

AMERICAN BUILDER

THE WORLD'S GREATEST BUILDING PAPER

A SIMMONS-BOARDMAN PUBLICATION

Vol. 47.

CONTENTS FOR MAY, 1929

No. 2.

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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.

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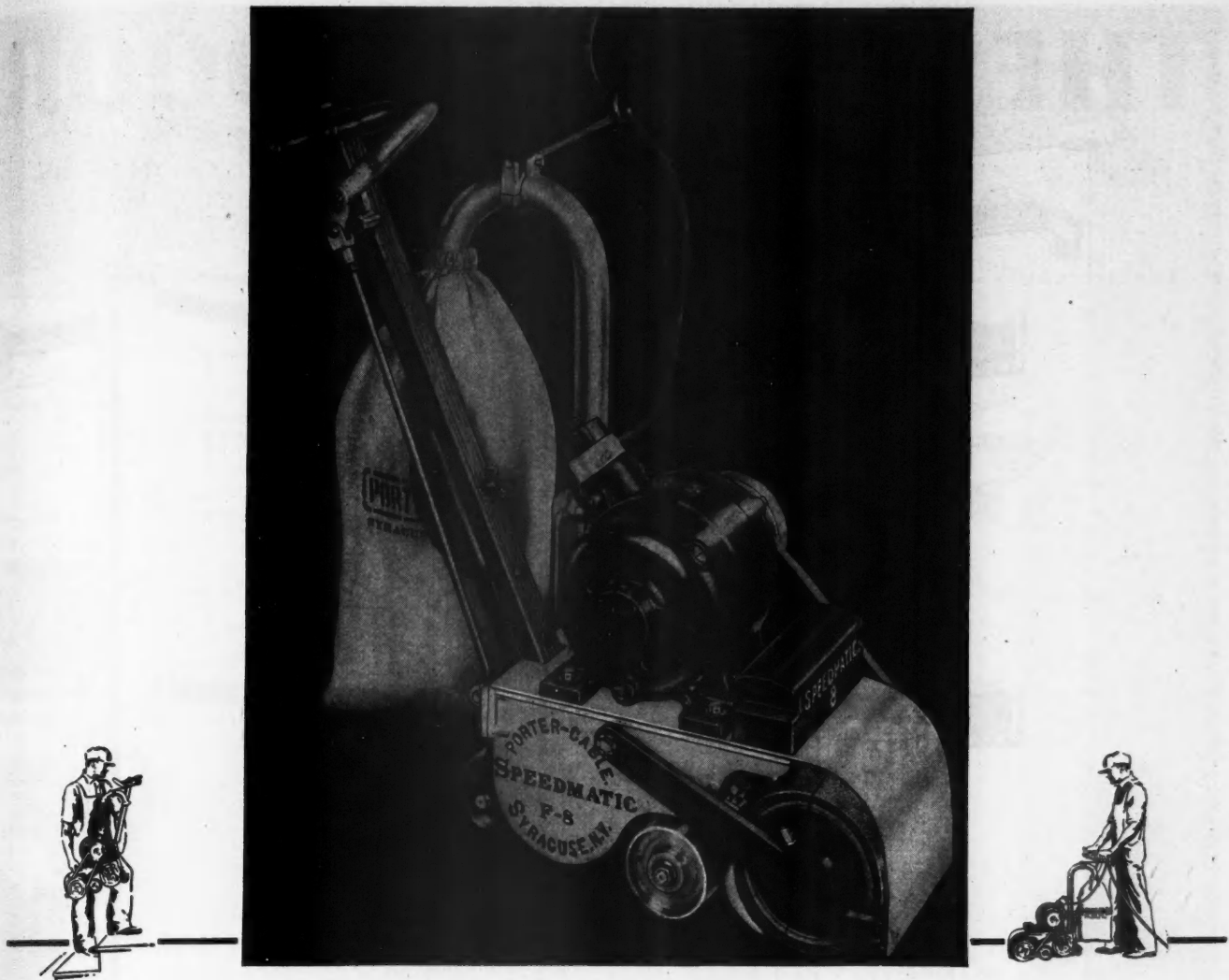
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No experience needed with the "ONE MAN" *Speedmatic* "8"

Because of its light weight and ease of operation, the SPEEDMATIC "8" is a prime favorite among builders and realtors, also the man just starting in the floor surfacing business. It is a necessary addition to larger equipment—"the cruiser of the sanding fleet." A revolving surface speed of 2300 ft. per minute turns out the work quickly, better and at less abrasive cost.

Portability is an advantage you will appreciate—you can carry this machine easily yourself for short moves, or place it in the back of your pleasure car.

The SPEEDMATIC "8" will sand within $\frac{5}{8}$ inch of the baseboard and is easy to handle and oper-

ate in small spaces such as closets, landings, vestibules, etc. Ball bearing equipped throughout. Dustless operation—runs off the wall plug.

There are many other advantages to contractors who are anxious to do better floor sanding with less expenditures of time and effort and with greater profits. Investigate the SPEEDMATIC "8" Now!

Ask about the SPEEDMATIC "12" for high production.

THE PORTER-CABLE MACHINE CO.

1721 North Salina Street

SYRACUSE, N. Y.

☎02627

PORTER-CABLE

SANDERS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

THE BIGGER THE DOOR

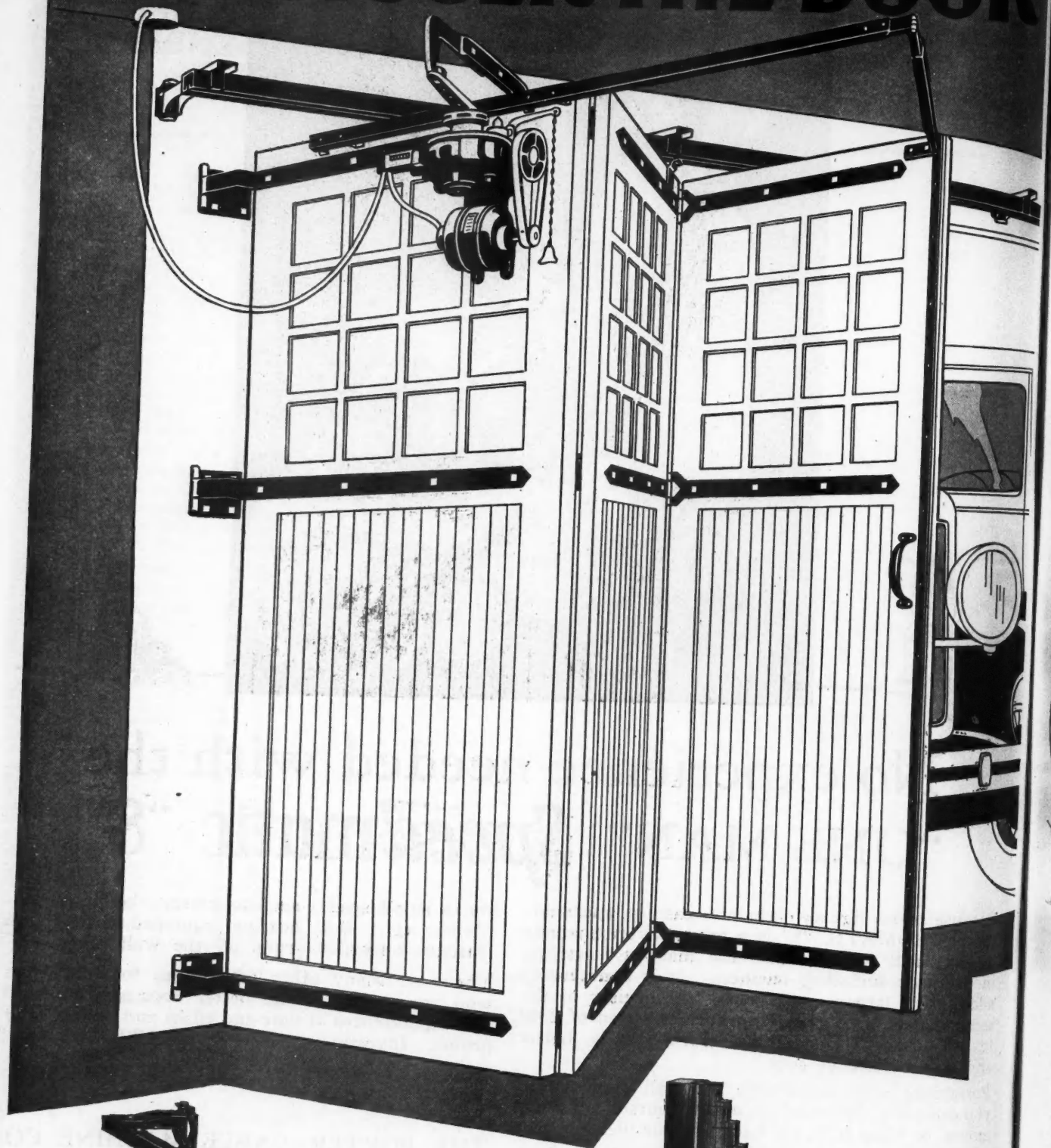


Illustration of Slidetite "Ideal" hanger, track and bracket assembly showing steel balls running in grooved track. Entire weight is suspended from above; no floor guide is required.

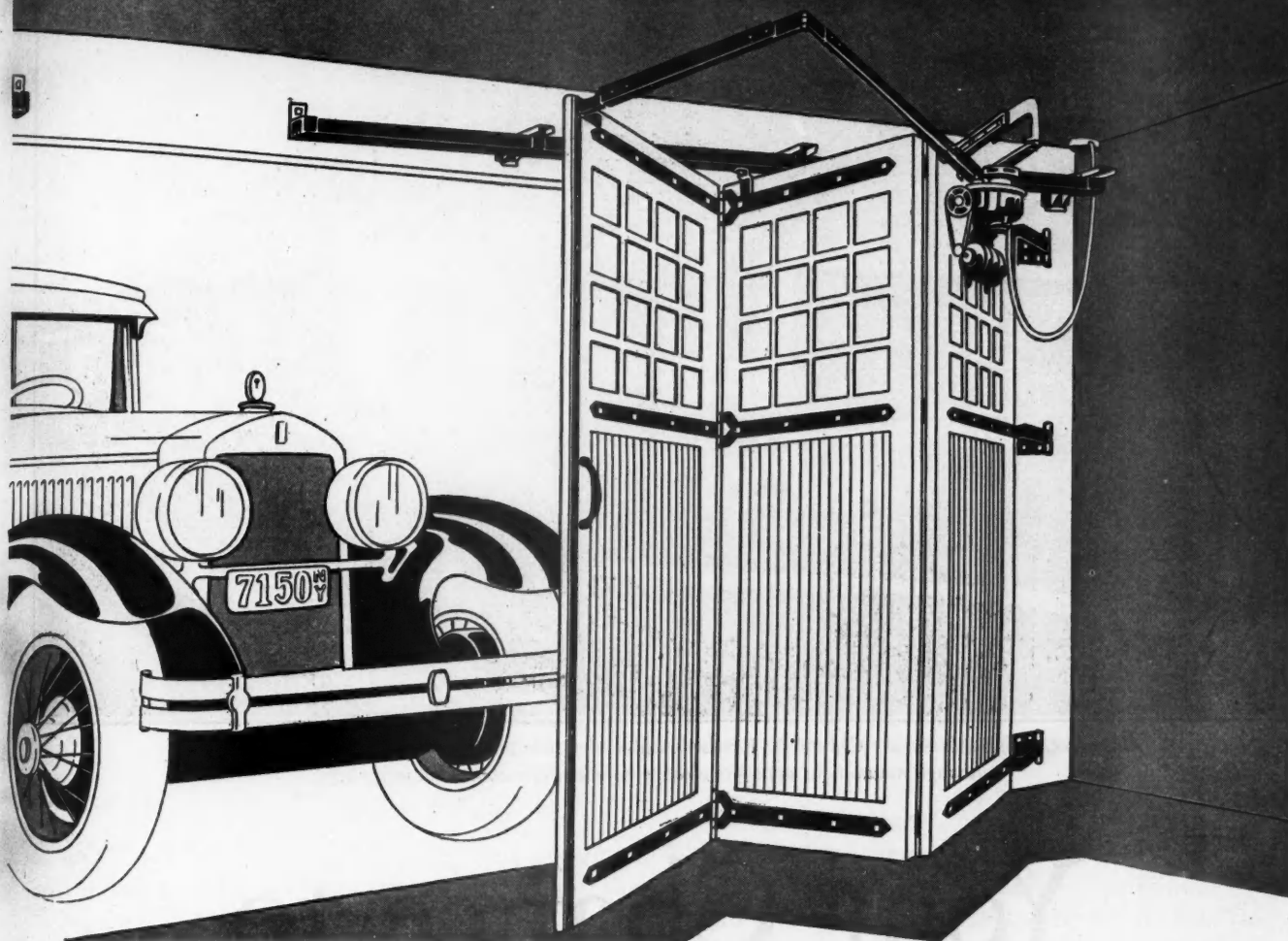


"Quality leaves its imprint"



Detail of Sturdy R-W laminated panel door, designed to overcome shrinking, swelling, splitting or cracking.

**WAY, the more reason
for R-W equipment !**



Slidetite

**powered by
AUT-O-DOR
electric operator**

YOU can provide faultless automatic service for any garage doorway, public or private, any width up to 30 feet wide with R-W equipment.

Without good doors and hardware specially designed to carry the load, big doors are often trouble-makers. With Slidetite equipment, you are sure of certain, smooth, quiet operation. The doors slide inside the

garage, always free from ice, snow, wind and weather.

The R-W Aut-O-Dor Electric Garage Door Operator is engineered to open big doors wide and close them tight by simply pushing a button or pulling a cord, several of them being located in convenient parts of garage and office.

Write today for Catalog.

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 Atlanta Los Angeles San Francisco Omaha Seattle Detroit
Montreal • RICHARDS-WILCOX CANADIAN CO., LTD., LONDON, ONT. • Winnipeg

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



Residence, Bedford, Indiana. Old Gothic Random Ashlar is entirely practicable for construction of this type, although naturally its appeal is greatest in houses of a somewhat larger type.

Your Chance to do Something Different!

One Old Gothic Indiana Limestone Random Ashlar residence will bring you valuable advertising as well as pay you a profit.

A NEW way of using Indiana Limestone makes this beautiful natural stone entirely practicable for the small bungalow as well as for the more costly type of residence or other building. All over the country, leading contractors are building resi-

dences, club houses, apartments, store fronts, churches, etc., with shot-sawed Indiana Limestone Random Ashlar facing.

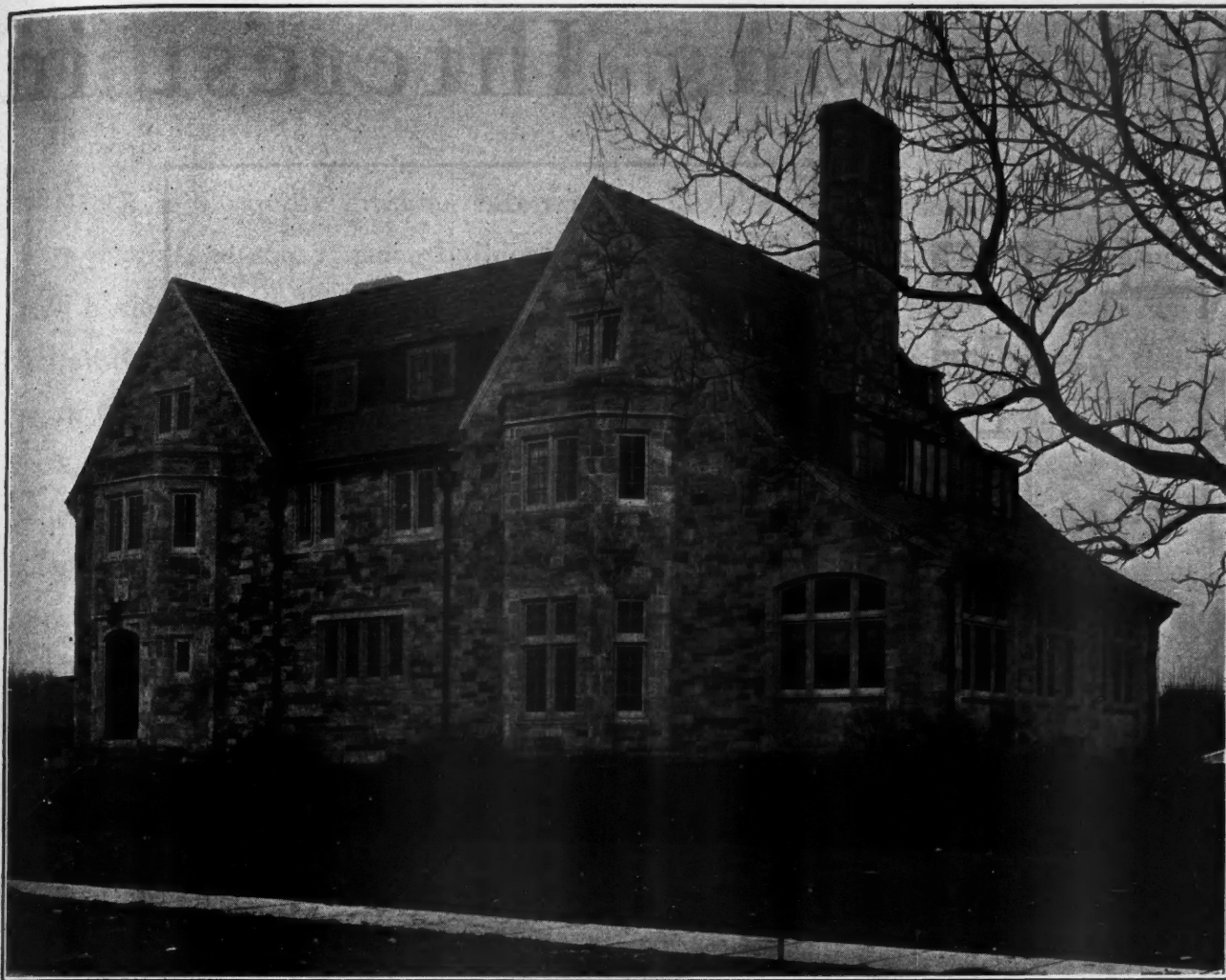
Our free booklets show exactly how our Old Gothic Random Ashlar is prepared and used. The stone is sawed into strips four inches thick at the quarries, then shipped to the building sites, where it is broken into lengths for laying up in the wall by means of an electric saw or ordinary hand saw. Indiana Limestone prepared in this manner is used either as a facing, or as a veneer, just as stucco, brick,

I N D I A N A L I M E S T O N E C O M P A N Y

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

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Fraternity House, Lafayette, Indiana. Myron E. Pugh, Architect. Crowl Construction Company, Builders.
Old Gothic Shot Sawed Random Ashlar.

or wood is used. No carefully prepared drawings are needed; stone masons or bricklayers do the laying up.

Costs are surprisingly low. We can give you figures which are not mere estimates, but the actual experiences of reliable contractors in laying up the Old Gothic Random Ashlar. Construction is exceedingly rapid. Everywhere contractors who have tried this new way of using stone are enthusiastic about it. Why not write today and get the facts, so that you will be in a position to handle Indiana Limestone jobs in your community? We will give you every possible assistance in getting started.

The residence built of Indiana Limestone is conspicuous for its beauty. It appeals to the average home purchaser because, as you know, everybody wants "something different." People regard natural stone as the finest of all building materials. The only

obstacle in the past has been cost. Now this new way of using Indiana Limestone entirely eliminates that difficulty. For a total cost of only 5% to 6% more, the purchaser of an Indiana Limestone residence gets permanent beauty . . . free from exterior upkeep cost.

The handy coupon below, clipped, filled in and mailed, will bring full information about Indiana Limestone Random Ashlar and its use. Send it to us today.



Box 757, Service Bureau,
Indiana Limestone Company, Bedford, Indiana.

Please send booklet and other information regarding
Indiana Limestone Random Ashlar.

Name.....

Street.....

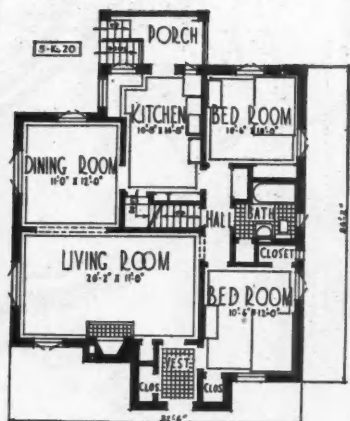
City.....State.....

General Offices: Bedford, Indiana

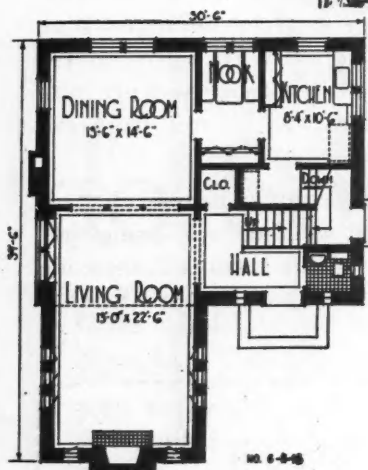
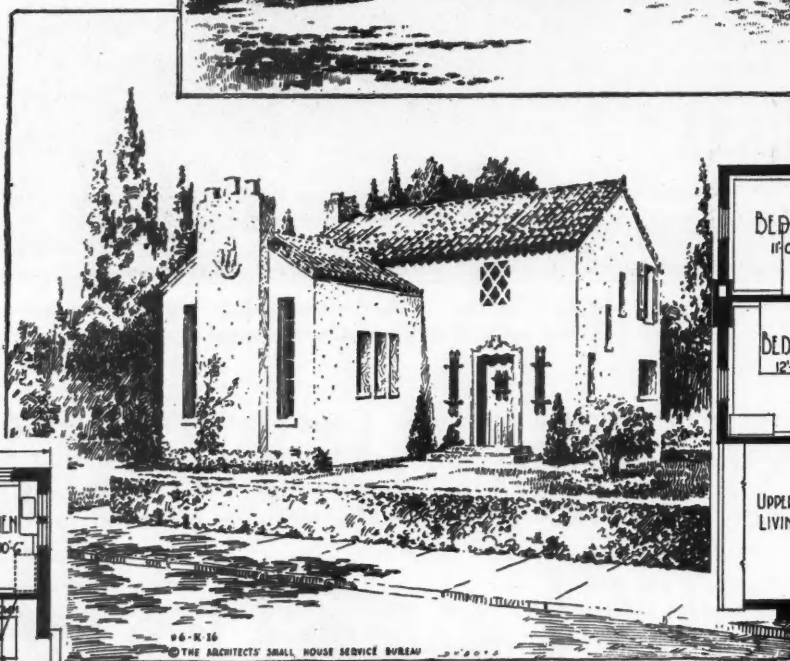
Executive Offices: Tribune Tower, Chicago

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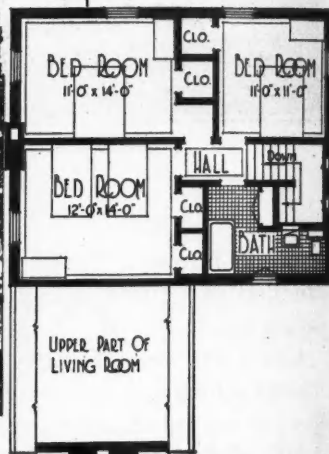
A Growing Interest in Co



FLOOR PLAN



NO. 6-3-15



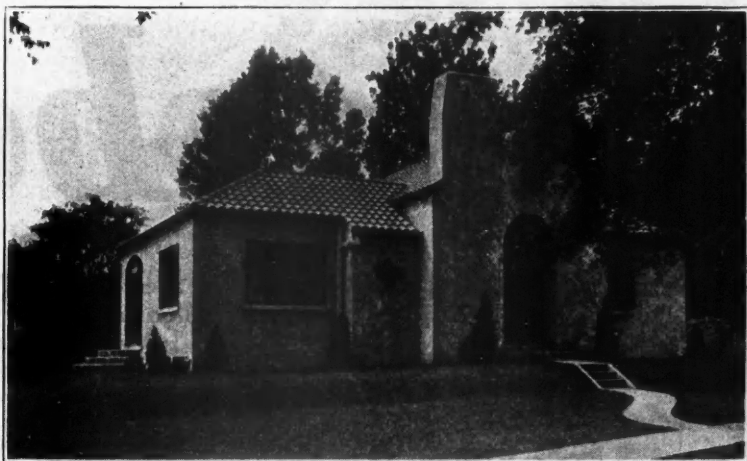
These attractive concrete masonry homes are typical of designs being published by the Architects' Small House Service Bureau. They are firesafe, practical, and permanent. They can be built for \$4,000 to \$12,000, depending on the number of rooms and the locality. They are creating a demand which you, as a progressive builder, should be ready to supply.

PORTLAND CEMENT

CONCRETE FOR PERMANENCE

n Concrete Masonry Homes

THERE is a rapidly growing interest in concrete masonry among builders of small homes. National advertising by the Portland Cement Association is now appearing in the best class of home building magazines . . . The response from people who expect to build proves that there will be a demand for builders who can supply the



This concrete masonry and stucco house was built from a design prepared by the Architects' Small House Service Bureau. As a feature of an advertisement early this year, it was admired by many people and brought in hundreds of requests for more information.

construction service in concrete masonry.

The Architects' Small House Service Bureau is publishing a series of house plans which appear on the home building pages of many newspapers throughout the country.

An important group of these small homes has been especially designed for firesafe concrete masonry construction, with stucco exteriors, concrete first floors, and roofs of concrete tile or cement-asbestos shingles.

The manufacturers of concrete masonry units are active in selling their output

within the shipping radii of their plants.

They are prepared to supply units of high standard quality. Practically every important building center is included in their

sales areas.

Are you, as a progressive builder and contractor, ready to take advantage of this development? Call on the nearest manufacturer of concrete

masonry units, and make arrangements with him to supply your building needs. He may know of new business which you can handle.

1 1 1 1

Would you like to have booklets on concrete masonry construction, portland cement stucco, and concrete first floors for residences, giving complete typical working details? We have just published such booklets and will be glad to send you copies free.

T ASSOCIATION, Chicago
E . . . AND FIRESAFETY

New Steeldeck Roof

Insulated and Waterproofed

TRUSCON

Ferrobord

TRADEMARK REG. & PAT. APPLIED FOR

Here is a quality Steeldeck roof furnished in six-inch wide, easily handled units of any desired length. The Ferrobord units interlock along the sides, forming rigid reinforcing ribs and a smooth unbroken surface free from perforations.

Furnished in 18 and 20 gauge and two depths of ribs, Ferrobord Steeldecks are economical for all practical roof loads or purlin spacings, and are adapted to any shape of roof for any building. They provide a light-weight, permanent, firesafe roof, quickly installed at economical cost. Write for full information.



Truscon Steeldeck Roofs also include I-Plate and Ferrodeck types to meet requirement of new roofs and replacement.

TRUSCON STEEL COMPANY
Youngstown, Ohio
STEELDECK DIVISION

Sales and Engineering Offices in Principal Cities
Trussed Concrete Steel Co. of Canada, Ltd.
Walkerville, Ontario

New Steel Joist

for Light Occupancy Buildings

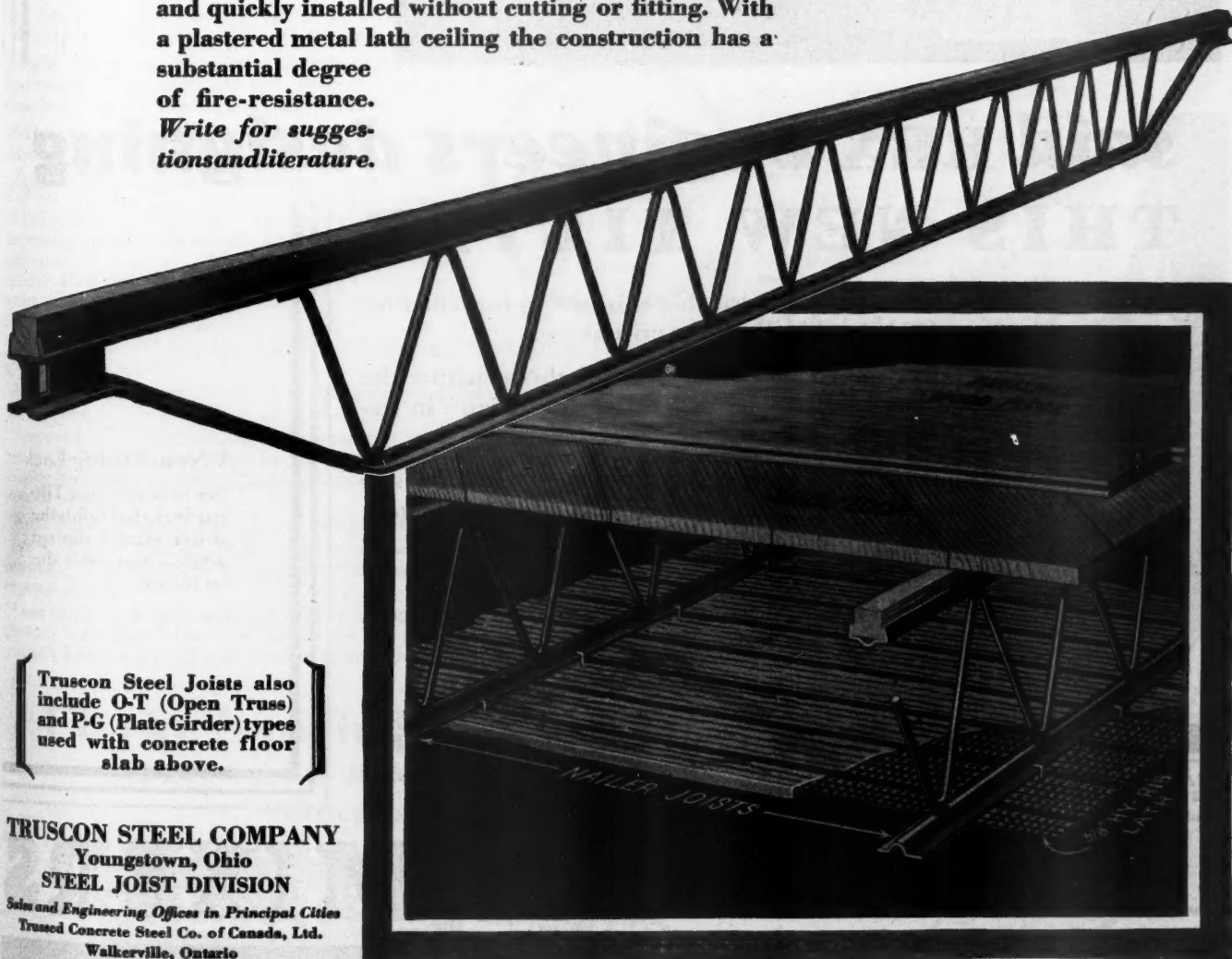
TRUSCON

NAILER JOISTS

PAT. APPLIED FOR

Permanent construction for homes, apartments, stores and other light-occupancy buildings at a cost comparable to wood is now available with Truscon Nailer Joists.

Wood flooring is nailed directly to the wood strips attached to the joists. Of the same superior design as Truscon Open Truss Joists, Nailer Joists provide unusual strength and permit passage of pipes in any direction through the floor. Being completely and accurately fabricated in the Truscon plant, Nailer Joists are easily and quickly installed without cutting or fitting. With a plastered metal lath ceiling the construction has a substantial degree of fire-resistance. Write for suggestions and literature.

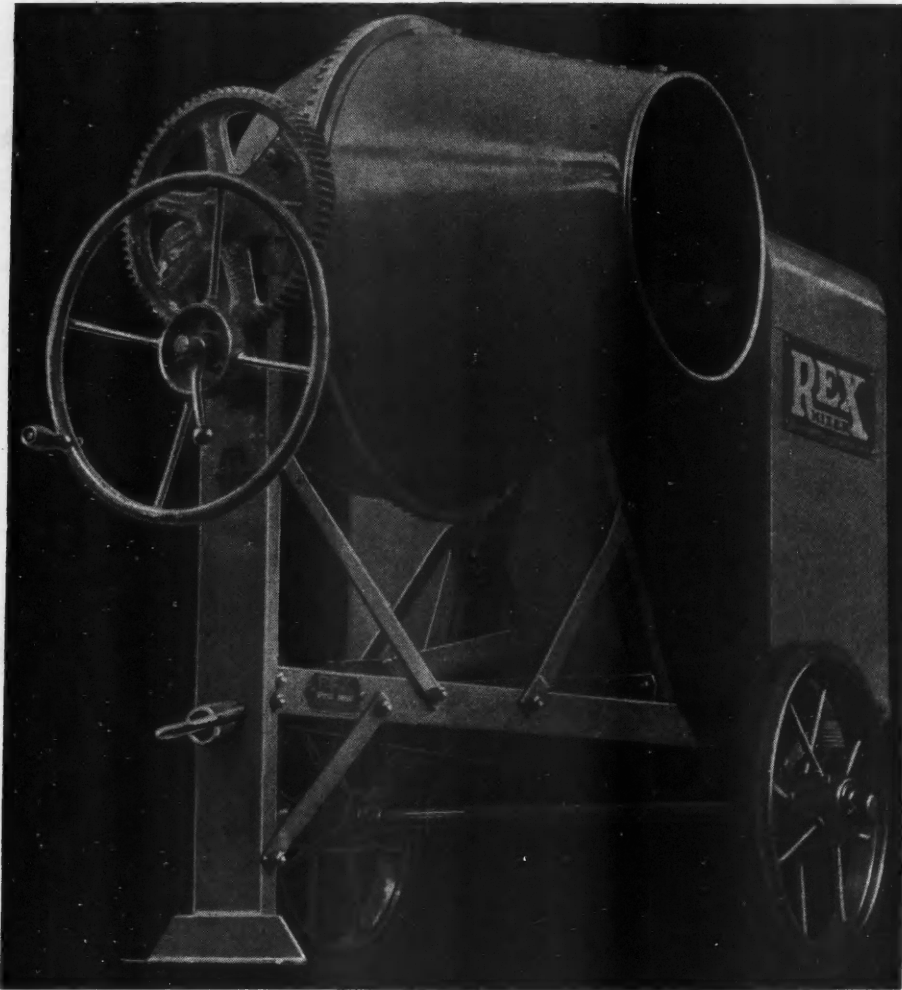


Truscon Steel Joists also include O-T (Open Truss) and P-G (Plate Girder) types used with concrete floor slab above.

TRUSCON STEEL COMPANY
Youngstown, Ohio
STEEL JOIST DIVISION

Sales and Engineering Offices in Principal Cities
Trussed Concrete Steel Co. of Canada, Ltd.
Walkerville, Ontario

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



**"Low Price
alone
is NOT
ENOUGH"**

said REX engineers designing THIS NEW TILTER

Rex never intended that this new 1/2-bag Tilter for 1929 should sell on low price alone.

Rex aimed first of all to make this machine the outstanding leader of its class—in design—in features—in construction—in performance.

What Rex Engineers accomplished is plain to see: a new 1/2-bag tilting mixer built from stem to stern to meet today's conditions on the 20-to-50 yard per day concrete job.

And Rex production facilities make low price a matter of course.

This coupon brings the detailed catalog.

A New Tilting Lock

See this new Rex Tilting lock that holds the drum at any desired angle—that can't slip or loosen.

CHAIN BELT COMPANY
721 Park Street, Milwaukee, Wis.

Send me Catalogs on the mixers I've checked.

1/2-bag tilter <input type="checkbox"/>	2- to 3-bag 14-S <input type="checkbox"/>
1/2- to 1-bag 5-S <input type="checkbox"/>	6-bag 28-S <input type="checkbox"/>
1-bag 7-S <input type="checkbox"/>	12-bag 56-S <input type="checkbox"/>
1- to 2-bag 10-S <input type="checkbox"/>	27-E Paver <input type="checkbox"/>

Name.....

Address.....

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

CHAIN BELT COMPANY
721 Park Street, Milwaukee, Wis.

REX MIXERS

(Reg. U. S. Pat. Off.)

“Don't Worry! We'll have your floors done on time”

Johnson glared at Contractor Owens. “You can't tell me that fairy story! You can't get that flooring ready in four days—”

“We'll do it in three,” the Contractor interrupted.

“Owens—I'm d—— serious,” Johnson growled. “We're in a tight place. Leases are signed. Tenants are moving in on the first. Why—why Man!” he exploded, “don't you realize that you've got to surface these floors—you've got to hand-scrape the closets and hall-ways and stair-landings—you've got to level up, and clean up the flooring—and finally you've got to have it all varnished? 4000 square feet of it!”

“And now” he added sarcastically, “you tell me it's a three day job. I've built enough houses to know you can't possibly do it!”

The Contractor dropped his bantering tone. He said quietly: “Johnson, I said that flooring will be ready.”

Johnson was silent. Suddenly he snapped at the Contractor. “You can't kid me! Why—you don't even have a power line up for your sanders!”

Contractor Owens grinned. “Don't need it. Our sander is run off any ordinary light socket.

“You see,” he continued, “we've got a new sander! And it's a wonder! It turns out 800 to 2000 square feet of perfect flooring a day. It works almost up to the baseboard—it gets the work done in closets and hallways. It has a genuine, powerful, in-built vacuum that gets all the dust. We don't have any mess to clean up, and, if necessary, we can varnish right behind the machine.”

“Don't believe it!” Johnson snorted. “You've got to show me a sander like that.”

“All right—come over here.” The Contractor led Johnson into the building.

“There it is!” And he pointed at a small but powerful machine, easily guided back and forth by its operator. It purred away, leaving behind it a rapidly increasing expanse of beautiful, mirror-smooth flooring.

“What is it?” Johnson asked in an awed voice.

“It's my Clarke Vacuum Portable Sander!” said the Contractor proudly. “That sander is my reason for saying your flooring will be done on time.

“I saw those CLARKE ads for a long time,” continued the Contractor, “but they always sounded too steep for me. I just couldn't imagine a sander as good as they represented. Finally,



I got into a tight place on my flooring, and I sent for one. Well—the first month it saved me \$500 cold cash!

“It certainly is a marvel—it's more than they claim it to be. Saves me time, too—and enables me to get my flooring done *when and how I want it*. I consider it the best investment ever made.”

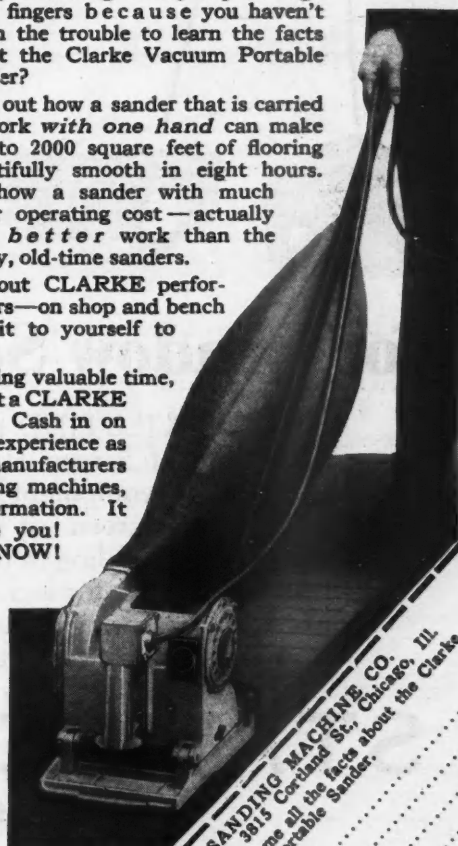
*Do not buy
any sander, at
any time, at any
place, at any price,
until you see what
work the Clarke
can do for
you.*

Are you letting money slip through your fingers because you haven't taken the trouble to learn the facts about the Clarke Vacuum Portable Sander?

Find out how a sander that is carried to work with *one hand* can make 800 to 2000 square feet of flooring beautifully smooth in eight hours. See how a sander with much lower operating cost—actually does *better* work than the heavy, old-time sanders.

Get the facts about CLARKE performance on old floors—on shop and bench work. You owe it to yourself to get them.

Don't keep on losing valuable time, and profits on what a CLARKE can save for you. Cash in on our twelve years' experience as originators and manufacturers of portable sanding machines, and get this information. It talks money to you! Mail the coupon NOW! Not a bit of obligation to you.



Clarke Sanding Machine Co.

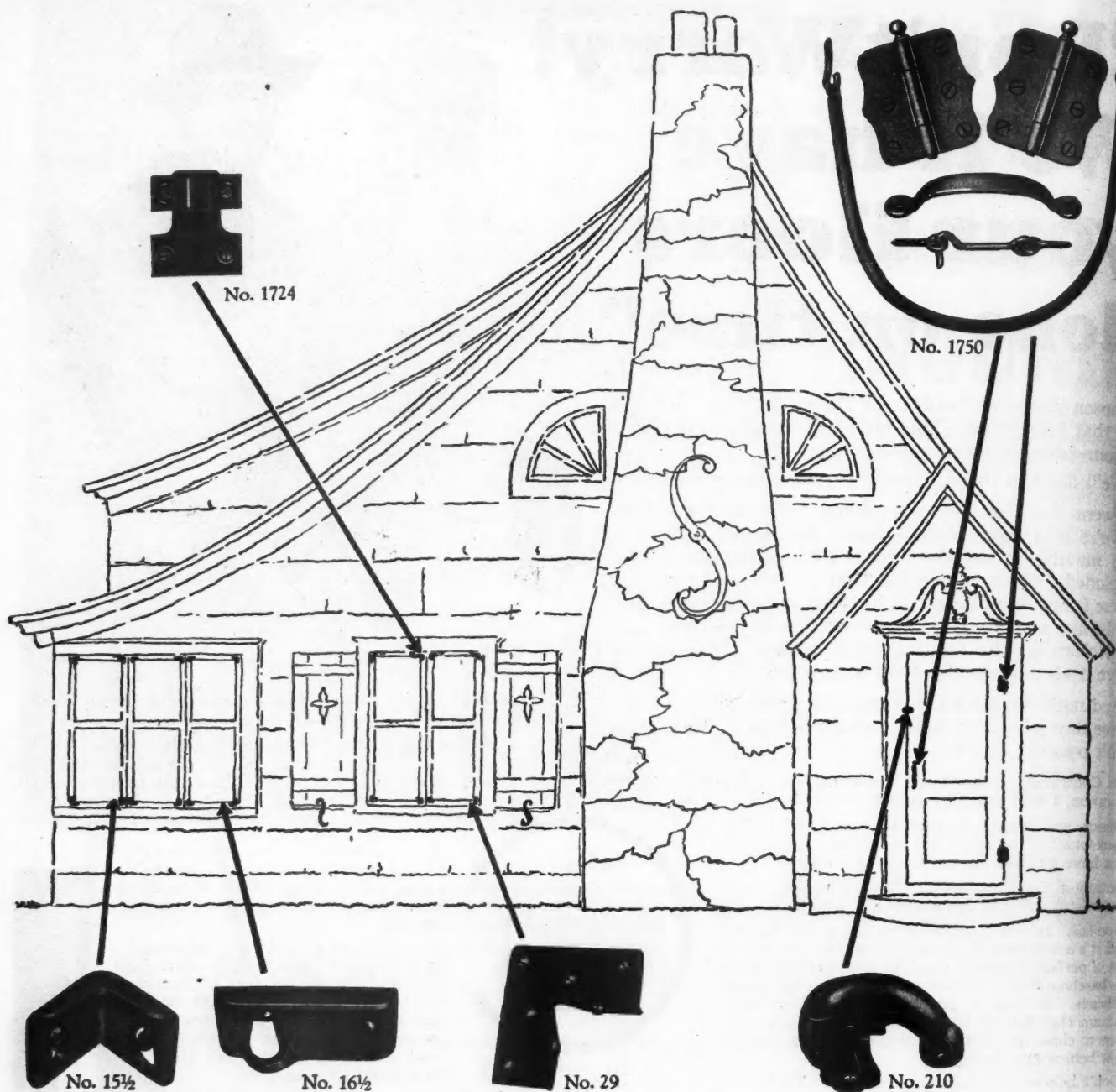
Dept. A-35, 3815 Cortland St.
Chicago, Ill.



Originators
and, for 12 years,
Manufacturers
of Portable
Sanding Machines

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

CLARKE SANDING MACHINE CO.,
Dept. A-35, 3815 Cortland St., Chicago, Ill.
Please send me all the facts about the Clarke
Vacuum Portable Sander.
Name.....
Address.....
City.....
State.....



For Window Screens and Screen Doors

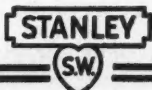
YOU WILL FIND in the Stanley line of Screen Hardware complete equipment for any type of window screen or screen door. Hangers for holding screens in place tightly, fasteners for locking screens in place, hinges, springs, braces, couplings—all the hardware fittings for screens.

All items are made of extra heavy steel and have a durable finish which assures long wear.

A few items are shown here, for the full line send for catalog No. 41m of Stanley Hardware. The Stanley Works, New Britain, Connecticut.

STANLEY HARDWARE

MADE OF STANLEY STEEL

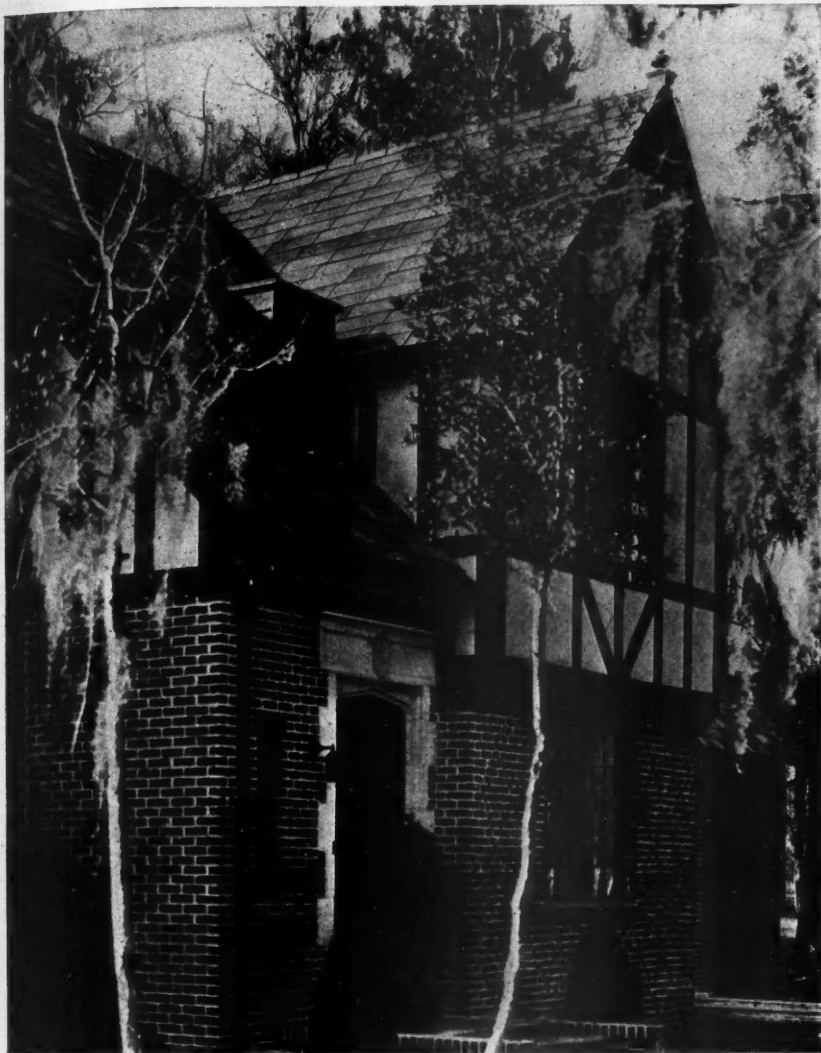


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All
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Heath
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FOR TH

The ETERNIT HORIZONTAL offers the builder a new and exclusive shingle . . . in mellow, attractive colors . . . at a most reasonable cost!

BEAUTY IN ROOFING MEANS PROFIT FOR YOU



WIDER, longer—entirely unlike any other shingle—the Eternit Horizontal exposes a beautiful surface . . . a surface defined by pleasant shadow lines. It is a striking shingle, beautiful in design—so attractive you'll profit by featuring it!

All Eternit colors are beautiful, whether in the Horizontal design or the familiar American and Hexagonal methods. Emerald Green, Indian Red, Quarry Blue, Colonial Gray—each is absolutely colorfast; because a special color treatment has been employed, each is guaranteed not to bloom or fade out. And there are also Autumn Bronze, and Heatherblends—a tapestry of five handsome shades . . . all increasing in charm as years pass. *Eternit*

Horizontals on your houses will give them a new, distinctive character and beauty that will add to the value of any home you build.

Eternit Asbestos Shingles are unharmed by storm or blowing weather. They will never burn, never yield to sparks or flying embers. They are absolutely fire-proof. They will not rot or raise, chip or crack. And they are not expensive, either at first cost or cost over a period of years. Your homes will never need another roof!

For expensive residences, development work, summer cottages—use Eternit Asbestos Shingles. They're beautiful, long-lasting and fire-proof—roofing qualities that will sell your houses. Let us send

you roofing directions and samples. Eternit, Inc., Riverview Drive, St. Louis. Philadelphia, New Orleans, Houston and Jacksonville. Also makers of Eternit Big-7 Corrugated Asbestos Sheets and Eternit Asbestos Flat Sheets.

ETERNIT, INC., Dept. C
9215 Riverview Drive, St. Louis

Please send me full details, roofing directions and samples.

Name

Street

City

State

Dealer's Name

FOR THE PROTECTION OF THE BUILDER, EVERY ETERNIT SHINGLE IS TRADE-MARKED; EVERY ETERNIT ROOF IS REGISTERED

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

THE NATION'S PROTECTION
AGAINST HEAT AND COLD

INSULITE

the Wood Fiber Insulating Board



all wood
1/2 inch
thick
Resists
HEAT, COLD
and NOISE

The Comfort of a Well-Insulated Home is Within the Reach of Every Income

EVERY home builder can *afford* to have his house insulated with INSULITE. And it is easy to convince him that he cannot afford to be without this money-saving protection.

The original low cost is soon paid back in reduced fuel bills—to say nothing of the complete comfort, summer and winter, that the family occupying the house will enjoy.

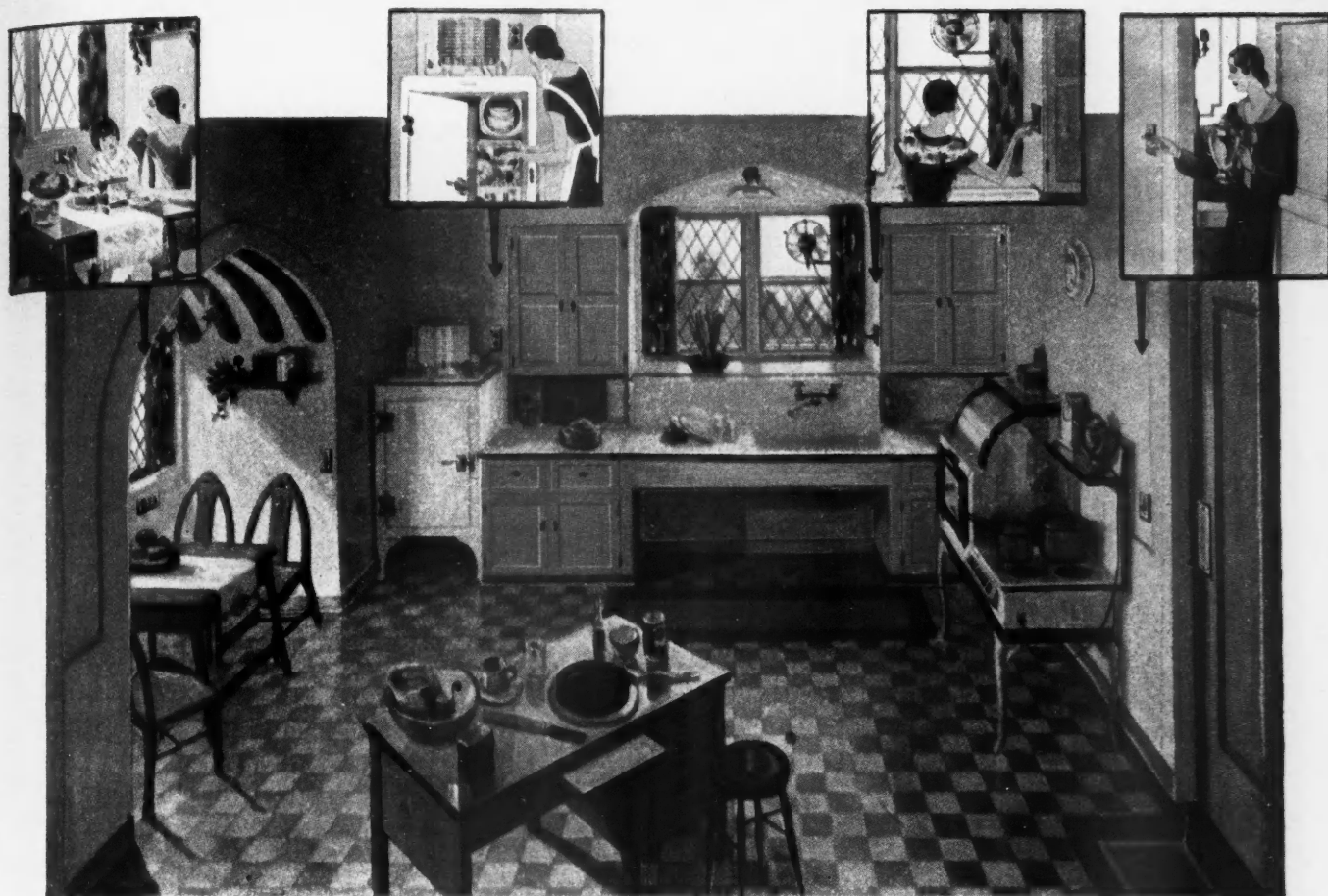
INSULITE has the basic insulating qualities of wood—man's shelter through the centuries. These natural advantages are vastly increased by a fabricating process which intensifies the heat-resisting powers and gives added strength.

Use INSULITE Building Board in your building operations, as sheathing and wall board; INSULITE plaster base; INSULITE for roof insulation; for lining attics and garages.

Write today for free samples and descriptive booklets.

THE INSULITE COMPANY
1202 Builders Exchange Dept. 9
MINNEAPOLIS, MINN.
(A Backus-Brooks Industry)

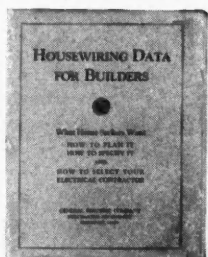
WHEN YOU BUILD OR REMODEL
INSULATE YOUR HOUSE WITH INSULITE



The *wiring* of the kitchen may control a sale!

No woman will consider a house unless the kitchen is a comfortable workshop! She spends so much of her time there that she insists on good lighting and plenty of outlets for appliances.

Write to section W-125
for an important little
booklet "House-wiring
Data for Builders."



Consistent advertising of the General Electric Wiring System has taught her to demand these things. And it has also taught her to recognize as desirable any house that has this completely planned nationally known wiring.

The General Electric Wiring System is one sure way of adding several sales points to every room!

GENERAL ELECTRIC WIRING SYSTEM

{ SHEVLIN PINE }



You may wish to clip for your files this pine-paneled fireplace in the Kensey-Johns house built at New Castle, Delaware, about 1790

The All-Wood House of Pine

IN this time of thrifty building, the value of the all-wood house of Pine is again being recognized. The Pine used in the American Colonial is reasonable in first cost, and is so workable that construction is speeded and labor time reduced.

When Pine is used there is opportunity for a distinguished living room with paneled fireplace or for commodious Colonial Cupboards concealed behind mellow pine paneling.

The all-wood home of today can be built as substantially as the old Colonials which withstood centuries of service. Through

selective lumbering, there is a plentiful supply of Shevlin Pine for generations to come.

Leading lumber dealers carry five varieties always smoothly milled, carefully seasoned and rigidly graded: Shevlin Northern White Pine, Shevlin California Sugar Pine, Shevlin California White Pine, Shevlin Norway Pine and Shevlin Pondosa Pine. Write for the booklet, "Specify Shevlin Pine."

Shevlin, Carpenter & Clarke Company

903 First National-Soo Line Building, Minneapolis, Minn.
Chicago Sales Office: 1866 Continental & Commercial Bank Bldg.; San Francisco Sales Office: 1030 Monadnock Bldg.; Toronto, Ontario, Sales Office: 606 Royal Bank Bldg.; Sold in New York by N. H. Morgan, 1205 Graybar Bldg., 420 Lexington Ave.

"Who Built This House?"



MAN, wise in building, is looking over a home. He may buy. Or again he may not. But one question he is almost sure to ask is

"Who built this house?"

Another man is buying his first home. He *wants* to buy but feels doubtful. This man is going to form his final judgment on small details. A fine stair—or a key that sticks in the lock. A well designed fireplace—or a window that shrieks as it reluctantly rises. Major selling points may be knocked flat by minor imperfections—that saved the builder five or six cents! This man may not say it but he is surely asking himself,

"Who built this house?"

When he reaches the front door he sees hardware.

Every time he enters

a room he encounters hardware. When his wife inspects the closets and cupboards, there is the hardware which enables her to do so, readily or with resistance. If the house is not a new one, time and use have had a chance to bring out defects in finish and operation or prove the excellence of the hardware. The hardware looms large in the critical inspection by a prospective buyer.

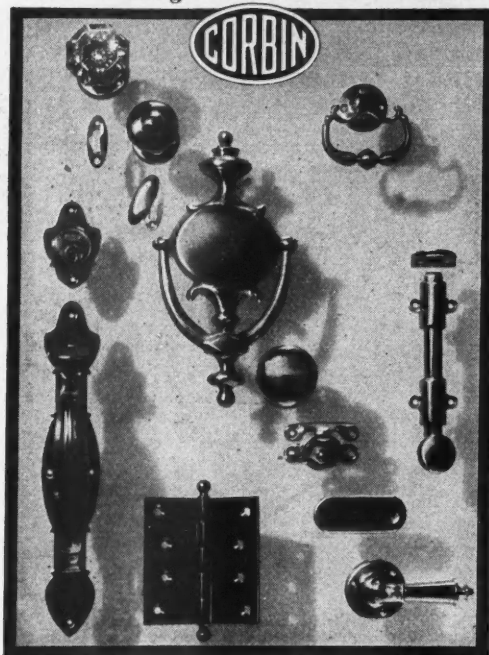
Good Hardware is insurance to the builders' reputation. It costs but little more than poor hardware. Many times the only dif-

ference in cost is the comparative cost of steel and bronze, plus the difference between conscientious care to make hardware that lasts and the hurried labor of making hardware to sell.

A house can't be trade-marked like an automobile. But the important details that

make a house and make a good impression can be familiar trade-marked names. Hardware is certainly a very important detail. Good Hardware—Corbin is a familiar name that settles any doubt in the buyer's mind about the quality of the hardware. He may answer his own question "Who built this house?" with the addition—"Well, whoever he was he certainly put in Good Hardware." And a friendly feeling of commendation never hurt a sale.

Good Buildings Deserve Good Hardware



Corbin has many friends among contractors who appreciate the big value for the money. We are equipping fourteen hundred little homes in one development. We are also supplying hardware for another project with buildings that sell for \$25,000 and up. And all through the range of builders' requirements Corbin has the right hardware—all good—all of the right kind for the place at the right price, all upholding the builders' reputation when the question is asked, "Who Built this House?"

P. & F. CORBIN SINCE 1849 NEW BRITAIN CONNECTICUT

The American Hardware Corporation, Successor

New York

Chicago

Philadelphia

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

ARCH LATH



Arch Lath permits easy, quick application because of great rigidity

*Build for a
lifetime!
Use the lath
made of*



Residence, St. Louis, Mo. Architect and Contractor: E. A. Wagner
Plasterer: Reisinger Plastering Co.

COP-R-LOY

Reg. U. S. Pat. Off.

THE COPPER ALLOYED SHEET STEEL

Among its many other advantages, Arch Lath has a nation-wide fame for the better plastered walls and ceilings it permits. And NOW to this feature is added greater permanence because Arch Lath is made of COP-R-LOY.

There are superlative advantages in this modern refined steel. In Arch Lath it affords the ideal base for plaster—permanent, rigid and giving utmost possible protection against fire and cracking. Arch Lath is economical—saving labor and material because of the distinctive arch design.

You can recommend Arch Lath for use in any size or type of building and it lends itself admirably to any desired wall texture.

Give the home owner also, the benefit of COP-R-LOY in Wheeling Spanish Metal Tile, Roofing Ternes, Diamond Lath, Corner Bead, Picture Mold, Base Screed, Wall Ties and other building essentials.

WHEELING CORRUGATING COMPANY
WHEELING, WEST VIRGINIA

Branches

New York Buffalo Philadelphia Chicago Kansas City St. Louis
Richmond Chattanooga Minneapolis Des Moines Columbus, Ohio



Reg. U.S.

Pat. Off.

*Beauty and Utility Meet in Wheeling
Spanish Metal Tile*

To add artistic, old-world charm to any building specify Spanish Metal Tile Roofing. It is made of COP-R-LOY for additional durability. Hand-Dipped, too, in pure molten zinc by the special Wheeling process.

Spanish
Metal
Tile





Investigate this chain manufacturing Opportunity

Here is your opportunity to start an exclusive manufacturing business of your own. Loan yourself \$2,500. See it grow to a \$25,000 industry in four years. In the meantime, pay yourself a good salary, and earn back your original investment. Briefly, this is the opportunity in chain manufacturing of a staple building material.

You are granted an exclusive franchise. You are supplied with perfected automatic machinery and all necessary equipment. You receive exceptional advertising and sales helps. The entire facilities of our research and engineering departments are at your disposal. You are started in operation and shown how to put your plant on a basis for immediate earnings. You operate the plant and distribute your product to the building trade in your city and territory. You have all the advantages of chain store operation—co-operative strength, proven methods, trademarked product. Yet all the profits are yours!

Your product, a superior roof tile in twelve colors and unlimited textures and shades, represents the finest and best in the build-

A Great Market

An Unmatchable Product

Exclusive Franchise

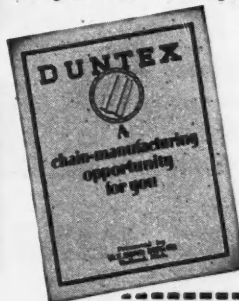
Private Ownership

ing field, with a market that is stable and constant. Handsome profits are possible at a selling price which will compete with far less beautiful and satisfactory roofing materials.

The utmost in co-operation, the exclusive manufacture of a superior product—this is today's most outstanding business opportunity for you.

If you are ambitious for manufacturing independence, if you would like to learn how the chain manufacturing plan makes it possible to acquire a highly profitable

business with only moderate capital, send for our book, "Duntex—A Chain Manufacturing Opportunity." Act at once as territory franchises are being rapidly granted. W. E. Dunn Mfg. Co., 430 W. 23rd St., Holland, Michigan.



W. E. DUNN MFG. CO.
430 W. 23rd St.
Holland, Michigan

5-29

Send me without obligation your book describing the opportunity for the exclusive ownership of a Duntex Manufacturing Plant in this city or in

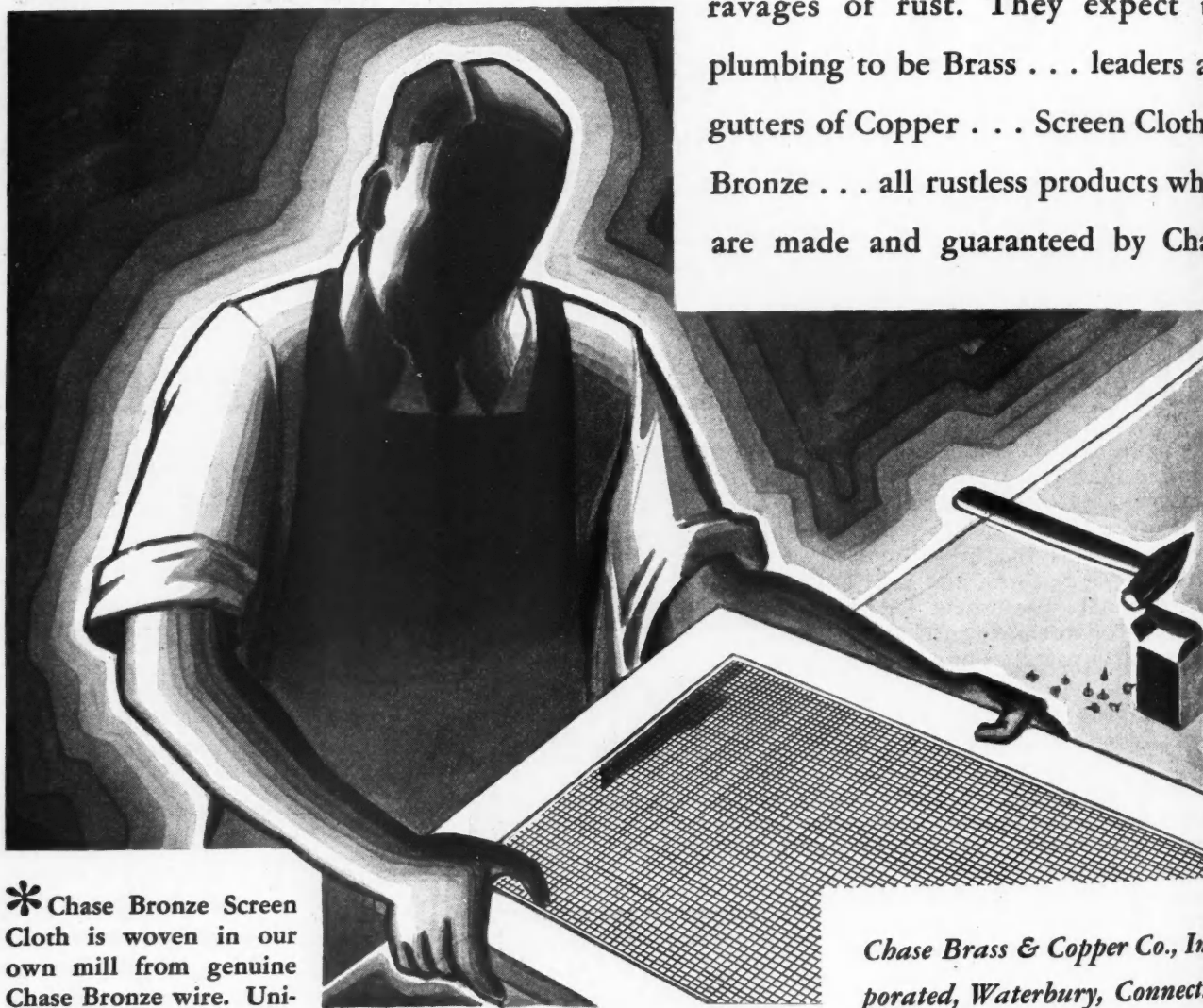
Name.....
Address.....
City.....

DUNTEX
The World's Most Beautiful Roof

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

EVERY WELL-BUILT HOUSE DESERVES BRONZE SCREENING

Bronze Screen Cloth is the only kind of screening that gives *sure* and *permanent* protection against insects. It has the strength and toughness to stand hard service . . . and above all, it *cannot rust* . . . good Bronze Screen Cloth* will last indefinitely.



*Chase Bronze Screen Cloth is woven in our own mill from genuine Chase Bronze wire. Uniform in mesh, rigidly interlocked cross-wires—can't rust, never needs painting. It is strong and springy, yet sufficiently *pliable* to permit being "rolled" into the frame. Each roll carries the distinctive Chase-mark—your guarantee of satisfactory quality.

CHASE BRONZE SCREEN CLOTH



The Mark that Identifies Good
Brass and Copper Products

The public of today expect their homes to be protected from the costly ravages of rust. They expect the plumbing to be Brass . . . leaders and gutters of Copper . . . Screen Cloth of Bronze . . . all rustless products which are made and guaranteed by Chase.

Chase Brass & Copper Co., Incorporated, Waterbury, Connecticut. And thirteen complete warehouse stocks in the following cities: New York, Boston, Newark, Philadelphia, Baltimore, Cincinnati, Cleveland, Detroit, Chicago, St. Louis, New Orleans, Los Angeles, San Francisco. (Also Branch Offices in Rochester, Pittsburgh and Dallas.)

One of Oakland's leading contractors, C. Dudley De Velbiss has used Laminex doors in numerous buildings because, he says, "once we fit a Laminex door to the frame, we do not have occasion to go back later to plane it down. We find that Laminex doors inevitably retain their original size, and hang straight as a die."



Ask

C. Dudley De Velbiss how he gets by without making door repairs

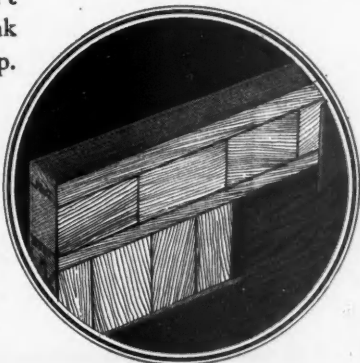
MR. DE VELBISS has put up a good many fine buildings in and near Oakland, Calif. A man with his reputation could never afford to fall down on giving owners satisfaction in every respect.

Yet this builder never sends a man back to plane down and rehang doors.

"We never have occasion to!" De Velbiss claims. Like contractors all over the country, this Oakland builder today is using the well-known Laminex doors.

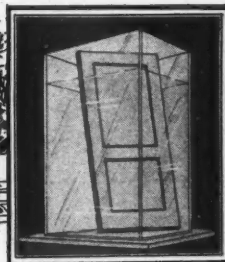
Laminex doors don't swell. They don't shrink and they don't warp.

Why a Laminex door won't warp: This core of separate blocks with the grain frequently broken makes warping impossible. And on all sides "bulkheads" of water-proof Laminex cement stop moisture, preventing swelling or shrinking



They are built in an entirely different way so that changes in humidity and temperature cannot affect them.

You owe it to yourself to try these famous doors in your next job—to prove once and for all that the money it costs you to go back to service doors is money you *can save*. Write for further information about Laminex Douglas Fir doors and the beautiful, new Philippine Laminex doors and carton trim. Tear off the coupon while you think of it.



Surely you've heard of the Laminex Water Tests publicly held in leading cities. Soaked for days, in every case the Laminex door has dried out without a sign of warping

LAMINEX DOORS

Will not shrink, swell, or warp

The Wheeler, Osgood Company, Dept. E-59, Tacoma, Washington.
Please tell me more about Laminex doors, and from whom they can be bought locally.

Name

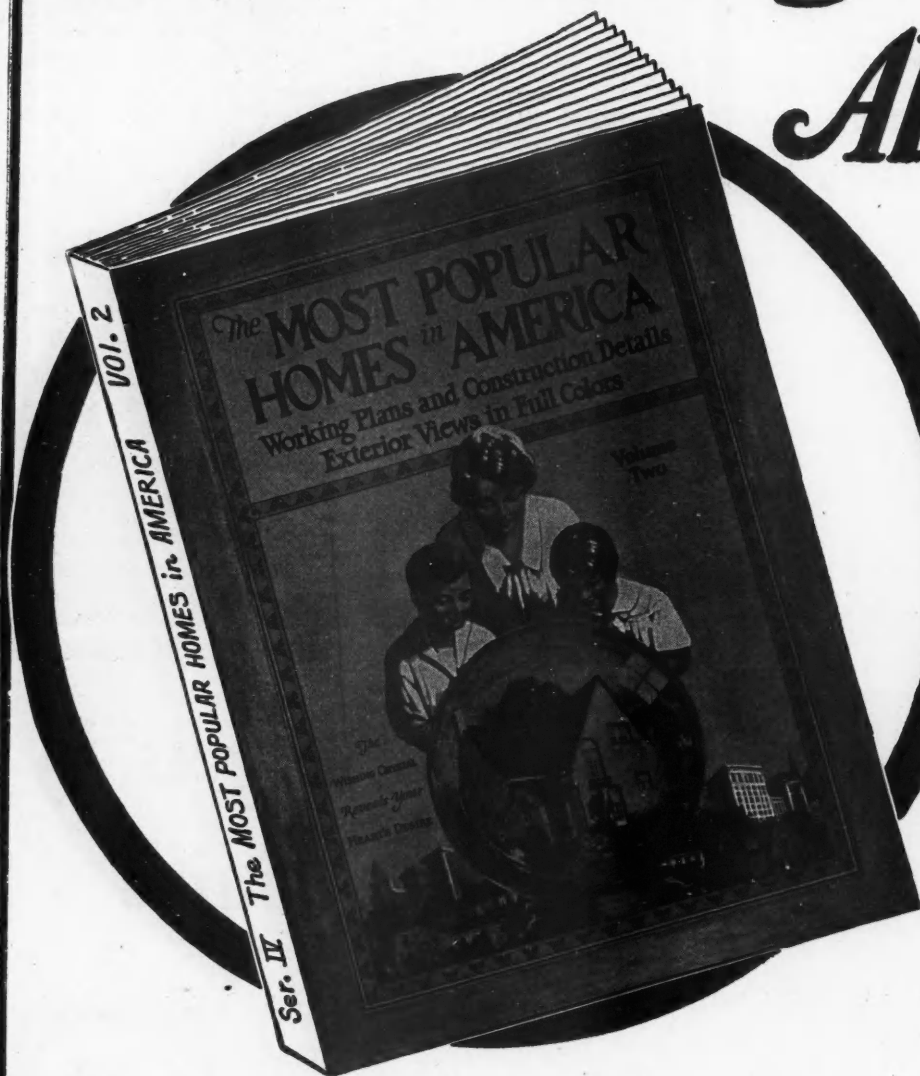
Address

City State

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

You Get This Big New Book

Absolutely Free!



"Most Popular Homes In America —VOLUME TWO"

is a companion book to *Volume One*, which has had a phenomenal sale in the past year. *Volume One* has been repeatedly called the most beautiful and useful home design book ever printed.

The new book, "*Volume Two*", is even more beautiful in appearance and contains 20 more full color plates than *Volume One*. If you already have *Volume One*, you will certainly be delighted with *Volume Two*.

We have on hand only a limited number of this new book—they are going rapidly. If you want yours, send for it now, *today*, before the supply is exhausted.

15 Sets of Complete Building Plans

FIFTEEN of the home designs in this wonderful book have complete working drawings, scale one-eighth inch and larger. You can build direct from these drawings, thus giving you an architectural service worth a neat sum of money, yet we include them in this wonderful book and send it to you absolutely free of cost.

These working drawings are only one of the many valuable features of this remarkable book. In addition, there are *Twenty Pages* of designs printed in four colors. Many pages of high-class half-tones reproduce actual photographs of beautiful interiors, furnishings, modern home conveniences, etc., etc.

Clip and Mail This Coupon—NOW!

THE AMERICAN BUILDER

105 W. Adams St., Chicago, Ill., 1929

AB 5-29

Enclosed find \$2.00 for which ENTER RENEW my subscription to The American Builder for one year and send me free and postpaid a copy of your book "MOST POPULAR HOMES IN AMERICA"—Vol. 2.

NAME.....

ADDRESS.....

POST OFFICE.....STATE.....

My occupation is (Check Only One)

☐ Dealer ☐ Builder ☐ Architect ☐ Real Estate ☐ Miscellaneous

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This useful and handsome book will be sent you Free and Postpaid with a new or renewal subscription to "American Builder" at the regular subscription rate, \$2.00 for one year. \$2.00 pays for the subscription—the book is a gift.

The subscription may be new or renewal, or it can be an extension of present subscription, but in all cases must be sent direct to "American Builder" and be accompanied by check, money order or currency for \$2.00. Subscriptions sent in any other way will not entitle sender to free book.

OFFER GOOD IN U. S. AND CANADA
Add \$2.00 to Foreign Countries

What Price Handsawing?

**PRICES
\$195⁰⁰
and Up
Complete
F.O.B.
Factory**

Complete with motor,
table, saw blade, safety
guard, switch and con-
necting cord.

A few good territories
open for men who
can qualify for sales
rights.

Information gathered by the U. S. Department of Labor for the Bureau of Statistics and the Department of Commerce in three cities in three different sections of the country reveals that 33.1% of all costs on residence construction goes to carpenter labor.

Think that over!

And then consider the fact that a DeWalt Wonder Worker saves about 25% of this labor cost—a considerable saving even on small residences.

A DeWalt relieves skilled carpenters of profitless, back-breaking handsawing and allows them to put in a full day on profitable work. They like it better—and so will you when you figure the actual dollars and cents savings effected.

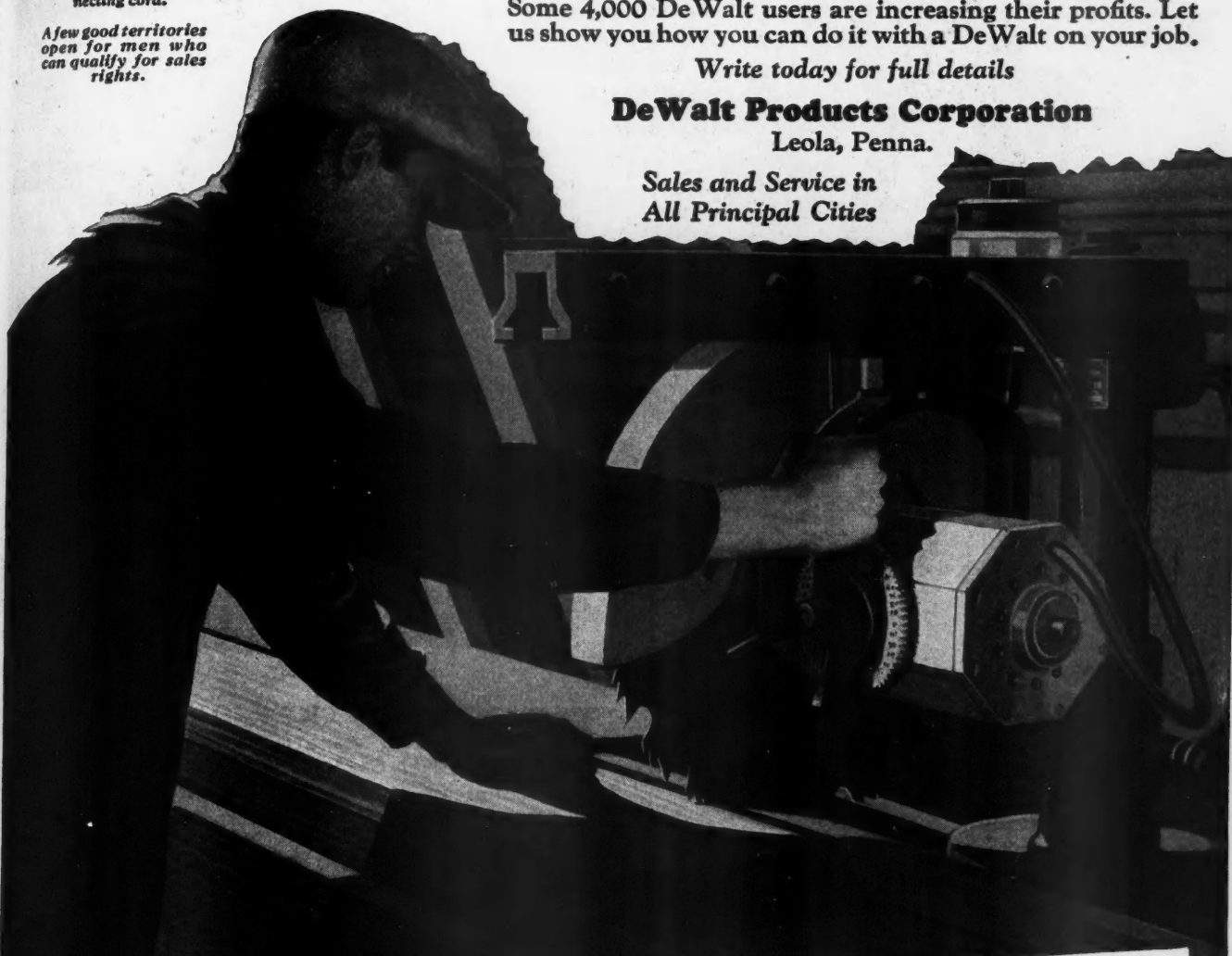
Some 4,000 DeWalt users are increasing their profits. Let us show you how you can do it with a DeWalt on your job.

Write today for full details

DeWalt Products Corporation

Leola, Penna.

Sales and Service in
All Principal Cities



DEWALT
Wonder Worker

The Economy Wood Worker

DeWalt Products Corp.,
760 New Holland Avenue, Leola, Penna.
Please send me full particulars of the
DeWalt Wonder Worker.

Your name.....

Firm name.....

Address.....

Now Portable Electric Saws by BLACK & DECKER



Made in three sizes,

6", 8", 10"

Sturdy Construction -
Maximum Power and Durability -
Absolute Safety

field. The same infinite care has been taken in their design and construction, guaranteeing the utmost in smooth operation, speed, safety and long life.

Black & Decker Electric Saws will efficiently handle ripping, cross cutting, bevel cutting and the various other sawing operations. They are equipped with shoes for bevel cutting, adjustable from 0° to 45°. Saw blades are entirely enclosed by telescopic guards and blades are adjustable, so that depth of cut may be regulated.

Each Saw is packed in a combination packing and carrying case; is easily taken to the job, and can be plugged into any electric light socket, ready for use.

SPECIFICATIONS

6"
1 3/4" Depth of cut
Net weight 18 1/4 lbs.
Price, all voltages, \$95.

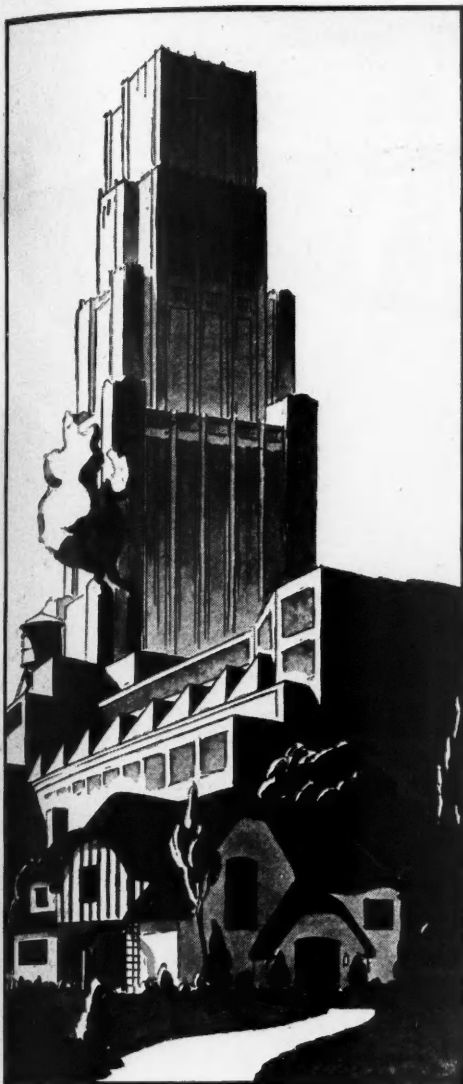
8"
2 1/2" Depth of cut
Net weight 26 lbs.
Price, all voltages, \$135.

10"
3 1/2" Depth of cut
Net weight 33 1/4 lbs.
Price, all voltages, \$165.

Universal Motors operating on A.C. or D.C.

The BLACK & DECKER MFG. CO.,
TOWSON, MARYLAND.

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE



Electrification is part of today's building job . . .

No matter what class or type the building may be, its design and details of construction are greatly influenced by electrical requirements.

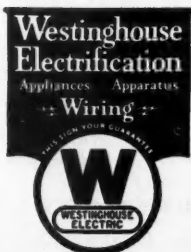
In large or small residence buildings, consideration of lighting, or of the possibility of installing electric ranges, electric refrigerators, or electric labor-saving devices, guides the choice and arrangement of outlets, switches and panelboards. In office buildings or industrial structures, elevators, ventilating and pumping equipment, and a variety of other electrical applications enter into the building plans.

Westinghouse engineers are constantly in touch with current problems throughout the entire building industry. Their specialized experience is an assurance of competent cooperation in helping you to meet individual building problems, as well as of sound engineering, in all Westinghouse equipment. Get in touch with the Westinghouse representative nearest you or write for the new Westinghouse publication, "Building in the Electrical Age."

WESTINGHOUSE ELECTRIC & MANUFACTURING CO.
EAST PITTSBURGH, PA. OFFICES IN PRINCIPAL CITIES

*Westinghouse
equipment for buildings
includes:*

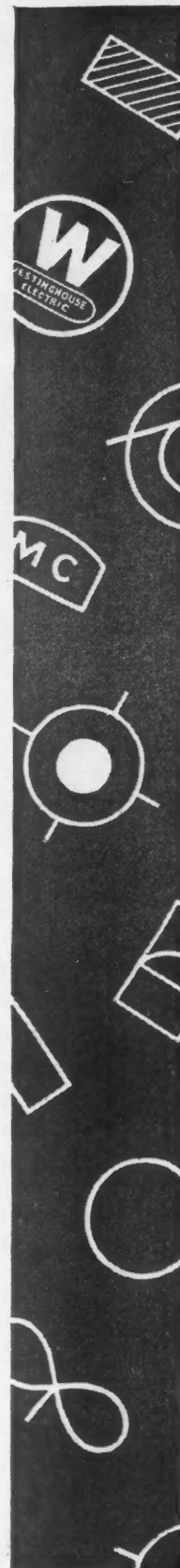
Circuit Breakers	Panelboards
Elevators	Ranges
Fans	Safety Switches
Fuses	Solar Glow Heaters
Insulating Materials	Switchboards
Lamps	Turbines
Lighting Fixtures	Transformers
Motors and Control for Ventilating Sys- tems, Pumps, etc.	Watthour Meters
	Water Heaters



*The Sign of a
Westinghouse
Dealer*

Westinghouse

Complete electrification for modern buildings





**PREFERRED
QUALITY**

Build Buildings That Will Stay Modern

You benefit and your customers benefit when you use Genfire Steel Building Products. These products represent an advance over present standards and constant research and development are keeping them in this commanding position. By using these products you build a better, more modern building—build it more quickly and at greater profits to yourself. Your customers obtain, without cost penalty, not only a thoroughly modern building but one which will still be modern ten or twenty years from now. Our national dealer organization and nation-wide warehouse system assure prompt delivery of your needs. Write for literature.

GENFIRE

FIRESAFE BUILDING PRODUCTS

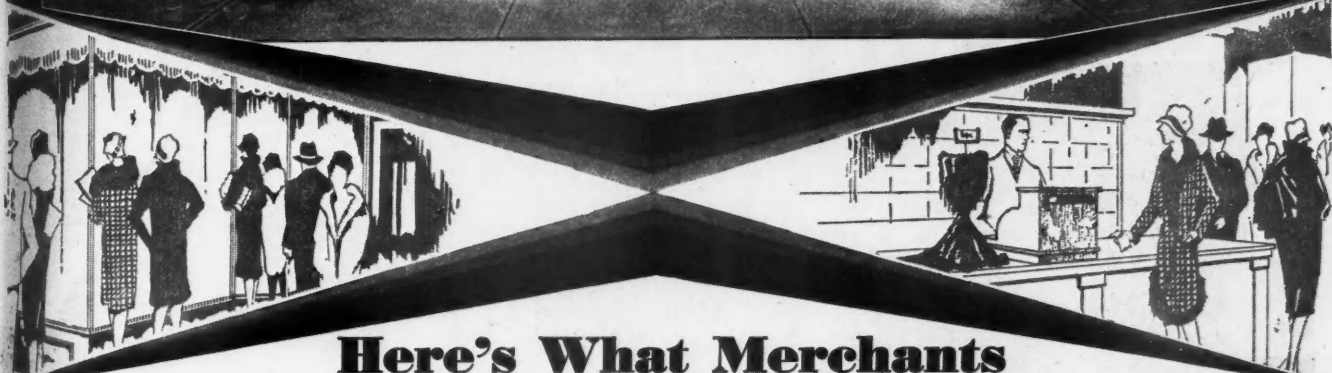
A Complete Line of Steel Building Products

Standard Steel Casements
Pivoted Steel Windows
Projected Steel Windows
Double-Hung Steel
Windows
Donovan Windows
Basement Windows
Pressed Steel Lintels
Steel Doors and Frames

Trussit
Steel Tile
Welded Steel Fabric
T-Bar Steel Joists
Plate Girder Steel Joists
Corner Bead
Self-Sentering
Expanded Metal
Interior Metal Trim

Herringbone Lath
Key Expanded Lath
Diamond Rib Lath
Genfire Sheet Lath
Duplex Steel Bridging
Armco Ingot Iron Lath
Cold-Rolled Channels
Waterproofing
Compounds

Genfire Steel Company - Youngstown, Ohio
Warehouses and Offices in all Principal Cities. Dealers Everywhere.



Here's What Merchants Think of Their Store Fronts

"Our mission is to increase our business and one of the surest ways that we have is through our store windows. The first thing any person sees in front of our store is the window, and the first impression of our store is the one he gets from the front. If it is unattractive and just good enough to get by, he has no particular urge to come in. But if our front in comparison to other fronts in the block, is fresh, attractive and bright, and stands out because of its freshness we have a much better chance of getting them into our store than if our store is unattractive."

SPECIALIZE IN STORE FRONT CONSTRUCTION

What an opportunity you'll find awaiting you on the business streets of your city. Mail coupon for book, "Modern Store Fronts for Better Display."

Kawneer

BRONZE
STORE FRONTS

THE KAWNEER COMPANY
1426 FRONT ST., NILES, MICHIGAN

Send more information about Kawneer
Bronze Store Fronts. I'm interested.

Name _____

Address _____

City _____ State _____

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Would you like to

THROUGH its well illustrated and clearly edited pages **BUILDING DEVELOPER** yearly takes its readers on an "extended tour" of the country.

Important developments everywhere are described thoroughly—from the financing to the sale of the homes.

All steps, Engineering, Landscaping, selecting Materials and Plans, Building, Advertising Methods and Sales Methods are taken up in detail.

Being in close contact with the field the Editors are able to present the latest in Construction Methods—new ideas developed in various sections.

Experts on all the numerous speculative building and development problems are interviewed. The reports appear in the publication in readily understandable articles.

*Where Can You Find This Information Except in
BUILDING DEVELOPER?*



Why Did This Crowd Come?

Scenes like this are found all over the country—crowds of hundreds and even thousands of home hunters assemble to see the opening of a developer's Model Home.

*How They Draw the Crowds Is Told
in Every Issue of Building Developer*

Building Developer
(with which is incorporated HOME BUILDING)

120 West 42nd St., New York, N. Y.

to take this TRIP?



In just one year the Editors of BUILDING DEVELOPER covered important developments in all the above cities.

Enjoy this year's trip. See the successful projects, learn what "put them over"—ideas worth hundreds of dollars to every Building Contractor interested in Speculative Building whether he builds for re-sale one or a thousand homes a year.

BUILDING DEVELOPER tells What to Build and How to Sell, so forming a valuable supplement to the AMERICAN BUILDER, which tells How to Build.

Send the Coupon—"Hop On and Ride!"

BUILDING DEVELOPER (with which is incorporated HOME BUILDING)
120 West 42nd Street, New York

DATE.....

I am doing Speculative Building, so send me BUILDING DEVELOPER (with which is incorporated HOME BUILDING) for One Year for \$2.—enclosed (3 years for \$5. If you wish.)

Name.....

Address.....

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

Fill out if you please

IN 1928 I BUILT
FOR RE-SALE..... HOMES
IN 1929 I EXPECT TO
BUILD FOR SALE..... HOMES

BRIXMENT cuts out the need of lime

WHEN the contractor uses lime in the mix he does so to get a smooth-working, economical mortar. These advantages are not obtained, however, without certain inevitable disadvantages. Efflorescence, fading of mortar colors and water absorption are often due to the lime in the mix.

When BRIXMENT is used for mortar, however, plasticity and economy are secured *without lime in the mix*. One part BRIXMENT, three parts sand make a strong mortar which is easy to spread and which sticks to the brick when the bricklayer throws up a head-joint. This plasticity, together with the low cost of BRIXMENT itself, results in real economy.

BRIXMENT requires no soaking or slaking. It is easy to mix in any quantity desired by hand or machine. One material only is handled on the job. Louisville Cement Company, Incorporated, Louisville, Kentucky.

District Sales Offices: 1610 Builders Bldg., Chicago; 301 Rose Bldg., Cleveland; 602 Murphy Bldg., Detroit; 101 Park Ave., New York

BRIXMENT for Mortar and Stucco

One bag of BRIXMENT to a three-cubic-foot wheel-barrow of sand makes a three-to-one mix without the need of measuring.



AROUND *the* FAMILY TABLE



They Use It To Build Business

EVERY so often our attention is called to some new and interesting way in which the AMERICAN BUILDER is of service to its readers. Undoubtedly there are many others of which we never hear. Many of these ideas, if passed along, could be adopted, profitably, by others.

Such an exchange of ideas would multiply the value of your magazine. The editors of AMERICAN BUILDER welcome every letter offering suggestions and take pleasure in passing along good ideas. For example:

The Martin Building Corporation, of New York City, has utilized, with excellent results, the front covers of the AMERICAN BUILDER as a good homes display right in its own office.

The Martin Building Corporation is an organization specializing in the construction of suburban homes for lot owners. A complete organization is maintained for the preparation of plans and specifications, making of estimates, procuring of building loans and first and second mortgages and for the building of all details of construction. After the building contract is signed this company takes care of every detail from first to last, saving the owner loss of time and much bother and worry. Prospective customers are secured by advertising in the metropolitan and suburban newspapers and the usual procedure is described by Mr. Thompson, as follows:

"A lot owner sees our ad in the newspaper and writes in for information. A representative from our sales department goes to see the prospect to find out where his lot is, its value and the kind of house the owner desires to build. Next an appointment is made for the owner to come to our office to talk to someone in the construction department who can advise him as to the type of house to build, and the many details that should be incorporated in it. Right here is where we make such effective use of



American Builder Front Cover Homes, in Colors, More Than 200 of Them, Are Mounted on Cardboard and Displayed in the Office of the Martin Building Corporation.

the AMERICAN BUILDER covers.

"The owner is told what kind of a house he can get at the price he is able to pay. When mutually satisfactory arrangements have been made verbally plans and specifications are prepared by us for the owner's inspection and approval. Then the formal building con-

tract is signed, required mortgages are procured and the house is built by us.

"All our construction work is done by our own force except the plumbing and heating and electrical work. Only standard advertised materials are used in 'Martin-Built' homes, as we have found, through years of experience, that specifying and using certain definite advertised materials eliminates many chances for argument and misunderstanding.

"In our reception room, at the main office, we have a large table on which we display more than 200 of the houses which have been reproduced in colors in AMERICAN BUILDER. These pictures we cut out and mount on stiff cardboard with an easel back, so that they will stand up. We use these to show our prospects various styles of houses and we have found them a great help in aiding the prospect to decide on a particular exterior or floor plan," says James Bruce Thompson, president of the company.

"There is a wide price range in the houses we build. The cheapest house we have ever built cost \$2,700 and the most expensive one cost \$97,200. We have built 600 suburban homes in the metropolitan area in six years, and our present year's construction will include 100 or more one and two-family houses."

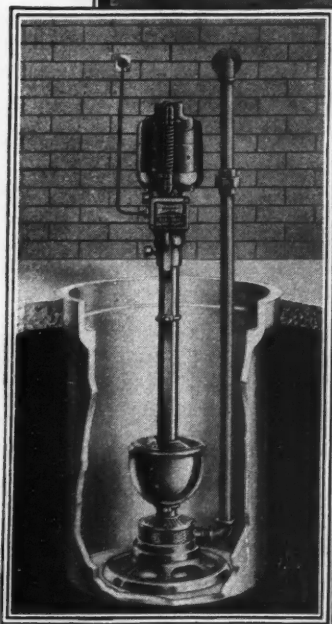
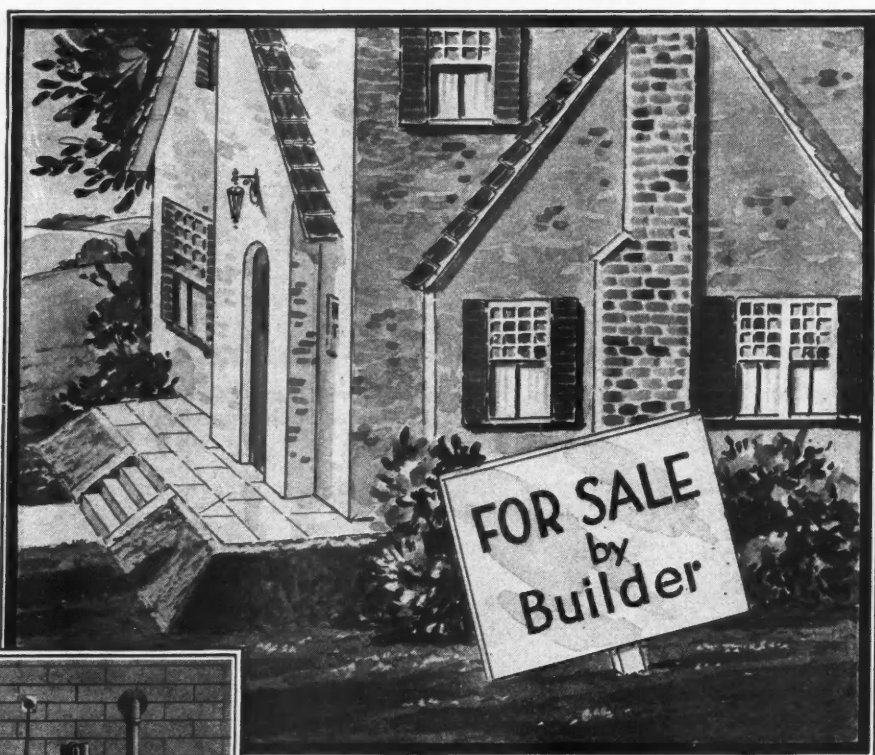
This shows one way in which home designs in AMERICAN BUILDER are used by one subscriber. How do you use the many popular and smart home designs we illustrate? Write and tell us. We would like to pass along to other builders the methods you have found good.



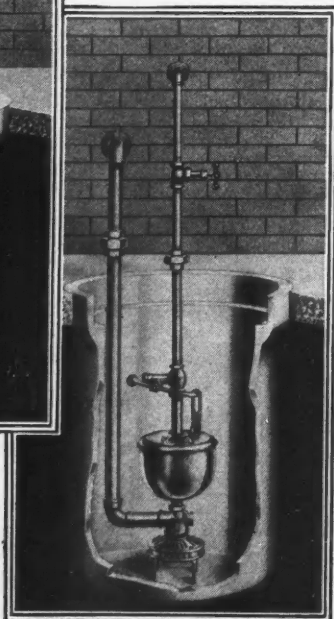
J. B. Thompson, President of the Martin Building Corporation, Which Specializes in Service to Lot Owners.

a PENBERTHY PUMP

will help you Remove this sign



Penberthy Automatic
Electric Sump Pump



Penberthy Automatic
Cellar Drainer
(Water Operated)

A WET basement and a "For Sale" sign are often inseparable.

When you assure a dry basement, it becomes easier to remove the sign and get the place under contract.

The least expensive and most effective way of assuring a dry basement below sewer level—and where sewerage facilities are not available—is by installing a Penberthy Pump. Both the electric and hydraulic units are fully automatic and will give the buyer no trouble or concern.

Your plumbing contractor can promptly supply Penberthy Pumps. There is a size to meet every condition.

PENBERTHY INJECTOR CO., DETROIT

Established
in 1886



Canadian Plant
Windsor, Ont.

PENBERTHY PUMPS

PREVENT FLOODED BASEMENTS



BERNARD L. JOHNSON, *Editor*

105 West Adams St., Chicago—30 Church St., New York City

To Guarantee Moisture Content

THE importance of properly dried lumber is being realized more and more by lumber manufacturers, distributors and consumers. A guaranteed moisture content is being required by a number of industrial users; and architects, contractors and engineers have found that lumber used at an improper moisture content will prove unsatisfactory and costly in the end.

The manufacturers of Southern pine recognizing this trend have, through their organization, the Southern Pine Association, recently adopted a moisture content provision and have included same in their standard grading rules. This follows years of attention to the improvement of drying and seasoning methods.

In further investigation of the moisture content specification possibilities, the Southern Pine Association recently secured the service of the Forest Products Laboratory in conducting a survey of drying practices and the results obtained at representative mills. This survey was carried out through the fall and winter months and its results are expected to place the association members in a position to meet any actual moisture content trade requirements.



Why Mail Is Lost

THE moving season is with us again. More than half a million changes of address were filed with the Chicago Post Office during the past year, according to Postmaster Arthur C. Lueder, but there were many thousands who moved and did not notify the post office, with the result that many pieces of first-class mail and parcels post remained undelivered and great quantities of circular matter and newspapers were returned or destroyed.

If you move, notify the post office, giving the old and new addresses. Blanks for this purpose may be obtained from the carrier, or an ordinary post card or letter may be used. Roomers should have mail addressed in care of the person whose name appears on the mail box.

Subscribers should immediately notify the publisher of a change of address so that you may continue to receive your copy without interruption.



New Application of Color

AT Seventh Avenue and Thirty-seventh Street, New York City, there is arising a steel frame for a new skyscraper that is being painted a bright yellow. Here is something new and startling. It is the first use of color to advertise the work of a steel fabricator. The job is being executed by the Hay Foundry and Iron Works, of New York, fabricators of structural steel. Yellow will be the distinctive mark of this company's future work.

Structural steel usually arrives on the location painted a dull red. It is coated with this paint as a means of preserving its surface. As the steel is erected, the red is

painted over with a coat of black. This company has decided to break with tradition and, hereafter, will paint all of its erected steel a vivid yellow. The new color application makes its first appearance in connection with the steel erection of the Louis Adler Building, in New York City, which is being constructed on the site formerly occupied by the Pictorial Review Building.

It is a common practice for contractors to attempt to obtain some advertising value from the distinctive appearance of their tools and equipment. It is usually the case that these are all painted the same color and the lettering on carts, trucks and tool houses is in the same style. These, however, rarely appear above the street level, whereas the yellow steel frames will project themselves several hundred feet into the sky. They will be plainly visible for miles.



March Contract Figures

NEW building and engineering work contracted for during the past month in the 37 states east of the Rocky Mountains amounted to \$484,847,500, according to F. W. Dodge Corporation. The above figure shows an increase of 34 per cent over the total for February of this year, but there was a drop of 18 per cent from the March, 1928, total. Of the eight districts reported, Texas was the only territory showing a drop from the preceding month's totals.

Analysis of the March building and engineering record showed the following important classes of work: \$197,172,200, or 41 per cent of all construction, for residential buildings; \$75,583,800, or 16 per cent, for commercial buildings; \$71,508,200, or 15 per cent, for public works and utilities; and \$55,837,300, or 12 per cent, for industrial projects.

Last month's contract total brought the amount of new construction contracted for during the past three months up to \$1,256,089,300, as compared with \$1,485,067,000 for new construction contracted for during the first quarter of 1928, the decrease being 15 per cent.

New contemplated projects reported during March in the 37 Eastern States reached a total of \$886,075,100. There was an increase of 15 per cent over the amount reported in February, 1929, and there was an increase of about \$2,000,000 over the amount reported during March, 1928.

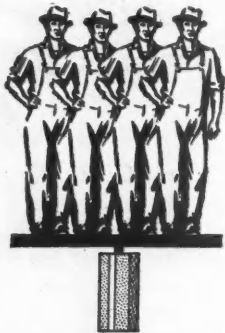


Cut Off Their Ground Connection

COMPLETE insulation from the ground of all untreated woodwork of a building is the only effective preventive against attack by subterranean termites, or "white ants," which are present in many parts of the United States.

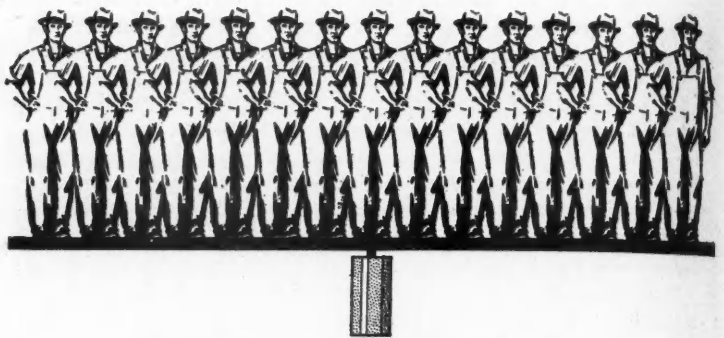
Insulation and impregnation of timbers will cost a few hundred dollars additional in the construction of a building but, according to Dr. T. E. Snyder, of the U. S. Dept. of Agriculture, should be considered in the light of an insurance.

Why Not Profit by This Method!



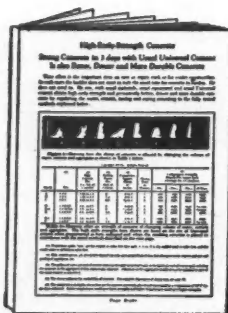
One square inch of this 3-day-old Ordinary Concrete Will Support 4 Men

Cylinder represents average of a number of pavements the concrete for which was mixed and placed by ordinary methods. Average compressive strength at 3 days was 620 lbs. per square inch.



One square inch of this 3-day-old High-Early-Strength Universal Concrete Will Support 15 Men

Cylinder from concrete pavement, LaSalle Street, Chicago. Average compressive strength at 3 days was 2400 lbs. per square inch. John A. McGarry & Co., Chicago, paving contractors.



Send the coupon for your copy

A concrete that gives you the strength you want at the time you want it. A concrete that satisfactorily meets both job and weather conditions. A concrete that not only is as strong in 3 days as ordinary concrete is in 28 days but that is permanently stronger and more durable. A concrete that is used and found up to the mark by hundreds of engineers and contractors. Try High-Early-Strength Universal Concrete on one job and check it for yourself.

The methods for making High-Early-Strength Universal Concrete are condensed into handy, easy-to-use tables. A new booklet containing them will be sent on request.

Name _____

Address _____

Universal Portland Cement Co.
208 So. La Salle Street, Chicago
Without obligation, please send me
your new booklet giving full
details for securing strong
concrete in 3 days with
the usual materials
and labor.
A. B. 8-28

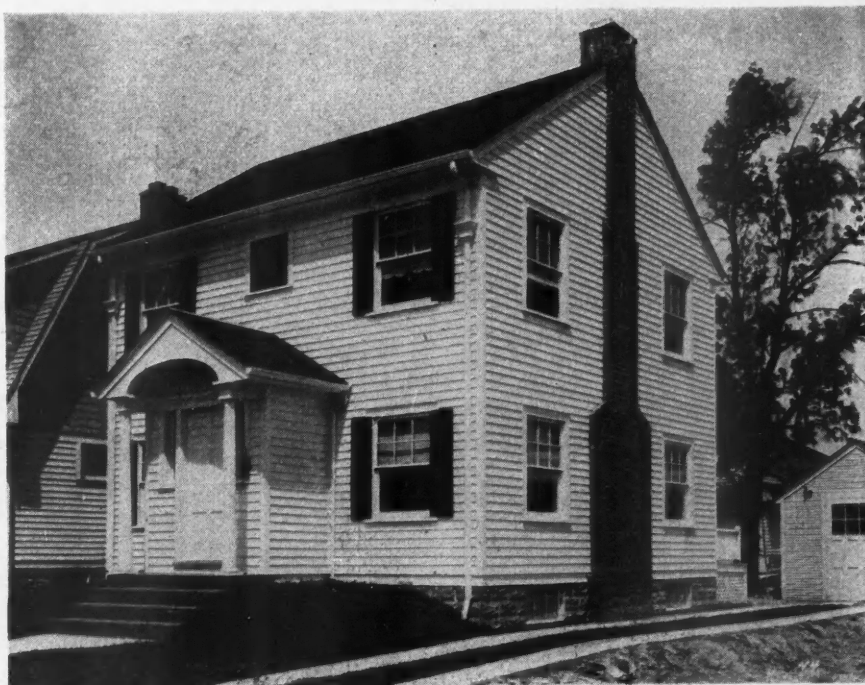
One Standard Cement for All Concretes and Mortars
Universal Portland Cement Co.

Subsidiary of United States Steel Corporation

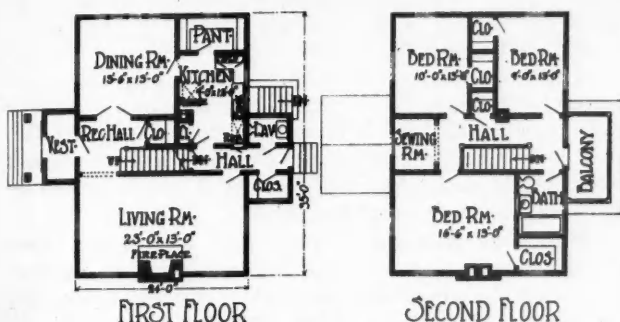
Chicago Pittsburgh Minneapolis Duluth Cleveland Columbus New York
Concrete for Permanence

Two Houses One Plan

Make Possible Attractive Variety in the Residential Development



A Typical New England Colonial Design Which Makes an Entirely Different Appearance from Its Neighboring Dutch Colonial Though It Has the Same Floor Plan.



FIRST FLOOR SECOND FLOOR
This Floor Plan Applies to Both of the Houses Pictured Here

TWO houses, different in exterior design but with exactly the same floor plan, that is what we have here. One is a typical New England Colonial, the other is a Dutch Colonial and they are equally effective. They illustrate how really simple it is for the builder, who is wide awake to the sales possibilities of his houses, to achieve an attractive variety of design while holding his construction costs down to a figure which permits a satisfactory profit.

It is interesting to note just how little has been required to accomplish this distinctive difference in appearance. The most conspicuous difference is that of the roof lines and yet in the actual construction the Dutch Colonial roof requires only a simple change from that of the New England Colonial. The entrance is different, but this is merely a matter of choice of entrance, neither one involving more labor or expense than the other. Then the windows are different, in the Dutch Colonial design the large windows of the front, both upper and lower floors, being divided into two windows and the first floor windows at the end being made smaller. This not only aids in achieving a difference in exterior, but also provides a certain interior variation as well.

This plan is for a six room house of the sort which is much in demand throughout the country. It can be utilized by any builder and, by applying a degree of skill in design, other exteriors may be adapted to it as well.

In true Colonial style, there is a central entrance and reception hall with living room at one side and dining room at the other with the kitchen to the rear.

On the second floor there are three bedrooms, a small sewing room and bathroom. Each of the bedrooms has a good sized closet and a linen closet is provided in the hall.



A Few Small Roof Changes to Create a Dutch Colonial Design and a Few Changes in the Windows Made All the Difference Between This House and the One at the Top of the Page.

Syracuse



After Modernizing.

AN outstanding example of capitalizing the home modernizing idea, as well as an excellent example of what can be accomplished with an old house by applying intelligent modernizing, is seen in a recently completed demonstration by the Wilson & Greene Lumber Co., Inc., of Syracuse, N. Y. How the work was done, how the job was presented to the public and the merchandising results obtained are told here.

This particular remodeling job centered around an old Colonial house on the highway which runs west from Syracuse to Rochester and Buffalo. The house is more than 80 years old and much of the framing is of hand-hewn timbers. Some 20 years ago it was moved unto what was then a modern cellar wall. This was a poured wall with jagged field stone as aggregate and old-fashioned mortar as cement. A cistern, cast the same way, was under the kitchen.

Before the actual modernizing work was started the frame had to be pulled into shape. It had spread or bellied both at the roof and at the second floor joists. After the frame was plumbed the upright corner timbers were hewed out so as to permit of finishing square corners in the rooms. Openings were then cut for a mullioned window at the front of the living room and for a door from one of the upstairs bedrooms to a porch deck which was to be built later. A grade entrance was also cut at the side of the house and cellar stairs built down from the grade door to the basement, under the main stairway.

The basement walls were plastered over with cement and a door was cut

through into the cistern, from the basement, converting it into a wonderfully cool fruit cellar. Heat risers were then installed in the studding to accommodate a modern warm air heating system, electricians put in their wiring and the plumbers did their roughing in.

The outside walls were covered with building paper and 24-inch, silver white, stained shingles were used over the entire exterior. A new roof of variegated blue, gray and brown stained shingles was laid. All the interior walls and ceilings were then furred out, right over the old plaster, and covered with fiber board. The ceilings were laid out



The Dining Room, After Modernizing, in the Syracuse Demonstration.

e

Modernizes

Abandoned Home Turned into a Show Place

Wilson & Greene Lumber Co.
Score a Remodeling Success

in various panel patterns. The joints between the sections of fiber board were covered with two strips of the same board. The first strip 10 inches wide and the second strip about four inches wide so as to give a raised or relief effect to the panel divisions. The side walls throughout the house were panelled with the same four-inch strip of board and, before decorating started, a wooden mould was run around the inside of all panels, giving a very delightful raised effect.

The kitchen was made completely modern, with a deep aproned sink and drain board under a casement window, and with built-in kitchen cabinets at each side of the sink and window. The subfloor in the kitchen was covered with an insulating board on top of which an inlaid, cork linoleum was laid and the color scheme of the kitchen was made to harmonize with the colors in the linoleum. An electric stove was installed and an electric refrigerator was placed just outside the kitchen in a space built for it, in the grade entrance.

In the dining room, built-in china cabinets were placed in two corners of the room and finished in ivory. Treated oak flooring, laid over the old floors, was used throughout the house except in the kitchen and bathroom, where linoleum was used. The dining room floor is a block flooring laid in a mastic which gives the effect of a parquetry floor



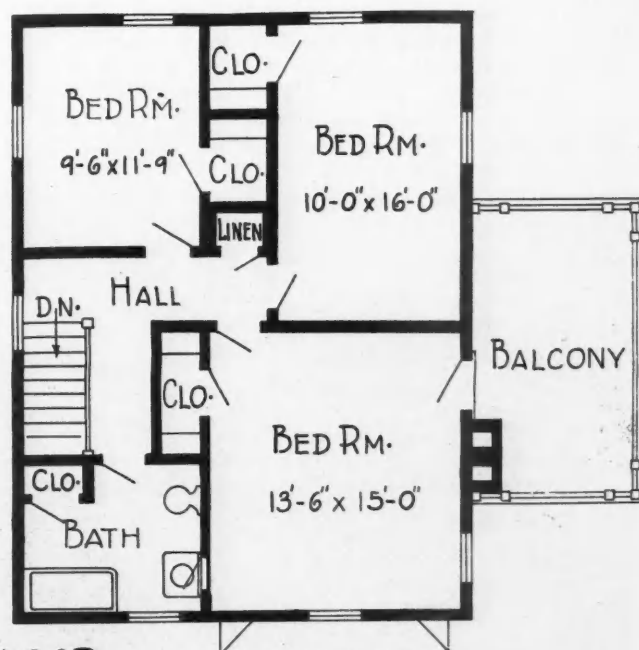
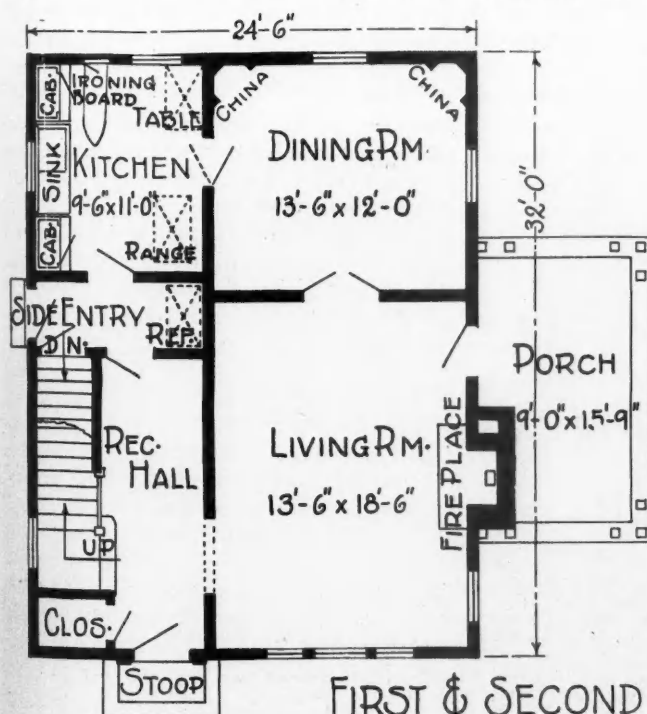
Before Modernizing—80 Years Old, but Structurally Still Sound.

at a moderate cost. The floor of the living room, which is separated from the dining room by French doors, is of oak planks, in random widths, from four to 10 inches wide. These planks are tongued and grooved on the edges and slightly beveled at the edges so that they show the joints in the regular old Colonial style. The ends are pegged, also in harmony with the old Colonial style. A fireplace was placed in one wall of the living room with a graceful wood mantel of pure Colonial design.

The wall panels, in the living room, run from the baseboard to the ceiling. The angle of the wall at the ceiling is filled with a combination cove and picture mould. The panel effects, achieved with plastic paint, with colors blown in, are particularly handsome. The ceiling is done in dull ivory. There are no ceiling lights, all lights being on the side walls.

The living room opens off an entrance hall containing a coat closet and opening back to the kitchen and to the

(Continued to page 74)



FIRST & SECOND FLOOR
PLANS

The Arrangement of Rooms Was Little Changed, but Each Room Was Finished and Equipped with the Most Modern Specialties and Materials in This Modernizing Demonstration by the Wilson & Greene Lumber Co., Syracuse, N. Y.

Welded Steel

Permits Economy in

Upper Carnegie Building Cleveland, Ohio Is First All Welded Store and Office Building

By A. F. DAVIS

WITHOUT a rivet or a bolt in its steel framework, the recently completed Upper Carnegie Building, Cleveland, Ohio, is the first commercial store and office building to be erected by the arc welding process. In shop fabrication and in field erection the various members of the structure were fused together at their joints by means of the intense heat of the electric arc. The steel framework is, therefore, actually a one-piece structure.

The building was designed and built by its owners, the Austin Company, Cleveland, Ohio, nationally known architects and builders. The Welding Engineering & Construction Company, of Cleveland, Ohio, were engaged as consultants and welding inspectors.

The building, a four story structure of modern architecture, is 60 feet wide by 119 feet long. The ground floor is divided into store rooms, the upper three stories containing offices.

Designed exclusively for arc welding the structure contains many new and unique features of construction which resulted in a saving of structural steel tonnage of approximately 15 per cent. The framework, exclusive of the welded bar joists,



The Upper Carnegie Building, Cleveland, Ohio, Is the First Commercial Store and Office Building of Arc Welded Steel Construction.

contains 115 tons of steel. The most economical riveted design would have required over 130 tons.

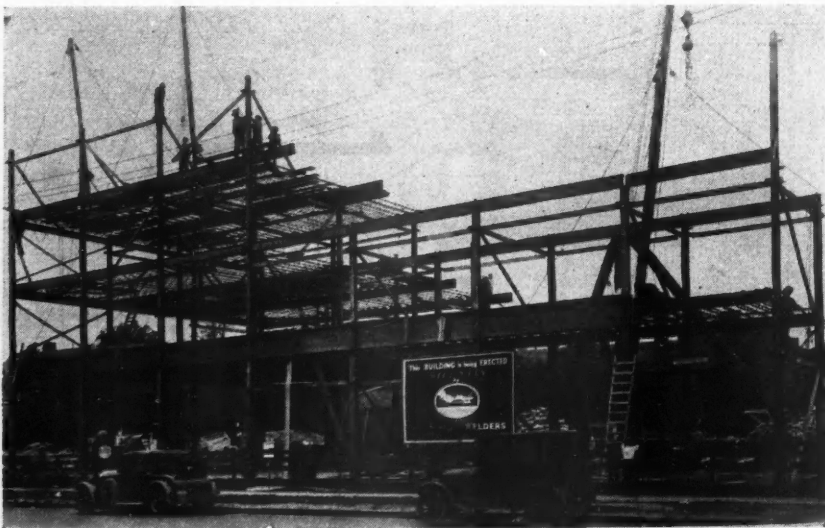
The use of continuous beams in place of the usual multi-story column construction allowed a reduction in the size of both beams and columns over those required by the riveted design. By milling the tops and bottoms of the columns and placing them between the continuous beams each column can be of the correct size and weight for the load each carries, rather than in excess, as is the case of multi-story columns.

The column loads are carried through the continuous beams by means of stiffeners, which accomplishes the principle of continuous columns. Thus the welded design

permits continuous beam and continuous column construction which effected the saving in steel tonnage without decreasing the strength or rigidity of the structure.

The term, "shop" fabrication, is a misnomer when applied to the building up of the various structural members for this building, as all the fabrication was done outdoors in the yard of the Austin Company's Bliss Road fabricating plant. Here five welding operators fabricated all the structural steel for the building. A battery of five welders of the motor generator type were used to supply the welding current. Machines of 300 ampere capacity were used generally, although for some work the 200 ampere size was used.

Certain economies were effected in fabrication by the use of arc welding instead of riveting. In joining the H columns to their base plates no connecting angles were required. The ends of the columns being milled, the columns were set upright on



The Use of Continuous, Welded Beams Permitted a Reduction in the Size of the Beams Without Decreasing the Strength or Rigidity of the Structure.

Construction

Structural Frame Work

their base plates and attached by welding a continuous bead along the outside edges of the column flanges.

Plates were used instead of angles as beam stiffeners. These were welded between the flanges of the continuous beams where the columns joined the beams. The stiffeners carried the lines of the column flanges through the beams. Where the column flanges were parallel to the webs of the beams Tee stiffeners were used.

Lattice girders were used in the front bay of the building to carry the first floor partitions and the store-front bulkhead beams. The use of lattice girders permitted the installation of concealed piping. These girders have a span of 18 feet 1 inch and are 1 foot 6 inches deep. They are composed almost entirely of angles, only the verticals at the ends being plates. The various members were laid out, held in place by "C" clamps and then welded, no punching being required.

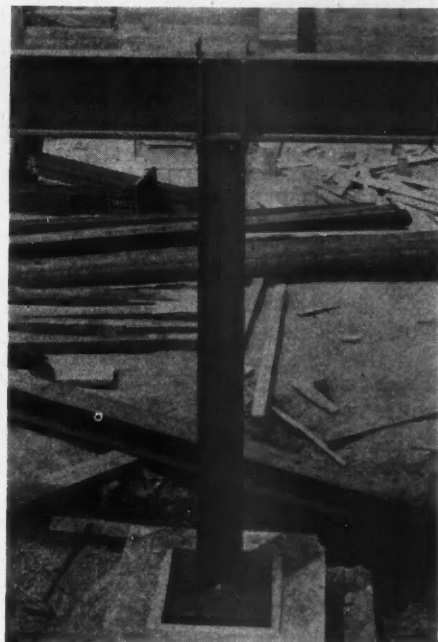
Another feature of the fabrication which facilitated field erection was the welding of locating angles and blocks to the continuous beams. These served to locate and to partially hold the columns in proper position before shoring. The angles located the flanges of the columns and the small blocks located the column webs.

The column footings and exterior walls to grade line are reinforced concrete. The exterior columns start about a foot below grade line, resting on concrete piers in the basement walls. Due to the fact that the base plates of the exterior columns at the ends of the building served also as end bearing plates for the first floor continuous beams, these columns were erected with the basement columns. The first floor continuous beams were then placed over the basement columns.

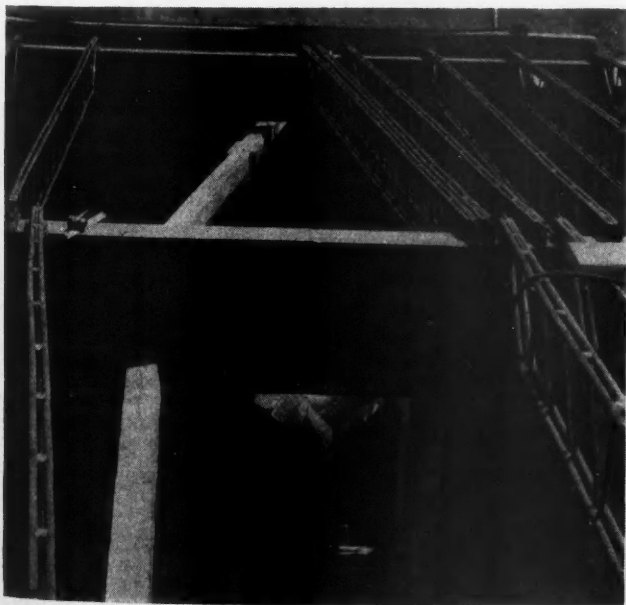
The continuous beams were erected in two sections, each section of each beam being approximately 60 feet in length. After erection these beam sections were butt welded together,

thus making each continuous beam one solid piece of steel—plates were also welded across the joint on the top side of the flanges of the beams. These beam connections occurred on the approximate front to back center line of the building.

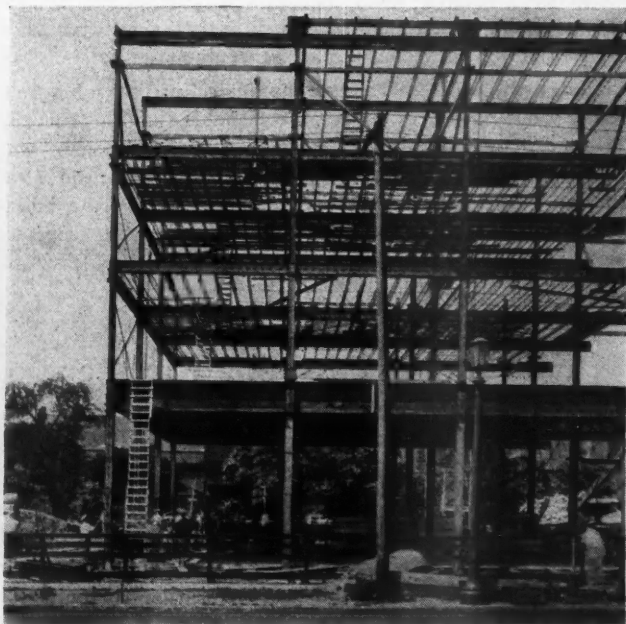
No field bolts being used to hold the various members of the structure in place until welded, necessitated the employment of a novel method of shoring. This consisted of bolting a square frame around the columns to provide means for connecting the braces to the column. The column shoring connection, or frame, consisted of two 2 by 2's held on opposite sides of the column by two bolts connecting the wood blocks and forming a square. These bolts also held to the wood members angles whose free legs were punched and through which long bolts were bolted. Thus the frame had bolts



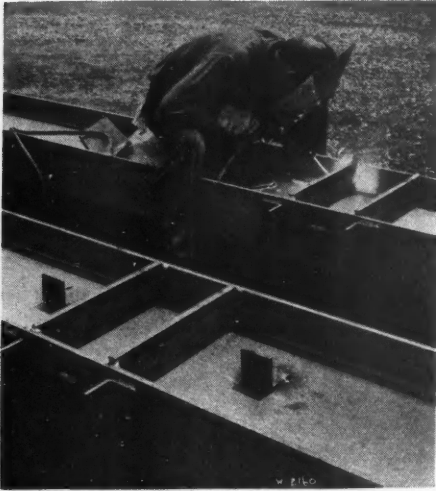
A Detail of the First Floor Continuous Beam at a Column Connection.



The Butt Welding of Two Beams, End to End, Resulted in One Continuous Beam of the Same Section and Strength for Its Entire Length.



A Reduction in the Size of Columns from Floor to Floor Was Made Possible by the Use of Continuous Beam Design.



Stiffeners Welded Between the Flanges of the Continuous Beams at the Column Connections Carried the Lines of the Column Flanges Through the Beams.

foot or 34 foot wide store fronts are available at any time along the front of the building. This was made possible by using the new 36 inch Bethlehem girder beam over the store fronts. It is incidentally one of the first uses in the country of this new size girder beam. The continuous girder beam over the store fronts was erected in two sections. These two sections were welded together after erection in the same manner as were the other continuous beams.

Welded bar joists were used to carry the 2 inch concrete floor and roof slabs. These joists were welded in place to their supporting beams. To give the joists increased lateral stiffness two $\frac{5}{8}$ inch rods, equally spaced in each bay, were laid across the bottom chords of the joists and tack welded to each joist. This increased the rigidity of the joists to a far greater extent than if they were bridged in the usual way with wire. Where partitions occurred the joists were stiffened by welding a plate the full length of their top chords. The bottom chords of these joists were also continued to the member supporting the joists. This was accomplished by welding angles along the bottom chords and welding the free ends of the angles to the beams. Requirements of clearance rather than structural design dictated this method of stiffening the joists.

Though the noise of riveting hammers on this job would probably not have been more objectionable than is generally the case, considerable attention from the layman was attracted to the structure by the quietness of the steel erection. During the course of construction of the building many delegations of engineers visited the scene of operations to inspect the design and method of erection of the steel structure.



Uncoiling or Unreeling Wire Rope

By WALTER VOIGTLANDER
Rope Engineer

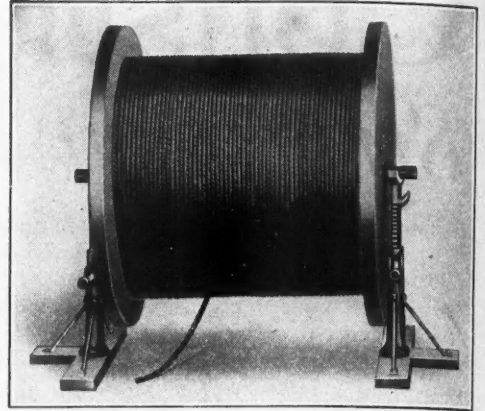
WIRE rope is ordinarily shipped and received either in coils or on reels. When uncoiling or unreeling wire rope it is very essential that no kinks be allowed to form. Once a kink is made, no amount of twisting or strain can take it out and the rope is unsafe for work. Never uncoil a wire rope as might be done with a rubber hose or manila hemp rope. Lift the coil to its edge and unroll the coil allowing the rope to lie flat until used. Contrasting meth-

ods are shown in the accompanying illustration. When wire rope is received on a reel it must never be taken off or unreeled, as shown in "wrong way" illustration, for such a method will invariably develop kinks and spoil the rope. If a jack-bracket for the coil is unavailable turn the reel on edge and roll along the ground.

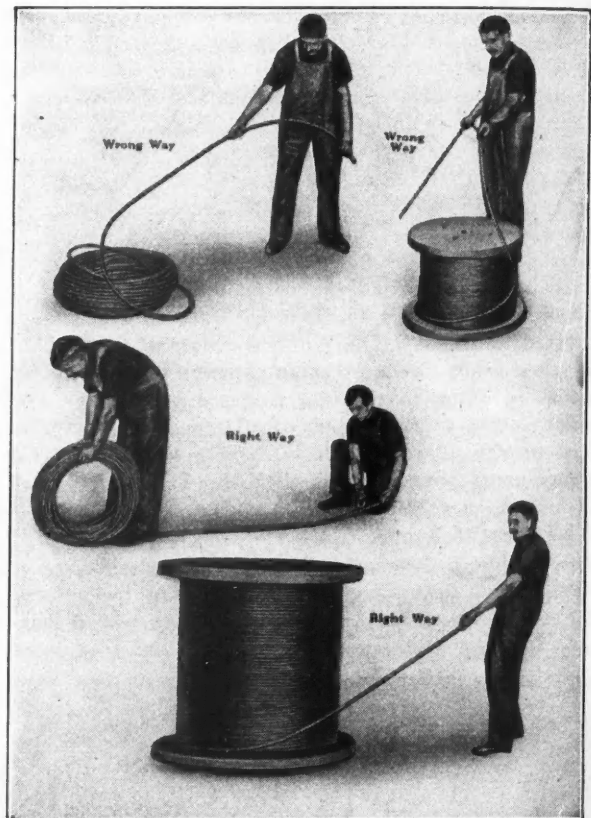
The structure is designed so that every alternate column in the front of the store rooms can be removed. Thus, either 17

ods are shown in the accompanying illustration.

When wire rope is received on a reel it must never be taken off or unreeled, as shown in "wrong way" illustration, for such a method will invariably develop kinks and spoil the rope. If a jack-bracket for the coil is unavailable turn the reel on edge and roll along the ground.



Jackbrackets Provide the Best Possible Means for Unreeling Wire Rope. With this equipment there is little possibility for kinking.



The Right and Wrong Ways of Handling Wire Rope. Unreeling the wrong way causes serious kinking.



Workers Seek Better Training

E DUCATION is improving the skill of young men employed in the building trades, according to James A. Moyer, who is Director of the Massachusetts State Division of University Extension.

"The skilled worker in the building trades should be, on the average, a better trained and more broadly educated man than his brother of 10 or 15 years ago," said Mr. Moyer in a recent address. "I think that more mentally ambitious men are going into the skilled trade occupations. As a consequence, there is a greater interest in study by carpenters, plumbers, roofers, electricians and men in similar occupations. They know that more knowledge means bigger earning power."

Fire-Houses in Residential Neighborhoods

Designs for This Essential Community Building That Do Not Detract from Real Estate Values

FIRE-HOUSES that in outward appearance are high-class dwelling houses, with grounds landscaped to complete the deception, may be built in residential sections of cities without having a detrimental effect on real estate values. On the contrary, a fire-house can be an asset to the immediate vicinity.

Since fire departments were first established as parts of city government the buildings in which the fire-fighters and their equipment were housed have seldom been much to look at. Usually the fire-house is an ugly, two-story, dingy red brick building with four straight walls and a flat roof. It is looked upon as a necessary evil which must be tolerated in residential sections because of the necessity of having the fire company located within the area assigned to it. For that reason the site commonly selected for the fire-house is in a run-down block where its presence will be the least harmful. Its immediate neighbors are other dingy buildings or vacant lots littered with rubbish, equally offensive in their appearance.

Shreveport, La., has taken the lead in proving that fire-houses in residential sections may be highly attractive. Several new structures so located in that city contend suc-



A Rear View of the Line Avenue Fire Station, in Shreveport, Would Never Reveal the Fact That It Is Not One of the Fine Residences by Which It Is Surrounded. The landscaping is worthy of special note in this unusual Back Yard. Clarence W. King, architect.

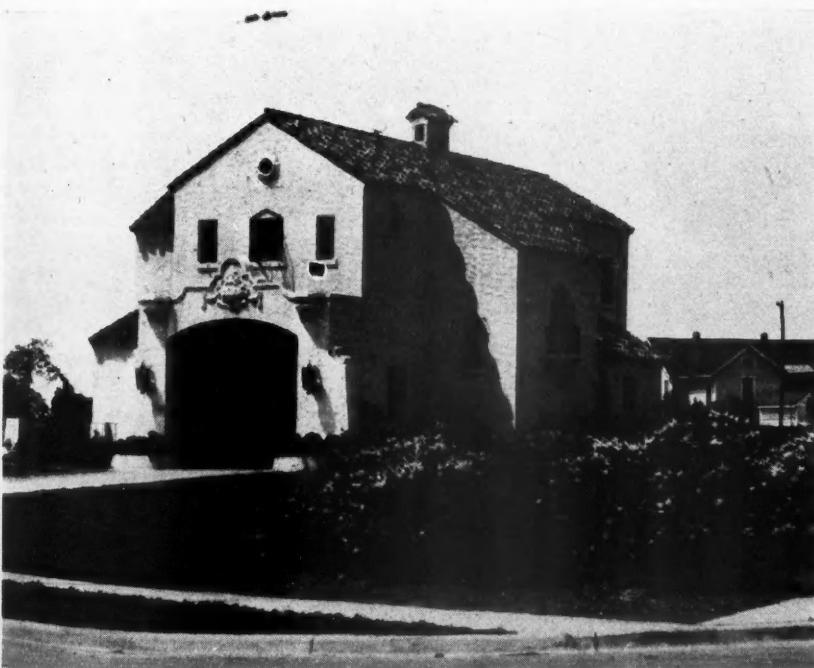
cessfully with the best designed and most thoroughly landscaped dwelling-houses for the attention and admiration of the visitor.

The first of Shreveport's residential fire-houses, known as Line Avenue Fire Station No. 7, was built in 1920. The second, known as Velva Street Fire Station No. 8, followed in 1924. Both of these buildings are in high-class residential sections of the city, but they are far from being harmful to real estate values around them. In addition to their attractive appearance, they are of fireproof construction, with floors of reinforced concrete supported on masonry walls, the exteriors coated with cement stucco. Both buildings were designed by Clarence W. King, a Shreveport architect.

Winnetka, Ill., a residential suburb of Chicago, recently built an attractive fire-house on the site formerly occupied by the old village hall which was razed in 1926. The material for the walls of the fire-house was salvaged from the old building. This fire-house, located in one end of a small park, harmonizes so well with the residential character of its surroundings that little objection can be registered against its presence.



THE Midwest Building and Allied Arts Congress and Exposition will be held in the Manufacturers Building, Indianapolis, Ind., May 13, 14, 15, 16, 17, 18, 1929, during the Indiana Building Congress.



Velva Street Fire Station, in Shreveport, La., Does Not Detract from the High Class Residential Neighborhood in Which It Is Located. The floors are of reinforced concrete and the walls of clay tile, coated with cement stucco, for fire resistance. Clarence W. King, of Shreveport, architect.

Automobile Association Builds Fine Headquarters

George W. Kelham, Architect

SITUATED on one of San Francisco's oldest and most famous thoroughfares, but one block from the Civic Center, and directly in the path of the city's future center of population, the new general office headquarters of the California State Automobile Association is an imposing structure. This new building is a monument to the accomplishment of a co-operative institution which has served its membership for over eighteen years and maintained a position of leadership in improving motoring conditions throughout the West. At the same time, designed and constructed for the special purpose of the association, the new building will make possible a more efficient handling of the organization's work with a consequent increase in the value of the service provided the membership.

Although designed primarily for the accommodation of the business and service activities of the organization, the association's new headquarters home is a distinctive architectural creation embodying the best thought and experience of one of San Francisco's most noted architects. In the creation of this structure, Architect George W. Kelham, who has designed some of the Pacific Coast's greatest

buildings, was inspired by the architecture of sunny Spain whose traditions are so closely woven into the history of California.

In the style adopted the freedom and romance of Spain is combined with the more staid and refined detail of the Italian Renaissance. Around this architectural motif has been constructed a building which rises to the height of seven stories and contains, in addition, basement and mezzanine floors. It fronts 120 feet on Van Ness Avenue and 100 feet on Hayes Street, providing over 65,000 square feet of space on the nine floor levels.

The structural framing of the building is of reinforced concrete, frame type, with terra cotta curtain walls built in between the concrete columns and beams. Covered with ornamental cement plaster, these walls give the exterior of the building an appearance of cast stone. In engineering tests the concrete laid throughout the building developed an average compression strength of over 2,000 pounds per square inch at the end of a twenty-eight day test.

The large ornamental entrance, with its wrought-iron grille, leads into the entrance lobby where the view of



In Order to Properly House the Service Organization of the California State Automobile Association, This Specially Designed Building Has Been Erected on One of San Francisco's Principal Thoroughfares.

tall arches, terminating in an ornamental dome above plain pendentives, recalls in symmetrical composition, the central architectural motif. The level of the public lobby, the principal show place of the interior, is elevated thirteen steps above the entrance lobby. The public lobby is 85 feet long, 30 feet wide and 37 feet high and is surrounded by an arcade of groined and vaulted ceilings. Here members have access to the Touring Bureau, the Membership and Insurance Departments, the Motor Vehicle License Service, the Outing Bureau and the Claims Department, contained in the surrounding arcade which is 13 feet wide and 21 feet high.

An architectural masterpiece is the public lobby. The law courts or basilicas of Italy and the patios of Spain and Spanish-America furnished the inspiration for its dominant features. The walls are of toned travertine stone, pierced at the base by graceful arches leading to the arcade. The upper part of the walls is relieved by richly carved balconies on the sides and ends. The ceiling is of old wood, its beams painted in warm Spanish colors which are toned down giving the impression that it has endured the ages.

The carrying out of this well-conceived architectural design involved numerous unusual and interesting structural problems which were successfully solved by H. J. Brunnier, structural engineer. In designing the framing required to permit of the construction of the public lobby with its height of ceiling, the walls around the lobby from the top of the architectural arches up to the third floor were made to act as girders to carry the second and third floor framing and the columns supporting the floors above.

The engineering feature was made still more difficult by the requirement of openings through the walls to the balconies. This made necessary heavy framing of some kind in the central part of the building, so the columns supporting the girders were made to take all the available space the architectural design would permit. These columns, as constructed, brace the building against any lateral stress.

On the mezzanine floor are located the private offices of the Secretary and General Manager, the director's room, the telephone switchboard room and the free emergency road service department. The latter department has direct communication with the buildings in the rear of the new structure where the two cars and motorcycles of the department are garaged.

On the second floor are located



A Public Lobby, with Richly Carved Balconies at the Sides and Ends and Walls of Toned Travertine Stone, Extends Across the Building.

the private offices of the Assistant and Field Secretaries, the editorial and business offices of Motor Land, the offices and work space of the Bureau of News, the Public Safety Department and the lunch room. In line with the modern practice of organizations employing a large amount of clerical help, the association has set aside a well lighted room on the second floor for the accommodation of employees who desire to bring their own lunches. Here they are served coffee, tea or milk and provided with attractive surroundings during the lunch hour.

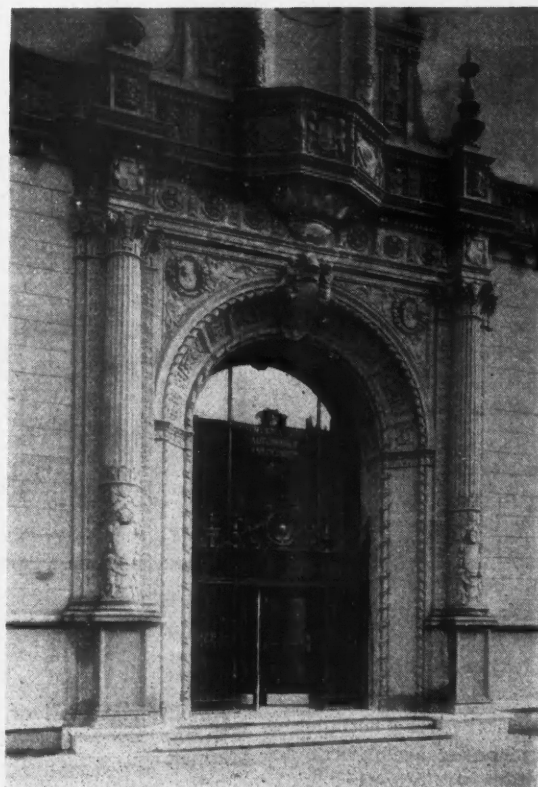
As the ceiling of the public lobby is the same height as the ceiling of the second floor, the balconies of the public lobby are reached from the second floor level. From each of the four balconies there is a view of the entire lobby and of the work space in the arcade which surrounds it.

The third floor is given over almost entirely to three departments: the Legal Department, the Engineering Department and the Good Roads Bureau.

The building has been planned for lateral expansion and is the first unit of a more elaborate scheme to take care of the increasing growth of the Automobile Association in the future.

In the planning and erection of the association's new building, careful attention was given to the installation of modern equipment for inter-communication between floors and departments as well as to the engineering details in the installation of telephone and electrical wiring in such a manner as to permit the addition later of new telephone or electrical units without undue expense.

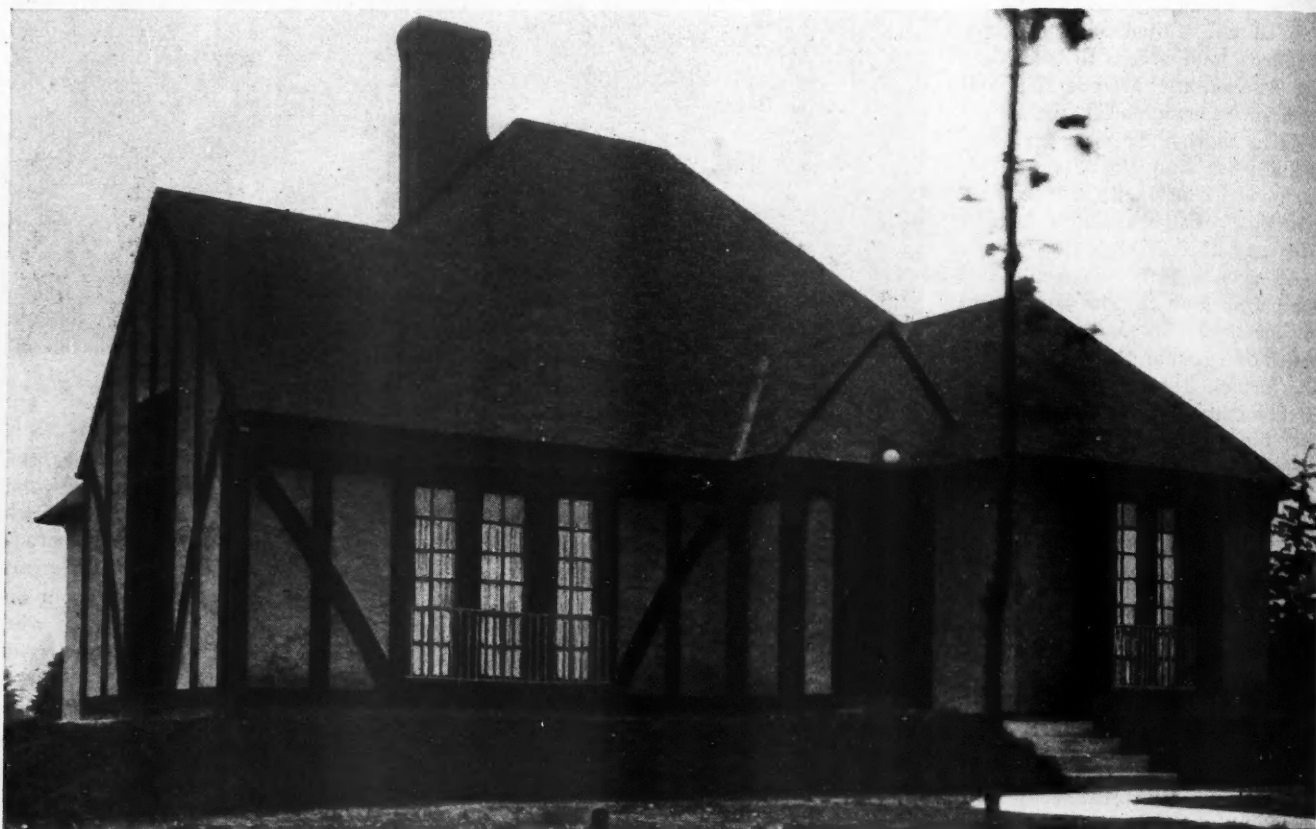
C. W. GEIGER.



The Main Entrance of the California Automobile Association Building, Following the Italian Renaissance Style, Is Impressive.

The Bungalow Home

Which Proves That with Good Design There Is No "Bungle" in the Bungalow



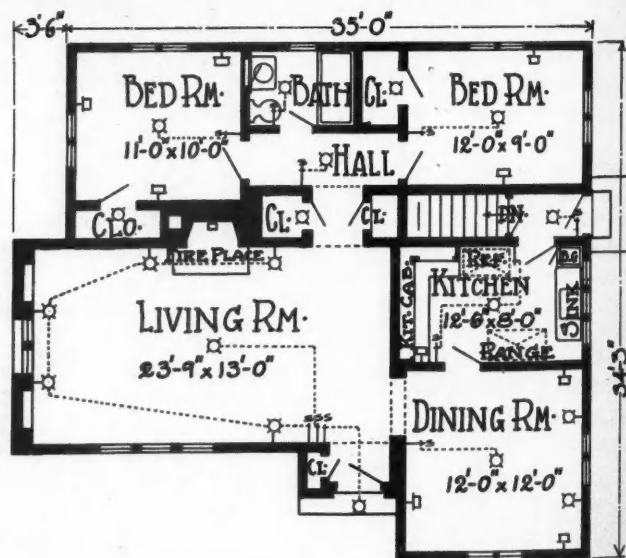
Here Is a Home Which Proves That a Bungalow May Be Just as Effective a House as Any Other Type if the Same High Quality of Design Is Put Into It.

INTERESTING roof lines and half timbered stucco walls join to give this model bungalow a distinctive air that lifts it out of the ordinary and makes it an outstanding example of single story home design. Roof lines, an element of primary importance in any house design, are of even greater consequence in the design of a bungalow for unless they are more than ordinarily well treated, the bungalow has a tendency toward the flat and ill-proportioned effect, which utterly spoils the bungalow with less than ordinarily well treated roof. In this roof that "more than ordinarily well treated" effect has been achieved.

Somewhat unusual but wholly pleasing is the use of half timbered effect over the entire expanse of side wall. This is most often confined to the gables or upper portions of walls, but the designer of this house has proved beyond dispute that it is as well adapted to more extensive use.

Not all of the designer's effort, however, has been expended on the exterior of this home. The plan reproduced here shows a house which has been laid out with an understanding of what combines to make attractiveness and convenience.

One of the features of this design is the very complete wiring. Lighting fixtures and electric outlet are indicated on the plan. Every room is well equipped along this line and even the two bedroom closets are provided with lights. This is one of the most important items in modern home equipment, for with the constantly increasing use of elec-



An Excellent Floor Plan for a Single Story Dwelling with the Rooms Grouped in a Convenient and Attractive Manner.

tricity for labor saving and convenience appliances in the home, the house which is not completely wired has a poor chance of sale as compared with the well wired home.

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Standard Design Adopted for Army Y. Homes

Arthur Bates Lincoln, Architect



The Homes of Y. M. C. A. Secretaries at U. S. Army Posts Will Hereafter Be Built from This Standard Design by Arthur Bates Lincoln, Architect. It is an adaptation of the New England Colonial style, finished in stucco over cinder concrete tile, to harmonize with the prevailing types of army post architecture. Cost, \$13,000.00.

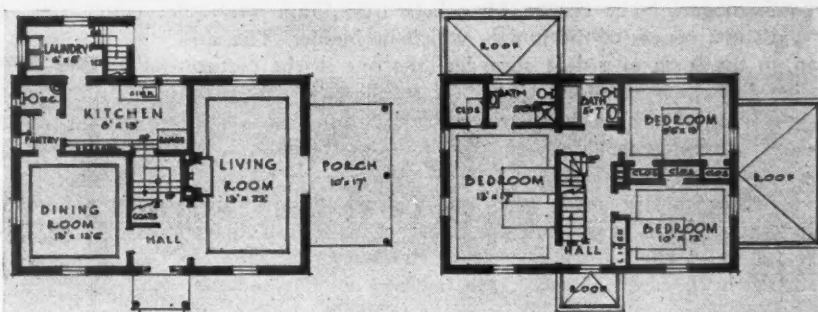
THE National Council of the Young Men's Christian Association, co-operating with Home Owners Institute, Inc., has recently evolved an army post secretary's residence which the council hopes to make standard in all future building of this type. The requirements of permanence, modernity and comfort in good construction which the Y. M. C. A. naturally imposed upon this type of building were further complicated by the standards which the U. S. Army imposes on all buildings constructed within its reservations. This meant fire safety, agreement with the prevailing architectures of nearby buildings owned by the army, and a high standard of construction throughout.

The plan for this standard type of residence is the work of Arthur Bates Lincoln, consulting architect of Home Owners Institute. The first Y. M. C. A. army secretary who will occupy the new type residence is Mr. Ellis H. Ayers, stationed at Fort Hancock, Sandy Hook, N. J.

The house itself is a modern adaptation of the New England Colonial style, employing the most modern of materials and the latest features of convenience in its design and construction. Cinder concrete block is used for foundation and side walls. Shingles of asphalt coated with copper form the roof. The exterior walls are stuccoed.

The heating plant consists of sectional jacketed boiler, with thin-tube radiators in all rooms, and storage hot water heater. Brass pipe is used throughout. The plastering work throughout was done on metal lath.

The Colonial style was adopted as most nearly that approximating the various architectures used on army res-



The Plan of the Standard House Is Fairly Flexible so That It Can Be Adapted to Varying Individual Requirements and Locations.

ervations. The construction of cinder concrete block was used largely because of its high insulating value. Since the houses erected from this plan will probably be situated in districts with widely varying climatic conditions, resistance to both heat and cold was found necessary.

The necessity for resemblance in architectural appearance to other army buildings brought about the decision to use stucco as the finish material because of its flexibility in color and texture.

The plan is unusual in several respects, and is fairly flexible so that it will meet the individual requirements of varying locations. Downstairs a large and comfortable living room has a wide fireplace flanking the central long side. The dining room and kitchen are arranged in a unit on the opposite side, with a conveniently laid out, pleasant laundry in one-story extension at the rear. The kitchen is efficiently planned for the quick performance of household tasks. Upstairs are three bedrooms and two baths. All the rooms are notably light and cheerful, provided with ample windows giving good light and cross ventilation.

"The House That Jack Built"



Natural Environment Does Much to Create This Delightful Home Picture but It Is Good Exterior Design in Harmony with the Environment that Is Effective.

JACK PAUL, Evansville, Indiana, builder, is known for his slogan, "The House That Jack Built," and for the distinctiveness of the houses which he builds. The slogan, in the form of a neat sign, like the one in the picture above, by which Mr. Paul himself is standing, is placed on every house that he has under construction and Mr. Paul's name is thus kept before the public in association with good home building.

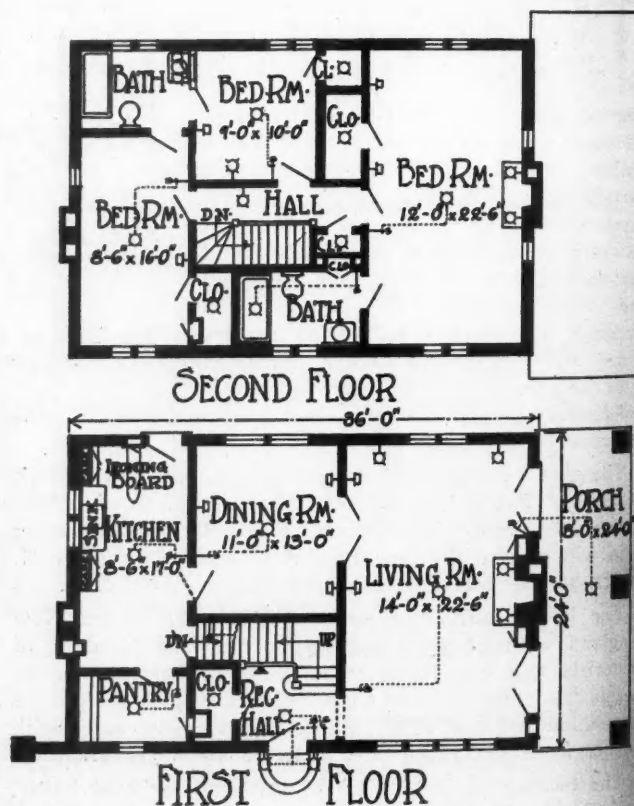
A background of shade trees and a gently sloping lawn approach well set back from the street; a lawn embellished by tastefully distributed evergreen bushes with curving concrete walk and driveway; are features which lend distinction to this old English type of home recently completed in Evansville, Ind., by Jack Paul.

The accompanying illustrations show how the exterior of this home has been made inviting and the promise of the exterior is fully realized in the admirable plan of the rooms in relation to comfort and beauty. Rugby brick of rough texture in four color tones for the walls blends admirably with the dark color asphalt fireproof shingles. The front entrance exemplifies the Old English theme, the door with hinges of antique design, set off on each side by wrought iron lanterns.

A feature of the basement is the recreation room with walls of rough English brick and old style open fireplace. A maroon colored cement is used for the floor. The basement is equipped with built-in incinerator for disposal of rubbish and garbage, built-in laundry tubs with double clothes chutes opening near.

The beautiful front approach is balanced in beauty by the treatment of grounds at the rear. A sunken garden with two ornate pergolas and variety of shade trees make of it a veritable bower of beauty and restful ease for the spring and summer months.

WILLIAM H. O'CONNELL.



An Excellently Arranged Plan and Equally Good Interior Treatment Make the Home as Satisfying to Live in as It Is to Look at.

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A Home Adapted To Its Site

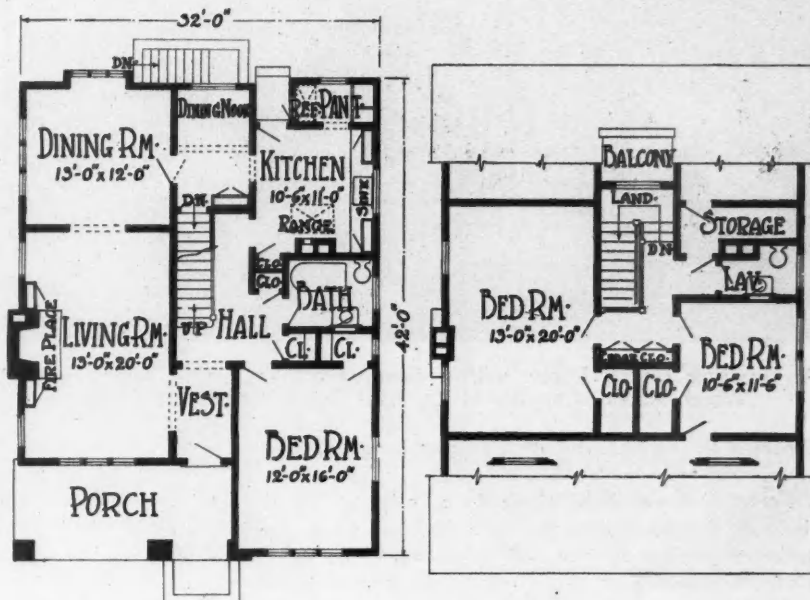
All the Niceties of Skillful Designing Are Seen in This Plan of a Charming Bungalow Home

B. Becker & Son, Architects

IN designing this home, the architects, B. Becker & Son, of Toledo, Ohio, were required to meet more than the usual problem of adaptation to the building site. This house, which is located in one of Toledo's attractive outlying additions, is placed upon a triangular lot, at the apex of two of five streets which converge into a circular park. In such a situation the responsibility of leadership is great and in this case has been well met, as is amply evidenced by the photograph.

The bungalow type was selected as giving the necessary gradual effect of growing out of the ground, an effect only to be achieved by the low, long, sweeping roof lines. The exterior color scheme was planned with the same thought in mind. A reddish-brown, variegated brick was used for the base course, chimney, front porch and the window sills. The walls are finished in a white pebble dash stucco over frame construction and the roof is covered with wood shingles stained a lively green, its long sweep being broken only by the two eyebrow windows at the front.

The large front porch affords a view of the beautifully landscaped circular park on which the house faces and is



Here is a House Plan Which Shows an Unusual Amount of Careful Thought in Adapting It to the Actual Needs of the People Who Will Make This House Their Home.

screened from the heat of the afternoon sun by the front projection of the bedroom. Entering the house one passes



This Home Presents a Real Study in the Adaptation of the House to Its Building Site and a Perfect Harmony Has Been Achieved Which Extends Even to the Garage, the Style of Which Fits Perfectly with the House of Which It Is an Adjunct.



An Inviting Living Room, with a Glimpse of the Dining Room Beyond, Which Radiates an Air of Cheerful Comfort and Good Taste.

through the brick arch of this porch and into an inside vestibule.

From the vestibule there is a glimpse of the stairs through the open doorway into the hall beyond while an arched opening to the left admits to the living room. Entering the living room one is impressed by its air of welcome and comfort. Ample furniture space, good lighting and ventilation, attractive views from the windows at the front and on either side of the fireplace, and privacy are features of the room.

Another arched opening connects with the dining room at the end of which is an arched bay with casement windows, built to receive the buffet. The triple casement windows at the side admit the full morning sun. The dining nook, between the dining room and kitchen, serves both as an informal dining place, convenient to the kitchen, and a pass entry with china closet and also as an effective separation of the main dining room from the kitchen.

Labor saving has been the prime thought in designing the kitchen. The greatest ease and efficiency in work is obtained with this layout of refrigerator, work table, sink, cupboards, clothes chute, built-in ironing board and range. Everything is well lighted by the double casements over the sink, the French door on the rear porch and the cased opening into the dining nook. The entire cupboard, work-top, sides and back are tiled, a feature which involved practically no additional expense, as the cost of the tile was offset by the saving effected in the

plumbing contract, by installing a low-priced, flat-rim sink with no drain boards, rather than the expensive, double drain, apron sink which would otherwise be necessary.

The refrigerator may be iced from the back porch. The broom closet, with waste and dust chute directly under it at the floor level, is so arranged that, as the kitchen floor is swept, the dust falls directly into the chute and down into a sealed receptacle in the basement.

No less thought is observed in the hall arrangement than in the rest of the plan. There is a small closet which offers a handy place for the housewife to dispose of her apron as she hurries to the front door. The hall itself furnishes a direct and private connection between the kitchen and front entrance. There is a guest closet placed out of the way in this hall and still entirely accessible from the front entrance. The bathroom, which opens from the hall, is centrally located and has good lighting and ventilation. Its floor and wainscoting are of tile and it is equipped with a shower. The linen closet is concealed by a full length door.

Opening off this hall is a spacious front bedroom with an abundance of furniture space. It commands most desirable views at both the front and side and also has the advantage of the western breezes in summer. This room might be used for a study, library or den if so desired and for such a purpose would give most complete privacy and quiet.

Both the stairway and lower hall are lighted by large double French windows leading out onto the airing deck of the stair landing. On the upper floor there are two bedrooms, the main one being very large and affording wide possibilities for the arrangement of furniture. It is well lighted and receives cross ventilation through the hall and smaller bedroom.

This second bedroom, while considerably smaller, still offers satisfactory furniture space. Both rooms have large closets and, while the roof cuts into their ceilings, it is not enough to interfere with the placing of furniture. These portions are specially insulated against heat and cold.

A feature of the second floor is the large cedar closet where bedding may be stored in perfect safety. In addition to this and the regular closet space, there is a large amount of storage space under the roof, so that the lack of an attic should never be felt.

Under the entire house there is a large basement which provides space, not only for the heating equipment, vegetable room, and laundry and drying room, but also will permit the finishing of a den with a fireplace, a billiard room or whatever sort of extra room may be most desired.



PRESENTING a Duotone Feature Section of Architectural Designs, Including Quick-Selling Homes and Apartments and Business Buildings in the Modern Style.

Summer Cottages

The summer cottage season is here again. Along the coast, at the lakes, in the mountains, and out in the wooded country these little pleasure spots are now being planned and built. We present here a few ideas.



A summer home with big living room and dining room combined, a small kitchen and three bedrooms.



Don't overlook housing for the car. Quick transportation gives many a busy man a chance to enjoy the health and recreation of the summer camp when not too far away.



Genuine log cabin construction with field stone chimney makes a snug, all-weather retreat.



The wide roofed bungalow is popular where the sun is hot.





Perfect Balance in This New England Home

Six rooms and two baths are provided in this Colonial design. The central hall with large living room to the right, lighted from three sides, and dining room and kitchen to the left, makes an arrangement that is hard to improve. The second floor, also,

with its three bedrooms, two baths and abundance of closets works out very satisfactorily. Both outside and inside, this design is right.

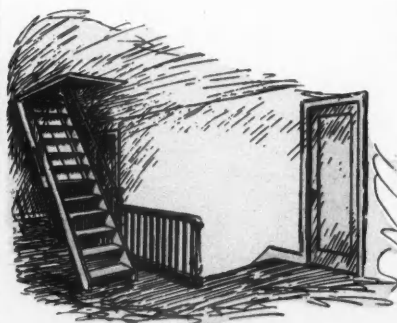
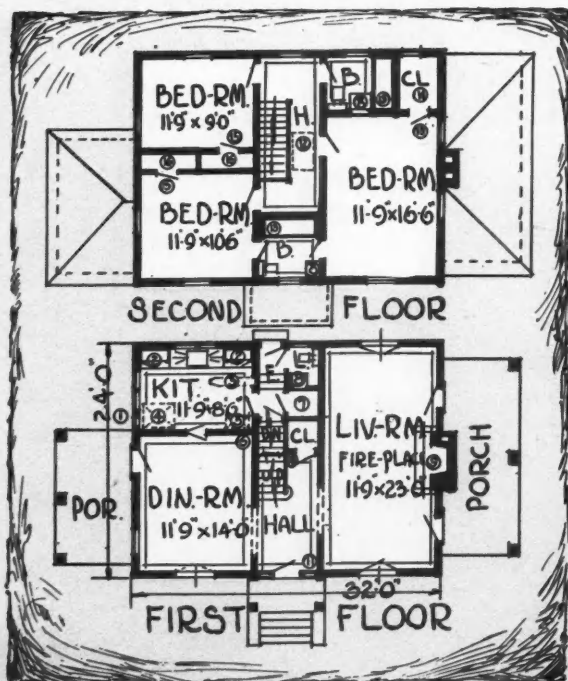
Key to Recommended Specialties of Equipment

The small numbered circles on the plans represent the following:

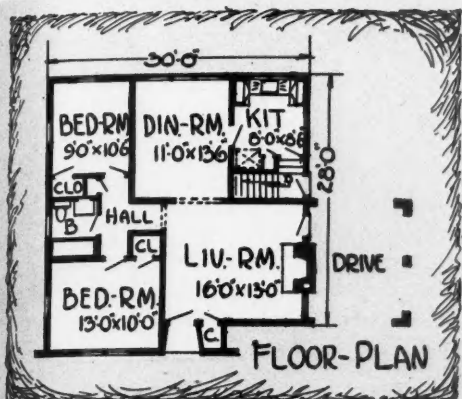
- | | |
|---------------------------|--------------------------------|
| 1—Kitchen Ventilating Fan | 9—Fireplace Throat & Damper |
| 2—Kitchen Cabinets | 10—Telephone Cabinet |
| 3—Ironing Board | 11—Built-in Mail Box |
| 4—Range | 12—Disappearing Stair to Attic |
| 5—Refrigerator | 13—Tub Shower |
| 6—Thermostat | 14—Moth-Proof Closet |
| 7—Broom Closet | 15—Mirror Doors |
| 8—Medicine Cabinet | 16—Space Saving Closets |

In addition to the above many items of modern equipment must be considered:

- | | |
|---------------------|------------------------------|
| Weatherstrips | Ironing Machine |
| Storm Sash | Clothes Dryer |
| Screens | Coal Chute |
| Lighting Fixtures | Heating Plant |
| Convenience Outlets | Oil Burner |
| Electric Panel | Incinerator |
| Washing Machine | Water Supply System |
| | Hot Water Supply |
| | Water Softener |
| | Radiant Gas Heaters |
| | Electric Wall Type Heaters |
| | Casement Windows |
| | Dishwashing Sink |
| | Automatic Cellar Drainer |
| | Radiator Covers or Furniture |



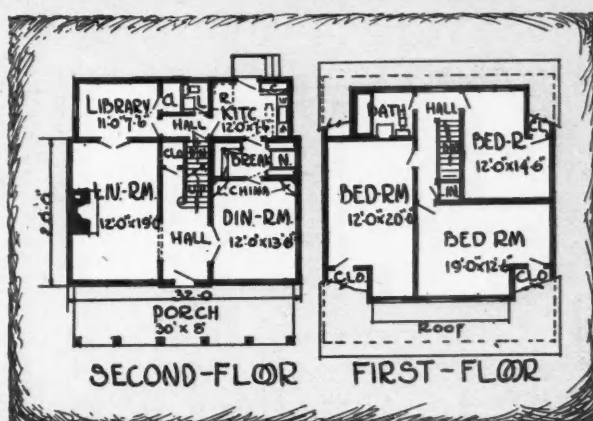
The disappearing stair to the attic is a modern improvement, useful in most homes.

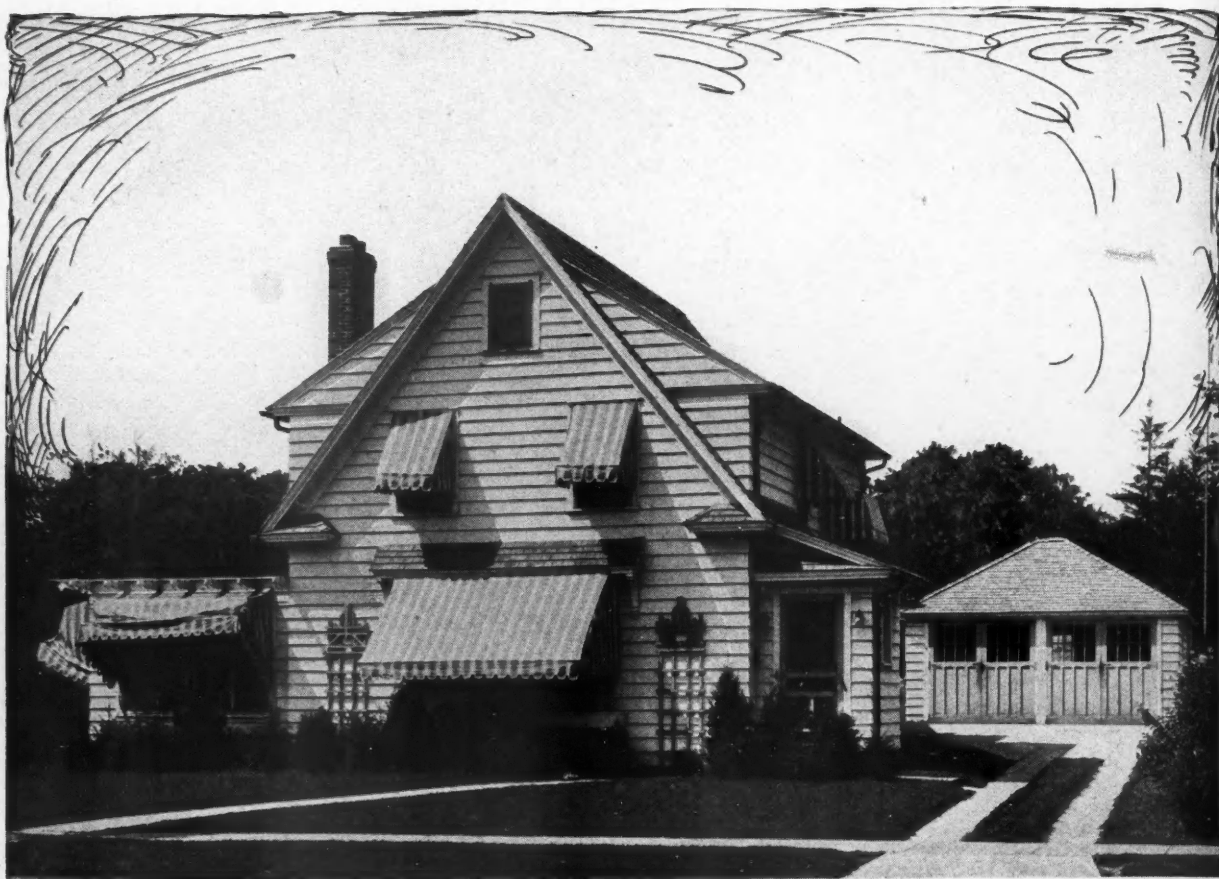


Comfort and Satisfaction in These Two Homes —Small but Charming

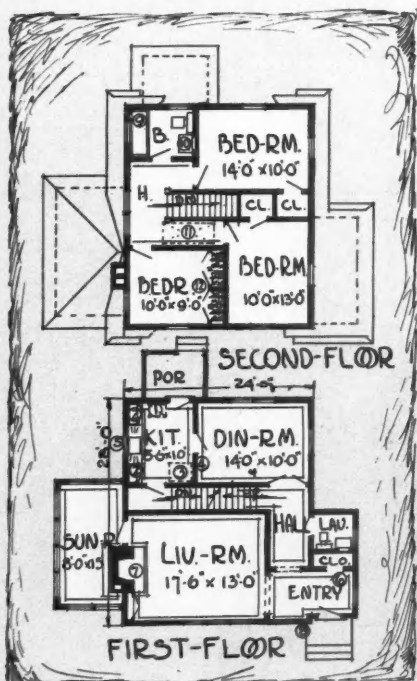
Above we present a Spanish style bungalow of five rooms. The main roof is carried out over the driveway, giving an impressive front for so small a house.

Below is a small house with a surprising amount of room in it. It is the conservative story-and-a-half cottage with many refinements.





Always a Quick Seller, This Design Wins Many Friends



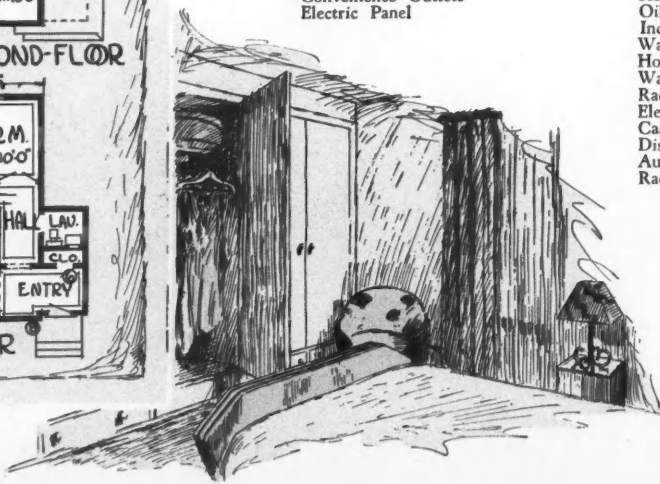
Key to Recommended Specialties of Equipment

The small numbered circles on the plans represent the following:

- | | |
|--------------------|--------------------------------|
| 1—Refrigerator | 7—Fireplace Throat & Damper |
| 2—Kitchen Cabinets | 8—Built-in Mail Box |
| 3—Range | 9—Shower |
| 4—Thermostat | 10—Medicine Cabinet |
| 5—Kitchen Fan | 11—Disappearing Stair to Attic |
| 6—Mirror Door | 12—Space-Saving Closets |

In addition to the above many items of modern equipment must be considered:

- | | |
|---------------------|------------------------------|
| Weatherstrips | Washing Machine |
| Storm Sash | Ironing Machine |
| Screens | Clothes Dryer |
| Lighting Fixtures | Coal Chute |
| Convenience Outlets | Heating Plant |
| Electric Panel | Oil Burner |
| | Incinerator |
| | Water Supply System |
| | Hot Water Supply |
| | Water Softener |
| | Radiant Gas Heaters |
| | Electric Wall Type Heaters |
| | Casement Windows |
| | Dishwashing Sink |
| | Automatic Cellar Drainer |
| | Radiator Covers or Furniture |



Space-saving and efficiency wardrobe fixtures improve the bedrooms.



A Tudor Cottage of Brick—Attractive, Homey and Practical

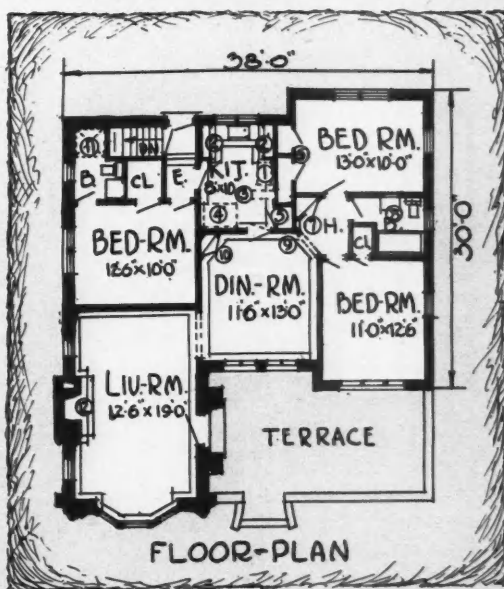
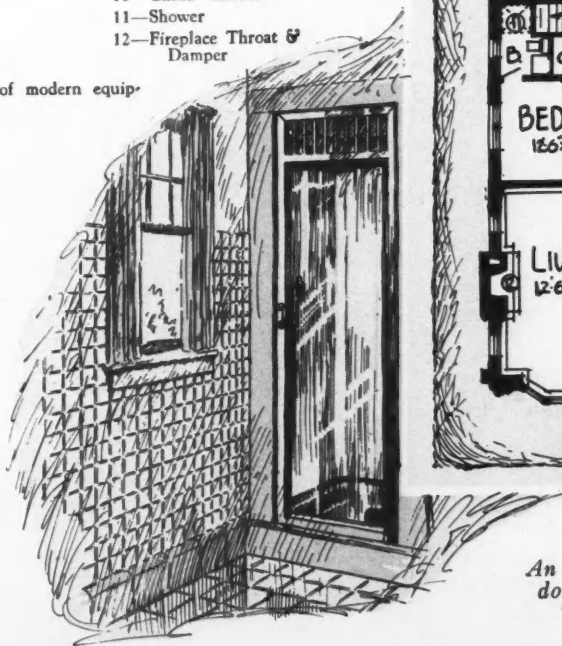
Key to Recommended Specialties of Equipment

The small numbered circles on the plans represent the following:

- | | |
|-----------------------|------------------------------|
| 1—Refrigerator | 7—Clothes Chute |
| 2—Kitchen Cabinets | 8—Medicine Cabinet |
| 3—Ironing Board | 9—Thermostat |
| 4—Range | 10—China Cabinet |
| 5—Broom Cabinet | 11—Shower |
| 6—Space-Saving Closet | 12—Fireplace Throat & Damper |

In addition to the above many items of modern equipment must be considered:

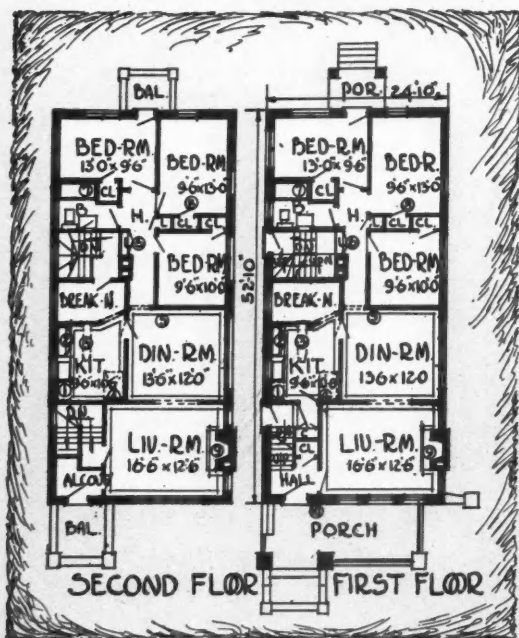
- Weatherstrips
- Storm Sash
- Screens
- Lighting Fixtures
- Convenience Outlets
- Electric Panel
- Washing Machine
- Ironing Machine
- Clothes Dryer
- Coal Chute
- Heating Plant
- Oil Burner
- Incinerator
- Water Supply System
- Hot Water Supply
- Water Softener
- Radiant Gas Heaters
- Electric Wall Type Heaters
- Casement Windows
- Dishwashing Sink
- Automatic Cellar Drainer
- Radiator Covers or Furniture
- Disappearing Stair to Attic



An enclosed shower with plate glass door is a real luxury which many today covet.



A Residential Two-Flat, Styled in the Current Detroit Manner



A built-in ironing board is wanted in the kitchen.

Key to Recommended Specialties of Equipment

The small numbered circles on the plans represent the following:

- | | |
|---------------------------|-----------------------------|
| 1—Kitchen Ventilating Fan | 6—Linen Closet |
| 2—Kitchen Cabinets | 7—Tub Shower |
| 3—Built-in Ironing Board | 8—Mirror Door |
| 4—Electric Refrigerator | 9—Fireplace Throat & Damper |
| 5—Thermostat | 10—Built-in Mail Box |

In addition to the above many items of modern equipment must be considered:

- Weatherstrips
- Storm Sash
- Screens
- Lighting Fixtures
- Convenience Outlets
- Electric Panel
- Washing Machine
- Ironing Machine
- Clothes Dryer
- Coal Chute
- Heating Plant
- Oil Burner
- Incinerator
- Water Supply System
- Hot Water Supply
- Water Softener
- Radiant Gas Heaters
- Electric Wall Type Heaters
- Casement Windows
- Dishwashing Sink
- Automatic Cellar Drainer
- Radiator Covers or Furniture
- Disappearing Attic Stairs





An Apartment Group in the Georgian Style

Erected in Boston—RALPH HARRINGTON DOANE, Architect

THE popular apartment today has four or five rooms, and the architects and builders have become skillful in laying out a building to get a large number of these small units onto each floor, yet so arranged that each shall have good outside light and air.

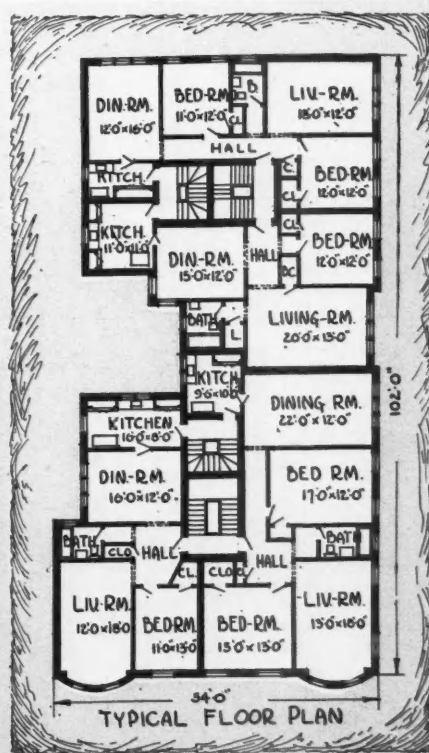
An interesting handling of this problem is illustrated here—two companion buildings erected in Boston; Ralph Harrington Doane, architect. Each building three stories and high basement. Four apartments to each floor. Two of the apartments have four rooms and two, five rooms each.

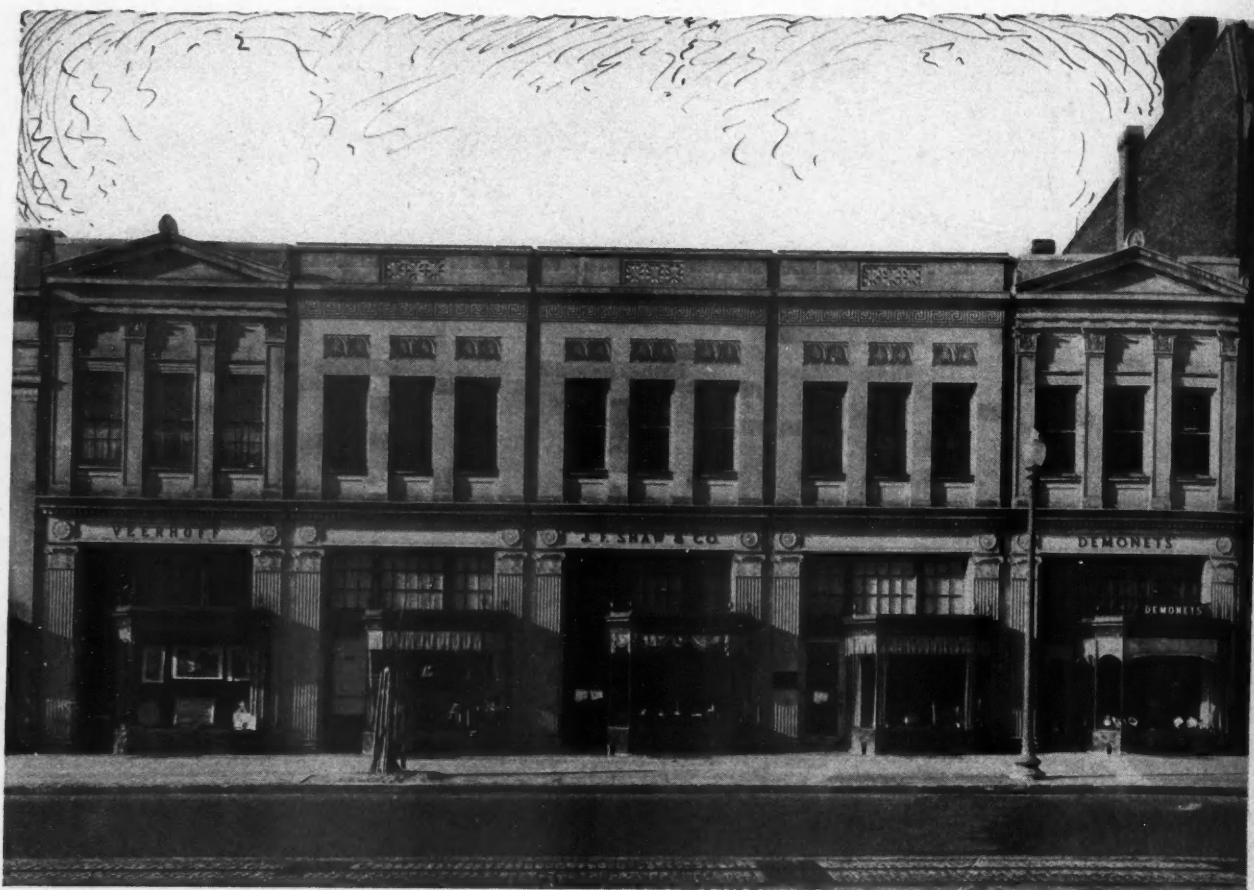
For the ideal working out of this arrangement there should be open space on all four sides of this pair of buildings.

The exterior design is in the Georgian style, using red brick with white mortar joints and limestone trim.



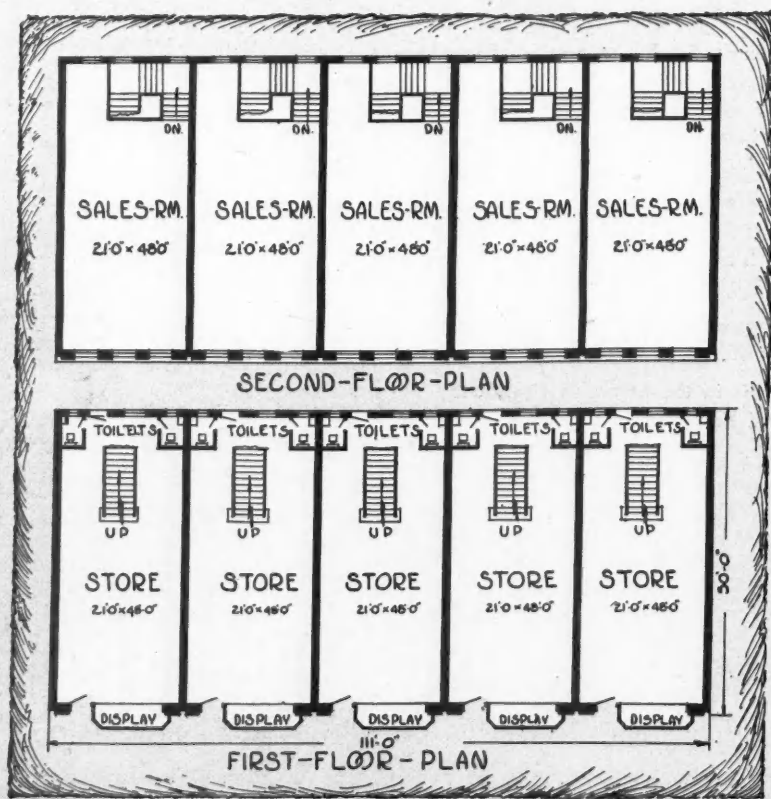
The dishwashing sink is the real goods today to make apartment kitchens modern.





Smart Shops on Connecticut Ave., Washington, D. C.

GEORGE N. RAY, Architect



OUR FRONT COVER HOME



The Cut Stone House a Thing of Beauty and Permanence Is Available to the Builder of Moderate Priced Homes

ALL of the beauty and dignity which cut stone lends to our most famous public buildings has been wrought, with random ashlar of Indiana limestone, into the residence of A. Frank Ranahan, Jr., of Edgewood Grove, Ind. The design, which is the work of Johnson, Miller, Miller & Yeager, architects, of Terre Haute, Ind., is worthy of the permanent and beautiful material in which it has been developed and the building is as truly a monument to the American home as any public building is to the American nation.

It is difficult for many prospective home builders to realize that cut stone is one of the materials which they may consider in planning the new house for tradition has long associated cut stone with the costly houses only. The building of this house, selected for Our Front Cover Home,

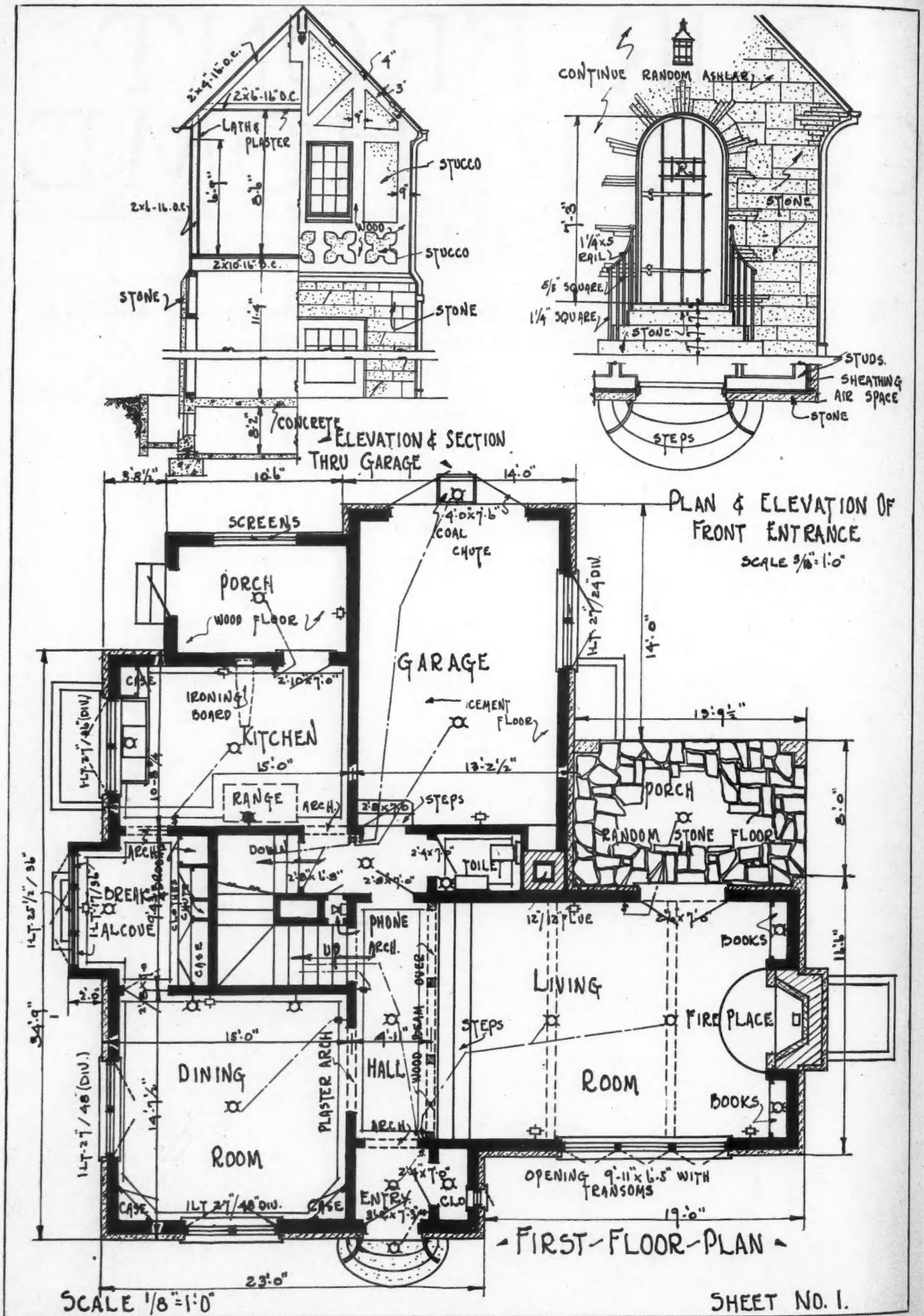
and of many others like it, has demonstrated, however, that cut stone is not only as appropriate but as available for homes of moderate size as for larger buildings.

The reproduction in colors on page one of this issue, of the photograph on this page, brings out in striking manner the beauty of coloring that is obtainable with Indiana limestone. Used, as here, as a four inch veneer its cost is not excessive, comparing quite favorably with other quality materials.

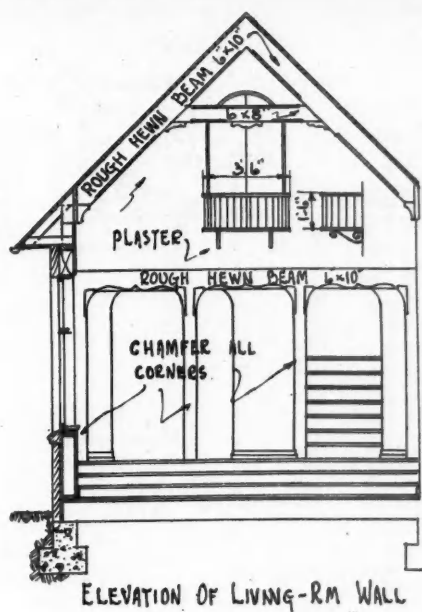
Although the exterior of this home is so striking, interest need not center on it alone. The plans, reproduced to scale on the next four pages show an equally striking interior arrangement and equipment entirely in line with the most modern conception of home planning, for beauty, comfort and convenience.



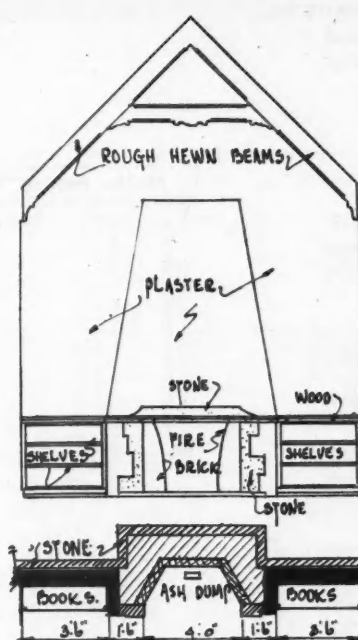
A Four Inch Veneer of Indiana Limestone Gives This Residence an Impressive Appearance. A. Frank Ranahan, Jr., owner, Edgewood Grove, Ind.; Johnson, Miller, Miller & Yeager, architects, Terre Haute, Ind.



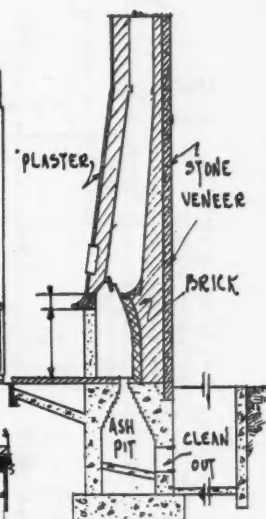
A Thoroughly Modern First Floor Plan, Including a Garage Built Into the House and Most Complete Modern Equipment for Our Front Cover Home.



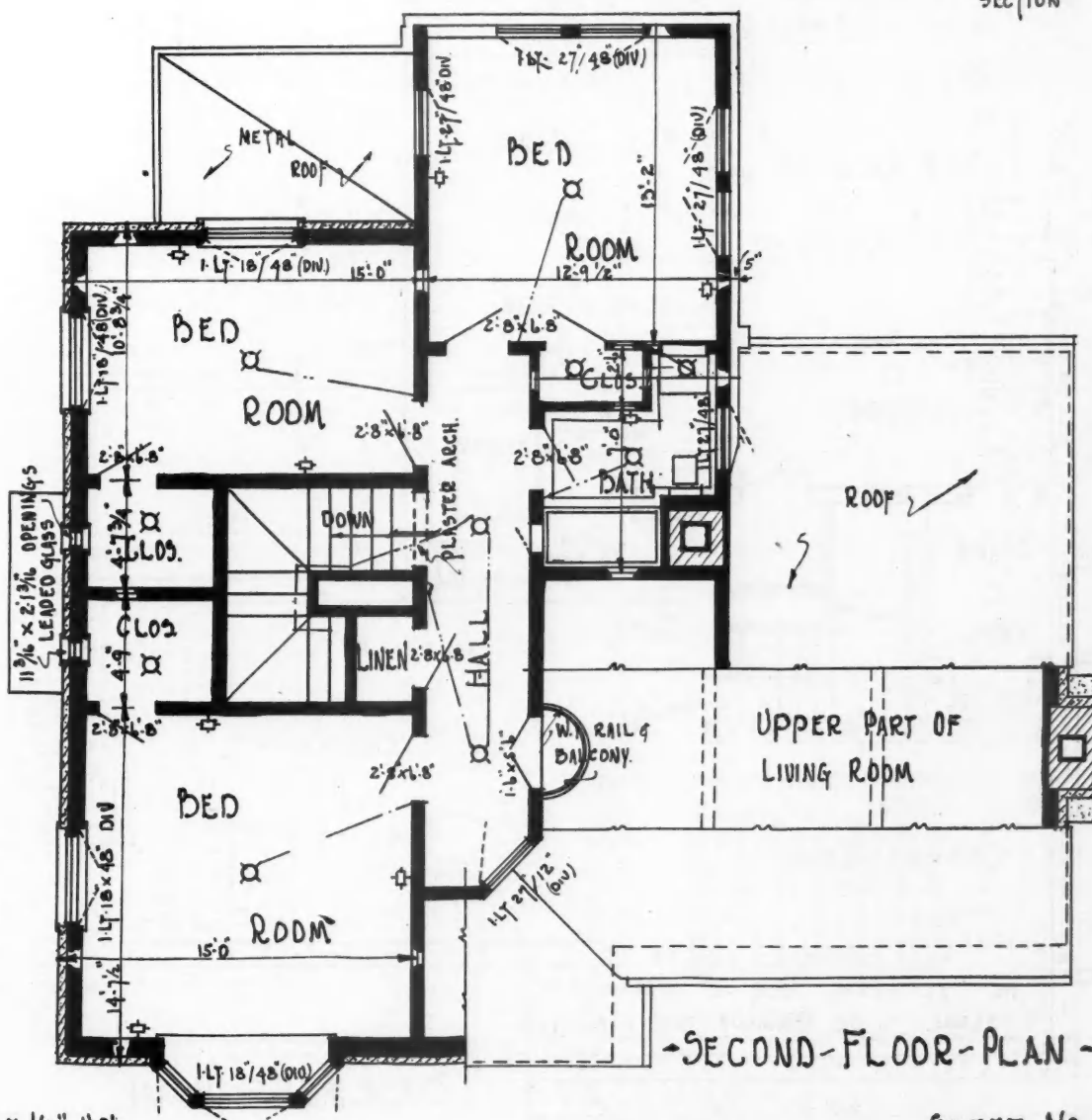
ELEVATION OF LIVING-RM WALL



ELEVATION OF LIVING-RM WALL



FIRE-PLACE
SECTION

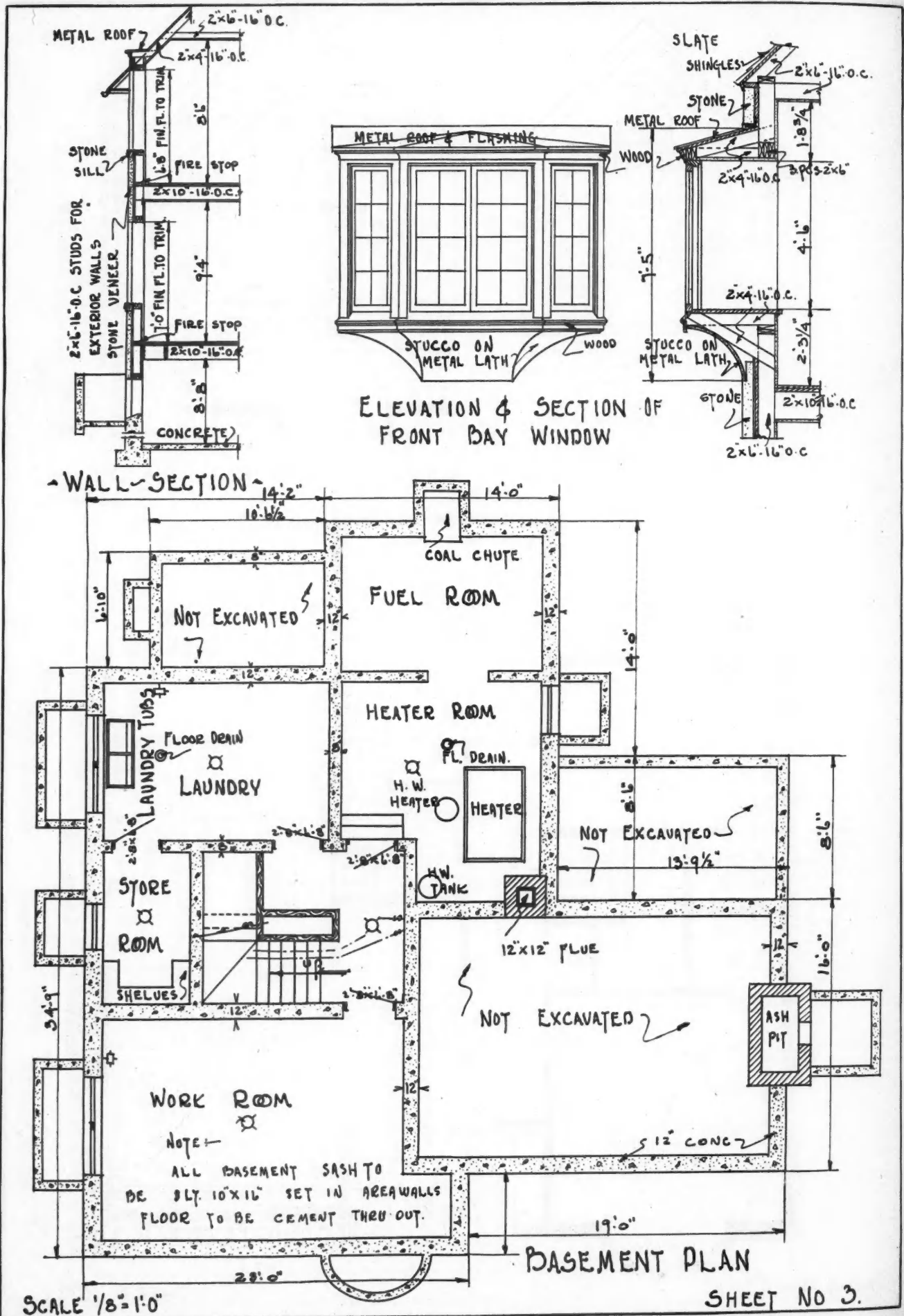


-SECOND-FLOOR-PLAN-

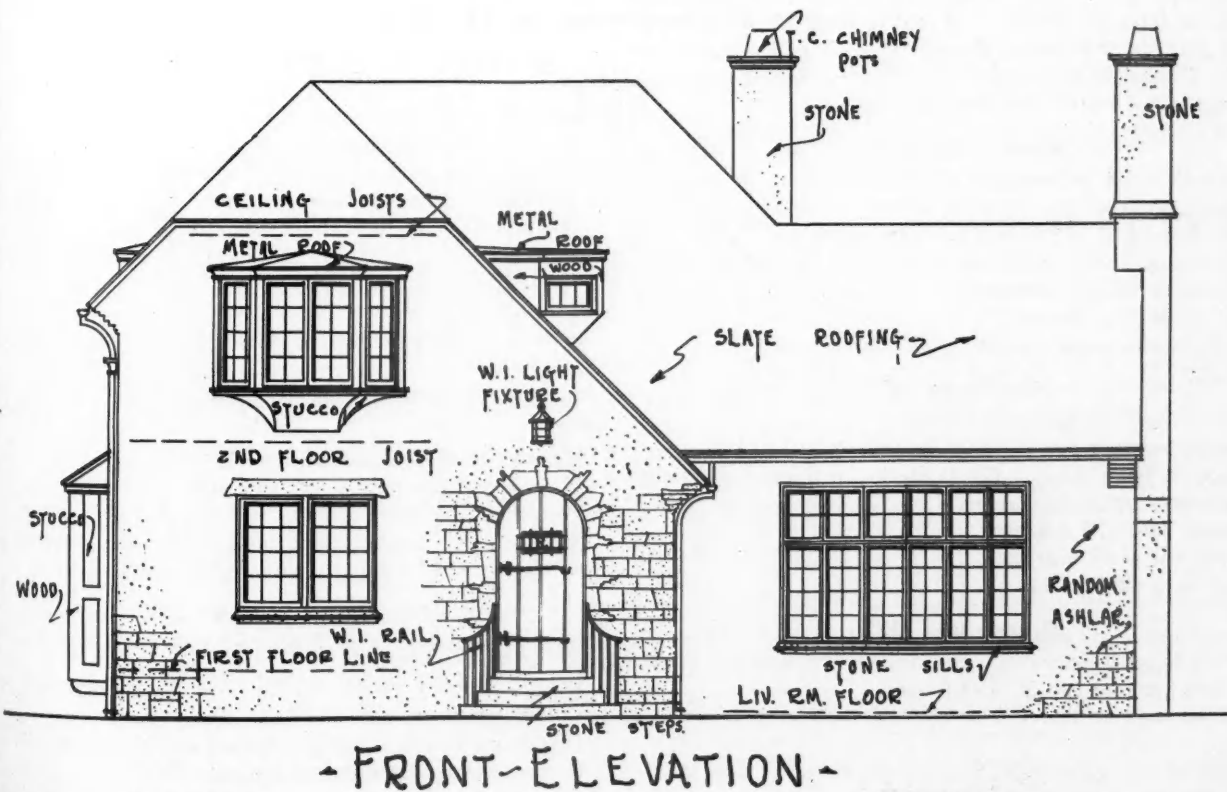
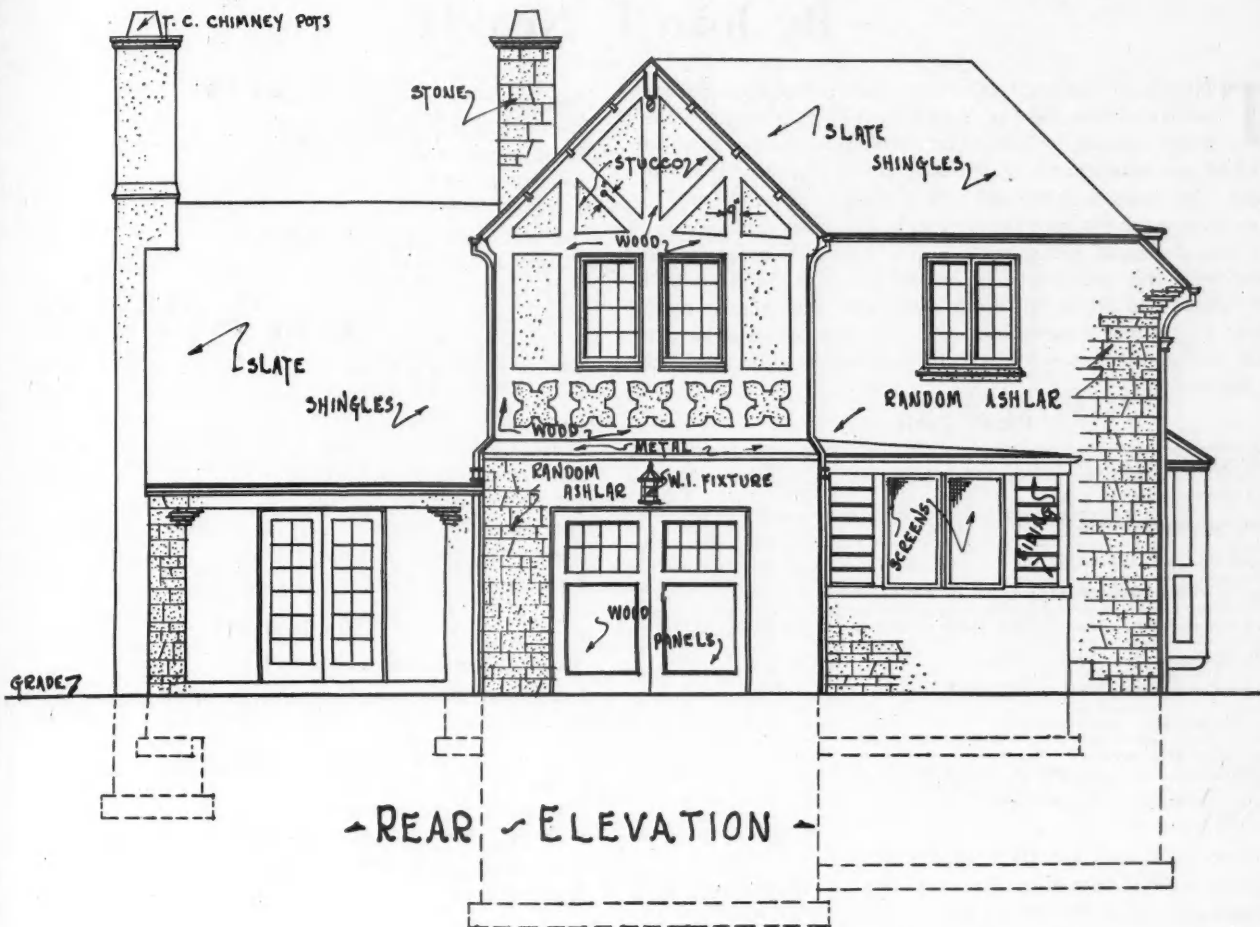
SCALE 1/8" = 1'-0"

SHEET NO. 2.

This Plan Shows the Arrangement of the Sleeping Rooms While the Details of Construction Show Vaulted Living Room Effect. Other drawings follow.



A Basement, Designed to Be Useful According to Present-Day Standards. The sketch shows details of construction of Our Front Cover Home.



SCALE 1/8" = 1'-0"

SHEET NO. 4.

These Two Drawings Present the Treatment of Front and Rear Elevations, Placing of Windows, Entrances and Grade and Floor Lines.

Planning Beforehand

By John T. Neufeld

THOSE of our craftsmen who have followed the trade for some time have no doubt learned that some of the most difficult problems in building work have to be worked out beforehand, sometimes in the late hours of the night. In order to keep the job moving it is necessary to have your work planned fairly well in advance.

Today's lesson deals with a hip roof. We intend to show how this problem may be solved beforehand so that the rafters can all be cut from notes and sketches or what might be termed a piece bill. At this time we will have a table for convenience. The following table gives all cuts by degrees.

Rafter Table

Length per Foot Run	6°	7°	8°	9°	10°	11°	12°
Subtract for Ridge..	$\frac{7}{8}$ "	$\frac{11}{16}$ "	1"	1"	$1\frac{1}{16}$ "	$1\frac{1}{8}$ "	$1\frac{1}{4}$ "
Pitch by Degrees...	26 $\frac{1}{2}$	30	33 $\frac{1}{2}$	37	40	42 $\frac{1}{2}$	45
Plumb Cut by Deg.	63 $\frac{1}{2}$	60	56 $\frac{1}{2}$	53	50	47 $\frac{1}{2}$	45
Length per Foot Run	13.42"	13.89"	14.42"	15.00"	15.62"	16.28"	16.97"
Side Cut of Jack...	42	41	40	39	37 $\frac{1}{2}$	36 $\frac{1}{2}$	35 $\frac{1}{2}$
Bottom Cut of Hip.	19 $\frac{1}{2}$	22 $\frac{1}{2}$	25	28	30 $\frac{1}{2}$	33	35
Plumb Cut of Hip..	70 $\frac{1}{2}$	67 $\frac{1}{2}$	65	62	59 $\frac{1}{2}$	57	55
Side Cut of Hip....	43 $\frac{1}{2}$	42 $\frac{1}{2}$	42	41 $\frac{1}{2}$	41	40	39
Length of Hip per Foot Run.....	18.00"	18.36"	18.76"	19.21"	19.69"	20.22"	20.78"
Deduct for Ridge...	$1\frac{1}{8}$ "	$1\frac{1}{4}$ "	$1\frac{1}{4}$ "	$1\frac{1}{8}$ "	$1\frac{1}{8}$ "	$1\frac{3}{8}$ "	$1\frac{3}{8}$ "

Note: All cuts are given in degrees.

With a table like the above we are ready to figure the rafters. To do so we should make a sketch plan as is shown in the lower part of the illustration. This plan does not need to be fancy in any way, all that is needed is a freehand drawn plan, to show what the run of each rafter would be and the number of the rafters. The roof shown in the illustration has an 8-inch rise per foot run.

Common Rafter "D"

Run is 5 feet 4 inches, say 5 $\frac{1}{3}$ feet.
Length per foot run is 14.42 inches.
Length is $14.42 \times 5\frac{1}{3} = 6$ feet $4\frac{11}{16}$ inches.
Subtracting 1 inch for ridge leaves 6 feet $3\frac{5}{16}$ inches.
Bottom cut is 33 $\frac{1}{2}$ degrees.
Top cut is 56 $\frac{1}{2}$ degrees.
Eight rafters required.

Hip Rafter "M"

Run is 5 feet 4 inches, say 5 $\frac{1}{3}$ feet.
Length per foot run is 18/76 inches.
Length is $18.76 \times 5\frac{1}{3} = 100.05$ inches, or 8 feet $4\frac{1}{16}$ inches.
Deducting $1\frac{1}{4}$ inches leaves 8 feet $2\frac{13}{16}$ inches.
Bottom cut is 25 degrees.
Plumb cut is 65 degrees.
Side cut is 42 degrees.

Cripple Jack "K"

Run is 4 feet 0 inches.
Length per foot run is 14.42 inches.
Length is $14.42 \text{ inches} \times 4 = 57.68$ inches, or 4 feet $9\frac{11}{16}$ inches.
Measure to longest point on both ends.
Plumb and side cut at both ends.
Drawing shows which side to make the side cut.
One rafter only required.
Plumb cut is 56 $\frac{1}{2}$ degrees; side cut is 40 degrees.

Cripple Jack "G"

Run is 2 feet 8 inches, or 2 $\frac{2}{3}$ feet.
Length per foot run is 14.42 inches.
Length is $14.41 \text{ inches} \times 2\frac{2}{3} = 38.45$ inches, or 3 feet $2\frac{7}{16}$ inches.
Side cut is 40 degrees at both ends.
Plumb cut is 56 $\frac{1}{2}$ degrees.
Two rafters required.

Hip Jack "C"

Run is 4 feet 0 inches.
Length is $14.42 \text{ inches} \times 4 = 57.68$ inches, or 4 feet $9\frac{11}{16}$ inches.
Measure to longest point at upper end.
Bottom cut is 33 $\frac{1}{2}$ degrees.
Plumb cut is 56 $\frac{1}{2}$ degrees.
Side cut is 40 degrees (side cut at upper end only).
Four rafters with left-hand side cut.
Four rafters with right-hand side cut.

Hip Jack "B"

Run is 2 feet 8 inches, or 2 $\frac{2}{3}$ feet.
Length is $14.42 \text{ inches} \times 2\frac{2}{3} = 38.45$ inches, or 3 feet $2\frac{7}{16}$ inches.
Measure to longest point at upper end.
Bottom cut is 33 $\frac{1}{2}$ degrees.
Plumb cut is 56 $\frac{1}{2}$ degrees.
Side cut is 40 degrees (side cut at upper end only).
Five rafters with left-hand side cut.
Four rafters with right-hand side cut.

Hip Jack "A"

Run is 1 foot 4 inches, or 1 $\frac{1}{3}$ feet.
Length is $14.42 \text{ inches} \times 1\frac{1}{3} = 19.23$ inches, or 1 foot $7\frac{1}{4}$ inches.
Bottom cut is 33 $\frac{1}{3}$ degrees.
Plumb cut is 56 $\frac{1}{2}$ degrees.
Side cut is 40 degrees (side cut at upper end only).
Five rafters with left-hand side cut.
Five rafters with right-hand side cut.

Valley Jack "H"

Run is 4 feet 0 inches.
Length is $14.42 \text{ inches} \times 4 = 57.68$ inches, or 4 feet $9\frac{11}{16}$ inches.
Deducting 1-inch for ridge at upper end leaves 4 feet $8\frac{11}{16}$ inches.
Measure to the longest point.
Bottom end has plumb and side cut.
Plumb cut is 56 $\frac{1}{2}$ degrees.
Side cut is 40 degrees (side cut at lower end only).
One piece only required (with right-hand side cut).

Valley Jack "F"

Run is 2 feet 8 inches, or 2 $\frac{2}{3}$ feet.
Length is $14.42 \text{ inches} \times 2\frac{2}{3} = 38.45$ inches, or 3 feet $2\frac{7}{16}$ inches.
Deducting 1-inch for ridge leaves 3 feet $1\frac{7}{16}$ inches.
Bottom cut is a plumb cut and side cut.
Plumb cut is 56 degrees.
Side cut is 40 degrees.
One rafter required with right-hand side cut.
One rafter required with left-hand side cut.

3 feet

4 feet

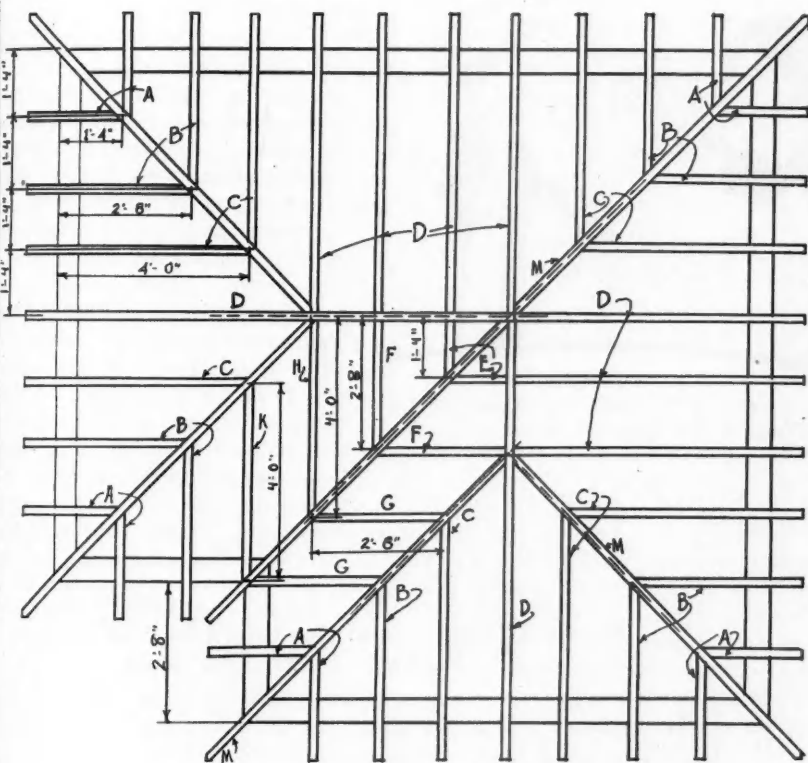
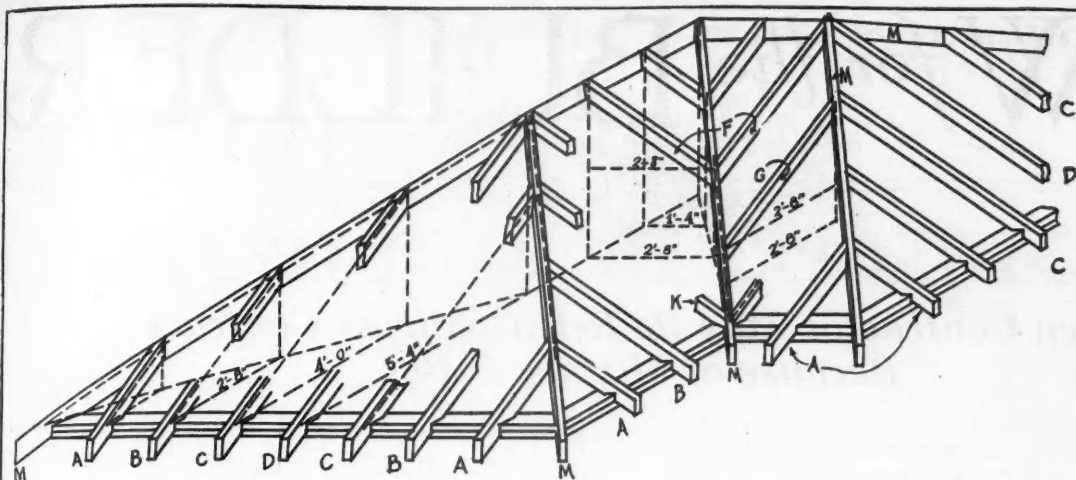
3 feet

foot

feet

t 8 1/4

feet



DOTTED LINES ARE CENTER LINES OF RAFTERS
CALCULATIONS ARE TO CENTER LINE THEREFORE DEDUCTIONS
MUST BE MADE FROM THE CALCULATED DIMENSIONS

PIECE BILL

56 1/2"	9 PIECES 6'-3 1/2" (D)
42"	6 PIECES 8'-2 1/2" (M)
56 1/2"	1-PIECE 4'-9 1/2" (K)
56 1/2"	2-PIECES 3'-2 1/2" REVERSE SIDE CUT (G)
56 1/2"	4-PIECES 4'-9 1/2" (C)
56 1/2"	4-PIECES 4'-9 1/2" REVERSE SIDE CUT
56 1/2"	5-PIECES 3'-2 1/2" (B)
56 1/2"	4-PIECES 3'-2 1/2" REVERSE SIDE CUT (B)
56 1/2"	5-PIECES 1'-7 1/2" (A)
56 1/2"	5-PIECES 1'-7 1/2" REVERSE SIDE CUT
56 1/2"	1-PIECE 4'-9 1/2" REVERSE SIDE CUT (N)
56 1/2"	1-PIECE 3'-1 1/2" (F)
56 1/2"	1-PIECE 3'-1 1/2" REVERSE SIDE CUT (F)
56 1/2"	1-PIECE 1'-6 1/2" (E)
56 1/2"	1-PIECE 1'-6 1/2" REVERSE SIDE CUT

5-29-20

The Entire Roof May Be Laid Out in Advance in This Manner so That the Rafters Can All Be Cut from the Notes and Sketches or What Might Be Termed a Piece Bill.

Valley Jack "E"

Run is 1 foot 4 inches, or 1 1/3 feet.
Length is 14.42 inches \times 1 1/3 = 19.23 inches, or 1 foot 7 1/4 inches.
Deducting 1 inch for ridge leaves 1 foot 6 1/4 inches.
Bottom cut is a plumb and side cut.
Plumb cut is 56 1/2 degrees.
Side cut is 40 degrees.

One rafter required with left-hand side cut.

One rafter required with right-hand side cut.

It will not be necessary always to write down the figures as I have written them, but it will be well to make a piece bill as shown on the drawing. This, too, need be only a freehand drawing, but it should be sufficiently clear to avoid mistakes.

(Continued to page 134)

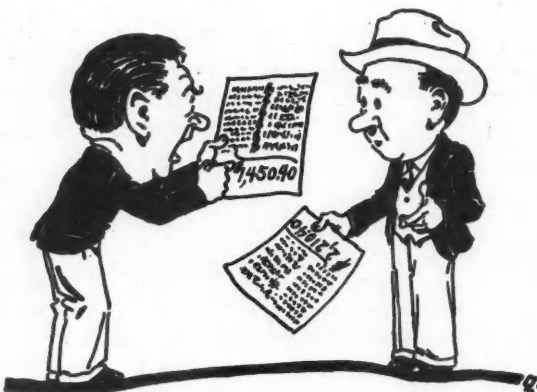
LAW *for the* BUILDER



When Contractor May Be Released from Contract Because of Mistake in Bid

AS a general rule, when a contractor signs a contract he will be bound by its terms and if he has made a mistake in his bid the loss will be his. In other words, if a contractor agrees to build a house for \$5,000, he will not be relieved from his contract by a mere showing that he made a mistake, and that his bid should have been \$5,500. And especially is this true where the owner has accepted the bid in good faith, and would suffer loss by releasing the contractor.

So much for the general rule, which, however, is subject to certain exceptions, as where a mistake is so great as to be plain upon its face, and where the owner must have known about it at the time. In such cases, where the owner will not suffer loss by releasing the contractor, he may not be permitted to take an unfair advantage by enforcing the contract. The application of this rule is illustrated in a striking manner in the recent case of *Geremia v. Boyarsky*, 140 Atl. 749, which arose under the following facts:



"A Contract's a Contract and You'll Either Do the Work at the Contract Price or I'll Sue You for Damages."

Contractors Make Mistake in Bid

In this case the defendants were building contractors, and the plaintiff requested them to bid upon certain carpenter work on a house he was building. The defendants wrote their estimates on two separate pieces of paper but did not add the figures because of the lateness of the hour. The next morning the plaintiff called upon the defendants, and requested that they give him their estimate at once. One of the defendants thereupon stopped the work he was engaged in, sat down at a workbench, and added up the various items on the two sheets.

In his haste, the defendant made a mistake in carrying the figures from one column to another and his total for the job showed \$1,450.40, when it should have been \$2,210.40. The plaintiff immediately accepted this bid, and the defendants that same day signed a contract to do the work for \$1,450.40.

That same evening the defendants in going over their papers, discovered the mistake, and immediately notified the plaintiff. The defendants offered to do the work, in accordance with the figures in their estimate, which were as low as any responsible contractor could do the work and come out upon it. The plaintiff replied:

"Nothing doing, you signed the contract to do the work for \$1,450.40, and I expect you to do it for that price."

"But," the defendants replied, "this mistake is so great, and so plain that it was made in hurriedly adding the figures, that you have no right to hold us to it."

"Oh, yes I have," retorted the plaintiff, "a contract's a contract, and you'll either do the work at the contract price

or I'll sue you for any damages I suffer for your failure," and hung up.

As may be expected, the defendants refused to do the work, the plaintiff thereupon let the work to other contractors for \$2,375, and brought the instant action against the defendants for damages. In this action the plaintiff claimed damages of the difference between the contract price of \$1,450.40, and the \$2,375, it cost him to have the work done by the other firm of contractors.

Upon the trial of the case, the evidence tended to show that when the defendants submitted their bid the plaintiff must have known that a mistake had been made, because he knew that no responsible contractor could do the work for less than around \$2,000. Further, it was shown that no work had been done under the contract, and that the defendants notified the plaintiff of their mistake within a few hours of having signed up. On this state of facts, the trial court held that it would be unfair to

permit the plaintiff to enforce the contract, and rendered judgment in favor of the defendants. The plaintiff appealed, and the higher court in affirming this judgment reasoned as follows:

The Language of the Court in Upholding Right to Break Contract

"It may be conceded that the error in addition made by the defendant Boyarsky (one of the contractors) when he hastily totaled the items of his estimate at the request of the plaintiff, involved some degree of negligence. It would be inequitable under the circumstances to permit the plaintiff, who had good reason to know, before the contract was signed, that there must have been a substantial omission or error in the amount of the bid, to take advantage of such error while the contract was still executory, and he had been in no way prejudiced, and to require the defendants to do the work for an amount much less than the actual cost.

"The mistake of the defendants was of so fundamental a character that the minds of the parties did not meet. It was not, under the circumstances, the result of such culpable negligence as to bar the defendants of redress, and the plaintiff, before the contract was signed, had good reason to believe that a substantial error had been made, and, while the contract was still executory, and he had been in no way prejudiced, refused to permit the correction of the error, and attempted to take an unconscionable advantage of it. The defendants were clearly entitled to a decree cancelling the contract. There is no error. All concur."

LESLIE CHILDS.

A Stock Frame designed and approved by Architects . . .

Constructed for the convenience of contractors

Architects use Andersen details and specifications to insure getting genuine White Pine for exposed surfaces, and smooth, accurate milling throughout. Contractors who know about the Andersen features which aid good construction will rejoice to find Andersen Frames specified on the job.

They are made of high quality materials and the parts fit together like the parts of a watch—making tight, leak-proof joints without refitting. Andersen Frames are absolutely uniform too, so that sash, screens and trim fitted to one frame may be used as patterns for every other window frame of the same size and detail on the job. Think what time and effort that saves!

Andersen 5-point superiority is available to every builder for every type of construction. Write for descriptive folders, or ask your nearest Andersen dealer.

The Andersen Box Frame

Sill and moulding (staff head) of genuine white pine; Andersen noiseless and wear-proof pulleys; blind stop hollow-backed for sash weights.

SUPERIORITY

GUARANTEED by this trade mark



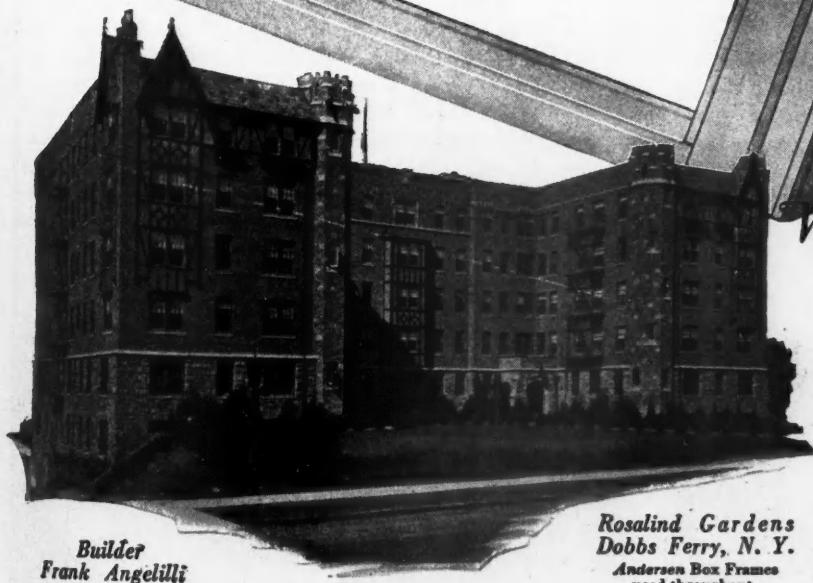
Genuine White Pine Sills and Casings

- 1 White Pine for PERMANENCE
- 2 Styles and Sizes for BEAUTY
- 3 Weather-tight for HOME COMFORT
- 4 Available at dealers for CONVENIENCE
- 5 Standardized Quantity Production for ECONOMY

Why...

Contractors use Andersen FRAMES

- (1) Patented, noiseless, long wearing Andersen pulleys used exclusively.
- (2) Genuine soft White Pine sills and casings—last a life-time.
- (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.



Builder
Frank Angelilli

Rosalind Gardens
Dobbs Ferry, N. Y.
Andersen Box Frames
used throughout.

Andersen FRAMES

Andersen FRAME CORPORATION., Bayport, Minn.

Moisture-Proof Oak Flooring

How It Is Making Finer Floors Available At a Cost Within the Reach of All

ALTHOUGH the process for moisture-proofing oak flooring was introduced to the trade only recently, this chemical treatment has been given sufficient publicity so that architects, contractors and lumber dealers and a part of the general public are familiar with its wood improvement qualities.

It is commonly understood that all woods are subject to certain inherent defects, chief among which are:

- (1) Shrinkage and expansion.
- (2) Tendency to decay.
- (3) Damage by wood boring insects.

These three defects have a greater consequence in some finished wood products than in others. In oak flooring, especially, are these defects noticeable and, therefore, harmful. It is, therefore, obvious that a treating process which does not add materially to the cost and that partially or completely eliminates such defects will be generally used.

This method of treatment possesses the combined chemical actions that will improve wood to prevent the three defects just mentioned. It is a marked achievement in wood chemistry and has been aptly described by numerous authorities as the greatest advance step in the history of the lumber industry. It has the highest rating of all moisture proofing compounds which do not negatively affect the finishing qualities of the wood so treated. It is a fact, oft proven, that a piece of treated oak accepts a finer, higher toned finish than untreated oak.

The moisture proof quality of treated flooring is by far the most important. Everyone who is connected with the lumber industry in any way is familiar with the great inconvenience and expense which arises when a nicely laid floor cups, buckles or shrinks. Even the most exacting

and modern methods of kiln drying cannot defeat the conditions which exist in buildings where wood flooring is used. Neither can the manufacturer nor the lumber dealer effectively control these conditions. The only practical control is to treat the material in such a way that it is protected from atmospheric moisture and moisture in the building so that it will not be affected. This treatment offers this safeguard.

A typical instance is cited where $1\frac{3}{8}$ by $1\frac{1}{2}$ inch, plain flooring (untreated) was laid in a home. In an adjoining room treated plain plank flooring, with boards as wide as 10 inches, was laid. It is commonly understood that the narrower the flooring the less noticeable are the changes

in shape, due to atmospheric moisture, yet a rather damp condition in this house caused a very noticeable cupping in the $\frac{11}{16}$ by $1\frac{1}{2}$ inch face flooring, while the same condition had no noticeable effect whatsoever upon the treated plank flooring which remained as smooth as a table top.

Instances of this sort are becoming more common every day and also are conclusive proof while, heretofore, users of treated products have simply accepted the strong recommendations made by the manufacturer.

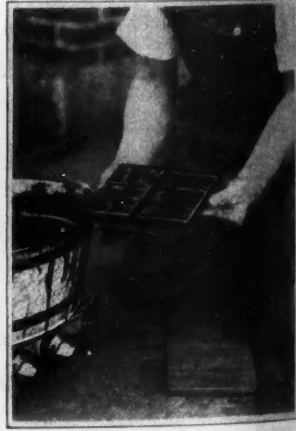
As important as the moisture-proofing process is, in correcting the ordinary de-

fects in wood products, even greater importance lies in the fact that it is reviving some of the business for the lumber industry which has, during the past few years, been absorbed by various substitutes in the field. We are speaking now of the treated oak floor block which compares very favorably in price with the commonly used and substitute floor coverings in larger buildings of concrete construction.

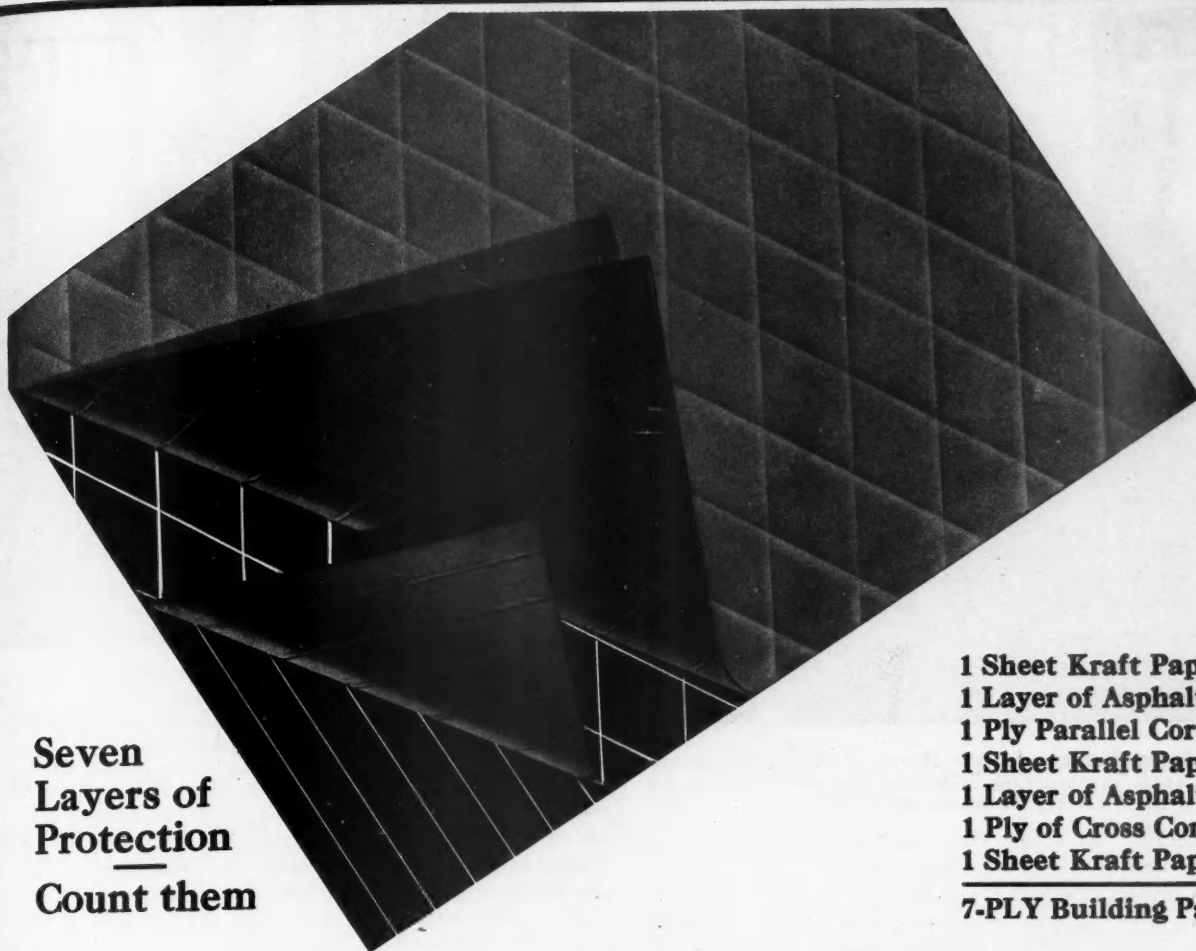
Wood flooring has given way to these substitutes pri-



Laying Nine-Inch Treated Blocks in Mastic, Over an Expensive Mosaic Tile Floor in the Peabody Hotel, Memphis.



Here Are Four Views Showing the Successive Steps in Laying Treated Blocks in Mastic, Over Concrete or Wood Sub Floors. See three views at bottom of page 72 for continuation of this process.



**Seven
Layers of
Protection
Count them**

1 Sheet Kraft Paper
1 Layer of Asphalt
1 Ply Parallel Cords
1 Sheet Kraft Paper
1 Layer of Asphalt
1 Ply of Cross Cords
1 Sheet Kraft Paper
7-PLY Building Paper

Paper insulation is sufficient . . . for the finest house . . . provided . . . that paper is **Safekote**
more than waterproof

7-PLY Building Paper

. . . and the less expensive the house the greater the need for the efficient protection of 7-PLY

7-PLY is beyond competition or comparison because no other building paper is manufactured so substantially. *(Study its superb construction in above illustration.)*

7-PLY is proof against every destructive element of weather or climate. Where ordinary papers tear easily, mildew and rot out, dry out and disintegrate in comparatively few years, 7-PLY remains intact, in any weather or any climate, as long as the building stands.

7-PLY will not tear in the wind or thru rough handling; will bend or crease without cracking; conforms readily to odd shapes; handles easily on the job. It is indeed the perfect insulating paper for every construction purpose.

7-PLY Builds Profits for Dealers

Prestige for Architects, Contractors and Builders

JUST REMEMBER 7-PLY FOR THE NEXT JOB—AND CONVINCE YOURSELF

If your Lumber or Building Supply Dealer does not sell 7-PLY send us his name and address

Safepack Mills Inc.
Millis Massachusetts

Safepack Mills, Inc.
Millis, Mass.

Kindly send without obligation, full information, samples and prices on your remarkable 7-PLY Building Paper.

Firm Name _____
Street _____
City _____
Attention of _____



In rolls, 500 sq. ft.,
36" wide.
Half rolls, 250 sq. ft.
To order,
40, 48, 64, 80 in. wide.



Here Is an Example of the Beautiful Effect Obtained with 6¾-Inch Treated Oak Flooring Blocks in One of the Rooms of the Peabody Hotel in Memphis.

marily because wood flooring had to be nailed. This meant the setting of wooden screeds in the concrete, as well as often laying a wooden sub-floor over the screeds to which the final top floor could be nailed. Substitute floor coverings, in many cases, can be laid directly over the concrete and consequently the demand has naturally been for them.

However, about a year ago, experimentation was started to devise some means of laying hardwood flooring directly over the concrete. The development was a fabricated block, which is now known as the Cellized oak floor block. These blocks are made up of three or more pieces of regular tongued and grooved strip flooring, joined rigidly by steel splines through the backs of the pieces. They are complete square units (now made in 6¾, 9 and 11¼ inch squares) and are laid directly over concrete in a plastic, non-setting cement.

In spite of the practicability of this idea, it was readily realized that the old shrinking and swelling troubles, which have too often made design or parquet floors unsightly, had not yet been corrected. Fortunately, however, the moisture-proofing process put in its appearance, which, of course, completely solves this problem.



The Interest in Colonial and Old English Architecture Has Created a Demand for Wide Plank Flooring in Random Widths and This, Too, Is Available in Treated Oak with Expansion and Shrinkage Eliminated.

The reader of this article may have been astonished to learn that as distinctive an oak floor as one which was laid of the oak floor blocks could be had at a cost which compared favorably with that of substitutes. This is, nevertheless, the condition and it is all due to the fact that the oak floor blocks are laid infinitely faster than the old type of design or parquet flooring where the floor was laid piece by piece. The great item of labor cost has been measurably reduced, bringing this type of flooring within the range of any flooring estimate.

As a result, wood can compete on an equal basis with substitute floor coverings for concrete construction and there should be no doubt that the lumber industry will get back much of the business which has been lost.


Oak floor blocks are also laid directly over a smooth and tight wooden sub-floor without nailing. It might be well to mention here the importance of abandoning the use of nails. It is mechanically wrong to nail one type of wood to another because the ratios of expansion in any two woods are different. There may be a tendency to shrink or expand in the sub-floor, and the top floor either must go with it or the nails will become loose, causing squeaking. The cement used with these oak blocks, because it is a plastic cement which never sets hard nor becomes brittle, will absorb any movement in the sub-




The Final Steps in the Process of Laying Wood Block Flooring. This is so simple and rapid that labor cost is materially reduced, bringing parquet flooring within the range of any flooring estimate.

FORMER PLASTERER

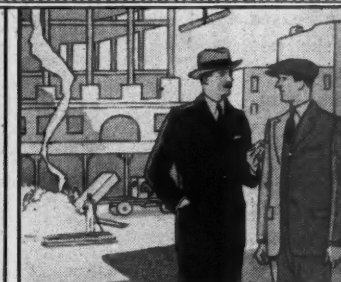
now making \$12,000 a year




Worked for Small Salary
Henry J. Beilman had little education and little opportunity to get ahead, but he refused to give up. Deep within him was the longing to make something of his life before it was too late—to build a building some day instead of merely tinkering around it as a plasterer or bricklayer apprentice.




Resolves to Earn More Money
"If spare time study can help other men to get out of the rut," he said, "it can help me. I'm going to take up a course with the International Correspondence Schools and study at home. It's the only way I can ever hope to put myself on a par with technically trained men."




Gets Offer from Contractor
Beilman's friends laughed at him and said he was wasting his time, but he kept right on studying, for he could see how his I. C. S. course was helping him in his work. Soon one of the leading contractors in his city heard about "this bright young man" and made him superintendent at a fine increase in salary.



Secures Big Contract
Beilman went ahead so rapidly that he decided to start a business of his own. He met with unusual success from the very start and today his income is "more than \$12,000 a year." Recently he handled the contracting work of the splendid new \$800,000 Chamber of Commerce building in Scranton, Pennsylvania.



Glad He Studied at Home
"I give the International Correspondence Schools full credit for my success," Mr. Beilman writes. "There is nothing better for the man who has been deprived of the advantages of a college education. Many of my friends also give the I. C. S. full credit for their ability to do their work efficiently and well."



The Secret of Success
Henry J. Beilman is a successful man today because he had vision—ambition—and perseverance. He realized that he had to learn more before he could earn more. Instead of just drifting along, or trusting to luck, he picked a definite goal and then worked and strove until he made his dreams come true.

The success of Henry J. Beilman is just another indication of the practical value of the home study courses of the International Correspondence Schools.

For thirty-five years these schools have been helping men to get ahead in business and in life and they will help you,

too, if you will only make the start. All you need to do is this: Mark the work you like best in the coupon printed below and mail it to Scranton.

It takes only a moment—it doesn't obligate you in any way—but it may be the means of changing your entire life.

Mail This Coupon for Free Booklet

INTERNATIONAL CORRESPONDENCE SCHOOLS, Box 8131-D, Scranton, Penna.

Without cost or obligation, please send me a copy of your booklet, "Who Wins and Why," and full particulars on the subject before which I have marked X:

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| <input type="checkbox"/> Architect | <input type="checkbox"/> Foreman Plumber | <input type="checkbox"/> Toolmaker | <input type="checkbox"/> Industrial Management | <input type="checkbox"/> Civil Service |
| <input type="checkbox"/> Architectural Draftsman | <input type="checkbox"/> Sheet Metal Worker | <input type="checkbox"/> Machine Shop Practice | <input type="checkbox"/> Secretarial Work | <input type="checkbox"/> Coal Mining Engineer |
| <input type="checkbox"/> Architects' Blueprints | <input type="checkbox"/> Civil Engineer | <input type="checkbox"/> Stationary Engineer | <input type="checkbox"/> Business Correspondence | <input type="checkbox"/> Gas Engine Operating |
| <input type="checkbox"/> Contractor and Builder | <input type="checkbox"/> Surveying and Mapping | <input type="checkbox"/> Chemist | <input type="checkbox"/> Bookkeeper | <input type="checkbox"/> Textile Overseer or Supt. |
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| <input type="checkbox"/> Concrete Builder | <input type="checkbox"/> Electric Lighting | <input type="checkbox"/> Business Management | <input type="checkbox"/> Higher Accounting | <input type="checkbox"/> Aviation Engines |
| <input type="checkbox"/> Structural Engineer | <input type="checkbox"/> Electric Wiring | <input type="checkbox"/> Navigation | <input type="checkbox"/> Grade School Subjects | <input type="checkbox"/> Automobiles |
| <input type="checkbox"/> Structural Draftsman | <input type="checkbox"/> Telegraph Engineer | <input type="checkbox"/> Salesmanship | <input type="checkbox"/> Mathematics | <input type="checkbox"/> Agriculture |
| <input type="checkbox"/> Plumber and Steam Fitter | <input type="checkbox"/> Practical Telephony | <input type="checkbox"/> Advertising | <input type="checkbox"/> English | <input type="checkbox"/> Poultry Raising |
| <input type="checkbox"/> Heating and Ventilation | <input type="checkbox"/> Mechanical Engineer | <input type="checkbox"/> Cost Accountant | <input type="checkbox"/> Illustrating | <input type="checkbox"/> Radio |
| <input type="checkbox"/> Plumbing Inspector | <input type="checkbox"/> Mechanical Draftsman | <input type="checkbox"/> Show Card and Sign Lettering | <input type="checkbox"/> Railway Mail Clerk | <input type="checkbox"/> Spanish <input type="checkbox"/> French |

Name..... Street and No.....
City..... State..... Occupation.....

If you reside in Canada, please send this coupon to International Correspondence Schools Canadian, Limited, Montreal, Canada

floor, this leaving the top floor in its original position. It is also sound deadening, which gives this type of block floor the distinction of being a surprisingly quiet wood floor.

The influence of Colonial and Old English architecture has in many cases demanded the use of wide boards in random widths, commonly known as plank flooring. In order to obtain wide oak floors that would retain their shape, laminating and veneering have been resorted to. This additional expense has confined the use of plank flooring to only the most pretentious homes.

Here again the moisture-proofing process brings another type of oak flooring within the price range of the most modest flooring estimate—because the moisture-proofing process makes it possible to use solid planks.

The volume of treated oak flooring used has exceeded expectations and the rapidly increasing demand has demonstrated the need of such a product and insures for it a marked future. The process, however, has only been advanced in connection with the treatment of oak flooring and we know that its field of usefulness is not so limited but that it may be employed with infinite advantages on many other products.

Wooden house sash, for instance, if treated, will not stick, due to expansion or rattle because of shrinkage. Doors will no longer shrink or swell and interior trim will not open at the joints. These articles, like hardwood flooring, are at the same time preserved from decay. The high labor cost for replacement is a great item and this advantage alone would make this process valuable.



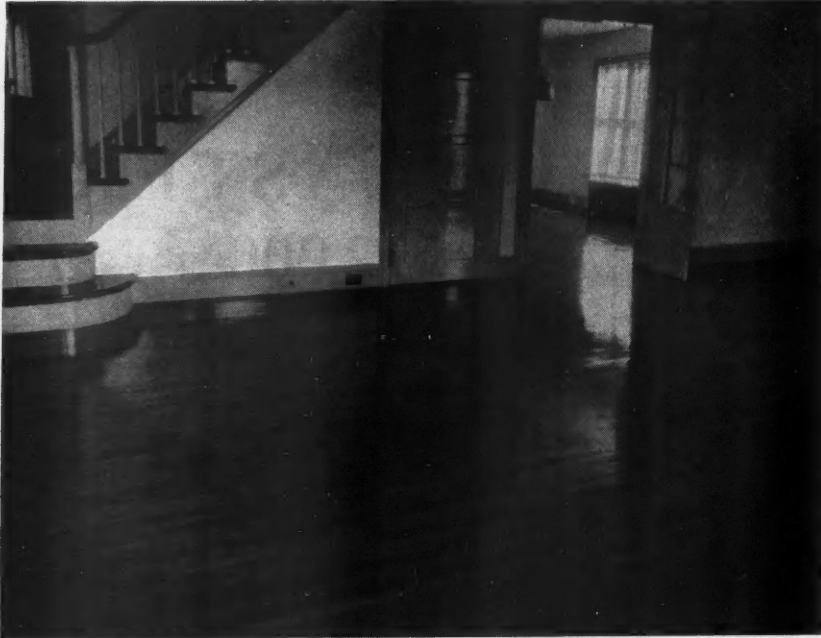
Syracuse Modernizes

(Continued from page 41)

grade entrance. Upstairs there is another hall, around which are grouped three bedrooms and the bathroom. All the upstairs floors, except the bathroom, are finished with oak strip flooring, with a 2½-inch face, ¾-inch thick.

In the bathroom, a built-in tub, with an arch over it to accommodate the shower curtain bar, makes a recessed shower and tub combination. The side walls, to wainscot height, are covered with the same fiber board used in other rooms, but with an enamel tile finish, in light buff color. At the wainscot rail a black mosaic design runs round the room to harmonize with the black in the linoleum. A pedestal lavatory and silent type bowl complete the equipment.

"A modernizing proposition of this kind requires considerable advertising if it is to be productive of any sales to the lumber dealer," says J. L. Ochse, advertising manager of the Wilson & Greene Lumber Co., Inc. "This job was handled, I believe, in a very good way to secure results. The idea of sponsoring it was sold to one of the local newspapers by the George Monroe Organization, of Buffalo, and it was referred to, all the way through,



Flooring of the Usual Type Is Also to Be Had in Treated Oak, and Here Is an Example of Such a Floor Laid with 13/16 by 2¼-Inch Stock.

furnace was in. Folders on the products used were kept handy for visitors to pick up.

"After the remodeling was entirely completed, open house days were held on two successive Sundays. The place was furnished, even to a piano, radio, carpets and drapes, so that visitors saw a complete home with nothing left to the imagination. The program for further open house days includes hostess days at this house for the various luncheon club auxiliaries and other women's organizations.

"At this writing, and please remember we are in the dead of winter, we are receiving many inquiries for remodeling and some of them promise to be very good jobs. Just today, a remodeling job requiring \$3,400 worth of material has gone through the office and this one job alone will repay us for a good part of the newspaper advertising which we did.

"It seems to me that, if a newspaper is sold the idea of fostering such a development and if one of the larger lumber dealers in the town gets behind it, it will have a very beneficial influence throughout the community and will result in a great deal of remodeling and repair work for local contractors and builders during seasons that might, otherwise, be dull."



General Electric Appointments

THE General Electric Company, Schenectady, N. Y., has appointed Mr. H. L. R. Emmet manager of the Erie, Pa., works, and Mr. J. E. Brobst has been named manager of the Bloomfield, N. J., plant of the same company, succeeding Matthew Griswold at Erie and C. D. Knight at Bloomfield, both of whom have retired from active service on January 1st, because of ill health.

Another announcement states that the International General Electric Company of Schenectady, with headquarters in New York City, has appointed H. A. Baker, of Schenectady, as service manager to succeed C. F. Neave, who has been made manager of the newly organized refrigeration department of this company.

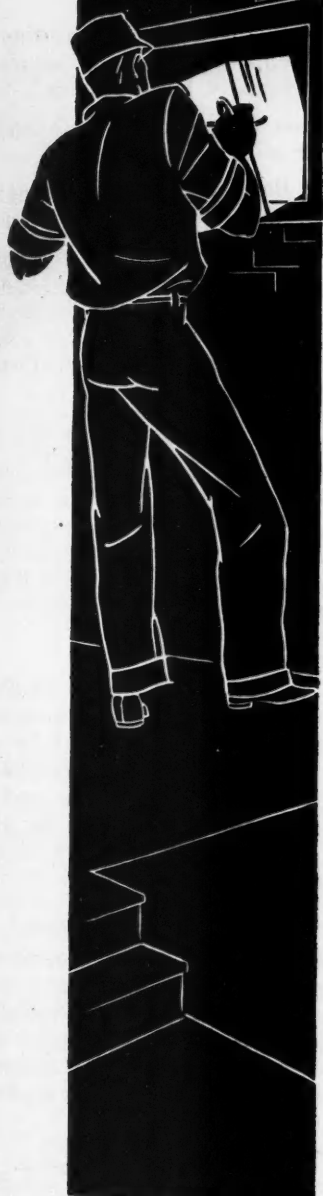


The Portland Cement Association, 33 W. Grand Ave., Chicago, Ill., has published an attractive and well illustrated booklet, "Concrete Bridges," which presents a discussion of some of the principal requirements of bridges.

as this newspaper's Remodeled Home. Columns of news stories about it were published. Page after page of advertising, by every company that was selling any product used on the job, helped to keep it before the public eye. This publicity was under way before the job was actually started and continued until after it was completed.

"The advertising resulted in bringing many people out to see the job and nearly 20,000 people actually visited it at different times during the construction. A woman attendant was there at all times, after the

What clients demand you must supply



Include Outside Icing in Homes and Apartments

HOW GLAD you are to say—"Yes, here it is," when prospective owners or renters ask about some convenience. That is why it is wise to include outside icing in the homes and apartments you build. Furthermore, outside icing will help the resale value of property.

Housewives are realizing, as perhaps never before, how important ICE refrigeration is in safeguarding the family health and in making meals attractive. And with OUTSIDE ICING they have the latest in convenience—their refrigerators are always kept well iced without any bother or worry to them. Naturally, they demand outside icing in the homes or apartments they move into.

It is very easy to provide for outside icing in building new homes or apartment buildings, or in remodeling old ones. Just fill out the coupon below for free illustrated folder, "Inside Facts on Outside Icing."

SAVE WITH ICE

----- COUPON -----

National Association of Ice Industries,
163 W. Washington Street, Chicago, Illinois.

Please send me free folder, "Inside Facts on Outside Icing."

NAME _____

ADDRESS _____

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

The Fastest-Laying Shingle Ever Made!

the new Certain-teed Speedlay Shingle

There's nothing like it . . . no other shingle that can touch the new Speedlay for its combined advantages of quicker laying, unique beauty and color effects; fewer nails; permanent double-coverage protection; and moderate price.

Varied Colors—Varied Widths Already Established for You

Imagine laying a four-color roof of a tone and perfection thoroughly pleasing to the most critical artistic and architectural eyes; of an interesting irregularity in the sizes of the color units; of exactness in exposure; and of a permanency unquestioned . . . in far less time than it would take you to lay an ordinary one-color roof! These are some of the benefits Speedlay brings to you.

We fully expect this revolutionary shingle to soar ahead far beyond the usual measure achieved by shingles in the past. We believe that the man backing Speedlays from the first will find a big new shingle business opening for him—new profits—new customers! Get in now!

Find out all about the Speedlay from your building material dealer . . . or better still, for complete information, sample color cards, etc., use the coupon. Mail it to us today.

Speedlay Advantages

1. *Faster Laying*—Because of the four-in-one quality, the few nails, the generous size of the shingle, and the self-spacing features, you can lay a blended Speedlay roof in almost one-third the average time.
2. *72 Shingles to the Square*—The expansive 40-inch strip comes 72 shingles to the square.
3. *Four Shingles in One*—The Speedlay is divided into five separate units, with four harmonizing colors.
4. *On Old or New Work*—with equally good results and savings in cost.
5. *A Varied-colored Roof*—already established, in the Green Cast and Red Cast Speedlays.
6. *Self-Spacing*—The self-spacing feature insures speed and accuracy in laying.
7. *5-Inch Exposure—Double Coverage*—builds a weather-tight roof of double coverage with 5-inch exposure and $2\frac{1}{2}$ " extra head lap.
8. *4-Inch Exposure—Triple Coverage*—Speedlays can be laid with 4-inch

exposure, giving triple roof coverage and $\frac{1}{2}$ " extra head lap.

9. *Random Widths*—The markings of these handsome shingles are not set in regularly, but at random.
10. *Fewer Nails*—Only 3 nails required per strip.
11. *No Buckling*—The self-spacing feature does away with end buckling.
12. *Finest Quality*—The felt base, asphalt saturation, asphalt coating and mineral surfacing used in making the Speedlay are all of highest quality, selected to meet well-known Certain-teed standards.

Only 3 Nails Per Shingle!

No wonder it's the fastest laying shingle in the world! Only 3 nails are required to hold each 40-inch shingle securely—for the nails of the shingle above go through it (making in reality 6 nails through each shingle).

Square-Butt

The Certain-teed Speedlay Shingle is 40" x $12\frac{1}{2}$ ", square-butt, comprising five shingle units in one, with four distinct colors in one. In other words, it is divided into five separate panels of varying widths, so arranged that when laid, each 40-inch shingle builds four different-colored shingles on the roof.

72 Shingles Per Square!

Here alone is an innovation that bespeaks rapid finishing of jobs; faster profits; customers completely satisfied. Only 72 Speedlays to the square—72 of these sturdy 40-inch by $12\frac{1}{2}$ -inch strips . . . which means just so much less labor for the roofer.

The Market is Yours— With Speedlay!

This new and different shingle opens up a great market for you. We believe that Speedlay popularity will be tremendous. With it you can supply the great and growing demand for colorful roofs.

To Builders, Contractors, Reroofers, etc.
Be the first to have the Speedlay in your community. Use the coupon and receive complete information by return mail. Let us send you full-colored pictures, a supply of miniature cardboard shingles, etc.

To Lumber and Building Material Dealers
We are prepared to put a cooperative sales plan to work in your territory. With your help it will establish you as Speedlay and Roofing Headquarters. Use the coupon for full information.

USE THIS COUPON

To CERTAIN-TEED PRODUCTS CORP.,
100 East 42nd St., New York, N. Y.

Gentlemen:

My business is _____

(Please fill in type of business, as "Dealer," "Contractor," etc.)

Send me full information about Speedlay and description of Sales Help, Advertising, etc.

Name _____

Street _____

City _____

State _____



Certain-teed

SELF SPACING - - - MULTI-WIDE

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coverage

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VIDE



In the Modern Colors and Color-Combinations

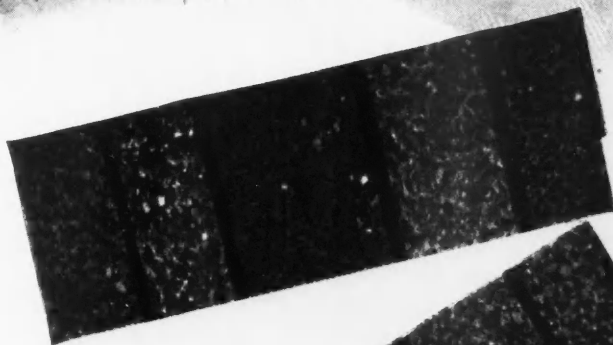
to meet the needs of any type of home in your community. Speedlays come in Red, Green, Blue-Black, Color blend, Red Cast (a 4-color blend), Green Cast (a 4-color blend).

Several of these are special Speedlay colors and combinations of tones which have been perfected by a staff of artists expert in the needs of modern architecture. From these any homeowner will find the thing he has in mind. For example, the Red Cast Speedlay is a soft, subtle union of four colors on the one 40-inch strip, each color being fused with a distinct tone or "cast" of red particles. The same color method is used to create the Green Cast as shown in the home above.

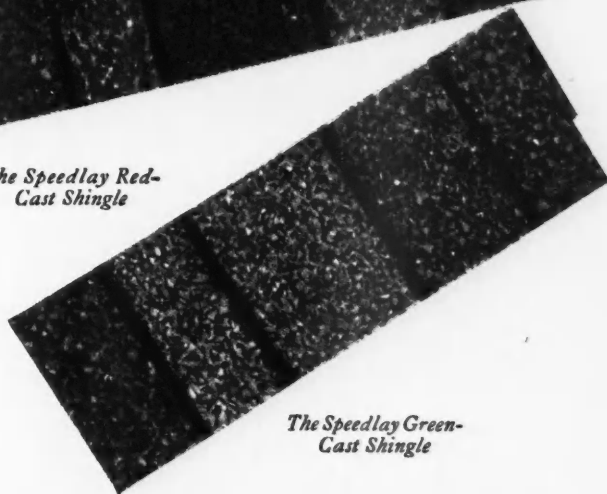
Protected by Patent For Your Protection

The Speedlay is distinctly a Certain-teed Origination—protected by basic patents. That means that you can sell it as a *specialty* without possibility of inroads by similar competitive shingles.

Read the left-hand page. Speedlay advantages mean increased business for you. Fill out and mail the coupon to obtain color cards, etc. Write us today.



The Speedlay Red-Cast Shingle



The Speedlay Green-Cast Shingle

Speedlay

Shingle

The Beautiful Way to Greater Protection



What are the most popular colors for plumbing fixtures?

That is an important question for every builder of homes to rent and sell. For the builder not only builds the bathroom but furnishes it. The buyer has no part in the selection of the plumbing fixtures. And the color of the fixtures will determine the color scheme for the whole room. A color scheme that is inharmonious and unpleasant will be an obstacle to the sale of any house. So it will pay every builder to keep his finger on the pulse of public preference in this matter of colored plumbing fixtures.

The newest and most distinctive colors for plumbing fixtures are Ming Green, St. Porchaire Brown, Clair de Lune Blue, Rose du Barry, Ionian Black, Royal Copenhagen Blue, Ivoire de Medici, Orchid of Vincennes, and Tang Red. All these colors are exclusive "Standard" colors. Not only are these colors the purest, most positive colors ever developed for plumbing fixtures, they are the most widely advertised. Their wide range offers an oppor-

tunity to make every bathroom distinctive and different from every other bathroom.

In the planning of a colored bathroom, first select the color for the plumbing fixtures. That is the starting point. Then determine the color for the floors, walls, and ceiling. The easiest way to do this, and to make sure that the combination of colors will be correct and pleasing, is to have a copy of the book "Color and Style in Bathroom Furnishing and Decoration" before you. It illustrates in colors many advanced bathroom designs. Each design is supplemented by a color chart. Consequently, this book is an invaluable guide to the use of color in bathroom furnishing and decoration. Write for it, using your business letterhead, and it will be mailed immediately.



Standard Sanitary Mfg. Co. PITTSBURGH

"Standard"
PLUMBING FIXTURES
IN COLOR

Modernizing with Metal Lath

How to Get Good Results in Both Exterior Stucco and Interior Plastering

By Warton Clay

Secy., National Council for Better Plastering

A STURDY, substantial structure must always be chosen if the modernizing process is to be worth while. No matter how bad the plastering looks, that is no criterion of the structure itself, as the base on which it was originally put may not be adequate to the demands of time, and the framing beneath may be structurally sound. Sales of complete modernizing jobs for the builder can be made by pointing out the improvement that can be expected by plastering on metal lath, introducing new arches, niches, vaulted ceiling and exterior stucco and other items.

It is just as easy to sell a high grade of plastering, particularly when a low grade job was originally used, as it is to merely repeat the older builder's mistake. When the old plaster is cracked and stained no better argument for modernizing can be found. Of course, it is expected that changes will be made in some partitions—that old grilles, plate moulding and other old-fashioned excrescences will be removed, but it is just as necessary to remove the old plaster as it is the doo-dads of the former builder.

Only with metal lath as a base is it proper to advocate

textured plaster, but in no other way can the home owner get so much satisfaction out of the change in his building as in the new appearance of the ceilings and walls that he lives within or the appearance of the home from the street as he approaches his home in the evening. Treatment of the exterior of the old building with stucco is like donning a new suit of clothes. This popular modern finish brings to the old structure a newness, altogether equal to its most recently built neighbors.

Metal lath and portland cement form a practical and permanent, reinforced concrete finish. Wherever portland cement sidewalks, roads or portland cement construction of any kind is practicable and durable, there metal lath and portland cement stucco is also practicable and durable. The two are made of the same ingredients, are identical in chemical and physical reaction, and the success of one is proof that the other is suited to the same climate and similar conditions.

Some of the desirable properties of stucco are self-evident. The infinite variety of texture and color eliminates any



A Frame Stucco House in the Popular English Style. Stucco is equally appropriate for the Spanish and modern American types. All these styles may be produced from old houses which are out of date in appearance but still sound in structure.

chance of monotony. Almost any type of architecture commonly used for residences can be appropriately finished with this permanent exterior. Old English, Spanish, modern American, all are appropriately finished with stucco. Sometimes the most attractive results are obtained with half-timbered effects, or in combination with stone or brick. This, of course, is influenced by the type of architecture and the surrounding structures.

In order to avoid unnecessary expense in the modernizing of the old home, one should examine the job carefully before attempting much stone or brick work. Sometimes these require additional footings and may incur more expense than at first appears on the surface.

Stucco has no upkeep cost, that is, painting or similar expense. Over the years it pays for itself, in saving of upkeep. It should be considered an investment, not an expense, because it adds to the value of the property more than its cost, and because it cuts down the future expense of upkeep. In addition to this the stucco closes up the old openings which the years have brought to the old structure, makes the building more comfortable and saves fuel. These items of saving and comfort are not matters of conjecture. Thousands of homes in various parts of the United States have been modernized with stucco, and every item proved.

Stucco provides protection from fire from adjoining buildings. It prevents the spread of fire from within to other buildings. As our communities become more congested this item of fire safety becomes a greater consideration.

The cost of modernizing with stucco is surprisingly small. Sometimes the architecture of the building itself needs changing. Sometimes elimination of "ginger-bread" ornaments, changing of the lines of the porch, alteration



In Modernizing Wonderful Results Can Be Obtained by the Use of Metal Lath and Plaster to Introduce Arches, Niches and Vaulted Ceilings.

or changing of openings is all that is needed. In case the structure itself needs changes an architect should be consulted. Frequently, at quite small cost, the entire exterior of a building can be altered. Of course the cost of such alteration is not a part of the stucco cost and must justify itself by the corresponding improvement in the property.

The process of applying exterior stucco over the old building is identical with stucco on new construction. If additional insulation is required paper may be applied under the stucco. If the stucco brings the surface beyond the openings, that is, the window sills, etc., then some moulding or quarter round must be nailed around such openings to provide for the additional thickness. This is a very slight expense and is entirely satisfactory. It is unnecessary to remove old siding or other former finish. In fact, what strength and protection is left in this sid-

ing adds that much to the finished structure.

Because no additional structural changes need be made to receive an overcoat of stucco, it is a very expensive way to modernize the exterior. The cost is the same as for new construction and there is no waste.

The whole object of modernizing houses is to make them more livable, more modern, more substantial, but at all times taking advantage of the sturdy construction which exists in the structure. ✦

A Community Business Center

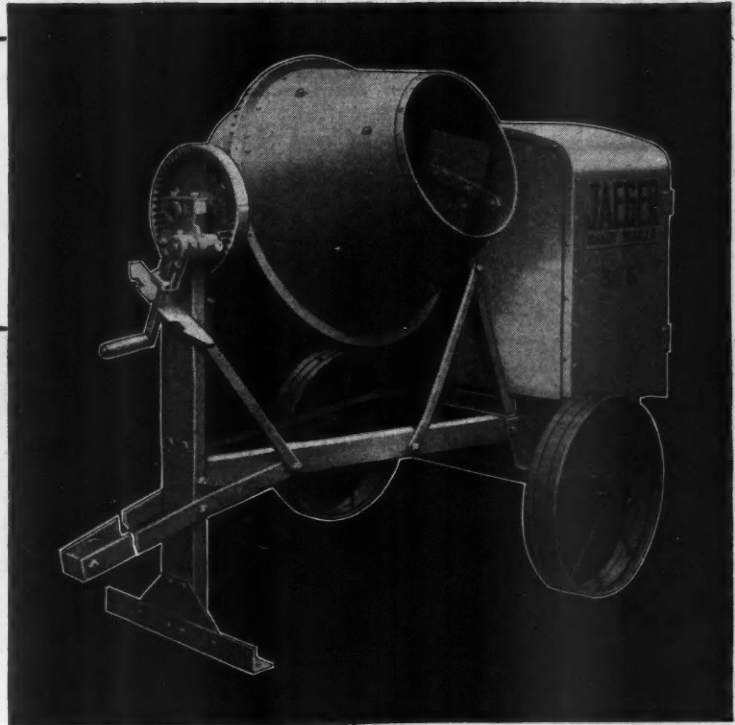
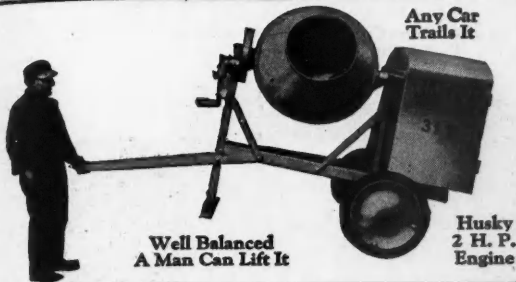
TYPICAL of the modern trend toward more architecturally harmonious business blocks for residential districts is the new community center, which is pictured here, and which was built and is owned by J. S. Giowsky, of Wichita, Kan.



This Business Group, Worked Out in the Half-Timbered English Style of Architecture Harmonizes Most Satisfactorily with Its Residential Community Location. It was designed and built and is owned by J. S. Giowsky, of Wichita, Kan.

\$169 buys Jaeger's Handy Trailer

NET CASH
F.O.B. COLUMBUS



NEVER before in mixer history a half-bag outfit like this...as fast as this one...built like this one...for this price. Jaeger, alone, can do it...give you an all-purpose mixer, all-steel, with roller bearing wheels, "Flat Spot" drum, 2 h. p. F & J engine, Wico magneto and Jaeger workmanship...for \$169.

You can buy it, too, on steel disc wheels with cushion rubber tires, for only \$179.50. It discharges in 5 seconds. It's good for 35 cu. yds. a day...every day of the year.

CAPACITY: 3 1/4 cu. ft. mixed concrete. Also mixes mortar.
HIGH SPEED: More thoro mixed batches with "Flat Spot" drum, 5 second discharge.
PORTABLE: One man handles it nicely.
POWERFUL: Husky 2 h.p. F & J engine. Wico magneto.

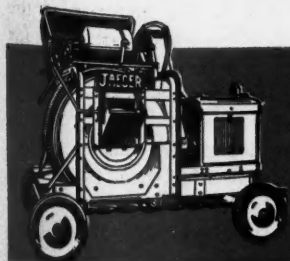
Only
\$179.50

With Cushion
Tired
Steel Disc
Wheels



Timken Bearing One Bag Tilter...at usual 1/2 Bag Price

FOR high speed and low price there isn't another one bag mixer like Jaeger's 7L2 Tilter. Skip Shaker, Accurate Measure Water Tank, "Flat Spot" Drum and 5 second discharge help make the speed; the world's biggest plant makes possible the price. Built of steel, forgings and semi-steel gears, with Timken Bearings and spring shock absorbers, the strongest possible construction and the lightest and easiest handled.



NON-TILTERS
7-10-14-21-28 Ft.
PLASTER MIXERS
1 and 2 Bag
Sizes

MAIL FOR
CATALOG
AND
PRICES

THE JAEGER MACHINE CO.,
521 Dublin Avenue, COLUMBUS, OHIO
Please send catalog, prices, terms on ... ☐ Non-Tilt Mixers
☐ Tilting Mixers ☐ Plaster Mixers

Name _____ Address _____ City _____ State _____

Date _____

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

WHAT'S NEW

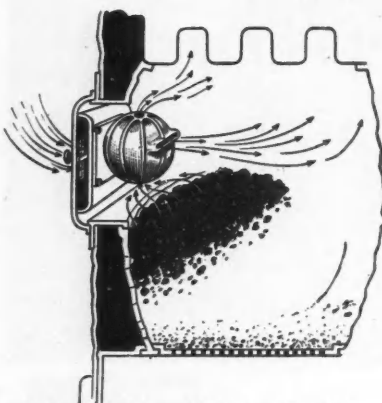
for the BASEMENT

Specialties With Sales Appeal

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Smoke Consumer—Coal Saver

THE practical elimination of smoke by the use of advanced principles of combustion has been definitely demonstrated by a well-known manufacturer using the device in the accompanying illustration, it is claimed. In a hand-fired furnace about $\frac{1}{2}$ of the combustion takes place in the fuel bed, and $\frac{1}{2}$ in the combustion space. The burning fuel bed acts principally as a gas producer and a



This Device Makes Possible More Complete Combustion Eliminating Much of the Black Smoke and Dangerous Gases.

gas retort. In it the solid fuel is gasified.

The gases arising from the fuel bed contain at times as much as 32 per cent combustible and no free oxygen to burn it. To burn these gases, air must be mixed with the combustible. Of the air necessary to complete combustion of the fuel, only about $\frac{1}{2}$ can be supplied through the grate; the other half must be supplied over the fuel bed.

This device admits pre-heated air over the top of the coal bed in sufficient quantities to consume the gaseous substances and unburned carbons which arise from the burning coal, and ordinarily pass out of the stack. By burning of this volatile matter in the furnace, this device not only eliminates much of the black smoke, but it burns the dangerous gases as well.

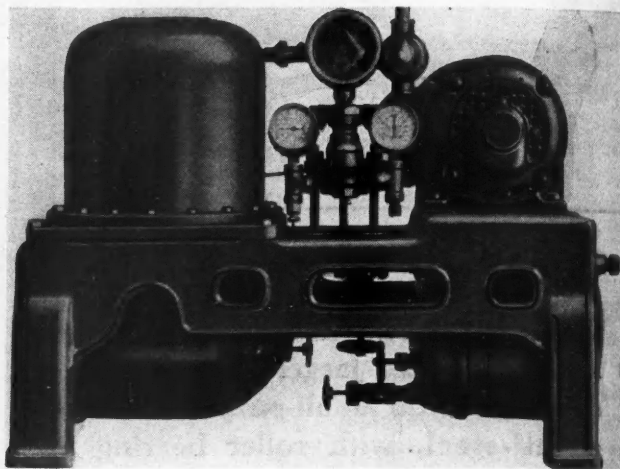
By the consumption of these combustibles, which are ordinarily lost, this invention is said to add from 20 per cent to 30 per cent to the heating quality of the coal used and allows the use of any grade or kind of soft coal. The units are made to fit any kind or make of low-pressure boiler or heating plant.



A New Refrigerating Unit

A WELL-KNOWN manufacturer of electric refrigerating machines has recently announced a new $\frac{1}{4}$ -ton automatic unit. This unit has full thermostatic control, and the manufacturer states that it is remarkably economical and quiet in operation. All parts are assembled to a rigid one-piece base casting, making a very solid and attractive arrangement.

Gages and control elements are grouped at a convenient central point. The level of the oil is visible at all times through the large gage glass. Oversize condenser capacity and a large capacity receiver for liquid ammonia are other advantages of design claimed for the machine. Shut-off valves for all working parts permit easy



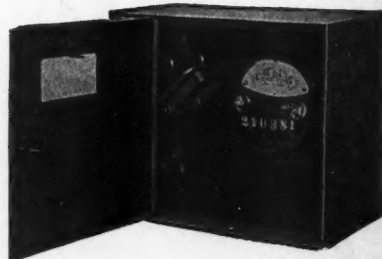
This Fully Automatic Refrigerating Unit Is Suitable for Apartment Buildings and Similar Installations.

access for inspection and cleaning. Every machine is tested by running under load with ammonia before it leaves the factory.



Electrical Meter Box of Steel

THIS meter box is a steel housing for the electric meter, combined with a safety switch and located in the basement wall in such a manner that the meter may be read without the need of entering the building. The outer door has a glass panel, for reading the meter, which may be broken easily and replaced, by the service man, if necessary to reach in and unlatch the door for adjusting or repairing the meter.

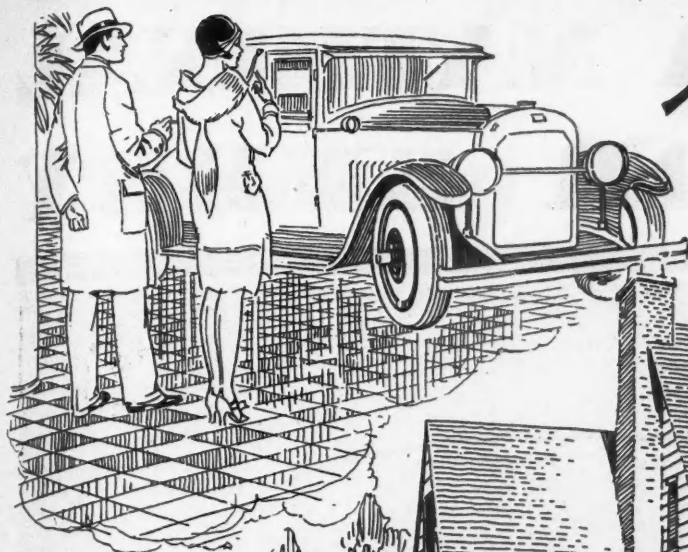


A Steel Housing for the Electric Meter which Makes It Unnecessary for the Meter Reader to Enter the House.

The inner door opens into the basement and has a wooden panel on which the meter is mounted. A switch of ample capacity is actuated by a safety lever located on the basement side of the exterior of the box. This meter box has all necessary knock-out holes for convenient installation of wires to and from the meter. The box measures $13\frac{1}{2}$ inches high, $16\frac{1}{2}$ inches wide and $10\frac{1}{2}$ inches deep.

A double meter box, of similar design, for duplex houses and two-apartment buildings is also made by this company. This box measures $13\frac{1}{2}$ inches high, 25 inches wide and $10\frac{1}{2}$ inches deep. It is regularly supplied with a three pole, three fuse, 60 ampere, 250 volt switch.

SPECIALTIES for Quick Sales and PROFITS



Equipment
sells many
motor cars--



Equipment
sells many Homes!

EQUIPPED
WITH
DURO

FINE equipment has sold many a fine motor car and quality equipment has sold or helped to sell many homes.

No one knows better than the builder that sales have been lost or were difficult to close because Mr. and Mrs. Prospect did not like this or that seemingly unimportant thing about the house and its equipment.

Why risk dissatisfaction on anything so important as water under pressure service when Duro can be had at so little cost? Duro means dependable, silent, care-free and economical performance at all times.

Duro dealers and branch offices have factory trained men to help you on any installation. Write to us for new Duro Catalogs on Water Systems and Water Softeners.

THE DURO COMPANY , , , Dayton, Ohio

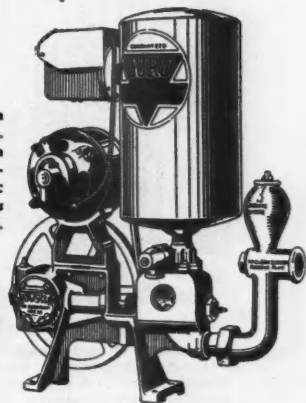
DURO

Water Systems ~ Water Softeners

**Duro Fresh Flow
Water Systems**

Never before has there been a water system value like this. The No. 250 Duro Fresh Flow Water System is a complete, electric, automatic water system... 250 gallons per hour capacity, list, f.o.b. factory price only

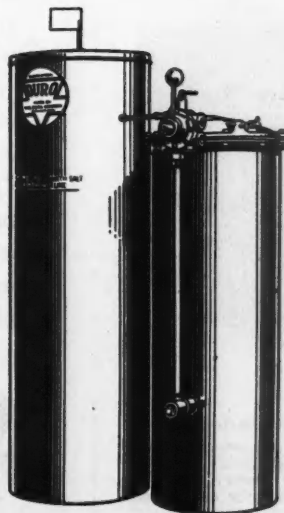
\$69⁵⁰



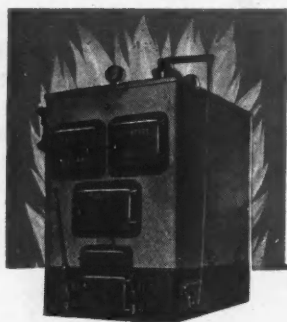
**Duro Water
Softeners**

A Duro Water Softener is the greatest convenience you can install in the hard water home. There are three types of Duro Softeners... the Automatic, the Semi-Automatic (here illustrated) and the Hand-Operated. The list f.o.b. factory price of the latter is:

\$76⁵⁰

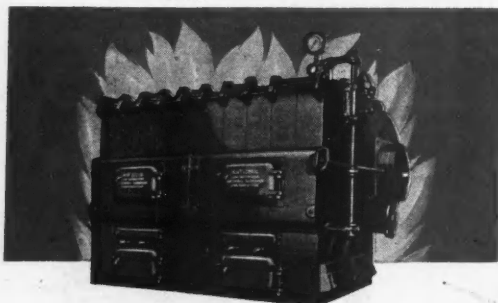


THERE'S A NATIONAL FOR EVERY



**National Jacketed Boiler
No. 4 Series**

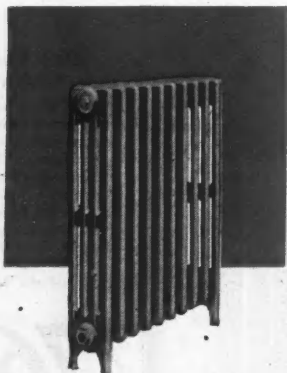
Brings a new conception of what a boiler can offer in outstanding attractiveness, full-saving efficiency, and upstanding service; a striking and colorful jacket, and contrasting trim.



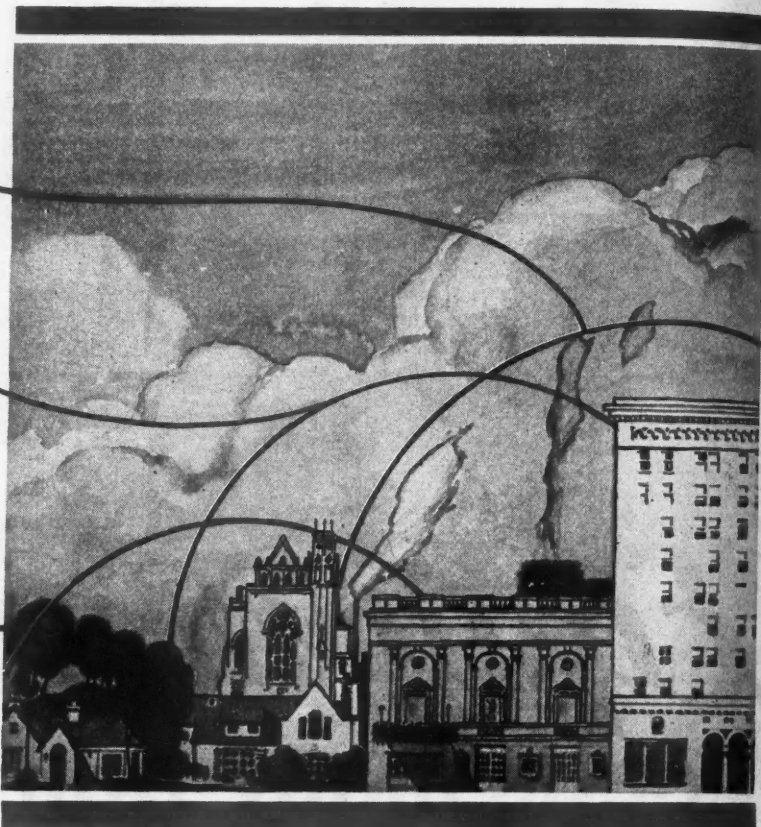
National Low Water Line Boiler
Where lack of head room is the problem, this boiler is always the best, often the only, solution; highly efficient.



National Round Boiler
In residential and small building heating, its staggered fire travel leads straight to efficiency, economy, and complete and permanent user satisfaction.



Aero Radiation
Aero Radiators pioneered the way to new heating efficiency, were the first to supply beauty for every setting and utility for every heating purpose.



For all Structures

For large homes or small ones, for theatres, churches, or schools, for apartments or office buildings—for every structure, everywhere, there's a National *Made-to-Measure* Heating System that can be expertly installed, efficiently and economically operated.

The systems embody outstanding equipment which enjoys unusual prestige won in years of demonstrated dependability. Aero Radiators, that pioneered the way to new heating efficiency and beauty, and National Bonded Boilers, renowned for honest ratings and dependable performance, have long been synonymous with complete heating satisfaction.

For all Conditions

Perhaps the problem is the lack of boiler head room so frequently encountered in theatre buildings, and in structures in tide-water country; or perhaps it is a combustion problem in some locality with a rigid smoke-ordinance.

In either case, there's a National Bonded Boiler to solve it efficiently and completely. Perhaps the problem is the selection of radiation to harmonize with certain finishes or furnishings. There's an Aero Radiator that will fit in perfectly. Whatever the requirements, National *Made-to-Measure* Heating Systems will meet them completely, efficiently, and with permanent dependability.

NATIONAL

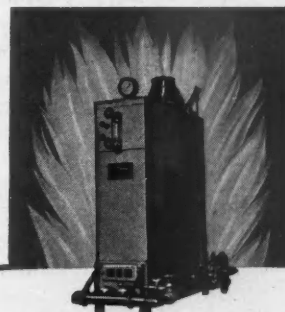
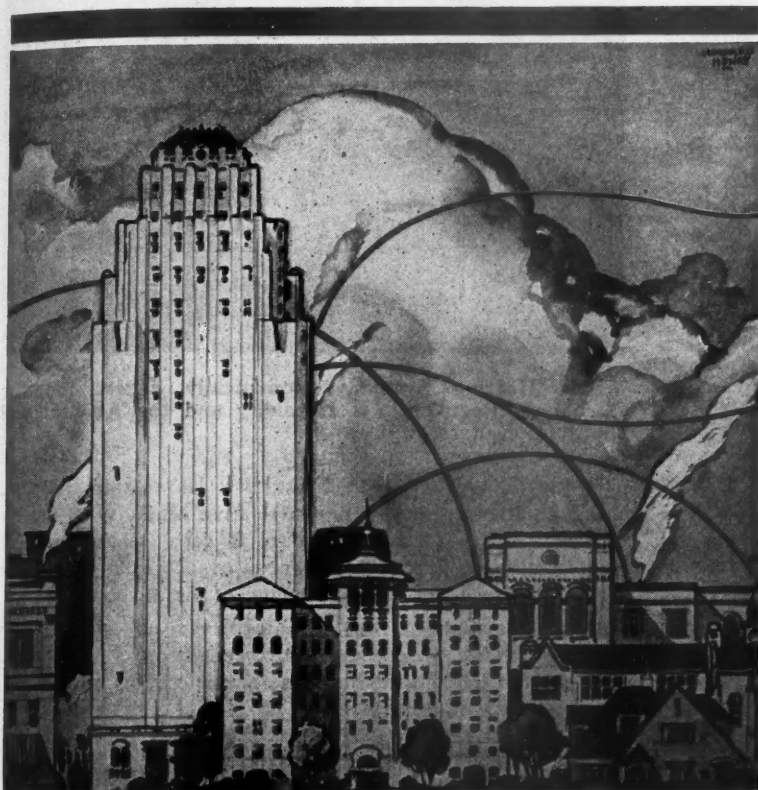
Made-to-Measure

HEATING SYSTEMS

SPECIALTIES for Quick Sales and PROFITS

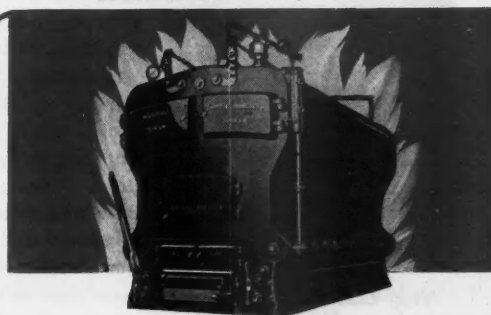
HEATING SYSTEM

Building Need



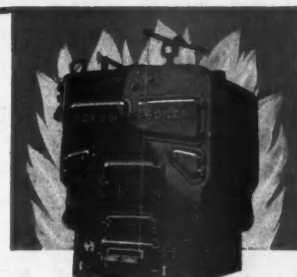
**National Jacketed Gas Boiler
No. 1**

Cleanliness, convenience, accurate maintenance of any desired degree of warmth—are the contributions of this strikingly attractive, highly efficient boiler.



**National Super-Smokeless
Boiler**

Specifically designed for the efficient and smokeless combustion of all grades of fuel. Distinguished for its swirling scarlet flame, and balanced secondary air supply.



National Novus Boilers

These businesslike, dependable, effective boilers have for 18 years been demonstrating their worth in all types of applications, all over the country.



National Boilers are backed by a bond, issued by a great surety company, which guarantees performance, assures satisfaction.

**National Radiator Corporation,
55 West 42d Street, New York, N. Y.**

Please send me full information concerning National *Made-to-Measure* Heating Systems, and the services behind them.

Name.....

Street.....

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

For all Types of Fuel

National Boilers are Bonded to deliver their published ratings, and are designed to perform efficiently with leading types of fuels, such as all domestic sizes of anthracite, bituminous coal, oil, gas and coke. They can be converted on the ground to meet the individual characteristics of the fuel selected. The engineering design of the grate surfaces, air spaces, sizes and shapes of combustion chambers, design of fire travels, waterways, and the systems of air intake and damper control combine to set up a balanced condition resulting in economical combustion and satisfactory heating performance.

For all Purposes

The National Protective Payment Plan permits the installation of a National *Made-to-Measure* Heating System on a low down payment, the balance being retired in easy monthly installments. A fire, disability, and death insurance clause protects the purchaser during the period of payment.

One Source of Supply —One Responsibility

All heating needs can now be filled from a single source of supply, backed by a responsibility that does not quibble or compromise, that positively assures satisfaction to the user. Fill out the coupon, and receive full information.

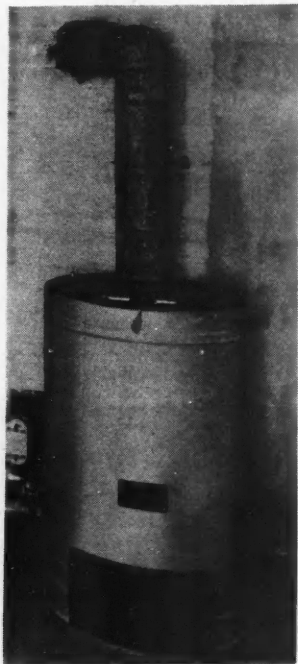
**NATIONAL
RADIATOR
CORPORATION**

Copyright 1929
N. R. Corp.

Executive Offices : 55 West 42nd Street, NEW YORK

Incinerator in the "Blue Star Home"

THE illustration shows the incinerator installed in the first house in Milwaukee, Wis., to be awarded the Blue Star Certificate of the American Gas Association. The Blue Star Certificate is issued by the association to



This Gas Fired Incinerator Is as Easily Installed as an Ordinary Gas Stove.

the owner of a house which conforms to certain standards relating to the utilization of modern gas service. These standards include the installation of certain appliances which ordinarily are incorporated when a home is built, which belong in every home and which measure up to the standard set.

The incinerator selected for this Blue Star Home burns up $2\frac{3}{4}$ bushels of garbage and rubbish completely to a pint of ash, without smoke or odor. Directly below the bowl is a gas burner which supplies a hot gas flame. The ports in this burner are non-clogging. Directly above the flame is an ingeniously constructed drier pipe. Heat travels up this pipe and radiates through the contents of the bowl and inner drum. In this way the moisture is dried out and passes off in the form of vapor through the perforated inner drum and up the chimney.

All refuse can be deposited through the large top opening and as the bowl accommodates $2\frac{3}{4}$ bushels, it need be burned only once or twice a week. A push button lighter is provided and an automatic shut-off turns off the gas after any desired length of time for which it is set. This incinerator is constructed to last for years. It is simply and sturdily built and is practically trouble-proof, it is stated. It can be provided with a chute and receiving unit so that the garbage and refuse may be deposited from the kitchen.



Clean, Humidified, Warm Air Heating

AIR conditioning for homes, similar in principle to those systems which furnish heat, humidity and pure atmosphere to theaters and large public gathering places, is a recent development. The equipment is smaller than the ordinary household furnace and is so arranged as to function in four particulars.

1—The air in the house is warmed to a comfortable temperature of 70 degrees Fahrenheit, or any temperature desired.

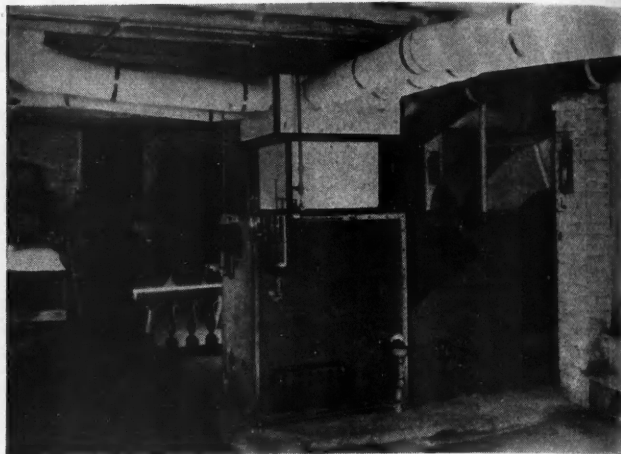
2—Moisture is added to the warmed air, always in the right amount for the greatest comfort.

3—The air is filtered, cleaned of dust and dirt. Only clean air is distributed.

4—The warmed, humidified, clean air is carried by ducts to every room and is distributed under pressure without drafts, without hot or cold zones, is kept in constant circulation.

Air is drawn down a return duct and passed through fine-mesh wire screens. These are credited with an efficiency of 98 per cent in removing dust.

A centrifugal type blower, motor operated, blows the air into the heating chamber. Here the air is heated by gas as the fuel, by passing through what is known as the heat interchanger. The gas flame is automatically controlled by a thermostat.



This Heating System Automatically Filters the Air Circulated, Regulates Its Humidity and the Amount and Distribution of Heat.

In the path of the heated air, as it leaves this chamber, is a humidifier. To maintain a relative humidity of thirty-five per cent in a six-room house in zero weather, it may be necessary to evaporate upwards of 12 gallons of water a day. This allows for one change of air an hour.

In all installations, the manufacturers act as engineers arriving at the size equipment needed by a calculation of the cubic footage in the house and the ducts to be used. All ducts are insulated.

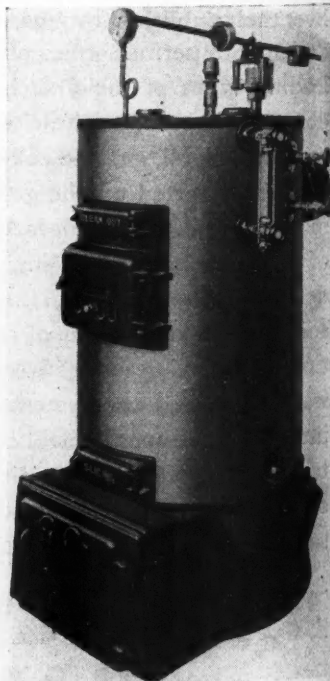


Moderate Priced Modern Boiler

THIS new boiler is a low cost heating plant for use in "modern cellars" of moderately priced houses. It has a bright red, enamel finished jacket and is suited for use with coal, gas or oil fuel.

The boiler is cast entirely in one piece and has an extension front ash pit to accommodate an oil burner installation. Its flue and dome construction is a modified design of the staggered fire travel regularly used by this company. A thick layer of asbestos insulating material fits snugly against the jacket, providing an excellent insulation against heat loss. An automatic draft arrangement is another valuable feature.

Plumbers and heating contractors who have inspected the new boiler have commented favorably on its design, primarily because it is so easy and inexpensive to erect, the manufacturers state.



A Bright Red Enamelled Jacket Makes This Boiler Suitable for the Modern Basement.

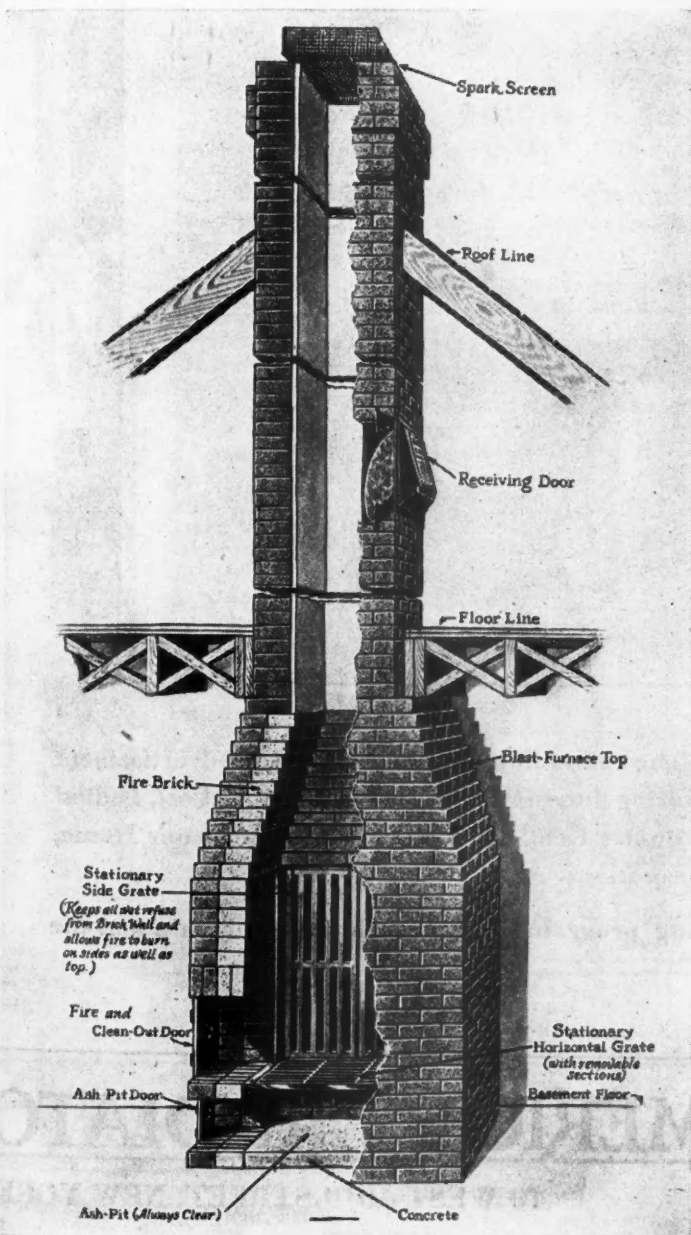
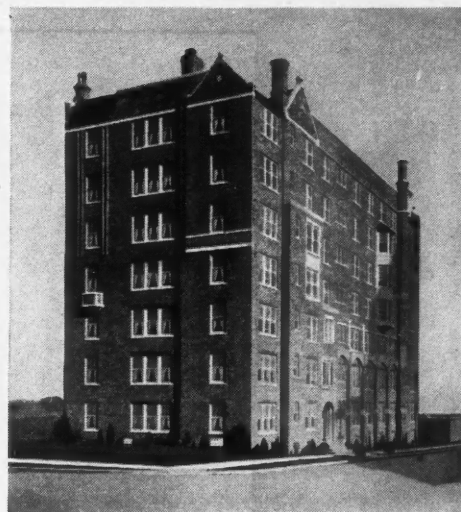
SPECIALTIES for Quick Sales and PROFITS

K-M Incinerators

For Residences, Apartments, Hotels

Outstanding Features Offered Only by K-M.

Aberdeen Apartments,
Oklahoma City, Okla.
Hawks & Parr,
Architects
C. M. Dunning Const. Co.,
Contractors



—patented grate arrangement forming a "suspended basket" holds refuse away from fire brick side walls and permits circulation of air and combustion on all sides as well as at the top.

—blast furnace design together with the location of the Cleanout Door and Ash Pit Door provides maximum draft.

—the absence of shakers or dumping grates prevents the clogging or warping of grates and eliminates the danger of impeding the draft with an excessive accumulation below the grate.

—the simple design without nuts, bolts or moving parts makes assembling simple and operation fool proof. A K-M can never get out of order.

—grates are heavier in weight than those of most incinerators. Hence all danger of breakage is eliminated.

—K-M costs less to buy and less to install than most incinerators.

—These and many other features have made K-M the outstanding incinerator since its introduction three years ago. Wire or write for complete plans and specifications.

KELLOGG MANN & CO., INC.
315 Grote Street, Buffalo, N. Y.
551 Fifth Ave., New York City

KELLOGG MANN & CO., INC.
315 Grote Street,
Buffalo, N. Y.

Please send me complete details of your K-M Incinerator. ☐ I am a builder or ☐ I am a dealer.

Name _____

Address _____

City & State _____

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Bringing

... Home, the spot of earth
supremely blest.
A dearer, sweeter spot than
all the rest"



The CASTLE of CONTENTMENT in the PRINCIPALITY of LOVE!

The sweet visions of this happy Wedding Day hold the dearest dream of all... the age-old dream of youth and love!... The Dream of Home!... trysting place of hearts and hopes united... that Castle of Contentment which a man protects... that Principality of Love in which a woman rules... but even married couples must be practical... winter months follow the Wedding March... home must be made secure against the rigors of storm and cold... cheeks that glowed with health in June must not languish for warmth in January... suffering must not dim those eyes that now sparkle with love... give your home, however simple or however fine, the blessings of radiator heating... Marriage is the promise of Perpetual Happiness... American Radiator Heating is the supreme Wedding Gift of Perpetual Summer!

You can own the home of your dreams. Consult your local Building and Loan Association for their advice and help. There is no obligation of any kind whatsoever.

If you will sign your name below and send it to the American Radiator Company, 40 West 40th Street, New York, N. Y., we will send you particulars of our convenient plan by which you may have your home heated at a uniform temperature of 70° by an American Radiator Heating Unit at less than \$75 a month.

My name is _____ My Address is _____
My Wedding Day is _____

BEAUTIFULLY executed in four colors by a foremost artist, the advertisement shown above will appear during June in the Saturday Evening Post, Ladies' Home Journal, Cosmopolitan, Country Gentleman, American Home, Your Home, Harpers' Bazar and Arts and Decorations.

Part of our national advertising program to promote home ownership and the building of better homes.

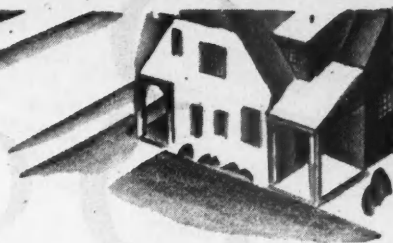
AMERICAN RADIATOR

40 WEST 40TH STREET, NEW YORK CITY

FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

SPECIALTIES *for Quick Sales and PROFITS*

g America



BACK HOME

Four walls and a roof may make a house, but American Radiator equipment makes a home.

And *Homes*—are what America needs today.

An American Radiator Heating Plant costs but little more to purchase than any old-fashioned type of equipment but—

It adds 2 to 3 times its initial cost to the resale value of a home.

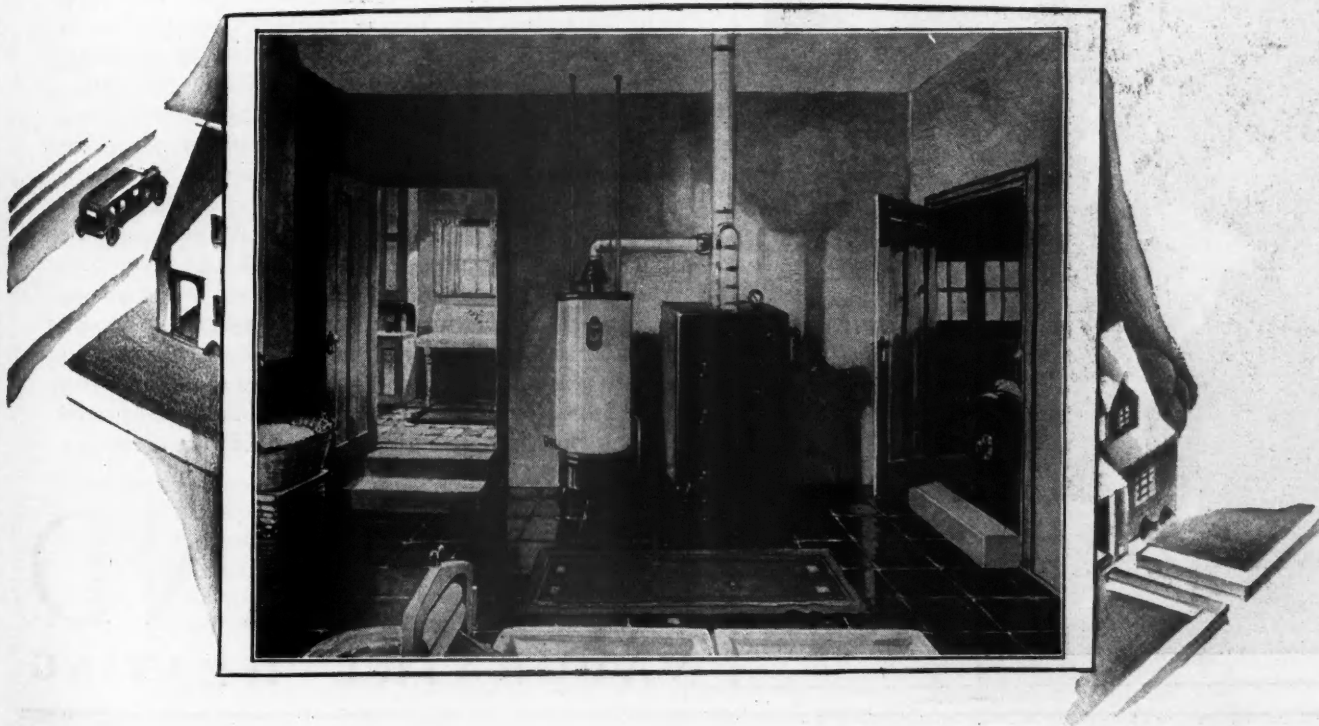
It sells homes faster.

It makes comfortable, happy home-owners.

It means better homes and therefore more homes.

American Radiator Products are known the world over—backed yearly by a one million dollar advertising campaign.

Our engineering service is free. We would deem it a privilege to help you on any heating problem.



COMPANY

Branches Everywhere

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

3 out of 4 Hollands replace heating systems that have failed



THOUSANDS of home owners find their heating bargains are bad ones after a few winters. In one city alone more than \$100,000 worth of modern Holland Vaporaire installations were made last spring in homes less than five years old. A heating system should be a lifetime investment for the home owner—a convincing sales point and everlasting advertisement for the builder. Holland Vaporaire Heating is the permanent solution of the home-heating problem. Home buyers everywhere know this. They want the comfort, satisfaction and economy that this system alone provides. Here is one of the greatest single sales factors a builder can use. It will help you reduce selling costs, increase profits and sell more homes. Every Holland is installed under direct factory supervision and backed by a written bond that protects both you and the home buyer. Get the facts. Have a Holland man call. Learn how Holland co-operates with builders and helps them sell more homes

HOLLAND

VAPORAIRE HEATING

USE THIS **COUPON**

HOLLAND MEN KNOW WHO PLANS TO
BUILD OR BUY IN YOUR COMMUNITY.

Get the facts. There's no obligation.



HOLLAND FURNACE COMPANY, HOLLAND, MICH.

Without obligation on my part, please
☐ Have a Holland man call

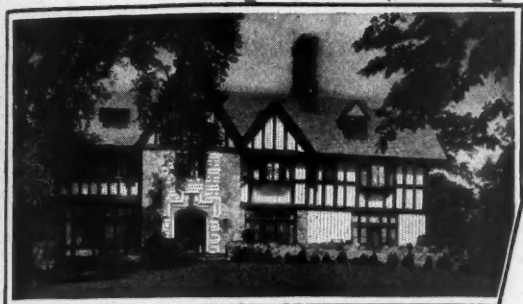
☐ Send me literature

Name _____ Address _____
City _____ State _____

Ad-1

SPECIALTIES for Quick Sales and PROFITS

"Out" with Garbage Wagons



Sidney H. Sonn's Kernerator-equipped residence, at "Sunny Ridge" Harrison, N. Y. Julius Gregory, Arch.

H. & S. SONN, INC.
REAL ESTATE
342 MADISON AVENUE
NEW YORK

August 31, 1927

Kerner Incinerator Co.,
Milwaukee, Wis.

Gentlemen:

We installed ten Kernerators in the houses which we constructed at Sunny Ridge, in the Harrison-Rye district, Westchester County. We find that the installation of the Kernerator has assisted in the sale of our houses and that prospective purchasers uniformly comment upon the advantage of its installation. We have had no complaints whatever as to their operation.

Yours very truly,

Sidney H. Sonn
SHS:HOS

"In" with Easier Sales!

**H. & S. Sonn, Inc., Prove it with
TEN Kernerator-Equipped Homes**

H. & S. SONN, INC., salesmen show Sunny Ridge home prospects a clean backyard—forever free of the unsightly garbage can and foul odors of decaying waste.

They walk prospects to a clean basement that is clear of the dangers of the rubbish pile, cause of 75% of residence fires.

They stop the housewife in the kitchen—and there, often but an arm's length from the sink—is the handy Kernerator hopper door into which all garbage and household rubbish is simply dropped and then forgotten. They talk of having installed Kernerators in ten Sunny Ridge homes with only words of praise for their convenience and sanitation.

Little wonder that H. & S. Sonn can write: "We find that the installation of the Kernerator has assisted in the sale of our houses."

Put the Kernerator on Your Sales Force

If chimney location will not permit use of the Chimney-Fed Kernerator with hopper door on floor above in or near the kitchen, then choose the Basement-Fed Kernerator. The cost is but little more than the portable gas-fired incinerator of half the capacity. The savings in gas pay for it in a few years' time. Chimney or Basement-Fed 5 or 6 Room Residence Model \$90. Masonry about \$50 additional.

Write for complete information and prices or phone nearest representative. Offices in over 100 cities.

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

KERNERATOR
REG. U.S. PAT. OFF.
INCINERATION

**Garbage and Waste Disposal
for New and Existing Buildings**

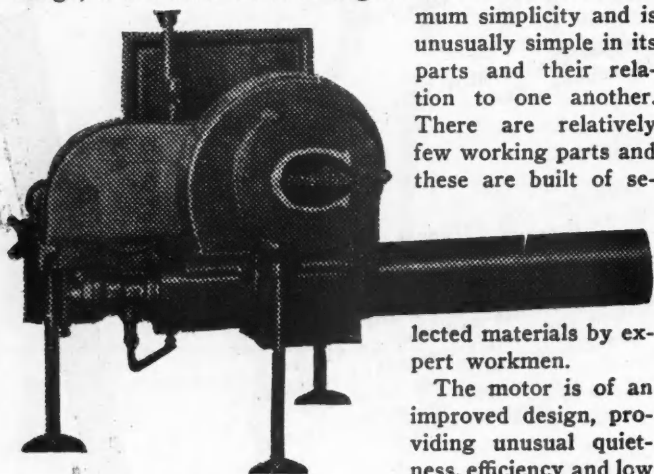
32

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



Oil Burner for Medium Sized Homes

A DEMAND from owners of medium sized homes for a small, quiet and efficient oil burner resulted in the development of the burner shown here. It is simple, compact and sturdy and embodies all the essential features of the larger burners with many additional ones of late design, it is stated. It was designed with the idea of maxi-



This Oil Burner Affords Quiet Efficient Heating for Medium Sized Homes.

mum simplicity and is unusually simple in its parts and their relation to one another. There are relatively few working parts and these are built of se-

lected materials by expert workmen.

The motor is of an improved design, providing unusual quietness, efficiency and low current consumption. The motor is the only part of the unit which requires oiling and the

lubrication is of the latest type, wool packed, requiring oiling several times only during the heating season. Air is supplied by a balanced, noiseless fan with a provision for adjustable volume. A sturdy type of pump operates at low speed to insure quietness and long life. Oil is drawn from the storage tank and is delivered direct to the nozzle. Surplus oil is again returned to the tank.

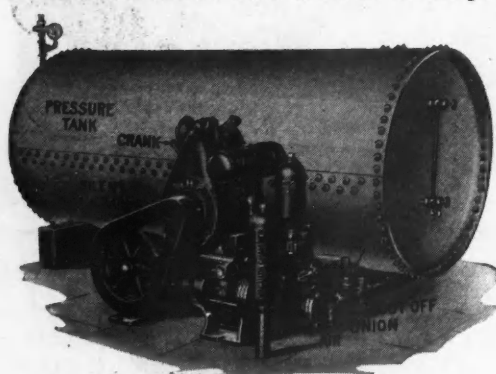
A strainer in the suction line and an additional screen in the firing head insure freedom from service and make cleaning an infrequent necessity. The electric ignition is designed to pass the most rigid test demanded by the Underwriters Laboratories. The burner takes care of a maximum of 1,500 feet of steam or 2,500 feet of hot water radiation.



Engine Powered Water Systems

A NEW line of water systems has been placed on the market. These new units are designed to enable those living in small towns and villages and in suburban and rural districts, where electric current is not available, to have dependable water service at moderate cost. As will be seen from the illustration, which shows one of this line of units, they are as compact and simple as those operated by electric motors.

The engines on both the shallow and deep well systems are mounted on the head or frame of the pump, the engine



One of a New Line of Shallow and Deep Well Water Systems for Use Where Electricity Is Not Available.

rails being identical with those regularly used for this company's electric motor systems. This will permit of substituting an electric motor for the engine, should electric current

become available later on and it is desired to make the change.

After many tests and experiments, the manufacturers have adopted a dependable line of high class engines, in $\frac{1}{2}$ and $\frac{3}{4}$ horsepower sizes, to be used with these systems. The pumps in both the shallow well and deep well styles are the same, in every respect, as the company's motor driven pumps and are designed for service with either open or pressure tanks.

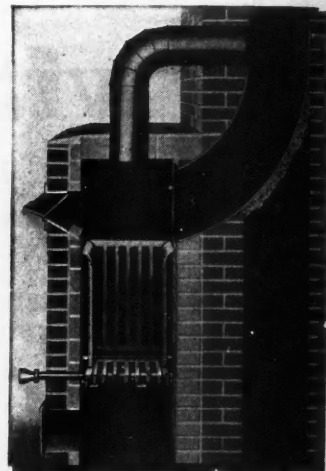
With the use of engines instead of motors it is impossible to have complete automatic control. The engine must be started by hand or foot, but, through the use of a circuit breaker, it can be easily arranged to stop automatically, thus making it semi-automatic. The engine is easy to start. Merely stepping on the starting pedal starts the engine. These pumps can be used with any style of pressure tank of 300 gallons capacity or over. Shallow and deep well units with capacities up to 500 gallons an hour can be supplied.



Incinerator Meets a Real Need

PEOPLE are demanding incinerators today as the most modern and sanitary method of garbage and refuse disposal. One manufacturer states that incinerators "are as necessary for complete sanitation as the bath room; as necessary for convenience as the laundry; as necessary for comfort as the heating plant." They are a lasting investment, the value remains in the property where they are installed and automatically increases its sale and rental value.

Three styles of incinerator, one of which is illustrated here, are made by this company for installation in homes, apartments, hotels and institutions. One style is a basement fed type designed for installation in new buildings, being built directly under the heating plant flue in the foundation wall. Another style is a basement fed type designed for existing buildings and for installation outward from or adjacent to that part of the



The Chimney Fed Incinerator Is Designed for New Houses but Can Also Be Used in Existing Buildings.

foundation wall where the heating plant flue is located. The third style is a chimney fed type with feed door located in the kitchen. It is primarily intended for new buildings, but can often be installed in existing buildings.

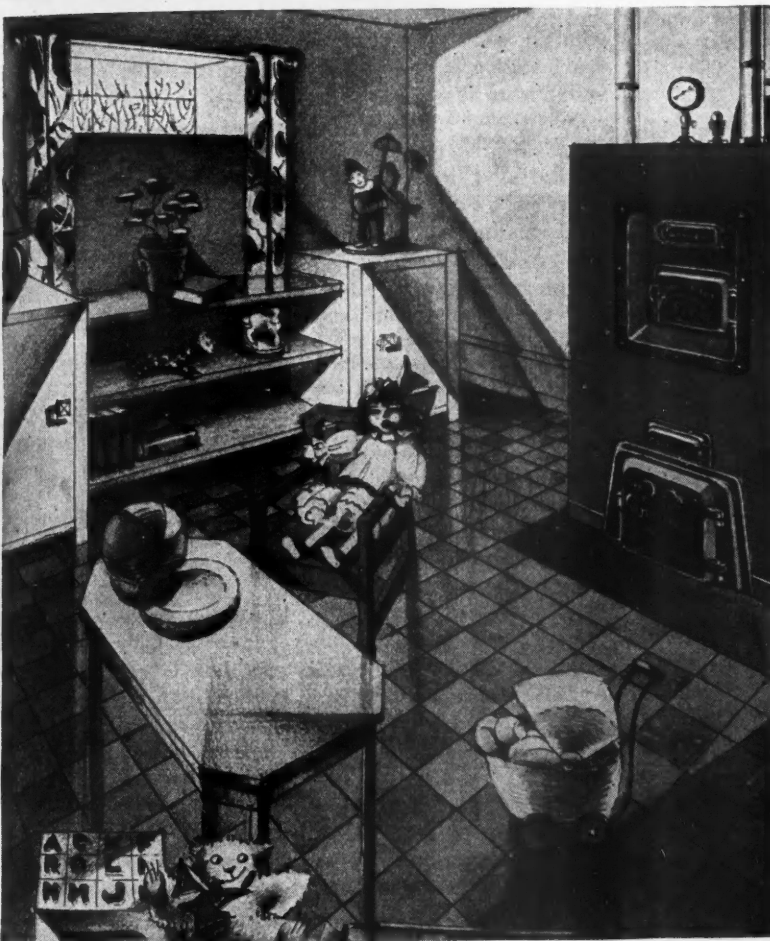
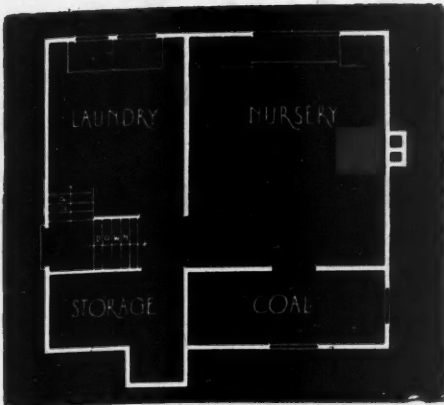
All of these incinerators are built on the unit plan so that larger sizes are secured by merely adding one or more sections. In the design of these incinerators, great care has been exercised to provide dependability and simplicity, it is stated. The dimensions of these incinerators are based on the size of brick and therefore require minimum labor for installation. Complete installation and assembly drawings are furnished with each unit. They are also furnished with a gas burning attachment at a small additional cost.



"Scientific Control of Daylight and Ventilation" is a book published by the Western Venetian Blind Co., 2700 Long Beach Ave., Los Angeles, Calif., which illustrates the use of Western Venetian blinds.

•most important•

*in every home
you build!*



The New Thatcher "Elite" Boiler and its modern setting

You will be interested in obtaining a copy of the handsome new booklet, "Modern Cellar Designs," containing practical designs for modern cellars—with

floor plans which suggest attractive settings for the modern boiler—the Thatcher "Elite" with its mandarin red jacket. It is Free! Write

THE THATCHER COMPANY, 39-41 St. Francis St., Newark, N. J.
New York: 21 West 44th St. Chicago: 341 No. Clark St.

THATCHER

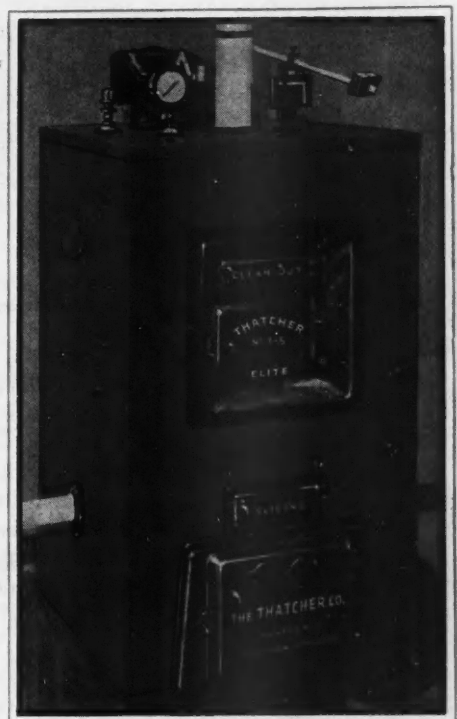
Boilers • Radiators • Furnaces • Ranges

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

THE heating plant and its place in the modern "livable" cellar is commanding greater interest among home seekers. You can profit—sell homes quicker—meet the exacting requirements of your prospects by providing your homes with this modern heating plant—the Thatcher "Elite" enamel jacketed boiler.

It was especially designed for modern cellars. That accounts for its bright, cheerful appearance—dust-proof construction and adaptability for use with an oil burner.

Its characteristic Thatcher "Staggered Fire Travel" flue and dome feature provides desired economy with instant response and tremendous heating capacity. Conservative ratings insure ample heat in every room in cold weather. You don't have to force it—not even cold mornings when quick response is essential. Get full facts. Write today for folder detailing all features of the "Elite" boiler.



WHAT'S NEW

for the KITCHEN

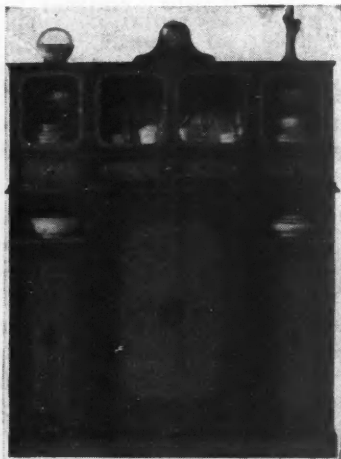
up-to-date Salable Specialties

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

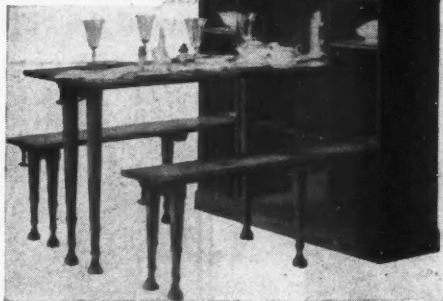
Breakfast Nook and China Cabinet

FOR equipping the kitchen or breakfast nook, the unit shown here should make a strong appeal to builders who have in mind the production of houses that will appeal to the prospective home owner as well equipped homes. This unit can be installed either against the wall or built into the wall as preferred. As may be readily seen, it consists of a folding table and benches with drawers and a china cabinet in the upper part of the cabinet. It is supplied either with or without the upper drawer and china cabinet section, as desired.

The table and benches are unusually rigid when open. Though they are



hinged, there is no weight on the hinges when in use. The unit is made in two models which are identical except for size. In one the table top measures 30 by 48 inches and the all-over width is 50½ inches. In the other the table top is 30 by 48 inches and the all-over width 56½ inches. The height is 59½ inches and the depth 13 inches in both models. A surprising amount of useful space is provided in this unit. The china cabinet alone will accommodate a complete set of dishes and glassware, while the drawers provide space for cutlery, linens and silverware. The space above the table and benches may be used for electrical appliances such as a toaster, percolator and grill. Additional utensils may be placed below and are concealed from view when the case is closed.

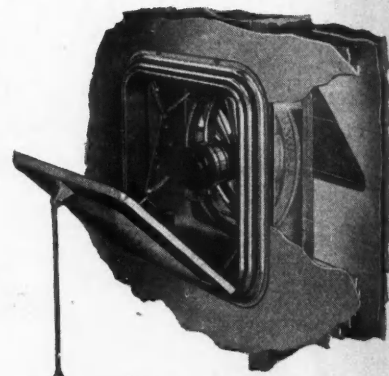


A Type of Unit Which Helps to Produce a Well Equipped Modern Home.

These units are made of selected, quartered gumwood with a built-up table top. They may be had either unfinished, or with mahogany, walnut or colored lacquer finish.

Built-In Ventilating Wall Box

THE status of home ventilation has so changed in the last three or four years, due to better understanding of its importance, that today it is recognized as a health, comfort, social and economic necessity. With a ventilating fan installed in the kitchen the housewife or cook will not suffer from the heat which ordinarily saps the strength and ruins the disposition. Cooking, ironing and other kitchen duties become pleasures instead of tasks. Kitchen odors, greasy steam and smoke are removed quickly from the kitchen, saving embarrassment and annoyance to a hostess and preventing the soiling of furniture, draperies and walls.



This Wall Box Ventilating Fan Is Adjustable to Walls of Any Thickness.

In the new and greatly improved design of the box illustrated the louver doors are made from a single piece of heavy gauge steel, die shaped, very rigid and strong. The telescopic box is made to fit walls of any thickness from 5¾ to 16 inches, and only one pair of rods need be adjusted to fit the box to the wall.

It is practical to use this box in walls as thin as 5¾ inches only because of the compact design of the 12-inch fan used in the box. This fan has blades set at just the right angle to handle a large volume of air at comparatively low speed, thus assuring quiet operation. The motor is fully enclosed and requires lubrication only twice a year.

The louver doors are operated by a lever in the inside door of the box, which also starts and stops the fan. The leverage operating these two louvers is so arranged that a constant tension is maintained, and when the louvers are closed, they are air-tight and rattle-proof. In cold weather the louvers keep the cold out when the fan is not in operation and, due to the double shutter construction, frost does not form inside the box.



"Modern Concrete Reinforcement," is the title of a 32 page book published by the Concrete Steel Co., 42 Broadway, New York. This book is a practical manual for architects and builders on concrete reinforcement and economical methods and materials for placing, supporting, spacing and holding reinforcement in concrete structures.

The Delco Light Co., Dayton, Ohio, has published three pamphlets on its automatic water systems which illustrate various models of home water supply equipment.



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



Model Home in a large Chicago department store where the ILGAIR Ventilator was one of the outstanding kitchen features.



Another typical installation of the built-in ILGAIR Electric Ventilator featured in a model home.

Make the Kitchen a Joy Spot

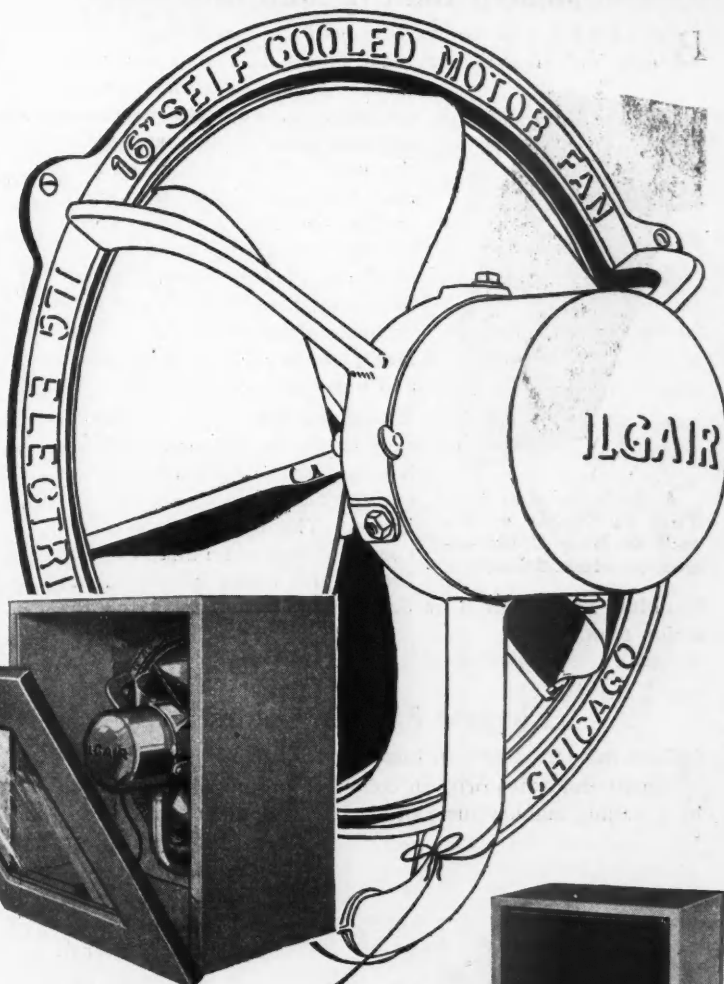
Ventilate it with an ILGAIR Electric Ventilator

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

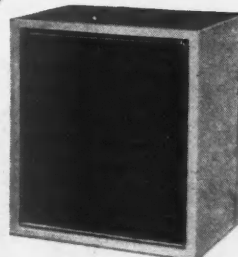
No other electrical convenience will add so much to the sales and rental values of a home as a built-in ILGAIR Ventilator — a quiet running exhaust fan that removes excessive heat, objectionable cooking odors and greasy fumes. The change it makes in the atmosphere is delightful. It's a joy to work in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

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

We urge every builder of modern homes to send for the new ILGAIR bulletin. It pictures and describes this equipment in detail including data, charts, photographic illustrations and installation suggestions and instructions. Ask for this new bulletin and a copy of our 32 page condensed catalog — clip, sign and mail the coupon — NOW.



View of built-in ILGAIR showing door open. When the door is opened the Ventilator starts; close the door and it stops.



Exterior view of the built-in ILGAIR Electric Ventilator. It is furnished complete ready to install.

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

THE ONLY
VENTILATING
FAN MADE
WITH A FULLY
ENCLOSED
SELF-COOLED
MOTOR



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

Ventilation

COUPON

Without obligation send me your new built-in Ilgair Bulletin and 32 page illustrated book. I am interested in correct ventilation as applied to the subject checked.

Name _____

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WHAT'S NEW for the LIVING ROOMS *These Specialties Attract~*

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Modern Built-In Mail Box

BUILDERS and contractors will be interested in this new built-in mail box made to sell at a very moderate price. The illustration shows the appearance of the new box and also how it is installed in the wall. This style of built-in mail box appeals to the home owner because it saves going outdoors in stormy weather. At all times it protects valuable mail from inspection or theft and also prevents damage by rain. The face plate is wind and rainproof and never gets out of order.

A Built-In Mail Box That Is Simple to Install in New Construction or Remodeling.

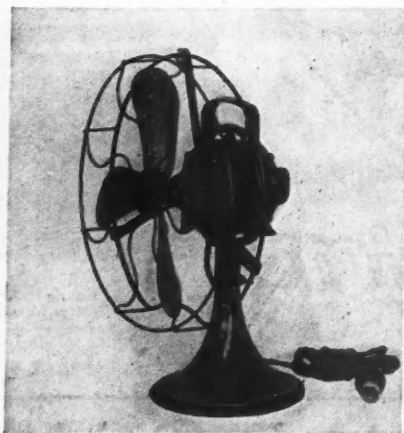
in either natural birch or oak to be finished to match the inside trim.



The installation is a simple, easy matter in new or remodeled houses and once installed, the mail box will last as long as the house. The outside face plates come in cast aluminum or cast bronze and inside cabinet doors

Electric Fans in Colors

THE modern trend in home and business toward equipment and accessories in color has prompted the offering by a leading manufacturer of electric equipment in six different beautiful colors.



These Electric Fans Are Now Available in a Variety of Attractive Colors.

ivory. The blades on all six-inch colored fans are old ivory

Blades are of a slightly lighter shade than the base, body and guard. The standard forest green model is carried in stock and furnished at no additional cost.

The six-inch fan may be had in old ivory, azure blue, forest green, orchid, fern green, or coral pink. All other models are furnished in Mediterranean blue, fawn, jade green, forest green, colonial ivory, and black and

in color, while those on the larger fans are a slightly lighter shade than the base, body and guard.

New Use for Disappearing Stair

THE disappearing stairway, which has already established itself as an important piece of equipment in the modern small home, making attic space available without sacrificing floor space for stairs, has now taken on a new function. The home owner no longer looks upon his garage as a place to store "junk." He is not satisfied to wedge his car in between the lawn mower and garden hose. Yet there is no other place where he can find suitable storage space for garden tools, screens, awnings and various odds and ends that commonly litter up the garage floor. This problem is now being solved by utilizing the driest space in the garage, the space between the ceiling joists and the rafters. With the aid of the handy disappearing stairs this valuable space need no longer go to waste.

A company already well known for the stairs which it manufactures offers a balanced, disappearing stair, at a popular price which can be installed in the garage ceiling and, when not in use, rests on top of the ceiling joists entirely out of sight and out of the way. This stair permits ready access to the space above and the articles stored there.

This stair is also used extensively in homes and its construction is such that it will harmonize with the more expensive furnishings of the home. It is strong and sturdy and so balanced that it can be dropped into position for use or pushed up out of the way easily by any member of the family. It is made in a number of sizes to fit any floor to ceiling height, and requires only a small space for operation.

The Richards-Wilcox Mfg. Co., of Aurora, Ill., offers a new catalog No. 50, "Over Way Conveying Equipment," which is handsomely illustrated and covers this complete line of equipment.



Equally Appropriate for the Home or the Garage Is This Disappearing Stair.

It's that "Something Different" Which Sells Houses Today

*Period Reproductions by Curtis
Help You Sell Faster, Rent Quicker*

MODERN home-seekers, whether looking for houses or apartments, demand "something different" in appointments and decorations—something to distinguish their homes from the tiring sameness seen in hundreds of American houses.

Let these beautiful period reproductions in woodwork by Curtis give your houses that added touch which makes faster sales—quicker rentals. You'll find a charming doorway to grace the entrance, stairwork of traditional beauty

for the hall, or perhaps an exquisite mantel rich in historical memories for the living room.

Whatever you select, the Curtis name assures you absolute faithfulness in design even to the smallest details. The English mantel pictured here is but one example. Doors, windows, frames, stairwork, porchwork and trim are other items equally authentic which can be obtained from any Curtis dealer.

And remember this: Curtis protects you and the purchaser of your house by making

these reproductions in limited quantities only — yet Curtis facilities make it possible to produce them at a cost to you no greater than that of ordinary woodwork.

The leading dealer in woodwork in your town (if you live East of the Rockies) is probably the Curtis dealer. Let him tell you about the Curtis line of period pieces. Mail in the coupon below for free descriptive literature of the Curtis mantels and other reproductions.

Visit Curtis Woodwork, Inc., Display Rooms and Sales Office, Room 201, 9 East 41st Street, New York City. Chicago Display Rooms, Curtis Door & Sash Co., 1414 South Western Avenue, Chicago, Illinois.

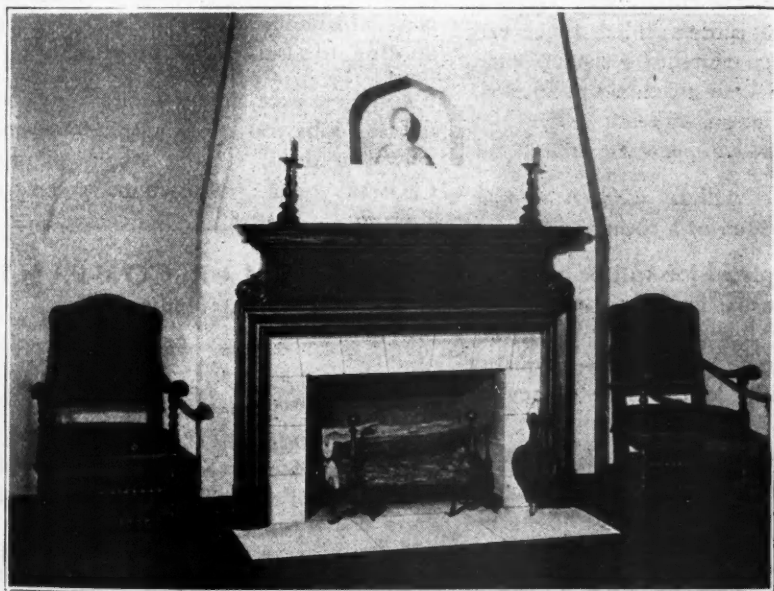
*The Curtis Companies Service Bureau
932 Curtis Building, Clinton, Iowa*

Representing

Curtis Companies, Inc., Clinton, Ia.; Curtis Bros. & Co., Clinton, Ia.; Curtis & Yale Co., Wausau, Wis.; Curtis Sash & Door Co., Sioux City, Ia.; Curtis, Towle & Paine Co., Lincoln, Nebr.; Curtis Door & Sash Co., Chicago, Ill.; Curtis-Yale-Purvis Co., Minneapolis, Minn.; and Curtis, Towle & Paine Co., Topeka, Kansas.

1866
CURTIS
WOODWORK

This trade-mark appears only on Curtis Woodwork and no item of woodwork that does not bear this mark is genuine Curtis Woodwork. For your own protection, be sure this mark is on each piece.



A Note of Character In Any Living Room

Nothing attracts the eye of a woman more than an unusual mantel in the living room. This English mantel, created by Curtis, will give a note of character to any living room. Although English in origin, the mantel pictured here is so closely related to Early American architecture that it may be readily adapted to almost any type of home. It is available in both oak and white pine. In painstaking craftsmanship and minute faithfulness of reproduction, it

is typical of the many Curtis historical pieces.

Other reproductions of famous historical pieces of woodwork included in the Curtis line are: mantels from the Webb house, 1752, and the Vernon House, 1758; stairwork from the Burlington County Court House, 1796, the William Judson house, 1723, and the George Reed II house, 1791; also mantels, entrances, and stairwork drawn from English inspiration.

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

THE CURTIS COMPANIES SERVICE BUREAU,
932 Curtis Building, Clinton, Iowa

Please send me *free* literature describing the new Curtis mantels and other reproductions.

Name

Address

City State

SPECIALTIES for Quick Sales and PROFITS



*You can get a new home ready
for occupancy two weeks earlier
when you lay CROMAR OAK FLOORS*



CROMAR is made from Appalachian White Oak only.

This slow-growing, medium-textured oak gives you better grain and figure than the very hard-textured stock. It also takes the finish better and HOLDS it better.

Here's the reason . . . CROMAR
Floors are ready to use
when nailed down!

CROMAR Factory Finished Oak Flooring is the only wood-flooring in the world which is COMPLETELY FINISHED before it is shipped from the mill. Every CROMAR strip is scraped, sanded, filled, twice varnished, and even treated to resist moisture. Ingenious, powerful machines perform all of those operations. *There's nothing left for you to do but nail down the strips!*

Two carpenters will lay a CROMAR Oak Floor at the speed of a room a day.

And the completed job will be more perfect than the usual hand-finished floor—in the laying because of an improved, simplified tongue and groove—in quality of the finishing job because of several

obvious reasons and some not so obvious which our booklets explain.

The completely finished strips of CROMAR reach you *crated*—with no faces or edges exposed—damage-proof.

And there's one other feature which will save you annoyance and expense when you use CROMAR: You are depending upon ONE company—a big, responsible, national advertiser—for the quality of the flooring, the finish AND the finishing.

If you have ever sub-let many hardwood flooring jobs you know what *that* means. And you don't sub-let when you use CROMAR; you use your own men and make a profit on them.

THE CROMAR COMPANY
WILLIAMSPORT, PA.

Pacific Greater West Distributor:
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Offices and Warehouses

200 Davis Street, San Francisco, Calif.
324 N. San Pedro St., Los Angeles, Calif.

CROMAR
Oak **FACTORY FINISHED FLOORING**



Write for free samples and complete literature concerning the manufacture, the selling and laying of the only Factory Finished hardwood flooring in the world.



The Pick o' the Pines carries its own indorsement



You remember how difficult it was, a few years ago, to be sure you got the pine you specified. With plumbing, heating, and electrical equipment, the job was simple. You knew the maker's name. You knew the sign he adopted as a means of identification. But lumber was another matter.

Pondosa Pine has changed all that. Now the pine tree is imprinted right on the end grain of the lumber. A quick means of identification, it establishes a definite guarantee of quality. It means that the lumber has been carefully manufactured, seasoned, and graded under standard rules at an association mill. In a word, the Pondosa trade-mark enables you to know Pondosa Pine at a glance. Pondosa advertising in national publications is acquainting home owners with the virtues of this good wood.

Pondosa Pine is particularly well suited for bookshelves and other built-in features because it is readily workable, stays put, and takes nails and screws without showing any tendency to split. It forms a perfect base for lacquer and enamel, and due to its light color, requires fewer coats.

Wherever a softwood is needed, use Pondosa Pine. For interior trim. For closets, breakfast nooks, and bookshelves. Mouldings of all kinds. Also exterior trim, siding, entrances. . . . You know WHAT to buy, and the pine tree tells you HOW to buy. Your local lumber dealer can supply you with this good lumber. See him today. Western Pine Manufacturers Association, Portland, Oregon.

Pondosa Pine 
The Pick o' the Pines

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

WHAT'S NEW

for BED-ROOM and BATH

Specialties of Greater Sales Value

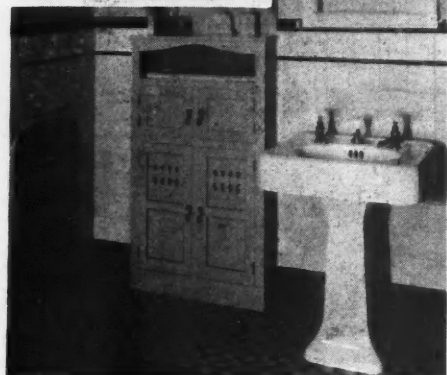
For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Handy Bathroom Furniture

TWO notable additions to modern bathroom equipment are pictured in the accompanying illustrations, a disappearing wall seat and a bathroom dresser. Both of these are well made of white pine and are shipped unfinished, to be finished in harmony with the rest of the bathroom.



The disappearing wall seat fills a real bathroom need. A seat of some kind is a great convenience, if not a necessity in the bathroom, but a chair in the bathroom is always in the way when not in use, something to stumble over in the dark and something to be moved about when cleaning. This seat serves every purpose of a chair, is always handy when you need it, but is out of the way and out of sight when not in use. A mere flip closes into the wall.



A Built-In Disappearing Seat and Built-In Dresser Make a Well Equipped Bathroom.

high. Its over-all size is 18½ inches wide by 31½ inches high and the seat measures 12 inches wide by 14 inches deep. It is of white pine with three-ply fir in the panel and back. It is furnished complete with casing and all hardware. To install it is only necessary to secure the cabinet in the rough opening.

Its over-all size is 26 inches wide by 54 inches high by 11 inches deep. It can be built either against or into the wall. In the latter case it occupies a floor space only 26 inches by 6¼ inches. For building into the wall it requires a rough opening 26¼ by 54¼ inches. It is furnished complete with nickel plated hardware.



Tile Effect Wall Finish

ONE of the most recently developed materials for treating the walls of bathrooms, and of kitchens as well, is a thin sheet of zinc with a baked enamel finish, closely resembling clay tile in appearance. This is an American product, similar in some respects to a European product

developed a number of years ago, but differing from it in other respects. It has a hard lustrous surface and, at the same time, affords a degree of flexibility. Its cost is said to be close enough to that of plaster, finished like tile, to justify its use in apartment buildings and moderate priced homes.

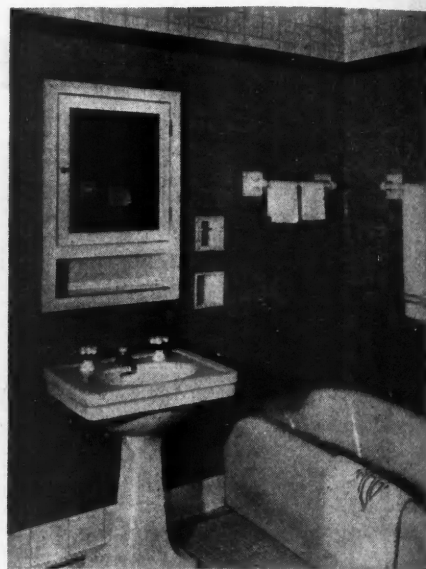
These sheets, which measure 16 by 24 inches, are applied much as wall paper is applied, using a special putty cement. They can be applied to any smooth, porous surface after a priming coat of good lead paint has been used.



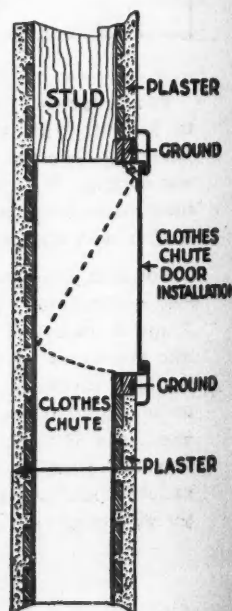
An All Steel Clothes Chute

A CLOTHES chute that is exceedingly simple and practical has been placed on the market. This clothes chute is no more than a plain enameled steel door, which can be finished to match the room after installation. It carries no hardware, lock, or hinges within sight; it is self-opening, and self-closing to a tight fit so that draughts cannot escape through it.

Clothes destined for the wash tub are merely pushed inward through the door, which "gives" from the bottom at light pressure. The door opens into a steel shaft, fitted between the wall studs, which descends to the basement and carries the clothes to the laundry basket or whatever receptacle is provided. The door is closed firmly but lightly by a spring. Being made of steel, the door cannot warp, stick, or gap open. There are no exposed rivets or impediments of any kind to catch and tear garments or linen.



The Walls of This Bathroom Are Covered with Thin Sheets of Zinc Enameled in Tile Effect.



A Steel Shaft Fitted Between the Studs and an Enameled Steel Door, a Practical Clothes Chute.

2 Beautiful new designs in

MORTON

MEDICINE CABINETS

NEW Style—New Etching—New Construction
... all are now available in the improved Venetian, Model F, Morton Medicine Cabinet, shown at the top of this page. New features include a piano type hinge with a special arrangement of the hinge and door which permits easy removal and replacement of door whenever necessary. A new cushion-type door renders the mirror virtually unbreakable. A beautiful cabinet, made in four standard sizes, four roomy shelves five in. deep, finest mirrors, artistic etching and metal rosettes, special bulb-edge plate glass shelves, steel construction throughout with white enamel permanently baked on.

The New Modernistic

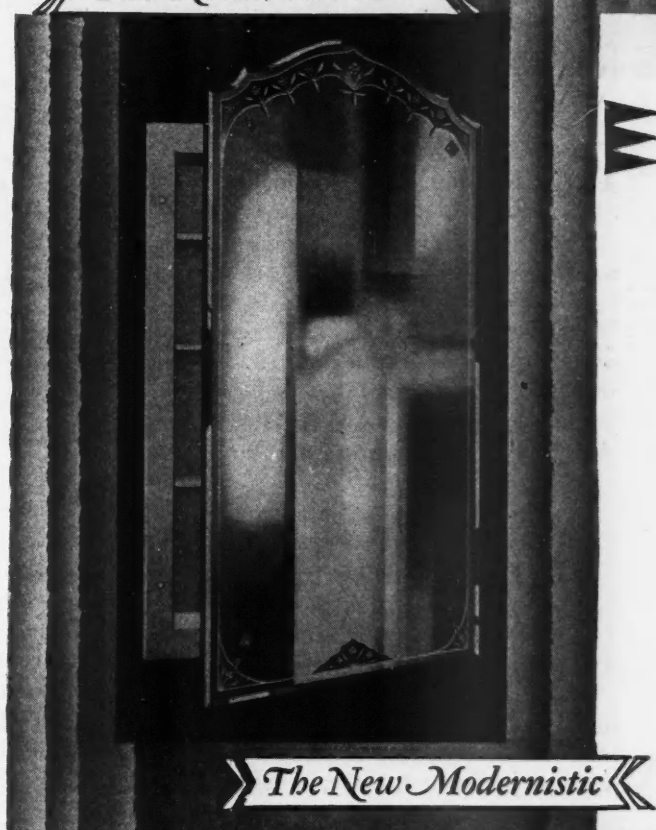
The new Modernistic model in Morton Medicine Cabinets meets the popular demand for color in the bathroom. The mirror is decorated in green and black, with silver flowers delicately interwoven in the designs at the top and bottom of the mirror. The graceful contour of the mirror, the beveled edge, the harmonious color scheme, the attractive yet inconspicuous metal rosettes, the large clear vision, all combine to make an exceptionally beautiful medicine cabinet for modern bathrooms. Available in four standard sizes at slight additional cost over the new Venetian.

Nationally Advertised

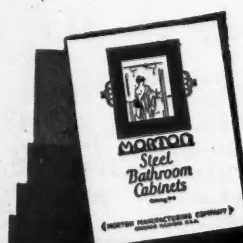
Morton Medicine Cabinets are widely advertised in such well known magazines as Saturday Evening Post, Literary Digest, American Magazine, Good Housekeeping and House and Garden. Morton Medicine Cabinets are made in 11 models, all reasonably priced. Shipped ready to install, "Out of the carton into the wall." Mail the coupon for FREE 24-page illustrated catalog.



The New Venetian



The New Modernistic



THIS
BEAUTIFUL
CATALOG
FREE
including
installation
details.
Mail the
coupon.

MORTON MANUFACTURING CO., 5190 West Lake St., Chicago, Ill.

Without obligation, please send me your latest catalog of Morton Medicine Cabinets.

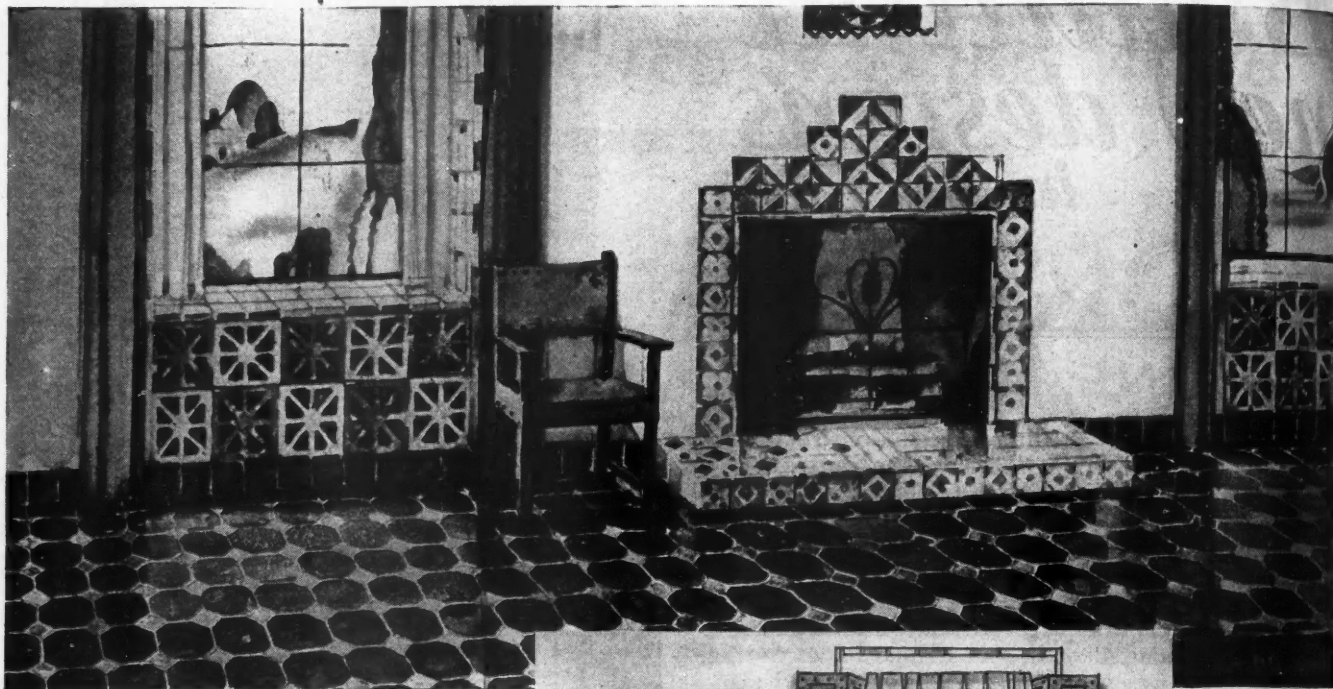
Name.....

Address.....

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

Please Check: Architect ☐ Builder ☐ Contractor ☐ Realtor ☐ Home Builder ☐

You can Sell the House **MORE QUICKLY** when you put these tiles in *additional rooms*



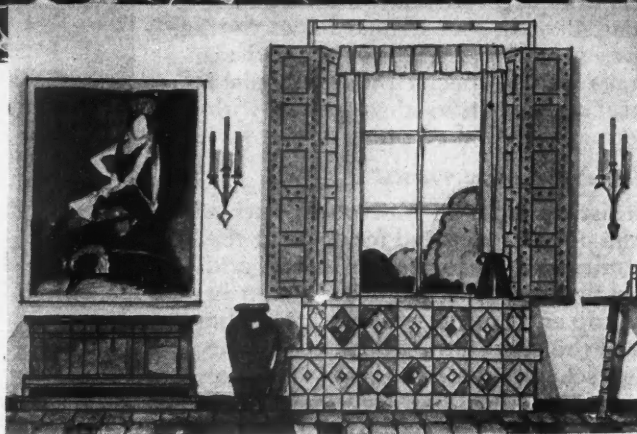
ROOMS that are finished in real tiles — Ceramic Tiles — influence the sale of more and more houses every day.

Every room finished this way makes an especially strong appeal to the prospective purchaser. For with Ceramic Tiles the rooms have been beautified, and made to endure, beyond the power of any other material.

Only Ceramic Tiles offer such freedom of design, such range of color, such variety of pattern.

And real tiles are instantly approved for quality. Ceramic Tiles always look right. They make the room easy to clean . . . easy to keep fresh and attractive. They endure, almost forever, lasting longer than the house itself.

The wide selection of Ceramic Tiles makes possible rooms of original design and rare charm. Tile-finished rooms are always in perfect taste, whether you



The floor of this living room is of unglazed red octagonal Ceramic Tiles with turquoise colored insets; radiator grills are of faience; the Spanish fireplace is of decorative tile.

A well designed window with tiled window seat done in decorative Ceramic Tiles

plan them for the apartment, the large dwelling or small home development.

Tiles give you the opportunity to make a *quick* profit. Use more of them. Finish not only bathrooms, but kitchens, dining rooms, sun porches and entrance halls, with this excellent material.

Your tiling contractor knows all about Ceramic Tiles. He will suggest wonderful ways to use them. Call him in *today*.



You derive the greatest benefit from Ceramic Tiles when the tiles are set by experts. Their skilled workmanship is instantly apparent. Select your tiling contractor on the quality of his work.

ASSOCIATED TILE MANUFACTURERS, INC., 420 Lexington Avenue, New York, N. Y.

ALHAMBRA TILE CO.
AMERICAN ENCAUSTIC TILING CO., Ltd.
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UNITED STATES ENCAUSTIC TILE WORKS
UNITED STATES QUARRY TILE CO.
WHEATLEY TILE & POTTERY CO.
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K E R A M I C T I L E S

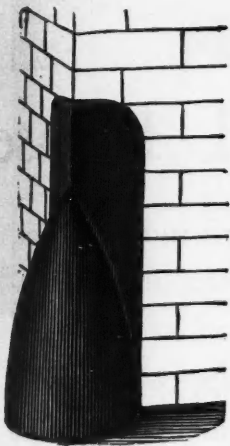
FOR ADVERTISERS' INDEX SEE NEXT TO LAST PAGE

WHAT'S NEW in BUILDING PRODUCTS for More Salable Construction

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Corner and Jamb Wheel Guards

THIS corner wheel guard is a cast iron protection for the corners of buildings adjoining driveways to deflect wheels and prevent the hubs from striking the masonry. It is heavy and substantial enough to withstand any shock and is bolted to the corner with two, $\frac{1}{2}$ by nine-inch bolts which are provided with each guard. It is made in three sizes, 22-inch, 30-inch and 60-inch, total height.



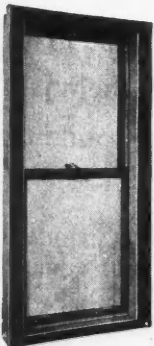
This Cast Iron Guard Protects the Corners of Buildings Adjoining Driveways.

A jamb wheel guard is also available which is similar to the corner guard but bolts against the flat surface of a door jamb. This guard is considered indispensable for garages, warehouses, terminals and similar buildings which vehicles enter. It does not diminish the effective width of the door but protects both the doorway and the vehicle. It is 22 inches high and has a projection of $8\frac{1}{2}$ inches. Two bolts are furnished with it for anchorage as with the corner guard.



New Double Hung Steel Window

A NEW, light weight double hung steel window for use in light industrial buildings, hospitals, office buildings, hotels, postoffices, banks and all types of monumental structures is announced by the manufacturers of a complete line of steel buildings and permanent building products.



A Double Hung Steel Window Offered at Moderate Cost.

The new window incorporates spring bronze weatherstripping on all sides and at the meeting rail, insuring positive weathertightness and a minimum of air filtration. It combines large glass area with light weight and the slender, graceful lines which characterize all steel windows.

The manufacturers state that its production in quantity from standardized copper alloy steel parts has resulted in an installed price comparing favorably with that of wood sash. Builders have approved the new window because of its ease and speed of installation. Stocks

are carried by dealers, supplemented by the manufacturers' nation-wide system of warehouses.

For Waterproofing and Bonding

THE accompanying illustration shows the bonding of new concrete to old concrete, by means of a new compound which also serves as a waterproofing material, in a test which proved the unusual strength of concrete bonded in this manner. Two pieces of old concrete hand rail were used. One piece was treated with this compound placed in a box form and filled with new concrete which also contained this compound.

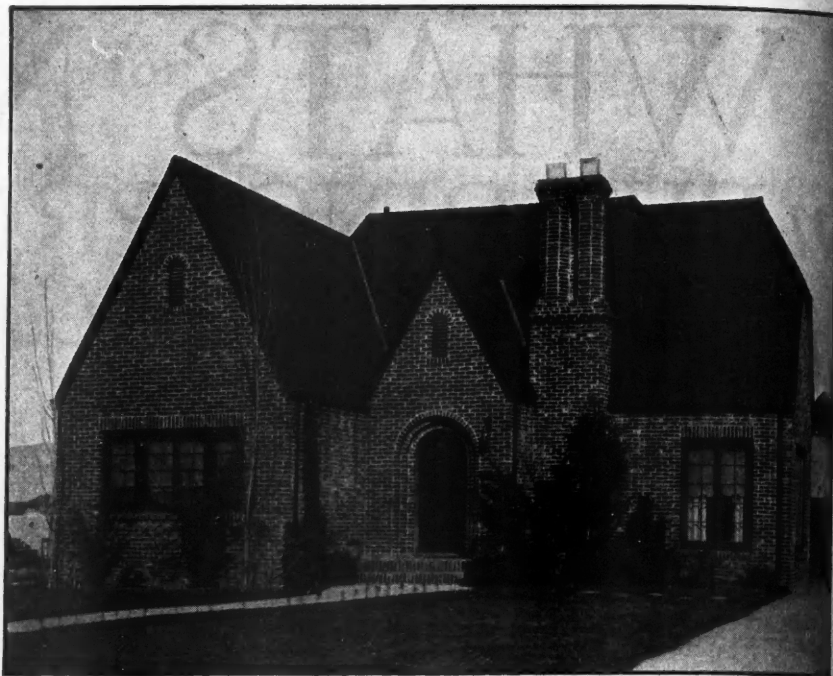
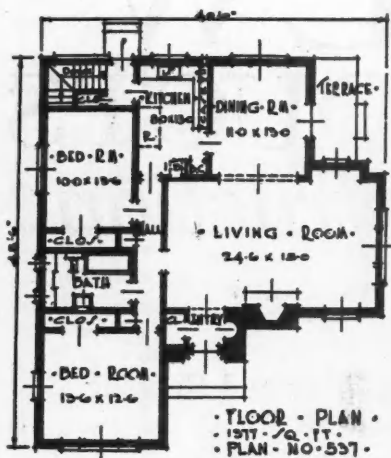
The other piece was treated the same way except that the compound was entirely omitted. After six weeks both blocks were tested under compression. The one without the compound fractured at the joint between the old and new concrete, it is stated. The one with the compound used broke at right angles with the joint, through both old and new concrete, as though it had been one original cast.

This compound is a chemical combination used for waterproofing, preserving and repairing concrete, stucco, brick, tile, stone and masonry construction of all kinds, old or



New Concrete Bonded to Old Concrete with This Compound Makes a Joint as Strong as the Original Cast.

new. It has, as its base, finely ground iron, while most of the chemicals are for the purpose of accelerating the complete oxidation of this iron. Mixed with water and applied with a brush, like paint, this compound fills the pores and voids of the treated surface and, within 10 to 15 hours, the oxidation of the iron takes place. In this chemical action or "rusting" the iron particles expand to two to $3\frac{1}{2}$ times their original size, completely closing the pores and forming a perfect seal, it is claimed.



An unusually well designed Small House

A WELL designed small house is rare indeed. Yet, here is one that in proportion, mass and decoration measures up to every standard of architectural beauty. The street elevation with its appealing circle head entrance, long windows and ornamental flues has a very distinctive attractiveness. The floor plan is a particularly happy one; combining, as it does, compactness with spacious rooms.

It will be an easy house for you to sell, and equally easy to build, for *complete* plans and specifications will be furnished from which to work. The charge for the plans is \$12.00, just enough to cover our cost.

There are many such houses in the booklets offered in the coupon below. Every builder should know them all, and we suggest you write for them before the building season starts.

BRICK

beauty forever

These District Association Offices and Brick Manufacturers Everywhere are at Your Service:

Boston - 11 Beacon Street
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 Denver - 1735 Stout Street
 Detroit - 400 U. S. Mortgage Trust Bldg.
 Hartford - 226 Pearl Street
 New York City - 1716 Grand Cent. Term.
 New Orleans, La. - 727 Canal Bank Building
 Norfolk - 112 West Plume Street
 Philadelphia - 1420 Walnut Street
 Pittsburgh - 524 Fourth Avenue
 Raleigh, N. C. - 508 Com. National Bank Bldg.
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COMMON BRICK MANUFACTURERS ASSOCIATION OF AMERICA
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Clip and Mail This TODAY

Without charge, please send me a copy of "Common Brick."

I am enclosing cash or stamps for the booklets checked.

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| <input type="checkbox"/> "Homes of Lasting Charm" 25c. | <input type="checkbox"/> "Spanish Book" 25c. |
| <input type="checkbox"/> "Beautiful Homes" (1 story) 25c. | <input type="checkbox"/> "Farm Homes of Brick" 5c. |
| <input type="checkbox"/> "Skintled Brickwork" 15c. | <input type="checkbox"/> "Brick, How to Build and Estimate" 25c. |
| <input type="checkbox"/> "The Heart of the Home (Fireplaces)" 25c. | |
| (Enclose \$1.40 if you want all the books) | |

SPECIALTIES for Quick Sales and PROFITS

NOW the contractor can prove his right to Confidence



This sign of CONFIDENCE
Identifies the
4-SQUARE DEALER

The 4-Square Dealer helps him with lumber of known and guaranteed quality

THERE has always been a lot of mystery about lumber—and where there's mystery, there's doubt. That is why men and women who build or buy a home are so often worried about the quality of the lumber—and usually inclined to keep their fingers crossed. It must be said, too, that some of the things a few contractors have done have not helped matters.

Now the reliable contractor can prove his right to confidence. He can use lumber that his customers *know*—lumber of *guaranteed* quality—lumber that carries the *species* mark and the *grade* mark on

every package where everyone can see it.

4-Square Lumber is proving to be the greatest *restorer* of confidence the building industry ever knew. So much so, in fact, that its use is rapidly becoming known as the sign of a reliable builder.

Progressive lumber dealers everywhere are hanging out the 4-Square sign. If yours is not yet ready to supply you, write us.

WEYERHAEUSER FOREST PRODUCTS
ST. PAUL, MINNESOTA

Weyerhaeuser Sales Co., Distributors, Spokane, Washington.
District Offices: Minneapolis, Kansas City, Chicago, Toledo,
Pittsburgh, Philadelphia, New York

4 SQUARE LUMBER

Species and Grade are Marked and Guaranteed

TRIMMED SQUARE.. PACKAGED.. READY TO USE.. GUARANTEED

SOLD BY 4 SQUARE DEALERS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Balsam-Wool

Blanket

- it tucks
in !

Your customers will thank you for recommending this "extra"

BECAUSE it saves heat and conserves fuel, house insulation is welcomed by home builders and home buyers. If true insulation is used the savings will quickly repay the cost, provide greatest comfort and assure a higher re-sale value.

Balsam-Wool is true insulation — made for no other purpose. Basic construction is not changed in the slightest. It is added to walls and roofs to make a house heat-tight. It seals the heat in — seals the cold out.

Balsam-Wool is not to be confused with rigid types of insulation. It is flexible — a light, thick, woolly blanket of wood fibre that tucks into corners and crevices and moulds snugly into spaces between joists, studding and rafters. A full inch blanketing is an essential part of the complete heating system, repaying all, or at least a large part of its cost by a reduction of 25% in necessary radiation.

It will be to your advantage to use Balsam-Wool in houses you build to sell. And customers will thank you for recommending this "extra" on contract jobs.

Ask your lumber dealer about Balsam-Wool. If he cannot supply you, write us. We will tell you of reliable dealers who can furnish it.

WOOD CONVERSION COMPANY
CLOQUET, MINNESOTA

Makers of Balsam-Wool, the Flexible Insulating Blanket. Also Makers of Nu-Wood—the All Wood Insulating Wall Board and Lath

Sales Offices: New York, 101 Park Ave.—Detroit, 515 Stephenson Bldg.—Chicago, 360 N. Michigan Ave.—Minneapolis, Baker Bldg.—Kansas City, 231 W. 47th St.—Seattle, 621 Liggett Bldg.

SOLD THROUGH RETAIL LUMBER DEALERS

Balsam-Wool is a guaranteed Weyerhaeuser product—a blanket of fluffy wood fibre that looks and acts like sheep's wool. It is TRUE Insulation—keeping the house warm in winter and cool in summer—because it is—

**FLEXIBLE-THICK
EFFICIENT
WINDPROOF
WATERPROOF
FIRE RESISTANT
VERMIN PROOF
LIGHT WEIGHT
PERMANENT**

SPECIALTIES for Quick Sales and PROFITS

Fenestra solves the screening problem

with the first steel
casement built complete
with screens



See how easily Fenestra swing leaves are opened or closed through the screens which need not be touched.



Screens are easily removed or replaced.

IT'S no longer necessary to buy steel casements and metal screens separately—in the NEW Fenestra Screen Casements you get them both — made by one manufacturer — America's oldest and largest steel window maker.

Fenestra is the only casement in which non-warping, metal-to-metal contact is permanently assured between flat screen frame and flat window frame.

Screens need not be touched in any way when opening or closing the windows but can be removed in a jiffy without effort. Swing leaves are opened or closed entirely by sill operators working through the screen, thus avoiding the necessity of leaning out. Screens are designed to cover only the actual ventilating opening, leaving the glass in side-lights and transoms clear.

Standard sizes make only two types of screen necessary: (a) single leaf type, supplied in one-light or two-light widths and in two-light, three-light, or four-light heights. (b) double leaf type, supplied in four-light widths and two-light, three-light, and four-light heights.

Screens need not be numbered or

marked if removed for storage, any window will accommodate a screen from any other window having the same sized swing leaf with locking handle on the same side.

Flat gray priming coat of paint baked on the screen frame forms an ideal base for finish coat in harmony with the decorative scheme of any room.

Cost is surprisingly low—no more than you would pay for any other good window complete with screen.

These exclusive features add to the many advantages which have popularized Fenestra Casements for years:

extra daylight; better ventilation; one-hundred per cent opening if desired; finger touch operation without swelling, sticking, warping or shrinking; strong fire-resisting steel members; extension hinges that make outside washing easy from within the room.

For complete information call "Fenestra Steel Window Company" in your own city or write to America's oldest and largest makers of steel windows.

DETROIT STEEL PRODUCTS COMPANY.
2281 EAST GRAND BOULEVARD, DETROIT
Factories: Detroit, Michigan, and Oakland, California
Convenient Warehouse Stocks

Fenestra

screen casement windows

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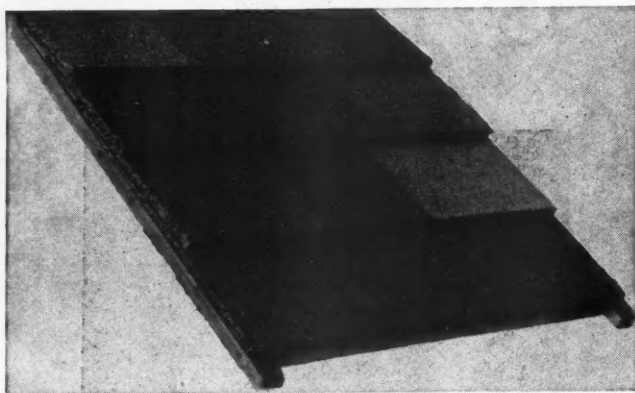
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We will
rnish it.

PANY

Stephenson
Baker Bldg.
t Bldg.
DEALERS

Asphalt Coated Cedar Shingles

TO the permanence of cedar has been added the protecting qualities of asphalt and the beauty of natural crushed rock and slate, in the roofing material shown here. The result is a type of shingle which is semi-rigid, will not curl and will not blow up. Cedar shingles are used as a base for this roofing. They are coated with asphalt to increase their durability and protect the wood. Crushed rock or slate is imbedded in the asphalt to produce a beautiful, non-fading color effect and for fire protection.



Beautiful and Enduring Roofs Are Produced with These Cedar Shingles Coated with Asphalt and Stone.

The thickness of these shingles gives that much desired shadow line and massive appearance of the roof. They are tapered from a 1/2-inch butt and when laid as specified form a 3/4-inch thick roof. The asphalt coating runs to within two inches of the upper end of the shingle. The cost of these shingles is surprisingly low, it is stated, and their long life makes them economical to use.

Since these shingles are offered in random widths and in mixed colors and can be laid either straight or staggered, shake effect, they offer a wide range of possibilities in roof design. Their insulation value is also high.

Liquid Asbestos Roofing Material

LIQUID, asbestos, roof cement can be applied to any type of roof, which is in need of repair and will save 60 per cent of the cost of re-roofing, according to the manufacturers of this product. It is a heavy liquid compound which can be thrown onto the roof and spread with an ordinary roofing brush, the work being done by any workman. It covers every crack, crevice, seam, nail hole, or rust spot with a solid coating 22 times as thick as the usual roof paint.



This Material Can Be Applied with a Brush by Any Workman to Any Type of Roof.

This material is not affected by water, acids, steam, hot cinders, corrosion or rot, nor by the most severe sun or cold weather, it is stated. It will not get hard or brittle, nor will

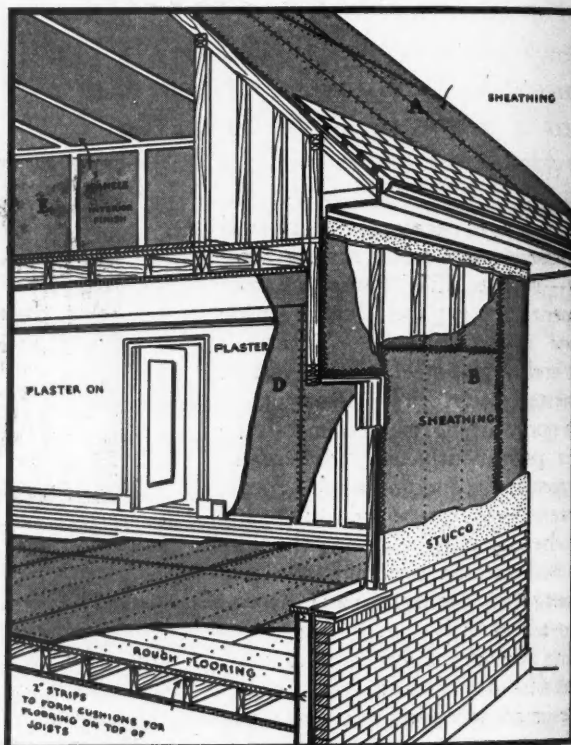
it get soft and run under any conditions. It can be used over gravel, asphalt, slate, tile, felt, metal, paper, shingle or composition roofs. It comes ready for application and needs no preparation. It can be applied at any time or season and in any weather. It will cling to a wet or dry surface, it is stated, and is equally effective if spread over old, buckled, cracked, rusted or uneven surfaces. The standard color is black, but other colors can also be furnished.

This company also makes a plastic compound of a paste consistency which is troweled on. This is excellent for leaky, rusty or broken eve troughs, down spouts, drain pipes, cornices, gutters, chimney flashings, valleys, window sash, water tanks, foundations and similar purposes.



New Wood Fiber Insulating Board

ONE of the largest producers of wood pulp products has recently placed in general distribution a new wood fiber insulating board. This board is new in the sense of not being known to many people connected with the building industry, but it is not new in actual fact, as it has been produced for 15 years or more and used with marked success under the severe weather conditions found in Canada.



The Shaded Portions Indicate Places Where This Insulating Board Is Used Successfully in House Construction.

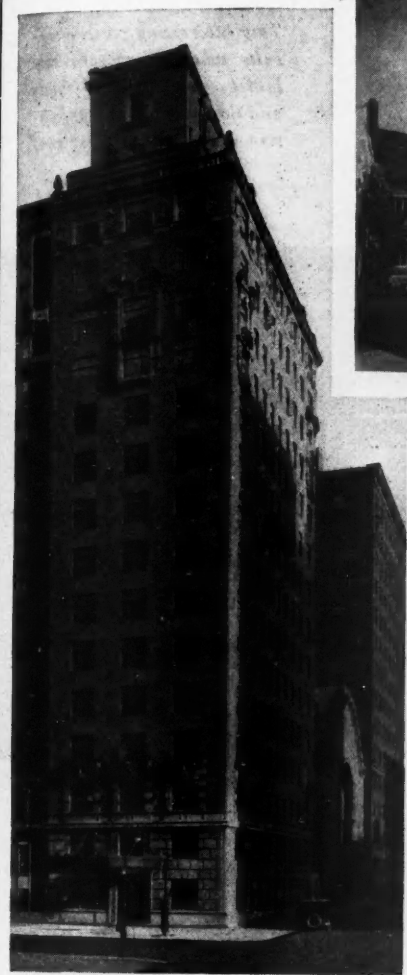
The process of manufacture, by which northern spruce fiber is made into a solid yet cellular board, is the feature of this product. It is waterproofed, not in the finished board, but in the processing of the fibers before they are formed into the sheet. Thus it has a high degree of weather resistance and, it is stated, on some of the far northern applications, houses sheathed with it have stood for years without painting or finishing material of any kind.

The board is formed under a hydraulic pressure of 2,000 tons. It is a solid, not laminated, and is obtainable in varying thicknesses to meet varying requirements. Standard thicknesses are: 1/8, 5/8, 3/4 and one inch. One and one-half, 1 3/4 and two inch thicknesses may also be obtained to order. The sheets are four feet wide and up to 17 feet long.

SPECIALTIES for Quick Sales and PROFITS

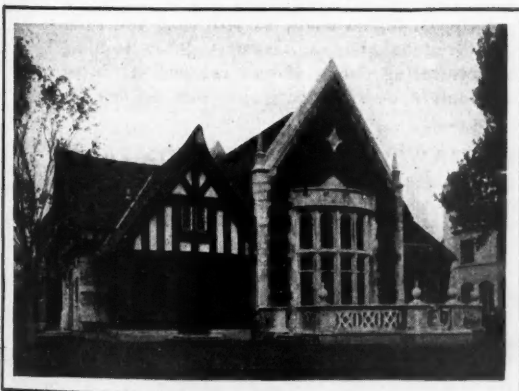
UNIVERSAL CASEMENTS

Jefferson Avenue Presbyterian Church, Detroit, Michigan. Smith, Hinchman & Grylls, Architects.



STANWIN CASEMENTS

580 West End Avenue, New York, N. Y. Emery Roth, Architect.



NORMAN CASEMENTS

Residence of James B. Rigg, Winnetka, Illinois. Sloan & Johnson, Architects.

Three Complete Lines Available for All Types of Buildings

CRITTALL now offers three separate lines—Stanwin, Norman and Universal Casements—having a wide price range and practically unlimited application. For every class of architecture—for all types of jobs, there is a steel casement to meet your needs.

A new window by Crittall built to compete in the class of lightweight casements—Stanwin Casements—and Norman Casements are offered in a wide variety of standardized sizes and designs. Universal Casements are custom-built to the most exacting specifications. Three distinct price classes cover projects that vary in appropriation from a limited amount up to the highest.

Ask our nearest representative to quote you prices on the complete line of Crittall Casements—or write direct.

CRITTALL CASEMENT WINDOW COMPANY
10983 Hern Avenue Detroit, Michigan

CRITTALL CASEMENTS

STANWIN CASEMENTS

NORMAN CASEMENTS

UNIVERSAL CASEMENTS



This interesting pattern results when Winthrops are laid by our Staput method, and this method of application makes the tightest roof we know of.

WINTHROPS *Weather-Seal* LOW PITCHED ROOFS

The extremely low pitched roof on this house in Park Avenue, River Forest, Illinois, is satisfactorily covered with Winthrop Tapered Asphalt Shingles. These thick-butted shingles and the method of laying them have resulted in a weather-sealed roof that will last many years and remain beautiful.

The thick butts lie close and flat. They double the thickness where exposure to weather comes. The colors are the natural colors of the slate that is crushed and firmly embedded in the everlasting asphalt which is extra thick over the heavy felt cores. On this red brick house the Greenfield Blend was used—sea green, mist green, silver blue and mist blue. For any house in any surroundings

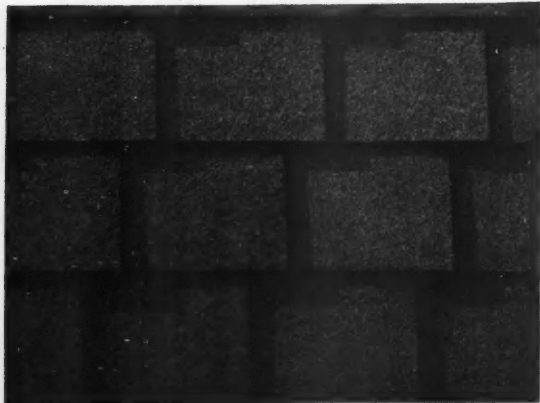
there is the perfect color or blend, among the twenty Winthrop colors of lasting beauty.

The method of laying that is illustrated here, called Staput, was developed by our own men to produce the tightest possible roof. It's a method also that accents the shadow lines of the thick butts of these exclusive shingles.

Write for Details

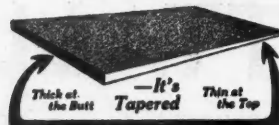
If you are not acquainted with the Staput method of laying Winthrops, write us. If you wish, we will send you samples, too, of the Greenfield Blend. Also of Argotex Building Felt, of high insulating value, if you request it. Most good lumber dealers carry Winthrops, but ask us for sample for yourself.

BECKMAN-DAWSON ROOFING COMPANY
1032 Brooks Building, 223 W. Jackson Boulevard, Chicago, Illinois
Factories at Chicago, Detroit and Lockport, N. Y.



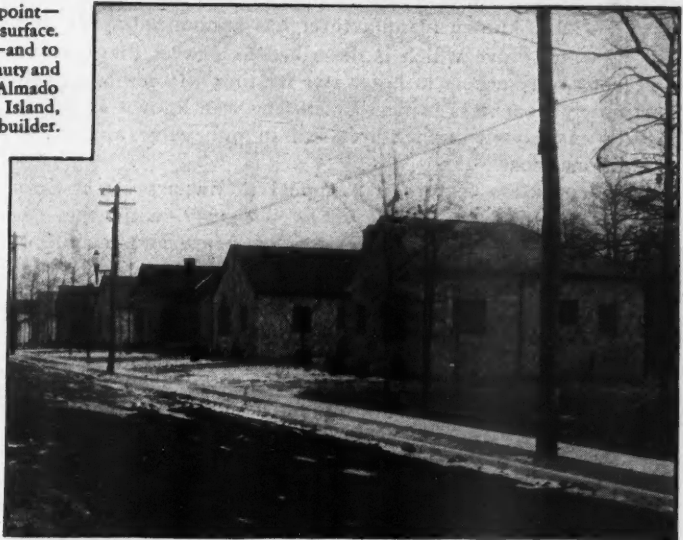
the Big Butt Shingle
Winthrop
Tapered Asphalt Shingles

Argotile (slate surfaced) Roofing, Supreme (mica surfaced) Roofing, Wearproof (talc surfaced) Roofing, Argotex Insulation



SPECIALTIES for Quick Sales and PROFITS

Attractive appearance is a strong selling point—if it's based on lasting strength under the surface. STEELTEX for Stucco is helping to build—and to sell—these moderate-priced homes of beauty and distinction at Massapequa, Long Island, Almad Building Corporation, Freeport, Long Island, owner; Albert F. Budd, Syosset, L. I., builder.



Today's builders add a new selling punch



(below) In this modern apartment building at Tarrytown, N.Y., Mount Pleasant Realty Corporation, owners, the plaster walls and ceilings of every room are reinforced and insulated by STEELTEX. A good plaster job is the basis for decision in many a rental—and sale. Buyers prefer reinforced plaster.

(above) The STEELTEX-reinforced stucco exteriors of famous Spanish Homes, Garden City, Long Island. Besides insulating and sound-deadening, the double water-proofed backing shuts out penetrating dampness. STEELTEX for Stucco is effective for the economical overcoating of old houses.



Why do you find successful developers building more and more reinforced homes? Because today home buyers are not satisfied with mere attractive appearance and modern convenience.

They are looking *below the surface*—for the solid, lasting strength that comes from better construction.

Reinforce your houses and apartments, like thousands of successful builders, with STEELTEX in place of lath and you put electrically-welded steel fabric right into the plaster and stucco. Walls and ceilings protected by steel reinforcing, completely embedded! The entire framework strengthened by rigid steel! Splendid selling points, each with a punch of its own!

But STEELTEX means even more than durable, repair-free plastic surfaces inside and out. Its fibrous backing helps to insulate and deaden sound. More sales points!

The illustrations show how STEELTEX helps sell houses. And there are a quarter of a million successful installations today. Send the coupon below.

National Steel Fabric Company

DIVISION OF
Pittsburgh Steel Co.

3105 Union Trust Bldg. Pittsburgh, Penna.
The world's largest manufacturers of welded steel fabric

STEELTEX

FOUR TYPES—SAME PRINCIPLE
SAME PROTECTION

for plaster . . for stucco . . for floors and roofs
(concrete and gypsum) for stone or brick facing.

National Steel Fabric Company, 3105 Union Trust Building, Pittsburgh, Pa. Without obligation send information about materials I have checked.

- ☐ STEELTEX for Floors ☐ STEELTEX for Plaster
☐ STEELTEX for Stucco
☐ STEELTEX for Stone or Brick Facing

Name _____
Business _____
Street _____ City _____



New Improved Hot Water Valve

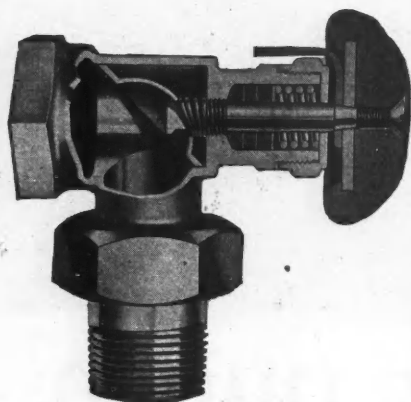
A WELL known manufacturer has announced a new hot water valve which is described as one of the greatest recent contributions to hot water heating. It combines this company's packless principle with the well known swinging plate and equalizing features—all in one valve and at no additional cost.

The packless feature will appeal to owners for it does away with the expense and trouble of repacking worn out stuffing boxes and also gives complete protection against the annoyance and expense of leaks. The swing plate insures perfect operation, for its sharp edge cuts away all corrosion or sediment and keeps the valve clean. The concave design reduces frictional resistance.

This New, Improved Valve Is a Recent Valuable Addition to Hot Water Heating Equipment.

An adjustable stop with an indicator provides means for perfect balancing of the job. Permanent adjustment after installation equalizes the flow regardless of radiator or pipe sizes. This equalizing feature makes possible a finely adjusted water job.

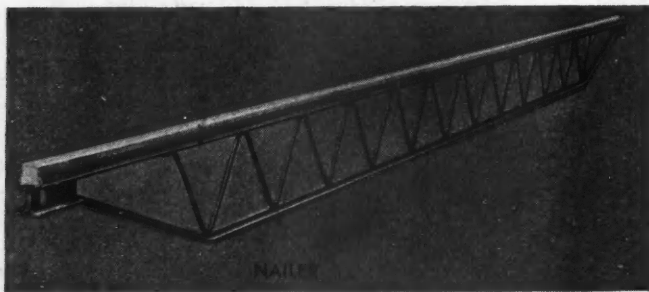
A non-breakable handle of special composition insures a cool grip. The valve opens with a smooth half-turn. It is made leak-proof by specially molded rings with a metal core held under compression by a heavy spring. The valve is smart in appearance and is constructed throughout of the very finest materials, insuring long life and ease of operation. It offers the heating contractor a great opportunity for additional business during the summer months. With it he can improve and correct many hot water jobs already installed, it is stated.



New Steel Nailer Joists

A NEW steel nailer joist, the cost of which, under quantity production, compares favorably with that of wood joists, is being manufactured by one of the best known manufacturers of steel building products, for use in residences, apartments and other structures where wood floors are used. The new nailer joists permit the placing of rough flooring directly on the joists, eliminating the use of the concrete. The finished floor is then laid on the rough flooring.

Simplicity of design permits manufacture of the new steel nailer joist on a basis of a low first cost which is



Simplicity of Design and Quantity Production Make This New Steel Nailer Joist Available at a Very Favorable Price.

attracting the attention of investment builders and real estate development concerns, as well as individual home builders, throughout the country, it is stated.

The new steel nailer joist consists of an open web truss of steel, with a wood screed or strip embedded in the top member and projecting 1½ inches above the steel. The rough flooring is nailed directly to this wood screed just as it would be attached to a wood joist.

A special nailer joist adaptation to roof construction also has been developed, by the same company, which is to be used in buildings where wooden plank roof deck is erected. This permits the usual rigid steel building structure, the roof planks being nailed directly to wood screeds attached to the steel joists. These special joists are available in any lengths, weights and strengths to conform to roof dimensions and design.

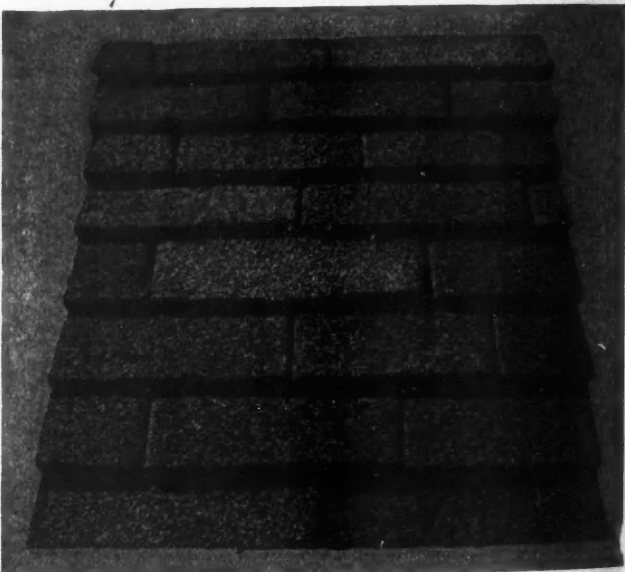
A book describing the new floor joist and incorporating data on the new roof joist is available to builders and to members of the building trades and professions.



Heavy Butt Asphalt Shingles

A WELL-KNOWN manufacturer has recently introduced a new asphalt shingle. This is a very heavy butt shingle made up of a pad of ground cork mixed with asphalt mastic and pressed together between two layers of felt which have been slate surfaced. The shingle is 16 inches long and tapers from a butt thickness of more than 5/8 inch. It is made in three widths, 10-inch, 12-inch and 15-inch.

This shingle is made in a continuous operation on a calender machine and is pressed together under pressure of 1,200 pounds per square inch. The ground cork gives it a high insulation value and, although the shingle is very



Beautiful Roofs, Easily Laid, Can Be Obtained by Using This New Asphalt Shingle Offered in 12 Colors.

heavy in appearance and casts a heavy shadow line, it only weighs 450 pounds to the square.

It is an economical shingle to lay in that it is laid 7 inches to the weather, which gives it a two-inch head lap. The shingle is rigid enough so that it cannot be blown up by the wind and yet flexible enough so that it can be bent, by slow heating, for the ridge of the roof. There is no loss in using this shingle on a job because, should one side become damaged, the other side can be turned up. It is easily cut by simply scoring with a linoleum knife.

The shingle is made in 12 colors and when laid in random widths and slightly staggered presents an unusually beautiful roof with a great deal of character.

3 reasons Why MAUK Shingle Colors Last so Long



1 MAUK pigments are pure, laboratory tested, natural, mineral colors, and ground to pass a 325 mesh screen, bound with pure linseed oil and creosote.

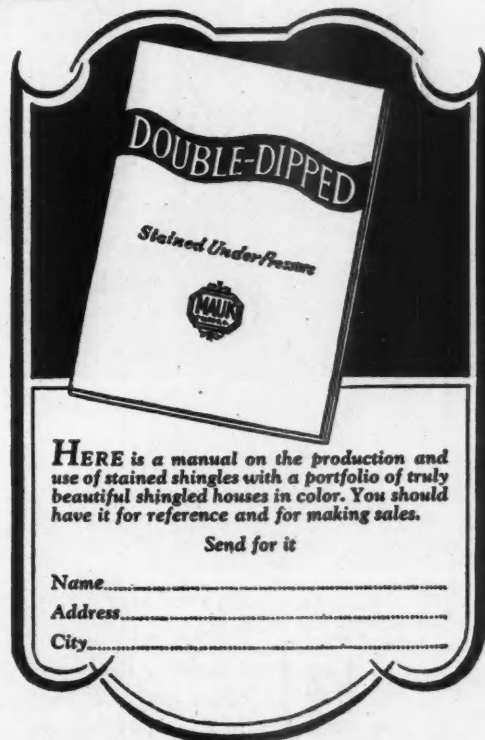
2 The MAUK process consists of forcing the pigment and oils into the wood under 32 tons of pressure per bundle, assuring better coverage, greater adhesion.

3 MAUK Shingles are stained, dried and stained again with the same color mix . . . under the same pressure . . . a process pioneered by MAUK and now in use for three years.

MAUK DOUBLE-DIPPED

Shingles Stained Under Pressure

THE C. A. MAUK LUMBER CO.
TOLEDO, OHIO



HERE is a manual on the production and use of stained shingles with a portfolio of truly beautiful shingled houses in color. You should have it for reference and for making sales.

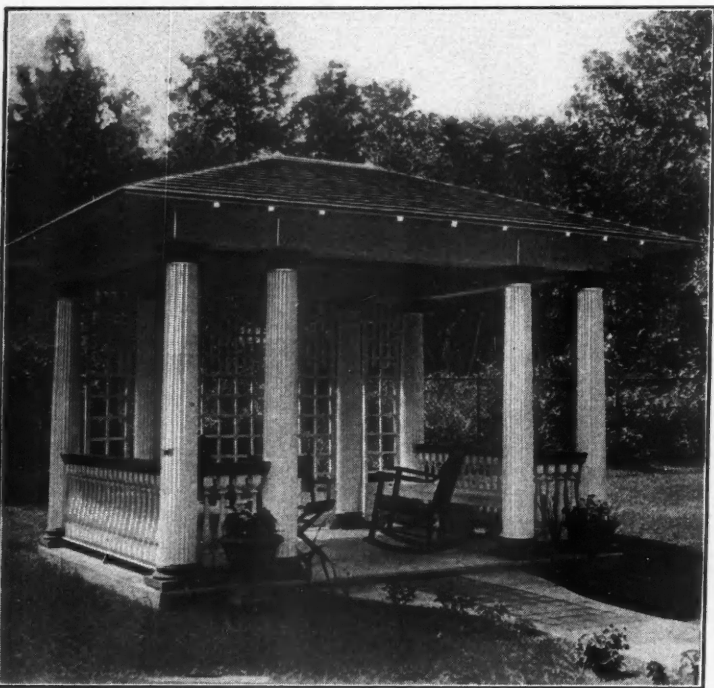
Send for it

Name _____
Address _____
City _____

All MAUK shingles are delivered in first-class condition in double wrapped bundles—dust-proof, practically rain-proof. They're better to work with. They're easily identified. For a house that looks new longer, that sells more quickly, use MAUK Double-Dipped Shingles stained under pressure.

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Build a BEAUTY SPOT in the yard or garden



The beautifying of a yard or garden! How interesting it is to builders. And what distinction can be wrought through the happy use of architectural adornment.

In many extensive private gardens and public grounds, as well as in the yards and gardens of countless of the more modest homes, Hartmann-Sanders pergolas, garden houses and other outdoor features lend a distinctive note that is significant of the builder's discrimination and good taste.

THESE TWO BOOKLETS OF COLUMNS, COLONIAL ENTRANCES AND GARDEN EQUIPMENT GLADLY SENT



In two large, profusely illustrated booklets, published by Hartmann-Sanders, builders will find page after page of valuable suggestions. One shows actual photographs of pergolas, garden houses,

ornamental fences, garden entrances, seats, rose arbors, trellises, columns and garden accessories—in their natural settings. The other booklet shows all types and styles of famous Koll Lock-Joint Columns. For the booklets send 30 cents to Hartmann-Sanders Co., Factory and Showroom: 2171 Elston Ave., Chicago. Eastern Office and Showroom: Dept. Y, 6 East 39th Street, New York City.

HARTMANN - SANDERS

PERGOLAS

• COLONIAL ENTRANCES •

KOLL COLUMNS

ROSE ARBORS •

GARDEN EQUIPMENT

SPECIALTIES for Quick Sales and PROFITS

ACCO No. 8 Sash Chain

Operates perfectly over any cord pulley

Use any ordinary pulley with ACCO No. 8 Sash Chain. It is made to operate with mechanical perfection—it will not ride or cut on pulley edges.

ACCO No. 8 Sash Chain cannot rot, shrink, stretch or fray. It is *copper-bearing steel*, which outlasts any other window suspension material.

25% Saving! in material!

Knots waste from 4 to 5 feet of cord per window. 100 feet of ACCO No. 8 Sash Chain will hang 2 more windows.

—an additional 25% saving in labor

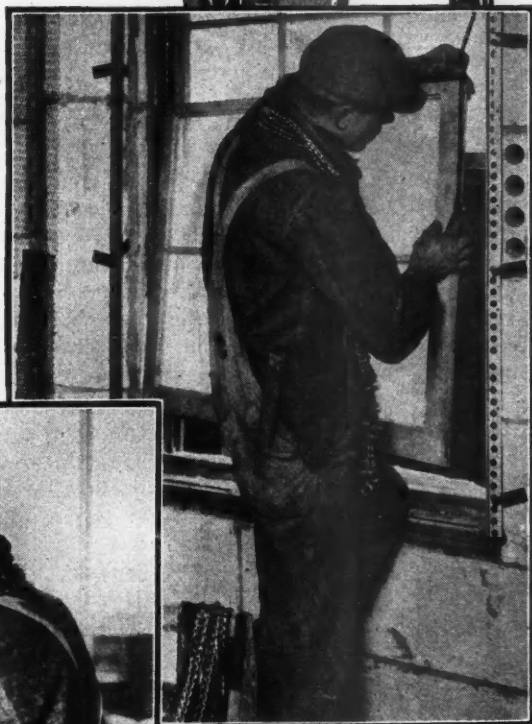
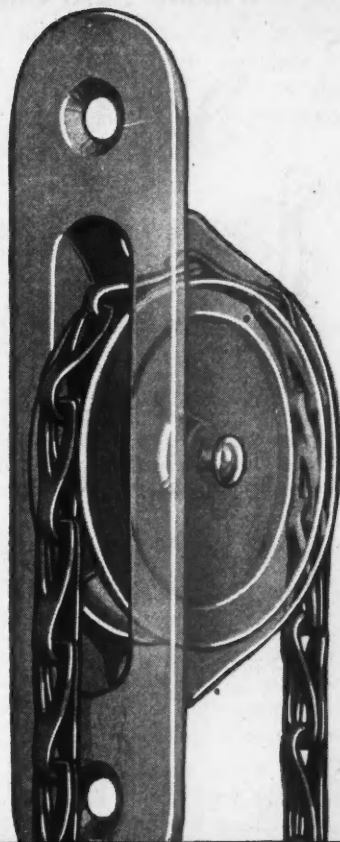
Carpenters who once use ACCO No. 8 Sash Chain prefer to use it always . . . because simple attachments take the place of eight knots per window . . . because it isn't necessary to fiddle and fuss with a carpenter's "mouse". (ACCO No. 8 Sash Chain feeds over the pulley and drops into the casing of its own weight.)

Ask your hardware or builders' supply dealer for ACCO No. 8 Sash Chain. 100 feet, sufficient for 6 or 7 windows is packed in a cloth bag, complete with necessary attachments—handy to use on the job.

**AMERICAN
CHAIN COMPANY
INC.**

Bridgeport, Conn.

World's Largest Manufacturers of Welded and Weldless Chain for all Purposes



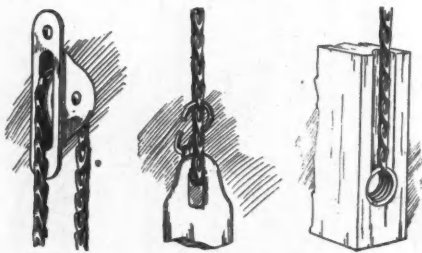
This photograph illustrates how ACCO No. 8 Sash Chain is fastened to the sash with a coil spring that fits into bore.



The chain is hooked to the weight. Both ends are thus anchored securely with no possibility of the connections loosening or breaking.

Window Sash Chain for Homes

SASH chain, originally made exclusively for the heavier windows of office buildings and factories, is now available in a size made especially for residence windows. It combines all the features of the larger sash chain.



This Shows How the Sash Chain Passes Over the Pulley and Is Attached to the Weight and the Sash.

It is inexpensive because there is no waste, and a man can install the windows very rapidly. From seven to nine windows can be hung with 100 feet of chain, it is stated. Sash chain is permanent. It will last as long as the building, according to the manufacturer. The weight and sash are permanently fastened to the chain by strong fixtures, easily inserted.

This chain operates smoothly over any cord pulley and can be installed without changing pulleys. It is clean, noiseless, does not shrink or stretch and is not cut by the sharp edges of pulleys or weights. It fits in with any decorative scheme, and may be painted any color required.

This chain comes packed in bags containing 100 feet, complete with sufficient attachments for seven complete double hung windows. It is also packed in cartons, each containing sufficient chain and attachments for one complete double hung window.



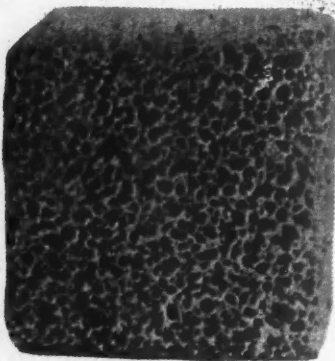
Light Concrete Floor Fill

EVERY architect and builder realizes the importance of a floor and roof fill material which combines the properties of extremely light weight, chemical purity, and high heat and sound insulating value. The introduction of a new material to the building trade provides for a concrete composed of portland cement and ordinary commercial aggregates, so modified that its weight per cubic foot is greatly reduced and its insulating and sound deadening properties materially increased.

These valuable qualities are obtained by the introduction of evenly distributed gas cells which give the concrete a honeycomb structure. This material retains the fireproofing

qualities of concrete and is as permanent and as free from impurities as ordinary stone concrete. It can be produced by any contractor with ordinary concrete equipment.

Once applied, this floor fill should last forever, as should the pipes and conduits embedded in the fill. It is made of sand or slag and is pure and free from harmful or corrosive ingredients. Tests which have been carried out at McGill University and Massachusetts Institute of



Honeycombed with Gas Cells This Concrete Makes an Extremely Light Fill.

Technology have definitely proved that it is a non-conductor of sound; it is stated.

This floor fill can be produced in any weight desired from 30 to 70 pounds per cubic foot. The fact that there is a very great saving in dead load when this material is used

means saving structural steel, saving in the cost of foundation and saving in the transportation cost of materials for the building.

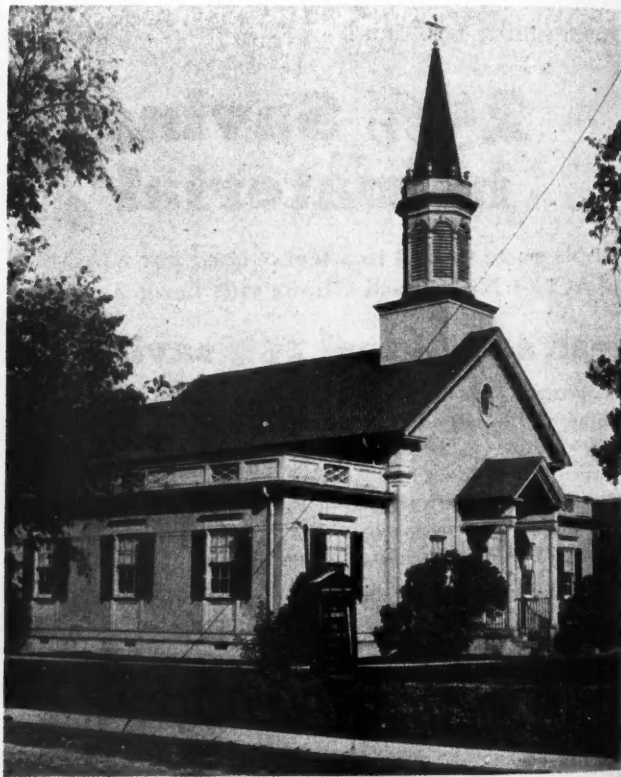
This material, because of its lightness and porous structure, has excellent heat insulating properties. Its insulation value is from four to eight times as good as ordinary concrete, it is claimed, depending on the weight of fill used.

This material is always used with a finish, which may be cement, terrazzo, marble, tile or wood. It is not necessary, however, to use a finish on roof fill. It is not an expensive material. Estimates and actual installations indicate that its cost is the same, or slightly less than ordinary concrete, it is claimed.



For Producing Quality Stucco

CONTRACTORS have long been familiar with the use of a well-known cement for mortar. It is described by the manufacturers as a true hydraulic cement, combining the characteristics of portland cement and lime and having both strength and plasticity. These identical qualities make it desirable for stucco also, it is stated. It is ready to mix and use at once. No slaking or soaking is necessary. The stucco is applied in the same manner as portland cement stucco. Due to its unusual plasticity, textured finishes are obtained with maximum ease.



A Typical Example of the Effective Use of the Material Described Here for Producing Stucco Exteriors.

The damage of hair checking, crazing and shrinkage cracks in the stucco is minimized by the use of this material, it is claimed. In addition it hardens slowly enough to allow the plasterer time to make his joinings and resists moisture because of its mineral oil content.

A booklet written in the plain, understandable builder's language without any waste of words, describing the use of this material in stucco has been prepared by the manufacturer for distribution to those interested.



The W. E. Dunn Mfg. Co., Holland, Mich., has issued a pamphlet which illustrates and describes the use of Duntile, a perfected concrete unit.

You can say, "I Guarantee
the Lumber in this House"



when you build with

"NATIONAL TREE" LUMBER



NEVER before has it been possible for you to make such an unqualified statement about your lumber-built house! Now the National Lumber Manufacturers Association guarantees that the lumber bearing its trade-mark—the "National Tree" symbol—is of the quality indicated thereon by the official marks of the expert grader . . . that it is carefully manufactured "American Standard Lumber from America's Best Mills."

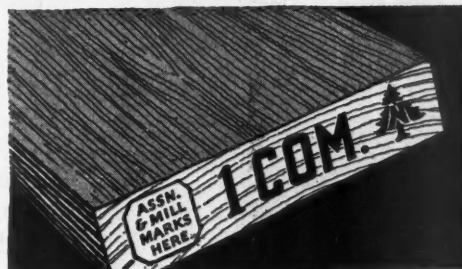
Think what this means to you! You can take your prospects through your houses, show them beautiful interior panelings, floors, and woodwork and guarantee every single foot of it. You can tell them that the lumber you used for framing, siding, and rafters is of a certain grade and species—and *guaranteed* as such!

Prospective home owners are being told about "National Tree" lumber through a big advertising campaign . . . architects will soon be specifying it . . . you can profit by building with this trade- and grade-marked lumber. If your lumber dealer cannot supply you write us and send his name.

You will want to read the booklet about "National Tree" lumber. Send for it today.

NATIONAL LUMBER
MANUFACTURERS ASSOCIATION

TRANSPORTATION BLDG., WASHINGTON, D. C.



This "National Tree" symbol stamped on a piece of lumber is your guarantee that the quality indicated thereon by the marks of the expert grader is correct . . . that the lumber is carefully manufactured "American Standard Lumber from America's Best Mills"

Clip and Mail Coupon Today

National Lumber Manufacturers Association,
Dept. 4753, Transportation Bldg., Washington, D. C.

Gentlemen: My lumber dealer's name is . . .
..... he does not carry "National Tree" lumber.

- ☐ Have a lumber consultant call.
- ☐ Send a free copy of "Taking the Mystery out of Lumber Buying."

Name.....

Street.....

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



12 to 13 Million Old Homes
can use Steel Lath for Exterior
Stucco Remodelling Work—and
a Half Million New Homes
and Stores can use it and save
Plaster Cracking and Falling—

Steel lath has a wide field in remodelling work. Steel lath and stucco are one of the most logical methods for converting the exterior of old time-worn houses.

These jobs are easy to sell too, because the outside of the house is the side that is most often seen. Stir your prospects on "the pride of ownership" and you make a sale 7 times out of 10.

Then too, Steel lath reduces the hazard from fire from adjoining buildings—and as our communities become more congested this item of fire-safety becomes a greater consideration.

In New Construction, Steel lath speeds construction—especially for coves, curves and vaulted areas.

Being quicker to apply, its use speeds erection. It shortens the time that your capital is tied up, saves interest on your money and gives you a quicker turnover. Steel lath is one of those hidden values . . . giving you a powerful talking point that makes the sale easier . . . at a higher price. Plaster will not crack when laid on a Steel lath foundation.

With Competition So Keen in new developments why not do this?

—take one of your foremen and a crew—go into an old but substantial residential section, spot one or two houses, stucco their exteriors, etc.—use them as bell-wethers for a host of remodelling jobs . . . they pay handsomely as investments if you pick out a good section.

For further information, and the names of makers of Steel lath, write Department AB, Sheet Steel Trade Extension Committee, Terminal Tower Building, Cleveland, Ohio.



Save
with
Steel



Note how Architect G. W. Repp used Steel lath for cove and angle work.

SHEET STEEL EMPLOYS 500,000 MEN ~ ~ ~ TALK WITH THEM

Around The House With Donley Convenience Devices

ANY HOME being built or remodeled can be made strictly up-to-date, quickly salable, comfortable and convenient by the installation of Donley Devices.

The modern home you build should have a Donley Package Receiver, Mail Receiver and Garbage Receiver as shown on this page. These three items win the instant approval of any housewife. In the basement of every modern home there should be a Donley Coal Chute, Steel Basement Windows, Electric Meter Box, Ash Pit Doors and Steel Basement Columns.

If the new home is to have a successful fireplace, the builder should use Donley Fireplace Construction Plans and Donley Fireplace Equipment. The plans are found in the Donley Book of Successful Fireplaces. This book contains 60 fireplace designs, construction details and photographs and illustrations of the correct fireplace equipment to use. A copy is sent upon receipt of 25c to cover cost of mailing. The Donley Catalog is sent free.

THE DONLEY BROTHERS CO.
13910 Miles Avenue • Cleveland, Ohio

CLIP THIS COUPON AND MAIL TODAY

THE DONLEY BROTHERS CO.
13910 Miles Avenue • Cleveland, Ohio

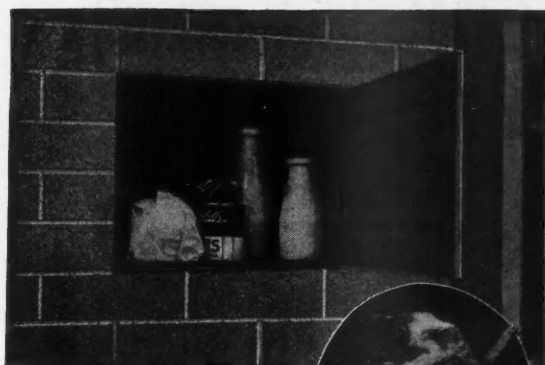
Gentlemen:

We are interested in receiving information on the Donley Devices checked in this coupon. Also enclosed find 25c to cover the cost of mailing the Donley Book of Successful Fireplaces.

Fireplace Dampers	Coal Chutes	Steel Basement Columns
Ash Pit Doors	Steel Basement Windows	Andirons
Fire Baskets	Package receiver	Fire Screens
Ash Dumps	Mail Receiver	Fire Sets
Electric Meter Box	Garbage Receiver	

Name _____

Address _____



Donley Package Receiver

A steel wall safe that receives deliveries and protects them when the housewife is away from home.



Donley Mail Receiver

This mail receiver enables the housewife to secure mail and newspapers without going outside the house.



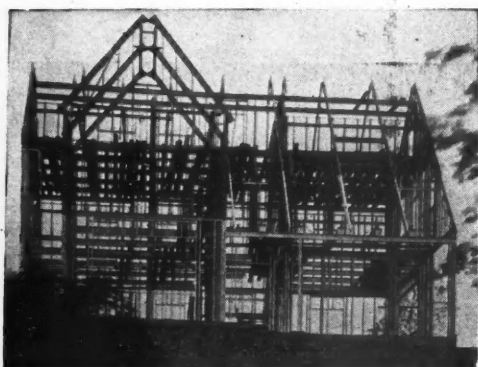
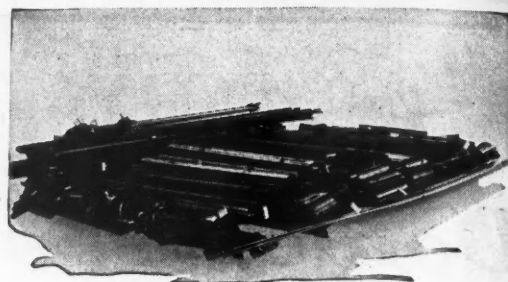
Donley Garbage Receiver

This device replaces the old-fashioned battered and bent, vermin infested garbage can. It opens by a pressure on a foot lever leaving both hands free to carry utensils. It is installed in the ground or porch near the door.



WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

The STEEL FRAMING
arrives.....every piece
cut to fit.....



.....quick and easy erection
with ordinary tools.....

... strongest
residential
construction



many different
plans of
standardized
homes available
to building
developers



No special building plans or specifications are necessary with Steel Framing. It does not limit the architect, builder or home owner in design, manner of erection or room arrangement. All structural pieces are made up from the architect's original plans—with every piece cut to fit and marked for its place. The members are assembled by workmen familiar with home building—erection is quicker and easier than by any other construction method.

Steel Framing provides the most rigid framework known in home building today—it is skyscraper construction made possible by a practical and economical method of using steel to replace ordinary material. No sagging or settling, no expansion or contraction to cause plaster cracks in walls and ceilings. Here is the permanent residential construction that has been sought for years—a construction that is fireproof and stormproof, possessing a greater realty value at a cost comparable to that of residences erected in the ordinary way.

Write for descriptive booklet "Homes of Steel."

STEEL FRAME HOUSE COMPANY, OLIVER BUILDING, PITTSBURGH, PA.

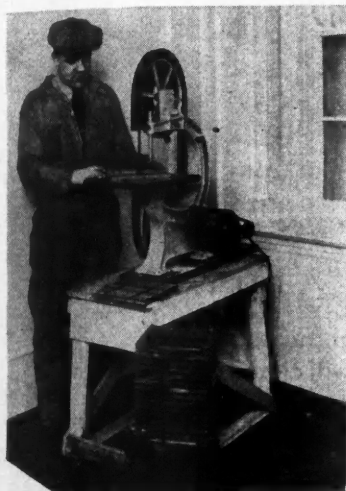
STEEL FRAMING
THE MODERN METHOD OF HOUSE CONSTRUCTION

WHAT'S NEW in CONTRACTORS' EQUIPMENT

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Practical Small Band Saw

FOR the contractor and builder, to use right out on the job; for the shop or the factory, the small but efficient band saw illustrated here is a highly practical machine. It is well designed and built, sturdy



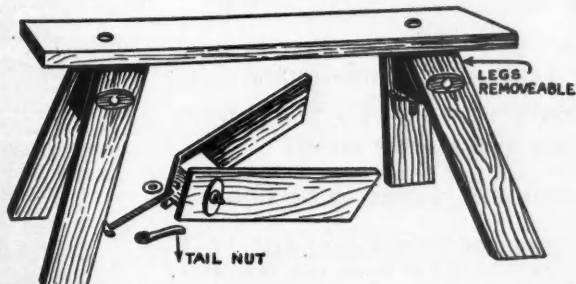
This Band Saw Is a Thoroughly Practical Machine for Light Woodworking.

and simple to operate and is a high grade machine for the uses for which it is intended, that is all kinds of light woodworking. It is not a toy but a piece of machinery capable of handling work of a size up to the cutting of all materials for a garage. As illustrated this machine incorporates several new features including a slide adjuster for the bearings, oil reservoirs, top and bottom; a locking device for saw alignment and phosphor bronze bearings. It is operated by a direct belt drive from this company's regular $\frac{1}{2}$ H. P., double end, shaft motor or any individual motor or gasoline engine. It has a 45-degree tilting table for beveling. The entire frame is of semi-steel. The tension of the saw is adjusted by a slide at the bottom. Saw blades can be changed without removing the guard.



Knock-Down Horse and Trestles

THE illustration shows a saw horse, or trestle, which cannot break down or come apart, according to the manufacturers, and never gets rickety. It has no nails, all parts are held together with bolts and any part is replaceable. It is made in various sizes and heights, for all purposes for carpenters and builders, painters' scaffolds, shops and factories and numerous other uses. It gives mechanics



These Substantial, Knock-Down Horses Are Available in Sizes for Any Purpose.

a good substantial horse, which is a factor in increasing the daily production of the mechanic.

These horses come painted so that they are not affected by moisture and are collapsible for easy moving from place to place and for storing. They are reasonable in price and,

in addition to the regular standard sizes in which they are stocked, can be obtained in any desired size to order. They are shipped knocked down and are put together by means of four bolts.



New Level with Torpedo Vials

AFTER many years of research and experiment, a certain manufacturer has announced the perfection of a new level, the feature of which is its new torpedo shaped vials. This new invention gives greatly increased accuracy. Because of the torpedo shape, this level functions with remarkable accuracy, it is claimed, no matter how it is picked up or which end is turned up. Less vials are needed, therefore results can be read much more quickly. This new vial is moulded from soda lime glass, which is clear as a crystal and as sound as a rock.



Above: The Torpedo Shaped Vial Used in the New Level Construction of Which Is Shown Below.

Besides this scientific shaping, these new torpedo vials have lines indicating when the bubble is in the center of vial. These are ground on all around the circumference of vial.

No effort has been spared in selecting the best quality of level stock. These high grade levels are made of three pieces of mahogany tongued and grooved together into one piece, reinforced on each end with a brass plate. This new level is very neat and narrower than the ordinary levels, which makes it much easier for the mechanic to handle.



Rule Helps Read Plans

A HANDY instrument for field use combining a scale for measuring reduced size drawings and a rule for measuring actual feet and inches, is shown in the illustration. It consists of a standard wood, metal or composition zig-zag rule of any length with the $\frac{1}{4}$ -inch divisions from one end numbered to represent one foot as illustrated.



This Rule, in Addition to the Regular Scale, Carries a Scale for Reading Reduced Size Drawings.

The reverse end is numbered so that each $\frac{1}{4}$ -inch division represents two feet or $\frac{1}{8}$ -inch to the foot. These numberings are carried sufficiently far to measure drawings of any size. The simplicity of these combination scales and numberings make them attractively useful for the practical man.

MIXERS

PAVERS

PNEUMATICS

WANTED

photographs of old ransome mixers

A photograph of your Ransome Mixer may be worth \$50. Does that interest you?

We want to locate the oldest Ransome Concrete Mixer, still hale and hearty and actually on the job. So during May the Ransome Concrete Machinery Company will conduct a prize contest for that purpose. Why not enter a photograph of your Ransome in actual operation, for your share of the \$100 prize money? Ransome Mixers are known throughout the world for their long life. This contest will clinch that statement.

We know the list of "Ransome Long-Life Records" is going to be an imposing one, but we want to know where the actual "Daddy of Them All" is still on the job. It makes no difference what the model. "Old age, and still in service," is what counts.

Here are the conditions:—Send us

- a photograph of your Ransome Mixer working on a job in May, 1929.
- The shop number or the name of original purchaser and date. (This information is absolutely necessary).
- Written permission to use the photograph in future advertising—and last but not least
- Any additional comment you may care to make on your Ransome equipment. If you wish, write us freely of your experience in general with your Ransome Mixer and elaborate with details of any instances you deem worthy of special merit.

Remember: \$50 to the owner or operator of the "Daddy of Them All."

\$25 to the second oldest Ransome Mixer.

Five—\$5 "consolation prizes" for the most interesting and informative letters.

Decision of 3 competent judges to be final.

Contest opens May 1st. Send us your entry on or before May 31st, 1929
(In case of a tie for any prize offered, the full amount of such prize will be awarded to each tying contestant.)

TILTING MIXERS

PAVERS

Ransome Concrete Machinery Company

Duncellen

New Jersey

PROFIT PRODUCERS

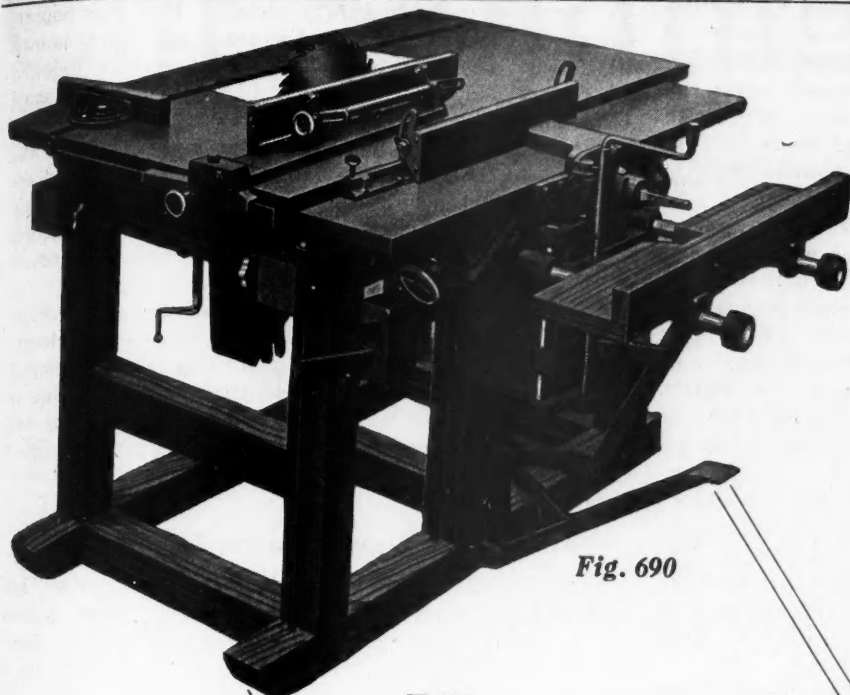


Fig. 690

No. 65—Variety Tilt- ing Table

Saw—with motor on arbor; with motor on base; with countershaft. Each machine furnished with one saw, ripping gauge and one cut-off gauge with reach rod and stop.

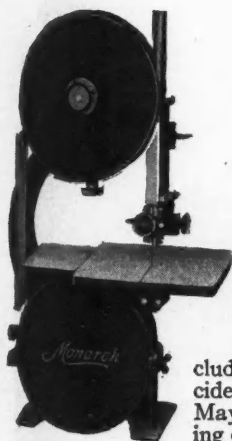


HERE'S a complete wood working plant all in one machine. Can be used by four men at the same time, performing four different operations without the least interference to each other.

Compact, self-contained . . . without power . . . or with gasoline engine or electric motor. Easy to move, easy to operate, more than equal to every occasion.

No. X-9—

Bench Band Saw. 12" and 16" sizes. Solid wheel guard, completely enclosed, precluding all possibility of accidents. Motor built in. May be operated from lighting current or by belt from any kind of power. Handy—Adaptable—Sturdy.



A Rip Saw, a Cut-off Saw, a Mitre Saw, a Dado Machine, a Gaining Machine, a Grooving Machine, a Rabbetting Machine, a Tenoning Machine, a Jointer or Planer, a Boring Machine, a Matcher, a Molder, a Sander, a Hollow Chisel Mortiser.

—and MONARCH qualities that ensure outstanding performance, permanency and profits for contractors and lumber yards. Let us quote you prices and tell you how the MONARCH Woodworker saves its price on one job.

No. X-24—

A revolutionary new machine. Tilting Arbor Saw Bench—Sturdy, compact, self-contained. Motor built in; saw completely guarded. Investigate this modern woodworking machine. Circular on request.



Monarch

AMERICAN SAW MILL MACHINERY CO.

60 Main St., Hackettstown, N. J.

Manufacturers of a complete line of Woodworking and Saw Mill Machinery

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

It Does All Kinds of Floor Work

THIS floor machine is suitable for five different operations, according to the manufacturers. It will scrub all kinds of floors spotlessly clean without splashing. It will apply liquid or paste wax and rub it thoroughly into the floor. It will polish all waxed floors to a hard, gleaming, non-slipping polish on which heel marks will not show. It will scrub off varnish or shellac from wood floors. It will sandpaper old or new wood floors to a smooth level surface.

This work can all be done, easily, in a standing position without stooping or kneeling. No strength is needed to operate the machine and it is guided over the floor by raising or lowering the handle. The brush can be quickly and easily removed from the machine and another brush attached for another operation. The machine is operated from any lamp socket or base plug. The two rubber tired wheels, at the rear, permit it to be rolled over the floor, when not in use, without carrying.

All of the weight of the machine rests on the revolving brush while in operation which permits all work to be done thoroughly, in the shortest time, it is stated. It is furnished complete with one scrub and one polishing brush. Other special brushes are available to order at a small additional cost.

Mixer Weighs Water and Aggregate

A NEW mixer has been brought out in response to a desire by contractors for a portable concrete manufacturing plant that could be charged with available equipment and which would be capable of accurate proportioning of materials by weight.

The new machine which, it is said, satisfies these require-



This Mixer, Equipped with a Weighing Batch Hopper and Water Tank, Makes Possible Accurate Proportioning of Materials.

ments and fulfills the needs of the building contractor, consists of one of this company's standard mixers, equipped with a weighing batch hopper and water tank mounted on an auxiliary frame carrying pipe lever scales.

All operations are controlled from the operating platform by one man. Materials are weighed into one hopper, thereby allowing for the use of as many aggregates as may be desired; gravel is normally weighed in first, followed by cement and sand; the water is weighed on the same beam and is carried in an open tank.

When the batch hopper door opens to allow for the charging of the mixer, the batchmeter is actuated and the hopper shaking device, operated by a cam on the main driving shaft, is started. The batch hopper discharges quickly, cleaning perfectly so that the scale will return to balance.

By mounting the weighing batch hopper on the mixer, head room is reduced as compared to the use of independent weighing or measuring devices. This allows a compact arrangement of controls for one-man operation. Due to the shape and position of the hopper, bulk cement and any number of differently graded aggregates can be weighed without additional equipment.

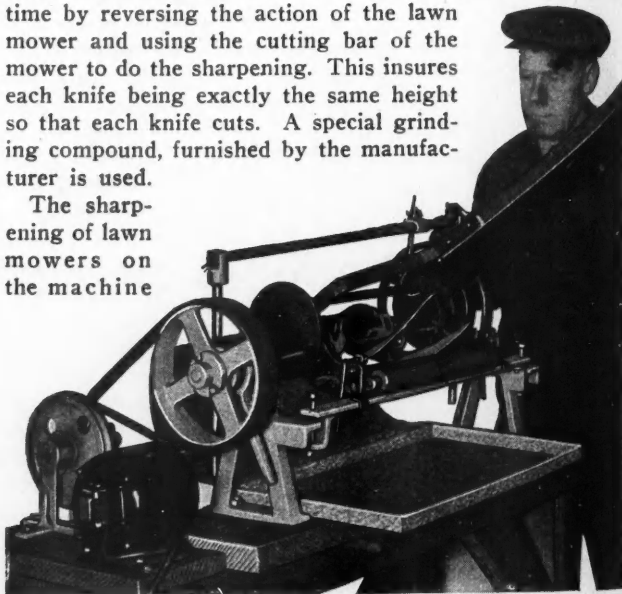


A New Lawn Mower Grinder

A NEW machine for sharpening lawn mowers has recently been placed on the market. This machine works on the same principle used by the leading lawn mower manufacturers, and is reputed to sharpen lawn mowers as good as new.

All of the knives of the mower are sharpened at the same time by reversing the action of the lawn mower and using the cutting bar of the mower to do the sharpening. This insures each knife being exactly the same height so that each knife cuts. A special grinding compound, furnished by the manufacturer is used.

The sharpening of lawn mowers on the machine



Sharpening Lawn Mower Is a Simple and Profitable Job When This Machine Is Used.

offers excellent money-making possibilities, especially during the summer months, as the machine is very low priced and operating expenses are next to nothing. Lawn mowers can be reconditioned in a very short time.

In addition to sharpening the mowers, there is always money to be made making minor repairs and replacing worn and broken parts, so that when the sharpened lawn mowers are delivered to the owners, they are in first class condition.



"The Charm of the Sovereign Wood," Vol. II, has been published by the Hardwood Manufacturers' Institute, Memphis, Tenn., and is a handsomely illustrated booklet treating of decorative use of oak.

Cut Sanding Costs

With the Powerful New

Reid-Way
WHIRLWIND
SANDER

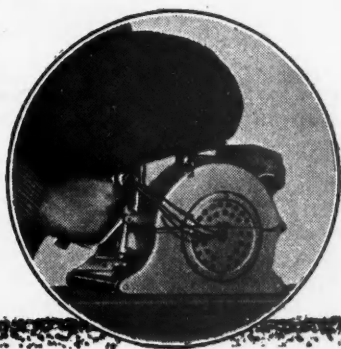
FOR nearly four years contractors have saved money with Reid-Way Sanders. Low first cost, due to extreme simplicity.....small operating cost.....negligible replacement expense..... make the Reid-Way an economical tool. Hand sanding is slow and costly compared with the fast cutting Reid-Way Whirlwind. Positive control permits even inexperienced operators to turn out perfectly finished work. Powerful! Dustless! Safe! Guaranteed of course! It will pay you to learn more about the Reid-Way, the Sander with only one moving part!

Send coupon for free circular

The REID-WAY CO.

734 North 16th Street
CEDAR RAPIDS, IOWA

The Sander
with only
**ONE
MOVING
PART**



Reid-Way Company,
734 North 16th Street,
Cedar Rapids, Iowa.

Gentlemen: Please send me circular describing the new
Reid-Way Whirlwind Sander.

Name _____

Address _____

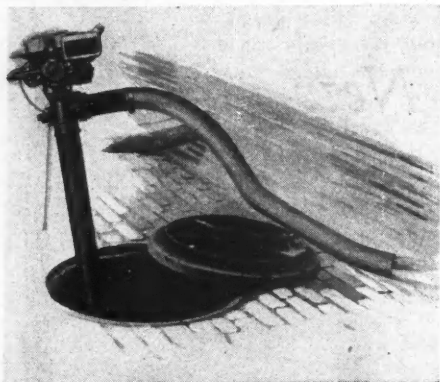


Ball bearing guide rollers front and rear insure ease of handling and uniform cut. The Reid-Way is instantly convertible from floor surfacer to bench sander or jointer.

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Outboard Motor Powered Pump

A NEW type drainage pump, powered with an outboard motor which is self-priming and which will shut itself off when the supply of water to be pumped is exhausted, has been placed on the market. This pump consists of a long pump shaft with a light twin cylinder outboard motor



A Thoroughly Efficient Pump Which Can Be Carried Easily on a Man's Shoulder.

mounted on the top. The motor powers the impeller which is located at the bottom of the shaft.

As the pump shaft sinks to the bottom of the water and the impeller is always submerged no air can be sucked while there is still water to be pumped. Thus delays in priming are eliminated. In addition starting difficulties are also eliminated as the water begins to flow immediately after the motor is started. The automatic shutoff prevents the pump from burning out on the job.

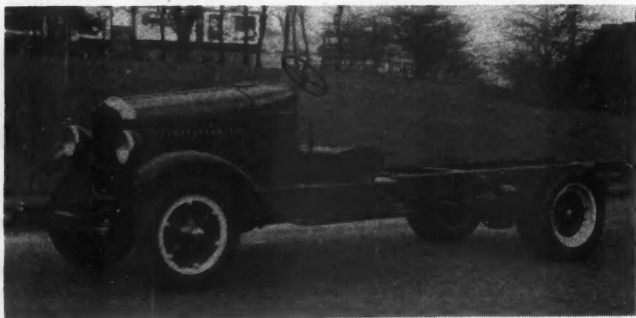
Contractors of all kinds, public utility companies and others have found uses for this pump on a wide variety of jobs. Some of these include pumping water from excavations, concrete forms, manholes and barges, and in dredging work of all kinds. It will pump 195 gallons of water per minute and 1,000 gallons for the approximate cost of one cent. It can do in five minutes what would require an hour and a half for one man with a hand operated pump, it is stated.

Contractors find it valuable in cutting down transportation expenses. A truck is not needed to move it from one job to another. Weighing only 85 pounds, it can be carried over the shoulder of any laborer. If long distances are involved it can simply be placed on the side of an ordinary automobile.



Another Light Duty Six Truck

ANOTHER new six cylinder light duty truck, having an allowable gross weight rating of 8,000 to 10,500 pounds, has been brought out by one of the leading manufacturers of motor trucks. The new chassis will augment an already wide range of four and six cylinder models which this company designs and builds throughout in its own factory. It will be available in 148 and 170-inch wheelbases. It has a six cylinder engine with large diameter, seven bearing



This New Truck Is Rated at 8,000 to 10,500 Pounds with Adequate Capacity for Its Rating.

crankshaft delivering smooth, flexible power through a sturdy, four-speed transmission.

Easy steering and control combine with four-wheel hydraulic brakes to insure complete traffic mastery under all city or intercity operating conditions. Engine, clutch and transmission are in unit. Double Invar strut aluminum alloy pistons are used. Compound jet carburetor and hotspot manifold give good carburetion at all speeds.

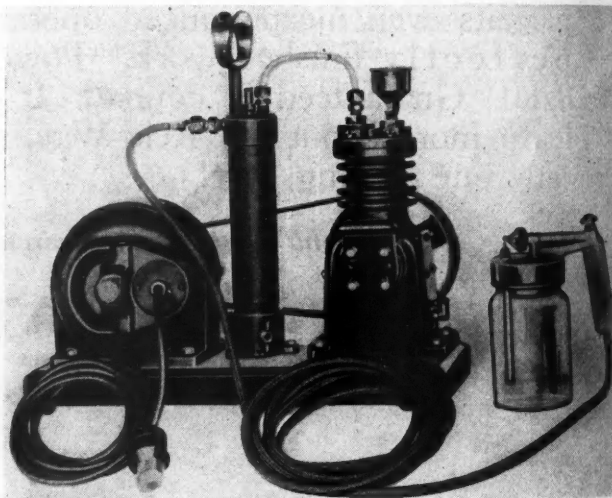
The crankcase breather exhausts around the carburetor intake, allowing the combustible content to be burned with the gas and fumes to be exhausted. This adds to driver comfort and cleanliness of the power plant. Large frame section with heavy cross members give the chassis adequate capacity for its rating. Dual rear wheels are driven through a sturdy semi-floating rear axle on roller bearings.



Adaptable Paint Spray Outfit

SO universal has become the demand from all trade and industrial classes for a really dependable spray painting and finishing outfit of easy portability, low price and absolute dependability, that a company specializing in spray-painting equipment has given special attention to the needs of the almost infinite variety and number of such users today.

The spray painting and finishing outfit illustrated is the answer of this company to this demand. In the creation of this outfit the manufacturer has stressed durability, capacity, and real serviceability, recognizing the fact that it must measure up to the serious requirements of practical men engaged in important painting and finishing operations.



This Portable Spray Painting Outfit Was Specially Designed to Meet the Demand for Dependable, Low Priced Equipment.

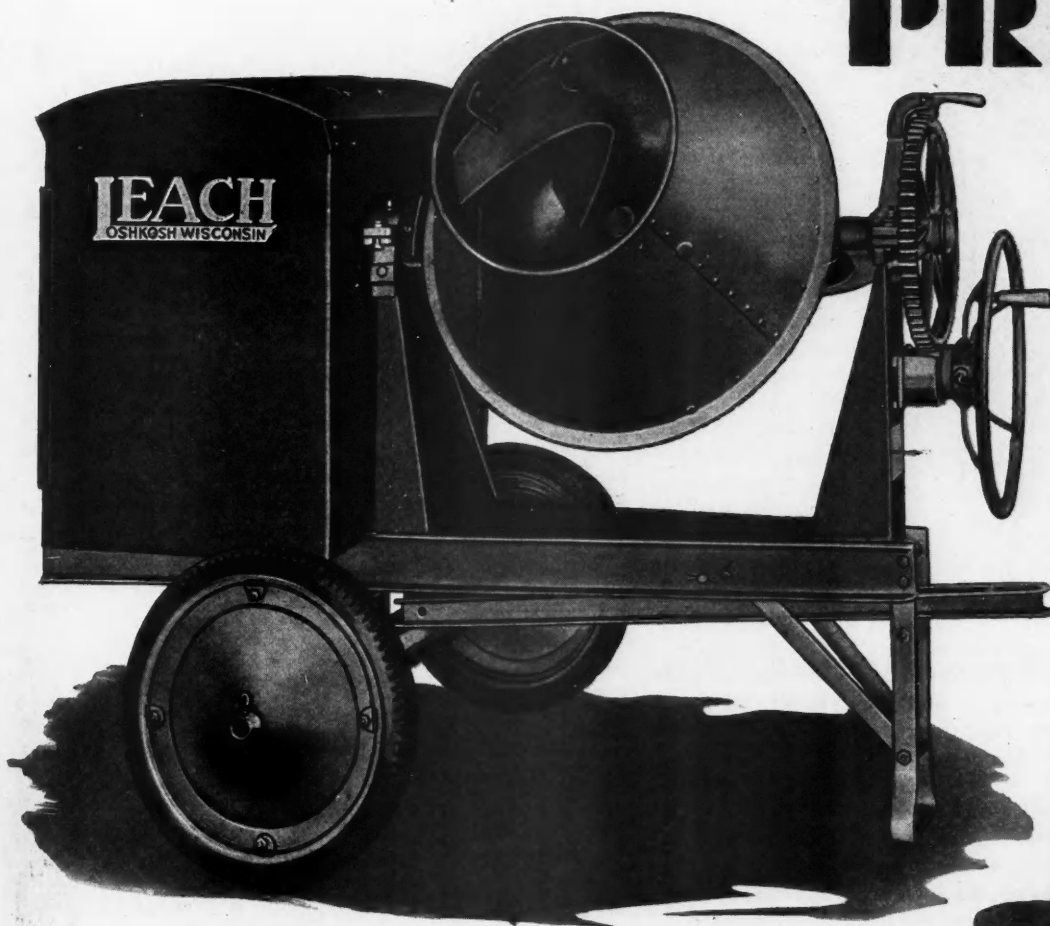
This outfit is complete with air compressor, ready for use. The operator merely puts the material into the paint container, plugs the electrical connection into a handy light socket and goes to work. It delivers a finely atomized spray adjustable from a round spray to a fan spray $3\frac{1}{2}$ inches in width. This outfit weighs only $47\frac{1}{2}$ pounds. It can be easily carried from place to place. The air supply is ample, and the pressure is always constant.

This is such an outfit as will give consistent satisfaction under the many and various uses for which it is intended. It conforms in every way to the character, quality, and efficiency of this company's larger outfits.



The Westinghouse Electric & Mfg. Co., E. Pittsburgh, Penna., have published a booklet in which the best methods for securing proper heating and ventilation are described.

DOWN GOES THE PRICE



**Dependable
Power...**

Speed...

Capacity...

Longer Life

All-Steel... More Strength

Here's Real Value! A Trailer Tilter with Speed, Capacity and All-Steel Construction at still *lower Prices*. Never before has Leach offered such a Mixer at so *low a price*.

Besides, this Trailer Tilter never before had the features of this model. It has the famous Leach All-Steel Construction, which means longer years of service, it has large drum opening; the arrangement of blades makes for faster, more thorough mixing action.

This Trailer can now be had at a *surprisingly low price*. If you want Mixer value, here it is. Send back Coupon today.

LEACH COMPANY, Oshkosh, Wis.



LEACH COMPANY
10 So. Main Street
Oshkosh, Wis.

Kindly send me details and prices covering your Tilter Mixers.

Name _____

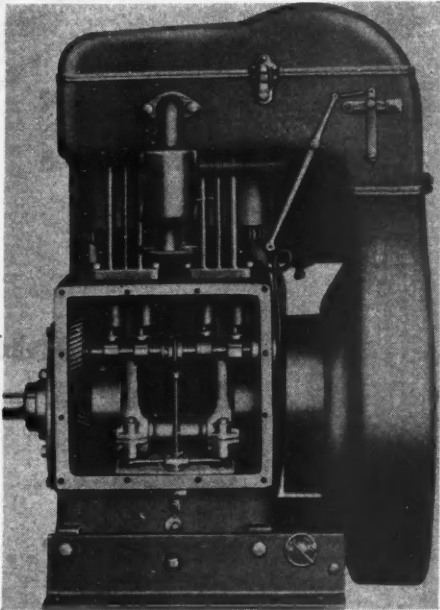
Address _____

LEACH MIXERS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Two Cylinder Air Cooled Engine

THE new two cylinder air cooled engine illustrated here has reduced 23 years of air-cooling experience into its simplest terms, it is stated. It is a valve-in-head type with detachable cylinder head. A large inspection plate may be removed, exposing all moving parts. A distinctive feature is the ease with which pistons may be removed and replaced through the inspection-plate opening. Boiler bearings, air-governor, Eisemann special flywheel magneto, Tillotson



This New, Two Cylinder, Air Cooled Engine Has Proved Itself as an Efficient Power Plant.

float feed carburetor and air cleaner, and Lynite connecting rods are standard equipment. The system of cooling is the same as that employed by all air-cooled engines which this company has produced. The flywheel is provided with a series of curved blower blades around its periphery, and as it turns it creates a partial vacuum in the wheel housing. The strong suction effect draws air in and down through the cylinder jackets. The air currents pass over and between the flanges at fairly high velocity and, as there is a large amount of exposed surface, the excess heat is promptly disposed of, being absorbed by air passing around the cylinders, which is ejected from the motor compartment by the action of the blower flywheel. This system has been used successfully for many years.

The new two cylinder is finding many friends where water is hard to get, or where extremes of heat and cold are experienced, it is stated, and, where light weight is a factor, it bears the same relation to the industrial and farm field that the air-cooled engine represents in the aircraft industry.



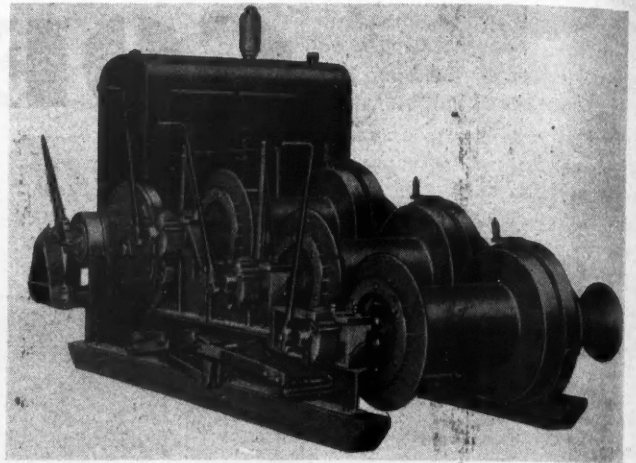
New Three and a Half Ton Hoist

A NEW hoist has just been designed and placed on the market for handling loads up to $3\frac{1}{2}$ tons. The standard line speed is 250 feet per minute, the greater loads, of course, being handled at lower speeds. A special high speed one drum hoist is included in the series that has a line speed of 480 and 520 feet per minute and a load capacity of 1,500, 2,300 and 2,700 pounds. The regular hoists are manufactured in one, two and three drum units.

An exceptional strength and rigidity has been achieved by constructing the frames, gears, ratchets and pawls of a new alloy perfected by this company that has a transverse strength of 80 per cent to 100 per cent more than cast iron, and wears four to six times as long as the best grade of semi-steel, it is claimed.

Danger of the base warping and the gears and bearings consequently twisting from line is eliminated by using an all-welded steel base. Electric welding of each joint unites the base parts into a rigid one-piece unit. To further insure absolute rigidity, the spreaders are tubular rather than the usual square castings or channels. By actual

test at the Michigan State College, East Lansing, Mich., it was found that a $2\frac{1}{2}$ -inch pipe resisted 10 times more torsional force than a 4-inch steel channel—although the



A New Alloy of Great Strength and Wearing Quality Adds to the Strength and Rigidity of These Hoists.

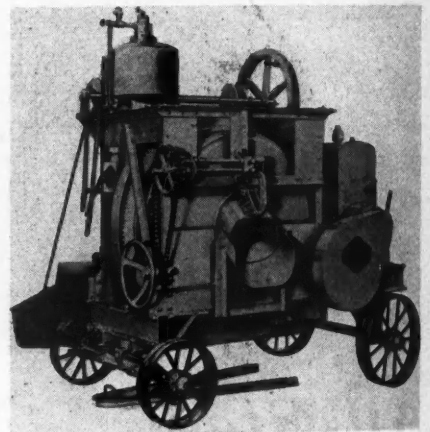
channel weighed slightly more per foot than the pipe, it is stated.



New Mixer Gives Fast Operation

A WELL known manufacturer of mixers has just brought out a new, 14-S, non-tilting mixer said to be unusually simple in construction and fast in operation.

The drum is of the typical design of this company, big in diameter and narrow, with 10 deep, full-width, discharge buckets and large drum openings. It is claimed that these drum improvements permit the use of a wider throated skip and wider discharge chute than ordinary. These are time saving features that assure quick loading and fast discharge.



Complete front end operation is provided, with both charge and discharge sides of the mixer visible. The drum rollers are equipped with oversize Timken bearings in dust tight housings.

Simplicity of Construction Assures Dependability in This New Mixer.

Other features include: pressed steel drum heads, short swinging discharge spout and auxiliary stationary spout, band friction hoist clutch and brake, low hot riveted frame, forged steel rear axle brackets and wheels that turn under the frame for easy handling. Optional equipment includes a newly designed batch hopper with large swinging gate.

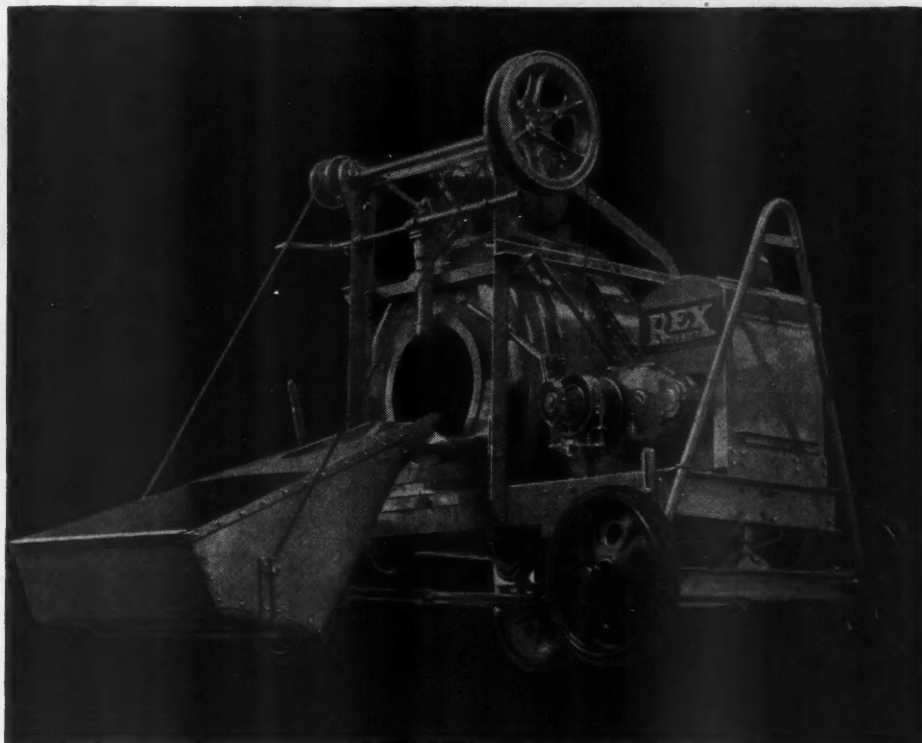
The company reports that a large number of these new mixers are now in service and have proven unusually fast and dependable in operation.



"Man's Conquest of the Air," by Stig G. Sylvan, M. E., and Prof. Samuel E. Dibble is a booklet published by the Midwest Air Filters, Inc., Bradford, Penna., and which presents an analysis of the centrifugal air cleaning principle.

Again

Rex Sets 1-Bag Value



With Spring Hung Axles • • End Control • • Advanced Design

Not content with having set styles and standards for current competitive 1-bag mixers—Rex emphasizes again its engineering leadership with this new 7-S mixer for 1929.

Keeping eyes attentively on the contractors' problems and requirements, Rex engineers have made basic changes in design, have added new features, which develop almost phenomenal performance.

And through Rex production facilities even this remarkably advanced machine can be turned out at prices that set a new standard for what your mixer dollars can buy.

Sending this coupon for a catalog will re-affirm every point we mention.

CHAIN BELT COMPANY, 721 Park Street, Milwaukee, Wisconsin

REX MIXERS

(Reg. U. S. Pat. Off.)

New end controls
No open gearing—no grinding
No clumsy countershaft
Clutches, power take-offs integral with engine
Enclosed gears in oil
Modern skeleton top frame
Good-bye 1,000 pounds excess weight
Fastest performance in industry
Stream-line fast-sliding skip
Free way valve, split second, accurate water
7 h. p. engine, high tension magneto
Timkens in pressed steel drum rollers
New pressed steel drum heads
New drum chain drive
Spring hung axles

CHAIN BELT CO.,
721 Park Street, Milwaukee, Wisc.
Send me Catalogs on the mixers I've checked.

1/2-bag tilter	<input type="checkbox"/>	2- to 3-bag 14-S	<input type="checkbox"/>
1/2- to 1-bag 5-S	<input type="checkbox"/>	6-bag 28-S	<input type="checkbox"/>
1-bag 7-S	<input type="checkbox"/>	12-bag 56-S	<input type="checkbox"/>
1- to 2-bag 10-S	<input type="checkbox"/>	27-E Paver	<input type="checkbox"/>

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

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

For Free Sample

THIS IS
PATTERN
No. 626

HANGS LIKE
WALL
PAPER



Oil-Texd

NEW
PERMANENT
TEXTURED
WALL COVERING

*A Better Rough Wall Decoration
in Modern Craft Texture Designs*

Washable — Decorative — Easily
Applied — Inexpensive — Built up
in Linseed Oil — No Surface
Cracks — Easily Repaired — Can
be removed, permitting any other
type of decoration.

The wall is finished in one operation
without smudging the wood-
work and a uniform texture is
assured. Applied to any smooth
surface like wall paper.

Made in any color and in a variety
of designs suitable for any
room in the home, public hall,
stores, etc.

Lincrusta-Walton Co.
Hackensack, New Jersey

Width of Roll 19½ Inches Trimmed
LENGTH OF ROLL—8 YARDS

LINCRUSTA-WALTON CO.
Hackensack, New Jersey
Please send me free samples and literature.

NAME.....
ADDRESS.....
TOWN.....
STATE.....

NEWS *of the* FIELD



Thorn Joins Chicago Corporation

LATEST augmentation of the executive personnel of the insulating board division of the Chicago Mill & Lumber Corporation is the addition of Harry D. Thorn as manager of advertising and sales promotion. Mr. Thorn was formerly advertising manager of E. L. Bruce Co., and of the Insulite Company. He was graduated in forestry from the University of Michigan in 1921, following service in the aviation corps during the World war.



Tentative sales promotion work is already under way by the insulating board division in preparation for a campaign which is to start simultaneously with production of the product in early fall at the new mill now under construction at Greenville, Miss. Mr. Thorn will maintain office at the company's headquarters in the Conway Building, Chicago, and will work in unison with the efforts of O'Neill Ryan, general sales manager.

**Harry D. Thorn Made
Advertising and Sales Pro-
motion Manager of the
Insulating Board Division
of the Chicago Mill &
Lumber Corp.**

Chicago "Own Your Home" Show

THE Chicago Ninth Annual "Own Your Home" Exposition will be held during the two-week period from April 27 to May 11. The new outdoor location on which demonstration houses will be erected is a city lot strategically located a few steps from the widely traveled Michigan Boulevard.

Beebe Made President

MR. DANIEL S. BEEBE is now president of San Duro Manufacturing Company, Rockford, Ill., formerly known as Phenolic Products Company, manufacturers of Bakelite Toilet Seats and other specialties. He was formerly vice-president and general manager of the Vitrolite Company of Chicago.

Whiting-Adams New York Office

THE Whiting-Adams Company, Boston, Mass., manufacturers of quality brushes, have established branch sales offices at 30 Church Street, New York City, to take care of export and industrial business. Chas. A. Darby, Jr., district sales manager, will be in charge.

Faster All the Way

with the

SMITH 3½-S



FASTER CHARGING

The big, wide feed chute, only waist high, provides faster and easier loading. No other mixer has this feature!



FASTER and BETTER MIXING

The double cone drum has the famous Smith end-to-center mixing action that gives you a more thorough mix in less time.

YOU save seconds on every batch with the Smith 3½-S Mixer.

The big, wide feed chute permits adding the cement directly from the sack. Into the drum faster, goes the batch, and the famous Smith end-to-center action means faster and better mixing. A short motion of the tilt lever and in eight seconds the drum is completely discharged.

That's what you call a speedy batch—faster all the way—more yards of concrete poured per day. And remember, the 3½-S is built like the big Smiths used on the world's greatest construction projects.

You will want this **BETTER** and **FASTER** mixer for pouring the small jobs. Send the coupon below for complete descriptive information.

Built in all sizes, 2½-S to 112-S.



FASTER DISCHARGING

And discharge is fast! Simply tilt the drum a short distance and dry or wet batch comes scooting out.



SMITH MIXERS

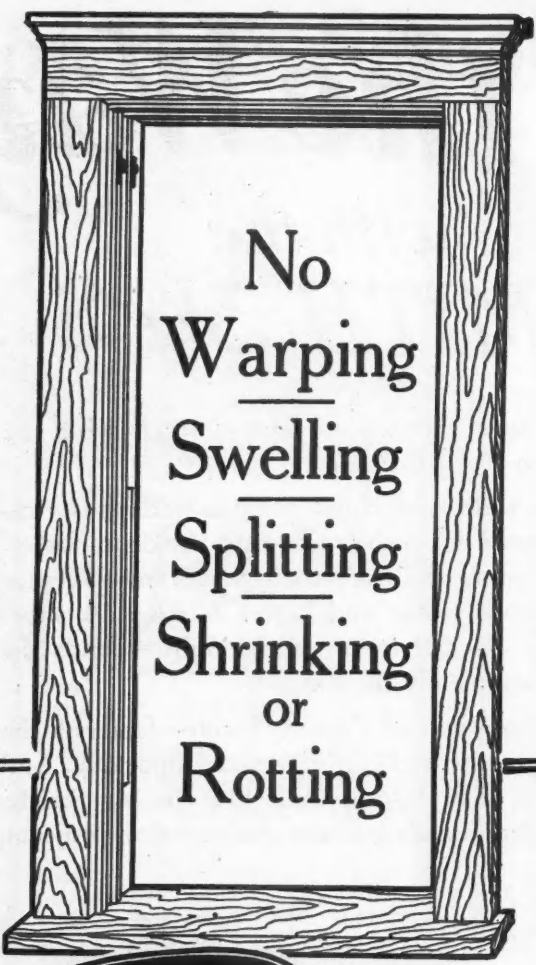
THE T. L. SMITH COMPANY, 1026-32nd Street, Milwaukee, Wisconsin

Please send me complete descriptive information on your Small Mixers.

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

AMSB-1-SM

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



No
Warping
Swelling
Splitting
Shrinking
or
Rotting

Bradley-Miller
Michigan White Pine
Frames

"Permanence"
That's What
We Offer in
Michigan White Pine Frames

The earliest American homes built of Michigan White Pine have withstood the ravages of time and have proven by their excellent state of preservation the economy of using this durable wood.

You can get immediate delivery on frames for any size opening in any pattern desired, for all types of construction. To assure satisfaction, use Bradley-Miller Michigan White Pine Frames.

YOUR DEALER SELLS THEM
Our booklet on these frames will be sent you upon request.

BRADLEY-MILLER & CO.
BAY CITY MICHIGAN

Mordan to Succeed McComb

AT a recent meeting of the executive committee of the Save the Surface Campaign, the resignation of William R. McComb, who has been business manager of the campaign for the past three years, was announced. The committee expressed its appreciation of the work which he has accomplished and well wishes for Mr. McComb in his new position as vice-president of the Craftex Company.

H. E. Mordan has been appointed to succeed Mr. McComb as business manager. Mr. Mordan has been associated with the campaign for five years.



Genfire Personnel Changes

GENFIRE STEEL COMPANY of Youngstown, Ohio, announced the opening of a new branch office at 439 Penobscot Building, Detroit, Mich. M. G. Dodson, formerly in charge of divisional sales at the Youngstown office of Genfire Steel Company, will be in charge of the new Detroit office. His new territory will include eastern Michigan and a portion of northern Ohio.

A. A. Fraser, manager of the Dallas branch office, has been transferred to the managership of the San Francisco office.

H. G. Coffman, a salesman in the Syracuse branch office, has been made manager of the Dallas office.



Announce New Product

THE Knapp Brothers Manufacturing Company, 605 Washington Blvd., Chicago, Ill., and factory at Joliet, Ill., announce they are now manufacturing the necessary equipment for Knapp Wyr-Way Base Branch Circuit Distributing System.



STATEMENT OF OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of AMERICAN BUILDER, published monthly at Chicago, Illinois, for April 1, 1929.

State of New York
County of New York

ss. Before me, a Notary Public in and for the state and county aforesaid, personally appeared J. T. De Mott, who having been duly sworn according to law, deposes and says that he is the treasurer of the publisher of AMERICAN BUILDER and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, American Builder Pub. Corp., 105 W. Adams St., Chicago, Ill., and Simmons-Boardman Pub. Corp., 30 Church St., New York, N. Y. Editor, B. L. Johnson, 105 W. Adams St., Chicago, Ill.

2. That the owners are: American Builder Publishing Corp., 105 W. Adams St., Chicago, Ill. Stock owned by Simmons-Boardman Publishing Corp., 30 Church St., New York, N. Y. Stockholders of 1 per cent or more of the total amount of stock: I. R. Simmons, 1625 Ditmas Ave., Brooklyn, N. Y.; P. A. Lee, 246 Rugby Rd., Brooklyn, N. Y.; H. Anderson, 246 Rugby Rd., Brooklyn, N. Y.; E. G. Wright, 398 N. Walnut St., E. Orange, N. J.; Spencer Trask & Co., 25 Broad St., New York, N. Y.; S. O. Dunn, 105 W. Adams St., Chicago, Ill.; C. E. Dunn, 3500 Sheridan Blvd., Chicago, Ill.; B. L. Johnson, 105 W. Adams St., Chicago, Ill.; W. A. Radford, 105 W. Adams St., Chicago, Ill.; L. B. Sherman, 575 Sheridan Rd., Winnetka, Ill.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

J. T. De Mott, Treasurer.
Sworn to and subscribed before me this 26th day of March, 1929.
H. D. NELSON,

(My commission expires March 30, 1931.)
[SEAL.]

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DODGE BROTHERS TRUCKS



CHRYSLER MOTORS PRODUCT



Paying a high return in fast, reliable transportation on a small outlay . . .

THERE is no guess, no experi-
ment about Dodge Trucks
.... For years they have been
paying their hundreds of thou-
sands of owners a high return on
a small investment They have
been paying this high return in
work done, in time saved and in
dollars actually earned.

Right in each fine detail of design
and workmanship, built for work
and honestly priced, Dodge Trucks
are dependable always

powerful, fast, comfortable, safe,
and economical in operation.

Go over the complete line with
your Dodge Brothers dealer
He can deliver to you the chassis
you need with the body you
need, ready to work—and arrange
to let it help pay for itself.

Only great volume production
makes possible trucks so good at
prices so low More than
a million dollars' worth of Dodge
Trucks are sold every week.

Formerly Graham Brothers Trucks

The complete line of Trucks, Buses and
Motor Coaches manufactured by Graham
Brothers (subsidiary of Dodge Brothers)
now take the name of Dodge Brothers.

These Trucks, Buses and Motor Coaches,
powered by Dodge Brothers engines and
manufactured according to Dodge Brothers
standards, are sold, as they always have been
sold, by Dodge Brothers Dealers everywhere.

PRICES

MERCHANTS EXPRESS—109" w. b. . . .	\$ 545
COMMERCIAL TRUCK—120" w. b. . . .	775
1-TON—130" wheelbase	995
1-TON—140" wheelbase	1065
1½-TON—150" wheelbase	1345
1½-TON—165" wheelbase	1415
2-TON—150" wheelbase	1515
2-TON—165" wheelbase	1585
3-TON—135" wheelbase	1745
3-TON—165" wheelbase	1775
3-TON—185" wheelbase	1845

Chassis f. o. b. Detroit

SOLD BY DODGE BROTHERS DEALERS EVERYWHERE

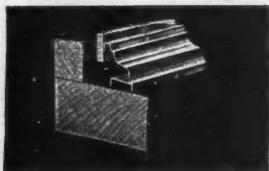
WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

New Ideas in STORE FRONTS

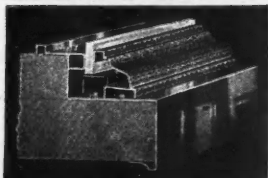


A modern store front of Brasco, typical of the many you can install with good profit. Mail the coupon for details.

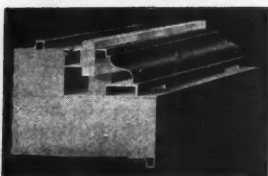
New Profits FOR YOU!



PERMAWITE



ART BRONZE



COPPER

BUILDING design is changing—stores are changing, too—better, brighter display windows, larger plate, more artistic effects.

Here is your opportunity to line up with the new and bigger demand for modern store fronts. Brasco makes it easy for you to get this profitable work, with the latest ideas in all-metal construction—in copper, Art Bronze and PermaWite, the newest style in white and black.

Brasco is famous for strength, permanent beauty, glass safety and every other essential. You can install it with confidence—and our service department helps you.

Mail the coupon and get started at once on this profitable work.

Brasco Mfg. Co.
5029 Wabash Ave.
Chicago

Brasco
STORE FRONTS

*Mail
Coupon*

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

Send me your free information on profitable store front work.

Name..... (AB 5-29)

Address.....

Johns-Manville Buys Rights

THE Johns-Manville Corporation has announced the acquisition of the United States and Canadian rights to manufacture and sell Transite pipe, a seamless pipe made of asbestos and cement, under the patents of the Eternit Pietra Artificiale Societe Anonima, of Genoa, Italy.



Oil Burner Companies Merged

ANNOUNCEMENT has just been made of the merger of two of the leading oil burner companies into a single organization. The Petroleum Heat & Power Company, of Stamford, Conn., and the Nokol Company, of Chicago. Under the new organization the dealer organization of both Petro and Nokol will retain their separate identity.



Reading Iron Company Announcements

THE following announcements have been made by the Reading Iron Company, Reading, Pa.: A new office has been established at 402 Mutual Bldg., Kansas City, Mo., with H. D. Pollard in charge. John G. Cottle, formerly with the sales staff, has been appointed railroad sales representative in the Chicago and western territory, to succeed H. L. Shepard, who has resigned. O. L. McGinn, Conrad G. High and A. C. Knight have joined the sales staff. E. W. McHenry has been appointed district sales representative, with headquarters at Houston, Texas.



Truscon Issues New Price List

NEW price schedules applying to industrial steel windows have been announced by the Truscon Steel Company of Youngstown, Ohio, in connection with the issuing of a series of books describing the Truscon line of industrial windows.

Another announcement states that H. M. Schaab has been appointed as manager of steel door sales for the company.



For the "Buyer's Guide"

THE Chromite Co., 228 N. La Salle St., Chicago, has developed and placed on the market a new wall finish to be used in the place of clay tile in bathrooms and kitchens. The material is a thin zinc sheet finished with baked enamel and is applied much like wallpaper. In order to make your "Buyer's Guide," pages 259 to 286, of the April AMERICAN BUILDER, a complete and up-to-date reference list, you should write into it the name of the Chromite Co., under the headings: Tile—Wall, Tile—Rubber Floor, and Fixtures—Bathroom.

Other additions to bring the "Buyer's Guide" up-to-date include, under the heading, Saws—Band, the name of the U-to-Date Machine Works, 2913 So. Wabash Ave., Chicago; under the heading, Sprays—Paint, the name of the Hobart Bros. Co., Troy, Ohio; under the heading, Brackets—Roofing, the name of the W. E. Cashman Equipment Co., 14 Winslow St., Providence, R. I.



Planning Beforehand

(Continued from page 67)

Attention is also called to the fact that when using a power saw where the saw is set at a certain degree for making the side cuts, if the saw is run along the line on the side of the rafter then the side cut is always 45 degrees. In other words, if the saw is set at 45 degrees and is run along the plumb cut line, it will cut the correct side cut for either jack or hip rafters. This point will be illustrated in a future lesson.

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For 8 years, The James Lumber Co., Baltimore, Md., has been highly satisfied with Goodyears

Doing a better job, year after year

The great majority of fleet owners who give Goodyear Tires a fair trial *keep on using Goodyears.*

They find that Goodyear knows their hauling conditions, and builds tires specifically suited to every type of job—which is another way of saying that Goodyear tires deliver a lower cost per ton mile.

Whether it is lumber delivery—or hauling out the dirt when excavation starts—there is a specific Goodyear Tire for every construction duty.

The Goodyear Super Heavy-Duty Cushion combines maximum ton-carrying ability with the powerful traction and slow, uniform

wear of the famous ALL-WEATHER TREAD.

The Goodyear Super Cushion (hollow center) supplies easy steering and resilience approaching that of pneumatic cords on front wheels—and yet cannot be put out of service by the nails or spikes so common around building operations.

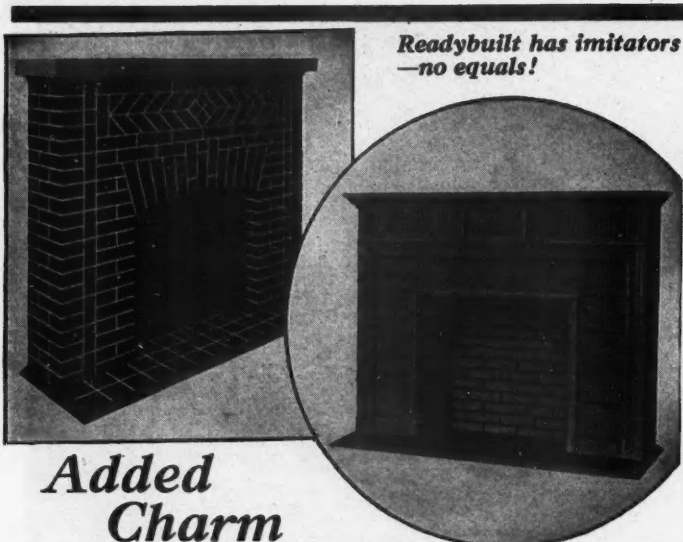
Then there are Goodyear Dump Truck Pneumatics for excavation work. A broad tread of sharp-edged cleats—flanked by husky bars far up the sidewall—reinforced with the extra vitality of SUPERTWIST Cord in the body—these tires are amazing in their ability to pull through the toughest going and roll out mileage on the level.

More Tons Are Hauled on Goodyears Than on Any Other Tires



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—no equals!*

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That Increases Home Sales

The extra touch of comfort and cheer that a Readybuilt Fireplace brings to a home is frequently the deciding factor in making a sale, as many leading builder developers have found to their increasing satisfaction. Readybuilt brings a grace and beauty cheer and utility that holds an irresistible appeal to the prospective home owners.

Readybuilt fireplaces, are just what the name implies—fireplaces ready to install in one hour of a handy man's time.

Many models in period and modern design, each of unsurpassed beauty and distinction. Low prices....proven merit, plus national recognition make Readybuilt the logical choice of the experienced. Write today for full details.

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READYBUILT FIREPLACES

Books, Bulletins and Catalogs for You

THE literature and publications listed here are available to the readers of American Builder. They may be obtained from the firms mentioned and will be forwarded without cost except where a price is noted.

The W. E. Dunn Mfg. Co., of Holland, Mich., has a new booklet, "Duntex, a Chain Manufacturing Opportunity for You," which describes its machinery for the manufacture of the new concrete roof tile, Duntex, illustrates the process of applying permanent color, and indicates sales possibilities and the manufacturing opportunities in communities in which plants have not yet been located.

The Long-Bell Lumber Company offers a most attractive and valuable booklet under the title, "The Book of Lawn Furniture," illustrating a great number of designs useful to the home builder. Price, single copies, 25 cents each. By mistake, this booklet was listed in the April issue without indicating the price.

"Practical Railway Painting and Lacquering" by H. Hengweld, C. P. Disney and Wm. J. Miskella, is a handsomely illustrated book published by the Finishing Research Laboratories, Inc., and distributed by the Simmons-Boardman Publishing Corp, 30 Church St., New York City. It is a handbook for railroad men, thoroughly covering the subject indicated. Price, \$3.50.

The Creo-Dipt Co., Inc., 1107 Oliver St., North Tonawanda, N. Y., has published a number of booklets in colors illustrating their Creo-Dipt stained shingles.

The Louisville Cement Co., Inc., Speed Bldg., Louisville, Ky., offers a new book which explains fully the uses and advantages of Brixment for stucco.

"12 Reasons for Cornell," is the title of "A Book of Practical Selling Helps—Designed Especially for the Benefit of Cornell Dealers," by the Cornell Wood Products Co., 190 N. State St., Chicago.



LEADERSHIP

IN 37 countries throughout the world leading builders, contractors and floor laying concerns are equipped with "American" floor surfacing machines—a tribute to "American" engineering skill and workmanship.

Operate the American High Production Floor Sander for only a few minutes and you will instantly understand why "American" sanders are demanded. Such handling ease—such operating smoothness—such compactness—such dustlessness—such dependability—and such high production qualities have heretofore been unknown in floor sanders.

Big money can be made right now sanding and resurfacing floors the "American High Production Way". Our "On Approval Plan" gives you the opportunity to try the machine before you buy it.

Mail the Coupon TODAY

The American Floor Surfacing Machine Co.
515 So. St. Clair St., Toledo, Ohio

Gentlemen: Without obligation, please tell me more about how I can cash in on the Spring months with an American High Production Floor Sander. Also tell me about your "On Approval Plan."

Name.....

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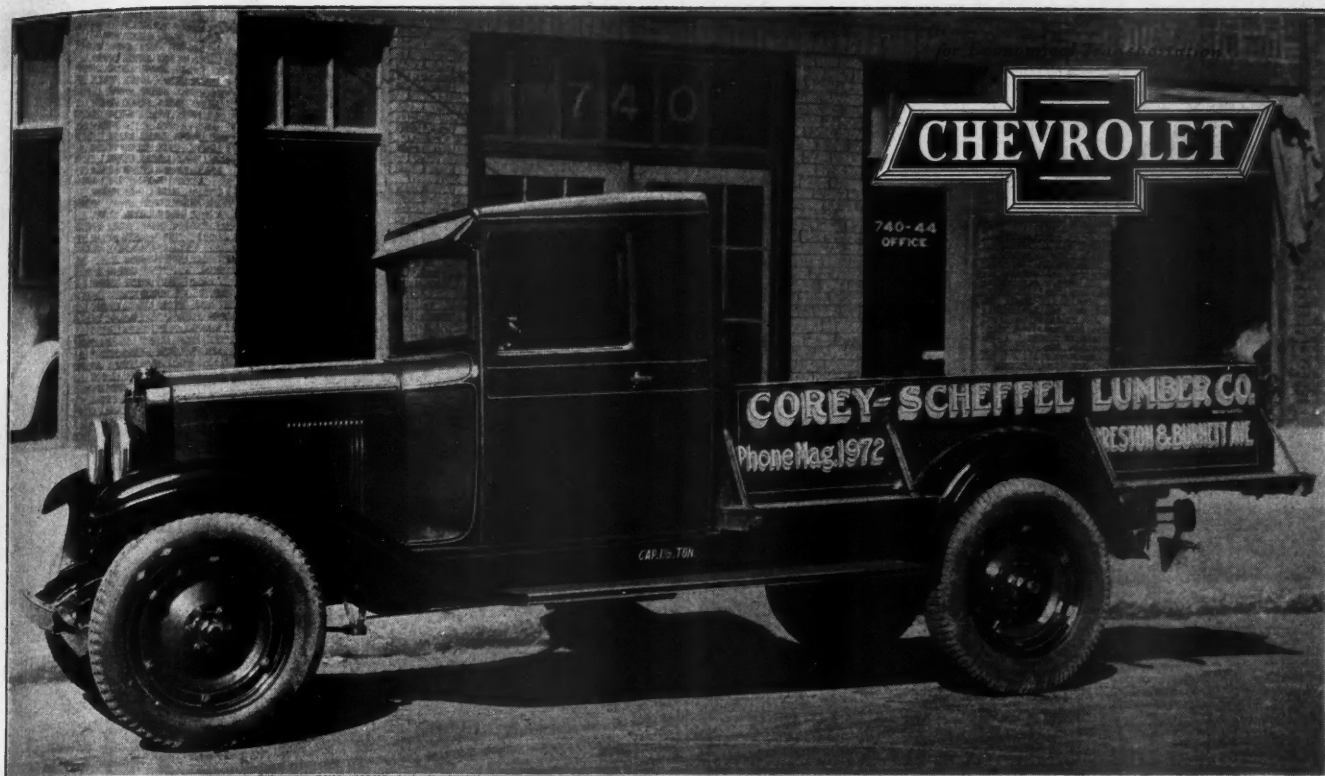
The American Floor Surfacing Machine Co.

515 So. St. Clair St. Toledo, Ohio

Branch service stations in principal cities

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THE A. R. WILLIAMS MACHINERY CO., Ltd., Toronto



ALL THE ADVANTAGES OF SIX-CYLINDER PERFORMANCE ~in the price range of the four!

Powered by a great six-cylinder valve-in-head motor — whose smooth, powerful, economical operation has set a new standard for performance in the low-price field—the new six-cylinder Chevrolet trucks are sweeping on to the greatest popularity in the history of the commercial car industry.

Never before has a low-priced truck so admirably met the modern demands of business transportation. A power increase of 32% results in swifter acceleration and higher speed—with extraordinary flexibility in traffic. Big, quiet, non-locking four

wheel brakes give a measure of braking control in excess of the severest requirements. And a full ball bearing steering mechanism reduces driving fatigue to the very minimum.

But most remarkable of all—this amazing six-cylinder performance is actually available in the price range and with the economy of the four!

Consult your Chevrolet dealer today about your transportation requirements. You will find exactly the truck you need—and it will do your work with amazing efficiency and economy.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

Sedan Delivery

\$595

Light Delivery Chassis

\$400

1½ Ton Chassis

\$545

1½ Ton Chassis with Cab

\$650

All prices f. o. b. factory
Flint, Michigan

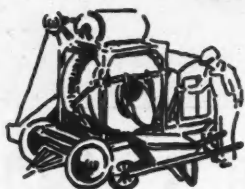
COMPARE the delivered price as well as the list price in considering automobile values. Chevrolet's delivered prices include only reasonable charges for delivery and financing.

A SIX IN THE PRICE RANGE OF THE FOUR!



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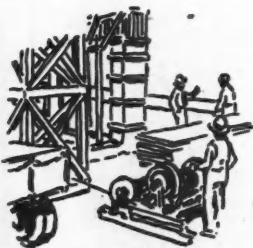
The American Builder Service Department will gladly put its readers in touch with reliable manufacturers of appliances, machinery, tools, building materials and supplies of every description.



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If you are interested in any kind of building materials, contractors' equipment and machinery, power shop equipment, heating system, 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—fill out the coupon below, send it to the AMERICAN BUILDER and we will take the matter up at once with the proper parties who will send you their catalogs, prices and any other information you desire.



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From time to time manufacturers bring out new appliances, materials, machinery and equipment. You should be kept informed on the improvements by having on hand a complete reference library of catalogs published by these manufacturers. If you need anything that is or is not advertised in the AMERICAN BUILDER or want something that is not used in building just let us know and we will gladly help you.



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. Remember—This service is ABSOLUTELY FREE to American Builder readers.



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

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

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Name

Address

Please check your occupation: Building Contractor ☐; Dealer in Building Materials ☐;
5-29 Prospective Home Builder ☐; Architect ☐

Build in values that help you resell!

Put Win-Dor casement operators on your next houses and notice the eager response you'll get because of their easy, quick action and positive automatic-locking feature. A touch swings the casement to any desired position, through the screen. Convenience is the selling point—particularly with women. Several types, all finishes, for wood or steel casements; attractive prices.

Win-Dor
CASEMENT HARDWARE



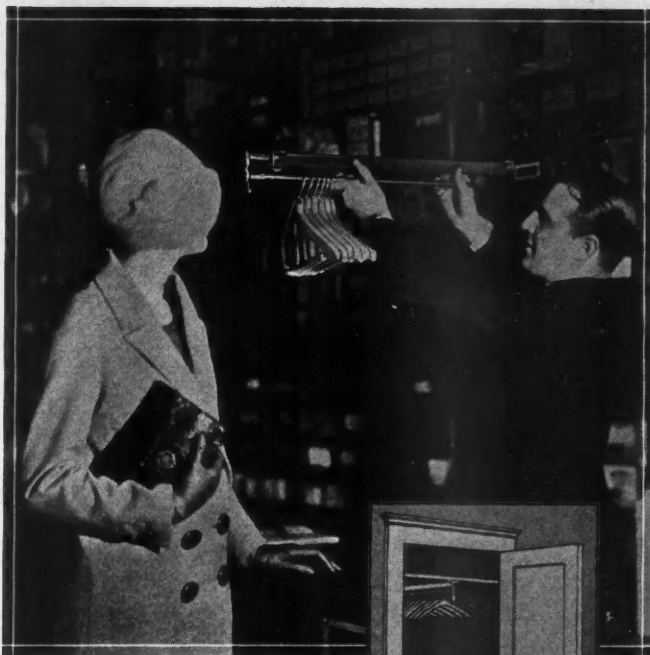
Here is a carpenter installing Win-Dor Series 25 geared operators on steel sash.

On the window transom is Win-Dor Series 10 transom operator.

THE CASEMENT HARDWARE CO.
402-A No. Wood St., Chicago, Ill.

Please mail me your illustrated price list

Name.....
Address.....



K-V

Clothes Closet Fixtures

In the Home You Build

... Ask Your Dealer!

Do you know that the K-V Clothes Closet Fixture, the ideal garment carrier, has proved a real selling feature in many homes? This improvement in the modern clothes closet actually promotes turnover along with modern plumbing, modern heating and refrigeration methods.

And yet the K-V Clothes Closet Fixture is an inexpensive, easily installed, handsomely nickeled device that cannot get out of order and will serve satisfactorily at all times.

These fixtures make orderly garment cases out of small, almost useless cubby holes, increase capacity, and preserve clothing. They are a lasting convenience and immediately appeal to every woman who sees them.

If your dealer hasn't a present representative stock of K-V Fixtures for the clothes closet, write us direct and we will see that you are supplied. These fixtures are made in multiples of 2 inches from 12 to 60 inches long, and will fit any closet in new or old homes. Write.

You Can Rely on K-V Products

For all shelving needs K-V Adjustable Shelf Supports will be found the most economical and satisfactory installation. Get the story of this adjustable feature. Also K-V Steel Sash Pulleys—they cost no more, and K-V Shoe Racks, in addition to a complete line of cabinet hardware.

KNAPE & VOGT MANUFACTURING CO.
658 Richmond Ave. Grand Rapids, Mich.

KNAPE & VOGT MFG. CO.
658 Richmond Ave.
Grand Rapids, Mich.

Send me information, prices, etc., concerning:

- ☐ K-V Clothes Closet Fixtures ☐ K-V Sash Pulleys
☐ K-V Shoe Racks ☐ K-V Shelf Supports

NAME.....
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*Look at the
Business
End*

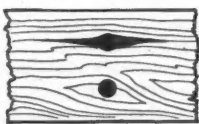
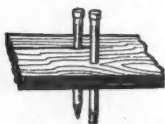


PICTURE for yourself the benefits to your business if nails did not split wood and if they did not become loosened. To some, such a condition means the making of a better product; to others, economy of materials and labor.

Whether your nail problem is in manufacture, in packing, in building construction or repairing, the Stronach non-splitting, sure-holding Nail is a great boon. It will eliminate a very large part of your nail troubles—and do so economically.

Write for details concerning this simple, yet remarkable, product.

How the Nail Works



The triangular end cuts the wood fibers, punching a hole ahead of the nail body. There is no splitting as with diamond pointed nail, which wedges the fibers apart.

The hole punched is smaller than the nail body, giving the wood a tight grip *all around* the nail. This increases holding power tremendously.

STRONACH NAIL COMPANY
2008 Union National Bank Bldg. Pittsburgh, Pa.

NON-SPLITTING, SURE HOLDING
Stronach Nails

There is
practically
no limit
to your
choice of
finishes



ONE of a number of good reasons for standardizing on Grand Rapids line of pulleys is the wide variety of finishes in which they are obtainable—finishes that will meet every condition.

Other features that make this line the most profitable in the world to handle are:

Their All-Steel Construction that eliminates breakage and replacement—that makes them lighter and stronger, a permanent part of the buildings in which they are installed.

Guaranteed perfection—Absolute uniformity—Unapproachable Ease and speed of installation.

A complete line to choose from of Ball Bearing—Cone Bearing and Axle Bearing types—more than 20 models.

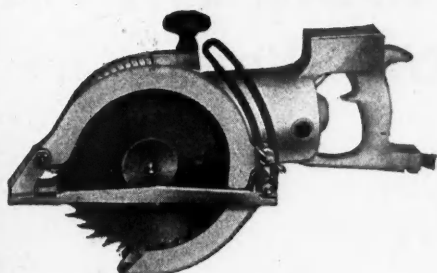
Cost no more than ordinary pulleys.

Write for catalog, samples and prices.

GRAND RAPIDS HARDWARE CO.
556 Eleventh St.
GRAND RAPIDS, MICHIGAN



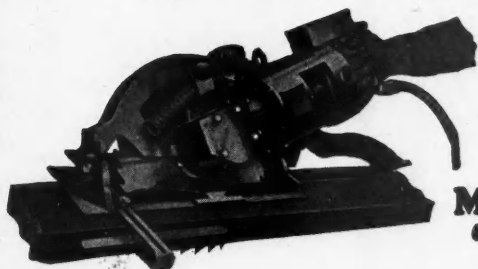
Sawing —Speed



\$95 Cuts Up To 2 5/8"

AT CHICAGO Here is Model K Wodack Saw with 8-inch blade and 1/2 h.p. G.E. Universal Motor. Weighs only 15 lbs. Rips a plank 10 ft. long, 2 in. thick in 30 seconds. Compare this capacity with any saw at anywhere near the price.

*There are 4 Models
of Wodack Saws*



**Model
"B"**

Cuts Up to 4 1/8"

Model B is the most complete hand saw on the market. Makes bevel cuts up to 60 degrees with 11-inch blade. Cuts any lumber up to 4 1/8-inch. Has every refinement. G.E. Universal Motor develops 19/10 h.p. under load.

This is the only saw using the patented Wodack swing guard that protects the operator when making Bevel Cuts.

This is the **ONLY** saw that tilts to the right when making bevel cuts—allowing perfect vision.

Ask us about Wodack Combination Lock Mortiser and Router, and Wodack Electric Hammer.

F. L. ROGERS & CO.

23 S. Jefferson St., Chicago, Illinois

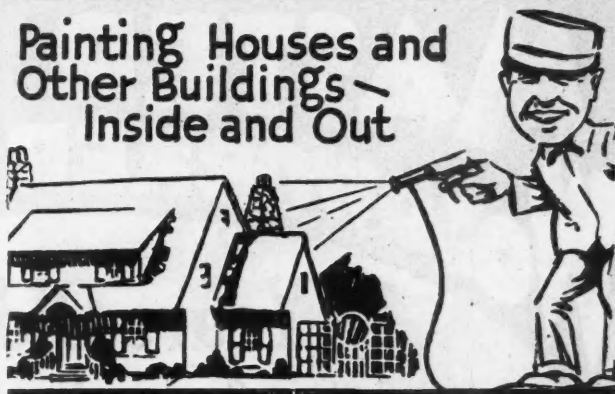
Please tell me how I can try your Model on my job.

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AB

**Painting Houses and
Other Buildings—
Inside and Out**



**BIGGER
PROFITS
for you**

Get the profit on painting work that is now going to outside painters.

One man with an HB Spray outfit enables you to do the work of 4 to 5 brush painters—at a big profit to you. Does the highest quality work both inside and out.

Pays for itself out of the profits on the first one or two jobs—and continues to earn for you on that basis.

**ONLY \$25
Monthly**

**Easily Paid Out of
the Increased Income**

Attractively priced—built complete by HB Industries—insuring higher quality, yet lower priced. Not assembled.

Highest quality throughout—ball bearing motor—silent spiral bevel drive—gives a readily portable outfit, which eliminates noisy breaking belts.

30 Days Trial

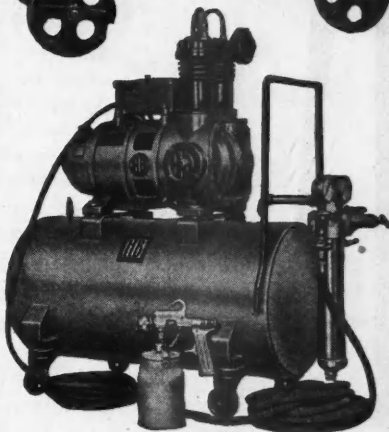
—at our risk on your job

We welcome comparative tests. That's why you can have 30 Days Trial of an HB. We know what your choice will be once you compare HB's quality and HB performance.

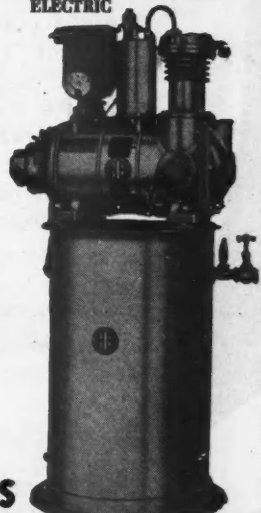
*Check the coupon below for full
information without obligation.*



GAS ENGINE



ELECTRIC



ELECTRIC

HOBART  BROTHERS

Successful manufacturers

since 1893

Box V-59

TROY, OHIO

Tear Off and Mail Today

HOBART BROS., Box V59, Troy, Ohio.

Without obligation send me complete details on the Paint Spray Equipment I've checked below, together with liberal trial offer and easy monthly terms.

☐ Gas Engine Outfit

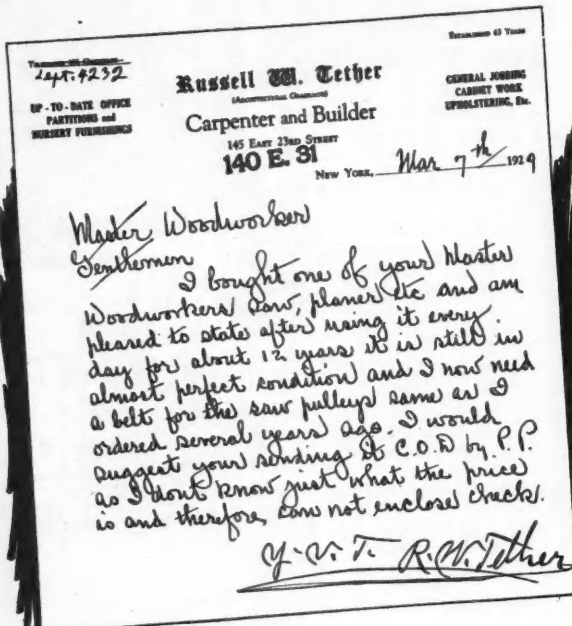
☐ Electric Outfit

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Address.....

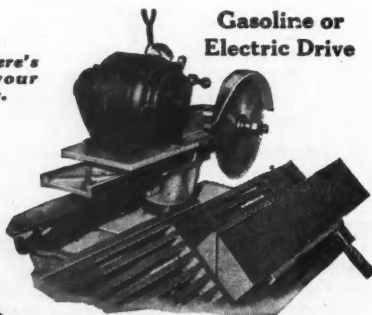
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12 Years Old And Still as Good as New!



Rugged construction, dependability, long life—these are the factors that make possible such records as the above! The MASTER is the preferred machine the world over. It proves its superiority by its wonderful performance. Send for free catalogue explaining the new, improved MASTER and how it will be a profitable investment for you.

5 models. There's one to fit your requirements.



Bevel Ripping. Table tilts to allow a 45 degree rip. One of the many operations performed on the MASTER.

MASTER
WOODWORKER
Congress & Brush Streets
Detroit, Michigan

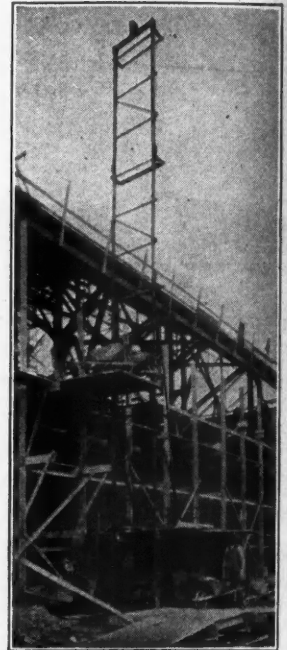
Please send free catalogue, prices and easy payment plan.

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NAME.....

ADDRESS.....

On the next job let an O-K Portable Elevator Give You a Lift

STRONG
AND
SAFE



We manufacture a complete line of Hoisting Machinery and Air Compressors, Gasoline Power, Electric Power, Belt Power. Consult us before you buy.

HEIGHT
CHANGED
AT WILL

An O. K. Portable Elevator is the best investment you can make in contractors' equipment. It will save you more time, labor and material than any other piece of equipment on the market. The O. K. is especially designed for hoisting materials in wheelbarrows or concrete buggies. It is all steel construction, electric welded, equipped with single drum O. K. Hoist and 8 or 12 H. P. gasoline engine. It is delivered to you complete, ready to set up and run. Nothing else to buy.

Write for catalog containing full information and specifications. The coupon is for your convenience.

O. K. Clutch & Machinery Co.
Columbia, Pennsylvania

O. K. CLUTCH & MACHINERY CO.
Columbia, Pa.

Please send your latest catalogs of equipment as checked.

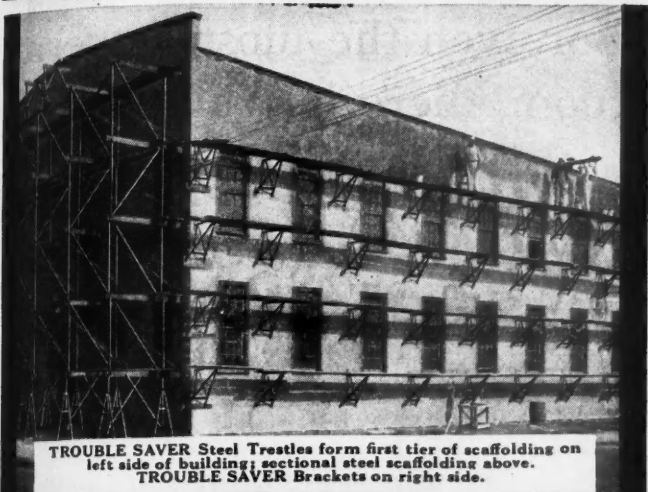
☐ PORTABLE ELEVATORS ☐ HOISTS ☐ PORTABLE AIR COMPRESSORS

Name.....

Address.....

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

Trouble Savers



TROUBLE SAVER Steel Trestles form first tier of scaffolding on left side of building; sectional steel scaffolding above. TROUBLE SAVER Brackets on right side.

are
Everlasting Money Makers

Steel vs. lumber - and-nail Scaffolding

Trouble Savers save their cost on every job.

Trouble Savers are erected and taken down in about one-tenth of the time of wood scaffold.

Trouble Savers give a lifetime of use, whereas scaffold lumber soon becomes kindling.

Trouble Savers are 100 times safer, reduce fire-hazards, and aren't blown down by heavy winds.

That's Why They're Used ALL OVER THE WORLD

Mail coupon today for 30-day trial offer



Trouble Saver Adjustable Steel Trestles (patented).

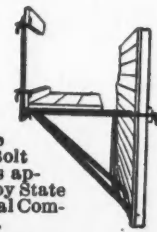
Quickly adjusted to desired height, 8 sizes. Each size adjustable from 4 to 16 different heights, giving a range from 16 inch to 12 feet by 3 inch lifts.



Trouble Saver Studding Brackets support a ton. Will not bend.



Trouble Saver Nail Attached Brackets support a ton. Held by four nails.



Trouble Saver Bolt Brackets approved by State Industrial Commissions.

The Steel Scaffolding Company

1101 N. Governor St., Evansville, Ind.

(Check items on which you wish particulars, fill out coupon and mail today.)

Trouble Saver Steel Products

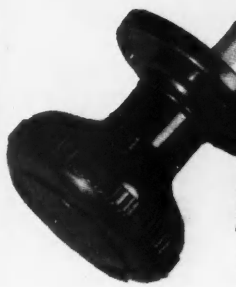
Studding Brackets
Nail Attached Brackets
Bolt Brackets with
Safety Railing

Adjustable Trestles
Ladder Jacks
Wood Shinglers

Mortar Board
Stands
Sectional Steel
Scaffolding

Name.....
Address.....

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER



Two of the thousands of attractive homes which have been equipped with Bakelite Molded door knobs made by National Brass Co., Grand Rapids, Mich.

For homes like these Bakelite Molded Door Knobs

ONLY a dozen door knob sets are required for an eight or nine room house. One dozen sets of modern Bakelite Molded Door Knobs, with all their advantages, costs but two dollars more per dozen than cheap plated knobs, and considerably less than glass ones.

The use of attractive Bakelite Molded knobs in a color to match the door finish is sure to meet the approval of prospective home buyers. The color cannot wear off for it goes all the way thru the material. The Bakelite knobs are hard and will not tarnish. They cannot stain nor corrode. They are as easily cleaned as glass, and being exceptionally strong mechanically will not readily crack nor chip.

Before buying door hardware for your next houses, look into the merit of Bakelite Molded Door Knobs. They are made by National Brass Co., Grand Rapids, Mich., who will be glad to send you the name of the nearest dealer.

BAKELITE CORPORATION

247 Park Avenue . New York, N. Y.
Chicago Office . . 635 W. 22nd St.

BAKELITE CORP. OF CANADA, LIMITED
163 Dufferin Street . . Toronto, Ontario

BAKELITE

THE MATERIAL OF A THOUSAND USES

TRY TO DO THIS



with a

READING CUT NAIL

Reading Cut Nails are much, much harder to bend than other cut nails. It's easy to demonstrate this superiority of a Reading Cut Nail, either at the counter or on the job.

Reading Cut Nails save time and trouble. It takes fewer of them to make a firm bond, because their four gripping surfaces give them **more than twice** the holding power of wire nails!

Reading Cut Nails sell themselves, over and over again, once they are tried. Write for our new catalog, showing Reading Cut Nails for every building need.

READING IRON COMPANY

Reading, Pennsylvania

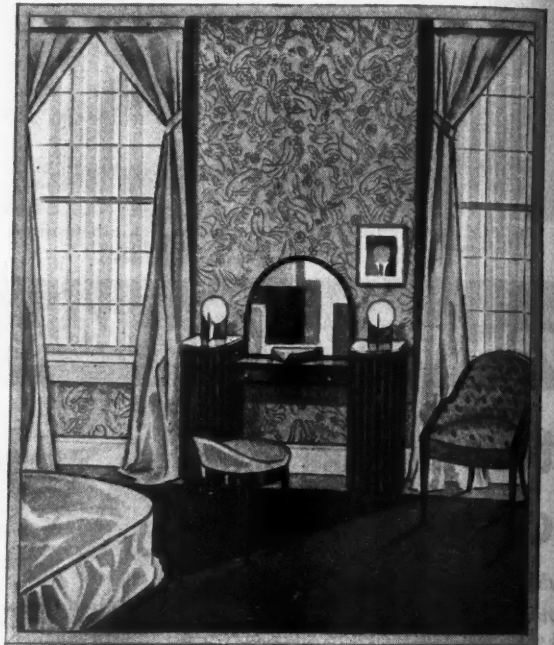
Atlanta	Cincinnati	Pittsburgh	Fort Worth
Baltimore	Detroit	Cleveland	Seattle
Boston	Houston	St. Louis	Philadelphia
Buffalo	Los Angeles	Tulsa	New Orleans
Chicago	New York	San Francisco	Kansas City

READING

X CUT NAILS X



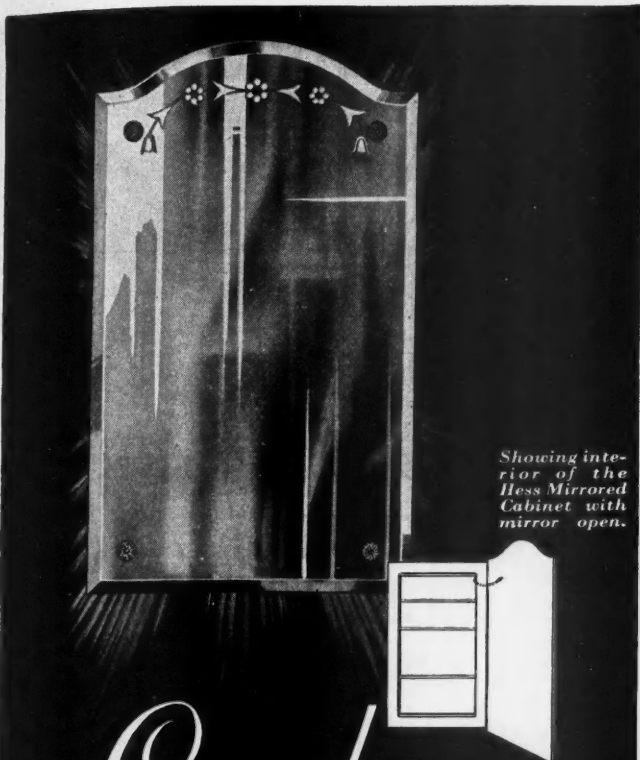
For even the most modern room, there is Wall-Tex to add lasting beauty



This distinctive bedroom is practical as well as beautiful. For its walls are covered with Wall-Tex in a modern pattern. Cracks will not mar them, because Wall-Tex is a durable fabric which conceals cracks in old plaster, and strengthens new plaster. It can be wiped clean of spots and finger marks, not once but frequently. A room covered with Wall-Tex can easily be kept fresh and attractive.

Wall-Tex comes in decorative designs for every room. To harmonize with modern furniture, and with cherished antiques. In solid colors, and in plain whites for ceilings and for painted finishes. In glossy finishes for kitchen and bath. In every house there are rooms where Wall-Tex can create beauty with satisfaction not equaled by any other handsome wall covering. Architects, builders and decorators: write your name and address on margin of this page and send for samples, full information and name of nearest Wall-Tex distributor. The Columbus-Union Oil Cloth Company, Dept. D, 5-29, Columbus, O.





Showing interior of the Hess Mirrored Cabinet with mirror open.

Complete the bathroom

In new construction—in remodeling—nothing plays a more important part in bathroom design than a Hess Mirrored Cabinet. Any style to meet any service. Made of steel with mirror of finest heavy plate glass. Mail the coupon below for complete catalog and prices on Hess Mirrored Cabinets.

HESS WARMING & VENTILATING COMPANY
1220 S. Western Ave., Chicago, Ill.

HESS
MIRRORED
CABINETS



HESS WARMING & VENTILATING CO.
1220 S. Western Ave., Chicago, Ill.

I am interested in Hess Mirrored Cabinets. Send me your complete catalog.

Name.....

Address.....



These
Prize Winning
Blue Prints
Sent
FREE!

Now...

a 2¢ Stamp
Puts You on the Road to
9 Big Pay Jobs!

Building Superintendent
Building Inspector
Appraiser
Material Buyer
Material Salesman
Building Estimator
Real Estate Expert
Construction Foreman
Contractor and Builder in Your Own Business

See how amazingly easy it now is to take your choice of the biggest pay jobs in the building game! Men who can read blue prints are at a premium everywhere. And now, right at home, in your spare time, you can get the same blue print training that has shown thousands the way to . . .

**\$4,000 To \$12,000
A Year!**

NO longer need any man spend years learning all the "mysteries" of blue print plan reading. For you can now get this big-pay training in a few months—the same knowledge that it has taken others years to pick up "on the job"—training that leads to the 9 big pay jobs in building or a profitable contracting business of your own.

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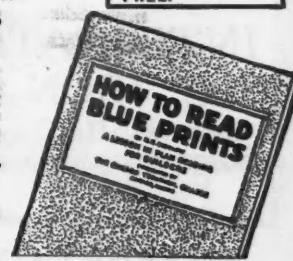
After finishing this training, Baker, Ohio, made \$3,800 clear profit in 3 months as a contractor. Depke, R. I., increased his salary 700% in 12 months. Clifford Scholl, a laborer, became assistant superintendent in 8 months. Marchand, La., writes, "My salary is now increased 196%."

FREE: BLUE PRINTS AND BOOK!

This training will do the same for you. Want proof? Then don't send one penny, just mail the coupon below. It will bring a complete set of real prize-winning blue prints and a remarkable book, "How to Read Blue Prints"—all ABSOLUTELY FREE. So don't delay. Mail the coupon NOW!

Chicago Technical School for Builders
Dept. E-122, Chicago Tech Building
118 E. 26th St., Chicago, Ill.

IF YOU LIVE IN OR NEAR CHICAGO
Visit our School for Builders, open day or evening. Thousands of men attend each year. Enter any time. You can get the same training at home, by mail. Same plans; same lessons; same instructors. The coupon brings all facts FREE.

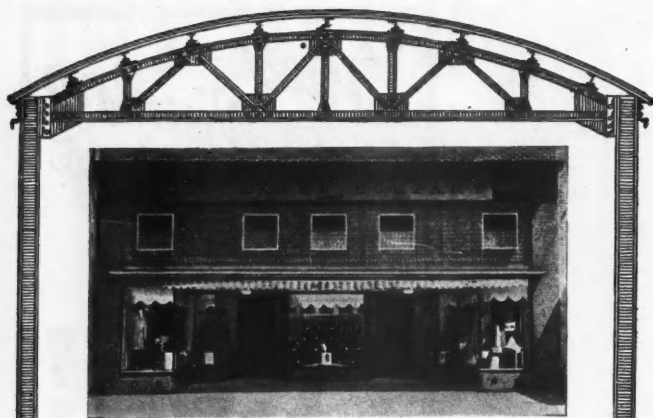


Chicago Technical School for Builders, Dept. E-122, 118 E. 26th St., Chicago Tech Building, Send me your free blue prints and book. It is understood that these are mine to keep without cost or obligation. It is also understood that no salesman will call on me.

Name.....

Address.....

Town..... State.....



J. C. PENNY COMPANY STORE BUILDING
GULFPORT, MISSISSIPPI
Store Front by "International"

Good Store Fronts Build Business for You and Your Customers—

THIS is the time of year when every live contractor can pick up desirable business in new store fronts. Stroll down the main street in your town and observe the many stores that you know could increase their trade by increasing the attractiveness of their "fronts."

Your local merchants will be grateful for any suggestions that you can offer to increase the effectiveness of their entrance and of their window displays. A new store front is an indication of prosperity—a big influence in attracting new customers into a store.

"International" Store Fronts have been installed by hundreds of merchants all over the country. Contractors have made big profits in these installations. You can do the same. Our planning department will be glad to submit designs and estimates free of charge. Write today for information and ask for our complete 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
Sidewalk Lights	Roof Ventilators	Coal Chutes

Our Complete Stocks Assure Prompt Delivery



KIMBALL ELEVATORS in the Home

Put a Kimball in your home—Why climb the stairs when there is a Kimball Push Button Elevator ready to install at your home?

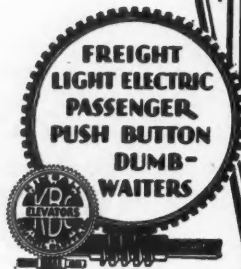
The cost of installation and operation is small and it will add greatly to the comfort of your guests and self.

Kimball Elevators have beautiful cabs built to beautify and carry out the design of your home—and the machine is compact, efficient and easily installed.

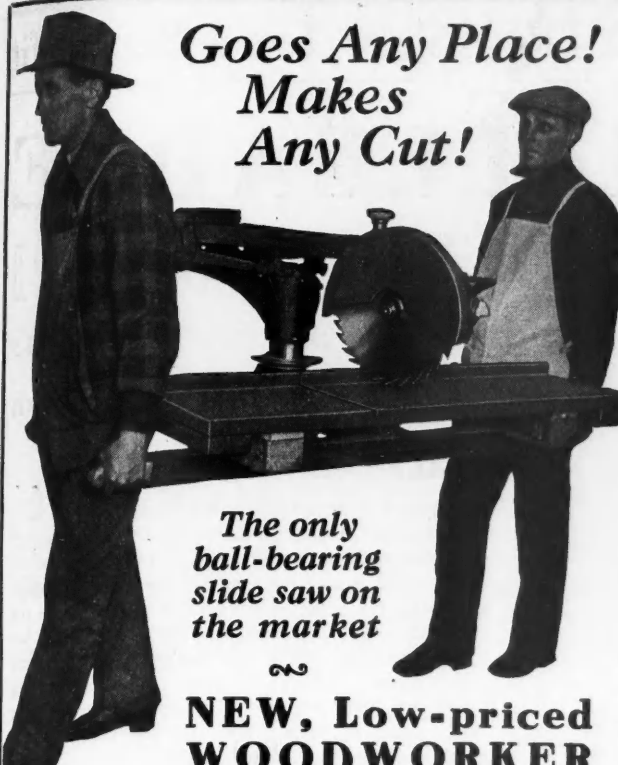
Write for Particulars.

KIMBALL BROS. CO.

969-97 Ninth St., Council Bluffs, Ia.



**Goes Any Place!
Makes
Any Cut!**



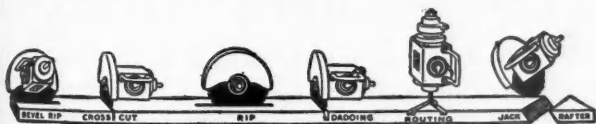
**The only
ball-bearing
slide saw on
the market**

**NEW, Low-priced
WOODWORKER**

Easily carried anywhere . . . cellar to roof . . . the Greyhound Slide Saw saves time and money in scores of ways. Does everything high-priced machines do . . . as well or better. Accurate . . . broad bearing of universal knee prevents wobble. Motor, with tool mounted directly on shaft, tilts to any desired angle . . . or swivels to vertical for routing, shaping, etc.

The Greyhound Slide Saw

SPEED WITHOUT EFFORT



Some Jobs the Greyhound Does

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|---------------|-----------|----------|----------|
| Cross Cutting | Gaining | Grooving | Paneling |
| Ripping | Ploughing | Routing | Boring |
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UNEQUALLED CAPACITY

Cross cuts 20" wide. Clears 4" material with 14" blade.

MANY EXCLUSIVE FEATURES

Slides freely on Ball Bearings. You can pull it across work with one finger. 360 degree adjustment. Can be set for any angle in a few seconds. Steel frame with hickory carrying handles. I-beam slide track maintains perfect balance. Can be furnished with permanent table for indoor work.

Agents and Distributors Write today for open territory and details of liberal franchise

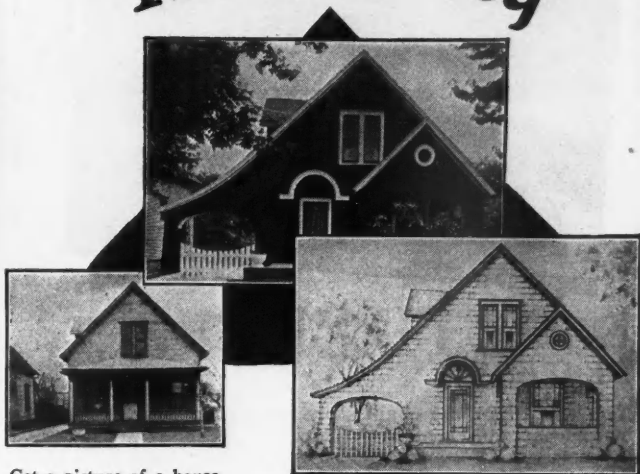
Mail This Coupon TODAY

THE WOODWORKING MACHINERY CO.
250 N. Eleventh St., Philadelphia, Pa.

Send your new illustrated folder with low price on Greyhound Slide Saw. No obligation, of course.

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

Modernizing Sales Made Easy



Get a picture of a house that is growing old

Let our Service Dept. render sketch showing how WEATHERBEST Stained Shingles laid over old sidewalls will modernize the house.

You Can Make Money With This Service

Every modernizing job you can sell gives you an opportunity to make relatively bigger profits than you can on new work.

The first step in the sale is to show the owner how the appearance of his home can be changed. This is where the free WEATHERBEST Sketch service helps you.

Try Out This Service On One Job

Secure a picture of the house from the owner or kodak it yourself. Attach this to a WEATHERBEST Modernizing Service blank which makes it easy to jot down dimensions and rough outline. Send it to our Modernizing Service Department. Take the sketch which will be sent to you free and use it as the basis of your sales talk.

This Service does not take the place of our Architectural Service Dept. for thatch effects and special WEATHERBEST treatments and does not pretend to cover more than the "overcoat" job with suggestions for simple changes in lines. More elaborate rebuilding is a matter for local service.

WEATHERBEST Stained Shingles are 100% edge grain red cedar treated with purest colors and preserving oils to make them look better and last longer. Check your files for literature, especially for modernizing work. WEATHERBEST STAINED SHINGLE Co., Inc., 150 Main St., North Tonawanda, N. Y. Western Plant—St. Paul, Minn. Distributing Warehouses in Leading Centers.

\$3,000.00
In 28 Cash Prizes

for the best examples of modernizing by laying red cedar stained shingles right over siding of homes growing old. You or your clients are eligible for these prizes. Ask for enrollment blanks and details.



WEATHERBEST STAINED SHINGLE Co., Inc.
150 Main St., North Tonawanda, N. Y.

- ☐ Send WEATHERBEST Modernizing Service Dept. Blanks and full details and suggestions for developing a modernizing business.
- ☐ Send Sample Color Pad and Literature for new work.
- ☐ Send enrollment blanks and details of 1929 Modernizing Contest.

Name.....
Address.....

Make Every Old Roof and Cement Floor Show You a Big Profit



Easily Applied with Brush, Trowel or Squeegee.

MALLEABLE ASPHALT [Mastic]

Roofing and Flooring Compositions

The Materials That Are Creating a Sensation

SALESMEN WANTED—

If you know building materials and have a little sales ability, you can make big money helping builders and contractors make sales. We need men to act as District Sales Supervisors or Local Salesmen. Write at once for details. Our unusual co-operative sales plan is "bringing home the bacon" and making real money for all concerned. (State whether you are interested as a Dealer, Contractor or Salesman.) Hundreds of territories have been allotted, so write at once—don't delay.

DEALERS—

You can adopt the chain store principles; make from 50 to 100 turn-overs every year and earn from 200 to 500 per cent profit on a ridiculously small investment. Write us and let us tell you about it.

CONTRACTORS—

Make a two-way profit—one on the sale and one on the application. Here is a wonderful opportunity for you to specialize.

MALLEABLE ASPHALT COMPANY

DEPT. X, 6355 BROADWAY,

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. . . Durundum Floor Paper Keeps Pace with construction schedules

MODERN construction moves fast, and the floor surfer of today has to get his job done and move out for the next man just as all other contractors do. His abrasive paper determines his success in meeting his schedule. To finish up on time he requires the fastest cutting paper; to have his job pass inspection, he must use a fine finishing paper; and to make his profit, he

needs an economical high production paper. Behr-Manning Durundum Paper, as thousands of floor surfacers have found, combines all these qualities. Its rugged electric furnace grain is the fastest cutting abrasive obtainable. The careful grading of the grain insures an extremely fine finishing paper, and this, combined with the tough paper backing, gives it a long production life.



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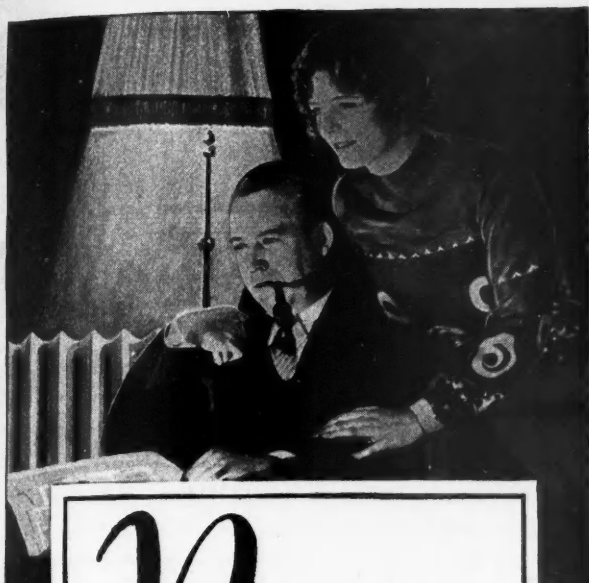
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Buyers Demand Good Heating Systems

PROSPECTIVE home seekers are giving careful thought now to the homes they will buy or build this year—or next. *Now is the time to establish in their minds the fact that you build homes with the most modern improvements and with dependable heating plants.*

These future customers of yours are studying such specialized national magazines as Home Building, The Small Home and Keith's Beautiful Homes and learning the advantages of Thrush System of Heating. Every one of these Thrush advertisements will be an advertisement for you if you adopt Thrush System as standard heating for the homes you build. Use the coupon below to get more information.

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Peru, Indiana



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SYSTEM
OF HOT WATER HEATING

H. A. THRUSH & CO.,
Dept. B, Peru, Indiana 19.....
Please send me your booklet "Which Heating Plant for My Home?" I am interested.

Name.....

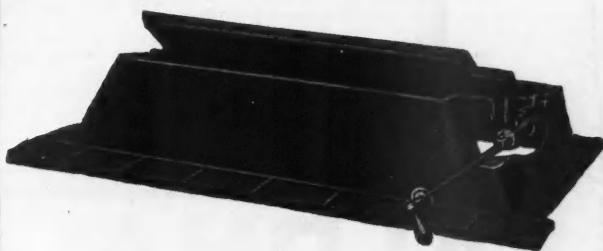
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My Htg. Contr.....



PEERLESS Building Specialties

A FIREPLACE NECESSITY



THE PEERLESS FIREPLACE DAMPER

Of all the equipment required for the fireplace the damper is by far the most necessary. It forms the proper size and shaped throat which is the basis for the successful operation of all properly burning fireplaces. Its cost of a few dollars is insignificant compared to the satisfaction of having a fireplace which will always be free from trouble. The Peerless Fireplace Damper is simple in construction, easily installed and operated and will last indefinitely.

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Please send Peerless Fireplace Damper Information.
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Town.....State.....



From residence to pergola and pool, from barn to artistic bridge, ALPHA CEMENT constructions give lasting satisfaction.

When you use ALPHA CEMENT in your work, you are using a cement that is the result of 38 years of cement-making experience and which has met the severest tests for quality in the biggest engineering undertakings.

Alpha Portland Cement Company

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ALPHA *Use* **ALPHA CEMENT**

1906  1929

ASBESTONE
GUARANTEED PRODUCTS
TRADE MARK

ASBESTONE *Flooring*

for Lasting Service *Plus* Distinctive Beauty

Hygienic, Fireproof, Easy to the Tread

ASBESTONE plastic magnesia flooring—durable, beautiful, comfortable, economical, is decidedly appropriate for hospitals, schools, churches, office buildings, hotels, apartments and residences.

ASBESTONE affords a jointless, smooth, sanitary surface that is easy to the tread, non-slippery, and noiseless, giving maximum comfort. First cost is moderate, the upkeep practically nil. It will withstand years of severe wear. ASBESTONE flooring preserves its fresh new appearance for years; it is fire-proof and waterproof; easy to clean and may be waxed and polished. Easily applied over any old or new sub-floors, at any angle, over and around any irregularities.

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ESTABLISHED
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Manufacturers of Asbestone Flooring and Sana-bestos Tiles

204 MADISON STREET, WAUKEGAN, ILLINOIS

"THE BEST MODERATE PRICED FLOORING KNOWN TO SCIENCE"

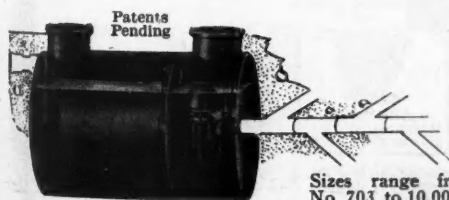
Modern Bathrooms Sell Homes in Suburbs and Country

**San-Equip Siphon Septic System
... Makes this Possible**

When Spring comes, city people look with longing eyes toward the country. At this time each year, a sizeable portion of city population is ready to buy homes in suburbs and in the country—homes out where the blue begins—homes with trees and flowers and a green place for the children to play. But these prospects want homes with city conveniences—especially modern bathrooms.

A large part of these homes will be on lots not having sewers. But you need not be handicapped because of this.

San-Equip Siphon Septic System brings modern plumbing out beyond the sewer line. Approved by leading authorities. Easily installed—nothing to assemble—no extra connections to make. Complete in one unit of rust-resisting copperoid iron, coated inside and out with asphalt to further protect it from moisture, acid and soil. Siphon drainage gives intermittent flow of effluent, greatly improves the absorption field and reduces the possibility of clogging. Complete prices, details and plan sheets gladly sent upon request. Write today.



Patents Pending

Sizes range from family unit No. 703 to 10,000 gallon capacity.

CHEMICAL TOILET CORPORATION
941 E. BRIGHTON AVE.
SYRACUSE, N. Y.

MAKERS ALSO OF SAN-EQUIP SEPTIC SYSTEMS AND SELF-DRAIN WATERLESS TOILETS

BUY DIRECT FROM FACTORY

**BOSS
MIXERS
and HOISTS**

**YOU GET SALESMAN'S
& JOBBER'S PROFIT!**

SAVE \$42 to \$384 ON EACH MACHINE

Every manufacturer is trying to reduce his selling costs. We have found the way and are going to give the difference to our customers in order to increase our sales. We have done away with all our salesmen and jobbers and are now selling direct to users. We have deducted the salesman's and jobber's commission from each machine and the difference is our price to you. This is the most astonishing news in the construction industry and it is certainly paying us as sales are jumping by leaps and bounds. Get the new catalogue with new confidential wholesale prices on each machine. It shows the most popular types and combinations, describing each fully—with new price. The coupon will bring it.

SAME HIGH QUALITY

Regardless of this drastic price cut, the quality of BOSS Mixers and Hoists remains the same. They have always been noted for their heavy duty construction and materials. Under no consideration will we ever sacrifice this reputation. Get the catalogue. Note the specifications and compare the prices. You get the same patented Re-Mixing Action and other exclusive features that have made BOSS preferred wherever used. Hundreds of BOSS machines have ten, twelve and fifteen years of continuous service behind them and still going strong. For quality of design, materials and construction we defy anyone to find a better built machine than a BOSS. You can now get all this for less.



**BOSS 103
NON-TILTER**
"One-Two Bagger"
patented remixing
action, steel con-
struction, high
speed performance
with one man
control.

Get Our Prices Send Coupon for New Catalogue

With Confidential Wholesale Prices
The new BOSS Catalogue gives complete information on all the BOSS Mixers, Pavers and Hoists along with the new confidential wholesale prices. Even if you do not want to order now, get this new catalogue and keep it on hand for future use. Fill in the coupon and mail today. It will save you money. Though you may have bought direct from a manufacturer before you have never been able to buy at these prices because no salesman's or jobber's commission is figured in. Prices on every machine are greatly reduced. Get the new catalogue with wholesale prices.

A COMPLETE LINE

We make over 75 various sizes, combinations and types of BOSS Mixers, Hoists and Pavers. There is a type for every conceivable use. Get the new catalogue first, then decide. Often our customers find that they can use a much lower priced machine after studying this catalogue. There is no need of going elsewhere for a certain machine when it is in the BOSS line. Write for catalogue and confidential wholesale prices; also give us information on kind of work you want the machine for. We can probably be of help to you.

1 YEAR GUARANTEE

GUARANTEE—All BOSS equipment is guaranteed for one year against defective materials and inferior workmanship. Any parts proving defective will be replaced free of charge (electrical or engine equipment excepted, as this equipment is guaranteed by the respective engine manufacturers) upon return to us of defective parts, carrier charges prepaid for our inspection.
American Cement Mach. Co., Inc.

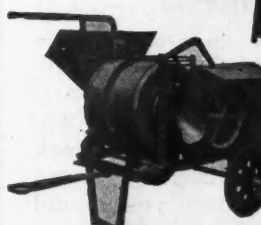
5 DAYS' FREE TRIAL

So confident are we that every BOSS Mixer and Hoist will give complete satisfaction, that we offer you five days' free trial. Order a BOSS. Use it in the field. If within five days you do not find it exactly as represented in every way, send for return instructions and refund of purchase price. This protects you; you can't go wrong on a BOSS. As long as we have sold on this basis, we have never had a customer demand his money. This proves BOSS quality. Every BOSS machine is backed up with an iron clad guarantee. Read above.



THE BOSS 348 NON-TILTER. One half bag drum type mixer with 2 disc wheels, cushion rubber tires, hatch hopper, 2 HP. Stover engine, magneto, steel engine housing.

**NEW
CATALOG-
WITH
WHOLESALE
PRICES
TELLS ALL**



**CLIP AND
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AMERICAN CEMENT MACHINE CO.,
217 S. Fourth St., Keokuk, Iowa.

Send me your new catalogue showing complete line of BOSS Mixers, Pavers and Hoists with confidential wholesale prices.

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KUHLS'

Elastic Waterproofing Compositions

Kuhls compositions are unequalled for calking around windows, pointing up terra-cotta and all other stone work, waterproofing the joints between the roof and walls, all kinds of glass construction work and tile setting, etc., in fact, any place where a watertight joint is required. These compositions adhere strongly to wood, metal, glass, concrete, etc. They never dry, crack or crumble, always remaining elastic under any conditions. Any color to match.

*Try Kuhls on your next job.
Write today for prices.*

H. B. FRED KUHLS
6415-21 Third Ave., Brooklyn, N. Y.



**Get These
Booklets**



No Home Is Complete if it Lacks a Shower

Today people want more than one bathroom—they prefer the second bath to be a shower. If you are building or remodeling homes, consider the many advantages of the Fiat Shower Bath Compartment.

Fiat

**Shower Bath
Compartment**

Made of steel-Vitreous Enamel or Duco Finish in colors. Four models—fourteen sizes, from 30x30 in. Terrazzo Receptors. Doors or curtains optional. The popular bath made practical.

It is a complete unit—shipped knocked down, ready to install. Fits corner or closet space—"fits in" and stays tight. Positively leak-proof construction guaranteed. No extensive remodeling required—no tiling—no breaking walls—a wonderful improvement that doubles the bathing facilities of the home. The last word in modern, sanitary shower equipment.

*Let us send you our complete 32-page catalog,
FREE. Write today*

FIAT METAL MFG. CO., 1209 Roscoe St., Chicago, Ill.



CARDINAL Joggery Racks

**SELL HOMES EASIER
RENT THEM FASTER**

A small investment but a big talking point the minute you swing open any closet door. The housewife appreciates this modern convenience that gives her the space of two closets in one. Equally indispensable as standard equipment in hotels, clubs and dormitories, new or remodeled.

Make Every Door an Extra Closet

Keep toggery smooth. Hats in shape. Shoes off floor. All in plain sight and instant reach. Lighten the woman's work.

Beautiful Duco finish. Jade Green—Old Rose and Silver Color Cadmium. All metal. Strong. Easily attached on the inside of any closet door. Write us for price and quantity discount.

**CHAS. FISCHER SPRING
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Double Your Income! We Tell You How



LUXOR
Materials cost 24c;
Selling price, \$5.00.



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Materials cost 44c;
Selling price, \$5.00.



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Materials cost 24c;
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Materials cost 45c;
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Materials cost 40c;
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Materials cost 13c;
Selling price, \$3.00.



WREN
Materials cost 58c;
Selling price, \$21.00.

**INVEST \$23.00
CLEAR \$1334.00**

Yes, Mr. Ledoux did just that. Big profits? Certainly! No experience necessary. Put your spare time to work on this side line. Soon you will devote full time to it.

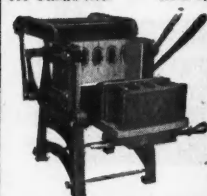
MOLDS \$14.80 UP

The Utility line includes complete molds for making vases, flower boxes, bird baths, sun dials, ornamental porches, chimneys, etc., etc.

Write for catalog giving full information and prices.

**Concrete Equipment
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MACHINERY CATALOG
describing power and hand machines for making block brick and tile, and other equipment for complete products plant. Send for catalog. It's free.



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PRODUCTION COSTS
FIRST COST
MAINTENANCE
POWER CONSUMPTION

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Perfected equipment that only a pioneer builder of over 30 years' constructive experience, with large facilities for research, experiment, quality and service could hope to furnish.

THE MILES LINE IS COMPLETE

It includes face down block machines, hand strippers, power strippers, power tampers, elevators and feeders. See a Miles plant in operation before you buy and ask the user to tell you how it performs.

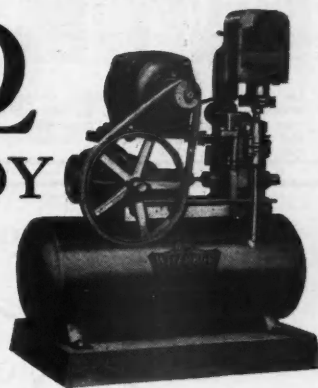
Write for Catalogue

This book contains much you should know

Miles Manufacturing Co.
JACKSON, MICH., - U. S. A.
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Here's the greatest Water System Value ever offered

The New **DL**
WATERBOY
"WATER BY WIRE"
Only \$75



HERE'S a water system that's every inch a DL—built with the simplicity and the rugged durability which DL alone offers—and priced at only \$75 f.o.b. Dayton.

The DL Waterboy is backed by General Motors. It has proved its efficiency in start-and-stop tests equivalent to hundreds of years of service. It oils itself, runs itself, starts and stops itself.

This improved water system is driven by a self-aligning, non-slipping V-type belt. It has a 5-gallon pressure tank and delivers 225 gallons an hour.

This is just one of the amazing values offered in the DL line.

We want to tell you all the advantages of specifying DL Water Systems in subletting plumbing contracts. It brings satisfaction which can't be equaled by any other water system. And yet it costs no more.

Mail the coupon today for complete information about this great line of water systems.

DELCO-LIGHT COMPANY
Subsidiary of General Motors Corporation
Dept. R-122 Dayton, Ohio

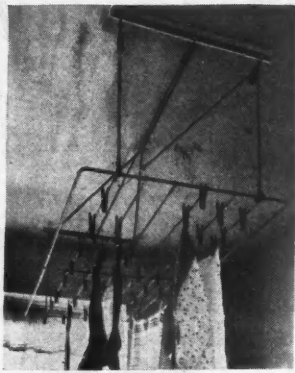
DL **ELECTRIC**
WATER
SYSTEMS
PRODUCTS OF
GENERAL MOTORS

DELCO-LIGHT COMPANY,
Dept. R-122, Dayton, Ohio.

Send me complete information and mechanical specifications of
DL Water Systems

Name.....R.F.D.....

Town.....State.....



Style 00B

An all metal dryer, 3/4 in. steel; white enameled outside frame; 6 galvanized wire lines with supporting cross-piece and 48 spring clothes-pins. Dimension, 24 in. x 55 in.

Add A New Renting Feature To Your Apartments and Homes

INSTALL

ROYAL INDOOR CLOTHES DRYERS

Here is an innovation which the average home buyer and apartment seeker will be quick to appreciate. Does away with the old-fashioned clothes lines. Can be used rain or shine.

Shipped in individual cartons ready for easy hanging. Write us immediately for literature and special quantity prices.

Distributors Wanted in all Territories

Royal Manufacturing Co. 190 Southern Blvd. New York City, N.Y.



Style 00C

An all-aluminum dryer, with De Luxe appearance for the better class house. Dimensions 24 in. x 55 in. This type dryer also made in all wood at lower prices.

**1 Machine Does
the Work
of 4~**

*Step Up Your Profits
With This Improved Woodworker*

**Latest
Improvements**



just added to our Model 501 Woodworker enables every user to enjoy better wood-working and greater profits than ever before. SAVES the labor costs of three men. SAVES time on every job.

**Two Important
Buying Factors Combined
in this One Machine**
LOW IN COST—HIGH IN WOOD-
WORKING EFFICIENCY

18" Band Saw—10" Rip Saw—10" Cross-Cut Saw and 6" Jointer are combined in this one machine to give builders the best machinery value at the lowest possible cost.

KORNAU MACHINE COMPANY
Gulow and Vandalia Sts. Cincinnati, Ohio

Price Without Motor

\$215.00

Write for further information on this practical money making woodworker.

BOYLE'S BAYONNE

ready to lay
Roof and Deck Cloth



The ideal covering for Porch Floors, Decks or Piazzas, Sun Parlors, etc.

**Waterproof
Weatherproof
Durable
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**Lays flat
Stays flat**

Ready to lay—Requires no white lead bedding; will not buckle, crack or peel.

Write today for our Sample Booklet "P."

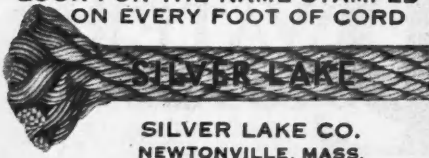
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SILVER LAKE CO.
NEWTONVILLE, MASS.



Solid Braided 100% Cotton



WORK FASTER WITH LESS EFFORT



Any man who cuts lumber with a hand saw will be glad to use a Crowe Safety Beveling Saw. It cuts on the bevel, crosscuts or rips, and does the work without the usual hard labor, and in less time.

In fact, one man with a Crowe can cut as much as ten with ordinary saws, do the work better, and with absolute safety. The safety feature has been officially recognized by industrial commissions.

Visible cutting at all times. Gearing does not heat up, saw is standard and driven by G. E. motor. Plugged into an ordinary light socket, you'll find more uses for it than you ever expected.

If you cut lumber on the job, whether it be in a shipping department, on a railroad, building a house, or for concrete form work, you can soon save the price of a Crowe Saw. Let us tell you more about it.

"CROWE SAFETY SAW"
CUTS THE COST

Illustration shows the Crowe Beveling Saw cutting just as quickly and easily on the angle as on a cross cut.

Crowe Manufacturing Corporation

Department A

317-321 Sycamore Street

CINCINNATI, OHIO, U. S. A.

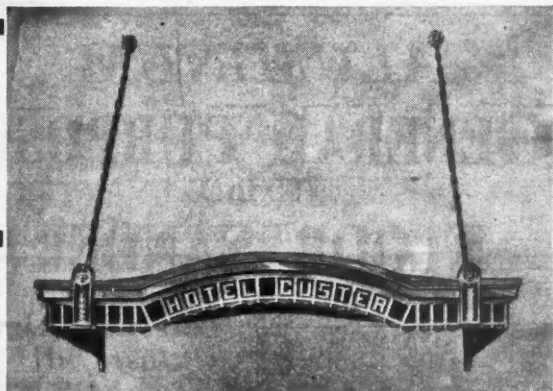
Crowe Mfg. Corp.
Dept. A, Cincinnati, Ohio

Gentlemen:
I am interested in a saw of this type. Send further information.

Name

Address

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



MARQUISE for Special Requirements designed and built by WILLIS

Another WILLIS service founded for your profit! The old bugbear of "special requirements" and odd size jobs, hard to specify, hard to build and hard to take a profit on—is made a thing of the past by our offering you free use of our drafting department.

Of course, we have in stock a wide selection of standard marquee which should fill the average need—marquee smart as fashion dictates and sturdy as WILLIS can build them. This selection is shown and described in the new Willis catalog.

Whether the marquee you order from us is of standard design or one designed and built from rod to frame specifically for your job—you can figure on easy, care-free installation, customer satisfaction and the right profit. Willis master workmanship guarantees that!

Let our catalog show you new ways to profit. Send for it today and see how our 30 years service to the building trade has evolved a line of sheet metal building products more profitable to contractors. It's free! Just send the handy coupon below.

WILLIS MANUFACTURING CO., Dept. 128, Galesburg, Ill.

*Willis products bring greater profits by saving
on installation costs*

FILL OUT—SEND BY TODAY'S MAIL

WILLIS MFG. CO.,
Dept. 128, Galesburg, Ill.

Gentlemen:—Please send us without cost or obligation, your catalog on Sheet Metal Building products.

Name.....

Address.....

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



Make More Money on Fly Screens

The SIMPLICITY Wood-worker enables you to make fly screens for every type of wooden door and window at lower cost. You can take rough lum-

ber and turn out a finished screen of any style with this one machine. We guarantee the SIMPLICITY to do this work in a practical and quick way.

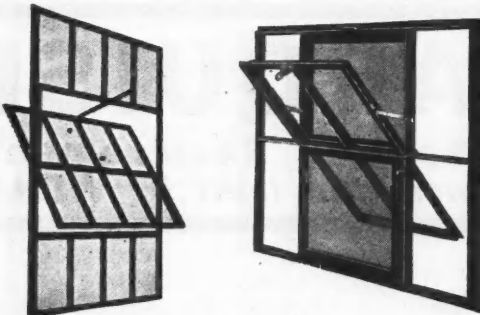
Does All Kinds of Woodworking

The SIMPLICITY combines eight machines in one—28 different and practical wood-working operations (including thickness planing) on this one

machine. Contractors take it right out on the job. Makes hundreds of articles. Equipped with electric motor, gasoline engine or belt drive.

"Buy One Machine Instead of Eight"

Combination Woodworking Machine Co.
551 W. Randolph St. CHICAGO, ILL.



SATISFACTION FOR OWNER GOOD PROFIT FOR DEALER

BAYLEY-SPRINGFIELD windows are the last word in steel window construction. Designs for all types of buildings. Two popular designs shown here. **Pivoted Window**—39 layouts and sizes; deep horizontals and verticals. **Pivoted Window Screened**—made for efficient and economical screening. Ventilators operate independently of screens. Screens removable.

Full line Casement, Utility and Basement Windows carried in stock. Attractive prices—Good profit to dealer.

Write today for prices and full information.

THE WILLIAM BAYLEY COMPANY
128 North Street Springfield, Ohio

Warehouses in Principal Cities

**Bayley-Springfield
Steel Windows**

The FARRAND Rapid Rule

There is something new in craftsmen's fine tools.

It is this **RAPID RULE**—a good rule that works both ways.

Measure vertical or horizontal surfaces. *It is rigid.*

Measure around corners or circumferences. *It is flexible.*

Coiled in a neat, nickel-plated cup—a dignified companion for your watch, this six-foot measuring instrument is instantly ready to spring forth to serve you—to do for you all things which you have heretofore demanded of both wooden rule and steel tape. It possesses great speed and is unusually accurate.

*A
Modern
Tool for
Modern Craftsmen*

Rules Now Made in the Following

Scales:

72 inch with 1/16 inch graduations
6 feet with 1/100 foot graduations
2 meters with millimeter graduations

Price \$5. Ask Your Dealer or Write

H. A. FARRAND, MFR.
Berlin, New Hampshire

ENDURANCE



ALUMINUM GENERAL PURPOSE (90 lb.) FLOOR SANDER



*Latest Model—
Just Out!*

Built for
**GREAT SPEED and
HIGHEST QUALITY
of work**

No vibrations—no dust
—no chains—no belts.
Roller sands even with
wall on either side
of machine. 9" long
roller 1-3/4 HP AC &
DC motor.

Write for price

WAYVELL CHAPPELL & CO.
36 Jackson St., Dept. Z., Waukegan, Ill.



The Strength of Steel at Practically Wood Joist Cost

NOW you can build floors having the strength of steel at a cost comparable to wood joist floors. The Massillon Nailer Joist makes this possible. Made of steel, these joists have wood nailing strips attached on top. Use them as you use wood joists. They are light, easily handled and placed in position. Nail your floor to the wood members on top. Attach any kind of ceiling to the bottom of the joists.

Floors made with Massillon Nailer Joists are rigid. The joists do not warp or shrink. Pipe and conduits are run through the open webs. Made in standard stock sizes for prompt shipment, Massillon Nailer Joists are placed without cutting or fitting on the job.

Send us your plans or call our nearest representative for quotation.

THE MACOMBER STEEL COMPANY
909 Belden Avenue Canton, Ohio

Massillon Products are manufactured and distributed in Canada by the Sarnia Bridge Co., Ltd., Sarnia, Ont.

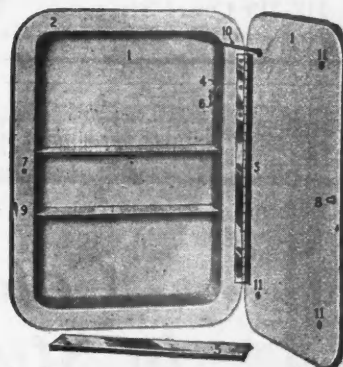
MASSILLON NAILER JOISTS

CORCORAN one piece Steel Bathroom CABINETS



**Inside and out
—reveal a New
Idea of
CABINET
QUALITY**

Corcoran Cabinets are the original One-Piece Steel Cabinets. No cracks, no seams, no welded joints, no raw edges.



Corcoran One-Piece Cabinets invite the most critical inspection for inside and out they present startling innovations in cabinet design and construction.

Building Specialty Jobbers who are looking for an outstanding item of merchandise on which real profits can be built are invited to write for details.

Nineteen models in Venetian Mirror Door, Colonial Mirror and Regular Insert Type Cabinets. Catalogue on request.

Corcoran Cabinets are sold through jobbers only.

Cabinet body and flange drawn from one continuous piece of steel.

Round corners inside and outside harmonize with all bathroom fixtures.

Continuous piano type brass hinge will not sag or warp.

Bulb edge glass shelves cannot slip forward.

Heavy brass spring catch.

Door action cushioned by specially designed door catch knob.

Special device prevents mirror breakage.

THE CORCORAN MFG. CO.
NORWOOD CINCINNATI, OHIO

Corcoran Mfg. Co., Dept. AB

Gentlemen:

We are interested in Corcoran One-Piece Steel Bathroom Cabinets. Kindly send catalogue and full details.

Name.....

Address.....

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

Contractor.....Dealer.....Architect.....

The NEW
"Universal" Level-Transit
Superseding the Convertible Level

**TEN Days
 FREE
 Trial**

The new "Universal" is the highest development in combination Levels and Transits. It is superior to and displaces the convertible level FOR ANY USE OR NEED.

No previous experience required for perfect success in operation—this is the ideal instrument for any builder or contractor. Instantly changeable to level or transit, it is the most scientific development of its kind available. Only a slight touch of the finger changes it to either need. An indispensable instrument for the up-to-date builder.

This combination level-transit is exceptionally accurate, strongly built, with 3-point support, assuring perfect optical and mechanical alignment; 43-degree tilt above or below. Trade in your old instrument for a New Universal. We manufacture surveying and drawing instruments for every need.

Sold by first-class supply houses throughout the country, or directly by the manufacturer. Write for information and free trial offer.

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 317-319 Court St., Milwaukee, Wis.
 Branch Office, 2101 West Van Buren St., Chicago, Ill.



Level position

Transit position

YOU WILL BE PLEASED—

to have SKILSAW on your job after you have seen it in action. You should run it yourself—in that way you'll see why you can save more time and money in sawing with SKILSAW than with any other electric hand saw. *Performance counts!*



4
 SKILSAW cross-cuts, rips, grooves, mitres and bevels. Besides wood, SKILSAW cuts or scores concrete, limestone, asbestos, slate, etc. SKILSAW is made in four sizes—cutting capacities 0' to 4 1/4"—weighing 10 to 28 lbs. Write today and ask us to demonstrate SKILSAW to you—free!

SKILSAW INC.
 Dept. E
 3316 Elston Ave.
 CHICAGO, ILL.

When you buy, select the original electric hand saw

SKILSAW

Nature's Permanent Mineral Colors

**Color
 in Stucco**

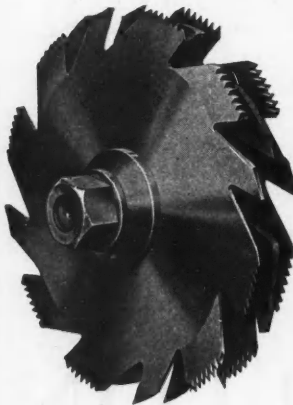
THE striking beauty and unusual charm of colored stucco is fast grasping the imagination of home builders everywhere.

American Builders have specified Clinton Mortar Colors and Clinton Cement Colors for 40 years. They are Nature's mineral pigments! We would like to tell you more about them.

CLINTON METALLIC PAINT CO.
 559 Clinton Road, Clinton, N. Y.

Clinton Mortar Colors

You need a
HUTHER
Dado head



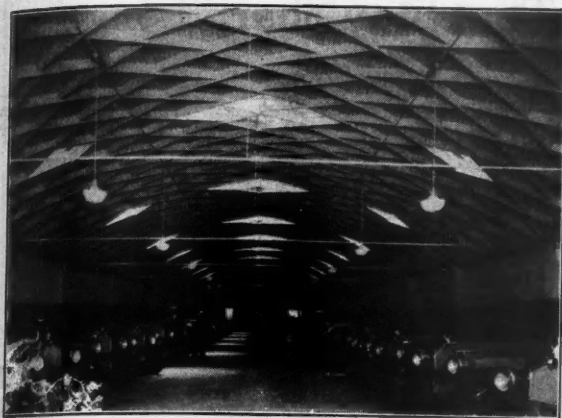
Developed from our own patents, this adjustable groover cuts either with or across the grain. Cutters may be used singly, in pairs or in any combination necessary for desired cut.

Send for one on approval. It may be returned at our expense if unsatisfactory.

Huther Bros. Saw Mfg. Co.
 Rochester, N. Y.

Makers of Better Saws for More than Fifty Years

LAMELLA ROOF—50' x 155'



"LAMELLA"

(PATENTED)

Trussless ARCH ROOFS

Quickly and Economically Erected
Thoroughly Safe—Very Attractive

Good distribution of light, excellent acoustical conditions.
Adopted for auditoriums, dance halls, garages, warehouses,
factories, etc., in all parts of the country. Spans up to 150'.

Write nearest office for descriptive folder

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DANDIE



One Man Control

EASY one-man control because charging skip, water, and discharge levers are located at the end of the mixer from where the operator has full view both of charging and discharging operation! That's just one reason the Dandie 10-S is fast. Clean, high speed charging, fast discharging, the Dandie takes aggregate in the skip and changes it to concrete in the forms in record, money-making time.

Feature by feature, item by item of construction it's the long service, long distance great value in its field!

Send for the Dandie Catalog No. D-1.

Dandie Mixers—5-S, 7-S, 10-S
5-S single cylinder, 7-S two or four cylinder, 10-S four cylinder gasoline engine. Charging skip or low charging hopper and platform. Rubber tired or steel rimmed wheels. Comply with A. G. C. standards.

KOEHRING COMPANY, MILWAUKEE, WISCONSIN
PAVERS, MIXERS—GASOLINE SHOVELS, PULL SHOVELS,
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Division of National Equipment Corporation

A5060-1/4



A Timely tip for

Carpenters!

PORTABLE Screen Panels, which lock together and close in the open sides of the porch, create a room which allows the enjoyment of both indoor and outdoor comforts, an out-of-door sleeping-room or a playground for the children—protected against disease carrying insects.

To assist you in pointing out to your prospect the simplicity of construction and installation of screened porches, we have prepared a Blue Print of a Porch Plan which we will send free for the asking.

Now Is the Time to Make Screens

Screened porches are money-makers for you. Due to its metallic coating, a special process exclusive with us, PEARL is longer lasting, hence most economical, besides being the most sanitary and beautiful.

Insure your workmanship and customer loyalty by specifying PEARL and make sure of getting the genuine by looking for our round red tag on each roll and the two copper wires in the selvage—our permanent mark of identification.



Call on your local dealer or write direct for samples and literature if you're interested in screen material.

Address Dept. "A"

The Gilbert & Bennett Mfg. Co.

New York Georgetown, Conn. Chicago Kansas City

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"

NO MORE ODORS!



No. 500

A
Garsons
Pureaire
CABINET

Will Eliminate All
Cooking Odors,
Heat, Grease and
Smoke from the
Apartment

PURE AIR BY
DIRECT OUTSIDE
VENTILATION

COMPACT
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EASY TO
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LIBERAL PROPOSITION TO DEALERS

The Garsons Co.

603 MILWAUKEE EAST - DETROIT

High Quality — — — —
Built Right to Give Long Service
Low Price — — — —

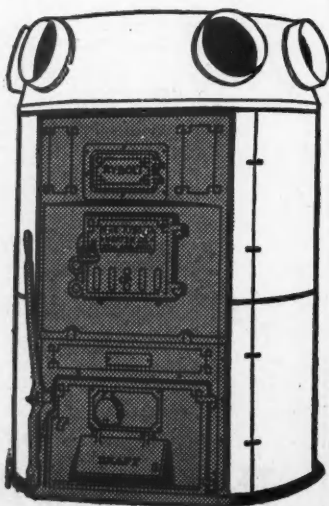
These outstanding advantages — together with many other superior features — are reasons why RYBOLT Furnaces are the choice of leading home builders.

Our proposition for quantity buyers is unusually attractive. Why not ask for the details NOW!

THE RYBOLT
HEATER CO.

Ashland, Ohio
Cincinnati Indianapolis

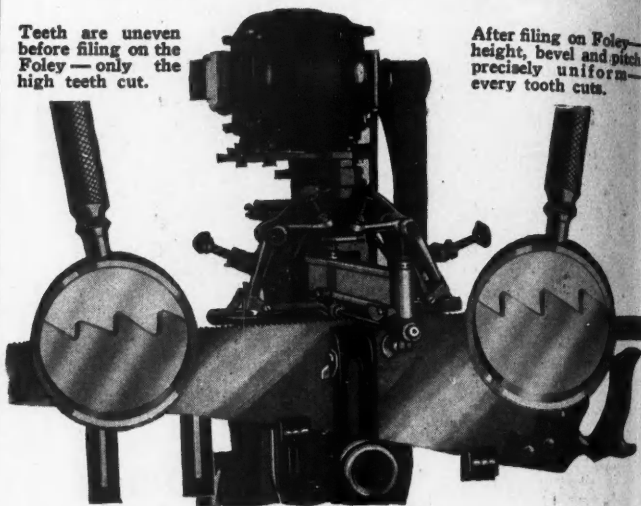
RYBOLT FURNACES



Better and Faster Cutting Saws That Stay Sharp Longer

Teeth are uneven before filing on the Foley — only the high teeth cut.

After filing on Foley — height, bevel and pitch precisely uniform — every tooth cuts.



FOLEY AUTO-MATIC SAW FILER

Files all kinds of hand saws, band saws $\frac{1}{8}$ " to $4\frac{1}{2}$ " wide and cross-cut circular saws 3" to 24" diameter, better than the most expert hand filing, without the tedious labor and eye strain. Gives you better cutting saws all 'round. Keep your own saws in perfect cutting condition and make EXTRA MONEY filing saws for others, too.

Write for complete information and FREE PLAN on how to make EXTRA MONEY with the Foley Filer.

Foley Saw Tool Co., Inc.

341 Foley Bldg., 11 Main St. N. E., Minneapolis, Minn.

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Vertically Drawn Flat Glass

FOR EVERY TYPE
OF BUILDING — A
PERFECTLY FLAT
GLASS THAT MEETS
THE MOST EXACTING
REQUIREMENTS OF
ARCHITECTS, HOME
BUILDERS AND
CONTRACTORS • •

A BRAND YOU CAN
DEPEND UPON



ADAMSTON FLAT GLASS COMPANY
CLARKSBURG, W. VA.



*You can cut
jack rafters quicker
with an ALTA*

*Electric
Handsaw*

DEPTH ADJUSTMENT
TILTING BASE
THREE SIZES

Mortisers
Planes — Saws

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Electric Handsaw

DURABLE — POWERFUL
SAFE

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City.....

Crofoot
SCREEN TACKER



**Wonderfully
Improved
TACKER**

AND 1000

STAPLES

ON A

5 DAY TRIAL

\$5.75

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MONEY PROMPTLY REFUNDED
IF YOU ARE NOT SATISFIED

Crofoot Perf-O-Matic
A New Era in Screen Tacking

Thousands were enthusiastic over the former Crofoot Screen Tacker, but the new Perf-O-Matic is 100% more efficient. 100% easier to use—absolutely no clogging or jamming. No wasted staples—no damaged screen cloth. Fully guaranteed. 4 times faster than hammer tacking—saves its cost in a hurry. Send us your order today! Money back if you're not perfectly satisfied, BUT YOU WILL BE.

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Dept. A

P. O. Box 783

Chicago, Illinois

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Wright Rubber Tile



**Use it Anywhere for Stores,
Homes, Public Buildings,
Institutions, Offices**

May we explain to you the Money-Making Possibilities of Wright Rubber Tile in your town by sending one of our Installation Instruction Booklets? This book has been instrumental in starting many men in a profitable business. Write for a copy today.

Wright Rubber Products Co.

Dept. A. B.

Racine, Wis.

P. S. Why not ask \$125 for your saw? It would still be a big bargain!

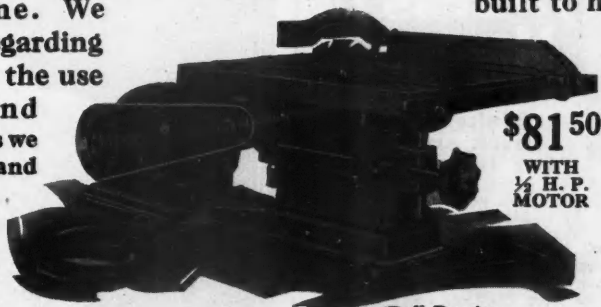
BECAUSE, brother, because—

we take our own medicine. We practice what we preach regarding the savings to be made by the use of machine instead of hand labor. In building our machines we use every means to reduce hand labor, and a big part of our savings are passed on to you in this remarkable machine at a low price.

YOU TOO
can reduce your costs by using
this machine!

MODEL-N
Safety-Saw

A practical combination Saw Table
built to handle builders' work from
rough rafters to the
finest interior trim.



\$81.50

WITH
1/2 H. P.
MOTOR

Table raises and lowers
ON A LEVEL and tilts to a full
45 degree angle.

Rips, cross cuts, miters, bev-
els, rabbets, dados, grooves,
bores, sands, grinds, etc.

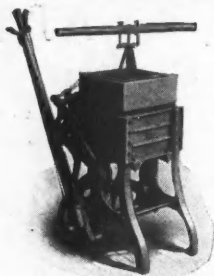
It will do more woodworking than
any five men using hand tools.
Ask about our free trial and time
payment plan.

We also manufacture a complete line of other
woodworking machines, selling from \$35.00 up.

Ball Bearing

Write for
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SAFE TOOL MFG. CO.
BRIDGEPORT, PA.



Multiplex
Flue Block
Machine
for
Light Weight
Flue Blocks

The Demand Today Is For Light Weight Flue Blocks

Make your own with Multiplex Flue Block Machines

The many advantages of the new light weight type flue block offers an unusual opportunity for profit to the builder prepared to manufacture them quickly and economically. The new Multiplex Flue Block Machine for Light Weight Flue Blocks fills every demand for large production with low initial and labor cost. Manufacture your own flue blocks and get your share of the worth-while profits that the big demand for this type of flue construction brings.

Write today for complete catalog.

Power Strippers, Power Tile Machines, Double Hand Strippers, Single Hand Strippers, Hand Tile Machines, Flue Block Machines for Ventilated or Solid Type for Flue Liners, Flue Block Machines for Light Weight Flue Blocks.

The MULTIPLEX CONCRETE MACHINERY CO.
Elmore, Ohio



LYMCO ADJUSTERS

can't get out of order!

The friction clutch does not deteriorate, clog or jam. With the strength and resilience of steel it combines the smoothness of operation so necessary to a friction adjuster.

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Literature
and Prices

A turn or two of the knurled nut gives the Lymco a grip that will hold a gale. The finish tops them all, the price is no higher. Guaranteed to give long, dependable service.

The Lyons Mfg. Co., Mt. Carmel, New Haven, Conn.

CUT DOWN YOUR TRIM COSTS

With TRIMPAK three carpenters can completely trim a 6-Room house in one day.

TRIMPAK, the interior trim for doors and windows, comes packed in 2 cartons—one for the horizontal members and one for the verticals. All ready to fit. Made in every wood.

Write for further information.

TRIMPAK CORPORATION
44 Whitehall St. New York City

KEWANEE

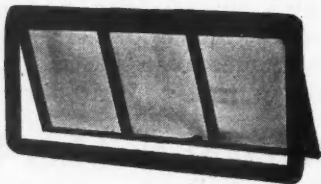
Copper Steel Basement Windows

Install these modern windows in the homes you build. Satisfied and enthusiastic owners will help bring you more business.

Kewanee Windows are attractive, convenient and durable. They insure a well-lighted and livable basement at low cost.

Dealers: Write for our attractive offer

KEWANEE MANUFACTURING CO., 509 Tremont St., KEWANEE, ILL.



Make Blocks, Brick & Tile for Less! Money!

**THE
ZAGELMEYER
SYSTEM**

ZAGELMEYER MULTIPLE MOLDS in your own plant. You, too, can grow to manufacturing independence from a moderate start, the same as many others have done. Get started now. Send today for free booklet.

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**Make Blocks,
Brick and Tile
for less money**

Cut down your building costs by making your own concrete blocks, brick and tile with



SASH CHAINS

**THE
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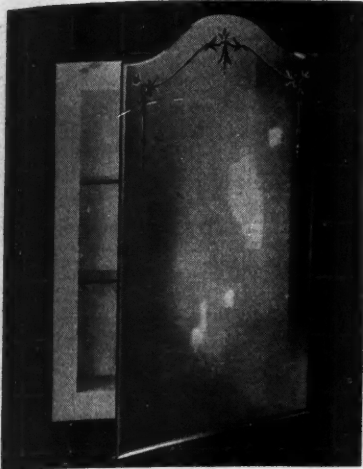
Bridgeport, Conn.

**ORIGINATORS OF
SASH CHAINS**



Send for yours
today

If you would like to receive a set of books describing the use of slate with sizes and complete information on Struco Slate describing its beautiful highly polished and colorful surface, address your request today to
THE STRUCTURAL SLATE CO.
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The New Excel Venetian Recess Cabinets

Excel metal cabinets are of the highest quality and are priced within the reach of all. A most complete line of cabinets to select from—32 styles in all, including six styles of venetian vanity type cabinets.

The following features will be found in Excel Venetian and Vanity type cabinets: Doors hung on invisible hinges, and doors strike against rubber bumpers; mirror supported by ledge at bottom of door and held in position by metal clips of non-tarnishing or corrosive material; mirrors are of the highest quality beveled plate glass with a very artistic design cut into the mirror; these cabinets have adjustable plate glass shelves supported by aluminum brackets; body of cabinet heavy metal furniture steel and finished with the highest quality baked enamel; we guarantee Excel construction features will prevent mirror breakage when cabinet is in use; Excel cabinets measure up to the name Excel.

If you desire the best cabinet that can be obtained at the lowest possible price, write us today for complete information and prices.

Other products manufactured by the Excel Metal Cabinet Company are metal kitchen cabinets, hospital cabinets, ironing board cabinets, and package receiver cabinets.

Excel Metal Cabinet Company, Jamestown, New York

EXCEL METAL CABINET CO.
Jamestown, New York
Please send me your free catalog and prices.
Name.....Address.....Town.....State.....

Building Specialty Distributors

We have a Sales Plan which offers exceptional opportunity to increase your business without increasing your overhead. Every contact your men make with present lines is a prospective outlet for

Ceco

Metal Weatherstrips and Screens

Endorsed by architects, builders and home owners, everywhere. Complete line—highest quality—prompt deliveries. Produced in the most modern plant of its kind in the country. Write to us today for complete proposition.

CECO WEATHERSTRIP & SCREEN CO.
1928 So. 52nd Avenue Chicago, Illinois
Division of Concrete Engineering Company



"EBCO" DISHWASHING SINK

with dish pan built integral

A beautiful porcelain enamel sink in white, gray, Nile green or blue with distinctive features that add substantially to the value of home or apartment. The dish pan is self-draining, deep and round. Featured by builders everywhere.



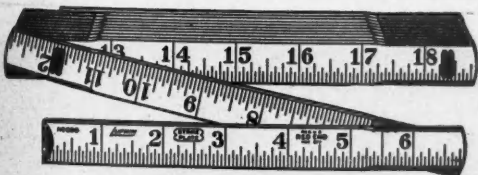
Write for full details and prices



The D. A. Ebinger Sanitary Mfg. Co. 407 W. Town St. Columbus, Ohio
Manufacturers also of Ventilated Closets, Urinals, Wash Sinks, Drinking Fountains and Steel Partitions for Toilet Rooms.

LUFKIN "RED END" RULES

YOU CAN'T BUY A BETTER FOLDING WOOD RULE



Send for Catalog of
TAPES—RULES

Hard Enamel Finish, Brass Strike Plates, and Rust-Proof Spring Joints make these rules most serviceable. Bright Red Ends give them a very smart appearance.

THE LUFKIN RULE CO.

Windsor, Ont.

SAGINAW, MICHIGAN

New York



Improved Hollow Mortising Chisel No. 28
Registered Trade Mark "FOREST CITY"

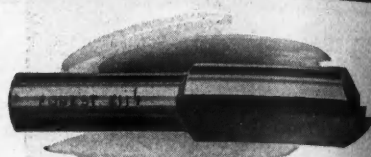
FOREST CITY BIT & TOOL CO.,

FOREST CITY BIT & TOOL COMPANY
MANUFACTURING

High Quality Hollow Mortising and Wood Boring Tools that give service and satisfaction. Write for new catalog No. 25 illustrating and describing our complete line of FOREST CITY tools.

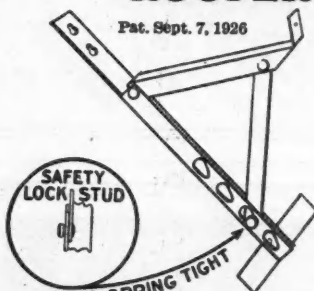
Incorporated 1890

ROCKFORD, ILL., U. S. A.



Router Bit No. 400

**"EVER READY" FOLDING TYPE
ROOFERS' BRACKET**



Pat. Sept. 7, 1926

Speed up your work and make it safe with our dependable heavy gauge brackets.

**EVER-READY
BRACKETS**
pay for themselves

Send for descriptive circular and prices.

CASHMAN EQUIPMENT CO.
14 Winslow St. Providence, R. I.

"Handy as Their Name"

\$30



—say contractors and users of Boice-Crane Handi-Saws and Handi-Jointers. Not only handy, but low-priced and economical in operation. Operated anywhere there's a light socket. Save steps, time and money.

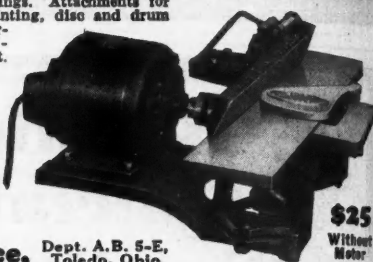
Handi-Saw

Our Universal type. Table 15" by 17". Tilt 45 deg. 8" saw cuts 2" stock. Elevates for dadoing. Always accurate. Pulley between

bronze bearings. Attachments for dadoing, jointing, disc and drum sanding, boring, grinding etc. Wgt. 60 lbs.

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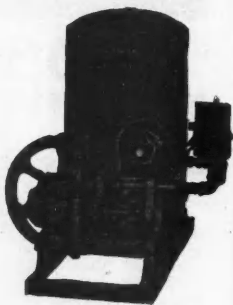


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Without
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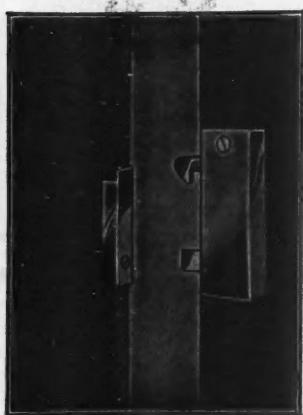
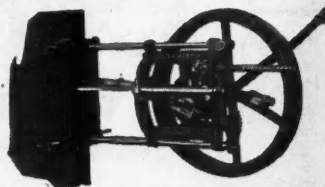
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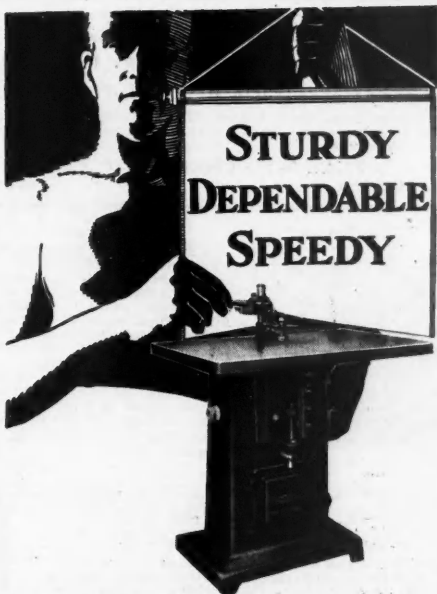
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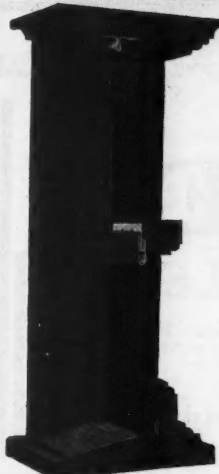
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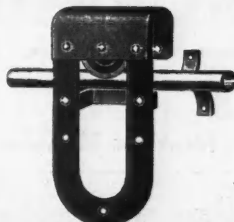
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Has superior roller bearings and bushings,
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Mixed concrete per batch,
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REGULAR EQUIPMENT

On steel trucks, standard charging chute, 8 H. P. two cylinder gasoline engine.

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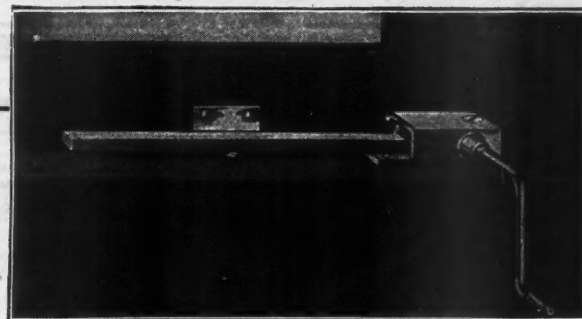
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Has large oversize drum, because of its large diameter and decreased length, mixing speed is very rapid. Drum openings are both 20 in. in diameter which permits wide charging chute and discharge chute. Has 5 mixing blades and 6 extra large discharge buckets. A quick charging power loader—ONLY 8 SECONDS to elevate—with fast discharge. Drumheads throw material towards center away from openings, prevent slopping.

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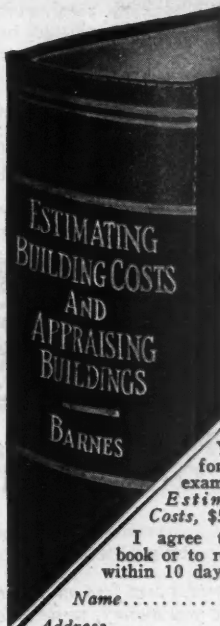
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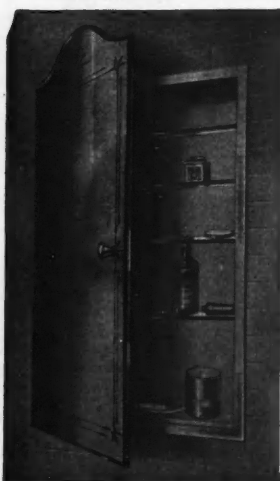


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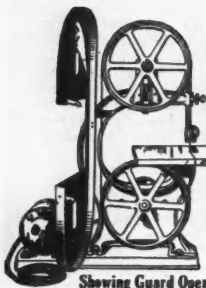
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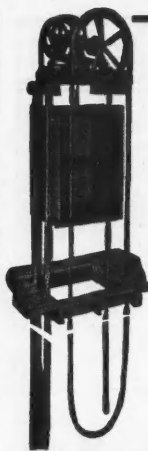
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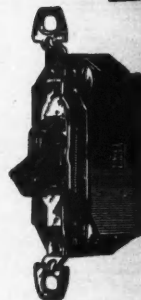
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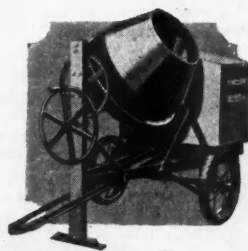
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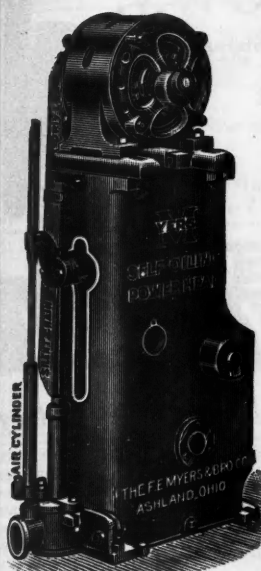
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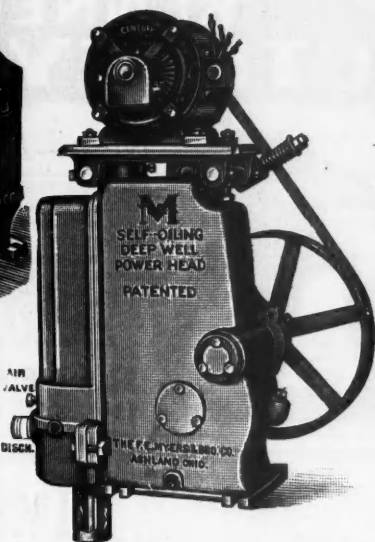
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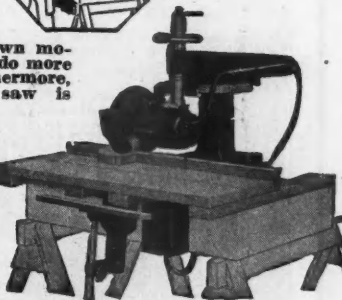
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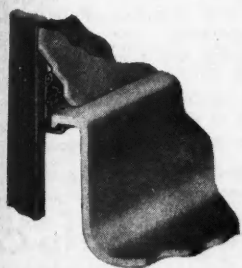
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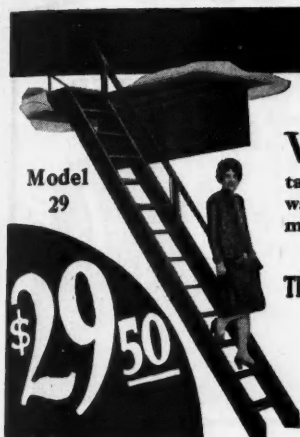


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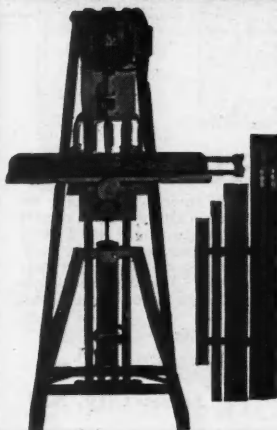
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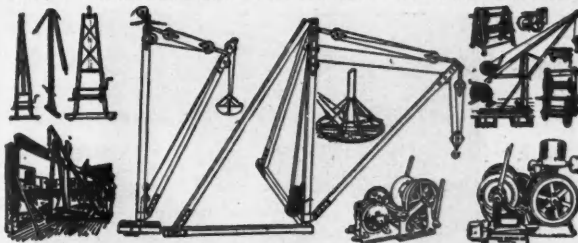


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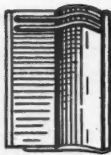
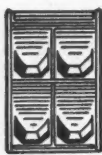
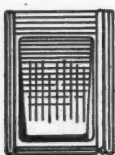
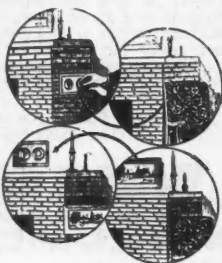
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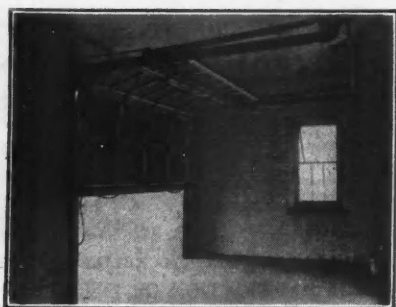
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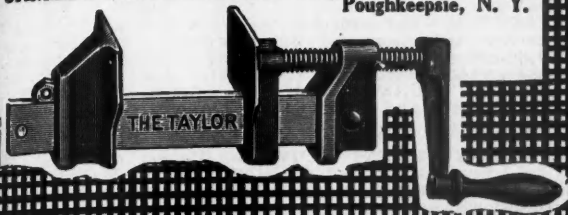
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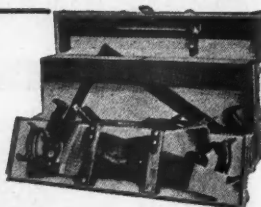
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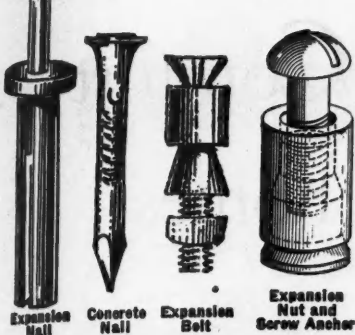
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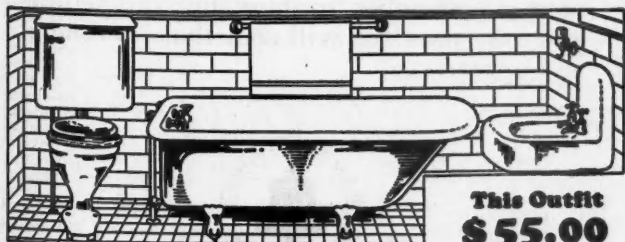
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This Outfit
\$55.00

Finest complete line of PLUMBING AND HEATING SUPPLIES AND FIXTURES in the country. Immense supply. Immediate delivery. You can always save money at KAROL'S and get best quality of goods. Our big catalog tells the story. It will enable you to figure cheaper on jobs.

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Sedgwick Invalid Elevator

SEDGWICK DUMB WAITERS and ELEVATORS

Sedgwick Hand Power Invalid Elevators are designed for the use of persons who cannot or should not climb stairs.

Standard Sizes Ready to Ship

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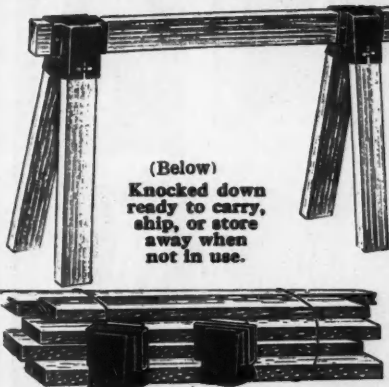


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Send at once for free book

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(Below)
Knocked down ready to carry, ship, or store away when not in use.

Quickly assembled or taken apart. Easily carried from job to job. Hold 8600 lbs. without a creak. No nails or braces.

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MAYWOOD ILLINOIS

10-DAY TRIAL—NO DEPOSIT

"Sterling" Convertible Wye Level

Learn how much the "Sterling" can help you. We take all the risk. No cost to you—no obligation. Easy terms if you keep it.



Model No. 40

Gold Medal
Sesqui-Centennial
Exposition,
1926

Pin this coupon to your letterhead and mail today.

Warren-Knight Co.
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Send new Free Bulletin F-35 explaining free trial offer and easy purchase plan.

Name

Firm

Address



The Concrete Floors in this Garage are Ten Years Old—But Good As New!

The extreme wear to which these garage floors are subjected has had no effect on them. That's because they are *permanently* hardened and waterproofed with "ANTI-HYDRO." Furthermore, they were put in use the next day. Water, oil, grease and wear from tire chains do not harm "ANTI-HYDRO" hardened concrete. Being a liquid integral compound, "ANTI-HYDRO" builds hardness throughout, producing permanent results instead of temporarily hardening the surface.

All concrete garage floors should be hardened and waterproofed—especially in buildings of two or more stories. By using "ANTI-HYDRO" you are sure of concrete that will withstand the most severe conditions.

"ANTI-HYDRO" is easy to use. Simply add it to the mixing water. Requires no skilled labor. Saves time and money.

For 25 years "ANTI-HYDRO" has been used on every type of concrete hardening and waterproofing work. Satisfactory results *guaranteed*. Use it on your next job.

ANTI-HYDRO WATERPROOFING Co.

265-295 Badger Ave.

Newark, N. J.



HOMER GARAGE; WASHINGTON, D.C.



WADDY B. WOOD, ARCHT.~GEO.A.FULLER CO., CONTRS.
KENNEDY & CAMPBELL, SUB CONTR.

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Oak floors smooth the way to sales



*That important first reaction is
sure to be favorable when the
prospect sees that the house is
floored with OAK*

WHEN you open the door of your new house for Mr. and Mrs. Home Buyer, the first thing they see is the floor. There are no rugs or furniture to cover it up. If it is oak—smooth, gleaming, richly grained—they recognize it at once, and are pleased. Women know floors today, and know that oak gives lasting beauty and makes housekeeping easier. Men like oak floors for the practical reason that they make a permanent increase in the worth of the house.

OAK
FLOORS
make
any house
worth more

When you add the trifling extra cost of oak flooring to the house you are building, you immediately add hundreds of dollars to its market value, and make it far easier to sell.

This advertisement is published by the OAK FLOORING BUREAU, 1238 Builders' Building, Chicago. A bureau maintained by the oak flooring industry for the benefit of home owners and builders. Write us for advice on any flooring problem. Our technical staff is at your service.

 Oak Flooring advertising is being carried on during 1929 on an increased scale. Look for the advertisements in "House and Garden," "House Beautiful," "Good Housekeeping," "Better Homes and Gardens," and "The Literary Digest." 

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NOTICE TO ADVERTISERS

Forms in the June number of the American Builder will close promptly on May 10. New copy, changes and orders for omissions of advertisements must reach our business office, 105 W. Adams St., Chicago, not later than the above date. If new copy is not received by the 10th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts.

AMERICAN BUILDER.

The Many Structural Advantages of Stay-Rib make it an ideal reinforcement for solid partitions

SSOLID PARTITIONS . . built with Stay-Rib as a reinforcement and properly plastered, have definitely established their practicability in modern construction. Not only are solid partitions a satisfactory method of saving valuable space . . but they, also, are economical and effective barriers to fire and sound.

Stay-Rib metal lath — a *Milcor* product . . is particularly suited to solid wall construction . . Because of its superior reinforcing longitudinal ribs, Stay-Rib has unusual strength. It presents a firm . . . non-vibrating . . non-bellying surface to the plasterer's trowel. Its unique mesh design assures an adequate key . . and a splendid surface for the back plastering.

Solid partitions constructed on Stay-Rib are permanently immune from cracks . . . they become a lasting monument to the art of the modern plasterer.



MILCOR PRODUCTS
STAY-RIB METAL LATH NO. 2

**MILWAUKEE CORRUGATING
COMPANY, 1409 Burnham Street
Milwaukee, Wisconsin**

Branches: Chicago, Ill., Kansas City, Mo., La Crosse, Wis.
Sales Offices: Boston, Mass., Detroit, Mich., Atlanta Ga.,
Little Rock, Ark. Minneapolis, Minn.

Eastern Plant:
The Eller Manufacturing Co., Canton, Ohio

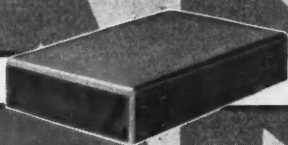


All the Doors Roll Round the Corner~and How!

Three doors (separate passage door and all) roll as one easily and quickly 'round-the-corner and out of the way when they are equipped with the NEW FrantZ No. 550 Garage Door Fixtures. Never before have Builders been given an opportunity to specify and install a garage set for "around-the-corner" use that assures the easy installation and trouble-free operation that is true of the FrantZ No. 550 Set. It eliminates all former objections to around-the-corner type of equipment and makes such an installation

most desirable. Builders and Contractors will welcome the NEW No. 550 Fixtures because many of their clients have been looking for "around-the-corner" fixtures that are "fool proof". You can strengthen your business by making satisfied clients with this and other unusual numbers that make up the line of FrantZ Guaranteed Builders' Hardware. Write to Dept. A-629 today for full details. FrantZ Manufacturing Company, Sterling, Illinois.

No Hardware is Genuine FRANTZ

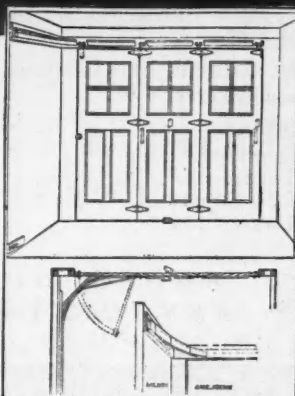


QUALITY Without the Red Label



Interior view of a 6-door installation of FrantZ No. 550 Garage Door Fixtures.

Residence of L. A. Jacques, Rockford, Illinois . . . an enthusiastic owner of the garage above.



The secret of perfect operation lies in the patented device that allows all 3 doors to roll 'round-the-corner.



Exterior view of the two-car garage at the L. A. Jacques residence.

At the left is a detailed drawing of the arrangement of hardware on a 3-door installation.