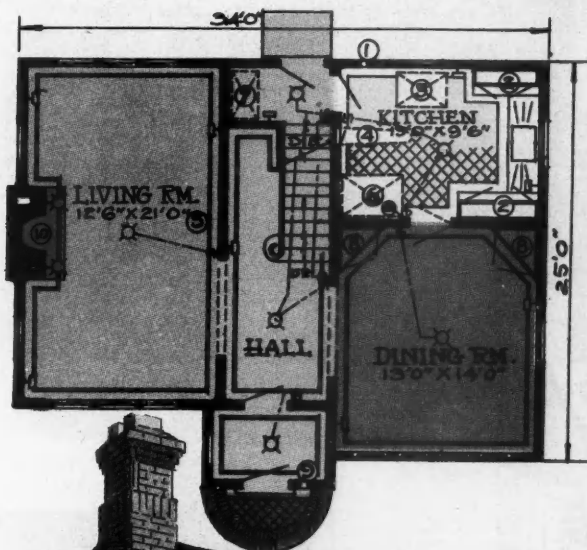
Key to Equipment

- | | | |
|-------------------------------|---------------------|------------------------------|
| ① Kitchen Ventilating Fan | ⑩ Linen Closet | Coal Chute |
| ② Kitchen Cabinets | ⑪ Built-in Seat | Oil Burner |
| ③ Kitchen Table | ⑫ Medicine Case | Water Supply System |
| ④ Ironing Board | ⑬ Tub Shower | Hot Water Supply |
| ⑤ Thermostat | Weatherstrips | Water Softener |
| ⑥ Gas or Electric Range | Storm Sash | Radiant Gas Heaters |
| ⑦ Refrigerator | Screens | Electric Wall Type Heaters |
| ⑧ Corner China Cases | Lighting Fixtures | Casement Windows |
| ⑨ Built-in Mail Box | Convenience Outlets | Dishwashing Sink |
| ⑭ Fireplace Throat and Damper | Electric Panel | Automatic Cellar Drainer |
| ⑮ Efficiency Wardrobes | Washing Machine | Radiator Covers or Furniture |
| | Ironing Machine | |
| | Clothes Dryer | |
| | Heating Plant | |

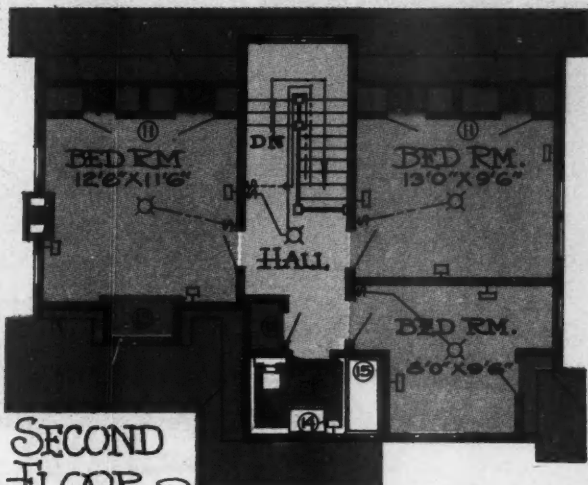


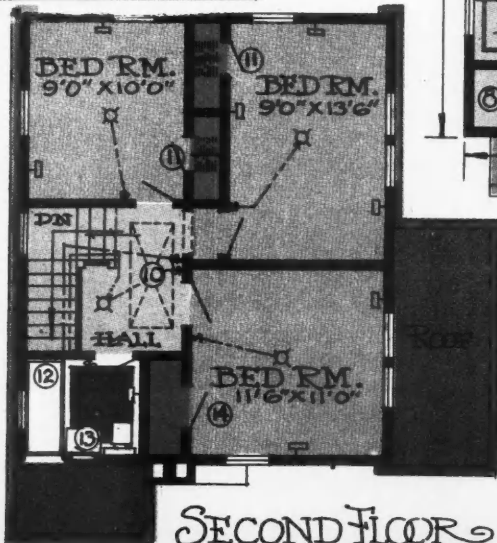
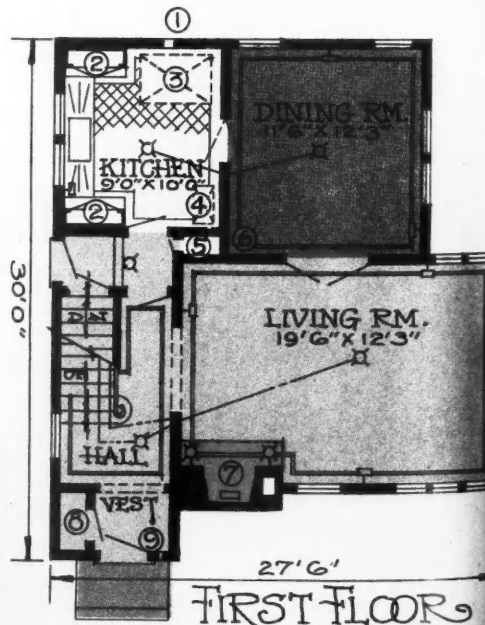
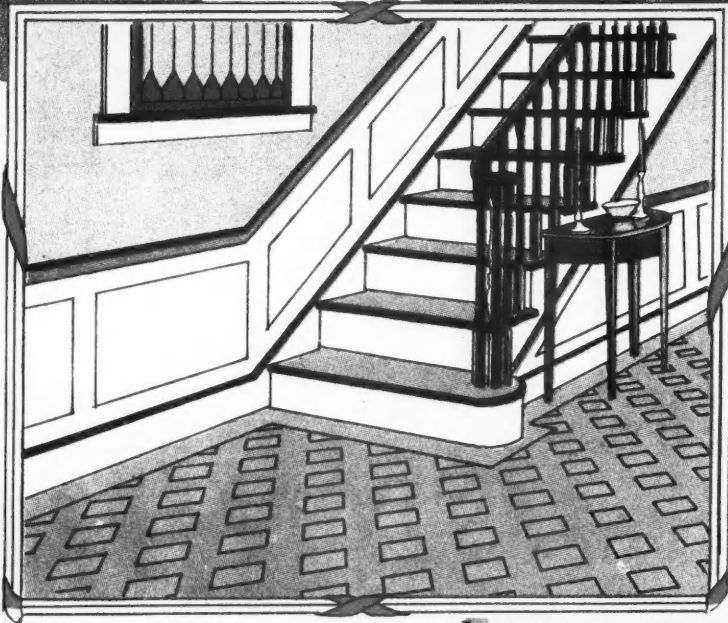
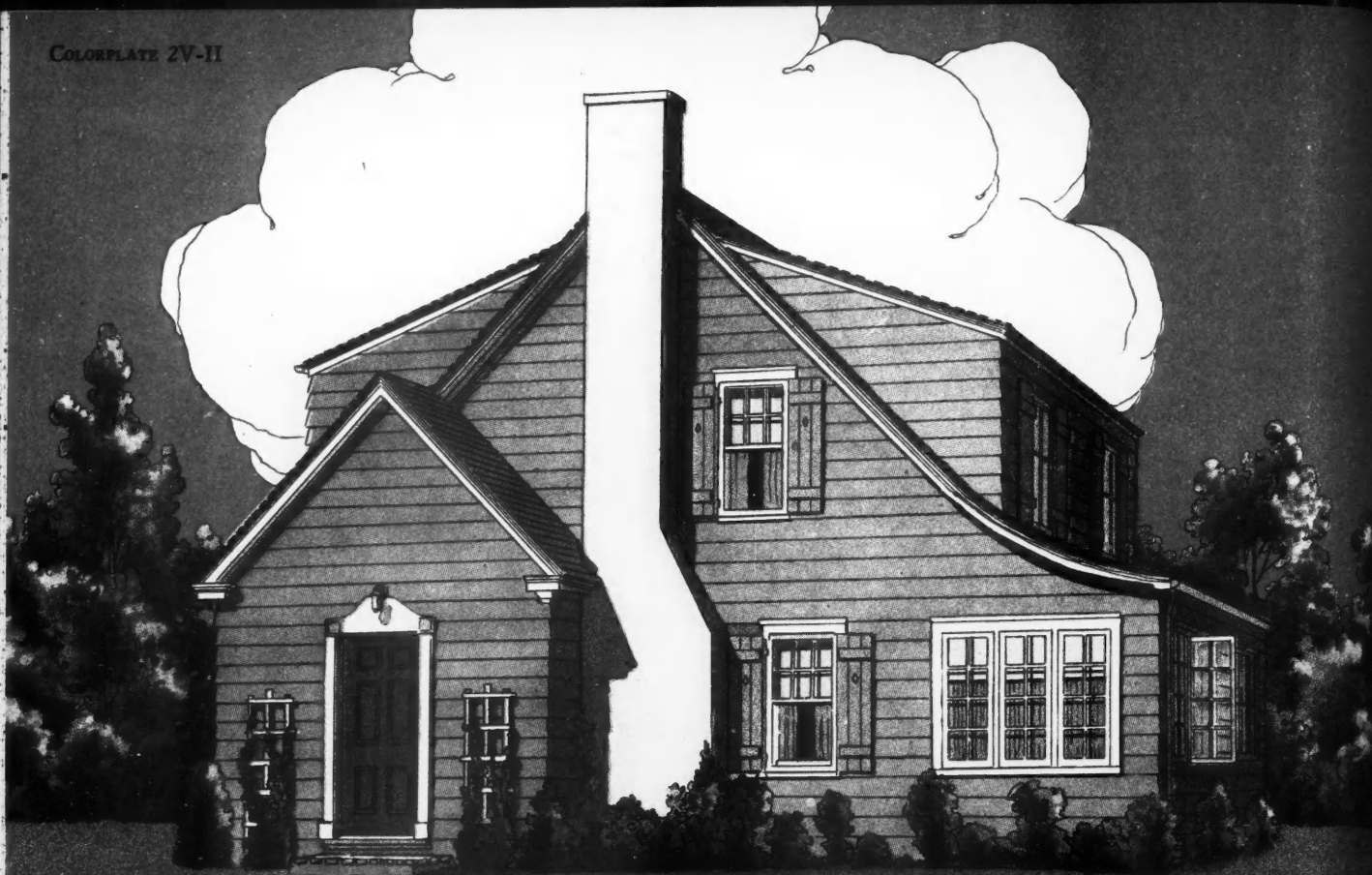
Copyright, 1928, by William A. Radford, New York and Chicago. Pat. March 15, 1921, and Sept. 30, 1924. ColorKeeD Plan Patented April 19, 1927.

FIRST FLOOR



SECOND FLOOR





The VALENCIA

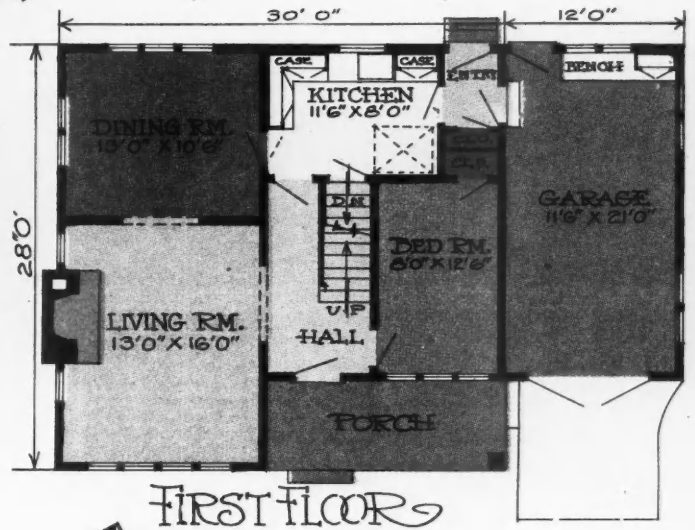
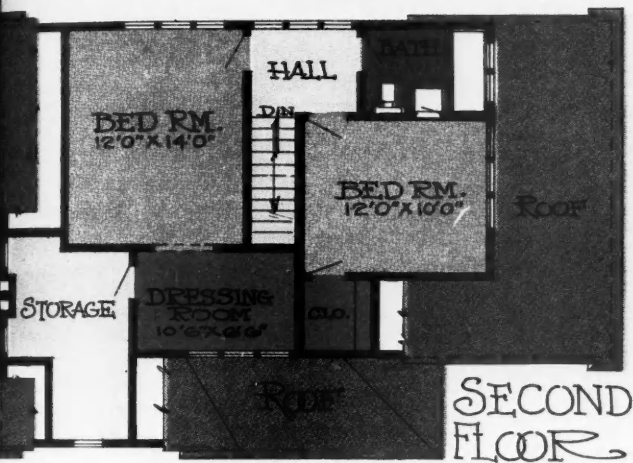
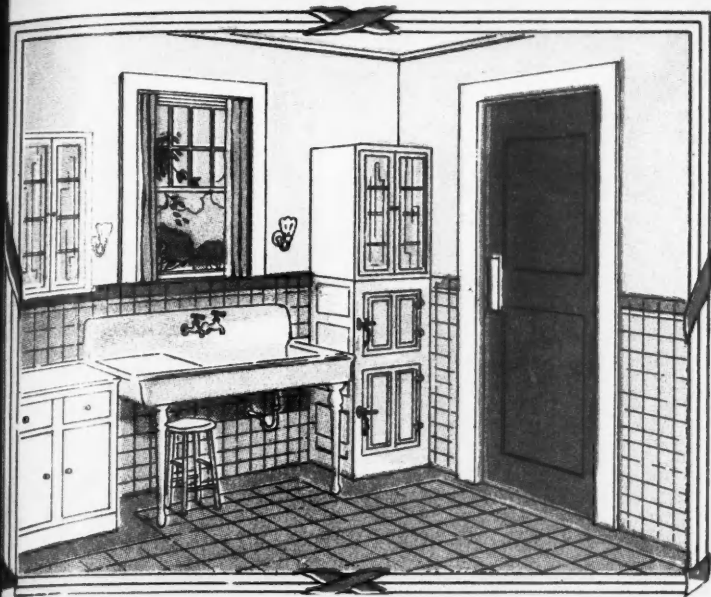
A HOME of distinction and charm in the English manner is pictured above, and the floor plans show a delightful modern arrangement of three rooms on each floor. Where many small houses fail is in cramping too much the size of the vestibule and stair hall. The distinguished proportions of this modern part of the Valencia are illustrated in the color sketch above.

- Key to Equipment**
- | | |
|-------------------------------|---------------------|
| ① Ventilating Fan | Weatherstrips |
| ② Kitchen Cabinet | Storm Sash |
| ③ Range | Screens |
| ④ Refrigerator | Lighting Fixtures |
| ⑤ Broom Closet | Convenience Outlets |
| ⑥ Thermostat | Electric Panel |
| ⑦ Fireplace Throat and Damper | Washing Machine |
| ⑧ Coat Closet | Ironing Machine |
| ⑨ Built-in Mail Box | Clothes Dryer |
| ⑩ Disappearing Stairs | Coal Chute |
| ⑪ Efficiency Ward-robres | Heating Plant |
| ⑫ Tub Shower | Oil Burner |
| ⑬ Medicine Cabinet | Water Supply System |
| ⑭ Mirror Door | Hot Water Supply |
| | Water Softener |
| | Radiant Gas Heater |

SECOND FLOOR

The VELMA

A FRAME cottage with Elizabethan gables in stucco and timber work and with a long sweeping roof line curving down to cover the attached garage, is presented in this design. Four rooms are provided on the lower floor and two large bedrooms and bath upstairs. The large alcove and storage space indicated would really make another good room, especially valuable as a nursery. The window groups in this house are exceedingly good, adding to the charm of the exterior. Color sketch to left shows the tiled kitchen.



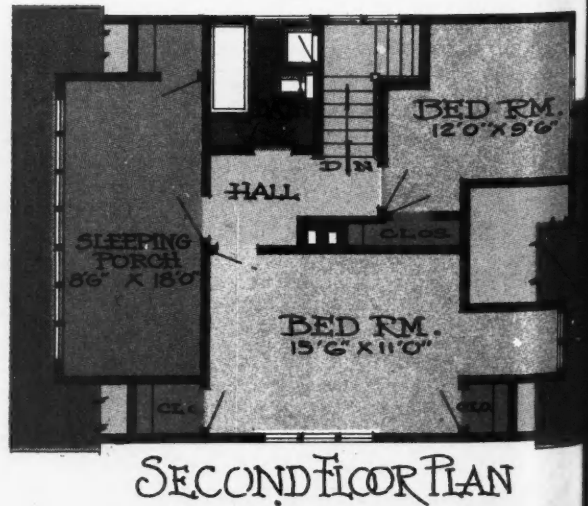
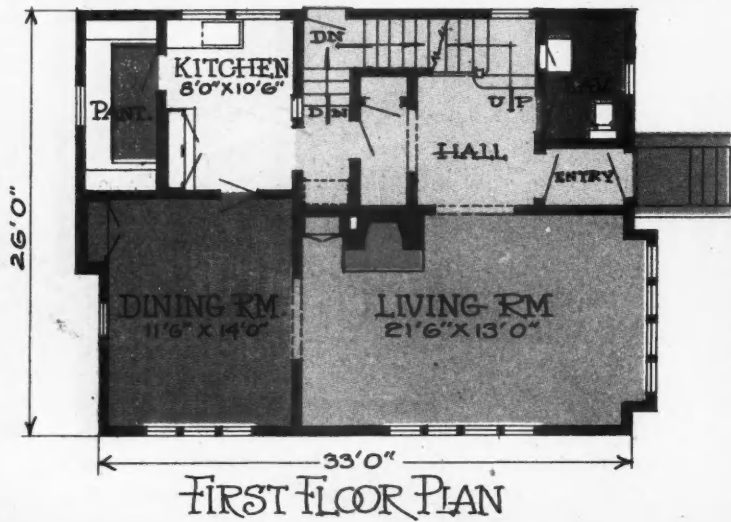
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The VILAS

HERE we have an English cottage of six rooms. Its size on the ground is 26 x 33 feet. Notice the planned reception and stair hall with convenient stairs lavatory. The big sleeping porch is the feature stairs with seven windows admitting as much of the door air in any season as is wanted.

Color sketch to left suggests comfortable furnish for this well windowed sleeping porch.



OUR FRONT COVER HOME



The New England Colonial Home Possesses Those Qualities Which Seem to Make It Perpetually Popular

STYLES may come and styles may go, but there is something about the Colonial type of home which seems to give it an eternal popularity. Quite likely it is the simple dignity of its lines, largely free of those ornamental features which make their appeal for a season but soon become tiresome. At any rate the owner of a Colonial home need never fear that it will be out of style.

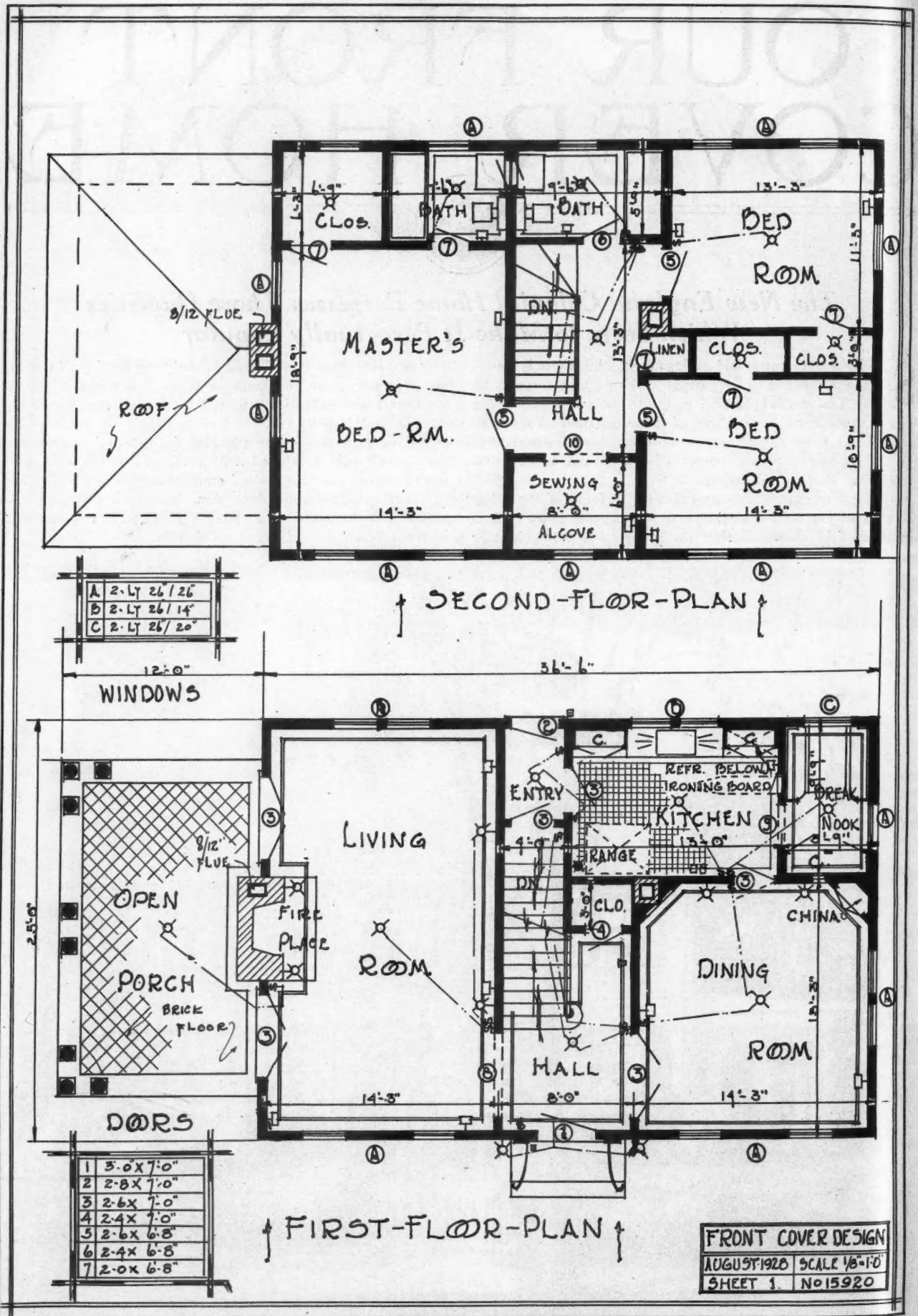
On our front cover this month will be found a charming example of the New England Colonial type of house. It is reproduced in colors so that the prospective home builder

may see just how it will look when completed. The same house is shown on this page in black and white, while on the four pages following this will be found complete working plans, drawn to scale.

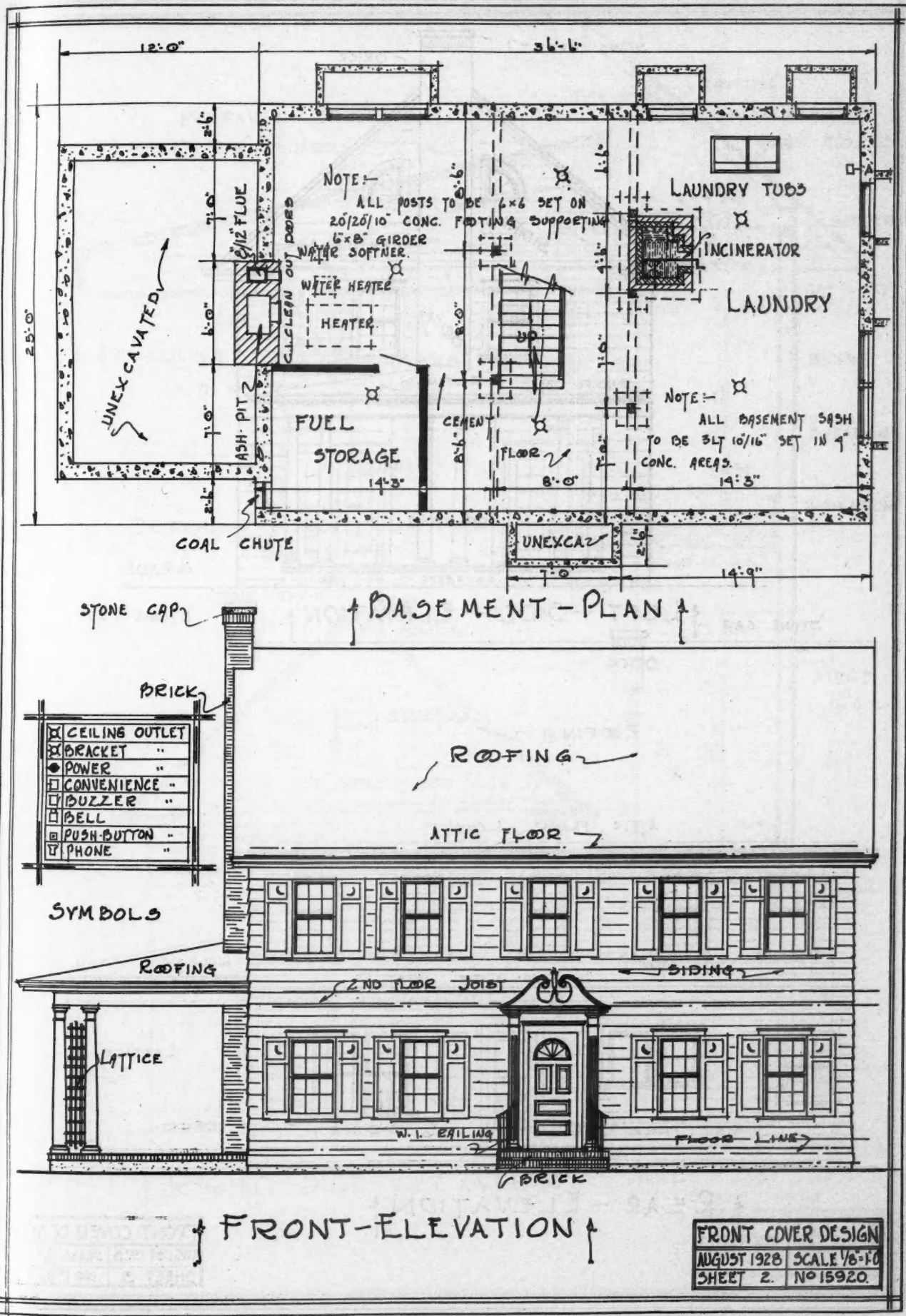
Not only is this house pleasing in external appearance, but by reference to the plan it will be seen that it is thoroughly modern in design and equipment—the sort of house, in short, which the modern American family desires and which will always be found readily salable. It is an economical house to build and to live in.



Our Front Cover Home Is a fine Example of the New England Colonial Style of Architecture, with All Those Little Touches, Even to the Gateway, Which Add So Much to the Whole Effect. The plans will be found on the next four pages.

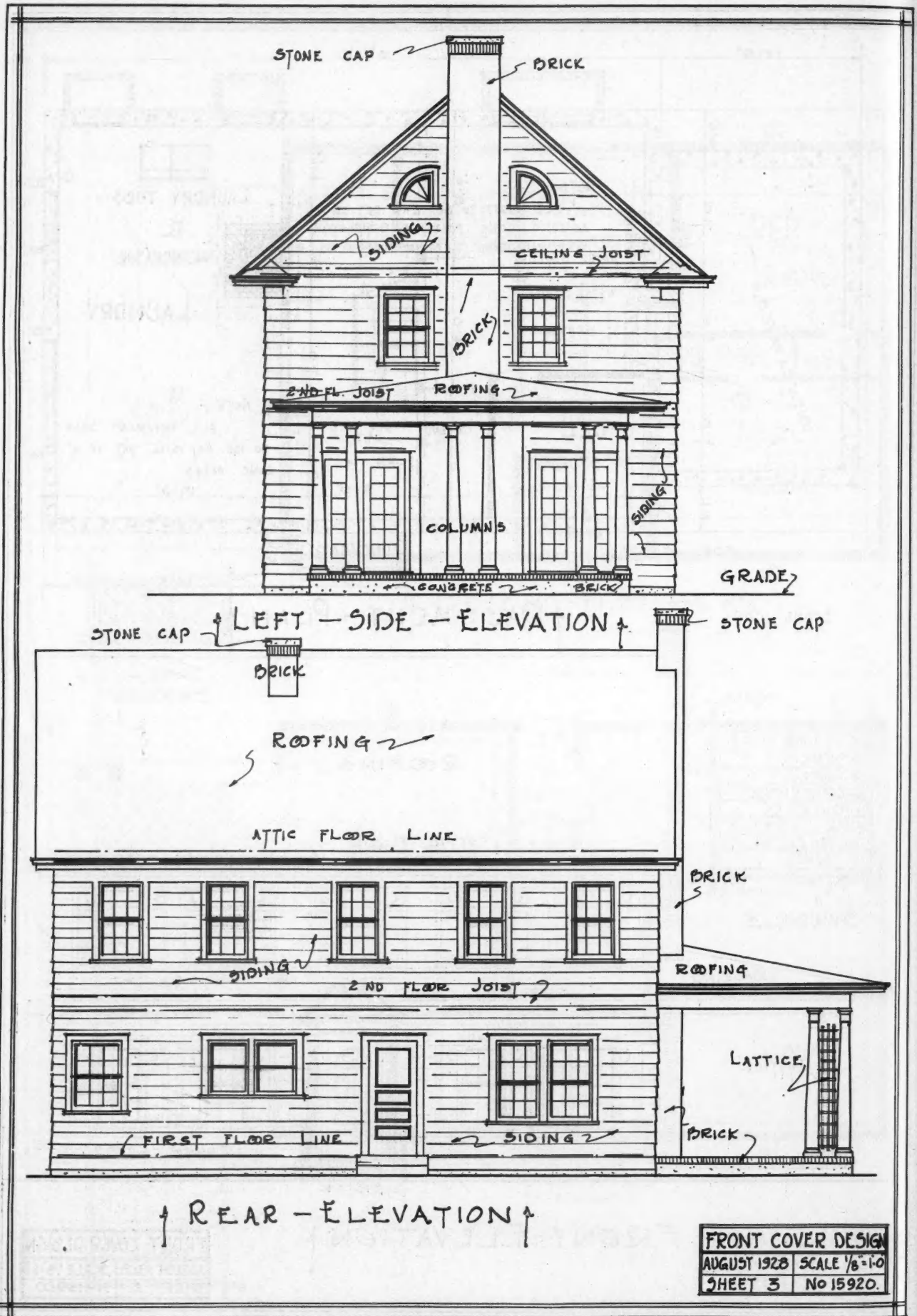


Our Front Cover Home Is a Six-Room House with a Breakfast Nook and, on the Second Floor, a Sewing Alcove to Add to Its Convenience.



FRONT COVER DESIGN
 AUGUST 1928 SCALE 1/8"=1'-0"
 SHEET 2. NO 15920.

Here We Find the Plan of a Basement Designed to Be Really Useful, and Also the Front Elevation, While on the Pages Following Are Reproduced the Other Essential Plans.



Left Side and Rear Elevations of Our Front Cover Home Tell a Further Story of the Arrangement of Windows and General Exterior Design.

APARTMENT HOMES



An Apartment Building Which Is Different

The Home of Miss Elisabeth A. Martini, the Only Woman Maintaining an Independent Office for the Practice of Architecture in Chicago

THIS home was built before the time of Zoning Ordinances when it was permissible to erect apartments in the midst of residences. At that time, when adjoining owners learned that an apartment would be built in among their homes they would hold a private indignation meeting, protest and argue among themselves and end by having a grudge against their new neighbor which he had to overcome by using all available tact and wisdom.

This structure was planned and built by a woman, who knew it would be doubly hard to overcome any prejudice among her neighbors against apartment buildings. It had to be a two-family house to insure her an income and also give her a home. Consequently, a single residence was out of the question. There was no alternative, an apartment it had to be. Associated with Chicago two-apartment buildings are: a face brick front with more or less elaborate stone trimmings, common brick rear and sides,

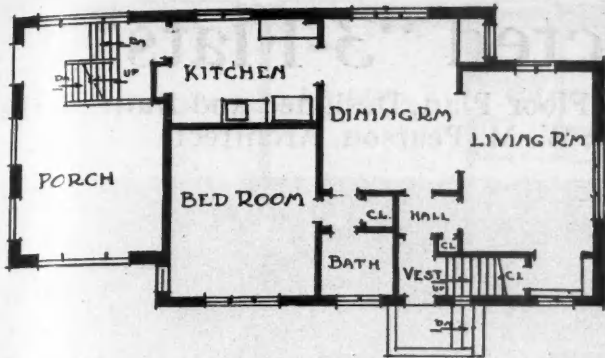
a flat roof with a high parapet and the two sides slanting back to a flimsy rear porch with visible stairs whose design is never beautiful. Naturally, when the neighbors noticed that a permit was taken out in the city for an apartment they pictured a typical structure in their mind.

However, our woman architect's ideals were far removed from any such design. She knew what prejudices there were to overcome and planned accordingly. Besides, this was to be her home, for which she wanted to translate her dreams into concrete terms, where she intended to live for many years to come. Why should she erect an ugly building, a visible blot to her sense of design, her desire for beauty? An unattractive structure would be poor policy from the financial aspect also, as it would lower property values in the neighborhood restricted to fine homes.

Luckily, a large tract of vacant land immediately surrounded her property and she lived in hopes that this



This Is How a Woman Architect Designs a Two-Apartment Building. An income producing home for her own use in a residential suburb.



First Floor Plan.



Second Floor Plan.

The Arrangement Gives Five Cheerful Rooms to Each Apartment, Besides the Owner's Big Studio Room Above the Rear Porch.

would not be occupied in the near future. Her hopes have been realized and she still has a large open lawn beside her home.

This building was not to have any sham ornament with face brick and stone trimming in front and common material on the rear and side! Dicky architecture as some call it, "All dressed up in front." No! If common brick was to be the material chosen, common brick it should be on all sides. The only other material incorporated in the outside walls is face brick for the window sills.

With an alley on one side and vacant grounds on the other side and rear she decided to design her home attractively on all four elevations irrespective of what might grow up beside her later. There were to be no ugly porches to mar the view of the rear. It should give the appearance of a real home, irrespective whether it would be occupied by one or more families.

The illustration shows the fruit of her labors. The inviting entrance porch with its hooded cover supported by brackets, the arched door with its leaded glass, form the center of interest. Another attractive feature is the elliptical openings on the rear porch. These openings, almost covered with shrubs on the picture, are filled in with French doors which are substituted for screens in hot weather, making an ideal cool porch with brick pavers on the floor where breezes can blow and flowers bloom all about and nod their heads of approval at the restful outdoor living room.

In conjunction with this rear porch out of sight to the public are the stairs carefully housed within the brick walls of the building, large openings, with windows to close in winter, admit as much air and light as an open porch.

The casement windows artistically grouped throughout the house produce a nicety of balance while vines growing up among them gracefully cling to the masonry and soften any harsh outlines of the building. It will be noticed that in opposition to the general rule the windows on each floor of this apartment are not identical, which helps the design and relieves the monotony. There are also interesting breaks in the general outlines of the structure, to break the wall and roof surface and to give each room except one in the entire house cross ventilation. This item is seldom found even in the most expensive apartment buildings. Whoever builds on the side will never prevent the occupants of this home from having light and unmolested view from at least one side.

The pitched tile roof with various hips and valleys and overhang just covering the tops of the second floor windows lowers the height of the house and avoids any stilted appearance so common in many structures. Such a roof gives a building a homey appearance seldom noticeable in ordinary apartments.

The trees on all sides with sunshine and shadows flick-

ering on the walls as the breeze sways the branches to and fro supplement the design.

After the house was completed, its surroundings comprised the usual piles of rubbish and waste resulting from building operations. With the aid of a wheel-barrow, a shovel and a spade the owner graded and seeded the surrounding grounds. The resulting lawn on all sides gives the home an aspect of beauty surrounded with order.

After completion, the neighbors confessed to the new owner that while they greatly resented the idea of building an apartment in their midst, their opposition had now changed and they praised the accomplished achievement.



Reselling Cooperative Apartment Has Less Red Tape Than Reselling a Home

From an Address by David V. Sutton, President, Sutton, Blagden, & Lynch, Inc., New York City, before the Cooperative Apartment Division of the National Association of Real Estate Boards

THE final question in the mind of a man who is about to buy a home unit in a co-operatively owned apartment building is not what kind of plumbing am I buying? what kind of neighbors will I have? or what is the outlook from the living room window? It is "If I buy this apartment and the time comes when I want to sell it, what chance have I of reselling it and what profit can I or my heirs derive from it?"

You can re-sell it. Moreover like other real estate if it is well chosen you can re-sell it at a profit, according to Mr. David V. Sutton, President of Sutton, Blagden & Lynch, Inc., New York City, who addressed the Co-operative Apartment Division of the National Association of Real Estate Boards at its annual convention.

Not only is the resale market for co-operative apartments now quite active, in New York, at least, but for some buildings there is as a matter of fact a waiting list of buyers, Mr. Sutton said.

But he issued one warning:

In reselling a co-operative apartment unit as in reselling any kind of residential property there is a penalty on the plan that is too highly individual, that does not fit a general need.

The large triplex apartment on Park Avenue at 67th Street, New York, which Mrs. William K. Vanderbilt bought, paying \$185,000, so it is said, for the equity was resold for just what she had paid for it when she decided that she did not wish to live there after all. But the apartment in question had been especially planned for Mrs. Vanderbilt's individual requirements with a comparatively small number of rooms but with rooms of huge size. There were only a few people who would have wanted an apartment of this sort and reconstruction

(Continued to page 146)

Group of Perfected "3-Flats"

Six Distinct Exterior Elevations with Same Floor Plan, Designed and Built by the John R. O'Connor Organization, W. M. Pearson, Architect

A GROUP of three-apartment buildings has recently been erected on Dante Avenue, between 88th and 89th streets, Chicago, designed and built by the John R. O'Connor Organization, which embodies many special features found only in exclusive residences. These buildings establish a new standard for the modern apartment dwelling.

In design this group of twelve buildings have six distinct exterior elevations, although all the same floor plan.

As to materials used—all front elevations are of face brick trimmed with Bedford stone, elaborately carved. The three other elevations are of common brick, solid construction. The heating plants consist of steel boiler, entirely covered with asbestos, and the submerged coil system of providing instantaneous hot water. The radiation is furnished by the new type radiator cabinet, giving an abundance of heat in any weather and moisture sufficient to insure satisfactory healthful humidity. The John R. O'Connor Organization were among the first to conduct hygrometer tests on this remarkable system and are using it now almost exclusively. The radiator cabinets when finished in harmony with the decorative scheme are of outstanding beauty.

All windows are weatherstripped; all exposed pipes in basement are covered; all apartments have an individual metal garbage receiver built into the brick wall off the rear porch. Gypsum lath is used throughout instead of ordinary lath, with the exception of the bathrooms, which have 7 feet of metal lath on side walls. This gypsum lath



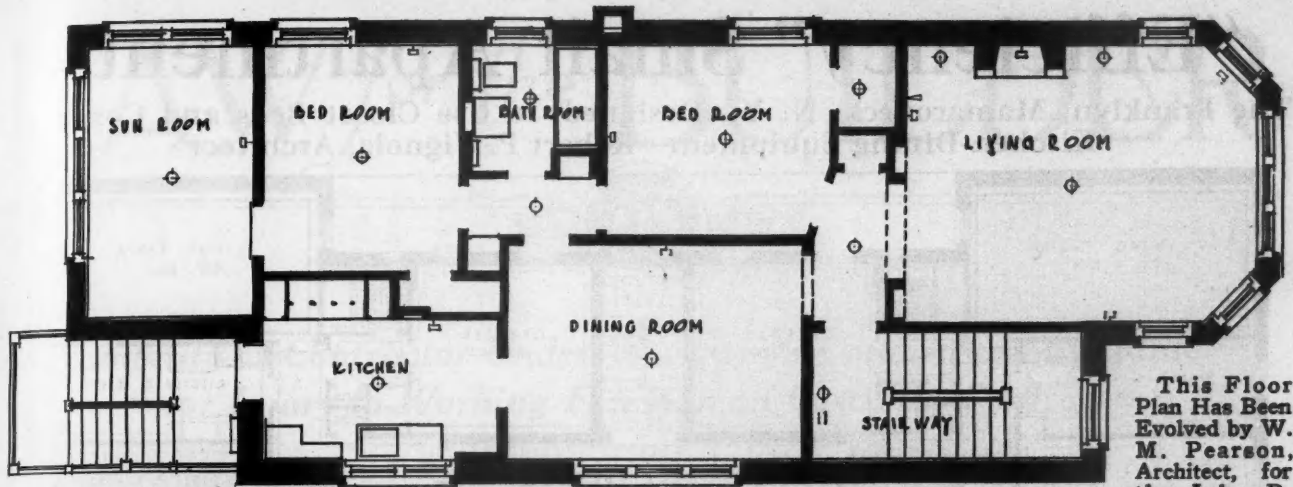
The Living Rooms Are 14½ by 18½ Feet.

eliminates the unsightly dust marks so common with ordinary lath.

For the living rooms the O'Connor Organization include a specially designed art stone mantle to conform with the style of fixtures and the general theme of interior decoration. Book niches are provided on both sides of the arched openings which contain removable shelves, finished in Japanese lacquer of shaded red or green. Radio outlet; wall brackets; center ceiling light and electric grate basket are also provided.



Four of the 12 Three-Apartment Buildings Erected by John R. O'Connor Organization in the Calumet Gateway Section of Chicago, and Offered for Sale on 35-Foot Lots at \$25,000 Each. Note variety of front designs. Standardized floor plan on opposite page.



This Floor Plan Has Been Evolved by W. M. Pearson, Architect, for the John R.

O'Connor Organization, as the Most Ideal for a "Three-Flat" Having Light on All Four Sides.

additional sleeping room or extra bedroom. It is completely finished, plastered, heated and decorated with discriminating charm in two-toned combinations of three-coat enameling throughout. Truly a spacious all-purpose room.

Off the private hall which connects both bedrooms with the bath, they have provided a large linen closet and also a special unit consisting of a telephone niche, book compartment, sliding shelf for arm rest and an additional built-in four-drawer unit for linen or miscellaneous articles.

The bathroom proper has a beautiful recess bathtub equipped with shower, rod and curtain; advanced design of seat and flush box; an elaborate medicine case and pedestal lavatory. In addition to the foregoing there is a beautiful built-in metal enameled adjustable clothes hamper.



View of the Dining Room, with Glimpse Through Into the Kitchen.

The two bedrooms are especially generous in size and large closets are adjoining, with individual drop cord lights. The kitchens, without question, will be considered a masterpiece of efficiency for this type of dwelling. The gas range is the all-enclosed cabinet type, comprising a bake oven, broiling compartment, warming closet and enclosed lower chambers for the heavier utensils. The kitchen also contains a built-in ironing board; large kitchen case, fully equipped; individual broom closet and individual china compartment. Also a white enameled full apron sink with combination faucet.

For the electric refrigerator they have selected one of the foremost units on the market, a mechanical refrigerator with individual motor and porcelain lined box.

Each kitchen is covered with inlaid linoleum with cushion tread felt base over a hardwood floor.

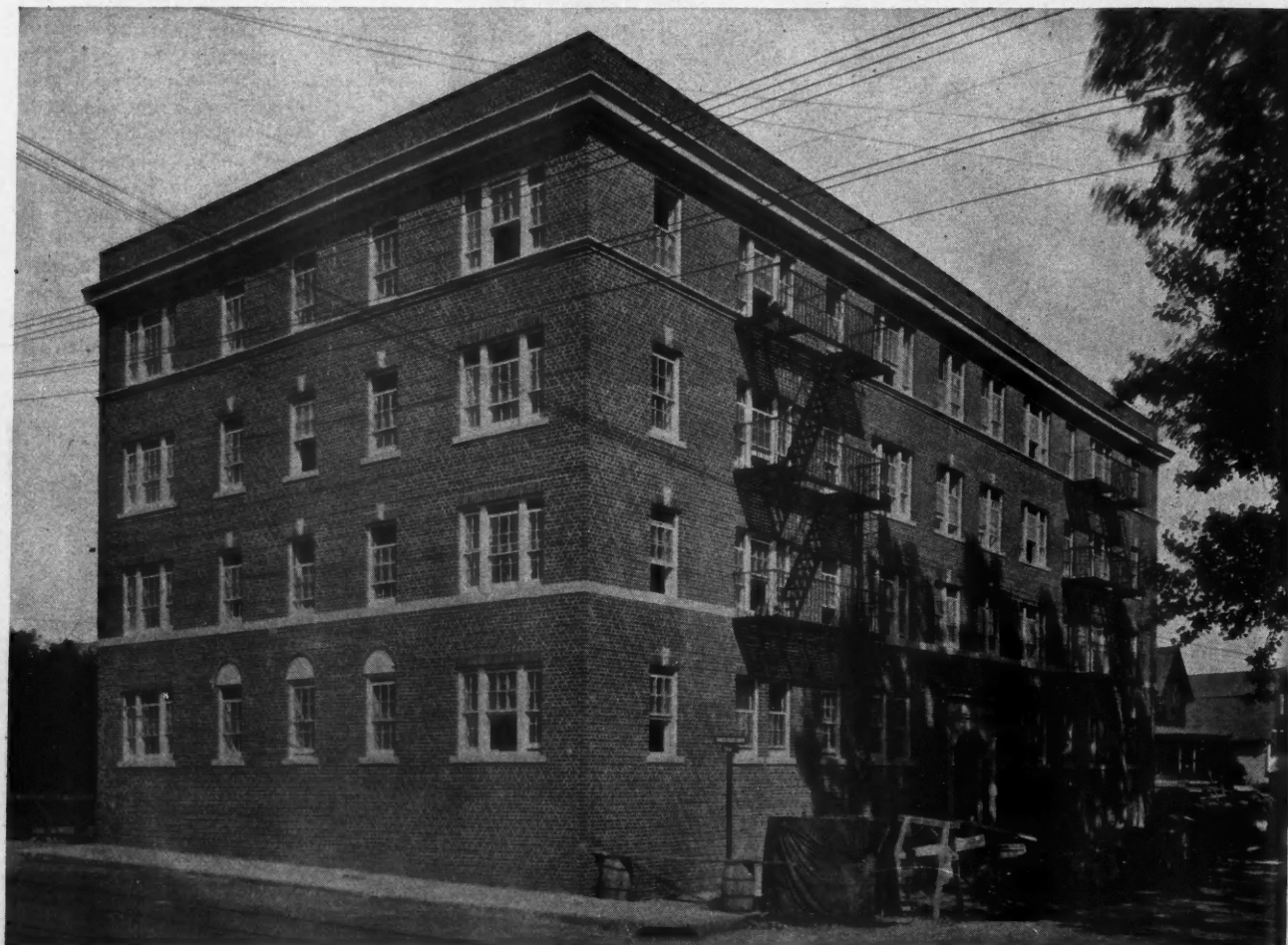
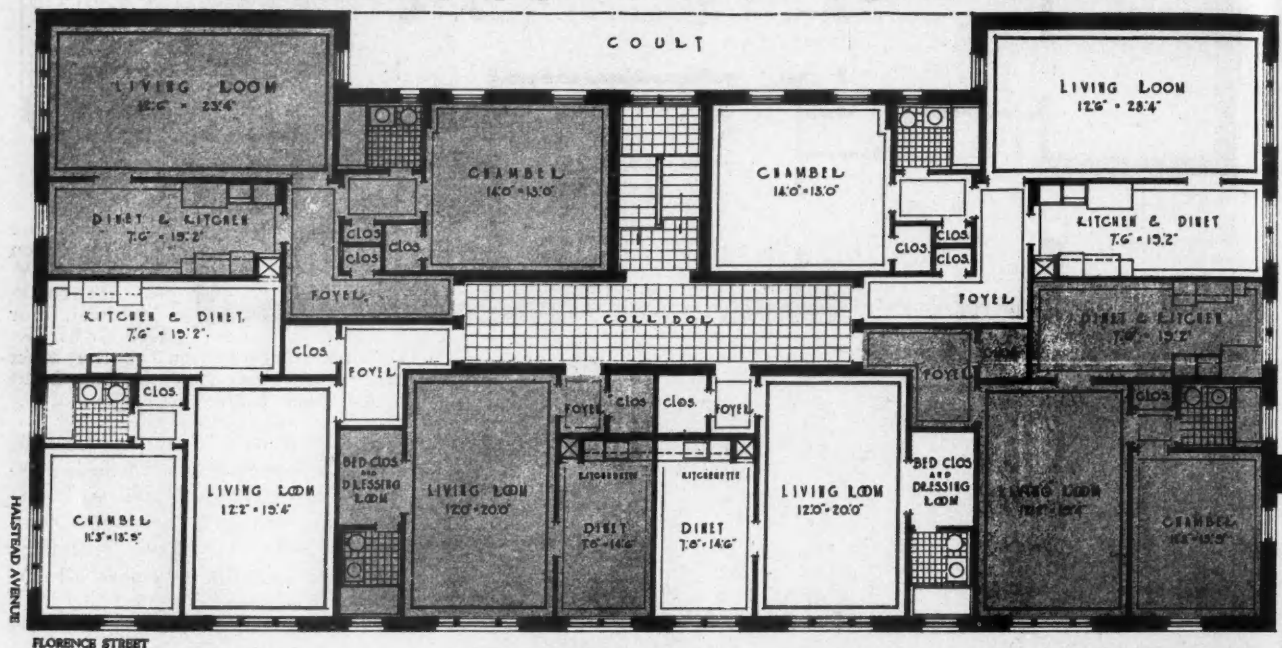
The sun room may be termed an



The Kitchens Are Gems of Compact Convenience.

"Efficiency" Small Apartments

The Franklyn, Mamaroneck, N. Y., Designed to Use Closet Beds and Compact Kitchen-Dining Equipment—Robert P. Vignola, Architect



The Franklyn, Built by Wennemer Bros. Co., at Mamaroneck, N. Y., for the Carolil Corp. for Leasing. The three-room apartments consist of living-room, bedroom, kitchen, dining alcove, foyer and bath. The two-room and kitchenette apartments consist of living room, bedroom, large kitchenette, foyer and bath. The two-room "Efficiency" apartments consist of living room, dining alcove, kitchenette, foyer, bath and dressing room. Dressing rooms are equipped with full size door, dressing cabinet and dressing table. Each apartment has a cedar closet, mirror door in chamber, plenty of closet space and telephone niches. All kitchens and kitchenettes are equipped with efficiency cabinets in green lacquer finish. There are electric refrigerators in each apartment. The floors are covered with inlaid linoleum.

LAW for the BUILDER



Liability of Contractor Under Workmen's Compensation Statute for Injury to Working Foreman on Cost Plus Contract

WORKMEN'S compensation statutes have been so widely enacted in the various states, and their terms are so generally applicable to the building and construction field, that every contractor and builder, in justice to himself, should be informed of the scope of such laws within his state. This is true because the liabilities for injuries under such statutes may be very heavy and, in case of a serious accident, perhaps more than the average contractor or builder would care to assume. It follows that prudence would seem to dictate the carrying of adequate protection, through the medium of insurance, on every undertaking.

And in this connection it will rarely prove a wise policy to split hairs relative to who will be liable for injury to workmen, as between the contractor, the owner, and the workman himself. At any rate, in view of the heavy liability that may attach in case of a serious injury to a workman, the contractor should certainly ascertain who must carry the liability before undertaking the work, and not wait until an accident has occurred, which may then require a lawsuit to decide just who is liable.

The danger to the contractor in assuming that he is not liable for injury to given workmen, and therefore not carrying insurance upon such workmen, is illustrated in a number of cases among them being the recent case of *Jensen vs. Industrial Accident Commission*, a California decision reported in 207 Pac. 1019. This decision is one of interest from several angles to contractors and builders, and appears to be well worth a brief review. The facts which culminated in the action were, briefly stated as follows.

Cost Plus Contract Entered Into

Jensen was a contractor and builder, and was requested by a property owner, Dr. Tooker, to make an estimate as to the cost of certain alterations the latter desired to his home. Jensen, it appears, looked over the work, made an estimate, and he and Dr. Tooker entered into a con-

tract whereby Jensen was to do the work and receive as compensation the cost of all labor and materials plus ten per cent.

Thereafter Jensen entered upon the work and employed one Scott, a bricklayer, to do certain brick work in connection with the alterations being made. While Scott was thus engaged mortar splashed in his eye causing a serious injury. Scott was thereafter awarded the sum of \$2,666.24, and an allowance for medical expenses, by the Industrial Accident Commission of California which, under the award, Jensen was held liable to pay.

From this award Jensen, the contractor, prosecuted an appeal contending that he should not be held liable as Scott was either an independent contractor, or the employee of Dr. Tooker, the owner. In support of this contention the facts surrounding the employment of Scott were placed in evidence, and, considerably abbreviated, were as follows:

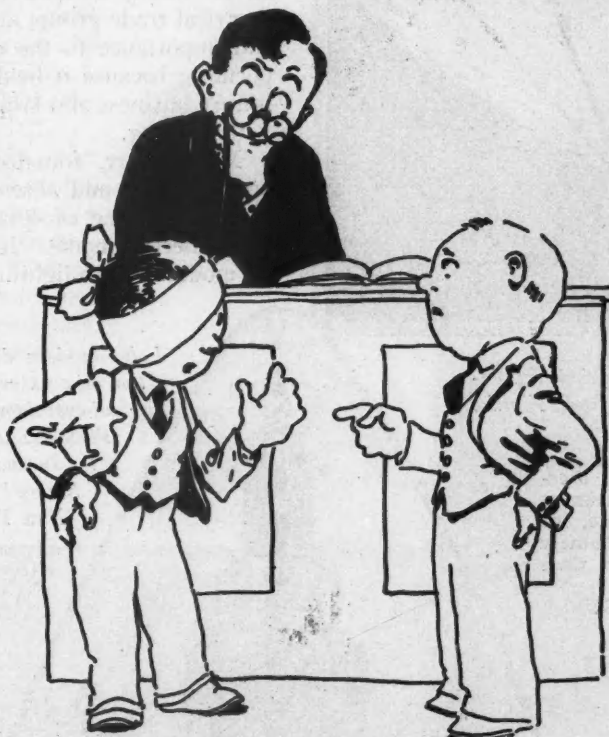
Jensen employed Scott, gave him the size of the fireplaces that were required, and he built the chimneys accordingly. In addition, Scott, under the orders of Jensen, engaged the men necessary to do the work. Jensen paid Scott twelve dollars a day for his services as a working

foreman, and also the money required to pay the other help upon the brick work, which was paid directly to the men under him by Scott.

It should be noted at this point that Scott did not receive any percentage on the work; he did not take the work by the job, and the twelve dollars a day that he received was in fact but the usual wage of eleven dollars a day paid bricklayers, plus one dollar a day for his services as foreman over the other men under him. On this state of facts, the District Court of Appeals, in passing upon the award of the Industrial Accident Commission, among other things, said:

"We think under these facts, the finding of the Industrial Accident Commission that Scott was an employee of Jen-

(Continued to page 126)



In View of the Heavy Liability that May Attach in Case of a Serious Injury to a Workman, the Contractor Should Always Ascertain Who Must Carry the Liability Before Undertaking the Work and Not Wait Till After an Accident Which May Require a Lawsuit to Determine the Liability.

New LIFE

*Modern art designs, use
outstanding features of*

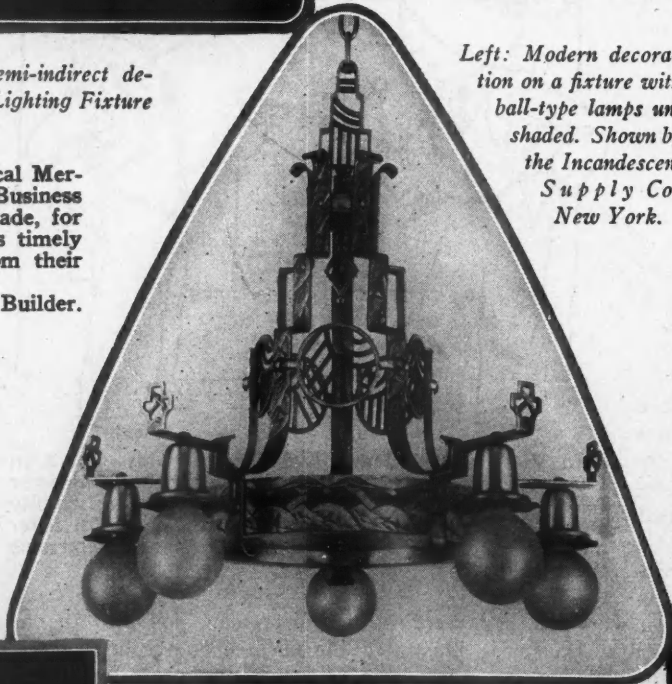
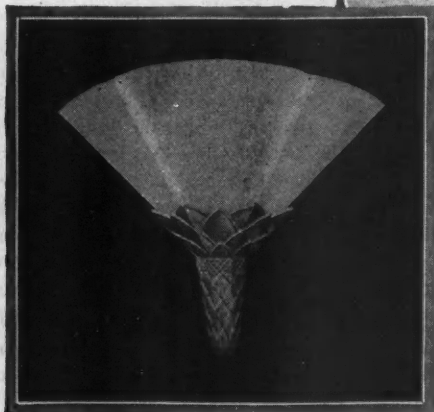


Above: A modernistic semi-indirect design shown by the Globe Lighting Fixture Mfg. Co., Brooklyn.

We are indebted to "Electrical Merchandising," New York, The Business Magazine of the Electrical Trade, for the privilege of reprinting this timely and comprehensive article from their July issue.

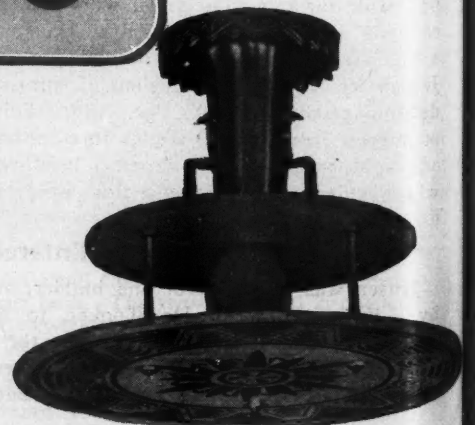
Editor American Builder.

Below: Wall bracket by Owen Walsh Mfg. Co., New York. Base in a pineapple design holds the glass plates forming the shield. This bracket like the ceiling fixture above combines, in the best style of modernism, good illumination with simplicity and harmony of design.



Left: Modern decoration on a fixture with ball-type lamps unshaded. Shown by the Incandescent Supply Co., New York.

Right: An interesting and new type of ceiling fixture shown by Shapiro and Aronson, New York. The decorated glass plate diffuses the light from a single lamp of high intensity. Being flat this type of reflector does not break the ceiling line of the room, a desirable factor when the room is of only moderate height.



THE fixture exhibition of the Artistic Lighting Equipment Association held in Chicago last month deserved a far larger attendance. Lighting fixtures affect directly or indirectly the business of nearly every electrical trade group, and this exhibition was of interest and importance to the entire electrical industry, of importance because it held the promise of new life in the fixture business and larger sales for everything connected with lighting.

Modern art, founded on steel girders, skyscrapers, straight lines and absence of meaningless decoration, is rapidly winning acceptance as applied to the fittings of the American home. It was the application of the spirit of modern art to lighting fixture design which made this exhibition of the highest significance.

Not all the manufacturers showing have gone in for modernism, but it was striking that those manufacturers showing the new designs were the manufacturers whose exhibits were the most crowded and whose salesmen seemed most busy. Furthermore, fixture manufacturers have in these modernist styles joined art with illumination. Most of the modern fixtures shown were conspicuous for good illumination qualities. Without exception,

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In the FIXTURE Line

of color and glass shades
the Chicago Exhibition

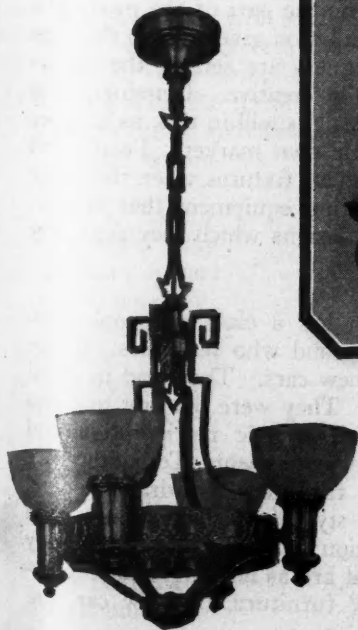
they made provision for shading the light sources.

These new modernist fixtures are not cheap fixtures. Wall brackets are priced from \$40 up. Ceiling fixtures from \$75 up, and, in quality of material employed, as well as design and finish, look the money.

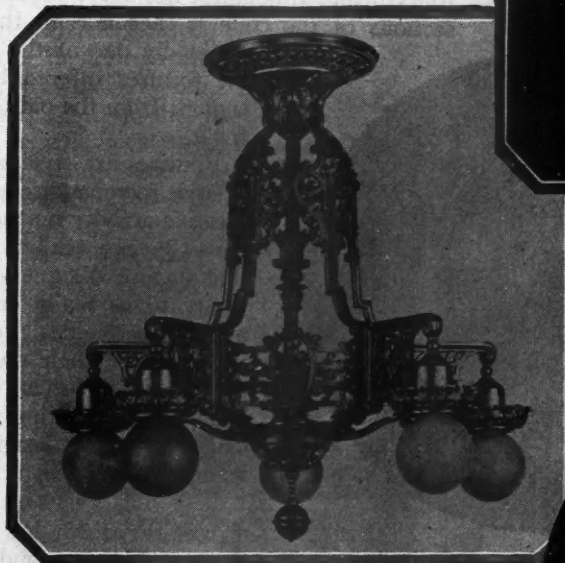
The exhibition, on the whole, was characterized by the absence of fixtures made only for price. Judging from this showing fixtures not only tend to be better, but are being priced on the level of their value. This will have a wholesome effect if the dealer will respond and make an effort to sell good fixtures instead of cheaper ones.

While modernist fixture designs attracted the greatest attention, there

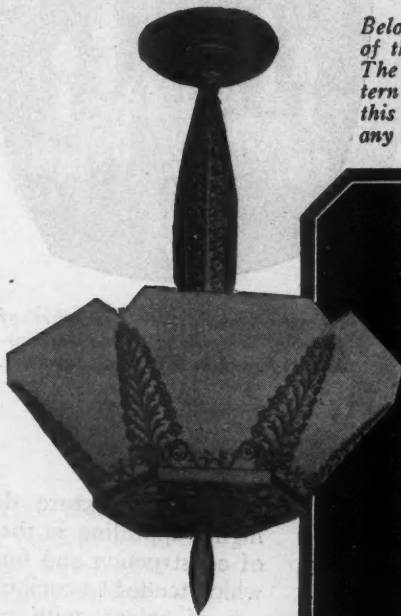
Below: Made to the Franklin Specifications, this fixture by Robert Findley Mfg. Co., Brooklyn, provides the best in illumination and yet is notably decorative.



Above: Five-light fixture in antique gold and colors by Artcraft Metal Stamping Corp., Brooklyn. While traditional in style, this piece shows the modern influence by an appearance of strength without heaviness.



Above: Ceiling fixture by Beardslee Chandelier Mfg. Co., Chicago. Decorative supports hold the glass sheets which compose the reflector.



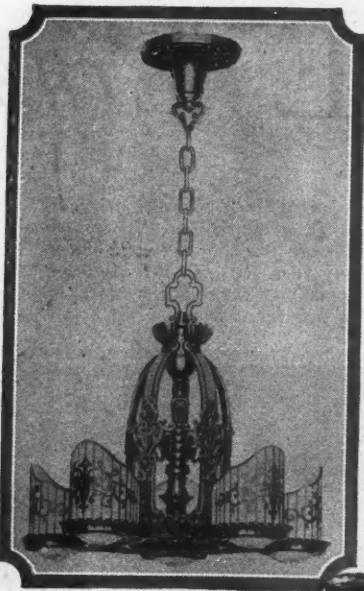
Below: Color adds to the attractiveness of this fixture by Lightolier, New York. The glass shade is decorated with a pattern in many hues. Distinctively different, this design adapts the modern style for any type of interior.



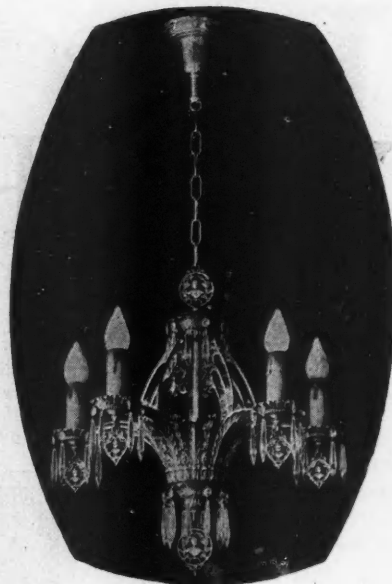
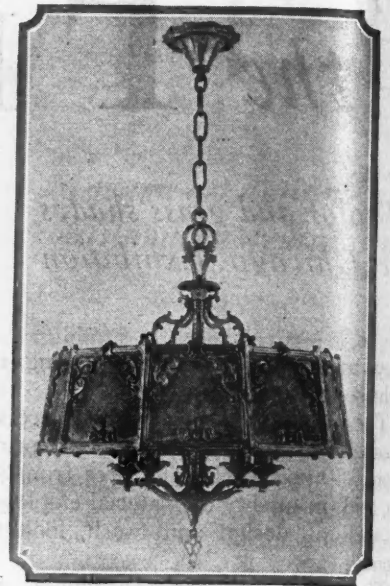
Below: An interesting crystal chandelier by William R. Noe & Sons, New York. Single light, ten inches over all.



Below: The decorated glass shields are removable in this fixture by R. Williamson & Co., Chicago. A convenience outlet in the center is easily accessible.

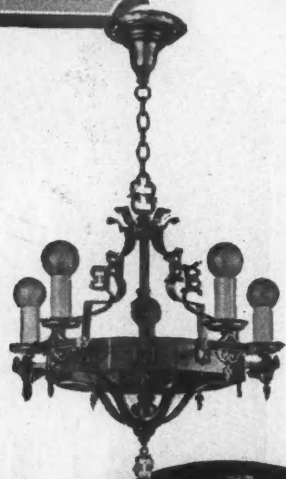


Below: In this chandelier by the Star Chandelier Company, New York, the wide shade is of mica with hand-painted and decorated panels.



Above: Candle type chandelier of pleasing design with pendant crystals by Franklin Mfg. Co., Cleveland.

Right: Candles are still much used as shown by the fixtures on these pages. (Right) By New York Lighting Fixture Company in burnt ivory and gold.

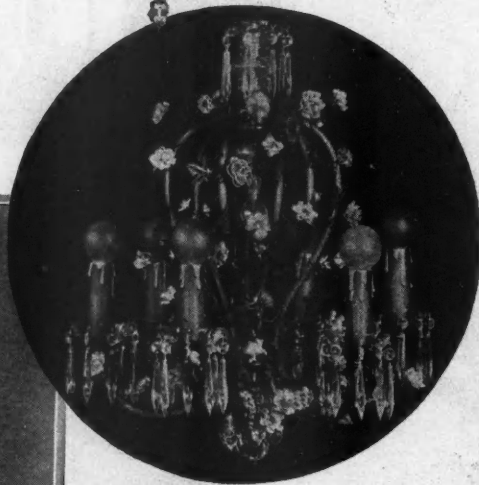


were many fixture designs in the more traditional styles, highly appealing in the tastefulness of design and high quality of construction and finish. Also interesting were the examples which tended to combine the modern tendency, especially in the use of colors, with more traditional forms. These fixtures seemed especially salable in that they will appeal to the desire for something new and yet are not too radical a departure from accepted styles and types.

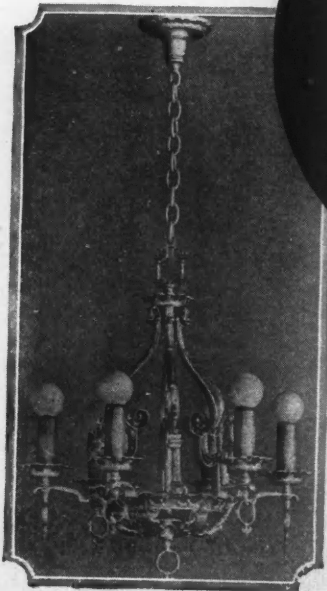
The introduction of new lighting fixture styles comes at a most opportune time in view of the growing need for refixturing. Refixturing, although it has made considerable progress in some sections of the country, has not hit the popular fancy. Undoubtedly one of the reasons for this is that the fixtures offered have not been different enough from the old to stimulate a real desire for it.

Fixtures are style merchandise and the sale of style merchandise can only be stimulated by creative activity on the part of the producers. This Chicago exhibition gives rise to the hope that fixture designers are seizing the opportunity to be really creative. Genuinely new and distinctive designs will in this, as in other fields, create their own market. People will discard their obsolete fixtures when they have been shown lighting equipment that is new, different and in designs which they genuinely want.

Below: Pewter and gold are used with a rich effect in this chandelier by the Halcolite Company, New York.



Above: Dresden flowers, crystal and gold bronze are used in this highly ornate fixture by the Rialto Import Corp., New York.

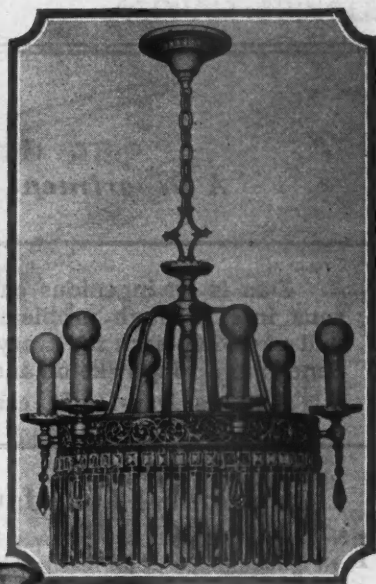


EVERY town has a class of people who spend money and who set styles. These people buy the new cars. They lead in social social activities. They were the first to equip their homes with electric refrigeration and electric oil heating equipment. Today they are buying modern furniture and draperies and are setting the style for this new trend in interior decoration. These people will buy new fixtures that are as new and smart in design as the new furniture, the new car, the

Below: Antique gold and polychrome give a subdued richness to this fixture by the American Brass & Copper Company, New York.



Below: A dining-room unit, the center lamp shielded by crystal pendants. By New England Incandescent Supply Company, New York.



Above: Fixture of cast bronze with Tudor grill by Kayline Company, Cleveland.

new gown; and, it is to this important class that the modern art fixtures will appeal. The fact that modern fixtures are high in price makes little difference to this buying class.

The dealer's responsibility here is equal to that of the manufacturer. It is no good for the manufacturer to create new merchandise if it is not shown to the public. Before the dealer can refixture the homes of his customers he must refixture his salesrooms. He is not going to sell new designs unless he has them in stock. And there is little use having them in stock unless they are adequately displayed.

There is a keen interest in modern decoration everywhere today. Department stores are holding exhibitions of modern furniture, modern wall paper, pictures and drapery.

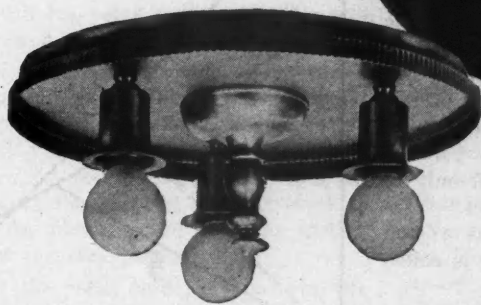
The fixture dealer can cash in on the same public interest. First he will have to have modern designs in stock; then he will have to advertise them. Above all he will have to display them with such a modern setting in the way of screens, draperies and accessories as will bring out their value. In other words, the fixture dealer, to sell these fixtures, must merchandise this new idea in art and decoration.

The Exhibition and Convention opened on Monday, June 11. Addresses were delivered by George J Klein, president of the A.L.E.A. and William R. Dawes, president of the Chicago Association of Commerce.

Left: Chandelier by Radiant Lighting Fixture Company, New York, in antique pewter and brass.



Below: The designer has preserved with great accuracy the spirit of early English art. By Max Schaffer Company, Brooklyn.



A close-to-the-ceiling fixture by Kanne & Bessant, New York. Finished in pewter this simple but dignified item fits into the Early American interior.

Above: The branches, stem and decorations are all of glass in this luxurious fixture by the Friedlander Company, New York. This importation is an authentic example of French art moderne.



HOW DAN DOES IT



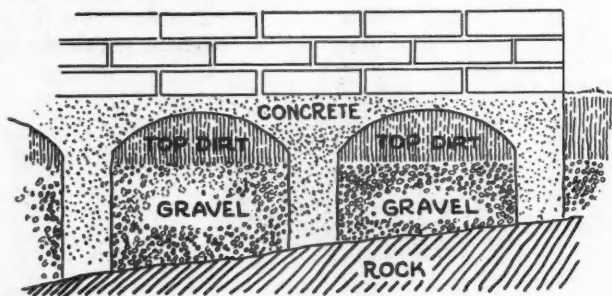
A Department for Passing "Life Savers" along to other Builders

\$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 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.

Economical Foundation Support

IN placing foundations, in many localities, it is necessary to go quite deep to reach solid material upon which the foundation should be placed and quite often it is impractical to do the necessary excavation to reach this safe foundation base. Firm foundations, suitable for the average house, may be built, however, without making such



A Foundation Support Handled in This Manner Will Be Amply Safe Yet Save the Cost of Excavation.

an excavation, by using a post hole digger or one man well type of drill. Holes may be drilled at sufficient intervals to support the structure and these holes filled with concrete. The holes should be belled out at the top, toward each other, to form an arch when the concrete is laid, as shown in the sketch. This makes a strong foundation if the holes are placed at the proper intervals in proportion to the weight of the house.

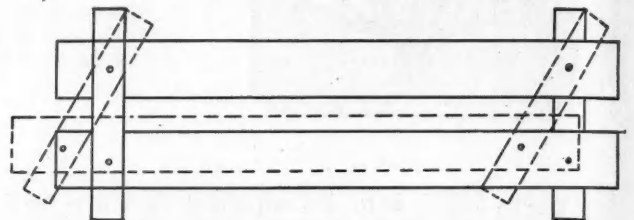
H. E. SALISBURY, Independence, Kan.

For Planing Long Boards

WHEN it is necessary to plane long boards along the edge the device shown in the sketch can be used to good effect. This is made by taking two pieces of two by four 10 to 16 feet long and two pieces of board, preferable one by two, about 16 inches long. Place the two by fours side by side about two inches apart and parallel. Nail the small pieces across them, using one nail only at each intersection so that the nails will act as hinges.

One of these strips is nailed on top to act as a stop for the board which is to be planed and the other is nailed underneath so as to admit a long board.

Now lay a one-foot plank on a couple of saw horses and place the device on it, tacking the right hand side to the plank, but leaving the left side free to move. Place the end of the board to be planed against the small cross



This Simple Arrangement of Four Pieces of Lumber Forms a Device Which Will Hold Long Boards Firmly for Planing on the Edges.

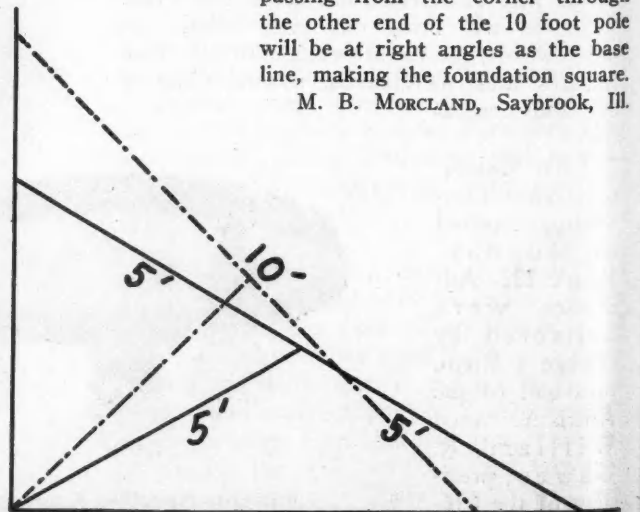
strip on the top side. The harder you push the plane the tighter the material will be gripped. This arrangement will hold any material, from a lath to a two-inch plank, on edge for planing.

RAY F. FRISBY, Box 433, Chatfield, Minn.

For Squaring Foundations

HERE is the way that I square up a foundation. It is quick, simple and accurate. I attach a five foot arm to the center of a 10 foot pole in such a way that it will pivot, as by driving a single nail. I pin the other end of the five foot arm at the corner, so it will also swing here. Now no matter how you swing these poles, so long as one end of the 10 foot pole touches the base line, a line passing from the corner through the other end of the 10 foot pole will be at right angles to the base line, making the foundation square.

M. B. MORCLAND, Saybrook, Ill.

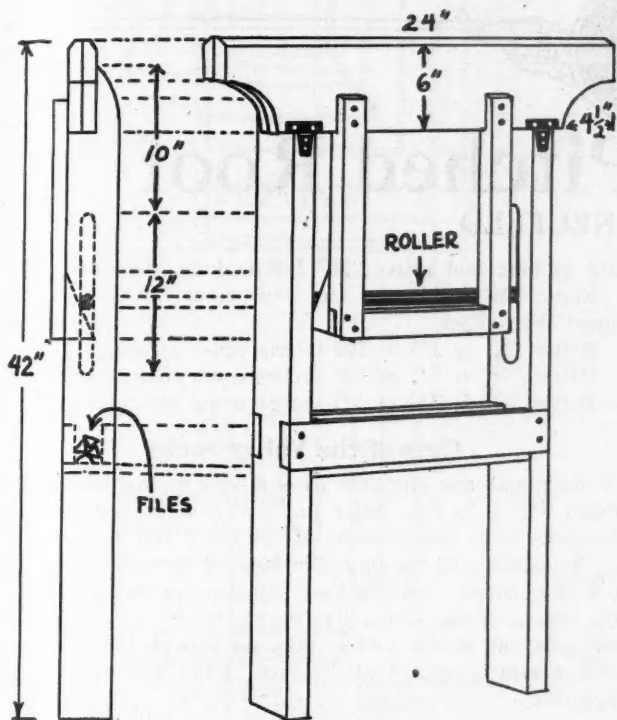


Two Poles Hinged Together as Shown in This Sketch Afford a Sure Means of Squaring Up Any Foundation.

To Build a Saw Vise

THE saw block shown in the sketch can be made up at very little cost and will amply repay the time spent on it. I consider it a decided improvement over the old type of "V" block that is so often seen in use. Its main feature is that it is practically everlasting, does not require hammering in of wedges with the resultant splitting of sides or legs. It may be made from any kind of wood, but hardwood is best for the jaws.

The legs are planed, squared and cut to length. A check



This Sketch Illustrates the Saw Vise Described in the Article, One Which Will Repay Time Spent in Making It.

is then taken out for the jaws, five by two inches, and the back edges shaped or rounded over at the top. Housings are now taken out, to accommodate the bar or roller, to a depth of three-fourths of an inch and one inch wide by 12 inches long. The legs are then checked back and front to allow for one by three stays to hold the frame together.

The jaws are next planed up and shaped as shown, two pieces 24 by 6 by 1 inch being used; a quarter circle of about 4 1/2 inch radius being cut out to allow for the saw handle. Two pieces 18 by 2 by 1 inch and one piece 10 1/2 by 2 by 1 inch are next prepared, half checked and screwed together. Two pieces for stays 18 by 3 by 1 inch are also prepared. The jaws are chamfered about three-fourths of an inch and screwed to the legs, countersinking the screws, two screws in each leg being sufficient. The two stay pieces are now screwed or nailed in place.

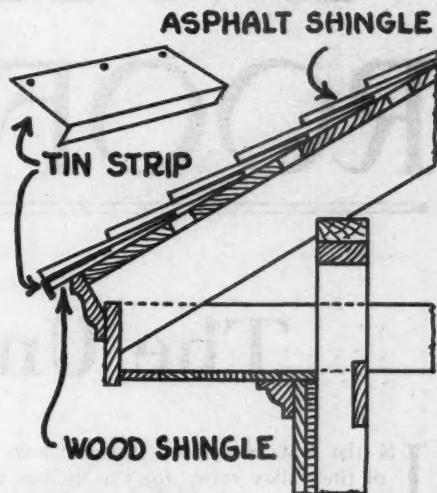
Two wedge shaped pieces are next made and screwed to the frame, to engage on the roller. When this is done the frame is screwed to the jaws. Two hinges are screwed to the jaw and the jaw hinged to the frame. A roller, 15 1/2 by 7/8 inch, is now placed in the slots, an old broom handle will serve the purpose, and the block is complete. A receptacle for files may be made by nailing a piece on the bottom of the stay pieces.

To open the jaws, lift the roller and the jaw will fall forward. Fix the saw in position, press down on the roller and the saw will be securely held. The appearance of this block may be improved by applying a coat or two of paint.

JAMES J. McDADE, 2506 N. Chadwick St., Philadelphia, Pa.

It Saves the Roof

IN laying slate surfaced asphalt shingles, it is customary to lay one course of wood shingles beneath, at the eaves, for support. I have found, however, that water creeps up two or three inches, due to capillary action, between the wood shingles and asphalt shingles, and causes the moulding to rot out within a very few years. In order to prevent this, I cut roofing tin into strips five or six inches wide and bend down about five-eighths of an inch along the edge of each piece, at right angles. I tack these pieces of tin on top of the wood shingles, with the bent edges turned down over their edges, as shown in the sketch, forming a drip edge. This positively prevents water creeping back between the courses.



Tin Strips Placed as Shown Here Will Prevent Water Creeping Under the Shingles and Rotting the Wood.

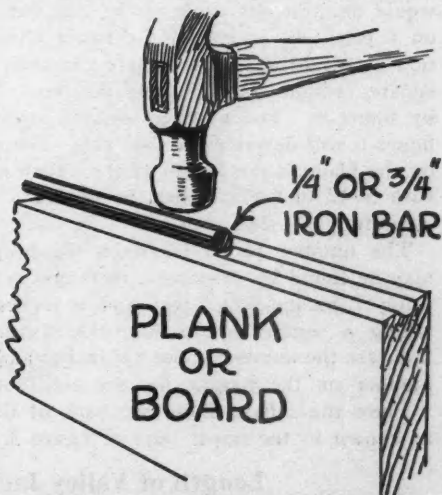
L. W. PIKE, 17 Brattle St., Brattleboro, Vt.



To Form Tight Joints

HERE is a practical way to make a good, tight joint in an unlined, wooden tank. Take the boards or planking on a bench and stand them on edge. Take a short piece of 1/4 inch or 3/8 inch iron bar, according to the thickness of the boards to be used, lay it along the center of the edge and pound on it with a heavy hammer until a shallow groove has been made along the whole length of the edge of the board. Then plane these edges until they are square again.

This will make a watertight joint without the use of white lead or other substance. Pounding the groove into the edges of the boards compresses the fiber and when the wood gets damp the center portion of the edges of the boards, where the fiber has been compressed, will swell more than the outer portion which was not compressed. I find this makes a very satisfactory job on temporary tanks where it would not pay to have them lined.



Planks Treated as Described Here Can Be Used Without Lining to Build Water-Tight Tanks for Temporary Use.

B. W. COATES, 21 Cross St., Malden, Mass.

INSTRUCTIONS in ROOF FRAMING



The Uneven-Pitched Roof

By JOHN T. NEUFELD

IN the last lesson we learned how to find the length of the valley rafter for the uneven pitched roof shown in figure 1. The next step would be to find the numbers to be used on the square to obtain the plumb and seat cuts and the side cut.

The Plumb and Seat Cuts

The run, the rise and the length of a rafter always form a right triangle. The run and the rise are the two sides of this triangle, and the run and the rise also give the cut. Thus we have learned that if we take the total rise on one arm of the square and the total run on the other then these figures will give the angle for the top and bottom cut.

We must first find the run of the valley rafter "E". This is done by taking the square root of 7 squared plus 9 squared which is approximately 11.4. This run may be also found by drawing a rectangle as shown in figure 2 to any convenient scale and measuring the distance from corner to corner. In figure 3 we show a triangle made up of the run and rise of this rafter. The run is 11.4 feet, the rise is 5 feet 3 inches, or $5\frac{1}{4}$ feet. The numbers $11\frac{1}{2}$ and $5\frac{1}{4}$ taken on the square will give the top and bottom cuts as shown in figure 3.

The Side Cut

Figure 4 shows a portion of the plan of the roof. Here a large imaginary square is placed with the body or blade along the valley rafter. If the roof was flat this square would describe the angle of the side cut. If the roof takes on a pitch the length of the rafter changes and the position of the blade of the square changes; the tongue of the square remains in the same position. This is illustrated by figure 6. The numbers on the square as indicated by figure 6 will describe the side cut. The number to be used on the blade is the length of the valley rafter which in this case is 12 feet $6\frac{5}{8}$ inches, or say $12\frac{1}{2}$ (close enough for obtaining the side cut).

The number to be taken on the tongue of the square may be found by drawing a rectangle as shown in figure 5, using 7 inches for 7 feet and 9 inches for 9 feet; then taking a square and scaling the distance as shown. In this case the number scales $8\frac{3}{4}$ inches and we use this as the number on the tongue for the side cut.

Place the square along the back of the rafter and mark as shown in the upper part of figure 3.

Length of Valley Jacks

For finding the length of the valley jacks "M", "N", "O" and "P" let us study Fig. 7. Rafter "C" was found to be 8 feet 9 inches (see last lesson). Rafter "P" would be $\frac{7}{9}$ as long, rafter "O" would be $\frac{5}{9}$ as long, rafter "N"

$\frac{3}{9}$ as long and rafter "M" $\frac{1}{9}$ as long, therefore:

Rafter "M" is $\frac{1}{9}$ of 8 feet 9 inches or $\frac{1}{9}$ of 105 inches equal $11\frac{2}{3}$ inches.

Rafter "N" is $\frac{3}{9}$ of 105 inches equal 35 inches.

Rafter "O" is $\frac{5}{9}$ of 105 inches equal $58\frac{1}{3}$ inches.

Rafter "P" is $\frac{7}{9}$ of 105 inches equal $81\frac{2}{3}$ inches.

Cuts of the Valley Jacks

The plumb and seat cuts are the same as for the common rafter "C". As this rafter has a 9-inch rise per foot, the numbers to be taken on the square are 9 and 12.

The position of the square in figure 7 shows how the side cut is obtained. In this case 9 inches on the tongue and the length of the common rafter $8\frac{3}{4}$ on the blade will give the side cut of the valley jacks on this side of the roof. The square is applied to the back of the jack as shown in figure 8.

Length of Rafters "R", "S", "T" and "U".

Rafter "A" has a run of 12 feet; the rise is 7 inches per foot; the length per foot run is 13.89 inches (see any roof framing tables).

Length of Rafter "A" is $13.89 \times 12 = 166.68$ or 13 feet 10 inches $11/16$. Rafter "R" has a 3-foot run.

Length of Rafter "R" is $13.89 \times 3 = 41.67$ inches or 3 feet 5 inches $11/16$. The difference between the length of rafter "A" and "R" is $166.68 - 41.67 = 125.01$ inches, say 125 inches. This we divide into $3\frac{1}{2}$ parts. $125 \div 3\frac{1}{2} = 35.7$ inches. Rafter "U" is one of these parts shorter than Rafter "A".

Length of Rafter "U" is $166.68 - 35.7 = 130.98$ inches.

Length of Rafter "T" is $130.98 - 35.7 = 95.28$ inches.

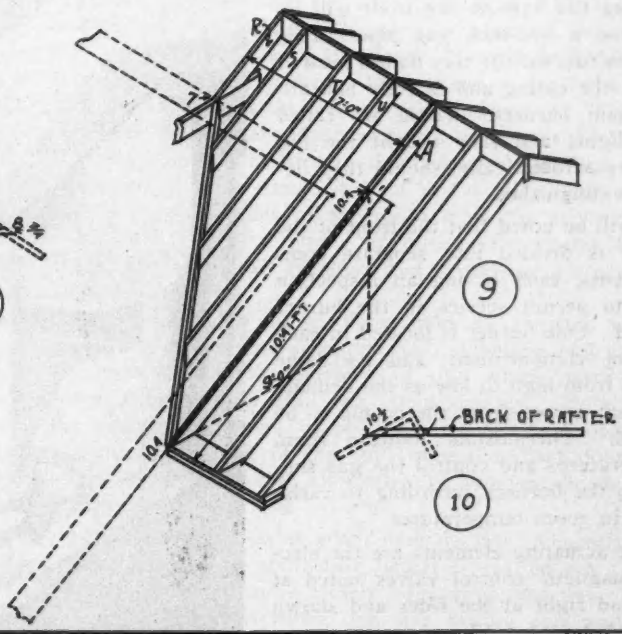
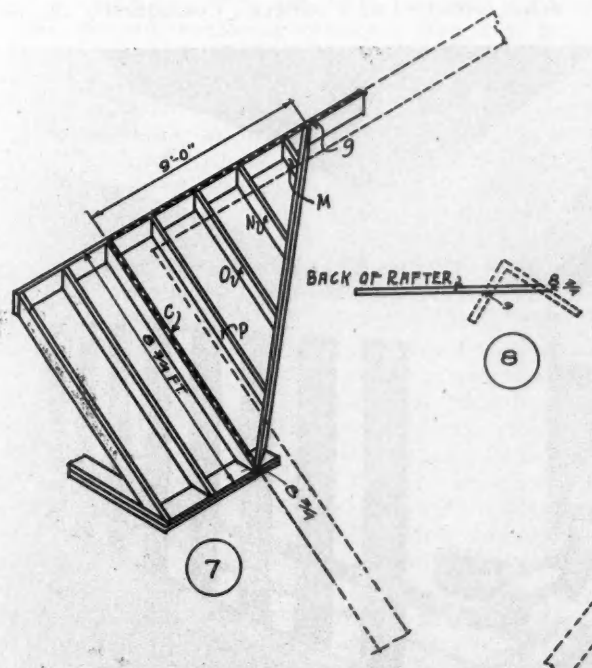
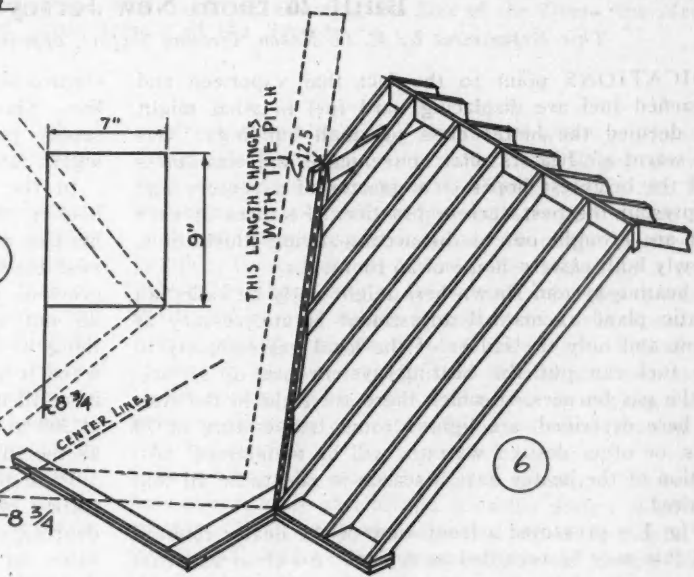
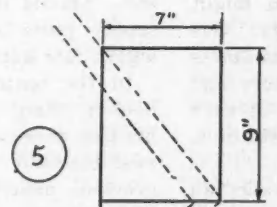
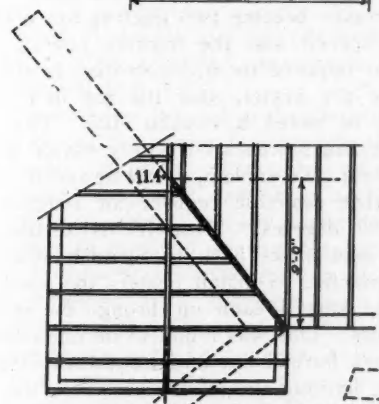
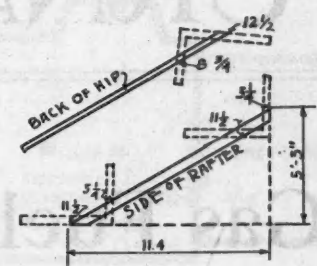
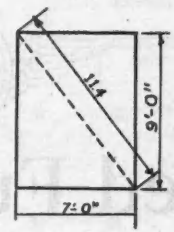
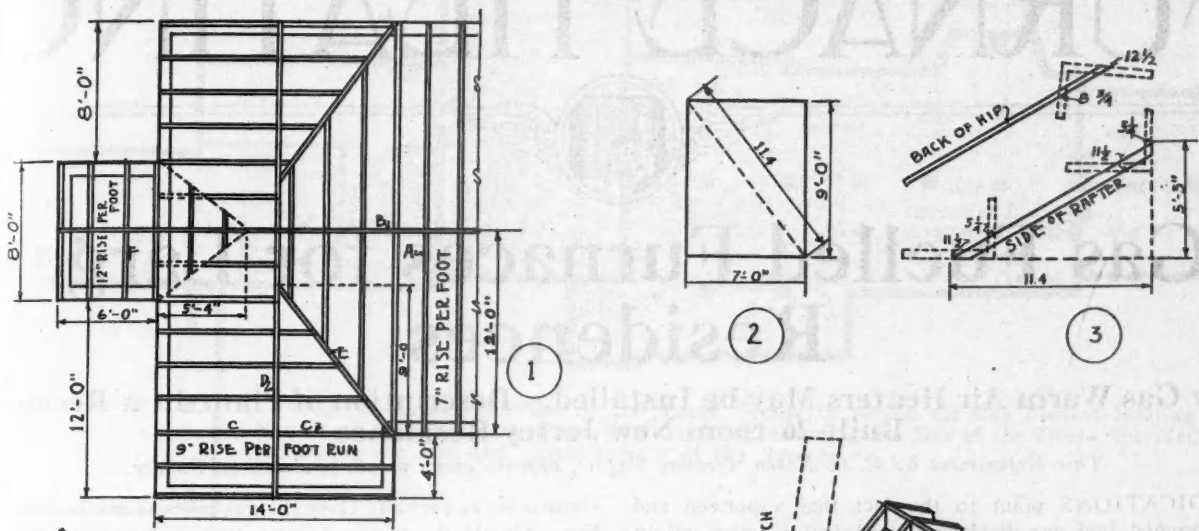
Length of Rafter "S" is $95.28 - 35.7 = 59.58$ inches.

The side cut for these rafters is obtained by using the numbers $10\frac{1}{2}$ and 7 on the square. This is illustrated by figures 9 and 10.

Problems

1. What is the difference between the run of rafter "A" and rafter "R"?
2. What is the difference between the run of rafter "A" and rafter "U"?
3. If we have the difference in the run of the two rafters how may we find the difference in the length of these two rafters (not using the same method as explained above)?
4. Assume that rafter "C" in figure 7 is $9\frac{1}{2}$ feet long and the other dimensions are the same, what effect would this have on the side cut for rafter "N"?
5. What numbers on the square will give the top cut for a valley jack having a 6-inch rise per foot run?

(Continued to page 126)



Further Data on the Solving of a Problem of Framing a Roof of Uneven Pitch.

FURNACE HEATING



Gas Fuelled Furnaces for Large Residences

How Gas Warm Air Heaters May be Installed. Description of Plant in a Recently Built 26-room New Jersey Residence

This Department by R. C. Nason, Heating Expert, appears every month in American Builder.

INDICATIONS point to the fact that vaporized and liquefied fuel are displacing hard fuel in what might be deemed the better class of small buildings. Gas fuelled warm air heaters offer convenience and cleanliness beyond the brightest hopes of a quarter of a century ago and represent the best current practice. Features of such a plant are brought out in the accompanying illustrations of a newly built eastern home of 26 rooms.

The heating system shown here might aptly be called an automatic plant as manual adjustment is unnecessary at any time and only the failure of the local gas company to supply fuel can put the heating system out of service. Once the gas burners, of which there are eight in the residence here described, are lighted room temperature of 70 degrees, or other desired warmth, will be maintained. An inspection of the heater once a season is said to be all that is required.

In Fig. 1 is presented a front view of the heater referred to and this may be regarded as typical. So clean and trim it appears one might almost fancy it a musical instrument, a refrigerator or some similar piece of equipment. Aside from the faint hum of the gas burners and the swish of the air current within the casing, as it is converted from cool to warm air, the heater is noiseless.

Along the base at the front will be observed a one-inch gas pipe. This supplies fuel for the tiny flames located within the casing and directly beneath the main burners. These are called pilot lights and they relight the big burners automatically, should they become extinguished.

It will be noted that the front of the heater is divided into separate compartments, each having an inspection door to permit service to the burner behind. One burner is located in each cell, or compartment, and its flame varies from high to low as the demand for heat comes from the rooms to be heated. Thermostats indicate room temperatures and control the gas supply to the burners according to variations in room temperatures.

The actuating elements are the electric magnetic control valves noted at left and right at the sides and shown as dark boxes. When room temperatures become two degrees above 70 degrees, or other predetermined temperature, magnetic devices within the

control boxes partially close the gas ports in the fuel supply line. Should the rooms become two degrees too cold the supply ports are opened and the burners operate at a higher rate until the required room temperature is attained.

In the centre of the heater, near the top and in the bonnet, there will be noted a circular dial. This is a limiting thermostat and represents a safety device to prevent excessive heating. To explain, it will be recalled from previous articles that desirable register air temperatures do not exceed 190 degrees. "Hot-air" is distinctly a thing of the past and harks back to Spanish War days when it was the practice to install heaters too small and force them until the warmth came up through the registers at 200 to 220 degrees. This was found to be uneconomical as the furnaces soon burned out and woodwork dried up.

With the bonnet limiting thermostat shown in the illustration, should the air in the bonnet exceed 190 or 180 degrees, or other desired temperature, the thermostat establishes an electric circuit in the control box and results in diminishing the gas supply, thereby lowering the heat and reducing the air temperatures until normal has been reached. The heater shown in Fig. 1 was installed in two four-cell units, connected as a battery. Consequently the electrical

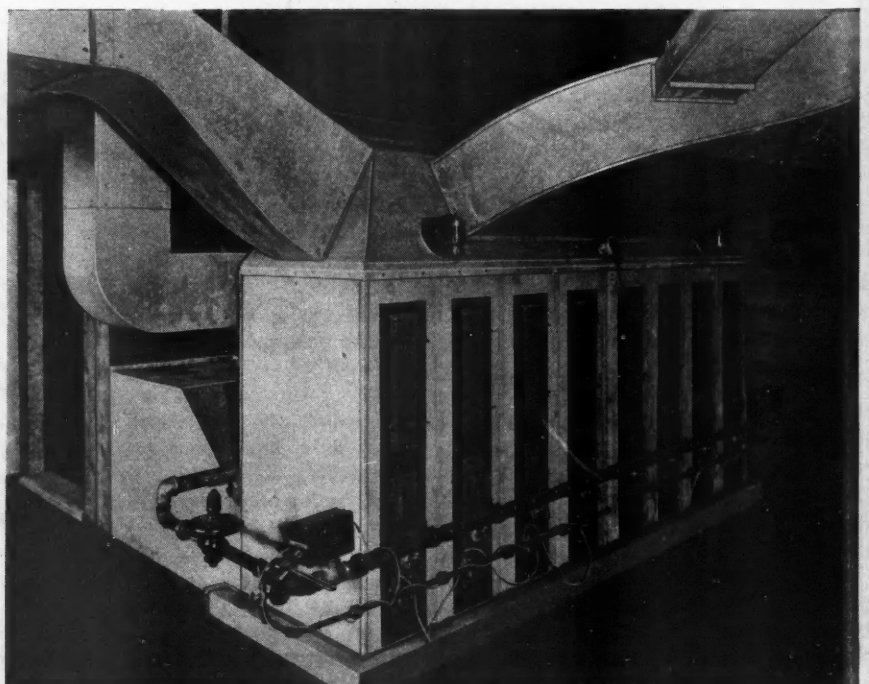


Fig. 1—Front View of a Gas Fuelled, Warm Air Furnace Installed in a Large, New House, Showing How Clean This Type of Heating System Can Be.

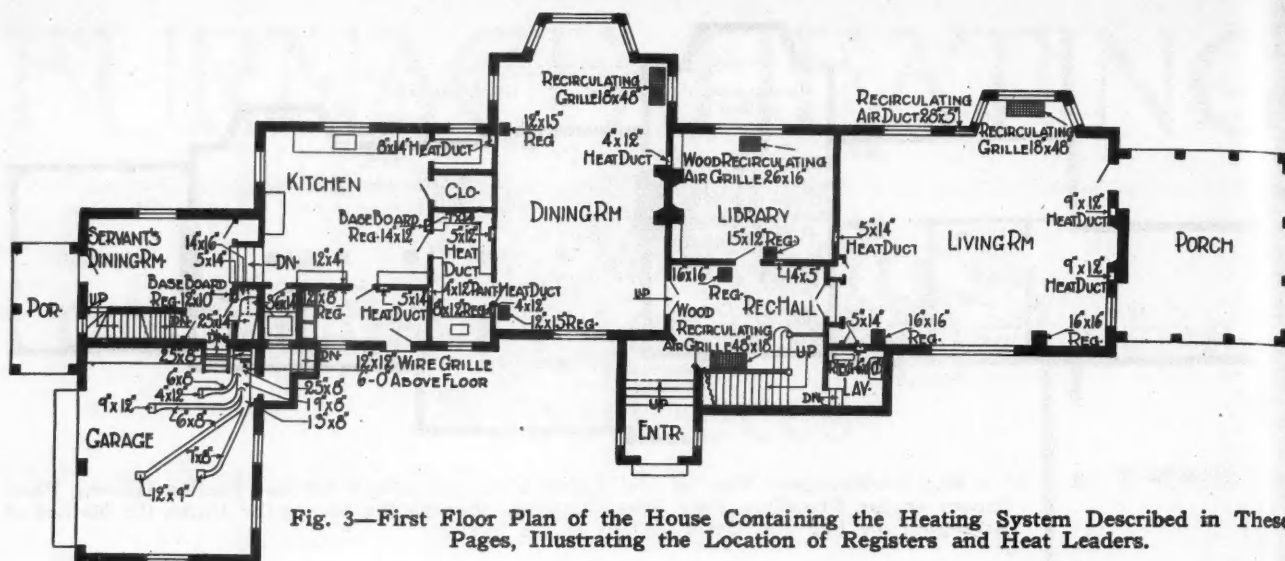


Fig. 3—First Floor Plan of the House Containing the Heating System Described in These Pages, Illustrating the Location of Registers and Heat Leaders.

warmth leaves the registers and crosses a room to the cold air grille, where it goes back to the furnace, it passes through cooler air. In passing, nature equalizes the warmer and cooler currents in so far as is possible. The air in the room becomes warm and the warm air stream cooler in the same proportion. This is the principle behind furnace heating.

Take the living room shown in Fig. 3, for example. It is noted there are two warm air registers on one side of the room and a cold air grille on the opposite side. An air current thus is established and a large area of the room blanketed with the warmth imparted. The corners warm by contact with the heat within the air stream.

An important point in gas heating is proper venting, or discharge of the waste gases coming from combustion. How this has been done in the residence shown may be seen in Fig. 2. The eight burners are connected at the top of what might be called the burner chamber to a single 12 inch diameter, 22 gauge, galvanized steel, vent pipe, insulated with air cell asbestos. The branches from each group of two burners join the trunk vent at an angle of 45 degrees in the direction of flow and this, in turn, connects to an 8 by 12 inch chimney flue. All joints are riveted and soldered and small auxiliary air ports, or circular hoods, permit entrance of air directly above the burner chambers, assist in elimination of the flue gas as well as preventing back drafts which might extinguish the flames.

It is essential, in installing gas fuelled warm air furnaces, that all piping be rigid and joints tight, even more so than in a coal burning plant. Asbestos rope frequently is caulked into the front between the casing and the door castings. If furnace cement is used this must be allowed to dry for several hours before the fire is lighted, otherwise steam formed from the damp cement may open up crevices and result in a leaky system. Another point is proper connection of the gas line to a dry well, or condensation drain, to permit drainage of the moisture always present in vapor fuel. Often this can be handled by draining directly to the soil, but it is inadvisable to try to connect it to the sewer pipe due to inability to secure the proper pitch to connect above the trap. Dry wells are made about 12 inches in diameter and three to four feet deep. Coarse gravel fills the bottom.

That a warm air furnace and gas fuel were selected for the residence here shown augurs well for this type of system. Such a plant offers the maximum of good appearance, is efficient, noiseless, clean, convenient and trouble free. One uses his fuel as he needs it and pays for it in the same manner. It will give far less trouble than the average motor car and not more than the average timepiece.

Moreover, it is practically 100 per cent automatic in operation. One may safely assume that such a plant approaches the ideal as closely as man knows today.

The Uneven-Pitched Roof

(Continued from page 122)

Answers

1. The difference between the run of rafter "A" and rafter "R" is 9 feet.
2. To find the difference between the run of rafter "A" and "U" we first note that there are $3\frac{1}{2}$ spaces between rafter "A" and "R" and that to get the difference between the run of the jack rafters we must divide the total difference of 9 feet by $3\frac{1}{2}$ which gives 2.571 feet as the difference in the run of each succeeding jack. This is the difference between the run of rafter "A" and "U."
3. The difference in the run of rafter "A" and rafter "U" is 2.571 feet. The length per foot run is 13.89 inches. The difference in the length of these rafters is $13.89 \times 2.571 = 35.7$ inches.
4. The side cut for rafter "N" would then be 9 and $9\frac{1}{2}$.
5. The top cut for this rafter would be 12 and 6.

Law for the Builder

(Continued from page 115)

sen and not an independent contractor at the time of his injury is sustained by the evidence. * * *

In conclusion the District Court affirmed the award of \$2,666.24, with an allowance for medical expenses, made against Jensen by the Industrial Accident Commission. Holding, as outlined above, that in the light of the facts Scott was not either an independent contractor nor the employee of Dr. Tooker, the owner, but an employee of Jensen, the contractor, and that the latter was liable.

By virtue of the facts involved and the large award given the injured workman in the foregoing case it becomes one of considerable interest to contractors in general. Without doubt the contractor thought either that Scott, by the nature of the cost plus contract, was an employee of the owner, or that because of the way he was employed he was an independent contractor, but in this, as we have seen, he was mistaken. Certainly, had the contractor felt that Scott was his employee, under the California law, the risk would have been covered before the work was undertaken, for the premium required to obtain the necessary protection would, of course, have been nominal in comparison to the award the contractor was called upon to assume.

LESLIE CHILDS.

WHAT'S NEW ?

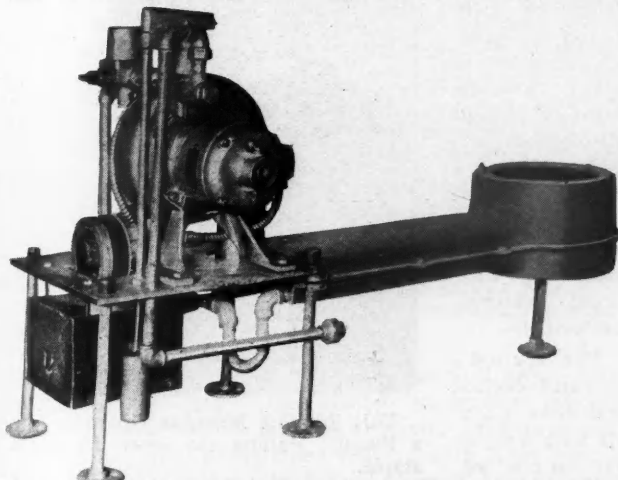


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An Oil Burner for Builders

HERE is a 100 per cent automatic oil burner which is priced very low. It is easily installed in any type of heating plant. When installed in a hot air furnace it is so quiet in its operation that it can hardly be heard, and it has also proven very economical to operate. Because of the simplicity of its construction, this burner is in reality a 100 per cent automatic oil burner, requiring no gas pilot light or electricity for ignition and very little, if any, attention other than to have the oil tank refilled.

The oil is fed from the storage tank direct into a combination strainer, float, safety and meter valve by gravity, then on through a high-low magnetic valve where needle



Exceedingly Quiet and Completely Automatic in Operation Are the Outstanding Features of This Oil Burner.

points control the high and low flow of oil through a $\frac{1}{4}$ -inch pipe direct to a mixing chamber. This mixing chamber and combustion bowl basket is perforated with hundreds of holes and sits in the combustion chamber. The air forced through these hundreds of holes by the blower mixes with the vapor gases forming a perfect combustion. The flame from the combustion bowl is so controlled that it does not touch any part of the castings or fire-box of the heating plant, thereby eliminating any possibility of burnt out boilers or furnaces.

The size of the flame depends upon the size of the heating plant and the cubic contents of the building to be heated. The flame is controlled by the flow of oil through the double magnetic valve and the volume of air delivered by the blower.

When the proper flame adjustment has been made so that it burns with a clean stack, the oil valve is then locked with a key and the air intake of the blower is locked with a double lock nut so as to eliminate tampering with the adjustments, because no further adjustments are necessary.

The mixing chamber is made of a metal that will stand 2,700 degrees of heat, and because this chamber is jacketed

with air that is constantly being forced through the hundreds of holes in the chamber, the manufacturer guarantees that no part of the burner will ever burn out if the adjustments are not tampered with. This burner cannot backfire or blow out even if the electricity is turned off. The oil will burn on continually with a low fire due to a natural draft until the electricity is again turned on. When the thermostat calls for more heat, the motor will automatically start without any attention. The mercoid thermostat automatically opens up the high side of the high-low magnetic oil valve causing more oil to flow and the burner will again be on high.

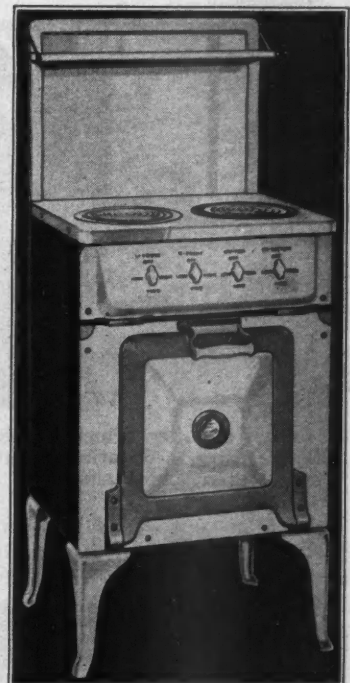
This oil burner has just been perfected by a concern which has been making oil burners for eight years, and because of its low price they are interested in reaching the contractor and builder. ❖

Compact Electric Ranges

A FURTHER development of compact, electric, apartment ranges has been announced by a leading manufacturer. This company is now offering a range especially designed for either built-in or floor installation in modern apartments where space is extremely limited. It combines beauty and durability with high cooking efficiency and is clean, fast and economical.

All the features of design and construction embodied in this company's former models are retained in the new such as thoroughly insulated, heat-retaining oven; interchangeable oven units and removable oven slides which facilitate easy cleaning; long life, quick-heating coils and automatic heat control, and precision oven thermometer.

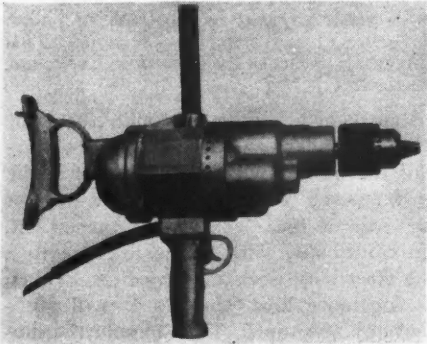
This new range is supplied in two models with a choice of two finishes in combinations of white porcelain enamel and black japan in each model and with a further option of two or three-burner cooking top. One model is especially desirable for built-in installation in wall or kitchen cabinet. It is legless with the oven above the cooking top. The other has the oven below the cooking top and 10 $\frac{1}{2}$ -inch legs, providing a neat, compact floor installation.



This Compact Electric Range Has Been Especially Designed for Small Apartments.

Heavy Duty Electric Drill

THIS new, $\frac{3}{4}$ -inch, heavy duty, portable, electric drill, which has recently been placed on the market by a well known manufacturer of electric tools, has been designed to meet the constantly growing need for a powerful drill of $\frac{3}{4}$ -inch capacity to take straight shank drill bits, it is stated. This drill is equipped with an exceptionally powerful, universal motor, operating on direct or alternating current, and the armature and spindle thrust are mounted



Here Is a New Electric Drill, Designed to Meet the Demand for a $\frac{3}{4}$ -Inch Heavy Duty Tool.

workers and maintenance crews will find it particularly adapted to their severe work.

on ball bearings.

The three-jawed, geared chuck uses straight shank bits and the drill will readily drill holes up to $\frac{3}{4}$ -inch diameter in the toughest steel. Such a tool is adapted to mass production work where constant service is essential. Manufacturers of heavy machinery, steel

Three Units Combined in One

THE manufacturers of the boiler shown in the illustration report that their production on this boiler will run about 25 per cent greater for the first six months of this year than that of last year. Also that heating contractors who have bought and installed this boiler for the last three years are very enthusiastic about the results obtained and are placing numerous repeat orders. This is in large part attributed to the 3-in-1 feature of this boiler.



Here Is a Boiler Which Combines, in a Single Unit, a Heating Plant, Hot-Water Heater and Incinerator.

This boiler is designed to burn either coal or oil and is particularly favored by many in the oil-burner trade. It has a scientifically constructed combustion chamber and long, baffled smoke passages surrounded by liberal heat absorbing surfaces, which make it very economical for oil burning.

The hot-water coil is submerged in the water in the dome of the boiler and forms a simple and efficient source for domestic hot water. No storage tanks are required. Only water used is heated, whether it be five gallons or 500 gallons. In winter, when the boiler is operated continuously,

there is a constant supply of hot water without any additional attention.

In summer the main steam and return valves of the boiler are closed and the fire produced by burning garbage, together with a small oil flame or banked coal fire, will readily raise the water in the boiler to about 180 degrees, under which condition the submerged coil will supply hot water at not less than 145 degrees. Very little, if any, more fuel is required than is necessary for an independent water heater, it is stated.

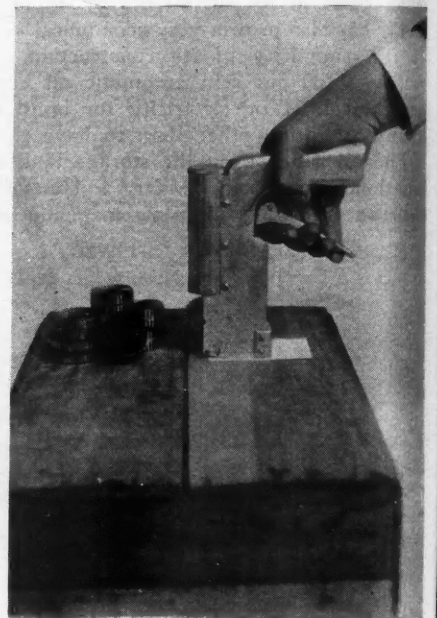
The garbage-burning grates are located above the fuel combustion chamber so that the burning gases and flames created by the combustion of the fuel envelop the whole garbage compartment, first drying the wet garbage.



Efficient Stapling Machines

THE principal feature of the devices illustrated here is one which, it is claimed, is not present in any other stapling machine on the market.

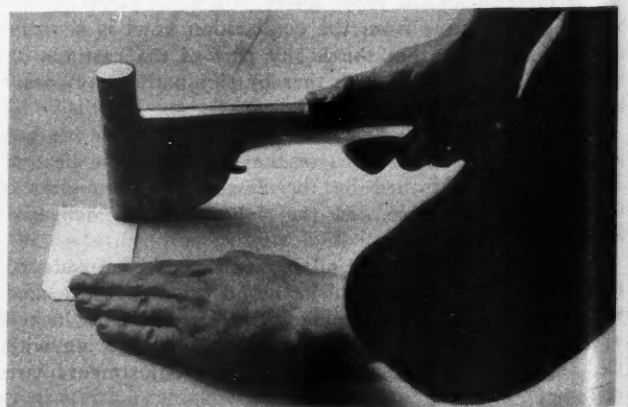
This feature is the cutting, bending and driving of a staple from a prepared strip of metal which is contained in the device. The use of this principle allows these devices a staple capacity of from 1,000 up in one loading of the device. Staples are made of strip steel or rust-proof material, as desired.



This Stapling Machine Operates Like a Pistol. Pulling the lever drives the staple.

The hand-operated devices will drive a staple with a $\frac{3}{16}$ to $\frac{5}{16}$ -inch leg, either in hard or soft wood.

The power devices, air or electrically operated, will drive from $\frac{3}{4}$ -inch up. All working parts are made from high grade hardened tool steel and are fully guaranteed. These devices should prove of special interest to building contractors, roofers, screen makers and weather-strip makers.



This Style of Stapling Machine Is Used Just Like a Hammer. One blow drives the staple.

A Fireplace in Any Room

A GOOD idea for a fireplace installation, where no flue was available, was recently worked out and is illustrated in the accompanying photograph. As will be seen, the mantel was set into the corner of a bedroom with a mirror above it extending to the ceiling. This mirror formed a perfect shield for a vent pipe running up in the corner angle. Fortunately, with this type of fireplace only a small vent pipe is required, so that such an installation can be made in practically any room.

This fireplace is not only attractive in appearance, adding



A Good Corner Installation of Radiant-Fire Mantel. The mirror covers the flue and the regular wood mantel shelf was easily mitered to fit by the carpenter who handled this job.

to the furnishing of the room, but practical as a heating unit and low in cost. These mantels are made of the finest selected woods and are shipped complete, ready for installation. They may be obtained finished with three coats of flat white, in mahogany, in unfinished birch or in unfinished quartered oak.

The panel is of rustless steel with an armor bright finish and without any electric-plated finish or lacquer. They will, therefore, not scratch, stain or tarnish. The heating unit itself is a radiant-fire gas grate, which is simply installed and efficient in operation.

The price of these units is comparatively low. It has been estimated that three of these units could be installed for about the cost of a single masonry fireplace of the usual type.



Radiator Furniture in Demand

BECAUSE of its well-known appeal for the housewife, radiator furniture has been fairly generally used as original equipment in homes. More recently its use is being extended to buildings of other types. Specifications for hotels, hospitals and office buildings are now including this equipment. In buildings designed to sell or rent, radiator furniture gives a very attractive finished appearance at a relatively low cost.

This furniture was first designed, about 11 years ago, for the sole purpose of concealing the radiator. It was a natural development of the revived interest in more tasteful decoration that followed the mohair sofa and the "whatnot" period.

But it was soon found that when radiators were effectively enclosed, the dirt deposits on walls and draperies, known as "radiator smudge," were eliminated. This secondary appeal is now outstripping the primary one. In fact, a recent analysis of the growth of this industry places the feature of "concealing the radiator" as second in importance.

It is interesting to note the various appeals of radiator furniture and their relative value in the minds of consumers.

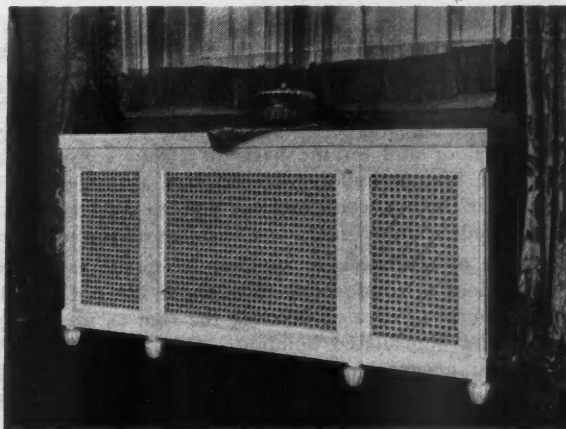
Protection against radiator smudge heads the list, obviously, for economic reasons. Draperies lose their original freshness and much of their value when they have to be cleaned. Walls discolored by "radiator smudge" have to be redecorated more often. The fact that the saving in cleaning bills and in redecorating repays the initial cost of the radiator furniture in a few heating seasons makes a very powerful argument.

People also are becoming better educated to the value of the proper moisture in the atmosphere. "Humidity crusades" have been led by many leading physicians, among them Dr. Herman N. Bundesen, former health commissioner of Chicago. This furniture, with its concealed humidifying pan, affords desirable protection against cough, cold and influenza germs.

As it is well known that rugs and furniture are made in plants where the proper moisture is very carefully guarded, it is reasonable to believe that furnishings will last longer in properly humidified rooms. The danger of cracking or peeling is eliminated and there is no tendency for furniture to swell or become loosened due to atmospheric changes.

The accompany illustration shows one of the new designs in this furniture. Reproductions of marble and wood finishes are made by "old country"

craftsmen with remarkable fidelity. Many of them are practically indistinguishable from the original wood. Manufacturers report an increasing demand for higher grade models and this new model is of the high grade type. It has a new style of feet adjustable to one inch to compensate for unevenness of floors. There is a new design moulding around the grille paneling and fluted legs. New water pan supports are bolted to the radiator which insures against spilling when the radiator is bumped.



One of the New Designs in a Line of Radiator Furniture Obtainable in Marble and Wood Finishes, and Providing for Humidifying the Air.

What Insulation Actually Does

THE actual value of building insulation with a standard type of cork board has been very clearly brought out through a survey of building insulation and heating made by the A. C. Nielson Company, a disinterested organization specializing in such investigations. In this case cork board was used to insulate the roof and eighth floor walls of a new eight story furniture exhibit building. This building is used for the exhibit and sale of furniture, some tenants using their space all year and others only at the regular market periods totaling about five months. These



The Accompanying Story Tells in Detail the Results Accomplished by This Application of Corkboard Insulation to a Building.

periods come in summer and again in winter and so present the two extremes of temperature and insulation requirements.

From experience gained through the operation of a building of similar construction, but uninsulated, and used for the same purpose, it was decided to adopt insulation for the walls and roof of the upper story of the new building. During the summer months the top floor of the old building often became extremely uncomfortable and during the winter months all the radiation installed was required to keep the top floor at a temperature of 70 degrees.

The roof of the new building was built up of 4 by 12 joists, metal lath and plaster below and 1 $\frac{5}{8}$ inch matched yellow pine sheathing, two inch cork board and five ply tar and gravel roofing above. The side wall construction consists of 2 by 4 inch studs with $\frac{1}{2}$ inch wall board, metal lath and one inch of cement plaster outside and 1 $\frac{1}{2}$ inch cork board nailed to the studs with $\frac{5}{8}$ inch of plaster on the inside. Over 4,000 square feet of wall was so constructed.

The heating contract was let and the radiation installed before the insulation was provided for and the top floor radiation represents the requirement without insulation. Since the building was opened no steam has been used on the top floor and on the basis of steam consumption for the rest of the building, there was a direct saving of \$511.35 in steam consumption due to the fact that insulation made it unnecessary to use steam on the top floor.

The value of insulation in summer is equally important as the top floor is comfortable throughout the hot months without recourse to fans or flooding the roof as was necessary with the uninsulated building. Insulation, therefore, made all-year occupancy possible. Though this cannot be evaluated, it is an important factor.

The total cost of insulating was \$2,575.32 and to this must be credited the alternate cost of metal lath which would have been required without cork board as a base for plaster, leaving a net of \$2,348.61. Amortising this over a

20 year life and charging interest at six per cent, the annual cost of insulation is \$191.41. No repairs are figured as the cork board is amply protected and should show no deterioration.

Therefore the net saving due to the use of insulation, without considering the established but indeterminate increased revenue due to all-year occupancy, made possible by the exclusion of heat in summer, amounts to \$319.94.

Less radiation could have been installed had the insulation been adopted before letting the heating contract. From the experience of the first year it would have been feasible to omit all radiation on the top floor with an additional saving in the heating investment of considerably over \$1,500. Had this been done the net cost of insulation would have been reduced over 60 per cent and the annual saving increased proportionately.



Makes Wallpaper Washable

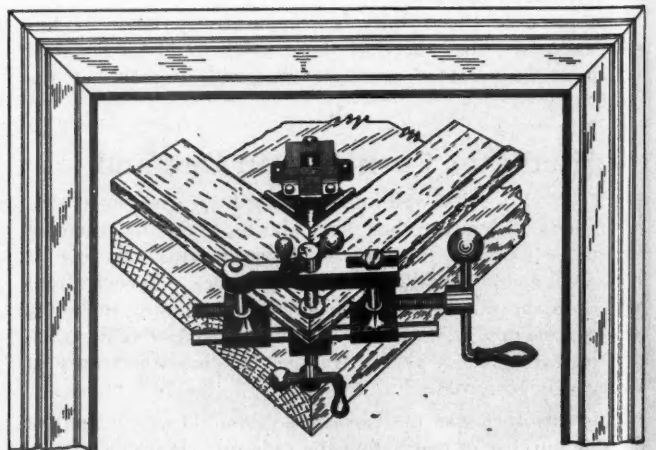
RECENT developments in the paint industry have brought about remarkable changes in automobile painting and equally great changes in other types of painting as well, so that today lacquers are being used for a wide variety of purposes. One of the most interesting and valuable of these developments is a wallpaper lacquer which, when applied, makes no change in the appearance of the paper, either as to color or figure, and makes it possible to wash the paper with soap and water, indefinitely, without injury. It is a free brushing, water-white, pyroxylin lacquer and can also be used on canvas. When used for either paper or canvas two coats are recommended.

The manufacturers of this lacquer also produce five other types of lacquer. These are: Floor lacquer, interior trim and woodwork lacquer and lacquer enamels, plaster and wall lacquer enamels, enamels for exterior metal, radiator enamel and bronzing medias.



New Miter Vise for Casings

EXPENSIVE equipment is not necessary in order to make mitered casings. A new miter-vise that is greatly appreciated by woodworking mechanics has recently been developed by a well known manufacturer. One of the particular purposes of the miter-vise is for holding mitered casing corners while clamp nails are being driven. This is said to solve the mitered casing problem completely. The mitered pieces are saw-kerfed with a thin saw, the pieces are placed in the vise and a clamp nail is driven into the saw-kerfs. The joint is complete and cannot let go as long as the wood lasts.



With This Inexpensive Equipment Mitered Casings Can Be Made Rapidly and Easily, and the Joints Will Not Let Go.



\$68⁵⁰ Electric Floor Polisher FREE

Particularly now, with the vogue of waxed floors increasing daily, this Johnson's De Luxe Electric Floor Polisher is important to your business.

Not only does it give you the talking point of modish floors that helps sell homes and secure contracts. It keeps the floor-finish satin-like and unmarred during the trying time when every prospect who enters the door tracks in

plaster and cement and dirt. For Johnson's Wax forms a protective film that wards off wear and grime.

Wouldn't you like to own this bigger contractors-size Johnson's Polisher (it sells for \$68.50) without paying a penny for it? Mail the coupon with your card or letterhead for our special FREE contractor's offer.

S. C. JOHNSON & SON

The Interior Finishing Authorities

RACINE, WISCONSIN

VARNISHES :: ENAMELS :: WALL FINISHES
WOOD DYES :: FILLERS :: WAXES

S. C. JOHNSON & SON,
Dept. A. B. 8, Racine, Wis.

Yes, send me details of your FREE offer on the Johnson De Luxe Electric Floor Polisher. Also wholesale Price List on Johnson Interior Finishes.

My name and address are correctly given on the attached card or letterhead.

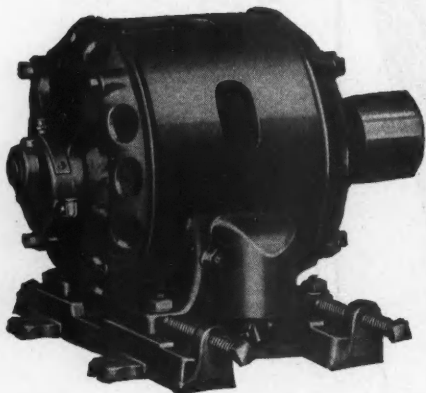
Signed

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Continuous Service Motor

THE illustration shows a new, direct current motor which has been brought out by a leading manufacturer of electric motors. It has been designed and built to give the user the same continuous satisfactory service that has been secured from this company's repulsion-start induction single-phase motors for many years. It is built to keep running without annoyance or expense of frequent servicing.

The field is a two-pole, laminated steel structure. The compound-wound field coils are wound on forms, well insulated and taped. The armature slots are well insulated with alternate layer of fish paper and varnished cambric. Hardwood wedges are used to retain the coils. Both field and armature coils are wound with cotton-enamel wire and thoroughly treated with insulating paints to withstand the dampness frequently surrounding installations in basements and humid climates. The bearings are of cast phosphor bronze. Machine cut, figure eight oil grooves insure continuous distribution of oil over the entire bearing surfaces. This company's wool-yarn system of lubrication assures at least one year's continuous, 24 hours per day operation, without reoiling. In operation these motors are practically noiseless, it is said, all armatures being given both a static and dynamic balance to eliminate vibration.



A New, Direct Current Motor Designed to Afford Continuous Service That Is Quiet and Efficient.

lating paints to withstand the dampness frequently surrounding installations in basements and humid climates.

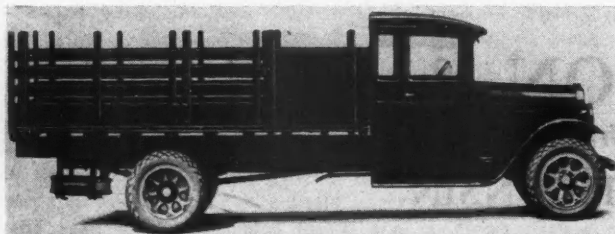
The bearings are of cast phosphor bronze. Machine cut, figure eight oil grooves insure continuous distribution of oil over the entire bearing surfaces. This company's wool-yarn system of lubrication assures at least one year's continuous, 24 hours per day operation, without reoiling.

In operation these motors are practically noiseless, it is said, all armatures being given both a static and dynamic balance to eliminate vibration.



A New Six Cylinder Truck Line

ONE of a new line of six cylinder trucks, manufactured by a company long known for the quality of its four cylinder units, is shown in the illustration. Among the features of this new 1¾ ton truck which make it particularly suitable for hauling building materials are the increased power and flexibility and the greater operating ease and safety provided by the new six cylinder power plant, 11-inch, single plate clutch, four speed, heavy duty truck



A New 1¾-Ton Truck Which Is Particularly Adapted to Hauling Building Materials.

transmission and Lockheed, hydraulic, internal expanding brakes, operating in 16-inch drums on all four wheels.

A temperature indicator is provided in the instrument panel and a thermostat automatically controls the temperature of the cooling water. There is also an automatic windshield wiper.

This chassis is available in two wheelbases, 150-inch for bodies with 10-foot loading space and 165-inch for bodies with a 12-foot loading space. The cab is redesigned to afford greater comfort and better vision with cushioned

seats of the sedan type and corner posts of steel to provide strength and slenderness.



Three Heat Electric Glue Pot

THIS three heat electric glue pot has been developed by electrical engineers who have had many years of experience in the study of glue heating in co-operation with glue experts. It is manufactured by a company well known for the quality of the heaters which it makes for heating wax, cement, glue, pitch, lead, rosin and babbitt. This assures strength of construction and quality of material giving long trouble free life. The price is low, making it available wherever a glue pot is needed. It is made in four sizes, one quart, two quarts and four quarts.

The outside housing is of blued steel, while the inside pot is of heavy spun seamless copper. A three heat control switch permits low, medium or high heat. The heating unit is of nickel copper resistance wire, thoroughly insulated, wound and baked on the walls and bottom of the inside copper pot and is absolutely rigid. Heavy corrugated asbestos is provided between the inner and outer walls to reduce radiation of heat to the outside air.



Here Is An Electric Glue Pot With Three Heat Control Giving Economy in Intermittent Service.

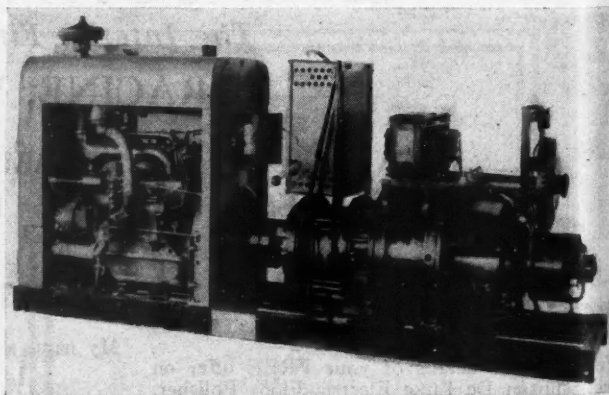
These pots are quick in heating up, adaptable to intermittent service and varying heat requirements, they eliminate all corrosion and glue discoloration through use of the copper inside pot, they have a low operating cost and are simple in construction, they give a uniform heat over the entire surface of the pot, operate from either A. C. or D. C. current.



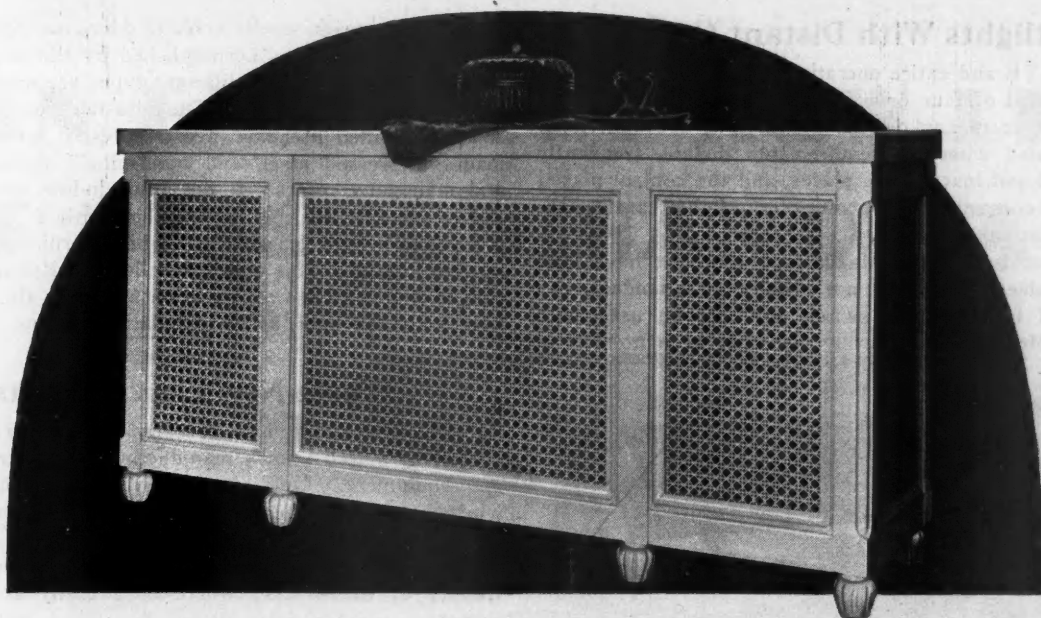
Adaptable Welding Equipment

THE equipment illustrated is a recently introduced device that should be found extremely valuable by almost the entire metal working industry. Due to its design, it can be employed as a motor generator set where electrical energy is readily obtainable or can be successfully operated by the gasoline engine where electric power is not available.

The motor shaft has been extended so as to include a flexible coupling and to this coupling is attached a gasoline engine. When it is desired to operate the equipment as a motor generator set, all that is necessary is to disconnect one-half of the coupling and slide it back on the shaft toward the gasoline engine. This results in the gasoline motor remaining idle. When it is desired to operate the equipment by employing the gasoline motor, it is only necessary to reconnect the coupling.



Welding Equipment, Recently Placed on the Market, Which Can Be Used Either Where Electric Current Is Available or Operated by a Gasoline Engine.



A new Trico design. Beautiful itself, it beautifies rooms and conceals the radiator.

Eliminates radiator smudge and through hidden water pan provides moisture to over-dry rooms.

If Trico Radiator Furniture does not help you sell, we will remove it—

and refund your money in full. Read this extraordinary offer to builders and architects.

Now you can find equipment that will not only beautify your buildings, but will help you sell them.

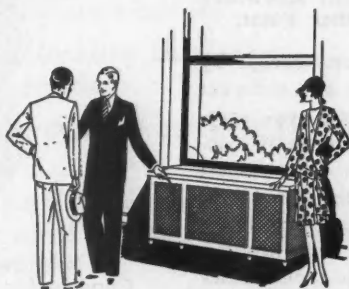
Follow this plan and you reduce your risk in building. You cut out useless expenditures. You install equipment that you know will help you sell.

In your next building install Trico Radiator Furniture under our direction. Buildings which are Trico equipped sell easier. They rent faster. *But you don't have to gamble one penny to find this out.*

For if Trico Radiator Furniture does not help you sell or rent your next building entirely to your satisfaction, we will remove it without charge and refund your money in full.

"Beauty—the greatest selling factor"

This plan is based on a well-known merchandising fact. It comes near to being



the most important fact in selling today. The fact that your prospects, men and women both, would rather have style and a beautiful piece of furniture in their living room than anything else you could build into the house. You cannot have real beauty in rooms where radiators are showing.

When you conceal them with Trico Furniture, you not only create a beautiful finished appearance in rooms. You also give your prospects an extra feature.

You give them protection against radiator smudge. Which means that their draperies will last twice as long. Their walls will stay clean. Their

redecorating bills will be cut in half. You do not have to tell this. They know it.

Guarantee in Writing

Built by the oldest maker in this industry, Trico Radiator Furniture will protect your good name and bring you new prospects.

It will beautify a bare building and make it saleable as nothing else can. To let you prove it without risking one penny, Trico makes the following written guarantee:

In your next building install Trico Radiator Furniture under our direction. It will be made to order specially for your building. But although it is made to order, if it doesn't help you sell, if it doesn't really influence your prospect, if it doesn't convince you that it is a valuable sales help, we will remove it without charge and refund your money in full. Send for particulars on the attached coupon.

Trico, Inc., 1790 North Kolmar Avenue
Chicago, Illinois

Gentlemen:

- Send particulars of your guaranteed money back offer.
- I have jobs in process of building in which I would be interested to install Trico Furniture.
- Send specification book and price list for my files.
- Have factory engineer call on _____
- I am a builder architect.

Name _____

Address _____

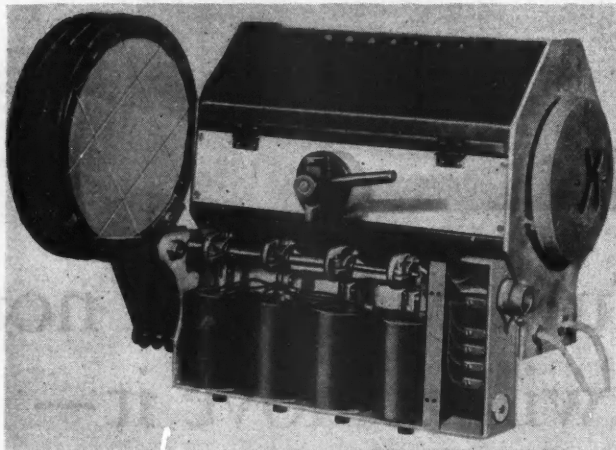
TRICO Inc.

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Spotlights With Distant Control

COMPLETE and entire operation of spotlights, including the control of four or more color frames, can now be accomplished from any desired point. The spotlight itself can be located wherever requirements dictate, frequently in concealed and inaccessible places, and the control placed where most convenient. A group of spotlights can be controlled just as easily as one.

The advantages of the Mazda-type spotlight have long been recognized as it does not require an attendant, can be operated by a distant switch and can be used with dimmers. Heretofore, however, there has been no way of



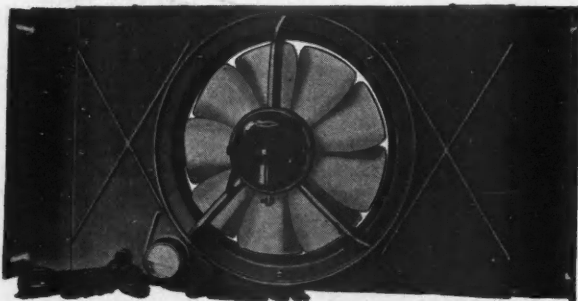
This New Type of Spotlight Can Be Located Anywhere and Completely Controlled from Any Other Point.

changing, at will, the color of the light beam, except by hand removal of the color frame and insertion of a different frame. With the perfection of this new Mazda-type spotlight, wherein the operation of the color frames is controlled electro-magnetically, the entire service with respect to white lighting, color lighting and dimming, can all be controlled from a distant point. In addition to stage lighting the spotlights are adapted to service in ballrooms, dancing academies, cabarets, restaurants, lodge rooms, sales rooms, show windows and flood lighting.



Home Ventilation Fan

THE successful architect, contractor or builder of today realizes the importance of proper ventilation. He knows that it is not a mere luxury but one of those things which, together with gas, electricity, bath and other comforts are being demanded in the truly modern home. Past experience in stuffy or smoke-filled rooms makes one realize how important dependable ventilation really is. No comfort is more greatly enjoyed, especially by the housewife who must be much in the kitchen, than a home absolutely free



One of Several Types of Ventilating Equipment for Homes and Apartments Is Mounted in an Adjustable Panel and Can Be Installed in Five Minutes.

from greasy steam, smelly cooking odors and foul air.

That is just what is accomplished by the unit shown in the illustration. Several different types are made for home and apartment installation. The adjustable panel, as shown, can be installed in about five minutes, it is stated. It is made of pressed steel, and handsomely finished in gray and mahogany colors. It fits any window snugly.

The same ventilating fan installed with a wall box unit, is finished in dull glossy white which harmonizes with any kitchen interior. This unit is excellently adapted to installation in homes under construction and may also be used in homes already built, as its installation is quite simple.

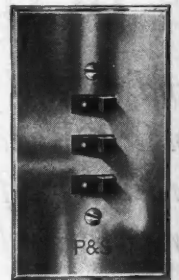


Three New Electric Units

THREE new units have recently been placed on the market by a well known manufacturer of electrical fixtures and equipment. One of these is a porcelain bracket in which is combined permanent beauty, convenience and serviceability. This new compact fixture is fitted with a convenience outlet, inconspicuously placed at the lower extremity of the bracket where it is easily accessible and serves as an extra outlet for fan, floor lamp, vacuum cleaner or other appliance, without the cost of extra wiring. It is also possible to obtain this style bracket without the outlet, in pull chain as well as without switching mechanism. The



A New Switch Plug Shown in Combination with a Porcelain Ceiling Bracket.

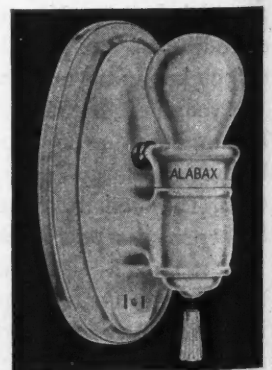


Tumbler Switches for Two and Three Circuit Connections.

finish is similar to that of fine grade china and it will not crack, chip, peel or stain and can easily be cleaned with a damp cloth. It is furnished in various colors, either all-over shades or dainty stripes.

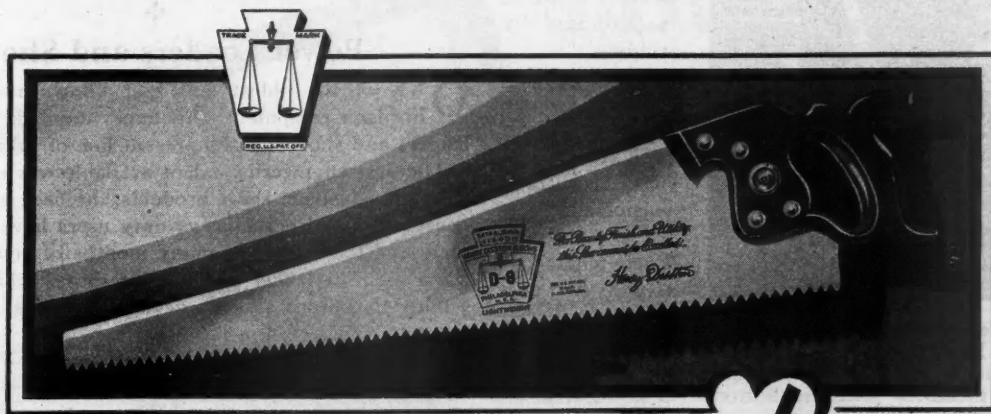
Tumbler switches for two and three circuit connections are another of the new items. These are useful for controlling the upstairs hall light, the downstairs hall and living room lights or wherever the control of two or three lights from one point is desired. They simplify the contractors' problem by simplifying the connections, with only one feed connection.

The third item is a combination switch plug, with five feet of three-conductor, black, cotton covered cord. The illustration shows this switch in combination with a ceiling unit which, if desired, must be bought separately. This combination is useful in kitchens to control the light above and an appliance below and is also handy in offices, beauty parlors and similar places where machines or appliances require a separate control.

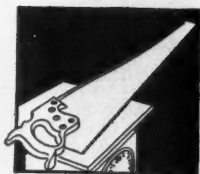


This Porcelain Fixture Is Now Made with a Convenience Outlet as Shown.

AN ENTIRELY NEW LINE OF DISSTON HAND SAWS

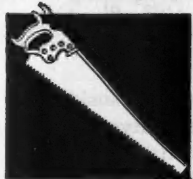


NEW IN EVERY FEATURE ~~~ Beautiful



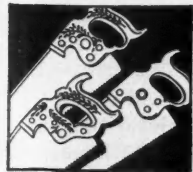
Lighter Blades

Disston skill and experience give you a thinner blade, for easier, faster cutting. Disston true taper grinding removes unnecessary weight, without making saw limber.



Narrower Blades

Save your strength at every stroke. Cut faster, run smoother, "feel" better. Narrower, thinner, lighter, to meet your needs for present-day sawing.



New Handle Designs

Every Disston Hand Saw handle now has a covered top, which adds strength and beauty to the handle, and gives the blade triple anchorage. Handholes are larger, for a more comfortable grip.

BEAUTY such as never was put into hand saws before!

Greater beauty in design, in finish, in workmanship.

Lighter weight. Narrower blades. Thinner backs.

A new high polish on every blade. Handles of improved design, with a new weather-proof finish.

Disston true-taper grinding gives perfect balance. Easier, faster cutting.

Thinner blades, with the proper stiffness, for modern sawing.

Every saw in the new Disston line is a new masterpiece of saw-making; every one reflects the utmost skill of generations of able craftsmen.

Ask your hardware merchant to show you the new Disston saws. Among them you will find a saw to serve you best.



True Taper Grind

Improved to give better clearance, balance, easier cutting. Graduates uniformly from edge to back and from handle to point. Tooth edge is of even thickness from end to end.



Thin, Yet Stiff

The thinner a blade is, if it is stiff, the easier it cuts. Every new Disston Saw is thin, yet stiff, with correct temper to make it keen and true taper to make it run easy.



Weatherproof Handles

All handles have new weatherproof finish, more durable and beautiful, which seals pores, prevents warping. Not affected by two years' test exposure outdoors. Hand-carved designs also improved.

HENRY DISSTON & SONS, Inc.

Philadelphia, U. S. A.

Canadian Factory: Toronto

DISSTON

"THE SAW MOST CARPENTERS USE"

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Welded Trusses Prove Economical

THE utilization of less metal at less expense, to withstand a given load, in the construction of industrial buildings or other buildings in which truss roofs are used, is made possible by the development of a new design of roof truss. The truss was designed by one of the engineers connected with a company prominent in the manufacture of electric



An Arc Welded Roof Truss, 58 Feet Long and 8 Feet Deep. This connection at one end is where the tension and compression members join the bottom chord.

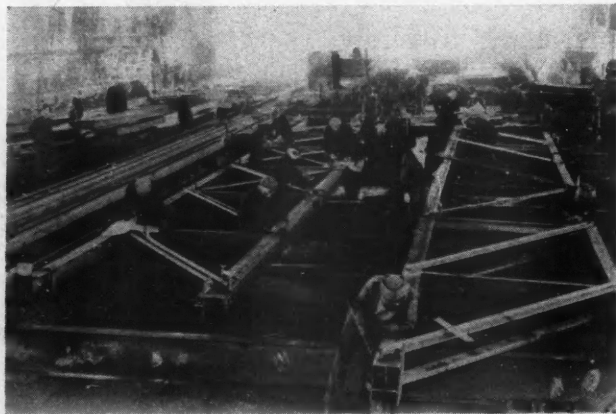
welding equipment. Instead of being riveted, it is fabricated by welding.

Trusses, being the foundation members of a roof structure, must withstand tension and compression strain. Each truss consists of two parallel lengths of metal latticed together by a system of tension and compression members, rivets

heretofore being used to fasten the units together. The use of rivets, however, necessitates punching holes in the truss members and these holes cause a waste of material. This loss, says the designer of the new type of truss, is equivalent to a strip of metal the full length and thickness of the part in which the hole is punched and as wide as the diameter of the rivet.

The common practice has been to construct trusses of angle iron. In the new truss the two parallel members or chords are made of "H" beams, the tension members are of channel iron and the compression members of "H" beams, because these forms are most efficient for these purposes. These forms, however, have not been adaptable to riveting. They are adaptable, however, to welding which is used to make the connections in the new truss. This avoids the waste of metal caused by rivet holes and does not require the use of gusset or connecting plates necessary for riveted joints.

The company by which the designing engineer is employed, has proved by a long series of tests that a definite size of weld, of a given length, made with a specified current and electrode, has as definite and dependable holding value as a rivet. The company contends that skillful arc welders, thoroughly equipped, can make a



Roof Trusses Being Fabricated by Arc Welding. This type of construction for building is lighter and as dependable as riveted work.

cheaper connection than the riveted joint of equal strength.

A comparison of riveted and welded trusses, designed for the same load and stresses, shows that the riveted trusses are about 40 per cent heavier than the welded trusses. Actual quotations from structural companies show that a considerable saving in cost can be made by the use of the welded truss. Tests of trusses made from the new design were made in the plant of a certain large fabricator and satisfactorily withstood loads double those for which they are designed.



Power Loaders and Shovels

ONE of the oldest and best known manufacturers of Fordson equipment, announces the addition of a line of loaders and shovels to its present line of full crawlers.

The best engineering talent available was employed to design and construct these products, the best suggestions from contractors and other heavy-duty users have been incorporated, and the results of many months of concentrated work are a high-lift loader and low-lift shovel which are as thoroughly fool-proof as such devices can possibly be made.



This Crawler Power Shovel Is One of Two New Machines Recently Placed on the Market, the Other Being a High Lift Loader.

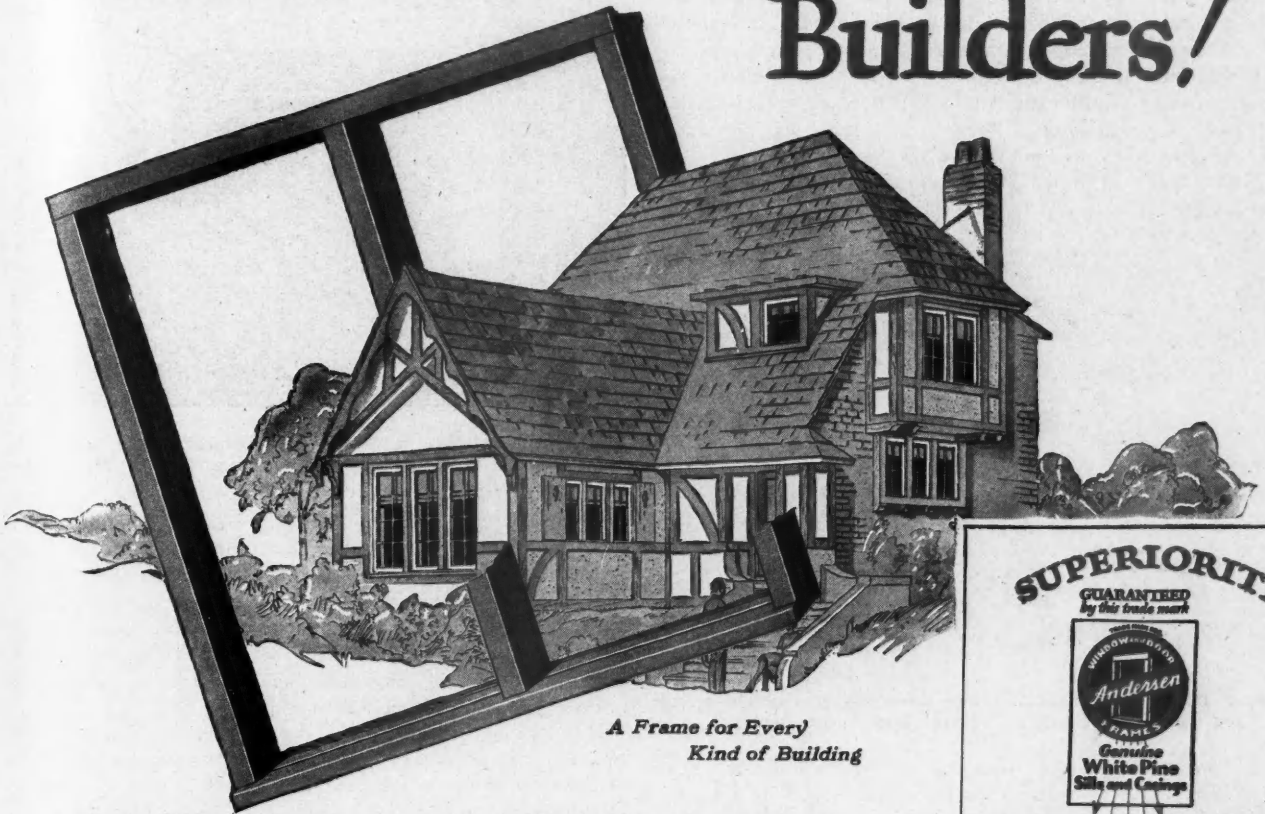
The high quality of materials and workmanship guarantees a maximum of strength and durability. The shovel, with a 3½ foot lift, has an almost unlimited field of activity, it is claimed, replacing from four to 10 men and as many as four teams on excavating jobs, building grades, sub-grading, filling ditches and bridge approaches, digging trenches, etc. However, the shovel is not designed only for digging and excavating, but also is a remarkably efficient backfiller or bulldozer. It may be used for leveling or pushing materials over embankments, and will handle from 80 to 160 yards per day, replacing hand labor entirely.

The high-lift loader, with a 7-foot lift, will load a truck or wagon in a few minutes time. It is the ideal equipment for contractors, quarries, coal yards, industrial plants, waterworks and garbage departments, etc. Both machines are built to stand long hours and days of constant service, and their rugged construction and simplicity of operation and repair assure owners of day-after-day reliability and consistency.

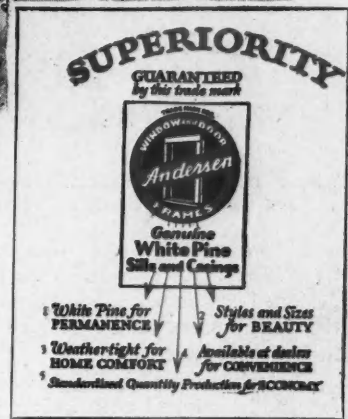
The mechanical operating principle of this loader and shovel has thoroughly proved its satisfaction and efficiency, as is attested by the fact that almost all big shovels, loaders, cranes, etc., are constructed on the same principle.

The buckets are adapted to mounting on either wheel or crawler-equipped Fordsons, but for work in difficult ground conditions such as soft, loose soil, mud or swamp, sand, gravel, snow, clay, etc., the crawlers will greatly increase the efficiency of either the loader or the shovel.

Comfortable Home owners mean more business for Builders!



A Frame for Every Kind of Building



IF the people whose homes you build can wake up on cold winter mornings and say, "Oh, boy, ain't it a grand and comfortable house!" then a contractor can be sure he is in line for more business. Comfortable home owners are satisfied home owners and your best advertising.

A comfortable house is a house that is weather-tight, one whose occupants are protected against wind and snow, cold and heat, rain and dust. It is draft-proof.

And insulation, weatherstrips and storm windows will not make a building weather-tight if its window frames are leaky. Has this simile a general enough application? That is why wise builders insist on superior window frame construction.

Andersen Frames* with sills and casings of Genuine White Pine are superior window frames, reasonably priced. Their accurate milling insures tight joints and their patented features, permitting the economical use of wide blind stops, make them the conscientious contractor's best bet.

Learn the whole window frame story. Mail the coupon below.

*Look for the Andersen Trade Mark on every frame.

Andersen Distinctive Features

- 1 Patented, noiseless, long wearing Andersen pulleys used exclusively.
- 2 Genuine soft White Pine sills and casings—last a lifetime.
- 3 Patented, exclusive weather-tight features including groove for wide blind stop.
- 4 Absolute accuracy of milling.
- 5 A Frame up in 10 minutes.
- 6 Standardized styles and sizes, convertible for all architectural needs.
- 7 Nationally known and distributed.
- 8 Dependable because guaranteed by a reliable manufacturer.

Sold by Leading Building Material Dealers

Andersen FRAMES

ANDERSEN LUMBER COMPANY
Box 2108, Bayport, Minnesota.

Please send me without cost or obligation the material checked in squares on this coupon.

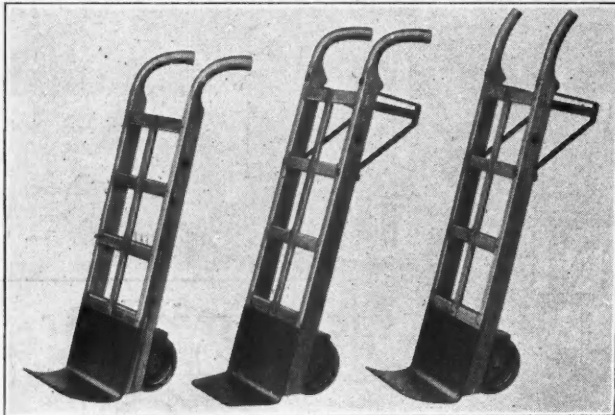
- Set of folders describing construction and uses of Andersen Frames.
- "How to Make Your New Home More Comfortable"—an illustrated book of interest to all home builders.

Name _____
Business _____
Street Address _____
City _____ State _____
Name Lumber Dealer _____

Trucks for Cement and Plaster

YEARS of experience with the problems of packing and trucking cement, plaster, lime and similar materials, has enabled the manufacturers of the trucks shown here to design a line of trucks which are highly efficient for this purpose. These trucks are sturdily built and substantial in every way, affording a long life of service. Only the best grade of materials and quality of workmanship are used in their construction. The design permits of loading with a minimum amount of effort and the bags pile up straight without slipping off the truck. The balance is perfect and the light weight and ball bearing wheels make for easy fast trucking. The truck discharges the bags into orderly piles without rehandling.

These trucks are designed to handle both cloth and paper bags. There are no projections, such as nuts, bolts



These Three New Trucks Have Been Especially Designed for Handling Cement, Plaster and Lime in Bags.

and rough edges, and so no danger of damaging the bags. The nose plate is made of heavy steel with a specially designed lip permitting a rocking effect when discharging the load. One model is equipped with a straight, six-inch lip for warehouse use.

The wheels are eight inches in diameter with a 2½-inch face and equipped with heavy, clincher type, rubber tires. They will not damage floors and will absorb shocks caused by uneven surfaces. Each wheel is equipped with Alemite fittings, facilitating the lubrication.



Real Fireplace Heating

WHO does not enjoy the cheerful blaze of an open fire. The fireplace has long been the symbol of comfort, contentment and hospitality; it is the traditional center of home life. And yet it must be confessed that the ordinary fireplace is quite inefficient as a means of heating. The fireplace equipment which is illustrated in the accompanying views has been designed to increase the heating efficiency of the fireplace and at the same time provide ventilation, eliminates drafts and save fuel.

This heater consists of a number of flexible, metal tubes, placed vertically in the fireplace opening. At the bottom, these tubes connect with a duct leading through the chimney to the outdoors. At the top, they lead into a handsome register grill, placed along the top of the fireplace opening. Fresh air is drawn from outdoors, through the tubes and into the room. The tubes are in contact with the hottest part of the fire and thus the fresh outdoor air is highly heated, before being discharged into the room.

Air to replace that sucked out of the room by the chimney draft comes through the heater instead of from cracks around doors and windows. The incoming air is warm instead of cold. There are no chilly drafts about

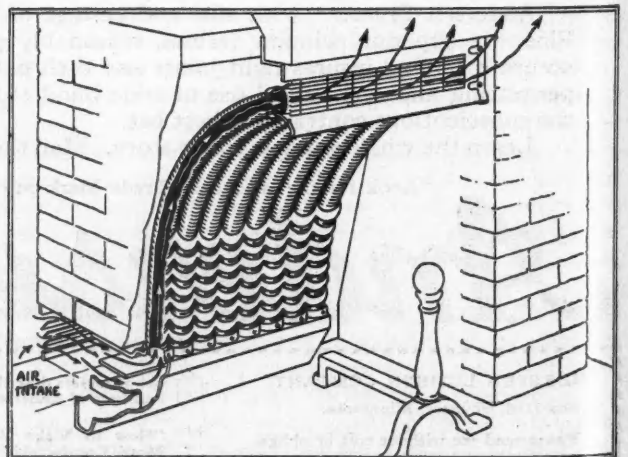


A Fireplace, Equipped with the Heater Described Here, Has a Neat Grill Above the Opening, from Which the Heated Air Comes Into the Room.

the window and door openings. With this heater, air is added instead of subtracted and the main heating plant is called upon to provide less heat. In the mild weather, at the beginning and end of the heating season, the fireplace affords sufficient heat without keeping the main heating plant going, and so reduces expense. In severe cold weather it aids the main heating plant, taking the strain off it and reducing repair bills and depreciation.

Running across the tubes of this heater is a series of Spanish iron spreaders which serve to relieve any plainness of the back of the fireplace and make a fireplace so equipped attractive in appearance. The tubes are oval in shape and provide a large area of heat absorbing surface. Since they are flexible they are not subject to damage because of expansion and contraction.

The heater is guaranteed to give full satisfaction in any existing fireplace that now burns satisfactorily, and in any new fireplace which is provided with correctly built chimney. For old fireplaces the heater is assembled to meet the particular requirements. It is only necessary to supply the dimensions of the opening and the depth at the bottom. For new fireplaces the heater is furnished in four standard sizes, 8, 10, 12 and 14 tube.



This Shows the Construction of This Heater, a Set of Tubes, Through Which Fresh Outdoor Air Passes Into the Room, Being Heated on the Way.

Fenestra

CASEMENT WINDOWS *of steel*



..and this builder tells why

"During the past year we have used Fenestra Steel Casement Windows in the eighteen English type dwellings which we erected in Woodland Court, and are more than pleased with the effect that they have had in helping to sell these homes."

"We have found that they make a strong appeal to the home-seeker because of their attractive appearance, their freedom from warping, sticking or rattling, and because of the ease with which they can be cleaned from the inside."

"In addition, the casements are entirely weathertight, without requiring weatherstripping. This is in addition to the extra ventilation which they provide, because their opened swing-leaves deflect breezes into the room."

"We are about to begin the erection of thirty-six homes of the same type in our new development on Elsinore Avenue, in which we will unquestionably again specify steel casements, as we consider them a real asset to any builder who builds houses for sale."

Very truly yours,

(Signed) HENRY I. ADLER

President

THE PLAZA CONSTRUCTION CO.,
Baltimore, Md.

help sell

attractive

no warping—

no sticking

easily cleaned

weathertight

catch the breezes

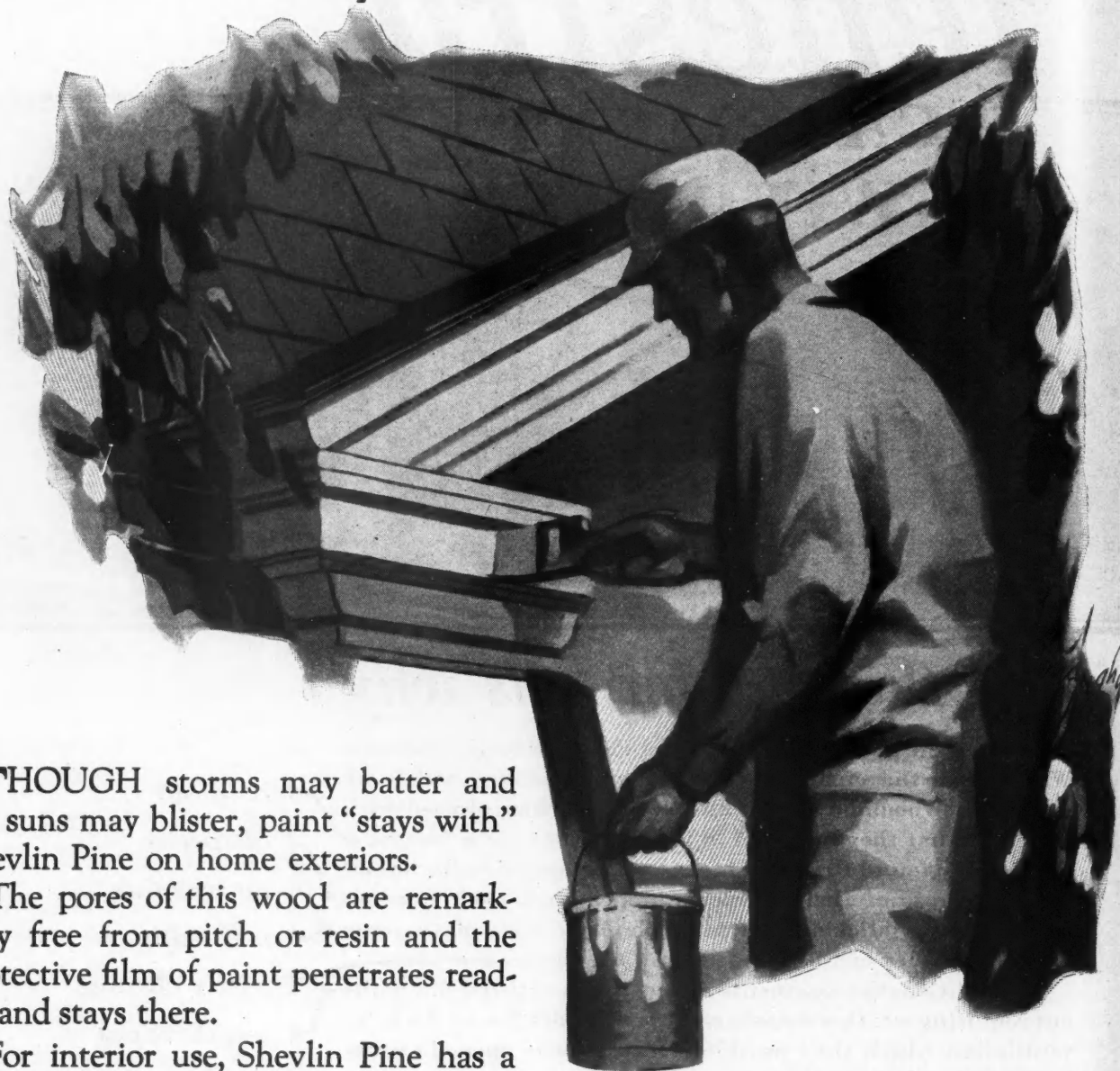
a real asset

Hundreds of builders know from experience that Fenestra advantages add little or nothing to building costs. Try these better steel windows on your next building—you can easily get them locally.

DETROIT STEEL PRODUCTS COMPANY
2304 EAST GRAND BOULEVARD, DETROIT, MICHIGAN
Factories: Detroit, Michigan, and Oakland, California / Convenient Warehouse Stocks

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Paint "Stays with" Shevlin Pine



THOUGH storms may batter and suns may blister, paint "stays with" Shevlin Pine on home exteriors.

The pores of this wood are remarkably free from pitch or resin and the protective film of paint penetrates readily and stays there.

For interior use, Shevlin Pine has a natural beauty of its own. It gives a dignified effect with a rubbed wax finish especially for panelled walls. It takes and retains paint, enamel, stains or most any finish.

Paint Flows Smoothly

It is easy to work on Shevlin Pine as the treatment flows smoothly on the fine texture and produces a satiny surface that stays sleek. Its light color

takes white finish without discoloration and works well with any other shade.

"Certified by Centuries of Service"

The nation's oldest homes certify to the centuries of service given by Pine lumber. Down through the years, Pine has given more years of real home comfort for each dollar expended.

The building tide is sweeping once more to the true American home, built

SHEVLIN PINE

in colonial style of sturdy Pine—real American homes for real Americans.

Shevlin Pine the Ideal Building Material

And Shevlin Pine is filling today's needs, for it has the characteristics of the ideal building material. It is easy to work with, it gives an attractive appearance, it is economical in the long run, and its durability is certified by Pine homes that have withstood the weather for centuries.

New Source of Genuine White Pine

You can easily secure the same species of Pine used by our ancestors. The new Shevlin Northern White Pine mill at Blind River, Ontario,

opens up a new source of the Pine of grandfather's day. Selective logging and scientific reforestation promises to make this supply last indefinitely.

Plentiful Supply of Pine

The Shevlin interests have Pine stands in selected districts of the continent sufficient to last for decades.

Four mills produce five varieties of Pine: Shevlin California Sugar Pine, Shevlin California White Pine, Shevlin Norway Pine, Shevlin Ponderosa Pine and Shevlin Northern White Pine.

Leading lumber dealers in your community can supply you.

Timber Should Be Used

Conservation of mature timber is false economy. If the trees are not cut when they are ready to serve civilization they will deteriorate and are subject to the attack of various natural destructions.

When the timber crop ripens it should be cut and utilized just like any agricultural crop. Under modern methods of logging, nature renews timber as you use it.

Learn More About Pine

The thirty-two page booklet, "Specify Shevlin Pine,"

contains a raft of information about Pine—its characteristics, physical properties, uses, allowable stresses and treatments.

Send For Booklet

We believe you will find it valuable and interesting. Just write us requesting a copy and we will mail you one at once.

Shevlin, Carpenter & Clarke Company

903 First National-Soo Line Bldg., Minneapolis, Minn.

Chicago Sales Office: 1866 Continental & Commercial Bank Bldg.

San Francisco Sales Office: 1028 Monadnock Building.

Toronto, Ontario, Sales Office: 606 Royal Bank Building.

Sold in New York by N. H. Morgan, 1205 Graybar Bldg.



Living room of the Gen. Epaphroditus Champion House built in East Haddam, Conn., about 1794. The Pine panelled walls and fireplace detail typify the spirit of the true American home.

SHEVLIN PINE

**IT'S EASIEST TO SELL
A HOUSE INSULATED
WITH CABOT'S QUILT**



Residence of Samuel Rosenblatt, Portland, Oregon. Architect, George M. Post, Portland, Oregon. Sidewalls and roof lined with 2-ply Cabot's Quilt. Roof stained with Cabot's Shingle Stain. Brickwork treated with Cabot's Clear Brick Waterproofing.

The home buying public is "insulation conscious."

Millions of dollars have been spent to educate the public on the value of insulated homes. This education has taken the form of advertisements in the Saturday Evening Post, Ladies' Home Journal, Good Housekeeping, Vogue, etc.; also in the leading newspapers, and over the radio.

Cash in on this! Put Cabot's Quilt in the next home you build. Show it to your customers and tell them that it has more insulating value than any wall-board of equal thickness and cost.

See your lumber dealer today for full particulars and terms, or send in coupon below for full information without any obligation.

Cabot's Quilt
In Successful Use for Over 30 Years



NEWS of the FIELD



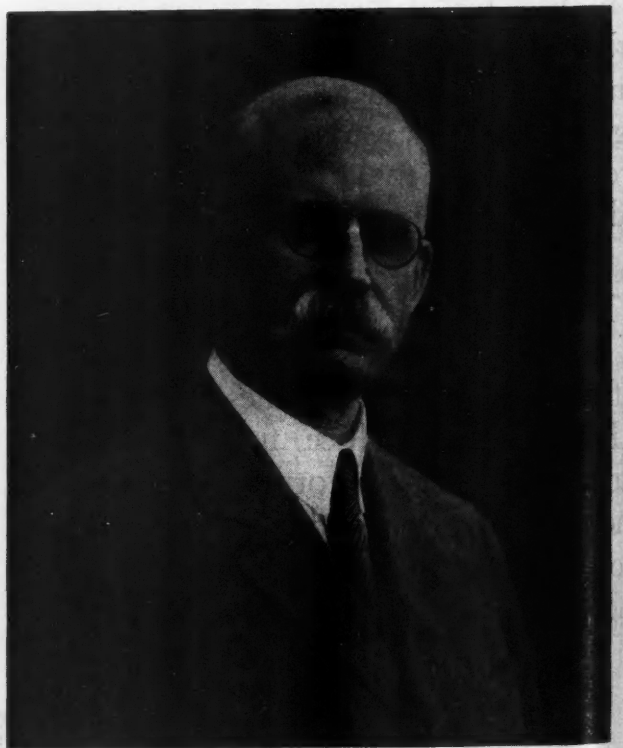
Charles W. Radford
June 11, 1853—July 26, 1928

CHARLES W. RADFORD, president of the Radford Company and one of the pioneer lumbermen of Wisconsin, died at his home in Oshkosh, July 26, after an illness of several weeks. He had just passed his 75th birthday, which occasion had been appropriately celebrated by his business associates, some of whom had been continuously in his employ for half a century.

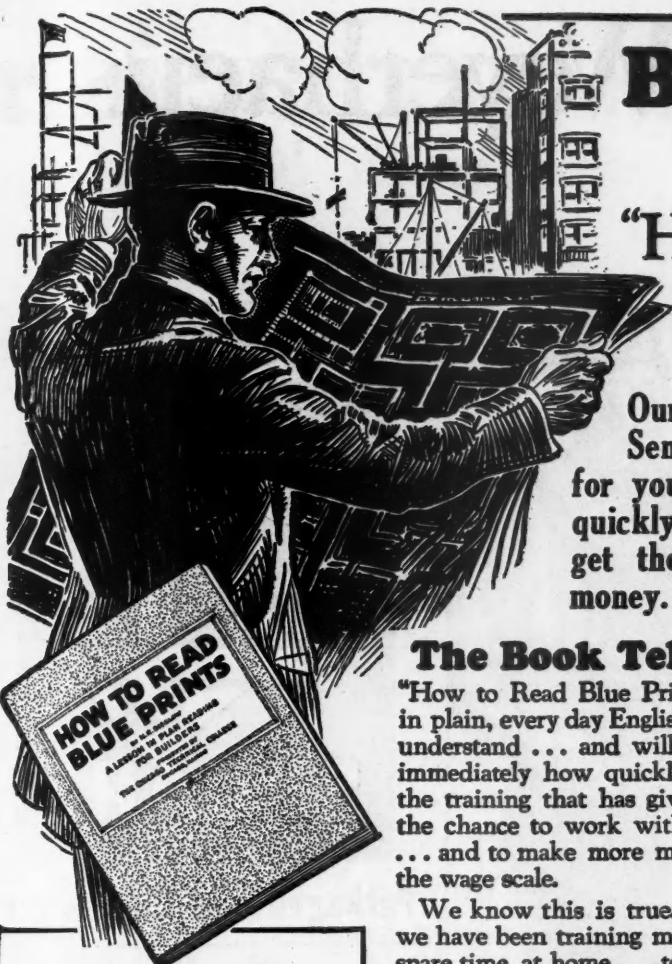
Mr. Radford was honored and loved by all who knew him, and the number of his friends was legion. As a pioneer lumberman, door and millwork manufacturer and banker, he championed every good cause and was a mighty force for the development of his community.

Born at Prospect, N. Y., he came to Oshkosh, then a small frontier lumber town, with his father, William Radford, and his mother, Elizabeth Robinson Radford. At ten years of age he went into his father's sawmill and literally grew up in the lumber and millwork business.

Mr. Radford is survived by his widow and four sons, Frank W., Charles W., Donald H., and Edward P.; also by four sisters and three brothers.



Charles W. Radford.



Blue Print Plans and 24 Page Book "How to Read Blue Prints" Sent FREE

Our gift to every man in the building game. Sent absolutely free. For we want you to see for yourself . . . at our expense how easily and quickly you learn to read blue prints . . . and can get the knowledge that will make you more money. Don't send a penny. Just mail the coupon.

The Book Tells How

"How to Read Blue Prints" is written in plain, every day English. It is easy to understand . . . and will prove to you immediately how quickly you can get the training that has given other men the chance to work with their heads . . . and to make more money than just the wage scale.

We know this is true. For 22 years we have been training men . . . in their spare time, at home . . . to advance and succeed in the building field. Many have now got good contracting or building businesses of their own. Many are salaried men, foremen or superintendents.

This book is really a Free Trial Lesson in Plan Reading . . . written by a practical building expert. It costs you nothing . . . will teach you how to read Blue Prints . . . and may point the way for you to big money. It will show you how easy our instruction is . . . how quickly you can become an expert . . . can get the practical knowledge that you must have to get ahead quick.

Another Book FREE

We will send you also a book about the Chicago Technical School for Builders. It is free, too. It tells you all about our method of training by correspondence. It shows you how you can make your spare time pay you a handsome profit in a very short while. It tells all about our practical instructors . . . shows every branch and department of our Builder's Courses . . . gives you photographs of our men and departments . . . tells what others have done and what you can expect to do.

Chicago Technical School for Builders is one of the oldest and best equipped schools of its kind in America. Many big builders owe their first step to success to our training. Hundreds of practical men from the building trades attend our day and evening classes at our school for builders here in Chicago. You get this same training . . . from the same practical instructors . . . in your own home by mail.

Train by Mail

Go right on with your work. Your spare time . . . as little or as much as you wish . . . is all you need. Our practical lessons and actual blue print building plans come to you by mail. And the cost is little.

Send the coupon . . . today.

It will bring you with the free Blue Print Plans and the two books, full information about the Chicago Technical School for Builders. Shows what we have done for hundreds of other men, gives the facts about their success. Tells how some became superintendents in a few months. How others established contracting businesses of their own. Gives all details of this practical builder's course with descriptions, photographs and illustrations.

Start now. It costs you nothing to find out what this practical builder's course is . . . and what it can do for you. If you want to make more money in the building game . . . get the facts about the Chicago Technical School for Builders.

Mail the Coupon—NOW

CHICAGO TECHNICAL SCHOOL FOR BUILDERS

Dept. K-121, Chicago Tech. Bldg.,
118 East 26th St., Chicago, Ill.

Please send me your Free Books and Blue Prints for men in the Building Trades. Send postpaid to my address below. It is understood that no salesman will call on me.

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

You Can Become a Building Expert

Plan Reading. Every man who has got very far ahead in any building trade can read blue prints. No man can expect to be a first rate foreman or superintendent until he knows what every line on a plan means and how to lay out and direct work from the architect's plans. By the Chicago Tech. Method you quickly learn to read any plan as easily as you read these words.

Estimating. Of course a man who wants to be a contractor or to hold a big job in a contracting organization must know how to figure costs of labor, material, and everything else that goes into any kind of building. The Chicago Tech. Course covers every detail of this important branch—shows you just how it is done from actual blue print plans.

Superintending. How to hire and direct men, how to keep track of every detail of construction as it goes on, how to get the work done in the least time at the lowest cost is also fully covered in the Chicago Tech. Builders' Course.

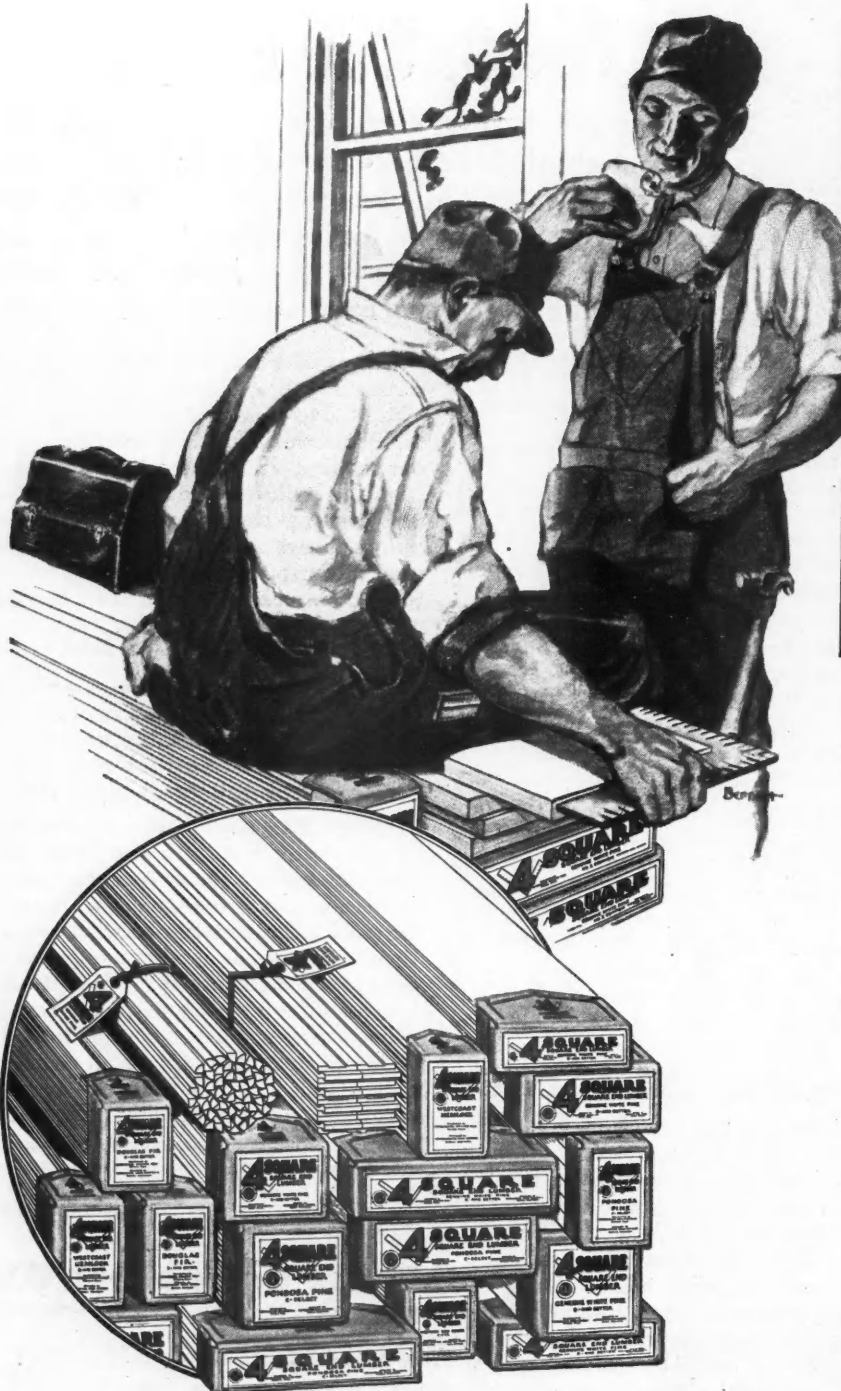
Also special courses in Architectural Drafting for builders, taught by practical men. These explained in Special Catalog "D" sent on request.

CHICAGO TECHNICAL SCHOOL FOR BUILDERS

Dept. K-121, Chicago Tech. Building, 118 E. 26th St., Chicago, Ill.

Another Weyerhaeuser

trimmed square at both ends..



The Mark of 4 SQUARE Lumber

Packaged *and* Guaranteed

These items can now be purchased under the 4-Square label. Each carefully manufactured for the particular purpose for which it is intended.

- SQUARE EDGE FINISHING LUMBER
- BEVEL SIDING
- COLONIAL SIDING
- DROP SIDING
- SOFTWOOD FLOORING
- END MATCHED SOFTWOOD FLOORING
- CEILING AND PARTITION
- SHELVING · STEPPING
- CASING · BASE · MOULDINGS

WEYERHAEUSER FOREST PRODUCTS

General Sales Offices: WEYERHAEUSER

District Sales Offices: MINNEAPOLIS · KANSAS CITY · CHICAGO

achievement - Wasteless Lumber!

packaged ready to use

Now you can prove your squareness with 4-Square Lumber

UNMISTAKABLE proof of your fairness and integrity is established by the use of Weyerhaeuser's new 4-Square Lumber.

For it gives the house buyer, the architect and the owner an easy method by which to judge lumber quality. The species and grade are plainly printed on the 4-Square label and guaranteed by Weyerhaeuser. No one can question the lumber you use—if it is Weyerhaeuser 4-Square Lumber.

The 4-Square label is used only on the *finest* lumber the Weyerhaeuser mills can produce. All 4-Square Lumber is properly seasoned before it is milled. Then it is manufactured to precise standards of size and dressing. It is cut to exact lengths. The ends are trimmed square and smooth—to save tedious hand trimming on the job. And then it is *packaged* to protect the faces and ends until it is used and to make it easy to handle and easy to identify.

4-Square Lumber enables you to maintain your high standards of construction without increasing your costs. It is being distributed through local lumber dealers everywhere. Ask your dealer about it or if he is unable to supply it, write us.

SAINT PAUL · MINNESOTA

SALES COMPANY · Spokane, Washington

TOLEDO · PITTSBURGH · PHILADELPHIA · NEW YORK

Occupies Larger Office

THE Macomber Steel Company, Canton, Ohio, has announced the removal of the offices of the R. S. Kasson Company, its Chicago representative, to 180 N. Michigan Ave., Chicago. The R. S. Kasson Company has made this change to provide larger and more efficient quarters for serving the building public with Massilon standardized steel building products, manufactured by the Macomber Steel Company.



Launch Oak Floor Advertising

THE oak flooring industry, a consistent advertiser for more than 20 years, will this summer launch the most comprehensive campaign it has ever undertaken. A survey undertaken by the industry disclosed the fact that oak floors may be laid throughout the home at little greater cost than soft wood floors or substitutes. One of the principal objectives of the campaign, therefore, will be to educate the consumer to the fact that oak floors are no longer to be regarded as a luxury only the wealthy can afford.

The increased use of oak flooring, first, in new construction and, second, in remodeling, will be stressed and the advertising, which will be directed at builder and architect as well as the consumer.

In addition to the preparation of extensive literature which will be used to support the advertising campaign, the Oak Flooring Bureau has created a special advisory service, which will assist prospective home owners to solve specific flooring problems.



(Continued from page 111)

expenses had to be added to the purchase price.

On the other side of the picture as instances of the ready resale quality of co-operative apartments not bur-

dened by over individualized construction, Mr. Sutter cited an apartment on Lexington Avenue at 72nd Street, New York City, originally priced at \$34,000. The steel construction of the building was hardly up before the owner was induced to sell for \$38,000. Within a year after the building was completed and the new purchaser had moved in, upon the death of the owner the same apartment was sold by her estate for \$42,000. Here there was a 25 per cent increase in the value of the equity within the year but that is not all the tale. The new purchaser, after living in the apartment for about one and a half years found he needed a larger apartment and the unit was resold at \$48,000, or an increase of 41 per cent in two and a half years.

"The last sale of this apartment was made two years ago and the apartment now has a resale value of between \$55,000 and \$60,000." Mr. Sutton said.

"An apartment on 67th Street, New York, for which the purchaser paid \$18,000 at the time the building was erected in 1907 was resold in 1921 for \$50,000, a profit of almost 200 per cent in 14 years. A New York pent house apartment with a roof garden sold five years after completion of the building for nearly 100 per cent profit. An apartment on East 66th Street, New York, purchased as an investment in 1917, has been leased out by its owner at an annual return of 16 per cent on the investment and after six years sold at a profit of more than 100 per cent."

Reselling a co-operative apartment unit does not involve all the red tape dependent on the sale of a private house, Mr. Sutton pointed out. It is simply a matter of transferring the apartment stock and of signing the lease.

Of course the buyer must be approved by the board of directors of the apartment building, but this restriction, insuring a high standard of tenant owners will be maintained as one's neighbor's restriction acts automatically also, to keep up the resale value of the apartment.



Father Time Knows a Thing or Two About Frames

Time is the impartial judge of frames. Time's conclusions about a frame are drawn *after* the frame's service.

Some frames haven't been in use long enough to really get a rating. Ever think about that?

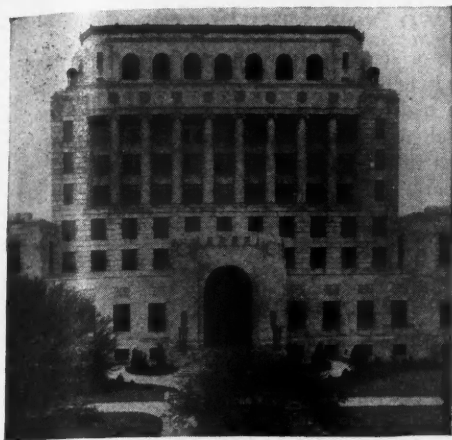
But Bradley-Miller Genuine Michigan White Pine Frames have—and Time rates them

- O. K. for resistance to weather
- O. K. for freedom from shrinking, swelling and warping
- O. K. for accuracy of manufacture.

And dealers who sell Bradley-Miller Frames know they're O. K. for profits.

Isn't this the kind of frames you want to use? Send for catalog.

BRADLEY, MILLER & CO.
1200 Marquette Street
BAY CITY, MICH.



THE JAIL of Caddo Parish, La., is on the top floor of the Court House. Ashton Glassell, of Glassell-Wilson Co., builders of the Court House, is also president of the Shreveport chapter, Associated General Contractors of America.

Fine Building Record for INTERNATIONAL TRUCKS at Shreveport, La.



Part of the Glassell-Wilson Co. fleet of International 2-ton Speed Dump jobs.

THE beautiful \$1,500,000 Court House, of which Caddo Parish is proud, is only one item in the impressive showing made by International Harvester Trucks in Shreveport and in Louisiana generally.

The Glassell-Wilson Co. have used their fleet of Internationals in many enterprises in the half-million-dollar class and up, such as the 12-story Heidelberg Hotel at Baton Rouge, the plant of the Southwest Gas & Electric Co., the Y. M. C. A., and the stately First Presbyterian Church of Shreveport. The trucks, working on a hard day-and-night program, helped them complete the Court House job 150 days ahead of schedule, netting a fine piece of bonus money. The full record of these trucks is the kind of story of performance and economy any contractor likes to report.

Mr. Glassell is now building two Louisiana hotels, one at Monroe and one at Lafayette. Mr. K. C. Wilson, his partner, now has an independent business and a new fleet of International Harvester Trucks. He will build the new dormitory of Dodd's College and the Market Street viaduct, probably the largest project now under way in Shreveport.

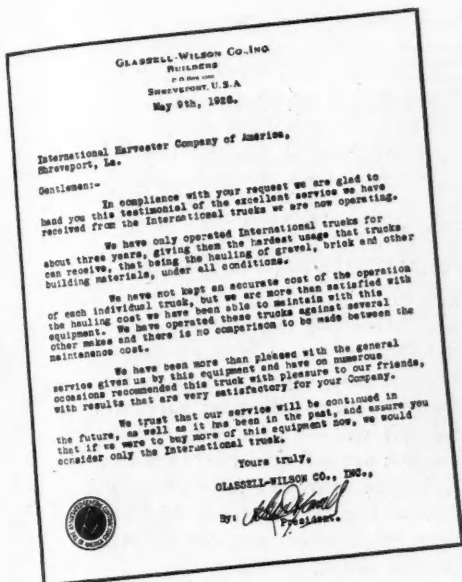
Shreveport is strongly an International town. Every conceivable type of hauling has Internationals in service—a total of several hundred. Besides, Internationals have for years been the prime favorite in oil field hauling out of Shreveport as well as in Texas and Oklahoma. Hauling pipes, boilers, tanks, etc., over roadless oil country is about as heavy a job as you can hand to trucks.

The full range of International Truck sizes runs from 3/4-ton up to 5-ton. Service through 164 Company-owned branches in the United States and Canada. Write us for a folder on trucks for your special kind of hauling.

INTERNATIONAL HARVESTER COMPANY

606 S. Michigan Ave. OF AMERICA Chicago, Illinois
(Incorporated)

S. N. Yarbrough did the excavating for the Caddo Parish Court House. This view shows 3 of his Heavy-Duty 2 and 3-ton Internationals. Mr. Yarbrough likes Internationals better for all-around performance and economy than various other makes he has owned. He says it's a joy to see them come loaded out of holes where other trucks stay.



Mr. Glassell's letter about his fleet





Does the Paint Job Cost More Than It's Worth?

The difference in cost between spray-painting and brush-painting very often makes the difference between an adequate profit on a building contract and one dangerously small.

The building contractor who owns his own DeVilbiss Spray-painting Outfit has an immeasurable advantage over the contractor who does not. A DeVilbiss Spray Gun possesses certain exclusive features of design and construction which enable the painter to go faster and get better results.

The nozzle orifices in a DeVilbiss Gun are automatically kept in perfect alignment under all conditions of use. A perfect spray pattern is provided at all times. No other gun offers the features of design and construction which assure this result. The DeVilbiss Gun also affords a wide range of adjustment over *plainly marked* graduations. You can adjust the gun to the material and the job and get the desired result without experimenting. The DeVilbiss spray-head assembly is always absolutely air-tight, regardless of wear or careless handling. These are outstanding, exclusive DeVilbiss features making for faster and better uninterrupted work.

Write for complete information about DeVilbiss Spray-painting Outfits suitable for your particular need.

THE DEVILBISS CO.

238 Phillips Ave. TOLEDO, OHIO

Sales and Service Branches
New York, Philadelphia, Cleveland,
Detroit, Indianapolis, Chicago, St. Louis,
San Francisco, Windsor, Ont.

Direct factory representatives in all other territories

DeVilbiss Spray-painting System

DOES THE WORK OF FIVE MEN

Adopt Two New Lumber Grades

FOR the purpose of setting aside all questions as to waste which develops when plain-end, common lumber is used for concrete form making and for sheathing and sub-flooring, the End-Matched Bureau of the Southern Pine Association has adopted two new grades for "End-Matched Concrete Form Lumber" and for "End-Matched Sheathing and Sub-Flooring." These are the names which should be used by all retailers of lumber, architects, engineers and contractors. The older grade names no longer apply.

End-Matched Concrete Form Lumber is a special grade of end-matched Southern pine, 6-inch boards with either tongue and groove or shiplap. That is, it may be ordered S2SCM or S2SSL. For strength purposes it is earnestly suggested by the bureau that the CM (or D&M) be ordered.

This special grade of concrete form lumber is used by the contractor and builder without waste of lumber, for he does not have to cut out any defects. Whatever defects may have been in the board which might be injurious to good form building are cut out at the sawmill; the piece is squared and end-matched. Thus a lumber is supplied which lays up without waste and results in a wall which is smooth on the surface.

End-matched sheathing and sub-flooring is another special grade. It is to be used for sheathing and sub-flooring and should not be employed in concrete form lumber. It lays up to a solid wall or sub-floor without saw waste. Again it is suggested to use the D&M 6-inch, end-matched boards, since a complete bond of wood is thus formed and the insulation which is so much needed is supplied.



Lupton Builds Chicago Plant

DAVID Lupton's Sons, of Philadelphia, Pa., manufacturers of steel windows, have contracted with the Clearing Industrial District to erect immediately the first unit of the company's new Chicago manufacturing plant and warehouse. The new plant will cover approximately 6½ acres and the first unit will be a building 150 by 500 feet, with additional land required for the expansion of the plant to 300 by 1,000 feet provided for. The site is served by switch tracks from the Belt Railway of Chicago. This new plant has been made necessary by greatly increased business in the Middle West.



Revise Subdivision Code

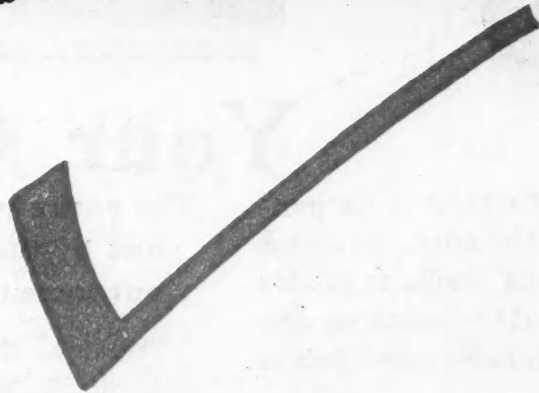
A STRINGENT code of ethics, to govern the development and sale of subdivisions, was adopted by the Home Builders and Subdividers Division of the National Association of Real Estate Boards, at a meeting held in connection with the recent annual convention at Louisville, Ky. The code is a revision of the code adopted by the division a year ago. The revision was made in order to give a greater degree of protection to the buyer of subdivision property, particularly in cases where the subdivision is under a trust agreement.



Chevrolet Plant for Kansas City

THE Chevrolet Motor Co., Detroit, Mich., has recently announced that the contract for the structural steel for an assembly plant at Kansas City has been let to the Kansas City Structural Steel Co. This job, the largest let this year in Kansas City, calls for approximately 2,600 tons of steel, costing about \$250,000. Seven buildings will be constructed, all of the one-story type. These will include an assembly building, Fisher body building, service parts unit, driveaway shed, loading dock, office and power house.

Hot Bid



Check them all off

- No Material List to Struggle Over.**
- No Sets of Blue Prints to Buy.**
- No Worry About Leaving Out Items.**
- No Wasted Time in Finding Comparative Costs.**
- No Doubts As to the Accuracy of Your Bids.**

Other HOLTIDDERS 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 HoltBid checks 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.



The worst job in contracting or carpentering is estimating the cost. It is not only the most tedious work, it is also the most important—because the profit is determined before the job is even started.

HoltBid is a system that guarantees greater accuracy in figuring costs than any method that has ever been developed.

There is no stumbling block on the road to success that trips more men than inability to make accurate bids.

That is why HoltBid has met with such tremendous success—thousands of men are using it.

HoltBid



How often have you been in this predicament when you were pressed for time? How many hours have you wasted in figuring up jobs that your competitor got?

Your Questions

The entire profit on a job is sometimes lost by the low-bidder because he left out some item in his estimate.

There is no chance for errors of this kind in using HoltBid. The HoltBid Forms preclude any omissions or losses through carelessness or oversight.

Practically every builder has spent money for plans only to have the customer switch to another design or not build at all.

HoltBid will save the expense of plans in developing a sale. All you need is floor plans and picture—such as shown in any plan book.

HoltBid

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 understand them."
Toledo, Ohio.

Promoted

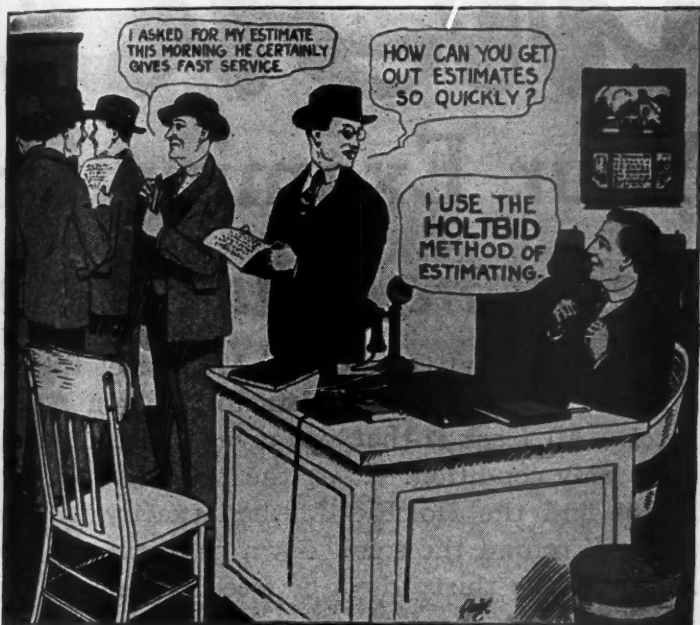
"I want you to know that I feel the HoltBid System is largely responsible for my recent promotion."
 Fargo, No. Dak.

Not Difficult to Learn

"The HoltBid is well organized and am convinced that it is practical and absolutely reliable—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 estimating which has been my previous experience."
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 vocation."
Haure, Montana.



A HoltBidder can submit estimates in a fraction of the time required by old methods—and he will know his bids are absolutely accurate.

Answers Here

Sometimes a builder lets a profitable job slip through his hands because of lack of confidence in figuring the cost. He sticks to the ordinary jobs that he has done over and over.

Every table in HoltBid is based on actual figures. No approximating or averaging was done. A HoltBidder is competent to discuss building costs intelligently and snap up those chances that offer more than ordinary success.

One of Nature's laws is that no man may stand still—he either must progress or fall back. It is the natural instinct of every man to become independent and successful.

HoltBid will help you succeed because it increases your efficiency. HoltBidders have an advantage over all competitors that can neither be over-estimated or overcome.

Regardless of how much experience you may have had—how thoroughly you understand your work—you will admit you have got to keep up with modern methods in this day of keen competition.

HoltBid will enable you to make more money because it will assist you in keeping your business on the basis of service. It's the jobs that went to the other builder that gives you the feeling of failure.

After all, ability is the deciding factor in any profession or trade. There can be no success unless you know how to carry out your work as well as your fellow men.

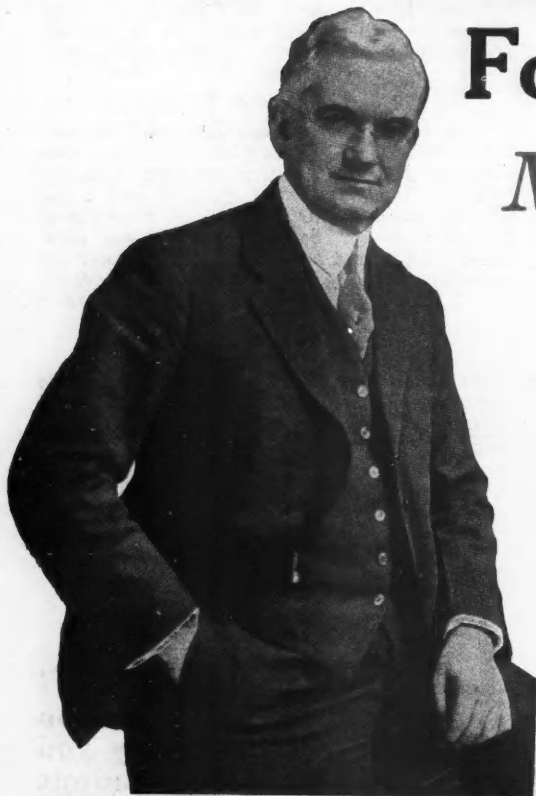
We know that HoltBid is worthy of your investigation and that you owe it to yourself to give our method a personal trial. Order coupon on next page is for your convenience.



\$100 Brings HoltBid

For Your Examination

My Personal Guarantee



I 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 thirty days you do not find the HoltBid Method exactly as represented, I will refund the small down payment you have made. During the thirty 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 HoltBid Method. In accepting your order I place my full confidence in your intentions to give the HoltBid Method a fair trial.

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

PIN A DOLLAR BILL TO THIS COUPON AND MAIL TODAY

William A. Radford, President,
HoltBid Service Company,
1827 to 1901 Prairie Ave., Chicago, Ill.

I would like to give your HoltBid Method a personal trial. I enclose herewith \$1.00 that you may send me the complete service on 30 days' approval under your money-return guarantee. If I keep the material more than thirty days it is understood that I wish to continue with HoltBid Service and will pay you \$5.00 per month until the full price of \$85.00 has been paid. The shipment I am to receive includes all units and a year's subscription to American Builder.

Name.....

Town..... State.....

Street Address..... Occupation.....

Note:—The service must be entered in the name of the individual and not the firm.

A.B. 8-28

(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.)

Dealers Approve Door Association

"THE formation of the Western Door Manufacturers' Association is the most progressive step ever taken by any group of door manufacturers," says a prominent Texas jobber in commenting on the recent organization of the leading manufacturers of Douglas fir doors in the Pacific Northwest.

A big Los Angeles jobber says, "The policy of grade-marking and trade-marking should do more to create confidence in Douglas fir doors than anything ever undertaken by door manufacturers." These are expressions typical of the opinion voiced by jobbing, wholesale and retail interests all over the country. Almost universally, the movement is recognized as an important step forward in stabilizing the fir door industry, in removing unfair competition and, most important of all, in establishing a standard of quality for the wholesale and retail lumber trade and for the ultimate user, that will be uniform and dependable.



Name New Factory Manager

SARGENT & CO., New Haven, Conn., announces that John H. Weller has joined its staff, becoming factory manager on July 1. Mr. Weller has recently been connected with some of the more important manufacturers of motor cars.



Hold Oil-O-Matic Convention

FROM June 25 to 30 the Williams Oil-O-Matic Heating Corporation held its annual convention for salesmen and dealers, which was attended by a record-breaking crowd of 2,700. Two new products were introduced to the salesmen and dealers at the convention: One of these was the

Dist-O-Matic, a small furnace burner, consuming distillate in a specially designed type of gasifying burner and produced for small homes where the reserve power of the Oil-O-Matic is not required. The other was the Dist-O-Stove, a simple, non-electrical burner installed within an attractive stove and planned to supplant coal and wood-burning heaters in cottages, summer homes, small stores, private garages and the like.



Blaine S. Smith Moves Up

BLAINE S. SMITH has resigned as vice-president of the Universal Portland Cement Co., to become president of the Pennsylvania-Dixie Cement Corp., New York City, succeeding John A. Miller, who becomes chairman of the board. Mr. Miller has been active in the cement business for over 30 years and before the formation of the Pennsylvania-Dixie Corp. was president of two companies which become part of the merger. The Pennsylvania-Dixie Corp., which has general offices in New York City, operates seven plants in the East and South with a capacity of 11,000,000 barrels of cement annually.



American Stove Promotions

A NUMBER of promotions have been made by the American Stove Co. at its Cleveland plants, incidental to the opening of a new department for the handling of oil and gasoline stoves. Thomas Sourbeck, who has been with the company 35 years and who for several years was sales manager of the New Process division, has been made general manager of the new division. His headquarters will remain at the New Process Stove Co., on Perkins Ave., Cleveland. N. E. B. R. Tritton, credit manager, has been advanced to sales manager to succeed Mr. Sourbeck, and A. G. Brechtel has been made credit manager.



TRAVRTILE

Imitation Italian Travertine Marble

A New Wall Covering

Applied to Plaster or Wall Board
Makes a Permanent Wall

Inexpensive—Easily Applied—Washable—Decorative
Built Up in Linseed Oil—No Surface Cracks

Travrtile fabric—imitation Italian Travertine Marble—made in any color, satisfying every taste. Applied like wall paper.

Travrtile on all walls assures permanency and beauty. Desirable for hotels, apartment houses, banks, public halls, stores, offices, etc.

Can be easily repaired by cutting out and replacing damaged blocks with the same material. Can be removed from the wall, leaving the wall in its original condition.

Lincrusta-Walton is made in a variety of patterns suitable for all rooms.

Write today for free samples and literature.

The new Pfister, Milwaukee, Wis., owned and operated by Ray Smith. Entrance to Presidential Suite done in Travrtile. Interior decorations by Harry Halfacre, Manager.



LINCRUSTA-WALTON COMPANY

Hackensack

New Jersey

Division Tait Paper and Color Industries, Inc.

Lindbergh Beacon Completed

THE practical application of aviation to business and individual transportation is one of the most interesting developments of the present day. The progress which is being made in this application is well illustrated in some of the construction projects which accompany it.

The Lindbergh Beacon, an 8,000,000 candlepower airport light, built by the General Electric Co. and erected atop the City Hall tower in Los Angeles, Cal., was recently officially turned on by President Coolidge touching a button in the White House at Washington. This was one of the big moments in the three-day fiesta that marked the dedication of the new structure.

This light is in the nature of a monument to Colonel Lindbergh, presented by the people of Los Angeles. The beacon is lighted by a 900-watt filament lamp, burning before a 24-inch mirror, the beam pouring through a 24-inch lens. The reflecting mirror is so designed as to throw a concentrated beam of light that can be seen a distance of 60 miles in fair weather. The beacon revolves six times a minute.

An interesting feature of the beacon is that it contains two lamps on the same base, which is pivoted, the working lamp being at the focal point. Should this lamp burn out during the night, the base carrying the two lamps will automatically trip the new lamp into focus and light it.



Establish New Warehouse

AN announcement has been made by the Van Dorn Electric Tool Co., of Cleveland, Ohio, that its sales branches in Los Angeles, San Francisco and Seattle and service branches in Los Angeles, Oakland and Seattle have been supplemented by the establishment of a very complete warehousing and service depot at 525 E. 10th St., Oakland,

Cal. This is expected to greatly facilitate service for the West Coast trade, as a complete stock of the company's products will be carried.



New Oak Flooring Grade Names

THE Oak Flooring Manufacturers' Association of the United States, 228 N. La Salle St., Chicago, calls attention to the change in grade names of oak flooring which went into effect January 1, 1928. Since that date the standard grades of oak flooring have been designated as follows: First grade quartered—old name, clear; first grade sap quartered—old name, sap clear; second grade quartered—old name, select; first grade plain—old name, clear; second grade plain—old name, select; third grade—old name, No. 1 common; fourth grade—old name, No. 2 common. The current grading rules for each grade, as adopted March 4, 1927, remain unchanged. Oak flooring grading rules will be printed and distributed about January 1.



F. L. Stone Succeeds Smith

APPOINTMENT of F. L. Stone as general manager of the Universal Portland Cement Co. has been announced. He will succeed Blaine S. Smith, who recently resigned to become president of the Pennsylvania-Dixie Cement Corp. Mr. Stone has been with the Universal Portland Cement Co. for 18 years, for the last 10 years serving as assistant general sales manager.



Fall Meeting Date Set

IT has been decided to hold the fall meeting of the Concrete Reinforcing Steel Institute at Buckwood Inn, Shawnee-on-Delaware, Pa., October 1 to 3, inclusive.



"And Presto! . . . YOUR ENTIRE HOME IS SCREENED!"

That's the beauty of Higgin's new rolling screens! They're permanently in place, concealed in the top of the window frame until you want them. Simply pull them down or push them up—they work like magic, almost automatically!

Months were spent in perfecting this new type of screen. Improvement after improvement was added to insure its being worthy of the name "Higgin."

And as a result we now offer you

a rolling screen that combines ultra-convenience with practical construction *plus* durability! It completely eliminates Winter storing, repairing, repainting, installing, and a host of other inconveniences!

Use this Higgin rolling screen in the homes you are building. You'll find it as strong a selling point as an electric refrigerator or incinerator! Mail the coupon now for our illustrated booklet and complete information.

THE HIGGIN MANUFACTURING COMPANY

Screen Specialists Since 1893

Home Office, Washington Ave., Newport, Ky.
Branches at Kansas City, Mo., Toronto, Ont.

HIGGIN
ALL METAL
SCREENS

The Higgin Mfg. Co.
502 Washington Ave.
Newport, Ky.

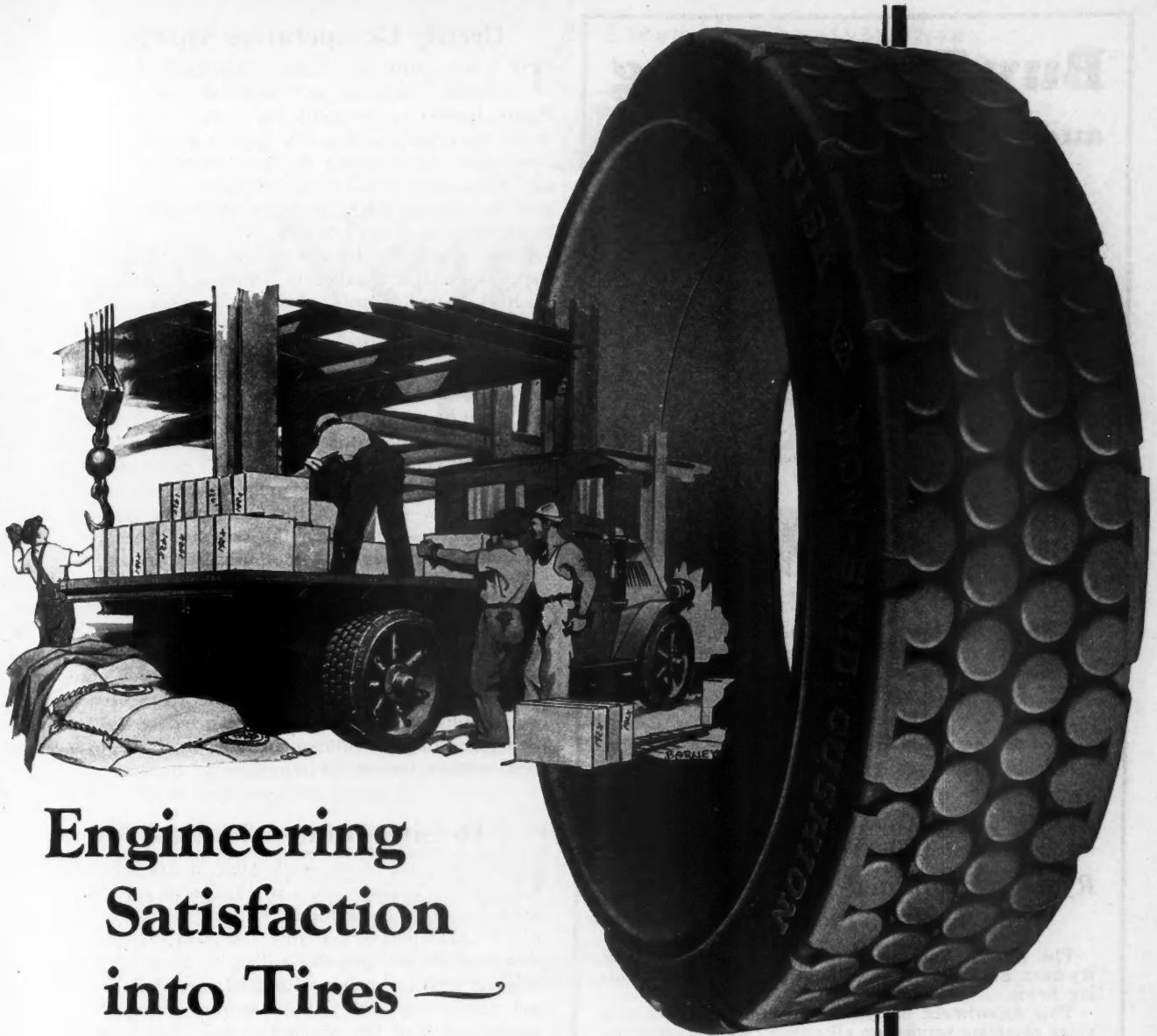
Please send complete information regarding your new rolling screen.

Name _____

Street _____

City _____ State _____

Screens that last longest, cost least--Higgin Screens last!



Engineering Satisfaction into Tires —

TIRE ENGINEERING means building a proper balance of Cushioning Qualities, Traction and Mileage into tires.

Fisk engineers, using the Knobbed Tread design and a special tough, durable tread compound build these three vital factors into Fisk Solids in exact balance.

Which means that Fisk Solids on your trucks will cushion shocks and provide skid-preventing road grip over *more* miles.

For service and for economy—equip with FISKs—the *balanced* tires.

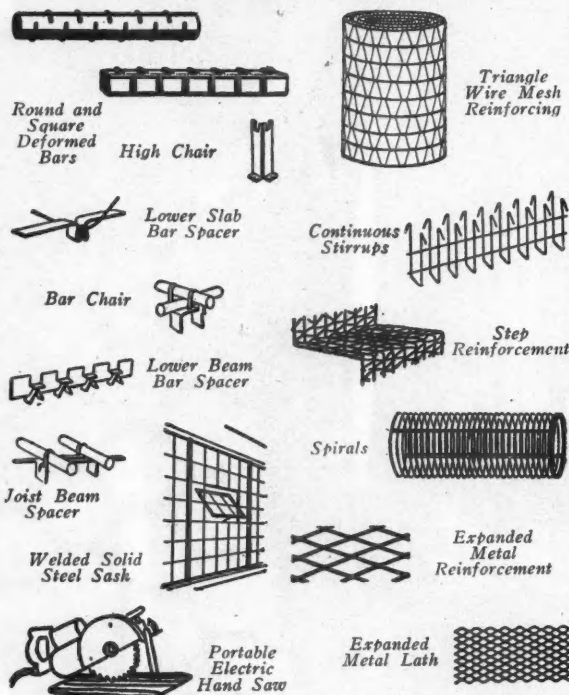
THE FISK TIRE COMPANY, INC., CHICOPEE FALLS, MASS.

FISK

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



Buy Reinforcing and Building Steel from Headquarters



Ryerson combined service saves time, money and trouble

The Special Contractors and Builders Division of Ryerson Steel-Service is without parallel in the building fields.

This department has its own warehouses and provides complete service on all reinforcing for concrete, Steel Joist, Metal Lath, Steel Sash, and all the various steel building products are also included.

In addition, structurals, bars, plates, sheets, rivets, bolts, wire, etc., are furnished from the general steel departments. Trench braces, jacks, electric drills, and hundreds of other tools needed on every job are supplied by the machinery and small tool departments.

Contractors use the Ryerson Warehouses as if they were their own. Reinforcing steel, lath, sash and other miscellaneous materials are kept under cover until they are ready to use each item. Delivery is according to their schedule.

Large fleets of trucks and private switch tracks help provide service unequaled by any other source of supply.

All types of jobs are figured and lump sum or pound price quotations prepared.

Write for Complete Information.

JOSEPH T. RYERSON & SON INC.

CHICAGO
CINCINNATI
BUFFALO

MILWAUKEE
DETROIT
JERSEY CITY

ST. LOUIS
CLEVELAND
BOSTON

RYERSON

STEEL SERVICE

Certify Co-operative Apartments

THE first certificate of approval to be issued by the Consultation Bureau of the National Association of Real Estate Boards has recently been made public. Its issue marks the beginning of a new type of service by a business association. The service has been organized to aid in the establishment of sound standards within the business and to give the general public a means of identification of sound co-operative building projects.

The Consultation Bureau was set up six months ago by the Co-operative Apartment Division of the Association of Real Estate Boards. Its first certificate of approval, dated July 10, was given to the Park Gables Building of the Gubbins, McDonnell & Blietz organization, of Chicago.

The action marks the first time that a group representing the entire field of the real estate business has passed upon and certified an individual real estate project. The service of the Consultation Bureau begins before the foundation of a proposed building is laid. Generally planned to guide the novices in this still new field and to discourage unscrupulous operators, the officers of the Co-operative Apartment Division point out that even the seasoned developer can be assisted by the counsel of the bureau experts.

The Consultation Bureau, in which sit exacting specialists on architecture, law, finance, management and selling, surveys proposed co-operative apartment buildings from the view from the front door to the last "whereas" in the legal documents that constitute the actual ownership of an apartment home. After an exhaustive check has been made on every plan of the operator appearing before the bureau, or if the operator revises his plans and procedure to meet the requirements, the certificate is issued.



To Give Trans-Atlantic Address

FOR the first time trans-Atlantic telephony will be used for another purpose than ordinary conversation when the salesmen of the F. E. Meyers & Bros. Co., meet at Cleveland, Ohio, on July 24. Guy C. Meyers, vice-president of the company will talk, from a room in the Mayfair Hotel, London, England, greeting the salesmen and conversing with P. A. Meyers, who will be in a special booth in the convention hall. Loud speakers will be installed so the salesmen at the convention can hear the greeting and also both sides of the conversation. It is stated that this will be the first time, so far as known, that amplifiers have been used on trans-oceanic telephone conversations.



Flanagan Made Vice-President

A RECENT announcement states that Thomas F. Flanagan, who has been manager of the Boston office of Charles W. Hoyt, Co., Inc., New York advertising agency, has moved his headquarters to New York City, following election as vice-president of the company. Mr. Flanagan will act as an account executive and will give special attention to accounts of manufacturers of building materials and equipment. He will continue to act as executive in connection with the accounts he has been handling.



Sisalkraft Occupies New Office

WITH the work of preparing its new offices being rushed with all-possible speed, the Sisalkraft Company recently announced that it expected to be installed in its new headquarters about July 10. These new and enlarged offices are located in the recently completed Engineers Building, 205 W. Wacker Drive, Chicago.

for Economical Transportation

The New Utility Truck

*... the Lowest Priced Truck with
4 Speeds Forward ... 4-Wheel Brakes!*

Now Chevrolet presents the New Utility Truck—a low-priced haulage unit embodying every feature of advanced engineering developed through years of experience in commercial car building, and proved by exhaustive testing on the General Motors proving ground!

A new four-speed transmission, with an extra low gear, gives tremendous pulling power for heavy roads, deep sand and steep hills—and reduces to the very minimum the starting strain on motor, clutch

and rear axle! Powerful, non-locking 4-wheel brakes, with a separate emergency brake, give a new measure of safety and utility. And a new ball-bearing worm-and-gear steering mechanism provides handling ease never before experienced in a low-priced transportation unit.

Visit your Chevrolet dealer and get a demonstration of this remarkable new truck. There is a body type designed especially to meet the requirements of your business.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation



The New
Utility Truck
\$ 520
(Chassis Only)
f. o. b. Flint, Michigan

WORLD'S LARGEST BUILDER OF TRUCKS

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.

"Principles of Valuation," by J. A. Grimes, E. M., and W. H. Craigue, E. M., published by Prentice-Hall, Inc., 70 Fifth Ave., New York City, describes several methods of income valuation and discusses the advantages and disadvantages of each. The purpose of the book is the development and comparison of the several mathematical principles which are adapted to the valuation of future income and a discussion of these principles with respect to their applicability to commercial usage. The authors are two United States Treasury Department valuation engineers. Price, \$10.

"Kitchen Management," by J. O. Dahl, published by Harper & Brothers, 49 E. 33rd St., New York City, in an authoritative new book of 365 pages containing many illustrations and charts dealing with the subject of the construction planning and administration of kitchens in hotels, restaurants, hospitals, schools, clubs and institutions. Price, \$5.

The Hart & Hegeman Mfg. Co., 342 Capitol Ave., Hartford, Conn., has published a complete new catalog "T," under the title "'H & H' Fine Switches and Wiring Devices."

The Zobell Electric Motor Corporation, Garwood, N. J., offers a catalog of the various types of electric motors which it manufactures and a separate pamphlet on its enclosed squirrel cage motor.

The Heath Cube Service, Columbus, Ohio, offers a booklet, entitled "Heath Cubes—Basic Building Units—An Architectural Handbook of Heath Cube Masonry," which is very complete as to information and illustrations.

The National Lumber Manufacturers Association, Transportation Building, Washington, D. C., has just published a second, revised edition of the National Lumber Handbook, containing "Information on Lumber and Where to Find It," including lists of publications dealing with protection and use of lumber.

The Crescent Machine Company, Leetonia, Ohio, has published a new catalog covering the complete line of Crescent woodworking machines.

The Josam Manufacturing Company, 4900 Euclid Building, Cleveland, Ohio, has just published its new 1928 catalog G, covering its line of drains and traps, interceptors, shock absorbers, swimming pool equipment, instant copper tube steam water heaters and similar products.

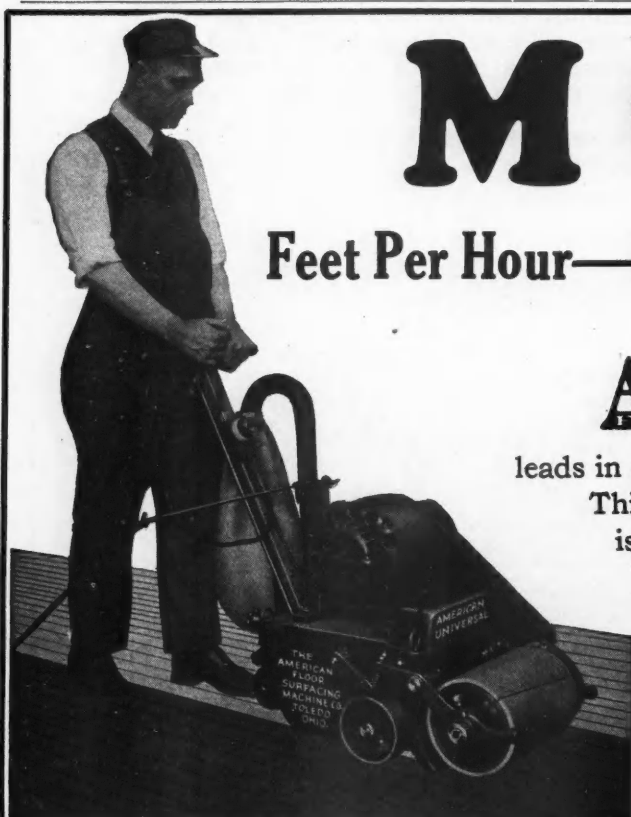
Brooks, Landscape Engineers, 14528 Second Blvd., Detroit, Mich., publish an interesting booklet descriptive of the Brooks clock operated underground irrigation system, which is described as "Rain's Only Rival for America's Finest Lawns and Gardens."

"You Do Too Much Sawing," is the title of a pamphlet just issued by the End-Matched Bureau of the Southern Pine Association, New Orleans, La., which points out the economy obtainable by the use of end-natched lumber.

The Marsh-Capron Company, 11 S. La Salle St., Chicago, has published a revised edition of its "Plastering, Bricklaying and Tile-Setting Contractors' Handbook," containing formulas and working tables.

The Bates Valve Bag Corp. offers a pamphlet describing the advantages of the Bates multi-wall paper bags for handling cement and pointing out seven features.

The Thatcher Company, 39 St. Francis St., Newark, N. J., has published a new booklet, entitled "6 Ways to Make the Cellar More Attractive—by Using the New Thatcher 'Elite' Boiler."



MORE

Feet Per Hour—Profit Per Job—Jobs Per Year

The
American Universal
FLOOR SURFACING MACHINE

leads in quantity production and quality of work.
This means maximum profits for its owner—satisfied customers and steadily increasing business.

Clip the Coupon—Mail It Now

The American Floor Surfacing Machine Co.
515 So. St. Clair St., Toledo, Ohio

Send me more information about the American Universal—without obligation.

I am a Contractor.

I am interested in Floor Surfacing as a Business.

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STREET.....

CITY..... STATE.....

A Product of
THE AMERICAN FLOOR SURFACING MACHINE CO.
515 So. St. Clair St., Toledo, Ohio


CERTIFIED EARNING ABILITY

**HAULAGE
SAVINGS
are
NET
PROFITS**

CLEAN money! Velvet! This might not be impressive if only minor savings could be made in haulage, but in most cases the actual cash that is saved through the Certified Earning Ability of Federal trucks has a far-reaching effect on the year's profits.

Get the facts. Learn the reasons. It isn't by chance that more than seventy per cent of all Federal trucks go to Federal owners. These repeat buyers *have* the facts, so year after year they cling to Federals, with their "Certified Earning Ability".

THE FEDERAL MOTOR TRUCK COMPANY, 5842 Federal Ave., DETROIT, MICH.

"Leading Specialists in Commercial Transportation"

FEDERAL TRUCKS

ALL SIZES—FOURS AND SIXES

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WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

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"Decorating with Casements" is a new booklet published by the Detroit Steel Products Company, 2304 East Grand Blvd., Detroit, Mich., and is described as "A Book of Practical Suggestions for the Curtaining and Screening of Steel Casement Windows."

Crouse-Hinds Company, Syracuse, N. Y., offers a new booklet, Bulletin No. 2106, under the title of "Floodlights and Industrial Units."

"How to Cut Heating Costs" is a new booklet prepared by the Trane Company, 276 Cameron Ave., La Crosse, Wis., on the subject of the Trane system of unit heating.

"The Milcor Manual" is a publication prepared by the Milwaukee Corrugating Company, Milwaukee, Wis., the latest edition of which, No. 20-E, has just been issued. It contains useful and up-to-date information for architects, contractors and builders on the application of this company's products.

The National Metal Molding Company, Pittsburgh, Pa., has published, under the title "The Story of Emile D'Anjou and Others," a series of letters from users of its conduit pipe telling the satisfaction which this pipe has given.

"The Business of Buying a Store Front" is a handsome new publication prepared by the Zouri Drawn Metals Company, Chicago Heights, Ill., illustrating in colors the architectural effects which can be obtained with its store fronts.

The Mattison Machine Work, Rockford, Ill., publishes a quarterly periodical under the title "Woodworking Machinery Methods," in the interests of the woodworking industry which it sends free to all to whom it will prove helpful.

"Color Craft" is a periodical published by the Taylor System of Color Harmony, Inc., 425 Fifth Ave., New York City. The April, 1928, issue is devoted to the subject of "Color Merchandising."

The National Lead Company, 111 Broadway, New York City, publishes two house organs of interest to the building field. They are "The Dutch Boy Painter" and "Dutch Boy Quarterly."

The Wm. H. Lutton Company, Inc., Jersey City, N. J., offers a catalog, entitled "Greenhouses of Quality," covering its greenhouses sold under the trade mark Bar V Greenhouses.

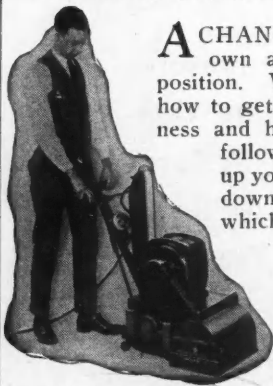
The Celotex Company, 645 N. Michigan Ave., Chicago, has prepared a most handsome pamphlet in colors illustrating the use of its Acousti-Celotex as acoustical treatment and for beautiful architectural effects.

W. & L. E. Gurley, 514 Fulton St., Troy, N. Y., offer a new bulletin, No. 285, covering the subject of the new Gurley tilting level designed to be of special use to the builder.

The Blaw-Knox Company, Pittsburgh, Pa., has issued its Bulletin No. 1024, covering the subject of Blaw-Knox steel forms for curb, curb and gutter, and sidewalk construction, as of interest to the contractor.

"Hotel Planning and Outfitting" is the title of a large and comprehensive book just published by The Albert Pick-Barth Companies, Chicago and New York City. It was edited by C. Stanley Taylor, of Lyon & Taylor, New York architects and Vincent R. Bliss of the Pick-Barth organization and is a textbook of information designed particularly for the use of architects, builders and operators. It is a very complete and authoritative treatment of the subject which required about two years for preparation with the assistance of a number of consultants and contributors. Price, \$10.

Get Into the Floor Surfacing Business While the Field is Fresh



A CHANCE to have a business of your own and still retain your present position. Write today—let us tell you how to get started in this Paying Business and how you can make good by following our method in working up your business. Free Trial. Part down—balance easy payments, which machine will earn for you.

\$40 to \$50 a day easily earned with the **AUTOMATIC**—the result of 16 years' manufacturing experience. Will save the wages of 5 men and do

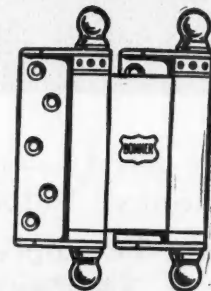
work that will stand inspection against the light. SKF ball bearings, carefully protected from dust—Whitney Silent Chain—Roller Pressure Regulator—Force Feed Lubrication—Edge Roller Border Work Eliminated—Steel, not cast iron construction—all dust taken up on forward operation with New Vacuum Nozzle—all working parts inclosed.

The Little Automatic Surfacing Machine is a wonder for removing varnish from desk tops, counters, etc., or for all sorts of new work.

WAYVELL CHAPPELL & CO.
38-40 Jackson St., Dept. Z WAUKEGAN, ILL.

Bommer Spring Hinges

are the best



to use

Millions and Millions

of People are Pushing

Them

whenever they open a door

Follow the line of least resistance

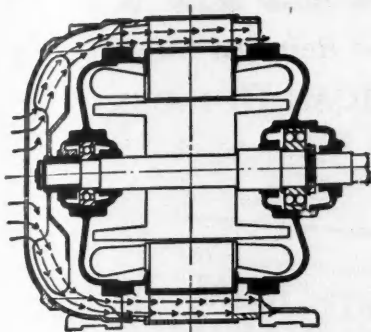
Use **Bommer** Always

They are the best

Bommer Spring Hinge Co., Brooklyn, N.Y.

Fully Protected Motors

AN air-jacketed motor, for service where dust, fumes and moisture are present in sufficient quantities to necessitate protection to motor and property, has been developed by a well-known manufacturer.



This Motor Is Air Jacketed and Is Fully Protected Against the Entrance of Dust, Fumes and Moisture.

The entire motor is surrounded by a jacket open at both ends with fan blades on a shaft extension, between the sealed motor and its outer jacket. The only clearance between rotating and stationary parts of the motor is in the bearing housing and here no impurities can get past the grease packing.

The motors are new in external construction only, no changes have been made in the electrical principles of the motors themselves. The frame housing, the motor proper and all bearings are substantially air-tight. The end shield is made of cast iron, rib-reinforced and has a substantial grating which protects the fan and provides opening for incoming ventilating air. The center shield is made of heavy, sheet steel held in place by slot head bolts. The fan is of one-piece construction. The conduit box is mountable in four positions.

The stator is the only part of the standard single phase repulsion-induction and polyphase squirrel cage motors subject to change in design. The exposed outer rim is deeply grooved to increase radiation surface. The punching for windings remains unchanged.

The motors are double row ball bearings, self-aligning in one end plate and deep groove in the other to take end thrust. Bearings are grease lubricated, sealed in dust-proof housing. The shafts are made slightly longer than those for standard motors to permit fan mounting. Single-phase repulsion-induction motors may be had in sizes from 1 to 20 h.p. and polyphase squirrel cage motors in sizes from 2 to 30 h.p. These motors are designed for a temperature rise not to exceed 50 degrees centigrade and meet all A. I. E. E. and N. E. L. A. standards.



Ornamental Mail Boxes



A Handsome Ornamental Mail Box Which Adds to the First Impression of a House.

IT has been said that the home is characteristic of the owner and if this be true then the first impression which the visitor has of the home owner is the appearance of the front entrance of the home. Since first impressions are so important and so lasting it is well to make the front entrance pleasing. With this in mind the mail box illustrated here has been designed. It is an early English design worked out in materials of the highest quality, wrought brass, wrought iron and heavy galvanized iron.

The total height of this box, exclusive of the scrolls, is 12 inches while the interior height of the cornice is 10½ inches. At the top it

measures 7¾ inches wide and 3½ inches deep, while the bottom measurements are 6¾ inches wide and 2¾ inches

deep. This size is sufficient to accommodate the largest envelope and, when installed, the box is held 2¼ inches away from the wall so that the mailman may place papers and periodicals behind it.

This box may be obtained in any of three different colors, deep brown crackle, sea green crackle and wrought iron black. Each box is shipped complete with instruction for installing, in a heavy corrugated, cardboard container.



A Soft Face Hammer

FOR good work, on many jobs, it is necessary to have a soft face hammer to avoid damage to delicate parts on which work is being done, especially machinery and similar equipment. The illustration shows a soft face hammer which will not lose its balance after usage because of the fact that instead of a solid soft face it is equipped with a body of steel into which soft plugs are fitted. These plugs can be replaced when worn or when it is desired to have a face of a different material. Plugs of copper, steel or babbitt can be obtained. This hammer comes in weights ranging from ¾ of a pound to eight pounds and with handle lengths of 10 inches to 24 inches.



A Soft Face Hammer with Removable Face so That It May Be Renewed at Will.



Three New Gas Engines

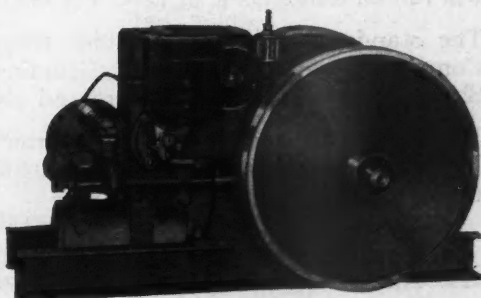
A NEW model of industrial, gas engine has lately been brought out in three sizes, 1½, 2 and 2½ horsepower. Among the features which distinguish this model is the solid flywheel which not only adds to the general appearance of the engine but, it is said, also increases its smooth running qualities and, with the gib key shroud, promotes safety for the operator.

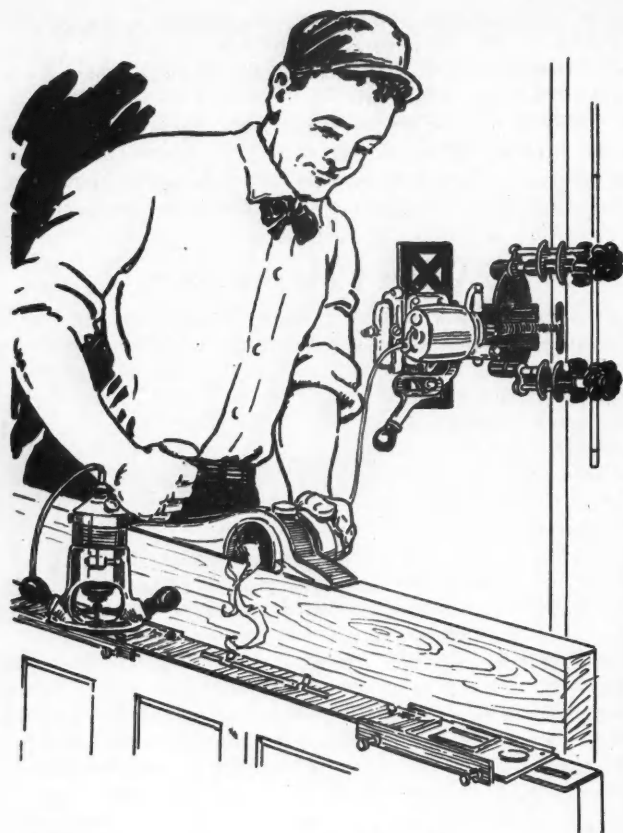
All three sizes are designed to receive steel channel skids which can be easily drilled to receive suitable bolts. The height of the engine may be varied, using three, four or five-inch channels which may be attached with angles facing in or out. This permits a variety of mountings and is made possible due to the fuel tank being attached directly to the cylinder casting where it is securely held by means of a two-inch steel adjustable girt or strap which encircles the tank.

Improved Model Gas Engines Like This Are Now Available in Three Sizes—1½, 2 and 3 Horsepower.

As a means of strengthening, the tank is constructed with a bead rolled into that part of the tank gripped by the strap. The tank being cylindrical in shape, a small amount of fuel will suffice to continue operation of the motor.

It will be noted from the illustration that the gasoline filler pipe is at such an angle that the operator can easily insert a measuring rod. The pipe has a threaded cover which prevents loss of gasoline due to tilting or jarring the engine when mounted on a portable machine.





“I can fit 4 doors to your one!”

THE Carter Power Hand Plane planes any kind of wood 3 to 5 times as fast as an ordinary hand plane. The Carter Plane is far more effective and accurate than the old fashioned type. As it weighs but 9½ lbs., it can easily be operated by one hand. The motors are universal and will run on either A. C. or D. C. current.

The standard equipment includes Bench Bracket, Complete Grinding Attachment, Grinding Wheel and Shaft, one Cutter, 20 feet of Cord and Carrying Case.

For detailed information about the Carter Power Hand Plane, Lock Mortiser and Hinge Butt Router, mail the coupon for Folder A.

R. L. CARTER COMPANY, Inc.
1283 CHESTNUT ST. PHOENIX, N. Y.

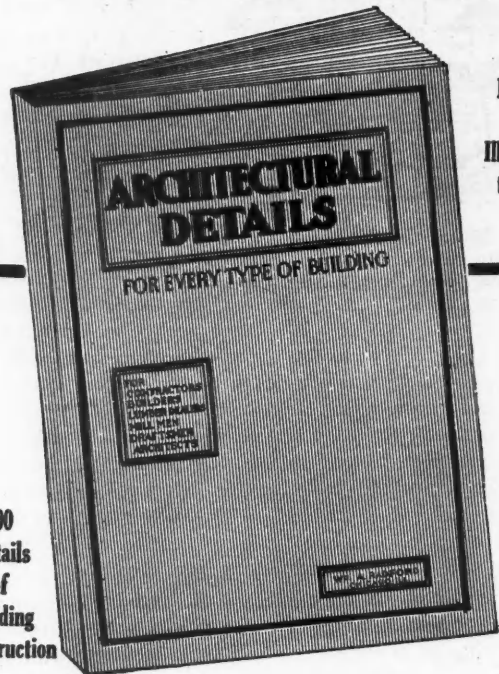
CARTER DOOR SET

R. L. Carter Co., Inc., 1283 Chestnut St., Phoenix, N. Y.
Please send me without obligation, Folder A, describing the Carter Power Hand Plane. Also details of the complete Carter Door Set.

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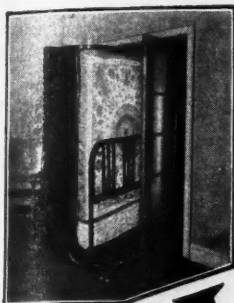
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My occupation is (Check Only One)

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The Holmes Two-Door Pivot Bed requires less closet space and less wall space than any other type of pivot construction. The opening back of the head of the bed is completely closed, eliminating drafts.

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A Message to Architects, Builders and Contractors

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Holmes Concealed Beds were built with the idea foremost in mind, that beds must be comfortable. The result is a full width coil spring of special construction that makes the "Holmes" the most restful of beds.

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The fact that Holmes' models were to be portable or concealed did not restrain the men who design Holmes Concealed Beds from making them beautiful pieces. In both wood and metal construction "Holmes" beds take their place with the finest furniture.

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To fit in with any plans, "Holmes" offers seven distinct types of installation. For either a new building or a remodeling job there is a type of Holmes Concealed Bed that is ideal.

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The concealed bed is a twentieth century method of saving space, time and money. With all of its other recognized advantages, the Holmes Concealed Bed is the selection of the man who knows, because it is more easily placed in position and removed, and because it occupies a minimum of space when not in use.

CONCEALED BED CORPORATION

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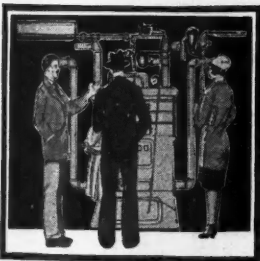


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Success in fireplace building rests entirely on accurate interior construction and the use of proper equipment.

Any builder who carefully follows the Donley Fireplace Construction Plans using Donley Fireplace Damper, can guarantee his fireplaces to operate successfully and to be free from smoking and other fireplace evils.

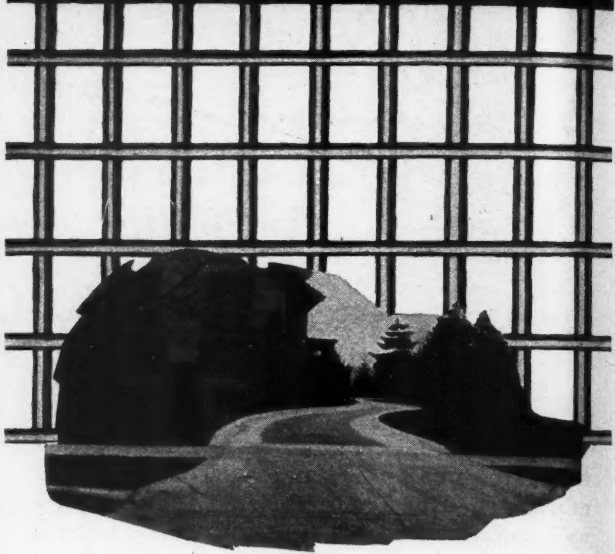
The Donley Book of Successful Fireplaces contains the complete Donley construction plans and photographs, also descriptions of the best types of fireplace equipment to use in building good fireplaces. It can be had by sending 25c to cover cost of mailing.

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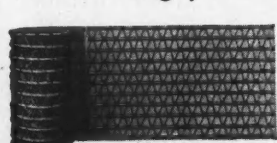
"The Steel Backbone for Concrete"



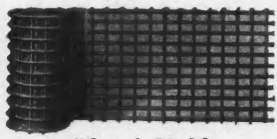
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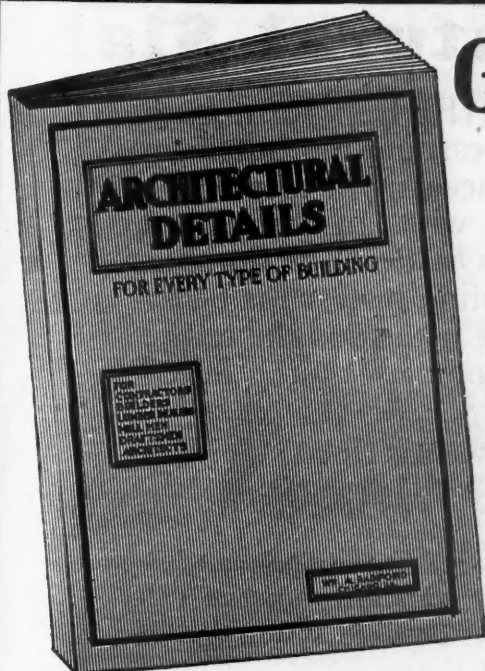
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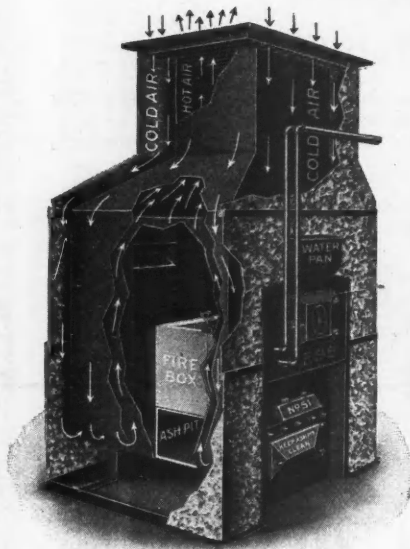
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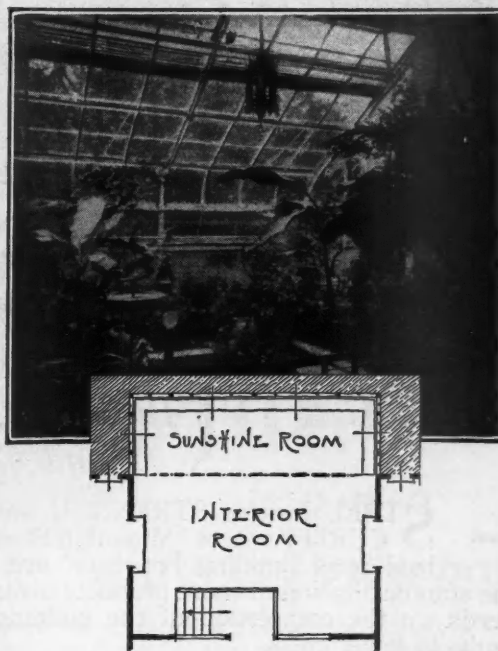


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As the plan shows, this Sunshine Room was set against the open side of an interior room. It gives more than double its own area of sun-drenched indoor garden and living room space.

Worth twice its total cost in increased property value. Vastly more than that in sales appeal.

We've worked it all out from your side. Let's get down to brass tacks together.

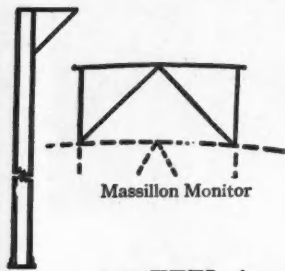
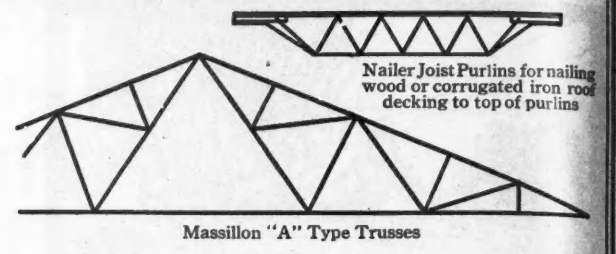
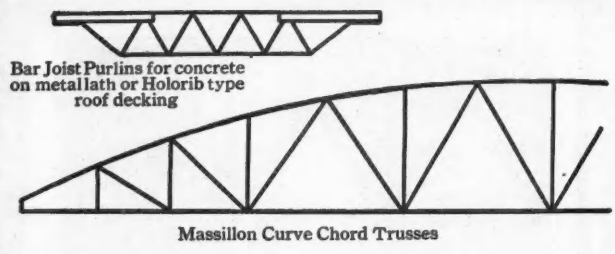
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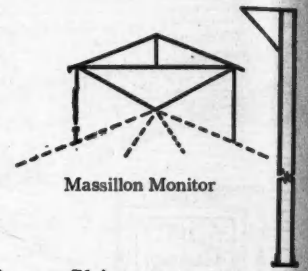
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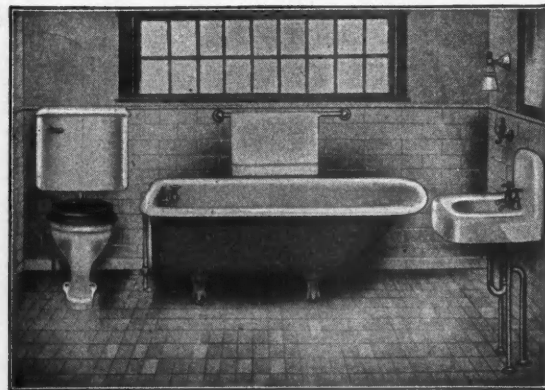
for all types of roof deckings. Shipments are always prompt.

The contractor who builds with Massillon products has every advantage of the "standard steel building" plus the fact that these standardized products can be provided to meet the individual requirements of his client.

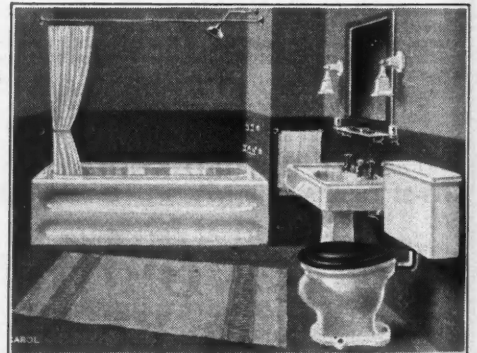
Send us a sketch or set of plans for your next building of this type and let us show you how Massillon construction can benefit you.

THE MACOMBER STEEL COMPANY, 909 Belden Avenue, CANTON, OHIO

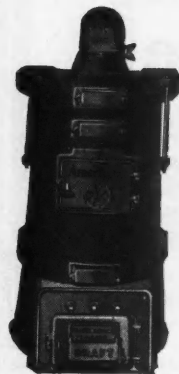
Representative Bargains from Our New Catalog



on Quality Plumbing & Heating Material



The Jewell An inexpensive high grade outfit of latest style that carries the stamp of perfection, priced very low at **\$55**
 Bath Tub and Lavatory are cast iron, heavy porcelain and fully equipped. Tub lengths to 5 ft. same price, 26 or 30 in. wide. Closet has deep seal syphon action wash-down bowl.



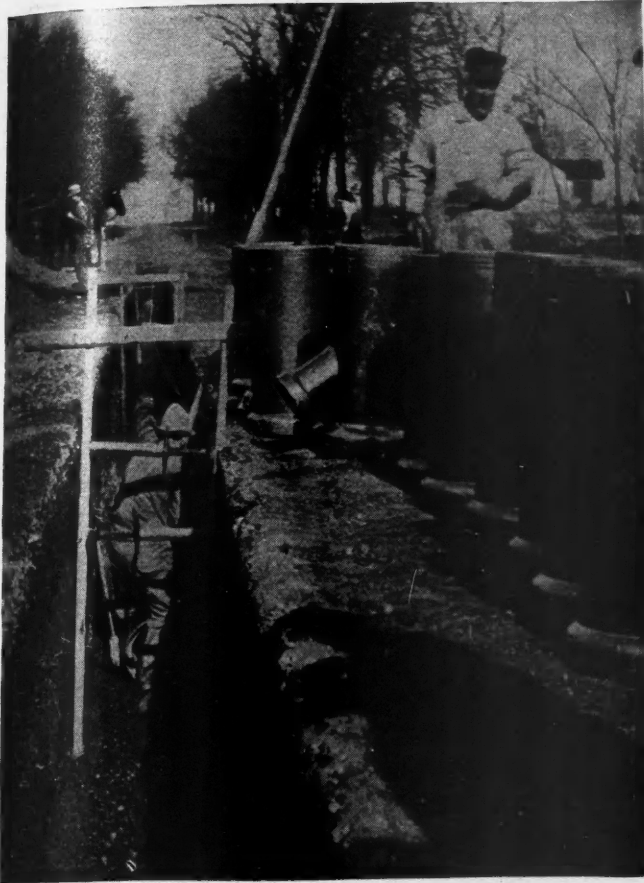
The Peerless Beautiful Complete **\$102**
 Highest type of Bathroom. Fixtures are solid and massive. Tub, Closet and Lavatory, heavily enameled inside and out. Closet is deep seal syphon action, wash-down type with jet. Solid porcelain tank. Shower equipment shown \$11 extra.

WHOLESALE PRICES on the best plumbing and heating supplies. Everything **GUARANTEED**, or we refund your money. Only high class goods sold. **Prices Always Lowest**
CATALOG FREE

Hot Water Heating Plant Complete For 6 Rooms and bath with 900 ft. Boiler and 275 ft. Radiation of your own choice for only **\$275**
 Larger systems equally as low. Send your plans for estimate — No Charge.

YOU CAN ALWAYS SAVE MONEY AT KAROL'S and be assured of the best quality of goods and fast service. We carry a big stock and can make immediate shipment. Try us!
ESTIMATES FREE

B. Karol & Sons Co., 800-10 So. Kedzie Avenue, CHICAGO, U. S. A.



The health of a
community is
only as lasting
as its sanitary
sewers

CLAY PRODUCTS ASSOCIATION
CONWAY BUILDING
Chicago

VITRIFIED *Salt Glazed* CLAY
Sanitary Sewer Pipe

AB 8-Gray

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



From the viewpoint of Time and Money saved. Eliminating much handsanding, planing, and scraping

The **TAKE-ABOUT** Sander

will cut your handsanding costs, besides helping you finish your contract on time.



Illustrations show use of the Super Take-About with and without floor handle.



This SUPER model is a rugged, powerful, portable, belt sander that will stand the hard knocks on the job. Eliminates handscraping the floor edges, stairs, closets, and those hard-to-reach places. The smooth even action of belt over flat pad eliminates the ripple marks of a drum and assures you of a fine finish. Snap the switch, let the belt work; you merely guide it. The coupon below is for your convenience. No obligation.

Porter-Cable
Machine Co.

1721 No. Salina St.
Syracuse, N. Y.

Porter-Cable Machine Co.,
1721 No. Salina St.,
Syracuse, N. Y.

Gentlemen:

I am interested in the Super Take-About Sander. Please send me additional information.

Name

Address

SAMSON SPOT SASH CORD

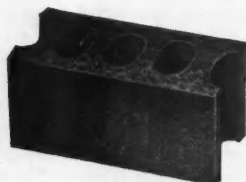
SOLID BRAIDED COTTON

SAMSON SPOT SASH CORD is made of extra quality cotton yarn spun in our own mills and is guaranteed to be free from imperfections of braid or

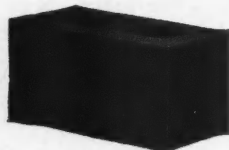
finish. It is the most durable material for hanging windows. It can be easily distinguished by our trade-mark, the Colored Spots. Send for samples.

SAMSON CORDAGE WORKS - BOSTON, MASS.

"There is a Difference in Sash Cord"



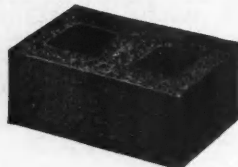
8x8x16 Block 3-Core



8x8x16 Block 2-Core



5x12x16 Tile



5x8x12 Tile

All these concrete masonry units made on one machine—

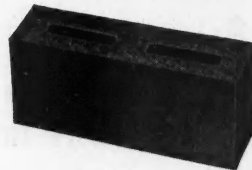
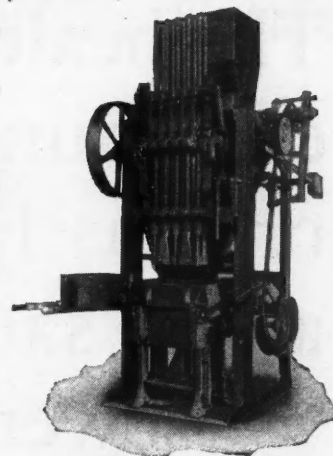


Self-Contained Vertical Power Stripper

Here is the newest thing in power machinery for the rapid and economical manufacture of concrete block and tile. It is entirely self-contained—when it arrives at your plant you skid it into place, hook on a belt and you're ready to start operations. A power feeder that works automatically, power tampers that cut labor cost and insure a uniformly dense product. Only one clutch on the whole outfit and that one has a light job.

For the builder who is interested in establishing a concrete products plant with not too great an investment but whose trade requires a variety of sizes and types of masonry units, this outfit will be especially valuable.

Write for the Ideal catalog describing hand and power block, brick and tile machines, mixers and ornamental molds.



5x4x12 Tile

This stripper also makes blocks 8x10x16 and 8x12x16 and tile 5x6x8.

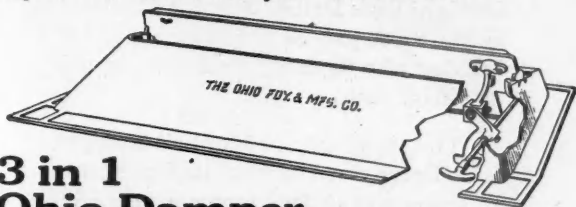
IDEAL
CONCRETE MACHINERY

DIVISION OF
CONSOLIDATED CONCRETE MACHINERY CORPN., ADRIAN, MICH.



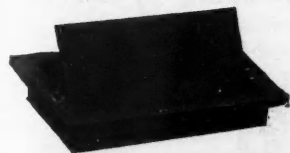
Ohio Fireplace Accessories

You will find in the Ohio line a wide selection of complete fireplace equipment, including Brilliant Fire Gas Heaters, Andirons, Fire Sets, Screens, or anything necessary to make the fireplace practical and beautiful. Large plant facilities, coupled with our eighty years' experience, are your guarantee of honest merchandise and fair prices. Send for complete information with your dealer's name.



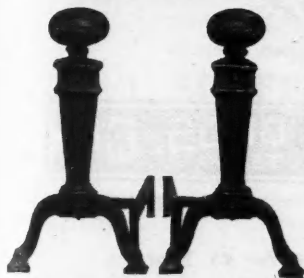
3 in 1 Ohio Damper

This damper is scientifically designed for correct draw and ease of installation and operation with our exclusive patented three-in-one control. It is shipped equipped for operation either through the face of the mantle or with the underslung lever control. The lid is so arranged that the chain pull can be added easily without disturbing the other control and without additional cost. It simplifies the carrying of stock to meet the demands of the builder or home owner.



Ash Dump

This Ohio No. 5 Ash Dump has double doors, insuring easy and automatic disposal of the ashes. It is very substantially framed in iron. Made in two sizes, 6" x 9" and 9" x 12".



Ohio Andirons

Ohio Andirons are made in a large number of attractive designs and patterns. They may be secured in almost any finish and at a price you can afford to pay.

THE OHIO FOUNDRY & MFG. CO.
Stuebenville Established 1846 Ohio

Insulate

This Easy Inexpensive Way With
Gimco
ROCK WOOL

WHEN YOU INSULATE between floors, walls or in attics, remember that GIMCO ROCK WOOL is the cheapest, easiest-handled, most efficient insulation you can use. It not only insulates against cold and heat, but also against FIRE, water, vermin and SOUND. ROCK WOOL is listed by the U. S. Bureau of Standards as the most efficient 100 percent fire-proof, chemically stable insulator known. Approximately 90 percent of its volume is DEAD-AIR space.

GIMCO ROCK WOOL is produced by drawing molten silica rock into fine, long fibres, by a special process which also anneals the fibres, making them tough, elastic and waterproof. This silica rock is found only at one place—Alexandria, Ind., U. S. A.

A better insulator at a lower cost.

3 CONVENIENT FORMS

Gimco Rock Wool is available in three convenient forms to meet every need and requirement of installation—Loose; Felted (which we term Flexfelt) and Granulated Rock Wool.


- 1. LOOSE ROCK WOOL**—Light, fluffy and easy to handle. Wonderfully adapted for insulating walls and attic floors in new homes or attic floors in old homes. Tucks in easily and quickly between joists or studding. Packed in handy 50-pound bags.
- 2. FELTED ROCK WOOL (Flexfelt)**—Easy-handling, blanket-like form in varying thicknesses. Fabricated between metal lath, providing stucco base when used on outside and plastering base when used on inside.
- 3. GRANULATED ROCK WOOL**—Loose Rock Wool ground into uniformly small particles. Ideal for hard-to-get-at, inaccessible applications. Just open handy 50-pound bags and pour in where desired.

Ask your building supply dealer about Gimco Rock Wool. He can show you samples and quote you prices. If your dealer doesn't handle, write us direct.

Low Cost Will Surprise You!

A better insulator at a lower cost! Hard to believe, but it's a fact. Don't pay fancy prices for ordinary insulators when you can get Gimco Rock Wool at surprisingly low cost.

Send To-day for New Book!



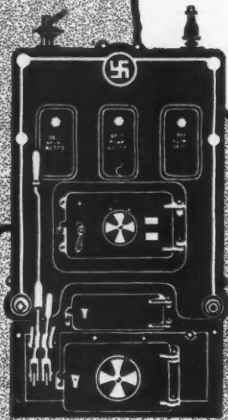
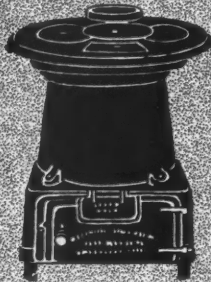
General Insulating and Mfg. Co.
Alexandria, Indiana Send copy of free book on Rock Wool Insulation.

Get All the Facts—

Name _____
Address _____

For Hot Water Supply

Burnham Boilers



A Cross Section of Hot Water Supply

ALL of them are carried in stock at all our plants and warehouses, and ready for immediate delivery. And, of course, they are priced right.

Laundry Stove and Junior Boiler can be furnished with brass firepot for your all-brass installations.

- 1—Burnham Laundry Stove—
for up to 80 gallons.
- 2—Burnham Junior Boiler—
up to 700 gallons.
- 3—Burnham High Pressure
Boiler up to 3,800 gallons.

Measurements and ratings in our new catalogue 67.

Burnham Boiler Corporation

Irvington New York

Representatives in all principal cities of the United States and Canada.

KIMBALL

STRAIGHT LINE DRIVE

ELEVATORS

CHIEFTAIN---A
New Eppley Hotel
at Council Bluffs,
Iowa

Equipped with Kimball
Elevators



Passenger Elevators

In the office building, where the absolute certainty of elevator service is an essential, it is interesting to note that the type of elevator construction is pointing towards the Kimball Straight Line Drive Elevator Machine, as the most practical solution for the builder who figures the upkeep, as well as initial cost.

The simplicity of Kimball Straight Line Drive construction, its fewer parts to get out of order, forms a sane contrast to older style double unit type, still much in use.

If you are interested in Kimball efficient elevator installations you can secure valuable information and literature on the Kimball Straight Line Drive Elevators by writing to this address:



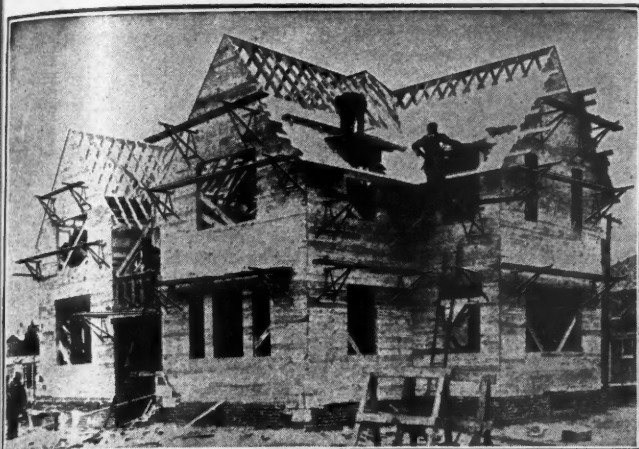
KIMBALL BROS. CO.
COUNCIL BLUFFS, IOWA

989-97 Ninth Street

Council Bluffs, Iowa

Elevator Builders for 45 Years

Everlasting Money Makers



Trouble Saver Steel Brackets

No Surer Money Maker on the Market

Literally cost you nothing—because they save their cost on their first job.

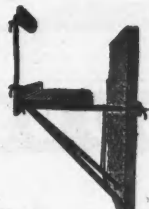
And they go on, year after year, saving their cost on every new job. Nothing to wear out or give way. Everlasting money makers!



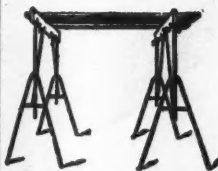
Trouble Saver Studding Brackets Support a ton. Will not bend. Hook around studding. Braced by two legs. Fold compactly for cartage or storage.



Trouble Saver Nail Attached Brackets Support a ton. Held by four nails and braced by two legs. Fold compactly for cartage or storage.



Trouble Saver Bolt Brackets Approved by State Industrial Commissions. Detachable rail standards. Held by 5/8" bolts. Fold for cartage or storage.



Trouble Saver Adjustable Steel Trestles (Patented). Quickly adjusted to desired heights. 8 sizes. Each size adjustable from 4 to 15 different heights, giving a range from 16 inches to 12 feet by 3 inch lifts. Save countless sets of wooden horses.

Trouble Saver Steel Products

- Studding Brackets
- Nail Attached Brackets
- Bolt Brackets with Safety Railing
- Adjustable Trestles
- Ladder Jacks
- Wood Shinglers
- Asphalt Shinglers
- Mortar Board Stands
- Sectional Steel Scaffolding

THE STEEL SCAFFOLDING CO.
1101 Governor St., Evansville, Ind.

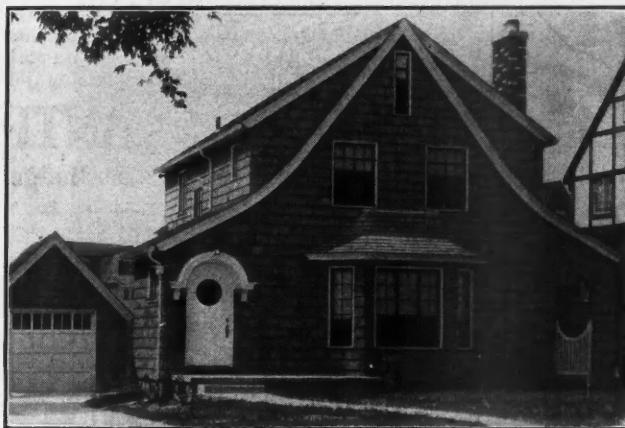
Money Back Trial Offer

Please send us details on your 30-day free trial offer and full information and prices on Trouble Savers.

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

BETTER MATERIALS for SMALL HOMES

WEATHERBEST Stained Shingles as sidewall material enhance the selling value of small homes because of the quality appearance. Aside from the wide range of pleasing color combinations in roof and sidewall harmony, WEATHERBEST Stained Shingles have won recognition for their uniform quality. This is due to the WEATHERBEST process of hand-dipping.



J. Patterson of the Ritard Lumber Co., East Lansing, Mich., drew the plans for this home built by the Glenn Merrill Co. for Mrs. P. S. Lucas. 18-inch WEATHERBEST Stained Shingles in Gray on Sidewall and 18-inch in Blue on Roof.

Each bundle of these 100% edge grain Red Cedar shingles is broken open and the shingles separately treated so that colors are uniform with all shingles receiving the correct penetration of preservative oils. Any imperfect shingles are replaced with good ones and bundles repacked to full count, ready to lay without waste! There is sixteen years' experience behind this rigorous policy "NOT TO CHEAPEN MATERIALS OR PROCESS TO MEET PRICE COMPETITION."

Let us send Color Chart with Portfolio of full-color photogravures showing a wide range of WEATHERBEST Stained Shingles in different color combinations for sidewalls and roofs. Send 10c (stamps or coin) with coupon to cover mailing and handling. WEATHERBEST STAINED SHINGLE CO., Inc., 141 Main St., North Tonawanda, N. Y. Western Plant—St. Paul, Minn. Distributing Warehouses in Leading Centers.



For Remodeling
Many old houses require little or no change of exterior for shingling over sidewalls. A book has been prepared that shows many examples of such work and tells how to proceed to do the work most economically. Ask for book, "Making Old Houses Into Charming Homes."

WEATHERBEST STAINED SHINGLE CO.
141 Main St., North Tonawanda, N. Y.

Enclosed is 10c (stamps or coin) for postage and handling. Please send WEATHERBEST Color Chart, Portfolio of Photogravures showing WEATHERBEST Homes in full color, some with floor plans. Also enclose book on Modernizing and Reshingling old homes.

Name.....
Address.....

This Huge School is Waterproofed with "ANTI-HYDRO" and Guaranteed Dry for FIVE Years

A carload of "ANTI-HYDRO" (3300 gallons) was used to waterproof the foundations, walls, floors and swimming pool through the mass of concrete of this Two-and-a-Half Million Dollar school building.

A cheap substitute for "ANTI-HYDRO" had been approved by the architects and could have been bought for one-half the cost of "ANTI-HYDRO." This substitute would have meant a considerable saving for the contractor.

But—

The contractor insisted on a guarantee of a waterproof job which the manufacturer of the cheap substitute refused to give.

"ANTI-HYDRO" was then used and the job was guaranteed to remain watertight for FIVE years.

You may pay more for "ANTI-HYDRO," but the first cost is the last cost. Cheap substitutes are a false economy—and always cost more in the end.

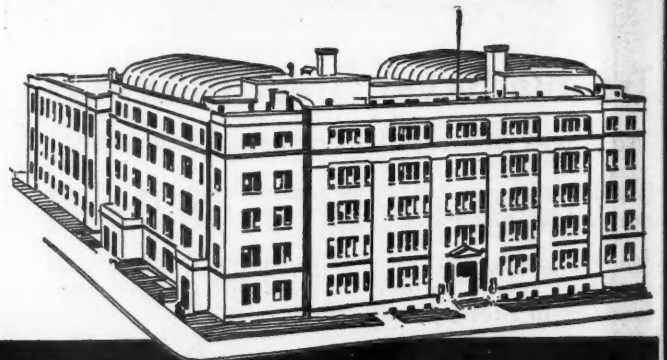
"ANTI-HYDRO" is easy to use and saves time, labor, and repair costs. It is a liquid integral compound which mixes readily with water without the aid of skilled labor. For 24 years it has been the accepted BEST. Use "ANTI-HYDRO" on your next water-proofing job for *guaranteed* results.



ANTI-HYDRO WATERPROOFING CO.

265-269 Badger Ave.

Newark, N. J.



GIRLS COMMERCIAL HIGH SCHOOL — BROOKLYN, N. Y.
W. H. GOMPERT, ARCHITECT. — GEORGE A. FULLER CO., BUILDERS.

ACCEPT NO SUBSTITUTE

Sterling

riveted on "extra leg shoe" gives twice the wearing life.

Study the under construction of a Sterling — then compare it with any other. You'll quickly see why Sterlings give you the *most for your money*.

Channel steel, of extra strength, is used for the leg frame. Scientifically formed to give greatest rigidity. Snug fitting to handles. Riveted construction—can't wobble. Crossed and diagonally braced. All of this plus the "extra leg shoe" is why *more Sterlings are used than any other*.

Leading Hardware and Equipment dealers have them — or they can get them quickly from our complete stock warehouses at Chicago, New York, Philadelphia, Pittsburgh, Cleveland, Detroit, St. Louis.

There's a size and style for every requirement.

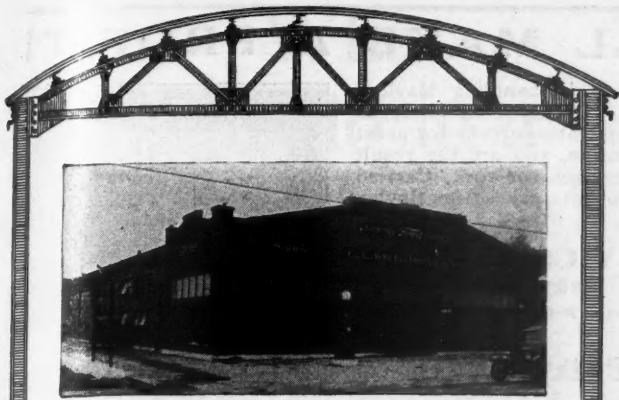


STERLING WHEELBARROW COMPANY

STERLING ON A WHEELBARROW MEANS MORE THAN SILVER

Milwaukee

Wisconsin



G. L. WHITE MOTOR CO., BRADFORD, PA.
(Steel by International)

Let's Go After Garage Contracts!

SOMEWHERE in your town there is a lively prospect for a new commercial garage. With the rapid increase in car ownerships—with the growing demand for adequate storage space and repairs—bigger and better garages, and *more of them*, will soon be needed. It will pay you to keep after these prospects—and when you get them interested, call upon the International Garage Construction Department to help you land the contracts! We will be glad to draw up plans (free of charge) and quote delivered prices on the steel necessary to build a good job. It may pay you—now—to write for our Garage and Steel Catalog!

INTERNATIONAL STEEL & IRON COMPANY

Evansville Dept. 18 Indiana

INTERNATIONAL PRODUCTS

Store Fronts	Public Garages	Steel Trusses
Steel Columns	Steel Girders	Steel Windows
Steel Ceilings	Elevators	Skylights
Showalk Lights	Roof Ventilators	Coal Chutes

Our Complete Stocks Assure Prompt Delivery



"I'd as soon give up my pipe!"



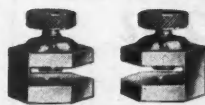
"There's two things I aim to stick to. One's my pipe and the other's my Starrett Combination Square."

The Starrett No. 94 Combination Square replaces eight ordinary tools—marking gage, rule, square, miter, depth gage, height gage, level and plumb. No wonder carpenters and builders call it the handiest tool made.

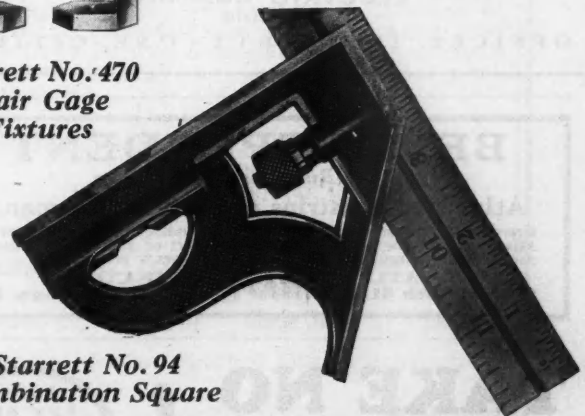
Your tool dealer has this and many other time saving Starrett Tools. Let us send you a free copy of the Starrett Catalog No. 24-6.

THE L. S. STARRETT CO.

World's Greatest Toolmakers
Manufacturers of Hacksaws Unexcelled
Steel Tapes—Standard for Accuracy
ATHOL, MASS., U. S. A.



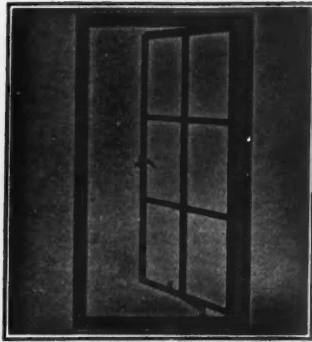
Starrett No. 470
Stair Gage
Fixtures



Starrett No. 94
Combination Square

Use Starrett Tools

THESE WINDOWS WILL MAKE A PROFIT!

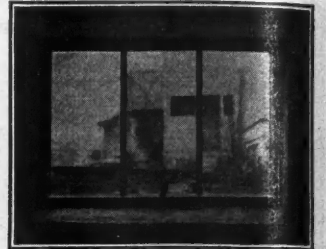


Residence Casement

DEALERS are making money in handling Bayley-Springfield Steel Windows. Designed for all types of buildings. Bayley construction features make for great strength and economical installation, and are the result of 45 years' experience in architectural ironwork. Carried in stock so that a dealer's turnover makes the Bayley line an attractive proposition.

THE WM. BAYLEY COMPANY
128 West North Street **SPRINGFIELD, OHIO**
Sales Offices and Warehouses in Principal Cities

**Bayley-Springfield
Steel Windows**



Windows for Basements
The Bayley Window for basements in residences, apartments and other buildings. Fine for side walls in garages and small buildings. Cost no more than wood, yet give 50 per cent more light—made in four standard sizes.

"The Sign of a Better Job"

**Everybody's
Happy with FA Panelboards**

It's everybody's idea to eliminate as much "grief" as possible from the building job and to get the most in money and satisfaction. Wise contractors are using FA Panelboards for all three mentioned items.

Frank Adam
ELECTRIC COMPANY
ST. LOUIS

OFFICES IN THIRTY-ONE CITIES

Adamston
Vertically Drawn Flat Glass

AMPLE capacity to promptly fill the most exacting specifications.

A brand you  can depend upon.

ADAMSTON FLAT GLASS COMPANY
CLARKSBURG, W. VA.

BE INDEPENDENT

Start a Business of Your Own

Atlas Weatherstrips are in Great Demand

Every home apartment house, school office building, etc., is a prospect for Atlas Metal Weatherstrips. Just a little effort on your part will assure you a handsome income. Write us today for agency proposition.

ATLAS WEATHERSTRIP CO.
3943 W. 18th St. Chicago, Ill.

**TAKE NO
CHANCES!**

See Our Ad on Page 11

**BUILT-IN
WOODWORK**

Adds the touch of Refinement. Beauty that increases renting and selling values.

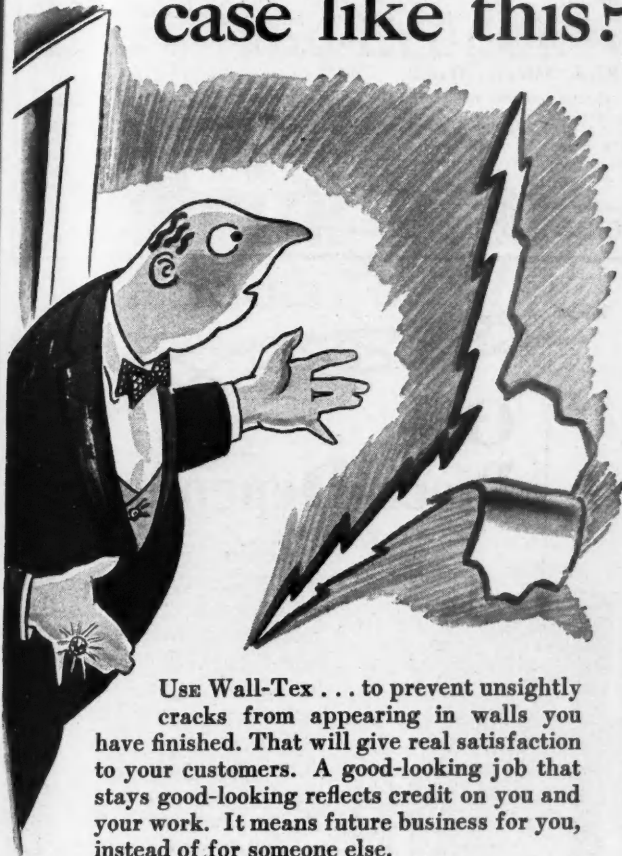
SEE OUR OFFERS

Bookcase Colonnades—Sideboards, Medicine Cabinets, etc., are of Distinctive Design and give living comfort to any home.

*Send for
Free
Catalog*

STEPHEN BILEK CO.
2119 South Troy Street : CHICAGO

What do you do in a case like this?



Use Wall-Tex . . . to prevent unsightly cracks from appearing in walls you have finished. That will give real satisfaction to your customers. A good-looking job that stays good-looking reflects credit on you and your work. It means future business for you, instead of for someone else.

Wall-Tex is a flexible fabric wall-covering. It conceals cracks in old plaster, and helps keep new plaster from cracking. It is hung just like wall-paper, and gives real service from the start, with no repairs or patching. After years of use, it can be used as a foundation for paint coats.

There are Wall-Tex patterns for bright, modern bedrooms, for formal entrance halls, for subdued dining-rooms and libraries. All have the fresh attractiveness that characterizes a modern home. And all will keep their freshness! Should Wall-Tex become spotted or soiled, it can be wiped clean with a damp cloth—as often as may be necessary. The beauty it brings does not fade with the season.

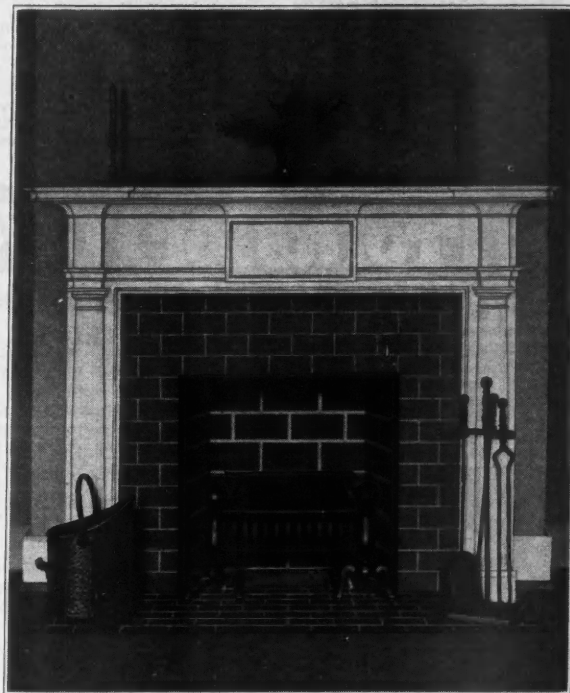
The large variety of handsome Wall-Tex patterns is constantly increased, to keep pace with the latest modes in decoration. There are plain whites in several textures for the very popular applied finishes and paint coats. Wall-Tex makes an ideal base for these, with the advantage that it can be removed at any time, without damaging the plaster underneath.

Architects, builders and decorators wishing detailed information on their requirements, should write to The Columbus-Union Oilcloth Company, Columbus, Ohio.



WALL-TEX
PERMANENT
WALL-COVERING

PEERLESS *Building Specialties*



The Fireplace That Always Works



With the Peerless Fireplace Dome Damper to form the correct throat construction and to assure perfect draft control there never need

be any worry about the fireplace working properly.

Their high grade cast iron construction, simplicity of operation and reasonable cost make the installation of Peerless Dome Dampers a necessity wherever fireplaces are installed. Made in every necessary size and three styles of control.

PEERLESS MANUFACTURING CO.
324 W. MAIN ST.
LOUISVILLE, KENTUCKY

PEERLESS MFG. CO.,
324 W. Main St., 8-28
Louisville, Ky.

Kindly Check

- Contractor Architect
 Home Owner Dealer

Please send Peerless Fireplace Damper Information,
 Other products.

Name.....

Address.....

Town....., State.....

WHY SAW LUMBER BY HAND?

**When You Can Take A Power Saw Out On Every Job
The Saving You Make With Its Use Is A Real Profit**

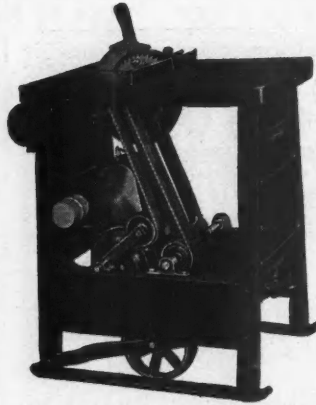
Here is a Powerful, Portable, Carpenter, Sawing Machine not dependent on electric service or skill of the operator. Will cut rafters, studs, stairhorses and bridging; square long dimensions as fast as you can handle the lumber. For trimming sash, doors, screens, fitting casing and flooring. Will do those smooth, accurate jobs with 50% of the cost of hand fitting.

Cross Cuts, Rips, Miters, Dados

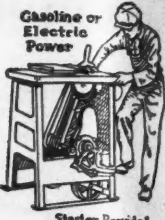
Furnished with either gasoline or electric power, or both. Gasoline equipment weighs 300 pounds and is positively without vibration. Runs all day long on a couple of gallons of gas and a little oil. Will saw as much lumber as a crew with hand saws. Build 1928 buildings 1928 way.

If you will write, we will make you a trial offer that will interest you. Delivery from stock or warehouse near you.


Manufactured by
4449 Royalston Ave., D. W. ONAN & SONS, Minneapolis, Minn.



One man moves it (wheels provided).



Gasoline or Electric Power
Starter Provided



Two men load it.

Big Profits for YOU— We Tell You How

**CLEARED \$2700
INVESTED \$97**



LUXOR
Materials cost 24c;
Selling price \$5.00.



CLAREMONT
Materials cost 44c;
Selling price \$5.00.



MADEIRA
Materials cost 24c;
Selling price \$4.00.



AVONDALE
Materials cost 45c;
Selling price \$6.00.



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Materials cost 40c;
Selling price \$17.00.



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Materials cost 13c;
Selling price \$5.00.



WREN BATH
Materials cost 58c;
Selling price \$21.00.

H. G. Young of New Jersey invested \$97 in two molds and in spare time cleared \$2700. A Contractor in Colorado cleared \$333. A building supply dealer in Ohio cleared \$590. An Indiana man says, "We had to turn down business this year—couldn't make them fast enough."

Either spare time, part time or full time, here's big profits for you. Write for Utility catalog. Explains all.



Ask for machinery catalog for making block, brick or tile. Hand and power machines fully described. It's free.

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500 Ottawa Ave., Holland, Mich.

UTILITY
CONCRETE EQUIPMENT CO.



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One Piece Dependability



Expanded from one piece of steel without welds or rivets under stress, the Bates-Truss Joists give one-piece dependability to construction. Uniform in strength, the open web permits piping and conduits to be run without trouble. Every contractor and architect should have a copy of the Bates catalog on file, giving complete specifications, loading table, etc.

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BEST
Bates Expanded Steel Truss Co.
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LUFKIN Boxwood Rules

Well built from the best of materials. Clearly marked. Preferred by good mechanics everywhere.
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Lasting Beauty - Plus
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Satisfaction
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with

Herringbone
Doublemesh Metal Lath



Available in

Genuine



Ingot Iron

Doublemesh is a lath that uses every ounce of metal for a purpose. Its strong, flat ribs lie at an angle to the plane of the sheet, reinforcing and stiffening the sheet and serving as shelves which hold the plaster while setting. No wide, unexpanded areas. The small mesh—1200 to the square foot—take the very lightest of scratch coats but a perfect key is formed and the metal is all embedded.

In addition to its construction economies, Doublemesh provides walls and ceilings that are firesafe and exceedingly strong and reduces to an absolute minimum the possibility of cracks, streaks and stains. Its use will reflect to your credit and to the satisfaction of the owner. Send for a free copy of our catalog, containing complete information about Herringbone Doublemesh Metal Lath.



GENFIRE STEEL COMPANY
YOUNGSTOWN, OHIO

Branches and Warehouses in Principal Cities. Dealers Everywhere.
Member of the National Council for Better Plastering.



**Saves your skilled men
for skilled work—**

"We have been using one of your Wonder Workers on a number of our jobs during the last three months as a dado, rip and cutoff saw. The only objection we have to the machine is that all of our men want it all of the time." — MacLEAN CONST. CO., Chicago, Ill.

The DeWalt is so versatile that you can save \$100 on an average 6-room house (builders have testified to this). Which means that it's paid for itself on three or four such jobs. You save erection time and save odds and ends usually thrown away.

The DeWalt is so light two men can easily carry it around. It has direct drive. It is easy to set up and to change the set-up.

This speedy, accurate DeWalt is a practical all-round machine that's a big money saver. Fully guaranteed, of course.

Let us arrange for a demonstration on your job. And mail the coupon for Working Cost and Estimate Sheets

DE WALT
Wonder Worker

The Economy Wood Worker

DeWalt Products Co.

669 New Holland Ave., Leola, Pa.

Please send me a supply of Working Cost and Estimate Sheets—without any obligation on my part.

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Type of Business.....



**Motor
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**No
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A Big Profit Maker--

Here is just the machine for contractors. Compact, rugged, and speedy—easily moved from one job to another—will attach to any light socket. Will do your work at much lower cost. Cuts costs in many ways. It's a woodworking machine no contractor can afford to be without. Get the facts, and our catalog illustrating and describing the complete Gallmeyer & Livingston Union line.

Gallmeyer & Livingston Co.
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Here's the weather stripping for you to handle and make money on—Kuhlmann's Metal Weather Strip. Contractors, builders and our representatives are making excellent profits by selling and installing these strips. Any good mechanic can do the job perfectly with ordinary tools. It's easy and profitable work.

Kuhlmann's Metal Weather Strips are absolutely wind and water tight. Write today for our proposition and samples. We can make real money for you. Good territory still open.



Brass Door Sill

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**KUHLMANN'S
METAL WEATHER STRIPS**

The PIONEER

Shows You
**Unexplored
Profits**




Get into this new field of profit with the PIONEER LINE and get a share of the money to be made in the manufacture and sale of PIONEER READYBUILT FIREPLACES. With our fire-place forms and thorough instructions you can start right into a good paying business in any town.

We are the originators of Readybuilt fireplaces, built of brick, stone and tile. Our electric grates cost you less than any previously offered. We sell and ship from coast to coast.

The coupon below will bring you valuable information on our proposition.

Pioneer Fireplace & Supply Company
5327 W. Lake St., Chicago, Ill.

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5327 W. Lake St., Chicago, Ill.

Please send me information on forms for making fireplaces.
 I am interested in Dealer's Proposition.
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Name.....
Address.....

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LESS THAN WHOLESALE PRICES!

Retailers, Builders, Apartment, Hotel and Home Owners—Summer is here! NOW is the time to buy your screen wire. Our wire is 99.8% pure copper. Heavier than any other wire made. 3½ to 5 lbs. more per roll.

14 mesh,	16 mesh,	18 mesh,	
4c	5c	6c	per square foot in 100 lineal foot rolls.

Widths 18" to 48" every two even inches.

BRONZE WIRE

16 mesh, **5c** per square foot in 100 lineal foot rolls. Widths, 24", 26", 28", 30", 32", 34", 36".

We can send cut pieces of wire parcel post. Mail in your list for quotations and save money. Special prices to users who buy 10 rolls or more at one time.

CUT PIECES

14 mesh copper . . . 5c per sq. ft.	16 mesh bronze . . . 5½¢ per sq. ft.
16 mesh copper . . . 5½¢ per sq. ft.	18 mesh copper . . . 6½¢ per sq. ft.

We have in stock all sizes of wire in the above meshes.

*Above Prices F. O. B. Philadelphia
10% Deposit Required on all C. O. D. Orders*

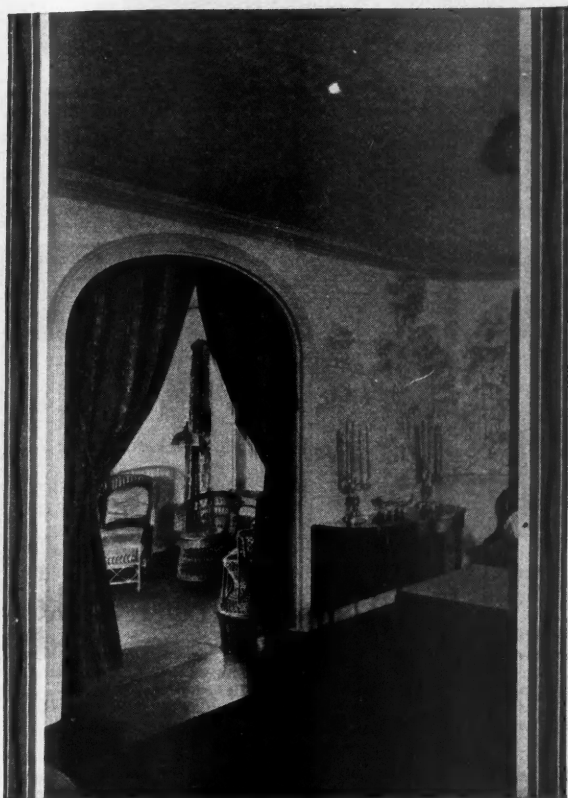
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Specify
**LIME
PLASTER**



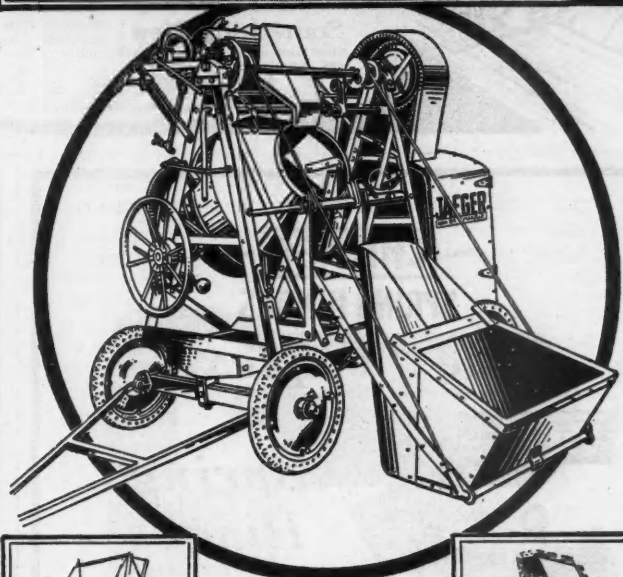
Economies may be safely made at some points in building—but cheaply constructed walls and ceilings cannot be concealed. Why use makeshift substitutes when the genuine may be had at a cost of only 10% of your total appropriation? . . . Specify Gibsonburg Lime, Ohio's Super-Finish—a snow-white, pure, easily worked and uniform product. Build better walls.

Plastering is a word too often used in a broad sense. There are many kinds of plaster. Specify LIME plaster for walls and ceilings of enduring beauty.

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Finishing Lime

THE GIBSONBURG LIME PRODUCTS CO., Gibsonburg, Ohio

**Full One Bag
Tilters - at usual
Half Bag Price**



You Don't Need To Pound the Loader—

Only \$179.50
buys Half Bag Trailer complete with engine and rubber tires!



Jaeger Automatic SKIP SHAKER Shakes It Clean!

**Jaeger-Built, All-Steel, 100%
Timken Bearing—FAST!**

For the usual price of a half bag mixer you can get this Timken bearing, full one bagger, with Automatic Skip Shaker Loader, Accurate Measure Water Tank, "Flat Spot" Drum and 5-second discharge.

It's built of steel and forgings with semi-steel gears—light, portable and 50% stronger. Serviced by Jaeger stations in over 100 cities, no delay. Write for price and terms.



**HEAVY DUTY NON-TILTERS
7-10-14-28 FT. SIZES**

From Speed King 7-S, a faster, full one bag mixer for \$200 less, to full half-yard machine for skyscraper work. Jaeger's 1ODL holds 2 bags, is all-steel, 1/2 ton lighter, 50% stronger, easier handled than many a 7-S mixer.

MAIL THIS FOR CATALOG, PRICES AND TERMS!

The Jaeger Machine Co. Date _____
521 Dublin Avenue, Columbus, Ohio

NON-TILT MIXERS TILTERS PLASTER
 MORTAR MIXERS (Check where desired)

Name _____
Address _____
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Cuts 4 inch Lumber - Weighs only 24 lbs Stands Up Under Heavy Work



"Earned Its Cost on One Job"

"The Saw is O. K.—earned its cost on one job." R. H. Uhlinger, Builder, Pittsburg, Pa.

Model "B" for Bevel and Mitre Cuts
Tilting Base for bevel cuts up to 60°. Special Rip Gauge. 11" blade which cuts 4 1/2" lumber, when tilted for bevel cuts has capacity for 2" and 3" lumber. Special Saw Dust Blower. Perfect Safety Guard. 3/4 h. p. G. E. Universal Motor for A. C. and D. C. Light Socket Operation. **The most complete electric hand saw on the market.**

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Weighs 24 lbs. Cuts up to 4 1/2" lumber. G. E. Universal Motor—Perfect Safety Guard.

Something New! Wodack Combination Lock Mortiser and Router. Ask for name of nearest demonstrator.

F. L. ROGERS & CO.
23 S. Jefferson St., Chicago, Ill.

Also carried in stock at New York Branch



Model "B"

CHICAGO
SPRING HINGES
The "Triplex"



Type 2001

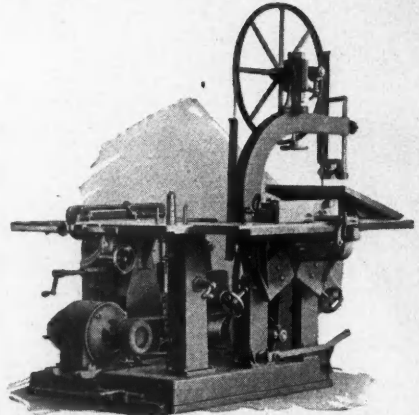
Spring Hinges of Recognized Quality

For many years the Triplex has been considered by Architects and Contractors as a Spring Hinge of Quality. Being identified with quality goods is always an asset.

Send for New Catalogue C42

Chicago Spring Hinge Company.

CHICAGO NEW YORK
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The Crescent Universal Wood Worker

continues to maintain its well deserved reputation as a high quality contractors' machine. It consists of band saw, jointer, saw table, borer and reversible single spindle shaper. . . . Various attachments may be added adapting it for any work that needs to be done in the average contractor's shop.

This machine will help you reduce the cost of your building operations. You need it and should investigate it today. Ask for circulars giving complete descriptions.

Circulars of band saws, saw tables, self-feed rip saw, shapers, jointers, variety woodworker, planers, planer and matchers, disk grinders, cut-off table, swing saws, borers, hollow chisel mortisers, tenoners, universal cut-off saw are free for the asking.

The Crescent Machine Co.
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ROLLED STEEL DOOR FRAMES WILL INCREASE YOUR PROFITS



Showing buck applied to wood stud

The combination buck jamb and trim eliminates separate wood or steel bucks jambs and trim and thereby reduces erection cost two-thirds as the entire unit is installed at one time. Cold rolled of 16 gauge steel—it withstands and absorbs the shock of the heaviest door.

Units made for single or double doors, transom openings, etc. Jambs reinforced securely and drilled and tapped for application of hardware.

Furnished in prime coat ready for finish painting. Prompt shipment, low in cost and easy to install.

LEONARD SHEET METAL WORKS, HOBOKEN, N. J.
Established 1900
Also Manufacturers of Steel Windows, Kalamia Work and Bronze Doors.



Showing buck applied to hollow tile partition

Positive Results
with this New Insulation
— Sprayed on with Guns

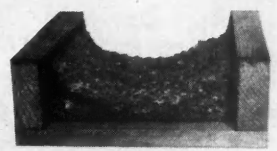


SPRAYO-FLAKE is creating a sensation. Architects, builders and homeowners, everywhere, are interested in this efficient, low-cost insulation sprayed on with guns. Now, for the first time, it makes available a tight-sealing insulation that penetrates every nook and crevice, seals every opening, covers around pipes and window jambs—blankets every space perfectly.

Sprayo-Flake is manufactured and applied in one operation. It sticks where it strikes and stays put. Tests prove its superior insulating efficiency. Fire-resisting, sound-deadening, vermin-proof. Can be sprayed on in any thickness. Low cost application—you can meet all competition and make bigger profits.

Distributors Wanted

Men established in or affiliated with building industry. Write us on your letterhead for full information regarding exclusive franchise.



Sprayo-Flake as it appears when sprayed between studding.

SPRAYO-FLAKE COMPANY
56 So. Bay St., Milwaukee, Wisconsin

\$95⁰⁰ complete!

for this new, speedy,
powerful electric hammer

Here's a hammer that will easily plow its way through all kinds of masonry, brick, stone, tile and concrete. It will drill, chip or channel ten times faster than by hand. Speeding at the rate of 3,600 powerful blows a minute, offered at a new low price and sold on an absolute guarantee of reliability, the new **SYNTRON** will prove the best investment you ever made. Get all the facts, *Now!*



SYNTRON
Portable Electric
HAMMER
Made by
SYNTRON COMPANY
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The **SYNTRON** Electric **HAMMER** is motorless, therefore has nothing to get out of order. It is the lowest priced electric hammer on the market. Send the coupon at once for full description. No obligation.

For the small job
RENT A SYNTRON

Here's the Coupon:

SYNTRON CO., Dept. A8, Pittsburgh, Pa.

Please send me complete information at once concerning your new **SYNTRON** Portable Hammer at new low prices.

Name

Address.....

STOPS DOORS *From Flapping and Banging*

Saves fenders, paint, temper and time. Braces up old doors. No bottom vibration because attached in middle.



For garages, warehouses, barns, poultry houses, etc.

CYCLONE Door Stop

Controls from center. The most popular door stop, most practical, trouble proof and convenient. Operates through powerful friction action. Easily adjusted. Never gets out of order. Doors swing easy but stay put. Stops all wind vibration because attached at middle. Makes doors stormproof and prop-proof.

They Are Big Sellers

Every garage owner needs at least one pair. Inexpensive, anyone can attach them. Liberal profit margins to the trade. List Price \$3.30 per set.



30 DAYS TRIAL

Order one or more pair today on your regular order form. Try them on your own garage or sell them to customers. If not satisfactory you have the privilege of returning them for credit.



Door Stop Hinge

A 2-in-1 hinge. A husky, easy swinging hinge that holds doors rigid and swings them true, plus a high friction door stop that never fails. Friction adjustable. Outlasts garage. Order now or write for circular.



NORTHFIELD IRON CO.

P. O. BOX C-400 NORTHFIELD, MINN., U. S. A.

America's Finest Built Mixers

Hyatt Roller Bearings

— Low Price — Terms



Tilting and Non-Tilting Types

See the Complete New Line of Roller Bearing Models

Hyatt roller bearings throughout, roller-drive chain, Dot high-pressure lubrication, malleable wheels, divided type mixing blades, automatic return—everything provided to make it the fastest, easiest operated, most durable mixer built.



3-3 1/2-5
7 & 10
SIZES

Republic

Republic Concrete Mixers are built in all sizes from half bag up, in both tilting and non-tilting types.

Dealers carry complete stock for quick delivery.

Write for Catalog

REPUBLIC IRON WORKS, Tecumseh, Mich.

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Mr. Swatsky, who lives in Regina, Sask., decided he wanted to make more money, so he sent for the Improved Schlueter Floor Surfer.

"First job on floor 14 years old, oiled, stained many times, very uneven—but you should see it now! It's a new floor! Received four orders while at work. Have ten more on hand."

Write for a copy of Mr. Swatsky's letter, and we'll show you how you can make more money with the Improved Schlueter.



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The Comfortable Great Northern Hotel CHICAGO



Former Guests Represent 90 Per Cent of the Daily Arrivals

TRAVELERS select The Great Northern for its wonderful location in Chicago's "loop". They return because the large comfortable rooms, homelike environment, attentive service, excellent food and moderate charges make it an ideal hotel.

New Garage One-Half Block

400 Newly Furnished Rooms \$2.50 a day and up
Sample Rooms \$4.00, \$5.00, \$6.00, \$7.00 and \$8.00

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DEARBORN STREET FROM JACKSON TO QUINCY

BEHR-MANNING DURUNDUM for FLOOR SANDING



A NEW NAME for AN OLD FRIEND

When the Manning Abrasive Co., Inc., consolidated with Herman Behr & Co., Speed-grits DURUNDUM was renamed BEHR-MANNING DURUNDUM PAPER.

It is the same fast cutting, time saving, economical floor sanding paper, and still carries a triangle trade mark.

BEHR-MANNING CORPORATION
Successor to
MANNING ABRASIVE CO., INC.
TROY, N. Y.

AREALLY The HIGH GRADE MIXER AT AN AMAZINGLY LOW PRICE

BOSS 3 1/2 S TILTER

LOW CHARGING TYPE

Just the right size. Big enough for an average foundation a day, yet small enough to be easily handled about the job or towed behind touring car or truck. Makes small jobs pay big profits. Quickly pays for itself in saving over hand labor costs.

New low prices will amaze you. Investigate! Mail coupon now for details.



Mixes mortar as well as concrete. Mixing always in plain sight.

Gear Driven—Gear Dump! The Boss 3 1/2 S Tilter is a marvel of fast, easy operation. With it two men can turn out as much work as six men using old-fashioned, back-breaking methods. Equipped with 5 second "Easy Dump" arrangement. High speed mixing action. Batch mixed 60 times a minute—produces more uniform aggregate. Water gaps make blade and bowl self cleaning.

Full 1 Year Guarantee! BOSS Mixers are noted for their long life. They are built almost entirely of steel and forgings. Materials and workmanship guaranteed for 1 year. The 3 1/2 S Tilter is driven by powerful 2 H. P. motor requiring the minimum of gasoline a day.

Investigate! Before you decide on what mixer to get, send for full particulars. Note the unusually low prices. Compare the superior quality. The complete line of BOSS Mixers and Hoists is backed by 17 years of manufacturing experience and is endorsed by over 17,500 users.

*BOSS Mixers are built in all sizes and types
—BOSS Hoists single and double drum.*

Specifications
Capacity based on crushed 1 1/4 inch stone in aggregate, dry 5 cu. ft., wet 3 1/2 cu. ft. Average daily 30 to 40 cu. yards. 29 x 27 inch bowl with 19 inch opening. Loading height 40 inches. Frame 4 in. steel, 14 x 3 in. steel wheels or 24 x 3 rubber tire. Alemite lubrication.

Adopted by Contractors in U. S. and Foreign Countries.

U. S. Govt. [100]; Clough, Bourne Corp., N. Y. [40]; Tokio Elec. Bureau, Japan [80]; Cameron, Joyce & Co., Iowa [25]; Stone & Webster, Mass. [13]; State Highway Departments of Illinois, Iowa, Missouri, Massachusetts, Pennsylvania, Michigan, Montana, Kansas, Georgia and other states.

CLIP AND MAIL THIS COUPON NOW

AMERICAN CEMENT MACHINE COMPANY
220 S. Fourth St. Keokuk, Iowa
Please send me complete details and prices on the BOSS 3 1/2 S Tilter
Name.....
Address.....
City..... State.....

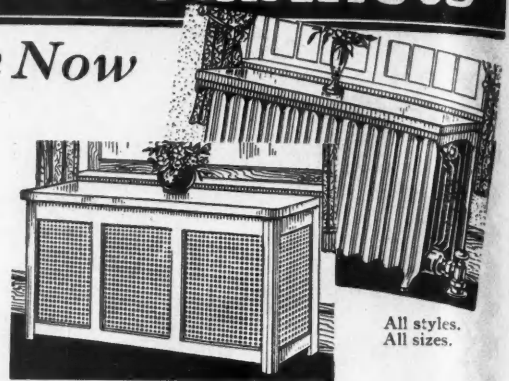
Humidifying Radiator Cabinets

Dealers Secure Your Franchise Now

A profitable business awaits you. Sell and install Winchester Humidifying Radiator Cabinets and Covers. Every new or old building is a prospect. Winchester Radiator Cabinets and Covers make the Home, Apartment, Public Building or Office more livable. Properly humidifies the air, prevents wall smudge and ruined drapery. Makes a useful window seat or table. Helps to sell or rent the building. Finished in baked enamel colors or wood grains to match any decorative scheme.

Investigate this fast selling profitable line at once.
Full information on request.

Winchester Radiator Cabinet Co.
555 West Monroe Street Chicago, Ill.



All styles.
All sizes.



Fast Discharge!

FAST discharge because of the high narrow drum that, in this size mixer, means thorough mixing action and keeps materials together to pour big volume down the discharge chute.

KOEHRING

DANDIE Mixer

— not the cheapest but the high speed performer and the outstanding long service mixer in its field.

Dandie—5-S, 7-S, 10-S—5-S single cylinder; 7-S and 10-S two or four cylinder radiator cooled Ricardo head gasoline engine. Rubber tires with steel disc wheels or rimmed wheels. Complies with A. G. C. standards.

Send for Special Dandie Catalog D-1 today!

KOEHRING COMPANY, MILWAUKEE, WISCONSIN
PAVERS, MIXERS—GASOLINE SHOVELS, CRANES AND DRAGLINES

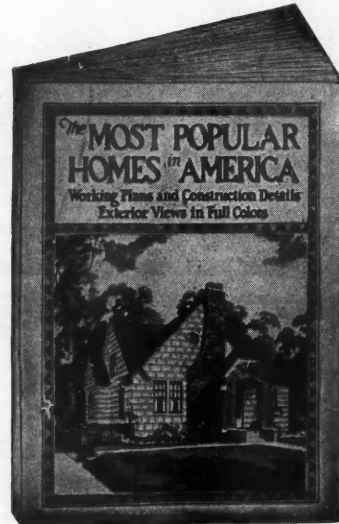
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This Big Book FREE

148 Pages—20 Pages in Full Colors



15 Sets Building Plans

60 Pages Detail Plates

For Full Information

See Page 72

This Issue

9 SIZES
2, 3, 4, 5, 6, 8, 10—
12 and 36 in. Blades

For Quick, Easy Driving "YANKEE" Ratchet Driver No. 10

Has the Right and Left Hand Ratchet, and Rigid feature, and a comfortable handle.

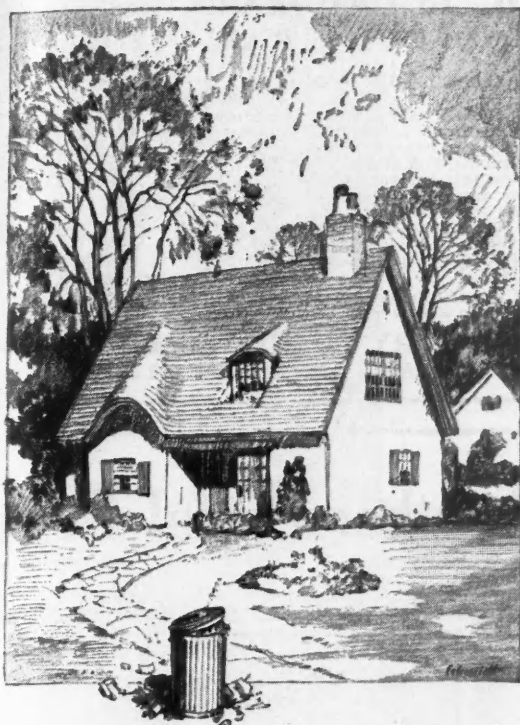
Fits the Hand



Drives and draws screws quicker and easier in any place, than a rigid driver. No sore wrists or blistered hands.

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NORTH BROS. MFG. CO., Dept. A, Phila., Pa.
North Philadelphia Station.

A postal will bring you our Tool Catalog.
Please mention this magazine.



What's wrong with *this* PICTURE?

Here is a good-looking house. It's on a nice lot, in an attractive subdivision. It has all the evidences of being well built—open plumbing, automatic heat, mechanical refrigeration.

But it is *not* modern.

And any woman will tell you why it isn't: **GARBAGE CAN!**

The modern way, the clean way—The Decent Way—to dispose of garbage, trash, rubbish, is to *burn it* with gas.

Inciner, the Home Incinerator, burns it all cleanly, quickly, cheaply— *with gas*.

[[For as little as \$100 f. o. b. factory (discount to builders) you can offer a completely *modern* house. And you will get your money back many times over in better price and readier sale.]]

Think this over — it means money to you — and install INCINOR

See it at your gas office, the Inciner dealer in your community, or write us for full information.

HOME INCINERATOR Co., Milwaukee, Wisconsin

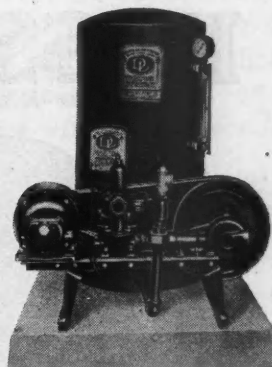
INCINOR
THE HOME INCINERATOR
Good Riddance
GARBAGE · RUBBISH · TRASH



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Here's YOUR pump!

THIS is the pump for you . . . a **DL** shallow well pump. It's used by builders on all kinds of jobs where water is handled. A special model boosts water to higher elevations and to the top floors of tall buildings.



DL electric pumps are husky. They're built heavier, stronger, of better materials. They're operated by the same V-belt drive used so successfully on General Motors automobiles. Do they stand up? A pump on test has run the equivalent of over a thousand years of ordinary use. Only one belt has been replaced!

We'd like to tell you more about **DL** pumps . . . the desirable features . . . the low prices and easy terms. Don't bother to write for information. Just use the coupon. Mail it today.

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Subsidiary of General Motors Corporation
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Also Manufacturers of DELCO-LIGHT Electric Plants

DL ELECTRIC WATER SYSTEMS
PRODUCTS OF GENERAL MOTORS

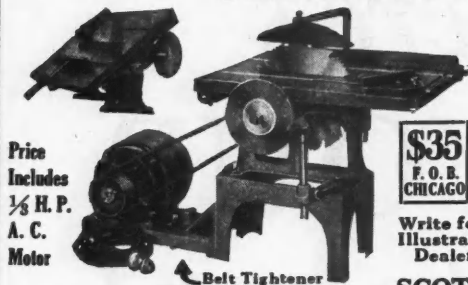
DELCO-LIGHT COMPANY, Dept. R-117, Dayton, Ohio
Please send information about **DL** pumps suitable for Building Contractors.

Name.....

Address.....

The only machine that you can tilt the table to 45° without removing insert. Big advantage on pattern work.

S & B-8" COMBINATION SAW: 18 Tools In One **Money Back Guarantee**
GREATEST MACHINE YOU EVER SAW! 12" Band Saw



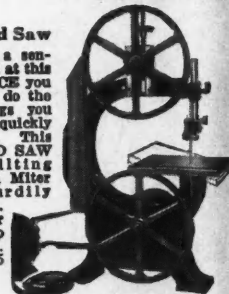
Price Includes
 1/8 H. P.
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\$35
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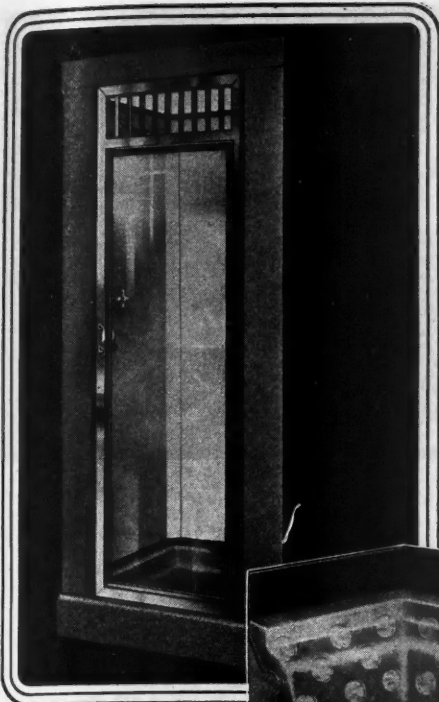
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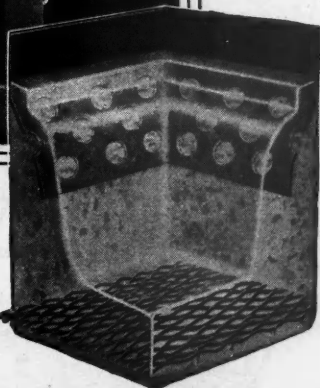
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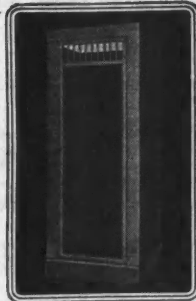
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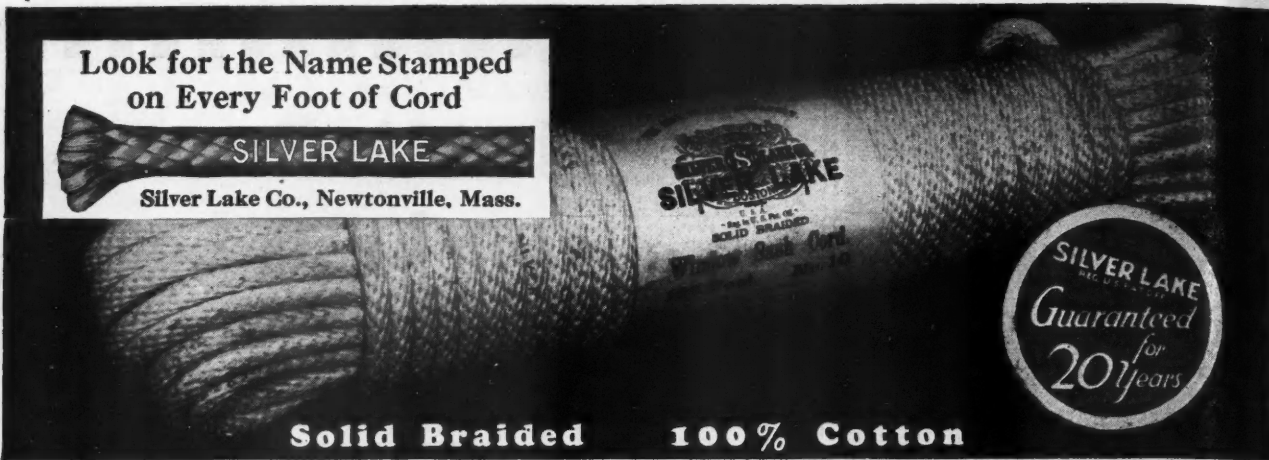
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**One Inch Slice
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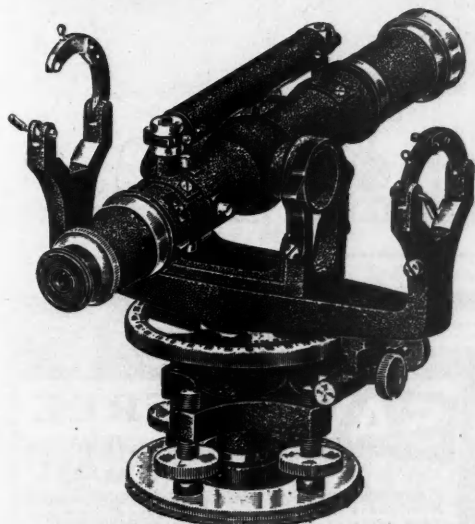
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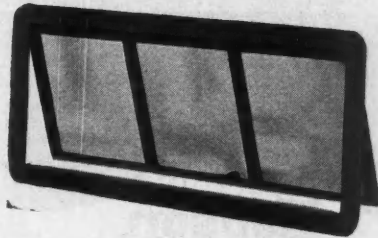


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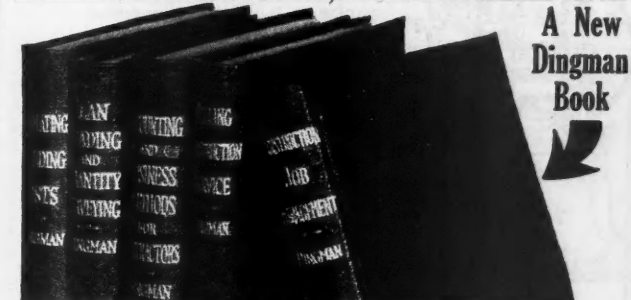
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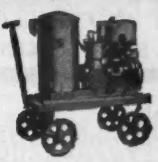
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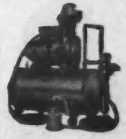
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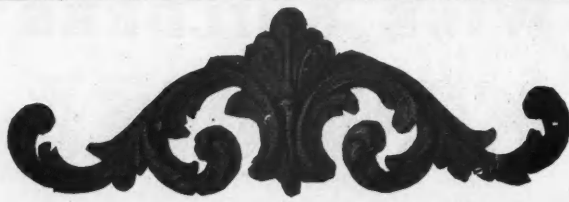
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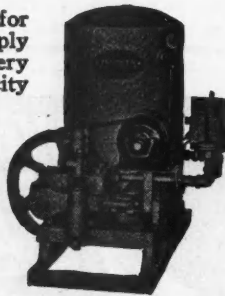
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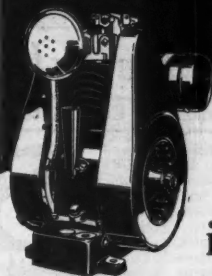
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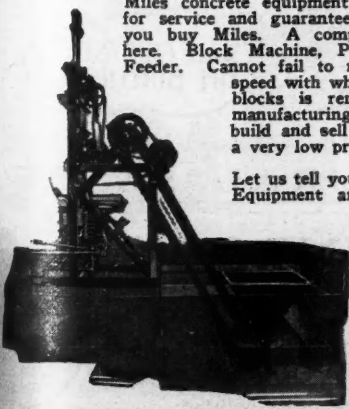


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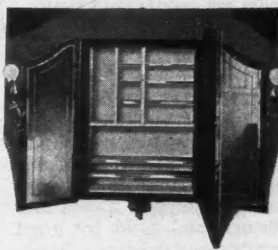
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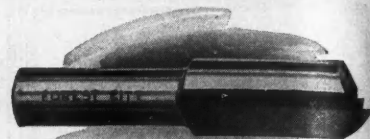
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THE pioneer fireproof plaster wallboard, with the exclusive, patented Sheetrock Reinforced Joint System, that seals and conceals all joints. Takes any decoration. Sold by good yards everywhere. Made only by

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THE BUILDING

The ideal material for Toilet Enclosures, Shower Stalls, Stairways, Caps, Bases, Wainscots, Floors, Fireplaces, etc.

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STRUCTURAL SLATE


PULLMANIZE YOUR WINDOWS!

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Mills & Sons, 5558 W. North Ave., Chicago, Ill., are erecting and **completely Pullmanizing 1678 bungalows** at Westwood, within 28 minutes of the Chicago Loop. They have already used and ordered **17,000 sets of Pullman UNIT Sash Balances** and expect to install **over 30,000 sets** this year. Mr. Mills writes us Pullman is more economical even in speculative building than weights and cords and believes we have the best window control available.

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THE Fire That Heats the Home Heats a Plentiful Supply of HOT WATER

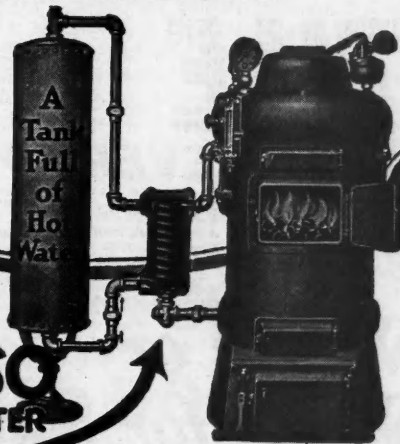
when the Excelso is connected to the steam or vapor heating boiler. It eliminates leaky fire pot coils; requires no attention.

In all sizes to supply hot water for one family or one hundred families.

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DIVISION OF AMERICAN RADIATOR COMPANY
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Nationally Distributed by Leading Wholesalers and Boiler and Radiator Manufacturers

Sold and installed by plumbing and heating contractors everywhere.



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WATER HEATER

IT'S A PLEASURE To Go Up In The Attic On

FRAZIER SELF-BALANCED STAIRS



The Simplified Disappearing Attic Stairway

PRICE \$35.00

F. O. B. Pittsburgh, Pa.

Shipped completely assembled, including Jamb, weight 125 lbs. These stairs cannot get out of order.

No Weights—Springs or Cable are used. Installed by anybody in one-half hour.

OUR GUARANTEE—In event stairs are not as represented return to us at our expense.

Attractive Specialty—Salesman Arrangements

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Please send Details on Frazier Stairs

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Address.....

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FOR SLIDING DOORS ON ANY BUILDING



For stay-on-the-track—easy-to-push-or-pull—weather-resisting sliding doors on barns, sheds, garages, storages and other buildings, recommend and install Myers Stayon and Tubular Door Hangers and Track. There is a style and size for every type or weight of sliding door. Dealers, supply houses, contractors, builders—we solicit your inquiries.

Catalog and information on request.

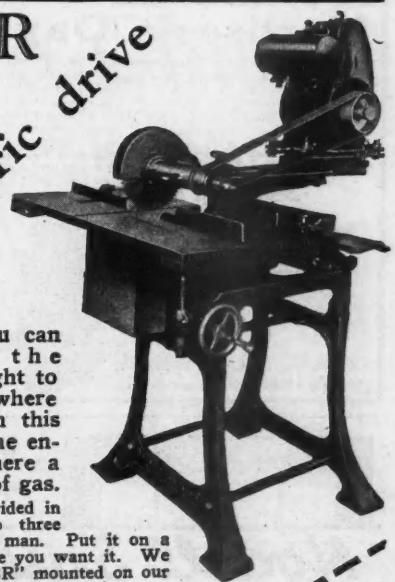
THE F.E. MYERS & BRO. CO. Ashland, Ohio.
ASHLAND PUMP AND HAY TOOL WORKS

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COMBINATION WOODWORKER



Gas or Electric drive



Now you can take the "BEAVER" right to your job no matter where it is. Equipped with this powerful, sturdy gasoline engine it will run anywhere a whole day on a gallon of gas.

The "BEAVER" can be divided in less than five minutes into three parts easily handled by one man. Put it on a light truck and place it where you want it. We can also supply the "BEAVER" mounted on our specially constructed pneumatic tired, spring suspension trailer at a slight additional cost.

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If you desire gasoline engine or trailer equipment for your "BEAVER" write for full details and prices.

No wise Builder will buy any machine before getting our free booklet

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THIS COUPON WILL BRING IT.
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Please send me your free Booklet "BEAVER FACTS," also tell me about your Time Payment Plan and your Free Trial offer.

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Business..... **H.A.B.**

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Diamond Weatherstrip profits average from 33 1/2% to 50% and more net. No investment in material until actual contracts are made. Thousands of people in your vicinity who are home or building owners are live prospects only awaiting to be enlightened as to the merits, savings and advantages of Diamond Metal Weatherstrips. You can build up a permanent and profitable business that will be as large in volume as your sales capacity can make it. We have over 468 dealers in 38 states and are adding to this number as we find proper representation. Get up into the higher paid class of men!

WRITE TODAY TO THE

Diamond Metal Weather Strip Co. COLUMBUS, OHIO



Slides up into the ceiling when not in use.

Announcing MODEL 60

This new Bessler presents a desirable combination of advantages. The stair run is of the same dimensions as our Model 50 while the opening, with panel, is as spacious as that of our standard Model 97. It is a most efficient disappearing stairway, moderately priced.

Your dealer has all the details; ask him

THE BESSLER DISAPPEARING STAIRWAY CO. :: Akron, Ohio

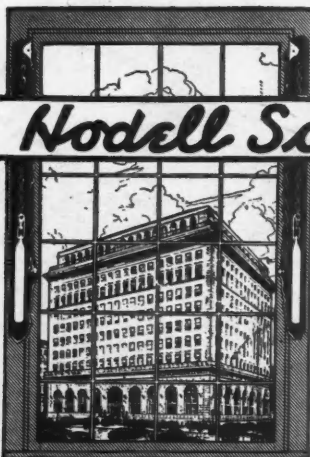
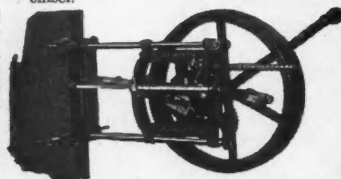
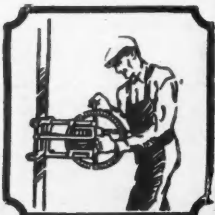
A Hundred Mortises a Day!

That's how many mortises can easily be cut with the Champion Mortiser and at no greater cost than you now pay for 18 cut with brace and chisel. In fact the Champion Mortiser will easily cut 12 perfect mortises an hour. Compare that with the 2 an hour which only the best carpenter can cut with brace and chisel.

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Why continue to waste time, labor and money on mortises? Put a Champion in the hands of your mortise cutter and bank the saving it will bring you. Many contractors have made the Champion pay for itself in a day's time. So can you. Try it on our 15-day trial offer. Send for literature.

Colgan Machinery & Supply Co.
408 Hayden Bldg. Columbus, Ohio



—For permanence specify the famous

Nodell Sash Chain

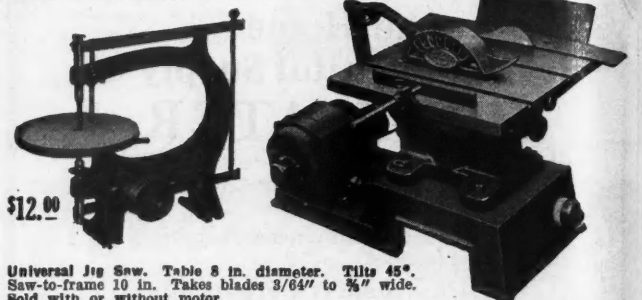
Nodell No. 75 Apartment Sash Chain offers the most modest home or apartment building all the advantages of noiseless, permanent, smooth-running sash chain at no greater cost than for cord. Formed from a cold-drawn ribbon of polished steel, NOT STAMPED FROM SHEET; every link is uniform. See Sweet's. Ask for A. I. A. Specification File, Class 27-A1, and No. 75 folder.

We have some open territory on an exclusive basis for reliable resident agents handling several builders specialties.

THE CHAIN PRODUCTS CO.
Established 1888
CLEVELAND, OHIO

Boice Leads in Saw Values

Compare the two Boice-Crane machines shown here with similar saws for size, capacity and price. Only enlarged production facilities and big demand for Boice-Crane products can permit such prices for this high quality. Universal Hand saw cuts 2 1/2" stock. Table 15x17 in., tilts 45 deg., and elevates for grooving. Sold with or without motor.



Universal Jig Saw. Table 8 in. diameter. Tilt 45°. Saw-to-frame 10 in. Takes blades 3/64" to 3/8" wide. Sold with or without motor. All Boice-Crane machines operate from light socket. Send for new catalog "B" describing complete line of Boice-Crane band saws, jig saws, circular saws, jointers, mortisers, lathes, etc.

W. B. & J. E. BOICE, Dept. AB 8-D, Toledo, Ohio

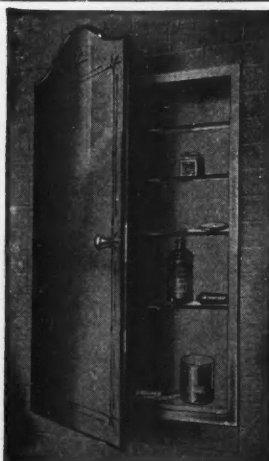
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Direct to you at wholesale prices. Here is a chance for you to make plenty of money. Let us tell you how. Any mason, tile-setter or enterprising carpenter can install tile. We furnish instructions.

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Write or Wire for Samples
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A Hidden Medicine Cabinet
—A Fine Venetian Mirror

Here you have the elegance of a decorative mirror. The medicine cabinet is hidden. No hinges visible. The back of the mirror is of steel finished in hand-rubbed walnut. The cabinet is of electrically welded steel, white enameled. Every builder should have the complete Bulletin of our comprehensive De Luxe line on hand. Write for it today.

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HOME OWNERS! BUILDERS!
Send for Our BIG New FREE Catalog

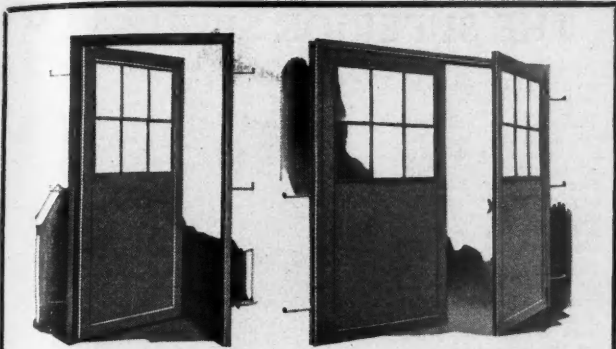
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Also describes fixtures for Churches, Theatres, Auditoriums and Public Buildings

Contractors, Builders, Electricians are invited to write for our proposition

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Send for it Today!



Economical Steel Doors for Every Door Purpose

Fireproof doors for basements, rear entrances, boiler rooms, fire exits, etc., in all buildings and for all uses in warehouses, filling stations, garages and industrial buildings. Reinforced corners, electrically welded. Single or double, slide or swing types. Solid or steel sash panels. Carried in stock for prompt deliveries.

Write for complete detail information and prices.

TRUSCON STEEL COMPANY, Youngstown, Ohio

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Warehouses & Offices in All Principal Cities

TRUSCON

COPPER ALLOY
STEEL DOORS



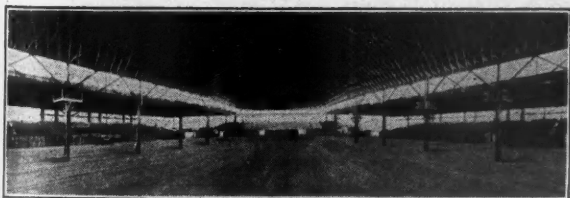
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Endorsed and approved by thousands of architects and building contractors. Doubles closet space. Cuts building costs. Sizes 12 to 60 inches. Fits any closet. Inexpensive, easily installed. K-V will help you sell new houses and bring you better profits.

Write for full and complete details. Our booklet tells you how you can save thousands of dollars, increase turn-over, and make more money with these convenient sales features.

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View of Lamella Roof Construction, National Democratic Convention Hall, Houston, Texas



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(PATENTED)

Trussless ARCH ROOFS

Quickly and Economically Erected
Thoroughly Safe—Very Attractive

Good distribution of light, excellent acoustical conditions.

Adopted for auditoriums, dance hall, garages, warehouses, factories, etc., in all parts of the country. Spans up to 150'.

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Gas Motor

Prompt "changes" are often responsible for increased profits. The 20th Century Woodworker involves no lost time in changing from one operation to another. All changes can be promptly made—no annoyance, no lost motion.

Ease of operation, sturdy construction, beautiful finishing, accuracy and dependability are a few of the dominating features of the 20th Century Woodworker.

Let us show you the rest. This will mean profit to you.

20th Century Wood Worker

The 20th Century can be equipped with a Briggs & Stratton 1½ H. P. Gasoline Motor — which is absolutely dependable and efficient. This motor is very economical to run and makes it possible to use your Woodworker in any location. No power delays — no power expense. An exclusive 20th Century feature.

Excellent territory still available for agents.

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Write for agency proposition today.

Federal Metal Weather Strip Co.
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THE SUPERIOR SPEEDSTER

This machine should save you \$100 on every job.

Will Eliminate Hand Sawing On Your Job

A Money Maker for YOU

Because it is built with swinging arbor and tilting table it is the ideal machine for the builder. The **SPEEDSTER** may be powered with gasoline engine or electric motor and so can be used anywhere.

This machine is as easily moved as a wheelbarrow and so can always be moved to the work rather than bringing the work to it.

New bulletins describing the **SPEEDSTER** are ready—send for one.



Jones Superior Machine Co. 1260 W. North Ave. CHICAGO, ILL.

Folding Stairs \$35.00



adds a STORY to your HOME

Make better use of your attic

WRITE FOR FREE BOOKLET "A"

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Many manufacturers make great claims for their products, but when it comes to a "show down," they don't produce. It has never been the policy of this company to make high sounding claims for our

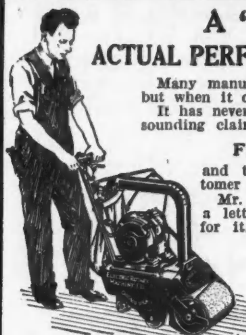
FREE-O-DUST SUPER SURFACER

and then be forced to explain why—after a customer had bought.

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The **FREE-O-DUST** is its own salesman. Results are the actual proof of its performance. Built up to a standard—not down to a price.

Made to give many years of continuous, uninterrupted, profitable service to its owners. Backed and guaranteed by a firm who have been leaders in this field for 20 years. You want results—not promises. That is what the **FREE-O-DUST** will give.



Write for complete description and details of our **FREE TRIAL OFFER.**

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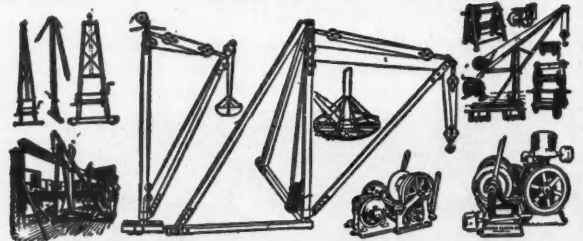
VENTO BUTTYLESS 12 REASONS WHY Steel Basement Windows

should be used by every Builder in houses he builds



- (1) Made of heavy 12 gauge steel welded into one solid piece;
 - (2) Tee Bar stock 1"x1"x3/4" welded in this strong construction;
 - (3) Absolutely weather-proof and water-tight—bedded with cork;
 - (4) Opens easily and locks at the bottom;
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 - (6) Will not warp, sag, bind or stick;
 - (7) Painted and ready to ship or deliver from your dealers;
 - (8) No putty is needed to install glass;
 - (9) Easy to install in brick, wood or cement; saves time.
 - (10) Drilled and tapped to take storm sash or outside "VENTO" screen;
 - (11) Provides proper ventilation at the top;
 - (12) National distribution through building supply dealers;
- U.S. Patent 3-4-24. Fats. pending. Infringements will be prosecuted.
- Don't build without "VENTO." There is a dealer who carries "VENTO" near you; see him, examine this steel basement window. If your dealer does not carry "VENTO" write us today.
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We Mfg. A COMPLETE LINE OF BUILDERS' DERRICKS and Winches



WE SEND DERRICKS ON TRIAL TO RELIABLE CONTRACTORS OUR MOTTO IS SATISFACTION OR DERRICK RETURNED

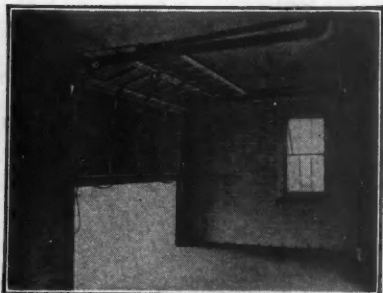
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The "OVERHEAD DOOR"

for

**GARAGE
FACTORY
WAREHOUSE**



Overhead Door Corp.
2-1063 W. Kiskadee St.
HARTFORD CITY, IND.

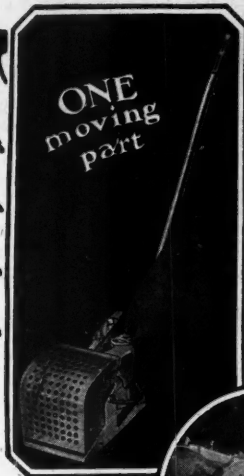
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**YOU DO NOT FIND
WHAT YOU WANT**

in the **AMERICAN BUILDER,**
write us and we will try to
get it for you.

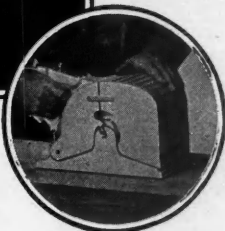
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Vacuum Convertible SANDER



Growing in popularity every day, the new Reid-Way Vacuum Sander has revolutionized sanding practice. The revolving field motor, exclusive Reid-Way feature, has one moving part. No belts, chains, gears, no friction, no lost power. The only light weight sander using an induction motor—no commutator, no brushes to wear out. Extreme simplicity brings the price within the reach of all.

Write for free circulars.



**Light
Strong
Durable**

The REID-WAY is instantly convertible from floor sander to bench sander or jointer. New vacuum principle eliminates dust.

The REID-WAY Company
716 North 16th Street
Cedar Rapids, Iowa



A new Paul Product for dependable home water service.

An added feature that will make homes easier to sell.

New the Paul Electric Water Heater

A NEW and better Automatic Water Heater. Scientific construction and perfect insulation have resulted in unusually high efficiency with the lowest heat loss ever secured.

Exceptionally low price—and operating cost is no greater than the cost of burning a small light bulb continuously. May be used as automatic or semi-automatic at will.

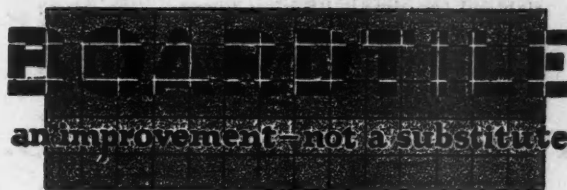
Safety assured by pressure and temperature relief. Dependable Paul Quality.

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1713 N. Harrison Street
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Exclusive Selling Agents Wanted



This new building product looks and wears like tile, but costs one-third to one-half as much installed.

Home Building Costs Reduced

Not only does Gibbs Boardtile greatly reduce cost of home building, but it is as easy to put on as building boards. Enables contractors and others to build up a profitable specialty business equipping already built homes with tile finish—bathrooms, kitchens and halls.

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GIBBS BOARDTILE CORP.
344-50 N. Ogden Ave., Chicago, Ill.

Please send us sample and details regarding Boardtile

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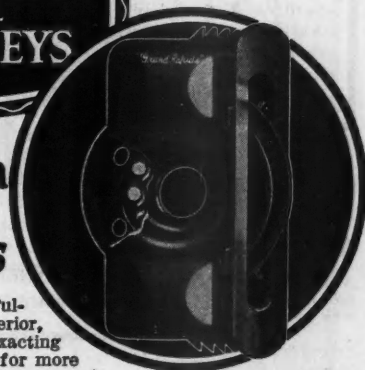
City..... State.....

I am Contractor Builder Dealer

I am interested in your Exclusive Agents' proposition



The Perfection in Sash Pulleys



Grand Rapids All Steel Sash Pulleys are acknowledged superior, because—they are built to exacting standards by specialists who for more than a quarter century have concentrated exclusively on the design and manufacture of this one line.

Every one of the millions made is guaranteed perfect—guaranteed not to break.

You will profit by standardizing on the "Grand Rapids" line—the line that will fully meet your every requirement in Ball Bearing, Axle Bearing, or Cone Bearing types—even to the large lubricated Cone Bearing Pulleys, self aligning and noiseless, which are exclusively Grand Rapids made.



Grand Rapids Hardware Co.
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MICH., U. S. A.

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I am interested in pulley illustrated. Please send sample and catalog.

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Street.....
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Selling Pyramid Metal Weatherstrips

OTHER men are doing a steady, profitable business selling and installing PYRAMID METAL WEATHERSTRIPS. You can do it, too, right in your own locality. Every home owner is a prospect. You will deal with a company that will treat you right all the time. "P"rices lowest. "D"eliverly quickest. "Q"uality highest. "P-D-Q"—that's the PYRAMID motto. The new PYRAMID Co-operative Selling Plan will help you get started quickly and will keep business coming. Write for advance information. It will mean money in your pocket.

PYRAMID METALS CO.

2014 Wabansia Ave. Chicago



COLONIAL DAMPERS

For Genuine Fireplaces the New Style G of the Reliable Colonial Damper,

Can be set 2 or 3 courses of brick above the opening where best results are obtained. Operating handle moves right or left to open or close and slides back under opening out of sight—controls draft perfectly.

Colonial Damper, Ash Traps, Ash Pit Doors, etc., at Your Dealers

Write for Detail of Correct Fireplace Construction FREE

COLONIAL FIREPLACE CO., 4604 Roosevelt Rd., Chicago, Ill.

Send 10c for "The Best of Falls" The Wonder Instrument. Gives Plumb, Angle, Level, Square—Many other uses.

Crofoot SCREEN TACKER

--knows no speed laws



and insures greatest economy and maximum profit. Holds 78 staples at one loading. Reloads completely in 3 seconds.

Fully Guaranteed—5 Days Free Trial

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Credit to rated concerns

Price includes 10,000 genuine Crofoot staples. If it does not prove satisfactory in 5 days return at our expense and your money will be refunded.



Period Mantel-Pieces of Wood

The quiet refinement of a home is augmented by the use of Wood Mantel-Pieces, painstakingly wrought by master craftsmen skilled by years of experience in the manufacture of fine mantels. Write for literature showing many designs adaptable to the requirements of any room in the home.

THE BRECHER Co., Inc.

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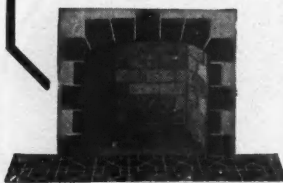
We use Over 55 Designs—Each Distinctively Different

Distinctively Different

Three Charming Designs — Five Attractive Colors

Sold and installed by Authorized Tile Contractors everywhere.

They create an atmosphere of refinement irresistible to the prospective buyer of modest priced homes. The choice of three designs and five colors offers unlimited combinations at approximately the price of brick mantels and are far more attractive.



Send for three color prints and designs.

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AJAX folding metal SHEATHING AND ROOFING BRACKETS

Instantly adjustable to any pitch of roof. The quickest ever; safe as the earth under your feet.

Send for descriptive literature to

Ajax Building Bracket Co.

1551 Rydal-Mount Rd. Cleveland Heights, Ohio

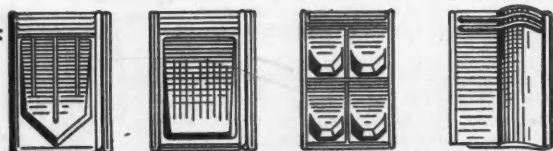
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Catalog on request—estimates cheerfully given—orders filled promptly.



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Wise, thrifty builders will appreciate the saving in putting on Walters and Coopers Metal Shingles. The Walters and Coopers Metal Shingles weigh less than wood or slate and takes lighter frame work to support it. Moreover, it is permanent. This roofing does not require skilled labor to put it on, carries a low rate of insurance and is storm, wind and fireproof. We manufacture a complete line of designs in Painted Tin, Galvanized Sheet Zinc and Copper.

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National Sheet Metal Roofing Co.

339-345 Grand St.,

Jersey City, N. J.

Stucco House
Spray-Painted
in 4
Hours



Building Contractors PAINT by MACHINE

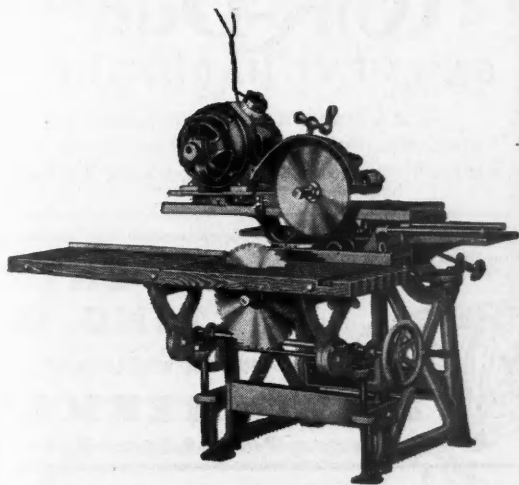
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Dept. H, 3121 Carroll Ave., Chicago
Offices in Principal Cities



Do Your Woodworking This Modern Way

Cut out laborious effort; speed up your work; make more money, as thousands of others are doing. Perform every woodworking operation with this greatest of all machines. It will pay for itself on the first job. WRITE FOR CATALOG.

The "MASTER WOODWORKER"
Congress and Brush Sts., Detroit, Mich.

CEDAR LINING



Costs little (if any), more, than lath and plaster in new construction.

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Women Want SUPERCEDAR CLOSETS

because Supercedar is guaranteed 90% red heart with 100% oil content, and costs no more than unknown brands.

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SUPERCEDAR in boxes like this. No waste on the job.



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GEORGE C. BROWN & CO.
World's Largest Manufacturers of
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Sash Sustainers

The countrywide response from Builders to the Austral Sash Sustainer PROVES THAT IT IS NEEDED FOR SMALL HOUSES, BUNGALOWS, ETC., wherever they may be located. It saves the extra expense and labor necessary for the use of weights and cords.

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NEW YORK, N. Y.

SEND TODAY

AUSTRAL WINDOW COMPANY

101 Park Ave.
New York

Please send me a sample pair of AUSTRAL SASH SUSTAINERS for which I enclose 50c (this covers only actual production cost and postage)

Name!.....

Address.....

Here it is



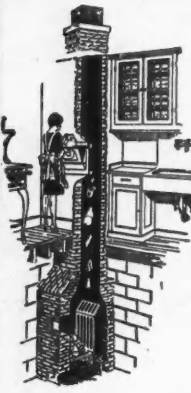


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Always use the MASTER SLIDE RULE for inside measuring and always be accurate—exact—safe. Two rules in one—a direct reading inside caliper and a plain every day rule for all purposes. The Speedy Rule—Make Measuring Easy.

Ask your Hardware Dealer about Master Rules.
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ECONOMY INCINERATOR CO., INC.
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Dealers: Write for our proposition.

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MITER VISE No. 9

This is all the extra equipment that is required for making the finest mitered casings.

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The Best, Fastest and most Economical METHOD ON

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The wall insert heater illustrated, for bathrooms and dressing rooms, serves as an auxiliary heating plant and attracts the eye of prospective owners and tenants. Other models in our line, each distinct departure, described in our catalog. Write!

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Makers of "Sterling" Precision Instruments

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Model No. 40
No Deposit Required

Bottom view showing center bearing



PREVENT ROTTING OF wood columns with ZIMMERMAN Patent Iron Base

Made for ROUND and SQUARE COLUMNS

The Zimmermann is the only base having center bearings. Lifts the column from 1 1/4 to 6 inches off the floor, allowing the air to circulate between the column and the floor. Water runs off without wetting the bottom of column. Specify this base by name.

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"Factory to You"
Lighting Fixtures **READY to HANG**

Save You 1/3 to 1/2
Write for Catalog

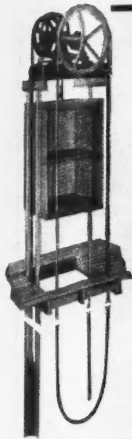
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Permit snappy installation and removal of storm windows and screens... Readily adjusted for ventilation... Easily opened for cleaning. These Kees (Gossett) Hangers are made in rights and lefts and have special flanges which direct sash into snug position. Builders everywhere are specifying this labor-saving item. Sample and prices on request.

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THE FINEST Tool Manufactured for important wood work.

Specially adapted for Hardwood operations; indispensable to the High Class Carpenter and for Cabinet and Pattern Works.

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A sample bit up to 1 inch in diameter will be mailed postage prepaid, upon receipt of 75c to any woodworker or carpenter.

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Exactly duplicate the old slate roofs of Europe with their rich colorings and strong natural texture.



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Write for special circular on the machine that interests you.

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Save time in your work by having a useful truck always at hand. We have been making trucks for nearly half a century for all purposes. Write us your problem and we'll show you how to save time and money by using a truck.

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OVER doors and windows and above fireplaces the builder finds it necessary to span openings with a material that can be depended upon to support the construction. Truscon Steel Lintels meet the requirement and more. Their generous proportions and self-reinforced design contribute to the rigidity and strength of construction at such points. Available in 3 1/2" and 4" widths and lengths from 2'-6" to 8'-0".



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Learn the facts about the Ceco Plan. Find out why 91% of the original Ceco dealers are still with us after many years. Ceco men make \$5,000 to \$10,000 per year. Each has exclusive territory. Only very highest grade of weatherstrips and metal frame window screens bear the Ceco name. Shipments are made within 24 hours after receipt of order. You get square dealing in every transaction with the company. Exclusive dealers needed in 15 cities right now. Consumer advertising reaching over one million people per month. Write for full details.



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Slides Up in the Ceiling When Not In Use

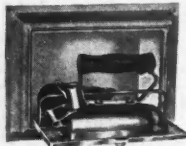
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Non-collapsible; the stair stringers are all one piece, rigid and neat in appearance. Strong enough to carry a person on each step. Perfectly counterpoised by highly resilient springs enclosed in well finished drums.

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Open



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PRACTICAL—A permanent place for electric iron when not in use. Open door forms metal rest for iron while in use.
FIREPROOF—Cabinet all metal. Frame and door, heavy cast aluminum. Sheet steel inner lining asbestos covered. Approved by Fire Commissions.
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You can make more money now!

Quickly pays for itself and brings you big profits for many years

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The Perfect Bond

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Contains no acid. Therefore cannot injure concrete or steel. Forms a bond stronger than the concrete itself.

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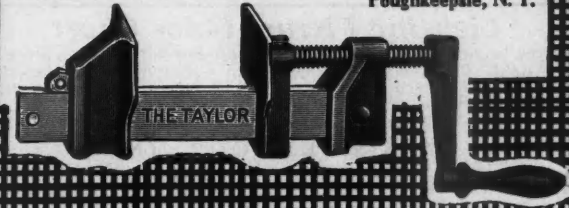
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CLAMPS An Investment Not An Expense

Quickest and strongest clamps made. Standard in U. S. Government Works and in such concerns as General Electric Co., Singer Sewing Machine Co., Victor Talking Machine Co., etc. We can prove it in your own shop. Write today.

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Ackerman-Johnson expansive screw anchors hold a greater load than any other expansive fastening made. Installed in a fraction of the time needed in any other method. Recognized throughout the world as the best. They save more than their cost.

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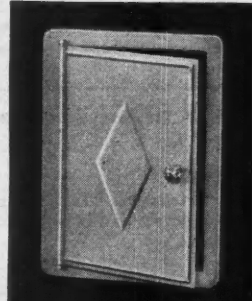
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Take Your H & A Wood-Working Machines Right to the Job



Any H & A Machine—Swing Saw, Jointer, Rip Saw, etc.—will enable one man to do the work of eight or ten and do it better. All electric, motor-driven—just plug into the nearest light socket. They'll pay for themselves on the first few jobs. Write for complete catalog of H & A equipment.

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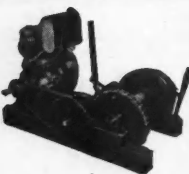
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The beautiful new ALABAX folder printed in full colors shows ALABAX brackets and receptacles in a wide range of over-all colors and colored stripings. It will be helpful in working out your colored harmonies. A free copy sent you on request.

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Save money wherever there is a rope or cable to pull. Made in two sizes, 1,200 to 2,000 lbs. capacity. Reversible and non-reversible—single and double drum, with or without engine. Write today for complete information.

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Miners and Shippers of

Black Roofing Slate Natural Blackboard
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The New Automatic Chalk-line Holder. Always ready to use. Your tool kit is not complete without one. Don't fool with your old block chalk and line. Strike your lines the quick and easy way. Lasts a lifetime. Price \$1.00 post-age prepaid. Manufactured by

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Mallory Shutter Workers
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Made of three-ply Veneer with canvas, painted and varnished, waterproof, light and strong. Secure locks, strong handle, place for every tool, carried like suitcase.

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Win More Jobs—With the TIME CUTTING SAW

HELPS you meet competition—lower your bid—and still make more money. Rips, cross cuts, bevets, mitres, dados, grooves and rabbets lumber up to 2 inches thick. Cuts cleanly and accurately in one-fifth the time required by hand. Can be carried easily by one man from cellar to attic, wherever there is sawing to be done. Ask about our money-back guarantee. *Representatives Wanted* to demonstrate this **TIME CUTTING SAW** which sells itself wherever the advantages of its use are shown.



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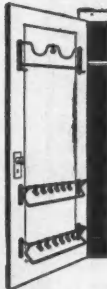
Sell homes easier—Rent them faster

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A big talking point when showing an apartment or house to your prospect. Increased closet space is immensely important to every woman. Keep hats, toggery, shoes neatly and in place.

All metal, strong, fit inside any closet door. Beautiful Duco finish—Jade Green—Old Rose—Silver Color Cadmium. Get price and quantity discount by writing today to



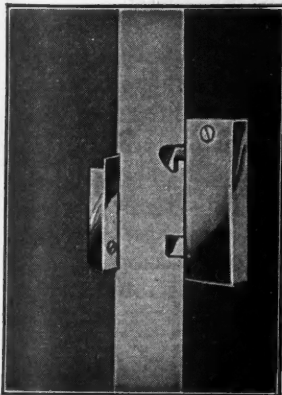
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MAKE EVERY DOOR AN EXTRA CLOSET

HAGSTROM SECRET DOOR LATCH

Designed especially for concealed panels. May also be used on doors, instead of ordinary latch. When door is closed no hardware is visible. To close push lightly on door—to open push hard. Door moves less than 1/8". Shrinking or swelling will not affect this latch as long as door swings free.

Latch may be screwed right on door jamb. Strike screwed on door without cutting. Built in five sizes. Anyone can apply this latch in less than ten minutes. If your jobber cannot supply you address Dept. A for literature and prices.

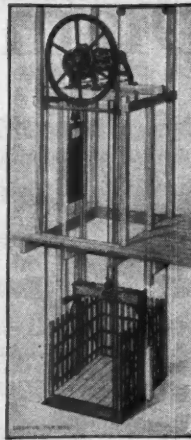
Hagstrom Mfg. Co., Glen Cove, N. Y.



Patent Applied For

For more than half a century contractors and builders have looked to the manufacturers of **CURTIS**

WOODWORK for new ideas in woodwork and homebuilding. New developments are constantly in progress. Do you have the latest information? Write for full particulars to **CURTIS COMPANIES SERVICE BUREAU**, 856 Curtis Bldg., Clinton, Iowa.



SEDGWICK DUMB WAITERS and ELEVATORS for All Purposes

Sedgwick Trunk Lifts protect walls, stairs and floors in up-to-date homes. Other easily installed Sedgwick Hand Power Outfits include Invalid Elevators, Fuel Lifts, Ash Hoists, Gravity Drops, etc.

Standard Sizes Ready to Ship

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SEDGWICK MACHINE WORKS
154 West 15th Street New York, N.Y.

"Sedgwick Service Satisfies"



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Banks Green Enameled Clothes Posts and Flag Poles carry a money back guarantee of satisfaction. Known by our trademark, "Ace of Clubs Top." We have a Parkerized Steel Clothes Post, absolutely RUST-PROOF. Will last long as your house. Prices in the reach of any home owner. If dealer or jobber can't supply, write for descriptive folder.

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PEARL WIRE CLOTH

Due to its metallic coating, a secret process exclusive with G. & B. PEARL is an exceptional rust resister. Because of its long life, smooth finish and even mesh PEARL is and has been for over 30 years the most satisfactory screen wire cloth.

Ask For and Screen with

Our round red tag and two copper wires in the message identify PEARL.

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The Gilbert & Bennett Mfg. Co.

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PEARL is made in Regular Grade (12x13 mesh) and 14, 16, 18, 20, 24 and 30 mesh; also Extra Heavy Grade (14 mesh only)

The best hardware dealer in your city sells "PEARL"



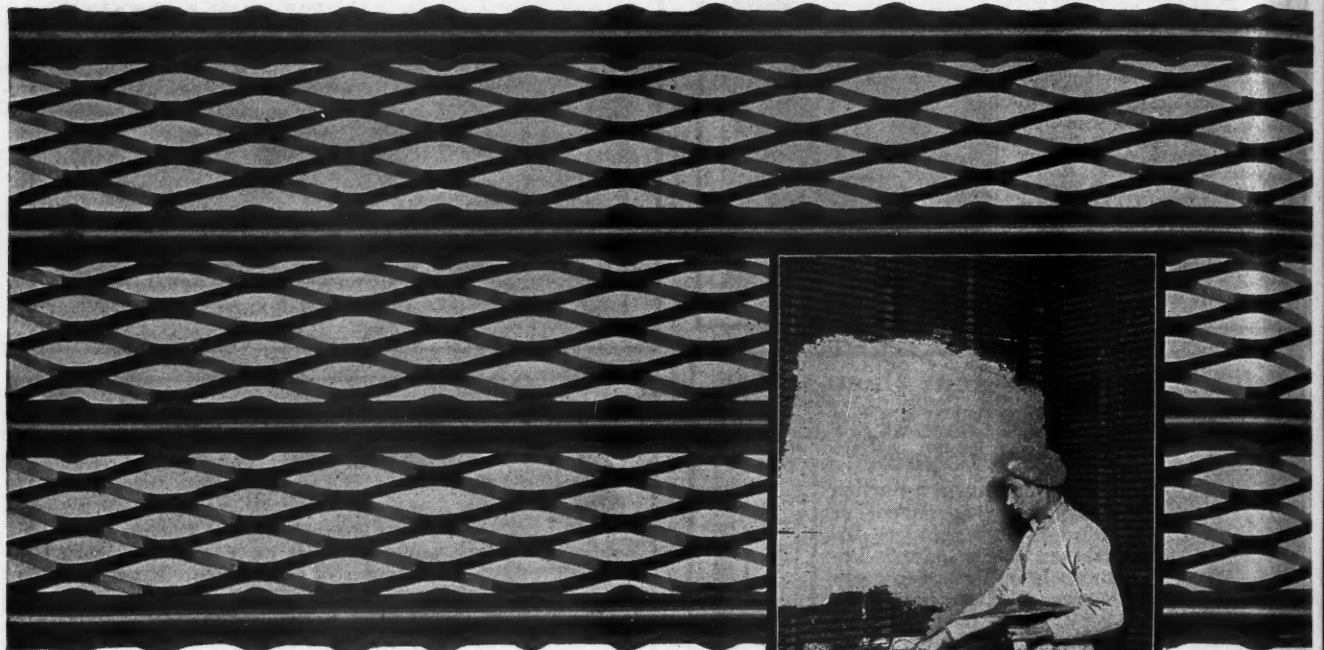
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All Kinds of Heating—Hot Water—Steam—Hot Air—Pipeless—Pipe—Sewage Disposal—Water Supply—Plumbing—Low Prices.

ANDREWS HEATING CO.
1500 Heating Bldg.
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ANDREWS HEATING COMPANY
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Steelcrete Diamond Flat Rib Lath



Costs Less Per Square Yard to Plaster

HERE is a new metal lath that provides the keying and plaster saving advantages of Flat Rib with the strength or reinforcement of Diamond Lath.

This new product, known as Steelcrete Diamond Flat Rib Lath, is meeting with unusual response; those who have used it say it is the best and most inexpensive plaster base on the market today.

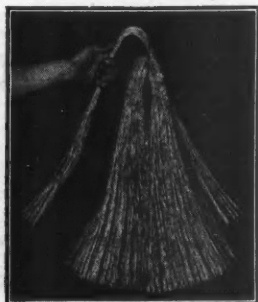
Try it! Costs less per square yard to plaster. The ribs make the sheet strong and rigid, easy to erect. They also act as a guide for the plasterer and assist rapid, efficient plastering.

Sheets are fully expanded from corner to corner. Wide sheets—easy to handle—will not cut the hands. Let us send you samples and prices; also directions for making a practical plastering test. Write to us today.

The Consolidated Expanded Metal Companies

Steelcrete Building, Wheeling, West Va.

Atlanta Boston Cleveland Philadelphia Pittsburgh
Chicago New York Buffalo



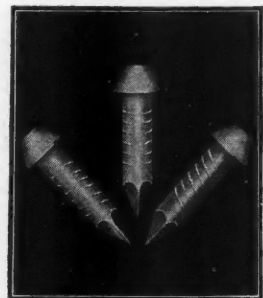
Steelcrete Lathers Tie Wire
Here is a Tie Wire designed for the Lather. A product of unusual strength, yet soft and pliable for quick and efficient workmanship. Wrapped in sanitary packages, a safeguard to the Lather like sterilized nails. Supplied in hanks 25 lbs. each.



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You may obtain on request, samples of the Steelcrete Time Tested Building Products described in this advertisement and complete information on other Steelcrete Products, including Arch Lath, Diamond Lath, Rib Lath, Wall Ties, Cornerite, Metal Base Ground, Curved Point Base Screed, Metal Picture Mould, Cold Rolled Channels, Corner Bead, T-Rail Bead, Bull Nose Bead and Expanded Bead.

Write to us today



Steelcrete Stub Nails

Here is the Nail you can drive into Concrete without bending, breaking or blunting the point. Heavily zinc coated. Comes packed 1000 to the bag; also in 100 lb. kegs. The ideal nail for securing corner beads, metal lath and hangers.

Ackern
Adam
Adams
Ajax
Allen
Allmet
Alpha
Americ
Americ
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Americ
Americ
Americ
Andrew
Anti-H
Asbest
Associ
Atlas
Austral
Babs
Banks
Bates
Bayley

There's more profit in a **HUTHER SAW**

Thin High Speed Steel Knives

Grinding Attachment

Cylinder Cutter Head

Cutter Head

Circular Mitre Saw with Cleaner Teeth

Dado Head

Backed by fifty years experience in the making of highest grade saws, each Huther Saw has a quality built into it that insures maximum length of service.

Huther Bros. Saw Mfg. Co.
ROCHESTER, N. Y.
Makers of Better Saws for More Than Fifty Years

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August, 1928

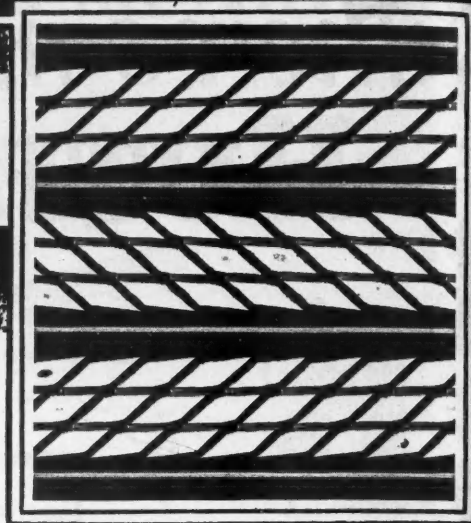
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A NORTH WESTERN PRODUCT

NORWEST

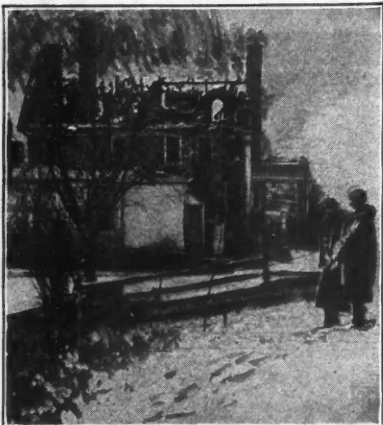
FLAT RIB METAL LATH



Use Steel

Under Your Plaster—Cost Small

Helps Prevent These
Catastrophies



Fire is barred when there is
steel under the plastering



Reinforce ceilings and walls with
NORWEST and avoid this

THANKS to the introduction of NORWEST Metal Lath, the builder or owner of even the tiniest bungalow may now have walls and ceilings as fine and firm as those in high priced homes.

Plastering not only beautiful but **FIRE SAFE!** Yet inexpensive.

For after 40 years of metal lath making, our engineers have now designed this new type of metal lath—NORWEST—which is **SO ECONOMICAL** that it can be used in place of wood lath or plaster board.

Builders, almost to a man, are delighted with this $\frac{1}{8}$ " flat rib NORWEST lath. If you would know how to secure fine *Steel-Strengthened* Plastering—reinforced, fire-resistive and vermin proof walls and ceilings at **LOWEST COST**—send coupon for circular and sample of NORWEST Metal Lath, and name of nearest dealer.

**NORTH WESTERN
EXPANDED METAL CO.**
1203 Old Colony Bldg., CHICAGO

MAIL COUPON NOW

Gentlemen: Please send me a sample of Norwest Metal Lath and circular.

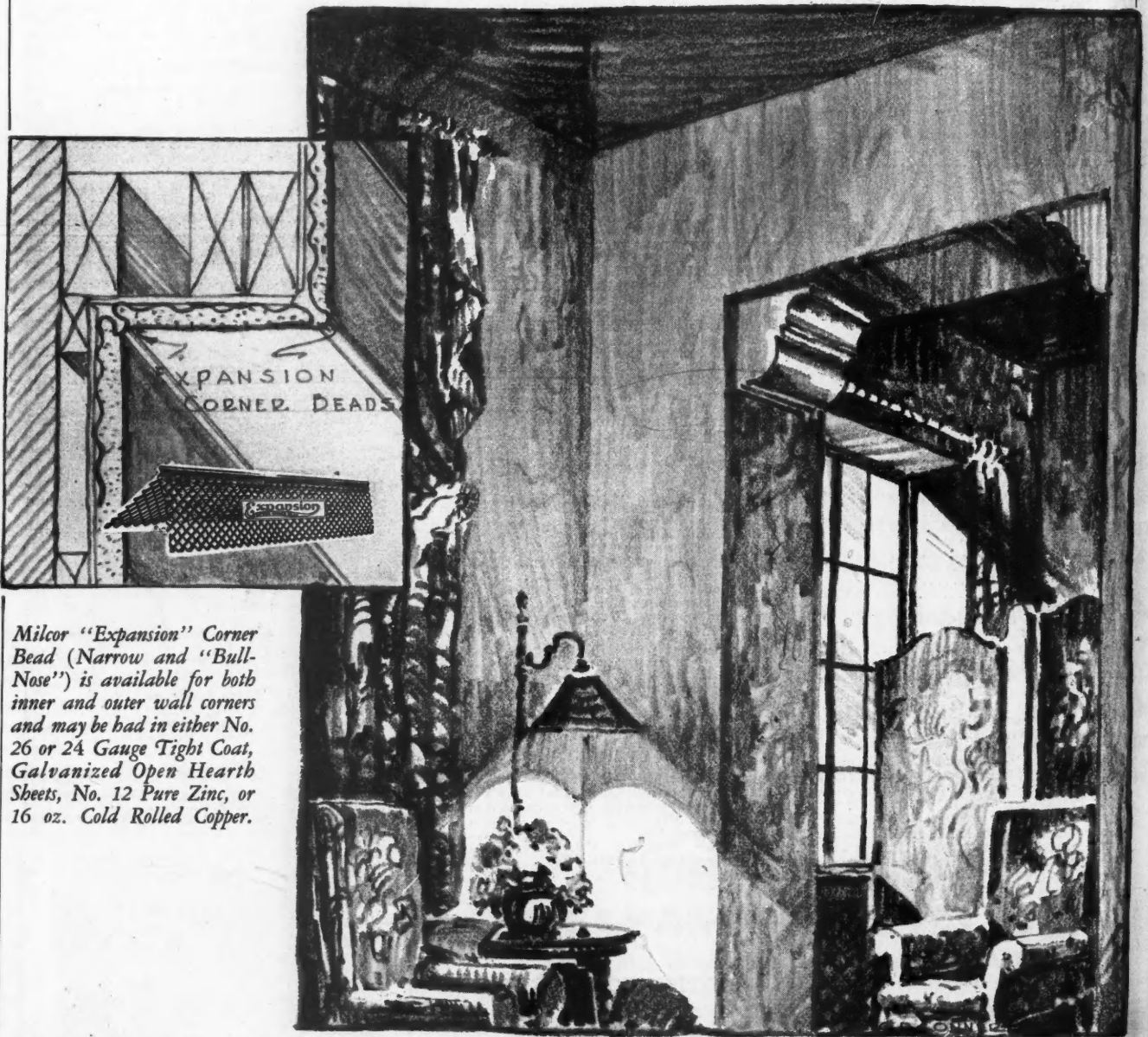
NAME.....STREET.....

CITY.....STATE.....

WALL CORNERS OF ENDURING BEAUTY

THE wall corners in America's finest buildings are protected with Milcor "Expansion" Corner Bead. The advantages of this bead lie in its patented expanded metal wings

These form a network that permits the keying of mortar right up to the nose of the bead This eliminates the danger of plaster checking off and cracking and insures maximum protection wall corners of enduring beauty.



Milcor "Expansion" Corner Bead (Narrow and "Bull-Nose") is available for both inner and outer wall corners and may be had in either No. 26 or 24 Gauge Tight Coat, Galvanized Open Hearth Sheets, No. 12 Pure Zinc, or 16 oz. Cold Rolled Copper.

Milcor "Expansion" Corner Bead effects considerable savings in erection costs . . . May we send you references and a valuable manual for further information?

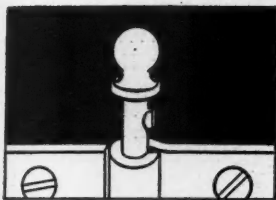
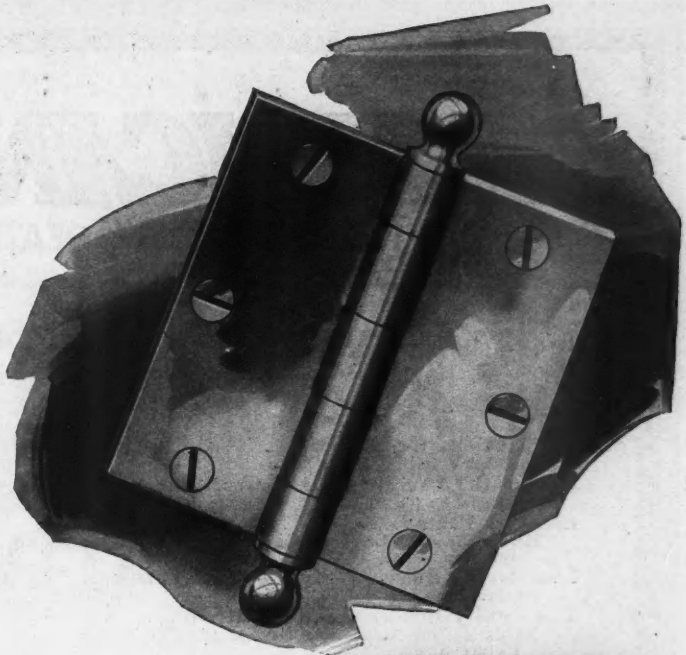
MILCOR

MILWAUKEE CORRUGATING CO., Milwaukee, Wis.—Chicago, Ill.; Kansas City, Mo.; La Crosse, Wis.; Boston, Mass.

Insist on These Frantz Features

which are as important as a beautiful finish

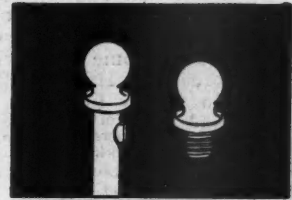
When you purchase the butts for your next building be sure that they not only are beautifully finished, but that they are designed to assure easy installation and long, trouble-free service. The features of Frantz Butts that insure this and make possible the Frantz guarantee of satisfaction are illustrated below:



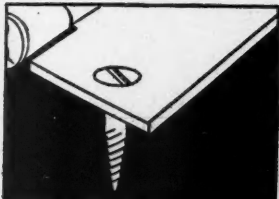
NON-RISING PINS

The small wing, pressed into the pin just below the shoulder of its head, fits into a notch in the upper part of the barrel of Frantz loose pin Butts. This wing keeps the pin from turning when the door is swung and consequently prevents it from rising.

The pins and nibs of Frantz Butts are rolled from the finest of cold drawn wire. This assures long wear. Both pin and nib are smoothly rounded. The nibs of half-surface butts are roll-threaded so that they can be easily removed for reversing.



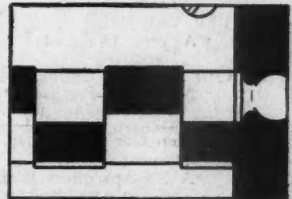
ROLLED PINS AND NIBS



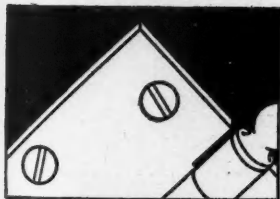
PROPER COUNTERSINKS

The screw holes in Frantz Butts are located to assure the maximum security from each screw. The holes are smoothly countersunk to fit properly the heads of screws furnished.

The leaves of Frantz Butts slide together easily, yet fit closely to make a smooth barrel. This feature is accomplished by square broaching of the sides of each unit of the barrel. As the Butt is opened by hand there will be found no hindrance to its action.



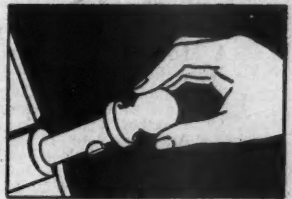
SQUARE BROACHING



ACCURATE SIZES
CLEAN EDGES

Frantz Butts are accurately cut to standard sizes. They are blanked from cold rolled steel of uniform thickness. All edges are cut clean and true. This care in manufacture assures a uniformity which greatly simplifies installation operations.

The inside of the barrel of every loose pin Butt is reamed to assure easy removal and replacement of the pin, a feature that is greatly appreciated by carpenters. This reaming operation also assures smooth action of the Butt.



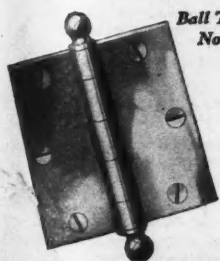
REAMED BARRELS

Frantz Mfg. Co.



Sterling, Illinois

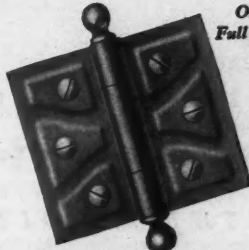
No Hardware Is Genuine FRANTZ QUALITY Without the Red Label



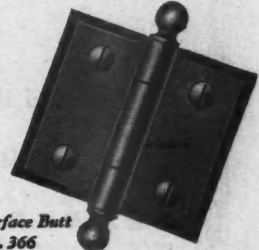
Ball Tip Butt
No. 441



Cloverleaf Hinge
No. 174



Ornamental
Full Surface Butt
No. 380



Full Surface Butt
No. 366

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER