

# Southern Architect and Building News

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VOL. XLIII. \$2.00 Per Year—Monthly DALTON, GA., and ATLANTA, GA., JULY, 1919. NO. 3  
Address All Letters to Business Office, Atlanta, Ga.

ENSURE ARCHITECTURAL  
STRENGTH, BEAUTY AND  
SALES SERVICE.

## Kawneer

STORE FRONTS

INSTALLED IN MORE THAN  
70,000 SUCCESSFUL  
STORES IN U.S.

WRITE FOR NEW CATALOG ~K~  
KAWNEER MANUFACTURING COMPANY, 150 NILES, MICH.

**GURNEY BOILERS RADIATORS**  
FOR STEAM AND HOT WATER  
GIVE COMPLETE SATISFACTION  
THE MARK OF HIGHEST QUALITY  
GURNEY HEATER MFG COMPANY  
SHOW ROOMS: NEW YORK, PHILADELPHIA, WASHINGTON, BOSTON  
HOME OFFICE: 188-200 FRANKLIN ST. BOSTON

## SAMSON SPOT SASH CORD



SAMSON CORDAGE WORKS, BOSTON, MASS.

## THE WINKLE TERRA COTTA COMPANY

Manufacturers of

Architectural Terra Cotta

ALL COLORS

502-3 Century Bldg.,

ST. LOUIS, MO.

**ROOFING SLATE**  
MINERS, MAKERS AND SHIPPERS OF ALL STYLES AND  
COLORS ROOF SLATE SINCE 1869.  
Write for prices.

**Rising & Nelson Slate Co.**

Main Office, West Pawlet, Vermont.

Branch Offices:—101 Park Ave., New York City; 4 Post Office Square,  
Boston, Mass. Office and Yard. 2554 W. Harrison St., Chicago, Ill.

WATER STORAGE TANKS  
OIL STORAGE TANKS  
HYDRO-PNEUMATIC TANKS  
HOT WATER TANKS  
GASOLINE STORAGE TANKS

# TANKS

FOR EVERY PURPOSE

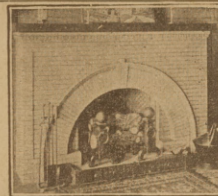
WATER FILTERS  
RANGE BOILERS  
SMOKE STACKS  
EXPANSION TANKS  
AIR RECEIVERS

WHEN SENDING FOR CATALOGUE, SPECIFY KIND OF TANK DESIRED  
NEW YORK 26 CORTLANDT ST. **WM B. SCAIFE & SONS CO.** HOME OFFICE PITTSBURG PA.

## ODORLESS TOILET ROOMS

ASSURED. A SANITARY NECESSITY. NO CHEMICALS.  
EVERY Owner of a water closet a prospective  
purchaser. Write for particulars.

SANITARY APPLIANCE CO., Mfrs., NEENAH, WIS.



Contractors and Builders  
OUR NEW CATALOG  
"EVERYTHING FOR THE FIREPLACE"  
FREE

Write today and secure a copy. Largest  
variety of Fireplace Equipment  
published.

COLONIAL FIREPLACE COMPANY  
Colonial Bldg.  
4604 W. 12th St., Chicago.

## AMERICAN ELEVATORS

Built by

## AMERICAN ELEVATOR and MACHINE CO. INCORPORATED LOUISVILLE, KY.

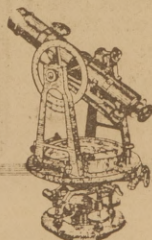
## The Hawley Down Draft Furnace Co.

Builders of the Original Down-Draft Smokeless Furnace  
and the Hawley-Schwartz Metal Melting Furnaces.  
Formerly of Chicago.

Easton, Pa.

Atlanta Architectural Terra Cotta  
Made in Atlanta by

ATLANTA TERRA COTTA COMPANY  
514 Third National Bank Building  
Factory at EAST POINT, GA.



## O. GRINER

ENGINEERING  
Instrument Maker  
Architects', Engineers' and Contractor's  
Supplies.

"EVERYTHING FOR THE DRAFTING  
ROOM"

TRANSITS and LEVELS Repaired, Rented,  
Bought and Sold.  
BLUE PRINTING

Both Phones Main 4083.  
218 E. 10th St. KANSAS CITY, MO.



Perforated  
Radial Brick

# CHIMNEYS

BERGEN & LINDEMAN, Inc.

120 Liberty St.,

NEW YORK

Branch Offices: Philadelphia and Boston.



## SANDS KEROSENE HEATER

Heats 30 gallons of Hot Water in one hour.

No wicks—no odor—  
makes its own gas.

Double copper coil construction.

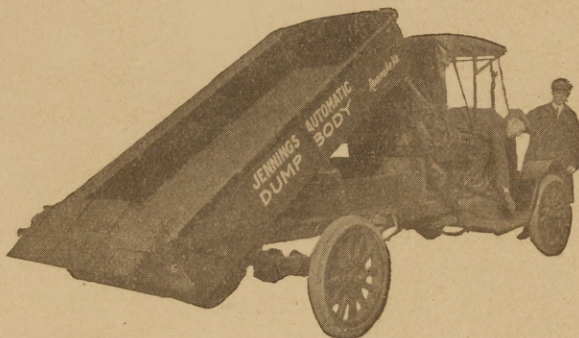
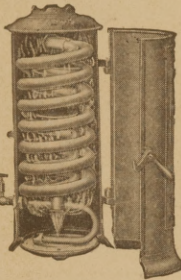
Economical—

Burns eight solid hours  
on one gallon Kerosene.

*Circular and prices on  
request.*

THE AUGMORE MFG. CO.

5300 Sweeney Ave.,  
Cleveland, Ohio



## JENNINGS DUMP BODIES

This body pays for itself in time and labor saved

**Quick Simple Durable Practical**  
A dump body that does more work and lasts longer  
than more expensive bodies at less than half price.

Why waste fuel and shorten the life of your motor  
when it is quicker, cheaper and easier done with the  
Jennings Automatic dump body? No waiting for parts  
from factory if any should break. A good blacksmith  
can make any repairs. Easy to mount on any make  
of truck. The load can be dumped and body replaced  
in less than 10 seconds.

The body sets nearly on a balance, and when the  
lever is pulled down it starts the load and gravitation  
does the rest. The body is lined inside with 22-gauge  
sheet steel and well supported with iron braces bolted  
to the wood work, which is made of best oak timber.

Price \$200 to \$275, f. o. b. Roanoke, Va.

Agents Wanted in Open Territories

**JENNINGS AUTOMATIC DUMP BODY, Inc.**  
ROANOKE, VA.

## "OTELLO" PAINTS

An excellent and inexpensive substi-  
tute for red lead on new steel

## Acid Proof

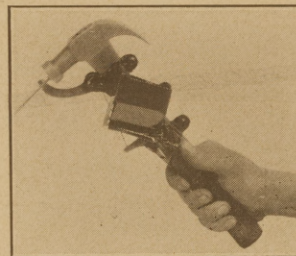
Prevents wood from expanding and  
contracting through absorption  
of moisture

Half the cost of oil paints

*Sole Manufacturers*

**The William Cail Bitmo Co.**

18 Broadway  
New York



## AUTOMATIC NAIL FEEDER

feeds nails to your hammer.  
A one-arm man can drive  
nails—easy to attach to any  
hammer—great time saving  
device.

No. 1 takes nails up to 8d.  
No. 2 takes nails up to 16d.  
Weight only 7 ozs. Don't  
hold your nails in your  
mouth while you do nailing,  
it isn't good for your health,  
have your nails attach to  
your hammer.

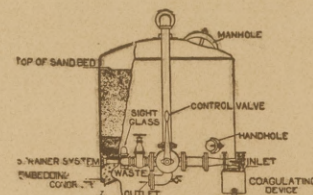
PRICE \$1.50.

**BUDNICK MFG. CO.**

40-50 Market Ave., N. W.,

GRAND RAPIDS, MICH.

Newest



Best

## WHEELWRIGHT WATER FILTER

For Residences, Hotels, Office Buildings, Swimming  
Pools, Ice Plants, Laundries, Breweries, Hospitals,  
Schools, Factories and the like.

**LOUIS WHEELWRIGHT**

507 Flatiron Bldg.

New York

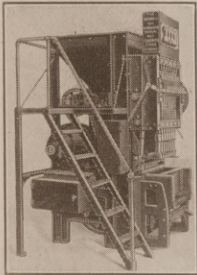


# TETTENBORN

Safe, 100% Sanitary  
Solid Porcelain  
Refrigerators

Beaver Refrigerator Mfg. Co.  
New Brighton, Pa.

# Brandell



## All-Automatic Power Concrete Stone Machine

1600 to 2000 concrete stone building units per day, the equal of 20,000 brick. Entirely automatic. This equipment will secure you a large Builders' Supply business. For details write

**The Brandell Co.**  
Union Central Tower, Cincinnati, O.

## The Federal Clay Product Co.

MANUFACTURERS

**SALT GLAZED BRICK**  
of the Finest Quality.

The "Sparta" acknowledged and admitted to be the most perfect and most satisfactory Glazed Brick on the market. Uniform in size, never craze nor chip off. Permanent in color and finish. "SPARTA" Brick are also made in Lemon, Orange, Old Gold and many other shades both glazed and unglazed. The most profitable line on the market for live agents to handle. High class goods with character in them that build high class reputation for the dealer and Agent.

**The Federal Clay Product Co.**

MINERAL CITY, OHIO.

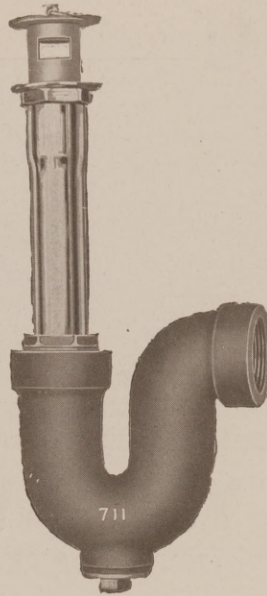


Fig. A

**FOR BASINS, SINKS, TRAYS AND BATHS.**

*Write for prices.*

**ESSEX FOUNDRY**

Newark, N. J.

# "711"

That's the Name  
of the Trap  
shown in the cut  
and merely asking for

# "711"

is a brief but  
sufficient way of

**BUILDING  
BIGGER  
BUSINESS**

San Francisco

Chicago

Toronto

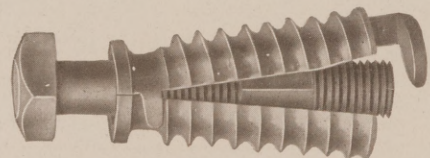
## The U. S. Expansion Bolt Co.

Manufactures the Complete Line of

**Lag and Machine Expansion  
Bolts, Lead Anchors and  
Toggles**

Our Malleable Iron Machine Expansion Bolts have been adopted and standardized by many of the largest engineering organizations in the country.

SEND FOR CATALOG



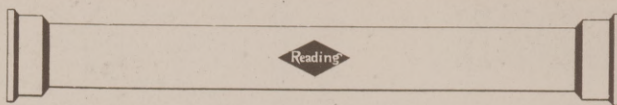
Pat. open Back Machine Expansion Bolt.

## U. S. Expansion Bolt Co.

General Offices: New York Edison Building.

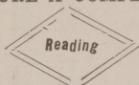
Duane and Elm Sts., New York  
Foundry at Columbia, Pa.



**READING BRAND***The Soil Pipe with Five***SOIL PIPE***Guaranteed Features*

1. Only the very best of raw materials used in its manufacture.
2. Every length fully tested and guaranteed before leaving foundry.
3. Angles all made the same, insuring a ground joint connection—thus reducing the amount of lead used to a minimum.
4. Easy cutting and free from sandholes.
5. Made in an up-to-date foundry with every facility for turning out high grade products.

WE MANUFACTURE A COMPLETE LINE OF  
 CAST IRON SINK TRAPS  
 CAST IRON DRUM TRAPS  
 CAST IRON GREASE TRAPS  
 VENT BOXES—WATER BOXES  
 HYDRANTS—BOILER STANDS



DRINKING FOUNTAINS  
 GARAGE TRAPS  
 FLOOR DRAINS  
 CESSPOOLS  
 WATER HEATERS

WRITE TODAY FOR CATALOGUE.

**Reading Foundry and Supply Co.,****Reading, Pa.****DID YOU EVER GET ANY?****UP-TO-DATE ARCHITECTS DO.****They want Guaranteed for Strength, Comfort, Beauty and Economy**

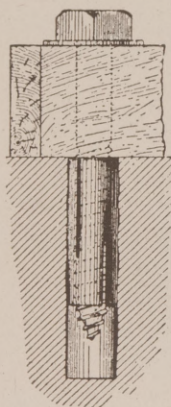
When specifying seats for a job get our Catalogue and name of nearest jobber who handles our line.

*A Satisfied Client is Your Best Ad—You Are always talked of: Good or Bad*

Satisfaction Guaranteed By Us.

**KNOTT MANUFACTURING CO., Main Office and Factory, TELL CITY, IND.****SAVES MONEY**

Because of its simplicity the Little Giant Expansion Screw Sleeve can be manufactured and sold at a low price. However quality has not been sacrificed to price. The

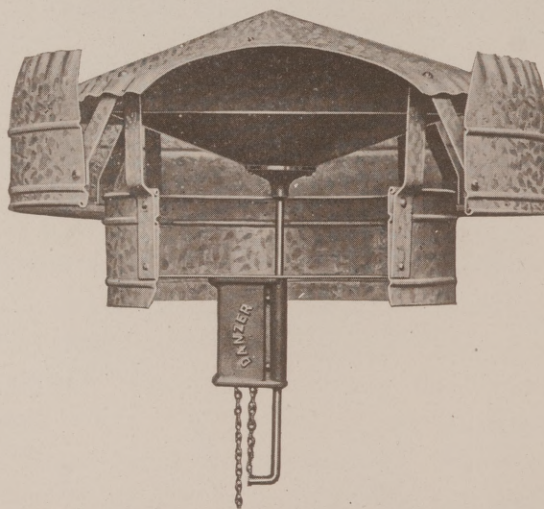
**LITTLE GIANT****Expansion Screw Sleeve**

expands evenly throughout its entire length from the first turn of the screw. Screw cuts its own thread as it enters.

Write for Prices

**STANNARD MFG. CO.**

Springfield, Mass.

**HOT AIR**  
 Rapidly Exhausted by  
**ROSE TOP VENTILATORS**


Absolutely Stormproof, constructed to exhaust maximum amount of air without danger of leakage. Can be equipped with Single Chain Lift Damper as illustrated. Six thousand furnished U. S. Government last year. Price reasonable.

**Danzer Metal Works**
 HAGERSTOWN, MD.  
 Dept. S.



# INDIANA LIMESTONE

FOR ALL BUILDING PURPOSES.

Sawed, Planed, Turned, Cut and Block

See that you have a price from our Company before placing order. Plans will be returned promptly if sent for estimate.

**J. Hoadley & Sons Company, Inc.**

P. O. Box 83.

Bloomington, Ind.

# Bowling Green & Green River Quarries Co.

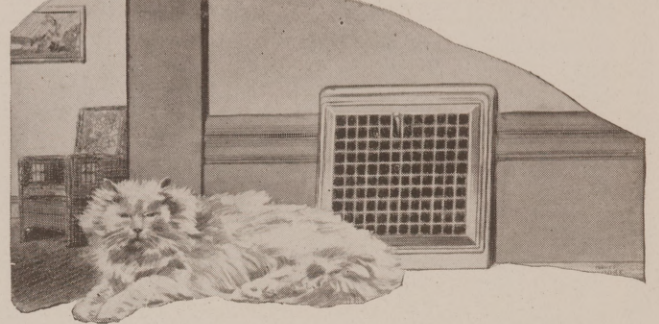
Dealers in the Celebrated

**Bowling Green & Green River Bleaching Limestone**

Blocks Sawed—Planed—Turned—and Cut  
BOWLING GREEN, KY.

# COLUMBIAN

All-Steel Warm Air **REGISTERS**



## The Finishing Touch of a Good Job

AS Michael Angelo said to the man who asked him why he spent so much time on a trifling detail: "Trifles, my dear sir, make perfection and perfection is no trifle."

In Columbia Registers the lattices are strong without looking clumsy, the shutters, or deflectors, operate smoothly and quietly and close tightly. The finish is always perfect whether it is plain black or white japan, or electro-plated with copper, brass or nickel.

A good furnace, good flues and Columbia Registers make a combination of which the heating contractor can be proud.

*Have you the latest Catalog?*

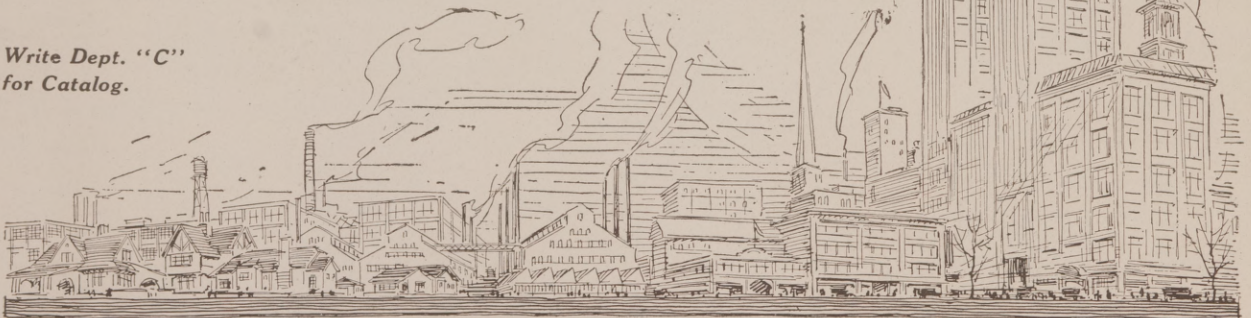
**The Columbian Hardware Co**  
Cleveland, Ohio

# ELIMINATES ALL HEATING WASTE

*Pressweld Radiation* does eliminate *all* waste in artificial heating—waste space, waste weight, waste fuel, waste time. It is more sanitary—more cleanly—more efficient—more durable—than any other method of heating available today. It is lighter, easier to handle and cheaper to ship. Best of all it is much more economical in operation. Tests have clearly shown that. Let us give you the results of these tests. You'll quickly appreciate the merits and advantages of *Pressweld*. Write for full particulars.

**American Pressweld Radiator Corporation**  
Detroit, - - - Michigan

Write Dept. "C"  
for Catalog.



# PRESSWELD RADIATION



# Dark Hollow Gray

MR. ARCHITECT: Before making the selection for your client consider **DARK HOLLOW GRAY**. There is a decided beauty in the soft, delicate gray shade of this material. This stone is possessed of great density, runs more uniform in color and texture and is of a fine, close grain.

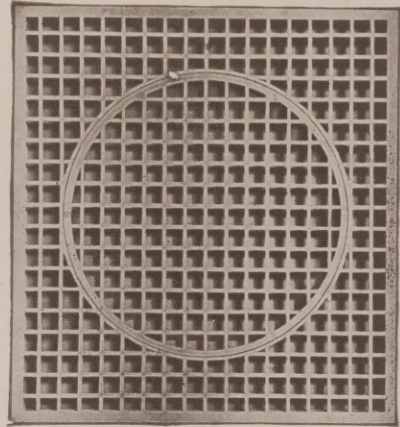
Write for samples of this material. Compare **DARK HOLLOW GRAY** with other Indiana Limestone.

We have in our stacks at the quarry several hundred thousand cubic feet of this material thoroughly seasoned and ready for shipment.

To assure yourself of getting this material, your specifications and contracts should stipulate the use of **DARK HOLLOW GRAY BEDFORD STONE**.

**THE CONSOLIDATED STONE CO.**  
BEDFORD, INDIANA.

## DUPLEX GRATINGS for Pipeless Furnaces



We carry the following Gratings in stock for immediate delivery:

Size Grating	Size Collar	Size Grating	Size Collar
20 x 22	14	30 x 36	24
22 x 24	16	35 x 35	26
24 x 27	18	36 x 36	28
30 x 30	22	40 x 40	30
	45 x 45—36		

Prices on Application

**TUTTLE & BAILEY MFG. CO.**  
NEW YORK

Chicago

Boston

Cleveland

Bridgeburg, Ont.

# Martin Semi-Trailer Method of Hauling

A well-built motor truck can easily PULL from two to three times the weight it can CARRY. Therefore a one-ton truck can easily pull a two or three-ton load; a two-ton truck a four or six-ton load, etc. The Martin Semi-trailer method of hauling enables motor



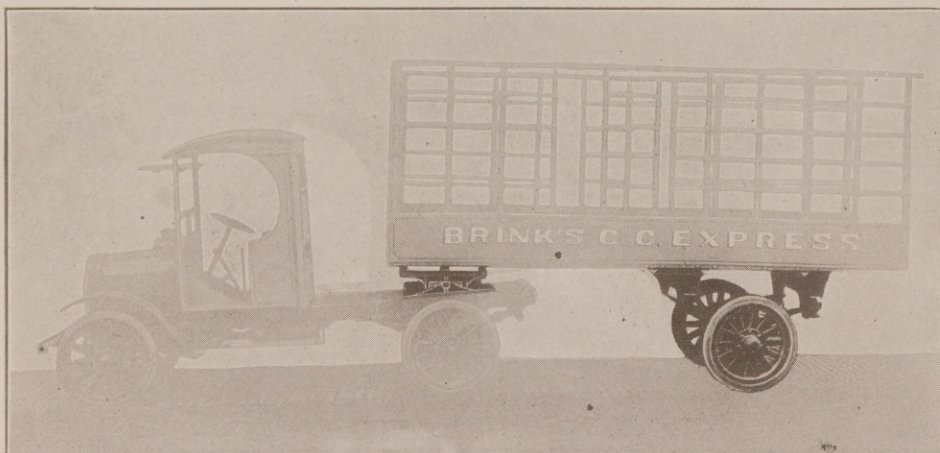
truck owners to utilize the entire tractive power of a motor truck, much of which is ordinarily wasted.

SEND FOR 32-PAGE CATALOG  
GIVING FULL DETAILS.

Rocking  
Fifth  
Wheels

Floating  
Bearing  
Axles

Castor  
Jacks



Rear End  
Assemblies

Semi-  
Trailers

Semi-  
Trailer  
Parts

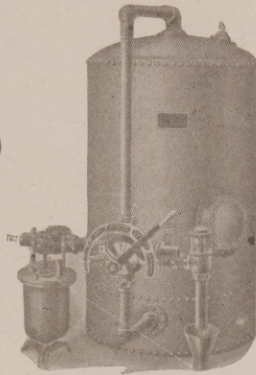
Note that the Martin Fifth Wheel and Rear End Assembly together constitute a chassis.

**MARTIN ROCKING FIFTH WHEEL COMPANY, Springfield, Massachusetts**



There is a  
**ROBERTS  
FILTER**

For Every Need



*Style "G"  
Roberts Filter.*

Catalog on Request.

Made in varying sizes to meet requirements for capacities. One valve controls all functions. Complete list of filters shown in Sweet's Catalog.

**Roberts Filter Mfg. Co.**

Main Office, DARBY, PA.

1707 Flat Iron Bldg.

New York

FACTORIES—Darby and Frankford.  
(Suburbs of Philadelphia, Pa.)

**Wright  
Coal  
Chutes**

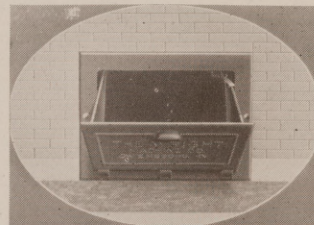


**Are Mechanically Right**

The design and construction of Wright Coal Chutes speak for them long and useful lives. They are constructed throughout of extra heavy cast iron, weigh practically three times as much as any other chute of the same dimensions. They will never lose their shape nor ease of operation.

They are easily installed. Will stand on flat surfaces which eliminates the necessity of staking and tying while being installed. They plumb themselves. Architects and contractors should always specify the Wright Chute.

*Write for Discounts  
They are Liberal.*



**Wright  
Machine  
Company**

321 E. 2nd Street  
OWENSBORO, KY.



**CRUMB'S  
Patent Chain-Hanging  
STANCHIONS**

Make cows comfortable, keep them clean, and increase the flow of milk. Used with either concrete or wood base.

Liberal Discount to Contractors or Dealers.

Manufactured by

**Wallace B. rum b**

Box S, Forestville, Conn.

**Dependable Showers**

Easily set for desired temperature

**The Milwaukee Mixer**

precludes all danger of scalding.

Made in a variety of designs.

Valve either exposed or concealed.

China or metal handle.

Order from you jobber.

**The Milwaukee Flush Valve Co.**

Valve Specialist

MILWAUKEE, WIS.

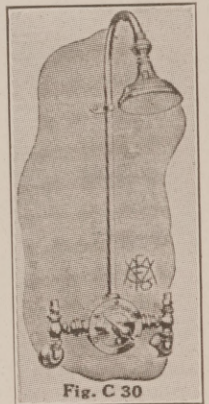


Fig. C 30

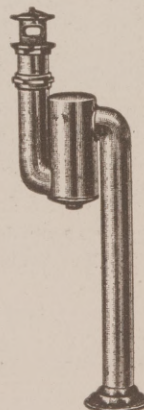
**CRUSHED GRANITE  
GRANITE SAND  
RIP-RAP  
JETTY STONE**

ALL SIZES SHIPPED PROMPTLY

**A. T. Small Quarries Company**

OFFICES: 353 1/2 THIRD ST., MACON, GA.

QUARRIES: HOLTON, GA.



**CLEAN SWEEP TRAP**

Close to the PEOPLE'S NEEDS.

SAFE, SANE and SANITARY.

UP-TO-DATE in MAKE and APPEARANCE.

ABSOLUTELY the BEST TRAP.

A RED HOT Proposition.

A REAL TRAP.

Used by the Government in its work.

In LEAD and BRASS.

**Detroit Sanitary Supply Co.**

SOLE MANUFACTURERS

Second Ave. and Antoinette St.

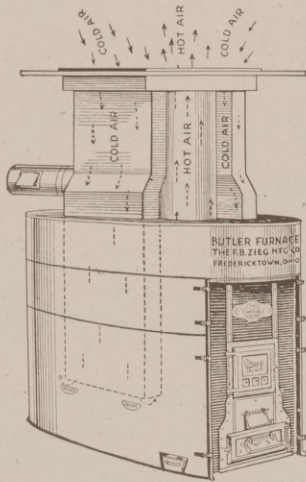
DETROIT,

MICHIGAN



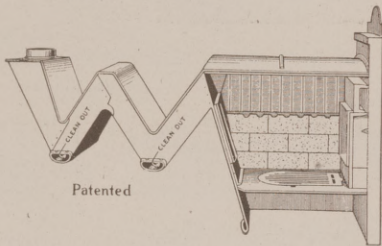
# A Complete Line

Butler  
Furnaces  
Made in  
3 Sizes  
and  
2 Types



Adapted for  
Residences,  
Apartments,  
Storerooms,  
School Houses  
and  
Public Halls

**Completely Assembled  
When You Knock  
Off the Crate**



**W**HEN you knock the shipping crate from a Butler Furnace you find the heating unit completely assembled with everything in place and all joints tightly caulked.

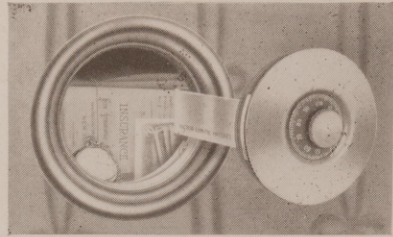
You and your helper carry it into the basement—set it on the floor—place the wrought iron base around it and proceed with the assembly. This will be found most simple as the furnace will have been previously assembled at the factory and all parts will go readily into place.

Another important advantage of Butler construction particularly interesting at this time is the fact that all parts that might ever need replacing will pass readily thru the fire door. More attention is being given at this time than ever before to the efficiency of furnaces and many people are finding, to their sorrow, that new parts can't be put into their furnace without completely dismantling it.

To be able to point out this feature to prospects is just another of many advantages the Butler Agent has over competitors.

**THE F. B. ZIEG MFG. CO.**  
Fredericktown, O.

## VICTOR - LOWRIE



### WALL SAFE

A  
PRESENT  
DAY  
NECESSITY

ADAPTED  
FOR  
APARTMENT  
HOUSES

WE WILL BE GLAD TO SUBMIT DETAILS

MANUFACTURED EXCLUSIVELY BY  
**The Victor Safe & Lock Co.**  
CINCINNATI, OHIO

Also Manufacturers of Safes, Light and Heavy Vault  
Doors, Deposit Boxes and Bank Work of all Character

## Notice to Architects

For that cool, non fading Bluegray  
side walk or stucco, ask your dealer  
for

**THE L. MARTIN COMPANY'S  
EAGLE BRAND LAMPBLACK**

Special Blacks for Pointing Brick and  
Stone.

**The L. Martin Co.,**  
81 Fulton St. New York

## Heating Apparatus

For Schools, Churches, Dwellings and other  
buildings.

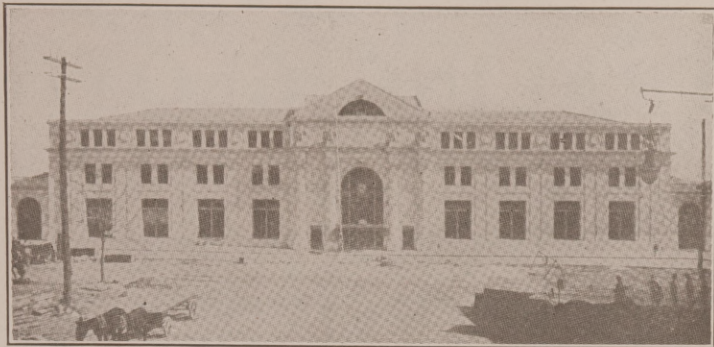
Wonderful "Bilt-Rite" Furnaces

**THE HAMMOND HEATING CO.,**

130 E. Pearl St.,

Cincinnati, Ohio





## Terminal Station, Macon, Ga.

Alfred Fellheimer, Architect.

The entire contract for  
KALAMEIN WORK

MADE BY

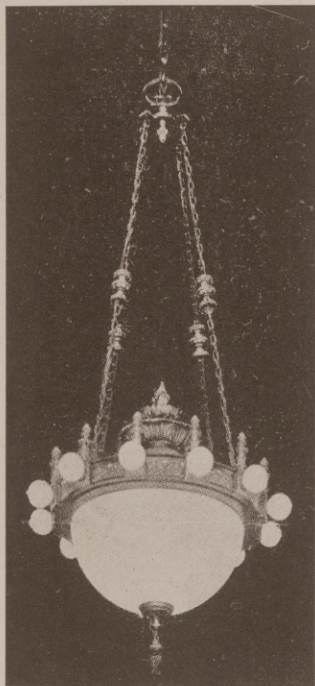
## RELIANCE FIREPROOF DOOR CO.

Metal Covered Doors, Windows, Trim, Etc.

Labelled Kalamein Doors a Specialty  
West and Milton Sts., and  
Greenpoint Ave.

BROOKLYN, N. Y.

Agents—Beaulieu & Applewhite, Atlanta, Ga.



## Ornamental Lantern

Equitable  
Trust  
Building  
New York

Made By

## Bullock Mfg. Company

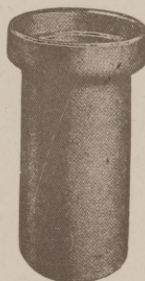
LIGHTING FIXTURES

BRASS AND BRONZE SPECIALTIES

408-10-12 West 13th Street, New York

## "Sewer Pipe of Quality"

MADE OF OHIO RIVER FIRE CLAY



By test 43% stronger than competitors'  
Send for special test circular.

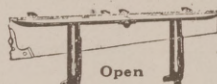
## Cannelton Sewer Pipe Co.

CANNELTON, IND.

Southern Distributor—Fischer Lime & Cement Co., Memphis, Tenn.

Western Distributor—St. Louis Clay Products Co., St. Louis, Mo.

## Unbreakable Steel Folding Saw Vises



Open

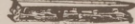
No shift saw vise. 28 in. jaw, wgt. 4 lbs.



Open

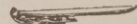
14 in. jaw, wgt. 2 lbs.

Folded



\$2.25 Prepaid

Folded



\$1.25 Prepaid

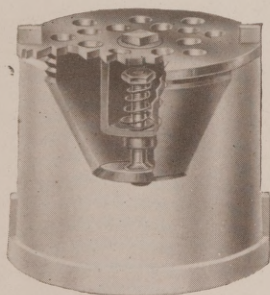
The 28 in. vise takes the full length of saw. The 14 in. vise required only on shift of saw.

## Buckeye Manufacturing & Foundry Co.

Successors to Buckeye Saw Vise Co.

9491 Lake Avenue, Cleveland, Ohio

## NIAGARA FALLS FLOOR DRAIN and Back Water Trap



Simple in Construction, but Mighty Efficient—No Parts to Wear  
or Deteriorate—Can Be Cleaned in Five Minutes.

*Descriptive Circular on Request.*

Universal Sales Service

Kingston, N. Y.



# NATIONAL TRACING CLOTH

Possesses the THREE ESSENTIALS of a High-Grade cloth to a superlative degree. TRANSPARENCY—ERASIVE QUALITY and TENSILE.

Its erasive quality is good, which means a saving of the time and temper of your draftsmen. The basic material of the NATIONAL is our first consideration. We are building on a good foundation ensuring a permanency of finish and a guarantee of the endurance of the cloth.

NATIONAL TRACING CLOTH is an AMERICAN product, and we invite comparison with any other brand on the market.

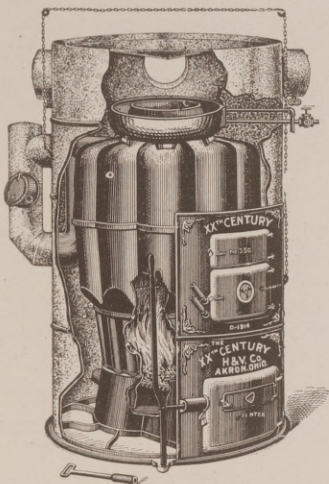
We will supply sheets cut to your own size and save you time, labor, and wastage, and charge you no more than for cloth by the yard. We will print your title and border lines in glossy black ink—at our own plant.

Send for a free Sample Sheet, and make your own tests.

## NATIONAL TRACING CLOTH CO.

Factory and Office: Saylesville, R. I.

New York Office: 72 Leonard St.



In the End, - a XX<sup>th</sup> Century  
COSTS the LEAST

### THIS DEALER SAYS:

(Name on application)

"I have installed about 700 XXth Century Furnaces in the last seven years and I find they are all giving good service."

### XXTH CENTURY FURNACES

#### FEATURES:

- Self filling water tank.
- Upright shaker lever.
- Indirect draft system that saves coal and carries off gas.
- Drop front grates.
- Made of highest grade, tested pig-iron throughout—no scraps.

Write Department 1 for dealers terms.

**XXth Century Heating & Ventilating Co.**

**Akron,**

**Ohio**



# Southern Architect and Building News

WITH WHICH IS CONSOLIDATED "SOUTHERN BUILDING RECORD"

VOL. XLIII.

DALTON and ATLANTA, GA., JULY, 1919.

No. 3

## The Southern Architect And Building News

Southern Architect and Contractor, Atlanta, Ga., and Southern  
Building News, Memphis, Tenn., and Southern Building  
Record, Nashville, Tenn., Consolidated.

Entered as second-class matter May 27th, 1911, at the Post  
Office at Dalton, Ga., under the act of March 3d, 1879.

This paper is issued and mailed from our printing house  
at Dalton, Ga. Business office, Atlanta, Ga. All letters  
should be addressed to the Atlanta office. Editorial office,  
Dalton, Ga.

Price \$2.00 Per Year.

### TO OUR ADVERTISERS

*Our advertisers are requested to have copy and  
cuts for changes for advertisements in this office not  
later than the 5th, preceding the month of publi-  
cation.*

*We cannot be responsible for changes not  
made, when copy and cuts are received later, or sub-  
mit proof.*

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### The Monument Builders.

In a thousand county seats the question of a mem-  
orial to the returned soldiers and sailors of the great  
war is being considered. A grateful people desires  
to express appreciation in some enduring manner,  
and this is proper. But while we are about it, we  
might well erect something worthy of the heroes we

desire to honor. A simple marble or granite shaft  
is hardly ornate enough to satisfy most communities,  
and when we begin to erect statuary, either in the  
form of a single heroic figure or in an allegorical  
group, we usually achieve something unworthy in  
the line of art. A crude statue is hideous. It is  
well for memorial committees to consider the sug-  
gestions of some of the best architects, who recom-  
mend that we have something modern, and even use-  
ful.

Why not consider a memorial building to be used  
as a community centre which would be a real rest-  
ing place for country folks when they come to town?

Or it could take the form of a graceful shaft  
with a bandstand at the base where free entertain-  
ment could be furnished Saturday afternoons during  
spring and summer.

We suggest that they have something beautiful  
for their money while they are about it. And of  
course, a beautiful thing, also, may be useful. It  
is a favored community that chooses wisely when it  
comes to selecting its memorial.

### To Those Who Are Discontented.

There are many folks in this country, we know,  
who are among those who are discontentedly com-  
plaining that there is no business, and that there will  
be none—or very little—until the markets settle  
down, and we know something accurate about mate-  
rial costs.

But, one of the biggest manufacturers in this  
country in their line, F. Meyer & Bro. Co., of Peoria,  
know better, for they are running full speed and be-  
lieve that business will be good.

Another indication is to be seen from this extract  
clipped from a big Central West paper:

Chicago and the central west are experiencing  
the biggest building boom the section has ever known  
and which, builders and contractors assert, is only  
its share of the general builing wave that is covering  
the whole country.

Better living conditions, more money due to in-  
creased wages and a disinclination among persons  
formerly poor to continue to live according to poorer  
standards, are the reasons set forth for the chang-  
ing order.

To set a money estimate on the value of construc-  
tion now under way would be impossible, contract-  
ors say. Record breaking housing and industrial  
projects have been reported in practically every



hamlet, town and city, they point out, representing valuations of from \$100,000 in Stevens Point, Wis., to \$2,000,000 in Gary, Ind., to \$90,000,000 in Chicago.

One thousand new houses, including both residences and business houses, are planned for Gary, while real estate men aver 60,000 houses and apartments are needed in Chicago. The Chicago situation has changed during the war from an actual surplus of 10,000 houses to the present deficit, according to H. H. Banford, head of a Chicago real estate firm.

"Not only are more buildings going up than ever," said T. O. Hooker, social worker and student of housing problems, "but they are being better constructed. People are no longer content with the cheaper houses that have been provided by their landlords and are putting more money into their homes."

Renters, likewise, are demanding better homes, Hooker said.

#### Important to Our Patrons.

In order to better serve our advertising patrons and the reading public generally, we have moved our editorial office from Atlanta and are now located at this address: 6. N. Spencer Street, Dalton, Ga., where all editorial and advertising copy, also cuts, should in future be sent.

That the best and most prompt service be rendered, we must ask that the necessary cuts be sent promptly and that proofs of all cuts showing correct position in layout accompany copy, all of which should be mailed so as to reach Dalton by the 5TH, **CERTAINLY NOT LATER THAN THE 10TH OF THE MONTH BEFORE THE DATE OF ISSUE**, if proof is required, otherwise no proof unless these dates are strictly observed.

All communications relating to contracts, adjustments and subscriptions should be sent as heretofore, to our executive office address, P. O. Box 1598, Atlanta, Ga.

#### Printer's Ink and Profit.

There is a story told of the testimony given recently by the president of a million-dollar patent medicine concern. The prosecuting attorney, in an attempt to prove that the "big seller" of the company, the remedy on which they had built up their popularity, was a fake, had asked the president to tell the court the formula of this preparation.

The president refused to do so until the court was cleared. After everyone but the judge, the lawyer, and the witness had left the room, the president,

in hushed tone of voice said that, as the formula he was about to utter was a deep secret, he wanted both the judge and the lawyer to pledge themselves never to reveal a word of what they would hear. He received the pledge and then, leaning forward so that he almost touched the judge's ear, he whispered:

"The formula that has made our leading preparation such a money maker consists of just two ingredients—Printer's Ink and Profit."

This leads us to remark that persistent advertising surely pays. But the big idea is to have the quality of goods to deliver, then conduct your campaign intelligently.

Every business need the aid of printer's ink, to a greater or lesser extent. Find the medium and your goal is all but reached.

#### Suggests Classification of Buildings.

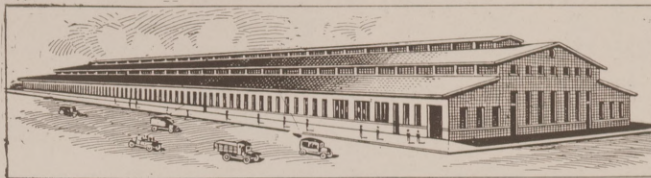
"Building Codes in Relation to Standards of Wood Construction" was the subject covered by R. S. Whiting, architectural engineer, of the National Lumber Manufacturing Association, at a recent meeting. After a review of the relatively recent history of housing legislation, Mr. Whiting suggested as a practical classification of buildings the following groups: Fire-resisting, mill (slow burning), ordinary or wood-joisted and frame. Competent regulations could easily come under these divisions, the engineer stated, which would minimize fire-risk and counteract the careless attitude of the average architect toward the purely fire-preventive aspect of housing.

In the face of the fact that of the 1,350 cities in the United States but 2 per cent have regulations covering building legislation, Mr. Whiting sounded a challenge to every lumberman present to aid in the campaign for the legislation so vital, not only to the public welfare, but to the prosperity of the trade, in the following words: Appoint yourselves, each of you, a committee of one to sit in on and act at every public meeting and hearing where building regulations are under consideration. Accept and promote the use of standards adopted by recognized engineering societies.

"Your duty does not end here. Help toward the enforcement of these standards through your own efforts and see to the appointment of competent and capable officials for their administration."

J. S. Williams, Seattle, Wash., secretary of the shingle barge of the West Coast Lumbermen's Association, described the use of red cedar for shingles and declared that "properly manufactured shingles, properly laid, make the best roof in the world."



**INTERNATIONAL STEEL & IRON CO., Evansville., Ind.****S  
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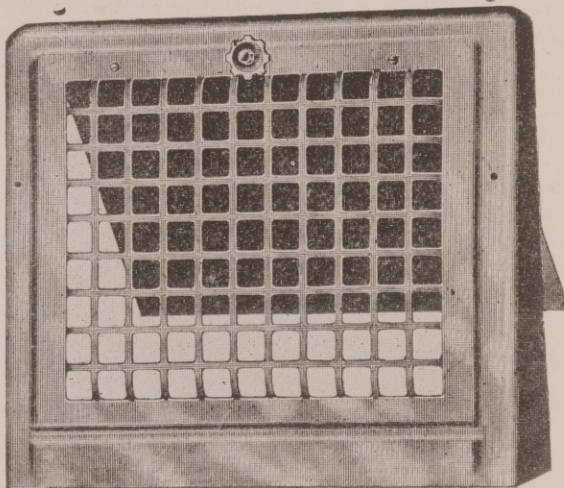
Warehouse and Fabricating Plant—Evansville, Ind.

**IRON AND STEEL**

Standard and Bethlehem carried in Warehouse stock for Immediate Shipment.

**STEEL FOR BRIDGES AND BUILDINGS**

Fabricated Promptly.

Elevators, Cornice and Skylights  
Steel Ceiling**STORE FRONTS**  
Write for General CatalogueMillwork and Glass, Ornamental Iron  
Certain-teed Roofing.**STEARNS' STEEL BASE REGISTER**

represent the very latest in register construction. Their distinction is the result of combining these quality features—

**DESIGN**—simple, neat and very attractive.**FINISH**—very high (in black or white japan orelectroplated finishes).**MATERIAL**—the very best obtainable.**CONSTRUCTION**—durable (guaranteed against breakage).**OPERATION**—absolutely perfect.**CAPACITY**—full, both in face and box, for the size pipe it is intended for.Let us convince YOU of the soundness of these merits, investigate **STEARNS' STEEL BASE REGISTERS** today. **STEARNS' STEEL BASE REGISTERS** can be had in five sizes ranging from 8x10 to 11x13.**WRITE FOR FULL PARTICULARS AND CATALOG TODAY.****STEARNS REGISTER COMPANY**

111 Fort Street East

DETROIT, MICHIGAN

**Standard for a third of a century  
Passenger and Freight.  
All Powers.****TURNER ELEVATORS****K.C. ELEVATOR MFG.  
COMPANY,**

(Establish 1881)

2601-3-5-7 Madison Ave  
KANSAS CITY, MO.**Your Metal Problems Solved**We are supplying some of the most prosperous Brass  
Goods Manufacturers with our**YELLOW  
and RED  
BRASS  
(H. I. M.)  
INGOT  
METAL**

Why not join them? Write for information and prices.

**Hartman Ingot Metal Company**

2511 to 2525 W. 21st Street

Chicago



## Conkling-Armstrong Terra Cotta Company

Manufacturers of

## ARCHITECTURAL TERRA COTTA

in all colors and finish—Standard, Enamel and Polychrome.

We will be pleased to furnish approximate figures or final estimates, without obligations.

Main Office and Works: Philadelphia, Penna.

## Running Water--under pressure --for strictly modern homes

Without an adequate supply of running water—under pressure—a home cannot be strictly modern. It is the one essential needed in every home, and everyone who does not have access to city water mains may have this convenience for their homes by the installation of a

### Hoosier Pneumatic Water Supply System

Hoosier Systems operate from any kind of power, electric motor, gasoline engine, windmill, or hand. They are easy to install, economical to operate, and give many years of service. Hoosier Tanks are coated inside with Anti-Rust Enamel, preventing rust and corrosion.

Hoosier Systems may be had in various sizes, suitable for homes of any size. Investigate the merits of Hoosier Systems without delay. Write for complete information.

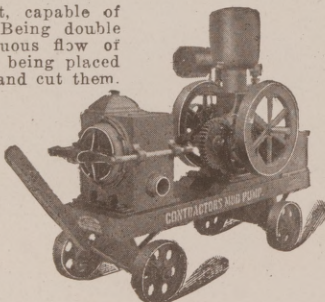
### Flint & Walling Mfg. Company

KENDALLVILLE,

INDIANA

## No Boiler, Engineer or Fireman Is Required for Our Contractor's Pump

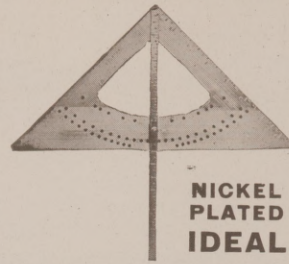
It has an extreme hi-h lift, capable of producing 24-inch vacuum. Being double in action, it gives a continuous flow of water. Its two diaphragms being placed vertically, grit cannot lodge and cut them. Working horizontally, it does away with all overhead work. Mounted on solid truck, it is easy to move from place to place. Its compactness reduces needed floor space to only 2x5 feet. Its weight is 1000 lbs. Has no plunger, plunger packing, stuffing boxes or spring valves.



Our Circular Explains Fully

A. A. PARKER, Front Street, WATERFORD, N. Y.  
New England Agents: Perin, Seamans & Co., 57 Oliver St., Boston, Mass.

### TRY SQUARE, RAFTER SQUARE, MITRE SQUARE



Makes all rafter cuts—Common, shorts, hips and valleys.

The Ideal rafter tables give full length of all rafters (free with illustrated instruction book to buyers).

Makes all mitre box cuts. A great try square.

The bar swings and locks for every cut.

A wonderful tool—simplicity, speed and accuracy combined.

Mailed on Receipt of \$2.00.

IDEAL TOOL WORKS, MIDDLETOWN, N. Y.  
Privilege to return money hereby reserved, in case of shortage of material.

## "HAYNES" & "HOFFMAN" Specialties Save Fuel

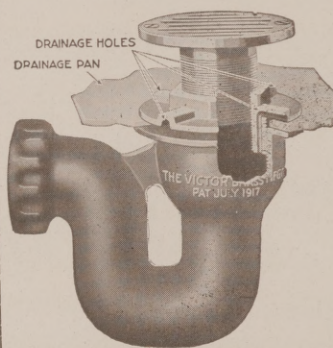
Our Booklet on modulated and Vapor heating is full of instructive matter. It also illustrates and describes these specialties. Send for your copy.

### Haynes Selling Company

1711 Sansom St.

Philadelphia, Pa.

## VICTOR



### Double Drainage Shower Traps and Drains Feature No. 9

Victor traps are designed so compactly as to avoid cutting away construction work to install them.

Licensed under Patent No. 855017.

If your jobber does not carry Victor Traps, mail your order direct to us.

The Victor Brass Mfg. Co.  
Cleveland Ohio

## SILVER LAKE A Sash Cord

The guaranteed sash cord (since 1869 the standard) not only outwears common cords, but outwears chains and ribbons. The name Silver Lake A is printed on every foot of the genuine. Guaranteed full lengths.

Silver Lake Co.  
Newtonville, Mass.

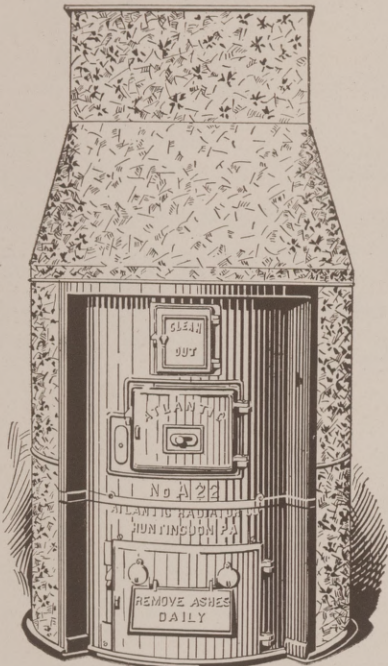
The Practical Workman is Sure to know the Reason Why





# ATLANTIC PIPELESS FURNACE

The Last Word in Efficient Heating Service



Before installing any other kind, consult us. We can show you the points of excellence which will make you our customer. All we ask is a chance to show you.

*For full particulars, address*

## Atlantic Radiator Company

General Offices:  
359 W. 42nd St., NEW YORK

Works:  
HUNTINGDON, PA.

## SINGER CHIMNEY CO.

(Not Inc.)

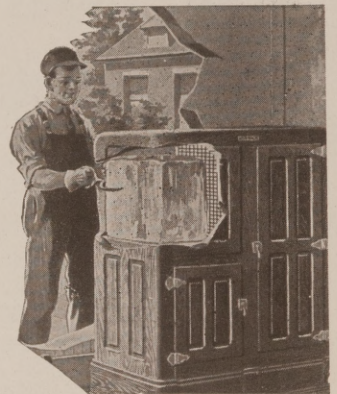
Engineers and Builders of  
Radial Brick — Common Brick — Reinforced  
Concrete

## CHIMNEYS

Home Office: CHICAGO, ILL., 1553 Monadnock Blk.  
ST. LOUIS, MO., 1906-12 Pine St.  
MILWAUKEE, WIS., 631 M. & M. Bank Bldg.  
MINNEAPOLIS, MINN., Meropolitan Life Bldg.

## To Builders and Contractors

The Herrick Outside Icing Refrigerator is one of the most popular refrigerators for modern residence use. It gets the ice in the house and keeps the iceman out.



The

## Herrick Outside Icing Refrigerator

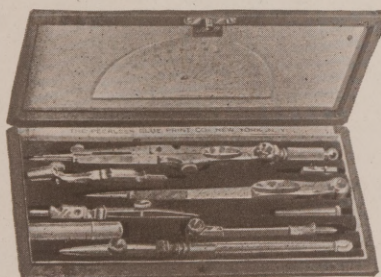
is winning praise everywhere. Hundreds of builders, contractors and architects are availing themselves of the Herrick Free Plan Service. Planning and making the outside icing openings right is important. Let us guide you.

Specify "Herrick" Refrigerators. They are sanitary, clean and economical. Perfect air circulation. Provide an even temperature and abundant pure dry air necessary to keep food sweet. Best for homes, apartments, stores, clubs, etc.

Write for Catalog SA. 918 with free blue prints of construction.

## Herrick Refrigerator Co.

Waterloo, Iowa.



## Special Drawing Set

No. 450-A  
Price \$4.65

Sent parcel post  
prepaid  
Cash with order

We have also a full assortment of large sets of instruments.

PEERLESS BLUE PRINT CO.

341-347 Fifth Ave.,

NEW YORK CITY

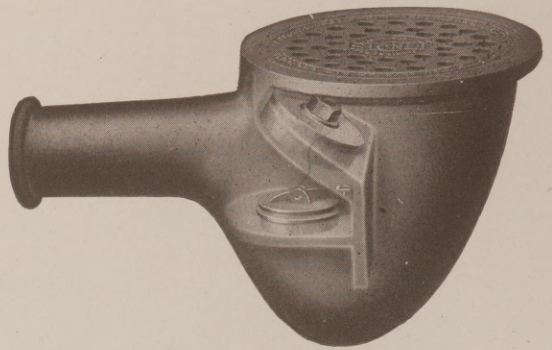


# SIGNET FLOOR DRAIN

The quality of material, the superiority of design, the absolute safety and reliability of operation, recommends the Signet for all high-class work where permanent satisfaction is sought.

Write for circular

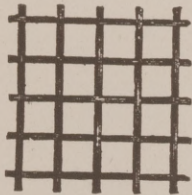
**CRAMPTON-FARLEY BRASS CO.**  
**KANSAS CITY, MO.**



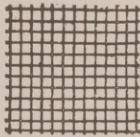
THE BACK WATER TRAP DRAIN OF QUALITY

"If it's made of Wire we make it."

## ESTEY WIRE WORKS CO.



34 Cliff Street  
NEW YORK  
CAMBRIDGE, MD.



Manufacturers of  
Bank Railings and Enclosures, Wire  
Cloth, Wire Work, Wire  
Goods, Etc.

Estimates Promptly Made. Send for our Wire Cloth Catalog  
No. 20, Wire Work Catalog No. 19.

## STRUCTURAL STEEL ORNAMENTAL IRON

**Snead Architectural Iron Works**

LOUISVILLE, KY.

Plain or Fabricated Steel for Immediate  
Shipment.

Here is a Glazing  
Composition that  
will—



Adhere tightly to iron, steel,  
wood, glass, stone or concrete.  
Make an elastic joint—tight yet  
indefinitely flexible, preventing glass  
from cracking.

Guaranteed to withstand heat, cold, rain  
or extreme climate conditions, without chipping  
or peeling.

**KUHLS'**

### ELASTIC GLAZING COMPOSITIONS

is used for bedding and glazing all classes of glass  
construction and is unequalled for securely setting  
floor or wall tile. Also supplied in shades to match for  
pointing up stone work, terra cotta, granite, etc.

Complete literature on this exceptional product to-  
gether with testimonials from such prominent archi-  
tects as Cass Gilbert, also the Lackawanna and Penn-  
sylvania Railroad, will be mailed on request.

There is a reliable dealer in your locality selling  
Kuhl's Elastic Glazing Composition. His name will  
be sent on request.

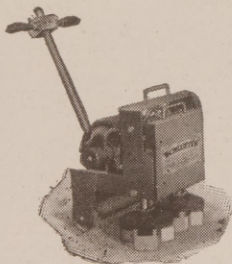


**H. B. FRED KUHL'S**

Sole Manufacturer

6413 Third Ave., Brooklyn, N. Y.

## The IMPROVED Rapid Floor Surfacer



will surface *right up to the wall or baseboard* with-  
out the use of Edge Roller. Just the machine you  
would want for surfacing all kinds of floors, whether  
old or new. Will smooth down rapidly and easily all  
joints or warped edges. *Perfect results guaranteed.*  
More than 20,000 in use.

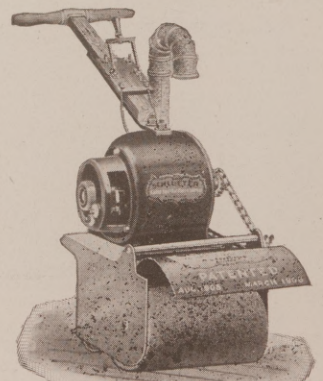
Send for our free trial offer.

**M. L. SCHLUETER**

225-27 W. Illinois St.

CHICAGO, ILL.

Phone Main 2349



Made in several sizes.

Several sizes. Extra 2-disc  
attachment can be removed  
making a 2-disc machine.



### Prices Stay High.

That prices will not soon drop is the prediction of authorities on all sides. The Federal Reserve Board in its May bulletin says: "The business community has given up the thought that it may profitably await a further considerable reduction in prices and is now contenting itself with the development of trade along lines dependent upon at least the temporary maintenance of existing levels." The review also says that though prices of a few basic commodities have fallen slightly, these declines have not yet been effected in retail prices. "What is now happening," it adds, "seems to indicate that business will, after a period of initial readjustment in prices, proceed upon a level not far removed from that established during the war."

At the solicitation of the Information and Education Service of the U. S. Department of Labor, J. J. Arnold, vice-president of the First National Bank of Chicago, has made a statement on "Inflation and Prices" in which he says it is futile for industry to wait for prewar commodity prices and everything should be done to encourage resumption of peace business, the production of new wealth being absolutely essential for the reduction of costs.

Mr. Arnold suggests that the United States use the interest paid by foreign countries on their loans for a "rehabilitation fund" to be spent in Europe, which would mean that for the period of time required for the rebuilding of Europe we would be lending funds without interest. He thinks it would pay to do this, both in terms of friendship and, in the long run, in dollars and cents.

### The Auditorium's Acoustics.

The following excellent editorial which we clip from the Albany, Ga., Herald, while applying locally to that city, contains some good advice for many other cities we know of to follow. The esteemed Herald says:

Not in any spirit of faultfinding or of criticism, but because we believe the matter is one in which

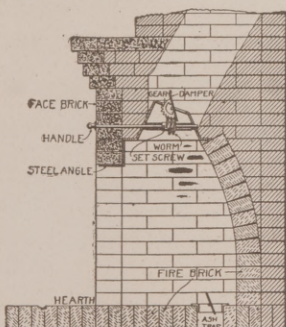
the people of Albany and many other Southwest Georgians are greatly interested, The Herald suggests that our municipal authorities not delay taking steps to remedy the acoustic horrors of the Municipal Auditorium.

A large amount of the people's money is invested in the auditorium. It is an investment which they were glad to have made, and there is that local pride in the building which its size and architectural pretensions justify.

But the acoustics of the main auditorium are simply atrocious. Those who have witnessed theatrical productions and heard, or attempted to hear, lectures and addresses delivered from the stage, know of the difficulties with which actors, speakers and singers are forced to contend. An audience is kept on a continual strain throughout an evening's entertainment if what is said or sung is not lost, while every little noise in the building—the creaking of a seat, a cough, the shuffle of a foot, the dropping of a cane or scraping of a chair in one of the boxes—goes reverberating through the building with its volume of sound many times multiplied.

If the acoustic horrors of the building were beyond remedying, there would be some excuse for permitting them to continue from season to season. But those competent to speak authoritatively in such matters give assurance that the faults which make an echo house of the auditorium can be remedied at a not great expense. That being true, it is due the people of Albany, for whom the auditorium was built and who own it, as well as to the thousands of other Southwest Georgians who find pleasure in coming to Albany for much of their amusement and entertainment, to have the acoustic faults of the building corrected.

The City Council, it is known, has had this matter under consideration for some time, and the hope is here expressed that definite action will not be longer delayed. There is ample time in which to make the necessary changes in the building before



**STOVER**  
Mfg. & Engine Co.  
FREPORT, ILL.

## Build the Fireplace Right

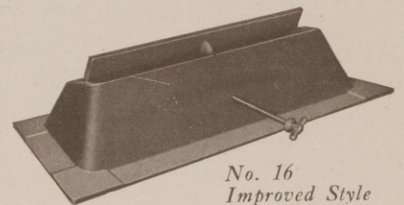
Don't try to reduce the cost by leaving out a good damper. It results in an expensive fireplace to operate and allows rain, wind, birds, and other objectionable things to enter the room when the fireplace is not in use.

Stover Dampers support the brick work, form a smooth throat, regulate the draft perfectly, and reduce the labor cost of erecting fireplaces.

The price is low enough so a Stover Damper can be used in every fireplace. Made in several styles for all size openings. The Improved style shown above is one of the most popular.

Send for catalog No. 1740 showing our fireplace fixtures and giving information as to the best fireplace construction.

We also make windmills, feedmills, gasoline engines, hinges, pulleys, saw vises, latches, sink brackets and other hardware.



No. 16  
Improved Style  
Made in 7 Sizes

Stover Mfg. & Engine Co., 722 East St., Freeport, Ill.  
Send us Catalog No. 1740.

Name ..... Business .....  
City ..... State .....



## ENAMELED IRON SIGNS. ENAMELING ON CAST IRON OR STEEL OF ALL DESCRIPTIONS ACID-PROOF ENAMELING

Fittings, Plumbing Specialties, Guide Rings, Signs and Name Plates, Enameled.  
Enameled Dials for Clocks, Meters, Indicators, Gauges, Thermometers, Etc.

MANHATTAN DIAL MFG. CO.

38-42 Lexington Ave. BROOKLYN, N. Y.

the opening of the next theatrical season, which is to bring to Albany, according to advance information, some of the greatest theatrical attractions that will tour the Southern States.

The Municipal Auditorium represents too large an investment and means too much to the people of Albany not to be made all that such an institution can be made and can mean. As said in the beginning, these observations are in no spirit of faultfinding or carping criticism. The matter is of great local interest, and the Herald is but one of thousands who hope the changes in the auditorium that are so essential will not be delayed beyond the summer, which is the theatrical off season.

### To Provide More Housing.

Organized effort has been begun in two cities of the southeast to provide additional housing that is urgently needed, says the Industrial Index.

A committee of the chamber of commerce of Montgomery, Ala., will submit to that organization at an early meeting proposed plans for forming and financing a company to erect residences and other structures. Information gathered by the Montgomery chamber shows the urgent nature of the need for additional buildings, and, with their usual progressive public spirit, the business men of Montgomery will

arrange to provide them. Subscriptions to the stock of the proposed corporation have been made.

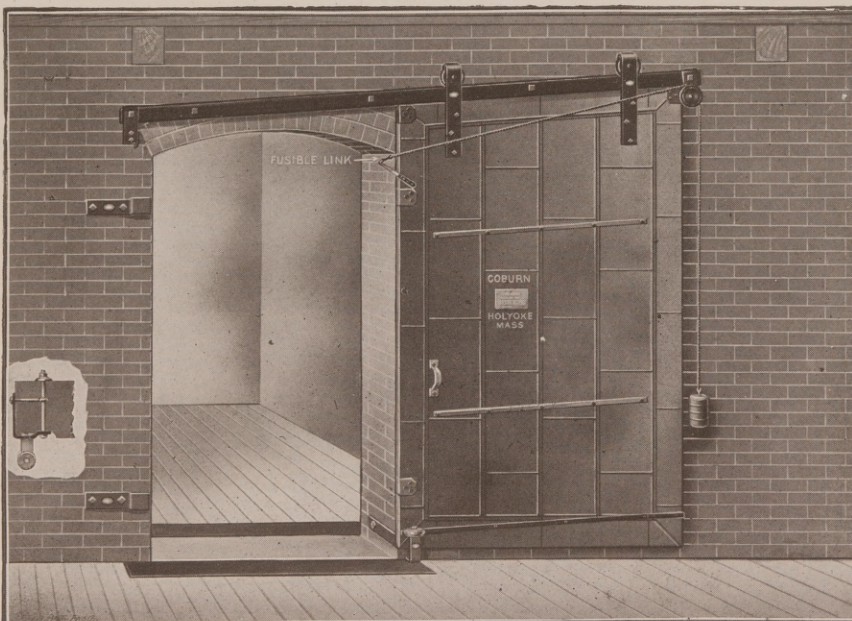
The chamber of commerce of Dublin, Ga., is formulating plans for creating what is termed a "revolving" fund of \$100,000 for erecting additional residences in that city, to supply the acute need.

It is proposed to use the fund over and over, the houses to be erected to be sold to the several occupants as soon as possible. It is stated that fifty more families could be secured for Dublin immediately if there were residences for their occupancy.

At Griffin, Ga., the board of trade is preparing to organize a company to erect 25 to 50 residences immediately.

### Memphis Building Activity.

The report of City Building Inspector Newton at Memphis, Tenn., shows a large increase in the building activities for the month of May 1919, as against the amount done in May, 1918. Mr. Newton's report show sthat in May, 1919, 245 building permits were issued, having a total valuation of \$768,950. In the same month of last year there were 210 permits, with a valuation of \$245,485, issued. This makes an increase of 35 permits and \$525,485. Permits for 57 residences were given out last month, while there were only five last May.



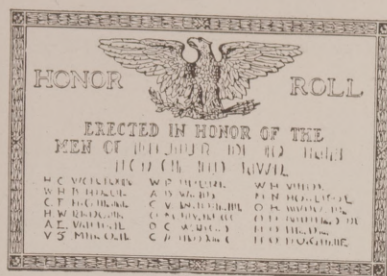
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Made single and double, incline slide, level slide, single and double swing and vertical slide. Are inspected, labeled and tagged under the supervision of the Underwriters' Laboratories, Inc. Send for our catalog and price list covering these standard doors. Also makers of barn door hangers, parlor door hangers and rolling store ladders.

**Coburn Trolley Truck Mfg. Company**  
HOLYOKE, MASS.



## GENUINE CAST BRONZE

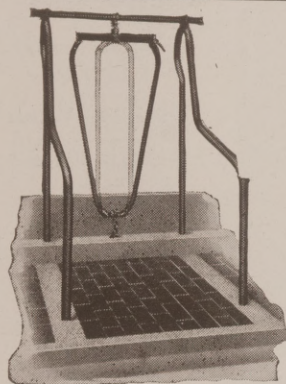


Honor  
Roll  
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Memorial  
Tablets

Address

The Cincinnati Mfg. Co.,  
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Ohio



SPECIFY



## Steel Barn Equipment

and make a good profit and better satisfied customers. There are just two units to the CLAY Stall—the partition and top rail. It is erected quickly and easily. The CLAY 2-WAY Stanchion eliminates rigid posts and cow stops. CLAY Equipment is more comfortable for the cow and convenient for the farmer.

Send for large, free catalog.  
Address Dept. 7.

IOWA GATE COMPANY,

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## National Mosaic Tile Co.

MOBILE, ALABAMA.

Manufacturers of Adamantile, a high grade Spanish Cement floor tile, has been used in Europe for centuries, introduced in America by us about ten years ago.

Write us for booklet of information regarding  
this product.

The Mark  
of Quality

REGISTERED  
**ECONOMY**  
U.S. PAT. OFFICE

Protects  
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**Economize**  
with

**ECONOMY**

Economy Filing  
Cases Everywhere  
Why?

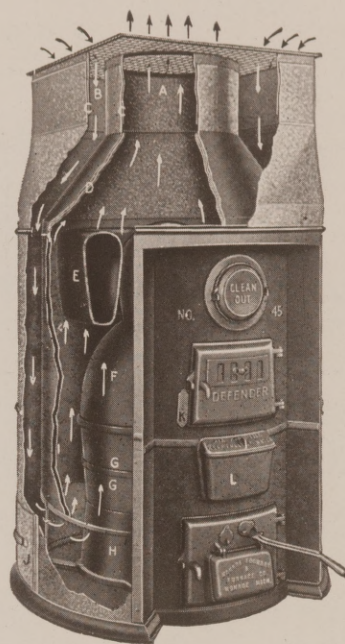
In Wood and Steel  
Write for illustrated  
Catalog Today

Economy Drawing  
Table Co.

Adrian, Mich.



Six Drawer Sections, 26"x38"x21"



## The Defender Pipeless Furnace

A high grade all cast heater with single piece cast radiator and of best workmanship. Will burn any kind of fuel, has properly fitting and proportioned casings which are made adjustable to the height of the cellar. Everything from the factory except the smoke pipe.

No heater is better adapted for use throughout the Southern States. Effective, low in cost, can be installed by any carpenter or handy man without the use of tinner's tools.

Thousands of Southern homes would be more comfortable with one of these heaters in the cellar and out of the way but ready for instant use at any time.

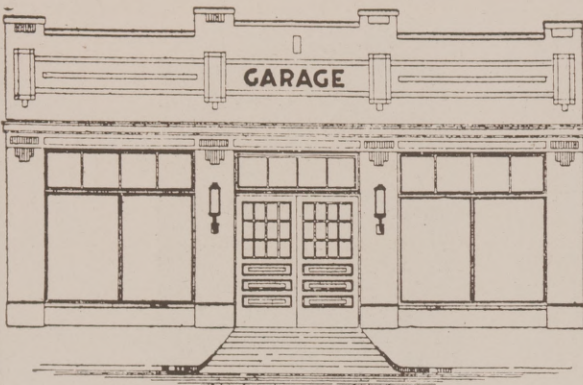
Directions and full information on request.

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MONROE, MICHIGAN.





### PUBLIC GARAGES

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We will submit designs and prices free of charge. Give dimensions of building, style and pitch of roof and kind of roofing.

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Fireproof and giving plenty of light and ventilation are especially adapted for use in garages. We can ship promptly from stock.

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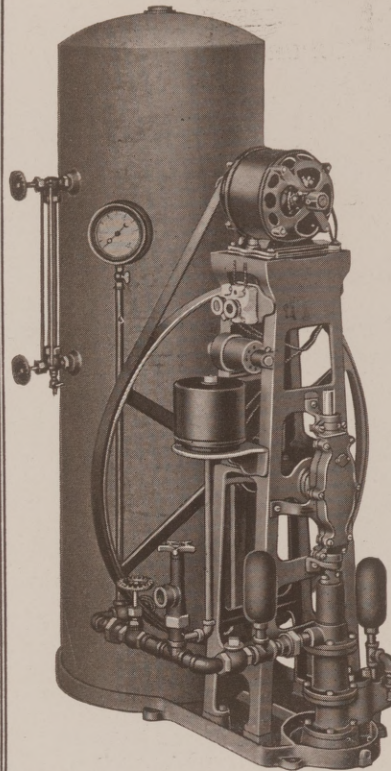
Our specialty is the construction of attractive store fronts. Our garage fronts are standard everywhere.

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Complete Store Fronts EVANSVILLE, INDIANA

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Automatically  
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Per Hour.  
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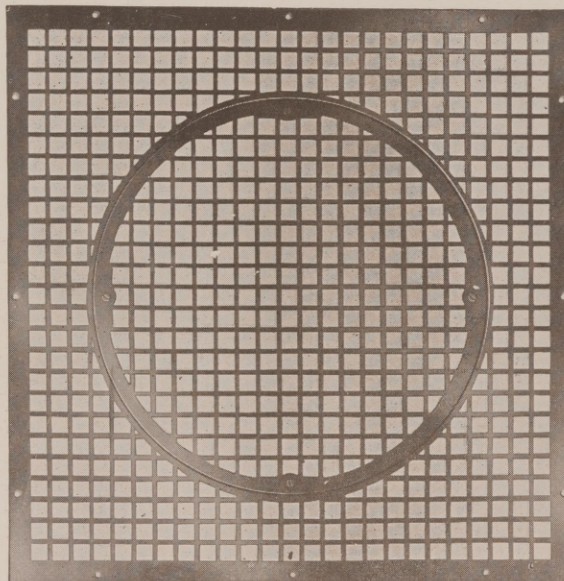
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are made substanti-  
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center for warm air  
supply and square  
cold air intake.



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are made in five  
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immediate ship-  
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**THE WALWORTH RUN FOUNDRY COMPANY**

Manufacturers

**WEST 27th STREET  
CLEVELAND**



# OAK FLOORS

(For Everlasting Economy)

See Sweet's Catalog, Page 319

A thought which we would like to submit for the consideration of the Architectural profession is this: Why not take more frequent advantage in the construction of CHURCHES of the beauty, the cleanliness, the attractiveness, the color, the welcoming effect of *Oak Flooring*?

The cost certainly permits it and the certain approval of the congregation more than justifies it.

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MANUFACTURERS' ASSOCIATION  
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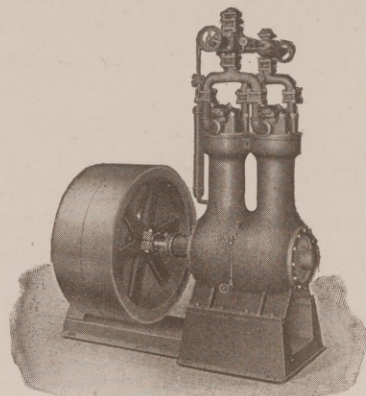
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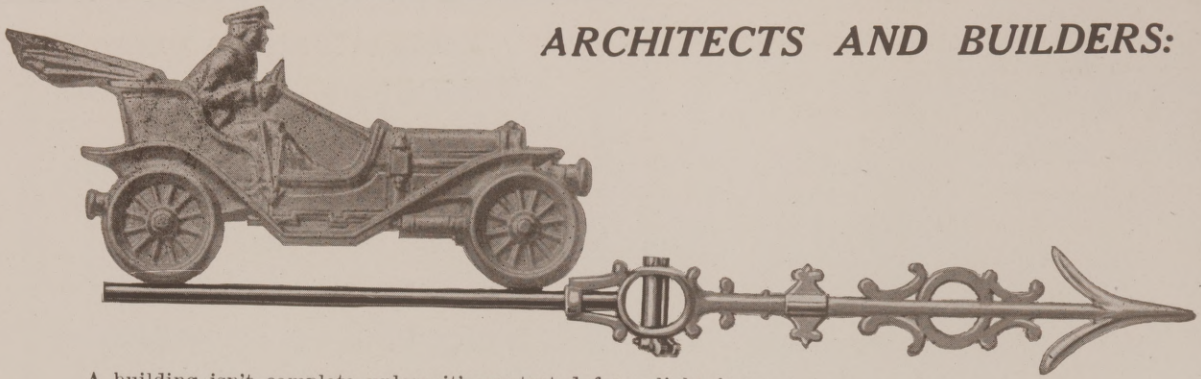
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A building isn't complete unless it's protected from lightning.

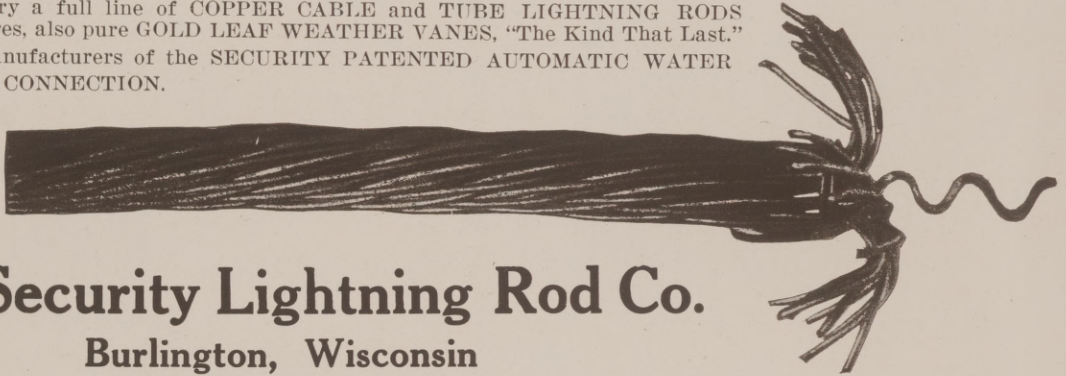
SECURITY LIGHTNING RODS can be installed as the building is erected.

They not only secure the permanency of your work but provide you with a handsome additional profit. Practically no extra time required for installation as building is being put up.

Write for agency proposition and prices.

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## **KEEP COOL**

During these summer months don't over-exert yourself; don't overheat your brain and blood

*Tell All Your Iron and Steel Worries to*

### **THE CINCINNATI IRON & STEEL COMPANY**

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*Cisco Service Is a Good Tonic*

**WE HAVE WHAT YOU WANT IN IRON AND STEEL PRODUCTS**

## **Bedford Steam Stone Works**

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**INDIANA LIMESTONE**

SAWED, PLANED, TURNED OR CUT

Estimates promptly furnished

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**Timbers and Factory Flooring.**

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## Others Discuss Some Timely Topics

### Pine Lumber to Normal Volume.

For the first time since the end of the war, purchase of Southern pine lumber, one of the most widely used building materials in the world, has returned to the normal volume of peace days.

This interesting fact was revealed with the issuance of the Southern Pine Association's trade barometer, which showed that total orders received by 166 association mills during the week ending Friday, May 9, were 102 per cent, or two per cent above the line indicating "normal business." Production was 81 per cent, and shipments 75 per cent normal.

The "barometer's" order column has been steadily climbing upward for the past sixty days. It is predicted that in the face of business now in sight orders will be 150 per cent of normal within the next month.

"The lumber business has come back," said J. E. Rhodes, secretary-manager of the Southern Pine Association, in commenting on the statistics, which indicate that the demand for Southern pine is much in excess of its production.

"Since the signing of the armistice, when the government ceased taking lumber in large quantities, the production of Southern pine each week was considerably larger than the sale and shipments. This continued to the middle of April, with accumulating stocks at the mills.

"The extensive advertising campaign which this association has conducted in connection with the general 'Build a Home' movement of the Department of Labor, has produced results, and with the advent of spring, permitting the resumption of building, there has been a steady increase in business since April 12. At that time the number of unfilled orders reported by the members of this association amounted to 18,433 cars. Last week the same mills had unfilled orders on hand amounting to 23,524 cars. There were received during the week by 166 mills, representing more than one-half the total production of Southern pine in the Gulf states, orders for 4,968 cars, equivalent to more than one hundred million feet. This is 25 per cent more than the output of the mills for the same week.

"The orders received by these mills during the week ending April 4 averaged 402,755 feet per mill; while the average orders last week was 631,355 feet, an increase of more than 50 per cent in business in six weeks.

"In addition to the large needs for lumber in foreign countries, especially Europe, a most conspic-

uous feature of the resumption of the lumber business is the great need for construction of every sort in the United States.

"All the cities in the United States, with two or three exceptions, report an extreme shortage of housing facilities, including dwelling and apartment houses, as well as need for office buildings and business establishments. There is universal need for more and better homes to relieve the congestion everywhere.

"The costs of manufacturing lumber remain very high and the manufacturers generally do not see any immediate prospect of their reduction. There is still an acute shortage of labor at many Southern lumber producing points.

"With the gradual resumption of business generally, it is certain that the capacities of the Southern pine sawmills will be taxed to the utmost to furnish the building material required by the domestic market, in addition to supplying what foreign buyers will be able to ship from our shores."

## Ventilighter

### SYSTEM

LIGHT—AIR NO GLARE STEEL FRAME CLOTH VANES

Keeps Out Heat—For Skylights, Windows and Sleeping Porches—  
No Light Lost.

FACTS ABOUT VENTILIGHTERS



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They increase and diffuse daylight without glare from window or skylight; temper the solar rays or eliminate them; concentrate the light or reflect it to any desired point. The naturally lighter parts of the room are left well illuminated and hitherto useless space is made valuable. They insure perfect ventilation and promote sanitation.

They fit anywhere and are made in any size for skylights, windows, porches, etc. They are made in any shape for any opening, round, semi-circular, square, etc. Burglar or fire alarm wires, sprinkler pipes, other pipes or parts of building construction, even columns passing through them, do not interfere with VENTILIGHTER efficiency and VENTILIGHTERS will not interfere with them.

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LIGHTS

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SHADES

PROTECTS

**SIMON VENTILIGHTER Co., Inc.**

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New York City



## THE H. B. IVES CO.

New Haven, Conn., U. S. A.

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INCORPORATED 1900

Manufacturers of

**BUILDERS' HARDWARE**

HIGH GRADE WINDOW AND DOOR SPECIALTIES

Write for Illustrated Folder.



WORKS OF THE H. B. IVES CO., NEW HAVEN, CONN., U. S. A.

### Survey of Building and Loan Associations.

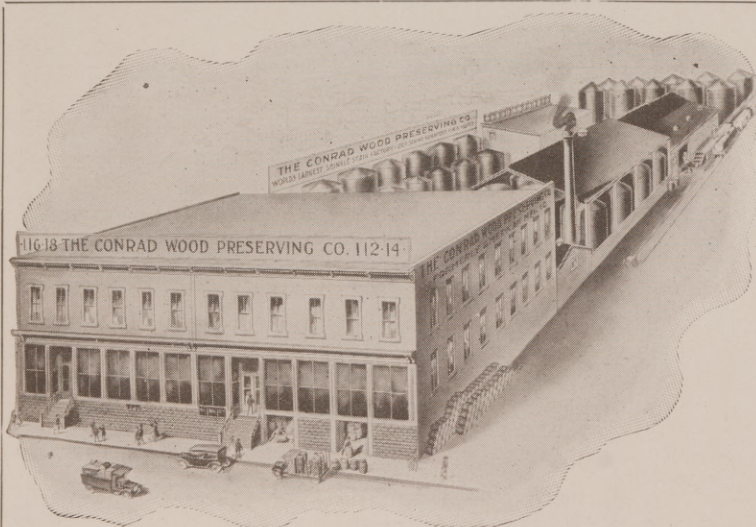
In making a nation-wide survey of building conditions, the U. S. Department of Labor recently sent out questionnaires to several thousand Building and Loan Associations. These questionnaires covered inquiries concerning assets, the average amount of loans made each year, applications for 1919, the possibility of increasing demands for loans and opinions concerning the proposed system of Federal Home Loan Banks.

Returns disclosed that more than forty per cent of the Building Associations have not sufficient available funds to meet the desirable applications for loans that are coming in as a result of the shortage of houses and the general revival of construction activities. While the Building Associations of the country are reported on a sound financial basis their present difficulties are due to the facts that they have enormous investments and that the long time mortgages representing large amounts are not negotiable at commercial banks.

The movement to establish Federal Home Loan Banks is approved by a majority of the Associations that returned answers to the questionnaire. Out of 1,200 thus far received less than 10 per cent of the Associations represented are opposed to the plan. An answer that is typical of the attitude of Associations that are financially independent came from

the West. "Our organization does not need a Federal Home Loan Bank system at this time," writes the Secretary, "but it will be helpful to those who do and the time may come when we shall be glad to take advantage of it."

According to recent estimates made by the Division of Public Works and Construction Development, of the Department's Information and Education Service, there are now in the United States 7,269 Building Associations with paid-in capital stock amounting to \$1,503,770,848, the investment in building association stock having increased last year \$145,000,000. Available statistics show that the normal requirements of the Building and Loan Associations before the war called for loanable funds amounting to approximately \$500,000,000 per annum, which could be supplied by the savings departments of these organizations. The solution of the problem of how to supplement the ordinary income of the Building and Loan Associations in places where the demand for small mortgages loans might be greatly in excess of the supply of money is now sought in the Federal Home Loan Banks. In view of the shortage of houses estimated at something like 1,000,000, the demands on the Building and Loan Associations are likely to be heavier than ever before. Increase in building operations for April were so marked that the business of the associations in certain parts of the country was reported to be of unusual volume.



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Our Greens are superior to any in the market and our Bungalow Brown has no equal for staining smooth sidings as well as rough boards and shingles. Write for samples and prices to the world's largest Shingle Stain Plant.

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112-114-116-118-117-119-121 Plymouth Avenue  
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You can get Conrad's goods all over the country, Conrad's Brick Stains, Concrete Waterproofing and Stains, and Creoseptine Wood Preserver. Guaranteed.

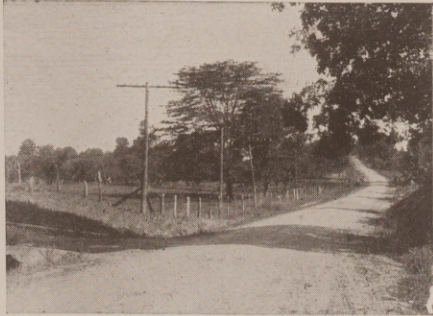


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Permanency—Quick Construction—Economy  
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The illustration shows a road laid 18 years ago and still in excellent condition.

### Quick Construction

Whittaker Hill Novaculite is put on the road, leveled to

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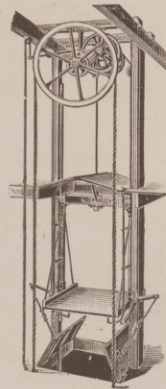
Note the simplicity of construction. Then note that not one cent of repairs has been spent on this 18-year-old road.

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**DUMBWAITERS**

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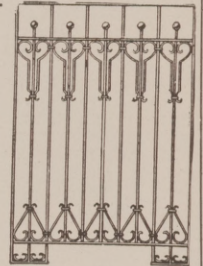
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OF EVERY DESCRIPTION  
FOR THEATRES, BANKS,  
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Bank Fixtures, Hand Rails, Signs and Tablets and Building Directories, Kick Plates, Etc., Brass Grilles, Brass Frames, Thresholds, Electro Plated Work, Bronze Work.

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## Water Pipe—Gas Pipe

**NATIONAL** Pipe is made **Right**—on new equipment—By use of special cores.

**NATIONAL** Pipe has smoothest inside finish—Easiest to work.

**Prompt Shipments.**

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A flooring of superior merit, to be applied over wood, concrete, cement, or asphalt. Dries quickly and makes a sanitary, elastic, jointless flooring of unusual wearing qualities; guaranteed. Supplied in various colors; unequalled for alterations. Agents wanted. Your men can lay at good profit to you. Write today for samples and catalog. Also EVERYTHING in ASBESTOS.

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## STRUCTURAL IRON WORKS

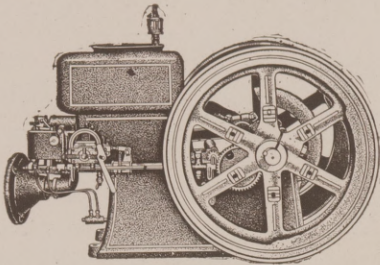
**FOUNDRY AND MACHINE SHOPS**

# GRAINGER & CO., Inc.

Established 1833.

Tenth St., Louisville, Ky.



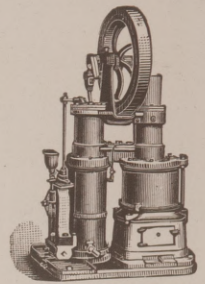


Reeco Gasoline Engine

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Are Specified by Architects  
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wherever a good, high grade Water Supply  
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IF YOU HAVE A JOB WHERE WATER IS TO BE PUMPED  
**USE A REECO SYSTEM**

A Reeco Rider or Ericsson Hot Air Pumping Engine—safe and simple—build a fire, that's all.  
A Reeco Electric Pump—for suction or deep well duty—Automatic if desired.  
A Reeco Gasoline or Kerosene Engine for pumping or general power.  
A Reeco Pneumatic Tank System—Pump, Power, Storage—pure water—good pressure.

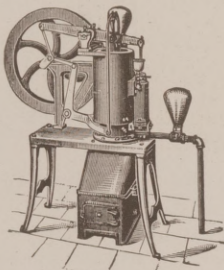
There's a Great Field for REECO Systems  
**IN THE SOUTH**

Get better acquainted—Send for Bulletin B-4.

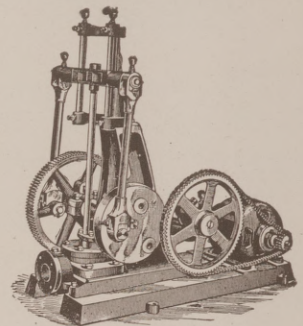
**Rider-Ericsson Engine Co.**  
**WALDEN, N. Y.**

New York District Office, 20 Murray St.  
Philadelphia District Office, 40 North 7th St.

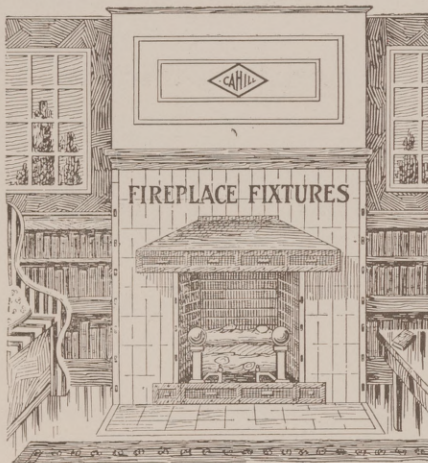
Wilson, N. C., District Office, Fidelity Mutual Bldg.



Reeco Ericsson Engine.



Reeco Electric Pump.



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FOR

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Canneries,  
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MANUFACTURED BY

**Randall Tramrail Company**

Second and Carlton Streets  
PHILADELPHIA, PA.



# FLOORS

## The Wood Mosaic Kind

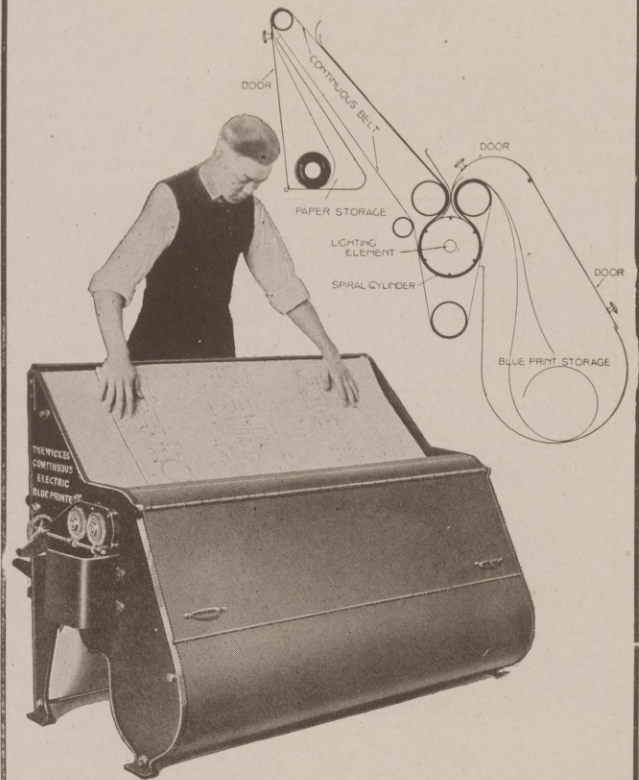
For every home—Old or new. Can be installed by our mechanics. Our 5-16" flooring can be laid in old or new houses. We make all kinds and thicknesses; Wood-Carpet, strips, Plain and Ornamental Parquetry, Tongue and Groove Flooring.

Send accurate measurements of rooms for colored sketch with exact estimate of cost of the flooring required. Instructions for laying and finishing accompany all orders shipped.

Send for free catalog in natural wood colors.

**Wood-Mosaic Company**  
New Albany, Indiana

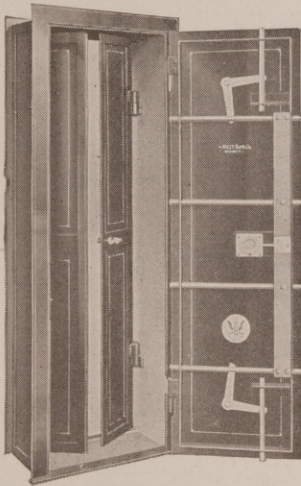
## BLUEPRINTS



**WICKES BROS.**  
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**The Wickes**  
Continuous Electric. Sells  
half the price. Uses half  
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Wall Opening

79 High

32 Wide

20 Deep

P. O. BOX 846.



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**Finest Workmanship—Best Material and Finish**

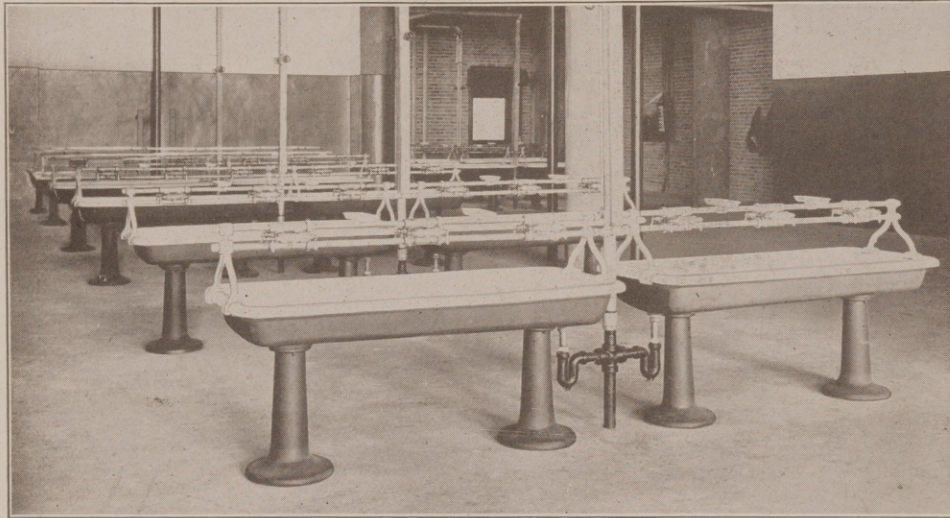
CO-OPERATIVE SERVICE.

This company maintains a department for co-operating with architects or clients in solving problems encountered in selecting and installing vaults.

Prices and estimates will be promptly furnished on application.



# "BIG BUSINESS" BUYS WOLFF PLUMBING



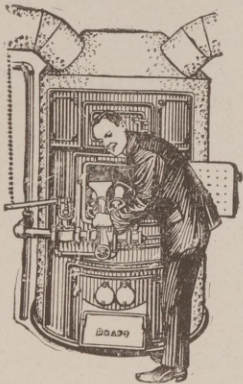
Washrooms of the Continental Can Company of Clearing, Illinois  
J. J. Daly, Plumbing Contractor.

**W**HEREVER long life, constant service and high efficiency are demanded of plumbing, there WOLFF Products command the interest of the owner, architect and contractor.

For installations of any size specify WOLFF Plumbing.

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FROM GAS TO COAL



## A Cure for Low Gas Pressure

(From Gas to Coal in One Minute Without Tools)

### THE FRANKLIN

#### Quick Removable Gas Burner System

*will pay for itself in one season in gas saving alone.*

**Why Purchase an Auxiliary Gas Furnace?**

The Franklin's low installation cost, also its performance, makes many new friends daily.

*Write for Descriptive Circular.*

*Dealers Wanted Everywhere.*

*Architects and Builders Specify the Franklin.*

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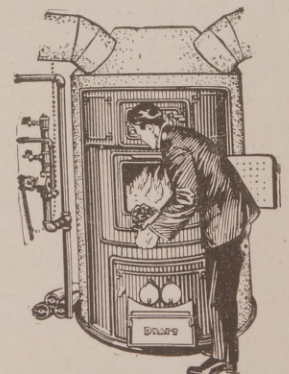
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Empire**



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Pipeless**

*Build a Bigger and Better Business on Furnaces of Quality*

We call particular attention to the

## **EMPIRE PIPELESS FURNACE**

This furnace will appeal to the house owner as it does away with the tearing up of floors, partitions, and walls, and the many pipes required on the ordinary heater. The one right furnace for the farm house. Easily installed. No heat in cellar. It is built on the latest and most scientific principles applicable to the installation of a one-pipe system of house warming.

We invite inspection and comparison.

We have a furnace to fill every requirement in modern buildings, large and small, and prices to suit the pocketbook.

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**ROCHESTER, N. Y.**

Western Branch: 505 S. Clinton Street, Chicago

**RED  
EMPIRE**



**CROSS  
PIPELESS**



# Barrett Specification Roofs



Barrett Specification Roofs on plant of Beech-Nut Packing Co. at Canajoharie, N.Y.

## A QUALITY PLANT WITH A QUALITY ROOF

**T**HE Beech-Nut Packing Company started out years ago with the Quality idea in food products.

Covering its first Quality food factory was a Quality roof—a Barrett Specification roof.

And as the years have passed and the wonderful growth of the Beech-Nut business has demonstrated the soundness of the Quality idea in foods, additions and new buildings have been added to the plant—and they have all been covered with the same Quality roof.

Today the entire plant, illustrated above, is covered with Barrett Specification Roofs.

### *The Quality Idea in Roofs*

Many years ago The Barrett Company started to work out a specification that would make it possible for building owners everywhere to obtain through their local contractors, a Quality roof based on the best scientific principles of roof construction.

The result was The Barrett Specification. Today Barrett Specification Roofs cover more permanent buildings than any other type.

They take the base rate of insurance; they are guaranteed (under the simple conditions stated below) for a period of 20 years, and, what is perhaps most important of all, *they cost less per year of service than any other type.*

### *20-Year Guaranty*

We offer a 20-Year Surety Bond *guaranteeing* Barrett Specification Roofs of fifty squares or over in all towns of 25,000 population and more, and in smaller places where our Inspection Service is available.

This Surety Bond will be issued by the United States Fidelity & Guaranty Company of Baltimore and will be furnished by us without charge. Our only requirements are that the roofing contractor shall be approved by us and that The Barrett Specification dated May 1, 1916, be strictly followed.

*A copy of The Barrett Specification with full information free on request. Address nearest office.*

New York  
Cleveland  
Birmingham  
Salt Lake City  
Milwaukee  
Youngstown

Chicago  
Cincinnati  
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TRADE MARK  
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Baltimore  
Sydney, N. S.



## The Religion of Beauty

F. W. FITZPATRICK, in The Open Court.

THE eye is virtually the main doorway to the mind and is undoubtedly also one of the most important factors, or instruments, or whatever you want to call them, that can be used in the process of civilizing, educating, bettering the human kind, the genus homo. We have evidences of it every day.

We just naturally crave for pleasant or pretty things to look at, and light is one of them. It is also one of the greatest crime-preventors known. We are not going to delve into a lot of statistics, for this is not a scientific treatise but just a chat between friends. But we do know that nearly all crimes are "deeds of darkness." The philosophy of the thing has been known for ages, but only in very recent years have we had gumption enough to apply what we know. For instance, certain localities in our larger cities have for years been renowned for their lawlessness and bloody deeds; those were dark and dismal streets where travel was most unsafe after sunset. Policemen in pairs patrolled those beats, expedients galore were resorted to to reduce the criminality thereabout, but murders and the like went merrily on with but slight abatement. Then some one had a flash of intelligence and a few arc-lights were installed in those streets and alleys, the ash- and the garbageman cleaned them up with greater regularity and, presto, they're as safe now for night travel as is Broadway or the main thoroughfare of any city. A bright light and crime are not congenial bedfellows, one invariably tumbles the other out.

So with our tenements and the humbler domiciles, the wisest regulation any city can introduce is that which prescribes a reasonable amount of outdoor window surface for light and air into every living- or sleeping-room. That regulation has cut down crime and disease amazingly.

Comparatively few men are attracted to the corner barroom for the actual drinking they can do there. It's the companionship, sociability, and most of all, the bright lights, the cheer, the sparkle, the pictures, the beauty (?) of it all that allures. Provide those features in some other combination, without the guzzling, and you'll cut down the bar attendance mightily.

Not so many years ago a manufacturer would establish his plant at a convenient point, but that was about all he thought of. Even if the buildings were half-way respectable the surroundings were sadly neglected. All around those buildings scrap-heaps accumulated, the more unsightly the place became, the dirtier, why, the busier was it supposed to be, the more prosperous its owner. Indeed the so-called hard-headed business man would have been ashamed to make a concession to, or expend money for, what he termed "silly prettiness." Art and Business couldn't travel together, the latter looked down upon the former as effeminate, an evidence of weakness, something to be scorned. Then came the insurance experts who made at least decency in factories profitable. They offered lowered premiums if those factories were cleaned up a bit and the refuse removed. Not that the insurance companies were doing this in any virtuous or pro bono publico spirit, but simply because it would lessen the danger of fire and their consequent losses. Followed then the pure-food "cranks" who had the authorities step in and insist that in at least certain factories extreme cleanliness must be the rule. And, my, there was a howl of opposition!

But after a while it was noted by the alert business men that in those "reformed" factories the operatives did better work, more of it, and seemed more cheerful. So much so that the keen business men began to put one and one together, and it dawned upon them that cleanliness, much daylight and at least half-way decent surroundings were assets instead of mere expenses, that what had been termed useless extravagance was actually producing a profit. A few pioneers plunged even farther, they made their workshops beautiful, cheerful, convenient for the workers. They actually added frills, rest-rooms, pictures, gardens with real fountains in them and behold, it all produced big returns upon the investment. The workers felt it, they came better dressed, cleaner, brighter in mind and body; more self-respecting and self-reliant, they speeded up the work and evidenced greater loyalty to their employers. Today the man who maintains a slipshop, dirty, unattractive factory generally has an exceedingly poor investment on hand. Art in Business does pay.



Why, in Cuba they've known that for years, and in the big cigar factories a good reader is employed to read interesting stories to the workers. Their work is the better for it.

A man who puts a fresh coat of paint on his house feels an inch taller when he goes down the street. Take a hobo and wash him up and dress him in natty raiment and he'll act like a gentleman—for a while anyway. When he falls it will be because he's very far gone in some disease or other and very weak. Isn't drink a disease?

An old school-teacher was telling me some time ago that in the old times when he took a village school where the big bullies had a reputation for manhandling every teacher who had attempted to preside there, his first move was to whitewash and clean up that schoolroom, hang up a few chromos in it, put a couple of cans of flowers in the window, and then invite those bullies to help him keep the flowers watered and a certain daintiness about. He avers he never had any trouble, and his physique was not such as to inspire awe, so he attributes the reform to the power of Art over Matter!

The civic leagues and societies that get after the authorities to compel the cleaning up of cities and who offer prizes and other inducements for well-kept lawns, attractive flower-beds, reformed back yards, and the like, are doing more real good work to advance culture, civilization, and Christianity than are the missionaries sent, at infinitely greater cost, into far distant lands.

Perhaps I may be thought to be a bit radical when I say that Art should be made more or less compulsory. I mean by Art, Beauty. A little child may and probably will squirm at being bathed. We know that bathing is necessary, therefore it is administered willy-nilly. So in this case, we know that the general public, much as the little child, rebels, just naturally squirms at anything intended for its own good. Here's the point: By years of patient hammering we have gotten our cities to insisting upon buildings being erected a certain way, so they will neither fall down, nor burn up with the old-time alacrity; we've secured the relegation of soap or other smelly factories to regions where they no longer offend us; so with boiler and such noisy shops; we're cutting down the bell-ringing, yelling, and other unnecessary noises in our cities. Our ears and our noses are being fairly protected, albeit it has been hard work, for each step was most bitterly opposed, it was fought for tooth and nail. The broad principle of the greater good of the many even at the cost of the individual is not very well understood here. The average American citizen, proud of his liberty and rights, couldn't get it out of his noddle that he ought to be able to build where and how he pleased upon his

own property and make all the racket he wanted to and be as much of a nuisance as he might elect. His "personal" liberty stuck out all over him porcupine-like. Well, we've done so well for the ears and nose and progressed so far for the safety of the rest of our anatomy that, it seems to me, we ought to give little thought and attention to the comfort and pleasure of the eyes as well.

In many cities they've followed Washington's example and have an Art Commission that passes upon all public work to keep it in harmony with some established plan of artistic development. I'm urging that we go further than that. Our Building Departments carefully examine every plan made for private as well as for public buildings and prescribe just how the walls shall be for strength, how high the building may go, what the sanitary details must be, etc., etc., all in the effort to make our buildings safe and healthful. The people have become used to such control and direction. Why not go a step more? There have been many such steps since the first big fight that was made because the city wanted its sidewalks alike and the same width and level. Theretofore personal liberty was such that you walked on brick, stone, plank, or cinders, all in the same block, and you went up or down steps to the different levels to which the kindhearted owners of property built their sidewalks in an earnest endeavor to have you break your neck.

The city Art Commissions should have greater power and should cooperate with the Building Departments and pass on all plans for all buildings, private as well as public. Not that I'm clamoring for a certain style of architecture, or that greater expense and elaboration be insisted upon in private buildings, all I want is that our eyes should not be abused, offended, murdered any more than we permit our ears and noses to be. Buildings on any one block should conform to certain major lines, they should not be allowed to scream at each other, there should be a certain harmony of color and material, an effort made toward the really artistic. As it is now buildings are planted down every one different from the other, a new and sometimes startling creation every twenty-five feet, for all the world as if a confectioner attempted a novel confection by sticking together slices of every imaginable kind, color, shape, and previous condition of cake he could lay hands upon and then wonder at the hodge-podge effect.

Why should we have to look upon buildings that appal us with their ugliness? Why should we put all our efforts into one class of building? For instance, here in Washington there are wonderously fine public buildings, marvels of art, but the private individual is permitted to build any freak construction he wishes and the uglier it is the better it



seems to serve his purpose. In consequence there are miles and miles of hideous brick rows and, spite of the beautiful government buildings, the city as a whole is irreparably marred, spoiled beyond redemption. Everywhere, in Cleveland as well as Washington, in San Francisco as well as in New York there are misfits, awful efforts at originality, colors that swear at one, "designs" that were conceived in sin and brought forth in terrible travail. In some cities they rule distressingly crippled beggars off the streets; by the same token why must we tolerate advertising signs and such things that literally insult any sense of beauty we may possess.

It's a big field, there's endless work to be done in it. We need to cultivate beauty in our homes, in our schools, on our streets, everywhere in our lives and wherever we are, and we'll be the better for it all. They say cleanliness is next to godliness and, I maintain, beauty is first cousin to cleanliness, nay, I do believe they are twins!

Now, don't get excited, art and beauty do not necessarily mean the expenditure of great sums of money, building with fine marbles and gold, dressing in satins and sables. Those words are merely synonyms for good taste and refinement. I've seen a simple gingham dress that expressed beauty as forcefully as did any elaborate gown by Worth, and one of the most beautiful bits of architecture done this year anywhere in the country was a modest little three thousand dollar bungalow on a far western hill.

Perhaps I haven't made myself quite clear as to what Art is. At first blush it may seem simple enough to decide, but lexicologists as well as artists and other recognized authorities have fussed for years over the term and are fussing still. We find variants of the term that I think have no place there, distinctions and additions that have crept in and are almost recognized. To-day you have to specify and term your art, fine art, useful art, mechanic art. Why, even our pugs practice a pugilistic art and we are barbered by tonsorial artists and dressed by a sartorial one. It is all correct enough in a general way. There is an art of living, a gastronomical art, even the art of hatred. And others would disassociate Art from everything practical making it so that its votaries withdraw themselves in a sense from the urgencies of practical life and become esoteric and ultimately nuisances of the first water.

Some would have Art always purely decorative; true Art is the making of everything beautiful as well as useful. A picture painted without any regard as to its decorative value, the proper filling of some space, is but a bauble; a bow on a lady's dress that has no function, just a "decorative" bow, is, I claim, inartistic, useless, meaningless. Art is not essentially embellishment; it is the function of doing

things well, exercising good taste, gratifying the sight.

The history of the origin and development, growth and decline of beautiful artistic form constitutes a major portion of the history of civilization. As regards each particular people, the history of their efforts to conceive and express absolute perfection, or what is commonly called Beauty, in form and color, is with the single exception of the history of their speculative opinions, the most reliable test of the stage of progress which they have attained; nor is it an indication of the abundance of their external resources or even of their intellectual activity alone, that the history of the Art of a people is thus important. It determines their moral, their religious position, for the inseparable connection between the beautiful and the good is in no way more clearly manifested than in that fact, that the first inroads of demoralization and social disorder are invariably indicated by a diminution in the strength and purity of artistic forms, especially in architecture.

Am I wrong in praying for greater attention to matters artistic, the popularizing of Art, making it an every-day, intimate, and working function?

We've learned that our religion, whatever it be, is not a Sunday dress to be set aside work-days; it's something we must live to, something to be with us constantly and to guide our every thought and act. To our religious beliefs, whatever they may be—and no man is so low as to be without some—let us add (for our own material and spiritual welfare, our selfish interests if you wish) the RELIGION OF BEAUTY.

#### British Architectural Prizes.

In connection with the problem of reconstruction in the United Kingdom various housing schemes are contemplated. Variety in the model dwellings to be erected has been encouraged by the enterprize of the London Daily Mail, which last February offered prizes amounting in all to \$10,000 to architects for "designs best and most suitable in themselves and most nearly in line with the architectural traditions of the several districts."

The country was divided into four areas—the Northern, Midland and Welsh industrial areas, and the Southern and Midland counties rural area, with a prize of \$2,500 in each section. Over 3,500 designs were submitted in the competition the results of which have just been announced. In the winning designs the need for economy in all cases was apparent. In the Welsh industrial area the assessors did not consider that a sufficiently high standard had been attained by any of the competitions to justify an award, and accordingly they withheld that prize.



## News of Street and Road Building Activity in the South Briefly Told.

**N**EVER before in the history of the country has the South seen such active preparations being made and now underway in some parts for permanent road building of all sorts. For years the South has lagged in this respect, but the people are now speaking in no unmistakable terms, through the ballot, that they must have bond issues to carry on the good work.

The Concrete Age is giving as briefly as it can the news of this activity, strictly confining itself to the South, though all states in all parts of the country are waking up.

### Road and Street Construction.

Anderson, S. C.—Stated that 220 miles of roads of various types will be constructed with proceeds of road bond issue of \$1,450,000 by Anderson county. Chairman County Highway Commission.

Guntersville, Ala.—Bids will be received until July 8 by board of commissioners of Marshall county for grading, draining and surfacing with macadam 5.60 miles of Guntersville-Huntsville road. W. S. Keller, state highway engineer, Montgomery, Ala.

Macon, Ga.—Bids will be asked early in July by board of commissioners of Bibb county for paving 8.7 miles of Houston and Forsyth roads; bids will be asked on paving with asphalt on concrete base, bitulithic on concrete base and possibly with other materials.

Cuthbert, Ga.—Randolph county will construct 15 to 25 miles of road, top-soiled but not hard-surfaced; commissioners decided not to issue bonds. Chairman county commissioners.

Decatur, Ga.—Election will be held August 20 upon issuance of \$100,000 of bonds by DeKalb county for reconstructing roads. L. T. Y. Nash, county commissioner.

Elberton, Ga.—Issuance of \$200,000 of bonds by Elbert county for constructing roads was voted. Chairman, board of county commissioners.

Eufaula, Ala.—Board of commissioners of Barbour county will construct road between this city and Old Spring Hill; E. T. Comer, Savannah, Ga., gave \$100,000 for paying cost of construction. The Chairman.

Douglas, Ga.—Bids will be received until July 1 by the city, Geo. A. Tanner, mayor, for approximately 22 000 square yards of paving; either asphaltic, brick or concrete; also, approximately 9,000 lineal feet of combined concrete curb and gutter or granite curb and concrete gutter. O. H. Lang, consulting engineer, Moultrie, Ga.

Newberry, S. C.—Board of commissioners of Newberry county will grade and top-soil six miles of road at cost of about \$25,000. J. N. Stribling, engineer.

Washington, Ga.—Issuance of \$300,000 of bonds by Washington county for constructing roads was voted. Chairman, board of county commissioners.

Vicksburg, Miss.—Election will be held in August upon issuance of \$500,000 of bonds by Warren county for constructing roads. Chairman, board of county commissioners.

Atlanta, Ga.—Bids will be received until June 16 by W. E. Chambers, purchasing agent for city of Atlanta, for paving Juniper street with vibrolithic concrete.

Atlanta, Ga.—New bids will be received for Juniper street paving; vibrolithic concrete; cost, \$60,000. The Mayor.

Bamberg, S. C.—G. D. Ryan, engineer, is making survey of business streets preparatory to proposed paving. The Mayor.

Birmingham, Ala.—Jefferson county will begin at once construction of highways to cost about \$500,000. Chairman County Commissioners.

Bronson, Fla.—Bids will be received until July 8 by board of commissioners of Levy county for constructing road between Lukens and Summer; 46,000 square yards of limestone surfacing, 13,000 cubic yards of grading and 13 acres of clearing and grubbing. D. Frazier Thomas, engineer, Gainesville, Fla.

Albany, Ala.—City engaged Lund & Hill, Little Rock, Ark., as engineers for street paving, including curbing and guttering, to cost \$300,000. A. C. Dillehay, Mayor.

Dawson, Ga.—Terrell county commissioners rescinded action calling for \$150,000 road bond election on June 17; may vote later.

Kissimmee, Fla.—City voted \$30,000 bonds to grade, curb and pave portion of Dixie Highway connecting with county road on south and \$15,000 bonds to purchase ditching machine and maintain existing drainage ditches. Alan J. MacDonough, City engineer.

Miami, Fla.—City will pave streets; 10,800 square yards sheet asphalt or asphaltic concrete pavement; 675 square yards vitrified brick pavement; 10,800 square yards concrete base; 1,200 lineal feet concrete curb and gutter; bids until June 26; Chas. W. Murray, city engineer.

Okeechobee, Fla.—City votes June 21 on \$80,000 bonds for street paving. D. E. Austin, Mayor.



West Palm Beach, Fla.—Palm Beach county commissioners let contract Bryan & Snyder, Fort Lauderdale, Fla., at \$145,000 to construct road along bank of Lake Worth-Lake Okeechobee Canal; 20 miles.

Cleveland, Ga.—White county commissioners will issue \$100,000 bonds to build and repair roads.

Fitzgerald, Ga.—Ben Hill county commissioners rescinded action calling for \$175,000 road bond election on June 25.

Washington, Ga.—City will construct 18,000 square yards street paving, including drainage and curbing; cost \$65,000; bids until June 24; H. S. Jaudon Engineering Co., consulting engineer, Elberton, Ga.; K. A. Wilheit, Mayor.

Coushatta, La.—Red River Parish, Road District No. 1, voted \$150,000 bonds to construct roads; construct 32 miles earth and gravel roads under supervision State Board of Engineers; cost \$300,000; Highway Department, Board State Engineers, Duncan Buie, Ch. Engr., Maison Blanche Bldg., New Orleans, receives bids until July 2; J. T. S. Thomas, Clerk Police Jury.

Oak Grove, La.—West Carroll Parish voted \$300,000 road bonds. Address Police Jury.

Franklin, La.—State Highway Department let contract W. S. Bonner, New Orleans, at \$14,448 to construct 1.26 miles road in St. Mary's Parish.

Gretna, La.—City will pave various streets with Warrenite bitulithic. City engineer will prepare plans.

Jennings, La.—State Highway Department let contract A. R. Burney, New Orleans, at \$68,575 to construct 7.5 miles road in Jefferson Davis Parish.

Lake Charles, La.—Calcasieu Parish Police Jury will order vote on \$110,000 bonds to construct 12½ miles hard-surfaced gravel roads in Ward 8.

Natchitoches, La.—City Commission engaged Xavier A. Kramer, Magnolia, Miss., as consulting engineer for street paving.

Charleston, Miss.—Tallahatchie county voted \$500,000 bonds to improve roads; D. S. Henderson, Clerk.

Meridian, Miss.—Lauderdale county, Beat 4, votes June 24 on \$100,000 bonds to construct roads. Address Board of Supervisors.

Columbus, Miss.—City voted \$50,000 bonds to pave 11 blocks in business section. Address The Mayor.

Hazlehurst, Miss.—Copiah County Supervisors will issue \$100,000 bonds for roads in District 4.

Isola, Miss.—City let contract Oxford Concrete Co., Greenwood, Miss., to construct concrete sidewalks; cost \$6,000 to \$8,000; J. E. Herron, City Clerk.

Kosciusko, Miss.—Attala county voted \$160,000 bonds to construct roads in Districts 4 and 5. B. W. Jordan, Chancery Clerk.

Magnolia, Miss.—Pike County Commissioners en-

gaged Xavier A. Kramer as engineer for road construction; votes June 28 on \$300,000 bonds.

Meridian, Miss.—Lauderdale county, District No. 3, votes June 17 on \$85,000 bonds to construct roads. Address Board of Supervisors.

Moss Point, Miss.—City will construct 28,000 yards street; invites bids on asphaltum oils, Tarvia rock, stone, gravel or slag; select material and award contract July 1; voted \$35,000 bonds; C. M. Fairley, City Clerk. Lately noted to vote bonds.

Vicksburg, Miss.—Warren County Commissioners ordered vote in August on \$500,000 bonds to construct roads; R. M. Kelly, County Attorney.

Vicksburg, Miss.—City will gravel, concrete and pave with brick 1,400 feet on City Cemetery Road; width 16 feet; bids opened June 16; J. J. Hayes, Mayor.

Clinton, N. C.—City will construct 10,000 to 30,000 square yards sheet asphalt pavement on concrete foundation; includes grading, drainage, curbing, etc.; bids until July 1; Wm. M. Piatt, engineer, Durham, N. C.; H. A. Grady, Mayor.

Lumberton, N. C.—Robeson county, Lumber Bridge Township, votes July 10 on \$20,000 bonds to construct roads. Address County Commissioners.

Lumberton, N. C.—Robeson county, Wishart Township, votes July 10 on \$50,000 bonds to construct roads. Address County Commissioners.

Lumberton, N. C.—Robeson county, Thompson Township, votes July 10 on \$60,000 bonds to construct roads. Address County Commissioners.

Kinston, N. C.—Lenoir County Highway Commission, E. V. Webb, Chairman, will construct 18,820 square yards concrete, sheet asphalt or Warrenite pavement on Central Highway; 4,356 pounds reinforcement steel and 242 cubic yards box culvert concrete; bids until July 8. Lately noted to engage engineer for 200 miles of road construction authorized under \$2,000,000 bond issue.

Lumberton, N. C.—Robeson county, Alfordsville Township, votes July 16 on \$60,000 bonds to construct roads.

Monroe, N. C.—Union County Commissioners will issue \$500,000 bonds to construct roads.

Nashville, N. C.—Nash County Commissioners, A. F. Manning, ordered vote July 12 on \$600,000 bonds to construct hard-surfaced road from Rocky Mount to Nashville and erect or repair courthouse; probably 30 miles hard-surfaced roads.

Shelby, N. C.—Cleveland county, No. 1 Township, voted \$25,000 bonds to construct roads. J. J. Lattimore, Clerk County Commissioners.

Washington, N. C.—Beaufort County Commissioners let contract Simmons, Whitton & Co., Charlotte, N. C., at \$100,000 to construct 3½ miles road between Washington and Chocowinity; width 18 feet; reinforced concrete construction; Federal aid, Project No. 43.



Waynesville, N. C.—Haywood County Commissioners; T. L. Gwyn, Chairman, will grade and drain 8 miles road between Canton and Waynesville; width 30 feet; surface to width of 16 feet, with natural and artificial sand-clay or gravel; portion of Federal-aid Project No. 16; bids until July 1.

Camden, S. C.—Kershaw county, DeKalb Town ship, voted \$60,000 bonds to construct roads. Address County Commissioners.

Fort Mill, S. C.—City plans to expend \$40,000 to improve streets. B. E. Patterson, Mayor.

Gaffney, S. C.—City engaged engineer to estimate cost of additional street paving. Address The Mayor.

Laurens, S. C.—Laurens county will construct road from Laurens to Princeton, 17 miles; bids until June 19; N. C. Hughes, Engineer; G. M. Wright, Secretary.

Spartanburg, S. C.—Spartanburg County Highway Commission will construct 6.7 miles top-soil road; 31,720 cubic yards common excavation, 500 cubic yards rock excavation, 23,628 cubic yards top-soil, pipe culverts and headwalls; bids until June 27.

Blountville, Tenn.—Sullivan County Roads Commissioners will construct graded and macadam roads to cost \$175,000; bids until July 10.

Decaturville, Tenn.—Decatur County Commissioners will construct 125-mile gravel road; expend \$125,000 to \$275,000.

Maryville, Tenn.—Blount County Commissioners will issue \$400,000 road bonds.

Memphis, Tenn.—City plans \$200,000 bond issue to improve streets; \$450,000 additional to be available from general city fund. J. H. Weatherford, City Engineer.

Abilene, Tex.—Taylor County, Road District No. 6, will construct 12 miles gravel road; cost \$42,000; L. S. Fuller, Engineer, Abilene; E. M. Overshiner, County Judge.

Bay City, Tex.—Matagorda County Commissioners will issue \$65,000 bonds to construct state highway. John F. Perry, County Judge.

Brenham, Tex.—Washington County Commissioners ordered vote June 21 on \$1,500,000 bonds to construct roads.

Channing, Tex.—Hartley County, Road District No. 1, will construct 20 miles state-aid highway; voted \$75,000 bonds; J. H. Phillips, County Judge.

Clovis, Tex.—City will pave S. Main street with brick; let contract Rice & Babcock, Amarillo, Tex.

Electra, Tex.—City will construct 64,000 square yards asphalt, bitulithic, asphaltic, concrete, wood block, brick, vibrolithic or concrete pavement; bids until July 2; W. H. Larson, City Manager.

Hallettsville, Tex.—Lavaca County Commissioners, Road District No. 2, will issue \$200,000 bonds to construct road from Schulenburg to Yoakum.

Lufkin, Tex.—Angelina County Commissioners

ordered vote July 5 on bonds to construct roads. Address County Commissioners.

Marlin, Tex.—Falls county, Marlin Precinct, voted \$500,000 bonds to improve roads. Address County Commissioners.

San Antonio, Tex.—City will pave 25 blocks of asphalt street paving on sections of Mistletoe Ave., Summit Ave., etc.; cost \$40,000. Address The Mayor.

San Augustine, Tex.—San Augustine county, Precinct No. 2, voted \$50,000 bonds to construct roads. Address County Commissioners.

Uvalde, Tex.—Uvalde County Commissioners will order vote on \$250,000 bonds to construct roads in Precincts Nos. 1 and 4.

Wichita Falls, Tex.—Wichita county voted \$1,500,000 bonds to construct roads. Address County Commissioners.

### Voting Millions for Roads.

Eleven counties in Georgia voted on these different dates in June for road bonds aggregating \$5,180,000 as follows:

June 11, Wilkes, \$300,000, and Clark, \$2,250,000; June 12, Elbert, \$200,000; June 14, Barrow, \$100,000; June 17, Terrell, \$150,000; June 18, Grady, \$250,000, and Brooks, \$500,000; June 24, Ware, \$630,000, and Chatham, \$2,000,000; June 15, Ben Hill, \$175,000; June 30, Clark, \$250,000.

These Georgia counties had previously voted road construction bonds as follows:

Bibb, \$700,000; Sumter, \$500,000; Colquitt, \$500,000; Walton, \$200,000; Evans, \$40,000; Coweta, \$48,000; Thomas, \$700,000; White, \$100,000; Hall, \$600,000; Lumpkin, \$75,000; Charlton, \$5,000; Laurens, \$500,000; Pulaski, \$200,000; Spalding, \$350,000; Jackson, \$100,000; Glynn, \$350,000; Berrien, \$500,000; Tift, \$300,000; Dougherty, \$400,000; Morgan, \$325,000; Banks, \$75,000; Crisp, \$350,000; Troupe, \$500,000; Lowndes, \$500,000.

The state highway department estimates that with the bond issues authorized and the Federal aid in sight not less than 30 miles of permanent highways will be built in Georgia. The state will receive under the existing Federal highway appropriation act a total of \$7,402,000 and this sum, it is understood will be added to so that every county voting bonds will in the course of time have its expenditure match dollar for dollar from the Federal treasury. One thousand miles of top soil roads will be built out of available funds and a number of important bridges have been provided for out of the present funds. Motor trucks and other equipment to the value of \$2,400,000 will be given the state in addition to the Federal appropriation.



# What is the Future of Building?

OF ALL the problems of readjustment this is perhaps the most important and interesting.

It concerns everyone because building activity is the basis of so many other industries and because the building problem enters into the future plans of almost every organization and individual.

The manufacturer who wants to expand, the school or college that requires more space for students, the growing families who need new places to live in—all these and many others are obliged to study the building problem and to try to foresee conditions as they will exist.

Are building costs going to fall to any extent? Are rentals going to remain at the present high figure? What classes and kinds of construction are going to be most active in future building work? These merely indicate a few of the questions which every prospective builder, every architect, contractor, manufacturer and workman in building lines must seriously consider.

## Supply and Demand.

In the first place building costs will be governed, as they always have been, by the law of supply and demand. If there is need for one million buildings and there is only labor and material available for nine hundred thousand, the cost is bound to remain high. What then are the actual needs and desires for building at this time?

## Homes.

No one will question for a moment that more homes are needed. There is hardly a city or live town in the United States where one can rent or buy a home without long search and payment of what used to seem exorbitant prices.

People not only demand homes, but they demand better homes. The shacks that used to serve to house so many mill workers will not answer since these men and families have had a taste of the comforts that war wages brought.

Moreover, every plant owner has had convincing proof that it pays to give his careful attention to the housing of workers in proper homes. Bolshevism is the greatest danger this country has to face and the soundest bulwark against it is the home owner. No man who owns a home—no matter how humble—will listen long to any doctrine which would take away his prosperity or force him to share it with someone less thrifty.

Thousands of wise manufacturers will plan—are planning today in fact—to build houses which their workers can buy for small payments. These houses will be built in numbers which will make this kind of building most attractive to every architect and contractor, no matter how large his organization.

Nor will home building be confined to less ex-

pensive homes. People of means are planning more than ever before. The old residential sections of every city are fast giving away to the suburban districts owing to automobile, rapid transit lines and other improved transportation facilities.

The American people never were as "well fixed" financially as today and they are going to put their money into homes as never before.

## Schools.

No city has been able of late years to keep its school buildings up with the demands. Thousands of "portable" wooden buildings were put up to tide over until the government released building work. These schools must now be built.

In the country, too, the large centralized school is replacing the little wooden school house, an improvement which will grow by leaps and bounds as improved roads enable pupils to be more easily transported to central points.

Children are going to be kept in school 12 years instead of 6 or 8. Schools are bound to grow and school buildings made bigger and better.

## Churches, Hospitals and Institutions.

These buildings for the most part depend upon the generous gifts of interested people. There has been taught the American people the idea of giving on a scale never before approached and the Red Cross, Y. M. C. A., K. of C. and similar campaigns have paved the way for many a future drive to build churches, schools, hospitals, or other community buildings.

Everyone who studied the effect of the war closely knows that there has been a great increase in religious feeling and activity among all people and this in turn has resulted in growth of church congregations and in demand for larger quarters.

As to hospitals, there never was a city with too much hospital capacity. It is the ideal way to care for the sick and the economical way as well. There will be a constantly increasing demand for hospitals for years to come.

## Farm Buildings.

Here, in our opinion, lies one of the greatest opportunities for future building. It is true that farm populations have decreased enormously by farm boys and girls moving to the cities. But what does that mean? It means that where there used to be 60 million farm people producing eatables and wearables for themselves and a population of only 30 million city people, today the situation is absolutely changed, and 35 million farm people are producing for themselves and for 75 million city and town people as well. The natural result has been higher prices for farm produce and a profit which would enable the farmer to live decently.

So long as the farm profits were low any old build-



ing would do, but now that farmers can afford it they will tear down by the thousands their old story-and-half frame homes and other buildings and replace them with modern fireproof construction.

Not only that, but the farmer has become a manufacturer, making things for other people instead of simply producing for himself. He has found that production demands good buildings, labor-saving buildings, barns, that cut insurance rates, cattle stalls and hog houses that are easily cleaned and which keep the stock warm and dry.

The farmer is the great builder of the future and he who overlooks this fact will lose by his lack of foresight.

#### **Factory Buildings.**

And now we hear some wiseacre say: "The special buildings for war purposes will suffice for manufacturers' needs for years to come."

Sounds very plausible, but consider this. If there was one lesson that the war taught manufacturers it was the necessity of having buildings planned especially for the particular product they wanted to put out.

Many a man who felt that his old plant "would do" sees now where modern buildings pay—buildings planned with the idea of material received at one end and progressing steadily to emerge as finished product at the other. He sees where economy in handling and in employees' time will pay back the interest on building investments. He realizes that better light, better ventilation, better buildings generally will help him to hold his labor and keep the output high.

The manufacturer will build more than ever before because new buildings pay, and because people are getting more money to buy more of all products than they could in the past.

#### **Hotels and Office Buildings.**

Have you lately been unfortunate enough to go to New York, Chicago, Detroit, Kansas City, Minneapolis or almost any other city large or small without making hotel reservation in advance? If so you need no further proof that hotels must be built—many of them—to accommodate the increase in travel both for business and pleasure. This is no temporary condition, but a case of a growing custom which must be met by great building effort.

Office space is at the same premium as hotel space. New firms are being organized, old firms are putting out branch offices. Every good building is oversold on space, in fact, the whole commercial world is alive, people are ready to buy—things are ready to move—and with them building is bound to boom.

Many other types of buildings might be analyzed, but everywhere you would find the same answer—insistent demand for more buildings.

And now we have answered our question. Building cannot—will not—be much lower. Labor is high

—true—and prices are high, but for that very reason every worker, every manufacturer has more money to spend—more to build with—more to buy with.

Building today is simply a matter of showing faith in your country's prospects. As Frank Vanderlip, the great financier, says, "Be a bull on America's future. It's the best buy in the world."

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#### **Open An Atlanta Office.**

G. Lloyd Preacher, one of the foremost architects and engineers of the South and who for years has had offices in Augusta, Ga., has opened a branch office in Atlanta. This branch, which has offices in the Healey Building, is in charge of G. H. Bond as manager. Mr. Preacher's headquarters offices remain in Augusta.

The opening of the Atlanta branch by Mr. Preacher is the logical result of the continual expansion of his business. He has an extensive patronage in cities and towns of Georgia and South Carolina as well as elsewhere in the South, and the opening of the Atlanta branch will be a matter of much convenience to many of his patrons who are at a distance from the headquarters offices in Augusta.

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#### **Old Plumbing Should Be Replaced.**

There are many million dollars' worth of old plumbing in our cities throughout the length and breadth of our country, that is old, out of date, and insanitary, and which should be replaced by new and the latest improved plumbing and heating systems. Enter any of the older hotels, regardless of its class or reputation, and any plumber will see enough room for improvement that will almost drive him to see the manager and sell him something new. He will be able to find sufficient talking points that every salesman must have along in selling his goods, which will class him as a salesman of experience. That the ultimate health of its guests is being guarded by the hotel management is valuable to the hotel.

Good plumbing is a highly important feature of any hotel accommodation, and the better it is kept, the better is the hotel's patronage going to be. It is more than an investment for the hotel, it is good advertising. Its benefits are manifold which a wide-awake man can present to any live hotel management convincingly. And what applies to hotels will apply to all public buildings with almost equal force, but even more to apartments and residence buildings. Any run-down building, commanding a low rent, will be found to have antiquated plumbing and heating systems. And with bad plumbing and heating systems, it will be found that besides bringing low rentals, the tenants are hard to keep, changing frequently, with enough resulting losses to cover the investments in new systems.



# The Metropolitan Museum and American Industrial Art—An Emergency Met by a Direct Remedy.

By Richard F. Bach,  
The Metropolitan of Art,

CAN MUSEUMS take their place in the front ranks of current activities incidental to the war? At first sight, especially in view of the emphasis during the war upon so-called non-essential industries and other lines of endeavor, it will seem to some as if these depositories for the works of peace had no place there when whole nations cry for immediate necessities of life. But what are the facts? What has our greatest museums done to utilize its treasures of peace in war time?

In the first place it requires no proof to convince even a thoughtless jingo that whatever contributes to the equilibrium of the nation in peace time becomes an asset of double value when that peace is disturbed. Obviously, plants producing china and glass, manufactories for wrought iron, lace mills, and any other plants devoted to the production of materials not of particular application on the great battlefield of nations must expect a reduction in quantities of raw materials allowed them, not to mention the immediate necessity of turning over a part of their equipment to direct government purposes, as when a curtain factory makes mosquito netting or a decorative iron making concern produces hitching rings. Yet these very factories and craftsmen's shops contain the greatest assets of mental well being which in the great turmoil of reconstruction will be of paramount value in bringing us back to an even keel. Because soldiers did not require decorative glassware on their mess tables, was the glass industry non-essential? Glass factories can make immediately useful things and are doing so with every material type of equipment at their command. And so it is with the other industries.

There are no non-essential industries. If that were not the case beyond argument, we should not need to dally with a prohibition amendment; in fact the non-smokers might point an accusing finger at the many able-bodied men engaged in rolling cigars because our men in Europe seem to prefer cigarettes. No, the word non-essential has been overworked, like many another, for we are too fond of catch words and cling to them despite an erroneous implication. Now can we suggest another word to take its place?

Now that the war has come to an end, now that Germany has finally found out that there is no Achilles' heel in the Allied anatomy, it has ended quite as suddenly as it began. Men and qualities and vital forces essential to the peaceful living will then be as necessary to our well being as are the sinews of war just now; shall we absolutely persist in tying

our own hands by refusing to prepare for peace as we failed to prepare for war? We like to believe that we are a patient nation; it would be better if we believed the opinion of men from other lands who see our patience often as inability to discover in what direction our own welfare lies. When the men come back will they depend for their future existence only upon those qualities and materials and manufacture which they found essential when they drove through the line or will they demand the amenities of a convenient and comfortable life? Every soldier knows that Americans everywhere are bending every effort to finish the big job over there in thorough American fashion, but every soldier also knows that going over the top is not the end of the story; he knows that he must go over and on beyond and then stick to his objective. In America our leaders caution us against considering too strongly the mere military end gained; we are told to keep before our minds the ideal goal which we represent and upon which our Allies depend so strongly. If any of our peace time industries, above all those which make for beauty and grace in life, can be altogether non-essential when our passions are aroused, we are open to the accusation that our objective has been military only. If our objective is the ideal of democratic existence how can the arts be discarded even during the war? When the record comes to be written of the service rendered by the many art branches, the architects and painters, the industrial art factories, not to mention the writers and actors and all others whose direct efforts do not aim normally along war utilitarian lines the roster of faithful servants of the land will be a long one.

When this philosophy of the non-essential is applied to the museum the defence falls down unless the critic is aware that without the museum in some form or other the industrial arts factory soon becomes enervated. What has Europe done in this direction? French schools have lost their men students, but the nation has filled them with girls. The museums are active as before, their closing temporarily at the beginning was chiefly to protect their contents. Industrial arts factories are as busy as the need of men and materials will permit. The various governments are concerning themselves with problems of industrial education even more energetically than if the grandson of the immortal grandsire had never pounded at the gates of Paris. When this is considered, in view of the fact that Paris then lay but fifty miles beyond the battle line, can we still believe that a nation of one hundred millions these thousands of



miles away from immediate destruction should ever have waived its claim to design in the industrial arts because they were non-essentials?

We have much to learn in this field, we have yet to train thousands of capable designers, we have yet to establish scores of well-trained schools, we have to work steadily in the direction of an American type of industrial art, Europe has the designers, the schools, the experience, the traditions, the understanding backing of its peoples, its national art types. When the sun of the great new day dawns shall we, the greatest industrial nation of them all, go back again to receive abjectly—as we did before—objects of art made in the present and of a kind which we can surely make ourselves, and as well?

There is no lack of talent in this great land. There is a lack of schools, and until these are established the museum must give its service toward the up-building of American industrial art. Above all must this service be given now; efforts beyond anything yet dreamt of within the quiet confines of their galleries must be put forth to bring together the best of the past in design with the best of the present in ambition and performance. The museum must exploit its possessions, for only in this sense are they its possessions. The idea of the art collection as a fossil collection is as dead as the idea of a library as a "collection of books." The library works today, it is a living influence. The museum has also come into this field of direct activity in every emphatic manner.

#### **Vacancy in U. S. Architect's Office.**

The United States Civil Service Commission announces an open competitive examination for heating and ventilating engineer and draftsman, for men only. A vacancy in the Office of the Supervising Architect, Treasury Department, Washington, D. C., at \$1,600 a year, and future vacancies in positions requiring similar qualifications at this or higher or lower salaries, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Competitors will not be required to report for examination at any place, but will be rated on the following subjects, which will have the relative weights indicated, on a scale of 100: (1) Education experience, 80; (2) Submitted drawings, to be filed with application, 20.

**Under the first subject competitors will be rated upon the sworn statements in their applications and upon corroborative evidence.**

Applicants must show that they have had at least four years' experience in the designing or installation of heating and ventilating systems in large buildings. A technical degree in heating and

ventilating engineering from a college or university of recognized standing will be accepted in lieu of 2½ years of such experience.

In lieu of the publication or reports called for in Form 2118 applicants must submit with their applications not exceeding three specimens of drawing executed by them. These specimens should be such as to show clearly the applicant's ability as a draftsman. The applicant's name should be lettered or written on each.

Applicants must submit with their applications their unmounted photographs, taken within two years, with their names written thereon. Proofs or group photographs will not be accepted. Photographs will not be returned to applicants.

Applicants will be admitted to this examination regardless of their residence and domicile; but only those who have been actually domiciled in the State or Territory in which they reside for at least one year previous to the examination, and who have the county officer's certificate in the application form executed, may become eligible for permanent appointment to the apportioned service in Washington, D. C.

Statements as to education, experience, and fitness are accepted subject to verification.

Applicants must have reached their twenty-first birthday on the date of the examination.

This examination is open to all male citizens of the United States who meet the requirements.

Applicants should at once apply for Form 2118, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.; the Secretary of the United States Civil Service Board, Customhouse, Boston, Mass., New York, N. Y., New Orleans, La., Honolulu, Hawaii; Post Office, Philadelphia, Pa., Atlanta, Ga., Cincinnati, Ohio, Chicago, Ill., St. Paul, Minn., Seattle, Wash., San Francisco, Calif.; Old Customhouse, St. Louis, Mo.; Administration Building, Balboa Heights, Canal Zone; or to the Chairman of the Porto Rican Civil Service Commission, San Juan, P. R.

Applications should be properly executed, excluding the medical certificate, and must be filed with the Civil Service Commission, Washington, D. C., with the material required, prior to the hour of closing business on July 22, 1919.

#### **Savannah Builders at Tybee.**

The quarterly meeting of the Savannah Builders' Exchange was held at Tybee Island July 9 in order that the ladies might attend. A feature of the meeting was the address of Mr. Charles W. Bernhardt, of Atlanta, president of the National Association of Builders' Exchange.



# Choosing Lumber for the New Home is Most Important

**P**RESUMING that the foundation is properly built, for the size of house contemplated and which must in each case be determined by the nature of the ground whereon the building is to be placed, let us proceed to consider the lumber going into the house in the order in which it is to be used. Suggestions that are made carry the thought that the home is to be built in Hoquiam and that it is to be a moderately-priced house, writes Thorpe Babcock in the Daily Washingtonian, Hoquiam, Wash.

Building in other parts of the country would call for the use of other species of lumber, in many cases either for reasons of economy or personal taste. If it seems advisable to lay wooden blocks for foundation purposes, instead of concrete mud sills, the builder should insist upon cedar. It is a well known fact that cedar will outlast any other native wood when in contact with the ground and in fact cedar will outlast practically any other wood known, under such conditions.

We can quickly pass over the sills, joist and studding and what is generally known as the framing lumber by the one suggestion that the larger sizes of either timbers or dimension be fir, with either fir or hemlock in the smaller sizes of dimension and such boards as are used for studding and sub-floors. The builder should be careful to make sure that the lumber used for studding and sub-floors is thoroughly dry, particularly if hemlock is used. There is a chance for the builder to save some money with no detriment to his home, if in the purchase of his dimension lumber for the framing he will arrange to buy short lengths wherever possible or buy a certain amount of the poorer grade random lengths and when possible cut this lumber up for use in the many places around the building where short lengths are used. It is unintelligent ordering for one to get long lengths of the highest grade of lumber and then later cut up these lengths as that often adds unnecessary cost to building.

## **Salesmen Will Assist.**

Any of our local mills have men in charge of their retail departments who will gladly aid any home builder in determining where he could use lumber in the cheaper grades advantageously.

Taking up the roof and siding of a house. There is only one answer to the question, "What is the best roof?" The answer is, a well manufactured green, clear shingle. The word "clear" is used to distinguish a shingle which measures 5 shingles to 2 inches in thickness at the butt rather than the shin-

gle which measures 6 shingles to 2 inches, known by lumbermen as \*A\*.

The 6/2 or \*A\* makes a good roof but not as good as the "clear" shingle which is recommended and the little additional cost on the number of shingles used on a house, would make possibly \$7 to \$10 difference in the cost of the whole house and will be a source of constant satisfaction to the owner as well as a good selling argument any time. Such a roof if laid with the right kind of nails would easily be good for 40 years even in this climate. One must be very careful about the nails used. A great many tests have proven that the rusting of nails is the most serious detriment to a shingle roof. The very best nail is one made of copper but quite expensive. The next best nail is the full zinc coated and the next best the rut iron. In no case use the ordinary wire nail. The advantage that a local builder has is the ability to obtain green shingles, or better still some that have been air dried. Freight charges to distant markets make kiln drying necessary to keep the weight down so that charges will not be excessive. An air dried shingle is superior.

## **Advices as to Siding.**

Coming now to siding. Several different sidings can be recommended. What applies to the roof applies equally well to the sides if one wishes to side with shingles. An excellent effect can be obtained by laying clear shingles double, 6 inches or 8 inches to the weather. Cedar bevel siding can be obtained in 4, 5, 6, 8 and 10 inch widths. The wider widths are called colonial or bungalow siding and give a very substantial solid appearance to the house. The 8 or 10 inch bungalow in cedar laid with the rough side out and stained is particularly attractive. Bevel siding can be bought at some local mills in spruce or hemlock. Either one makes an excellent siding but precaution should be taken to paint soon after laying as the action of the sun is more detrimental to these woods than cedar if not painted.

Fir can be obtained in patterns of Rustic. Drop siding or what is known as Novelty Siding. Fir used in any of these patterns makes a very efficient siding, but does not give the house the appearance obtained by the use of bevel siding which is made more commonly in the other woods. The fir sidings are more often used in the construction of barns and commercial buildings.

When one comes to the finishing of the interior of the house, it is so much a matter of taste that one naturally hesitates to make suggestions.

## **Fir for Interior Finishing.**

Fir is used almost without exception in the homes



of moderate cost in this locality as it is the most practical wood for working and the most commonly manufactured by the mills into finishing sizes. If one does not care for the startling effect of the slash grain fir, they will find excellent results obtainable by buying vertical grain finish and staining it in such a way as to show the grain. Also if it is the intention to white enamel, vertical grain is recommended as the grain does not chip or peel as is sometimes the case with slash grain. Occasionally a home is found finished in our western hemlock, which is a very beautiful wood if properly stained. The grain on the hemlock is not as pronounced as it is in fir and gives the room a quieter tone.

Unless one wants to buy hardwood floors, it is customary to use our fir in flooring. Three inch is recommended instead of 4 inch, as it costs but little more and has more the appearance of a hardwood floor. Prospective home owners will do well if they look into the possibilities of buying hemlock flooring as the merits of hemlock flooring are fast becoming recognized. A look at the hemlock floor in the club house of the Posey Manufacturing company will convince one of its merit.

Spruce has its place in the interior work of a house, particularly in the kitchen, cool cupboards, drain boards, pantry shelves and in fact any place where food is apt to come in contact with the wood,

as spruce is odorless and tasteless and will stand constant wetting and drying such as happens in the case of a drain board. Flour bins should also be made of spruce. Caution should be taken, however, to have the spruce thoroughly dry, as the heat of a house will shrink the wood unless it has been thoroughly dried before being placed.

#### **Cedar for Closet Lining.**

Cedar, too, has its interior use for closet lining. While our western cedar has not the strong cedar odor of some of the eastern cedars, at the same time it has some merits in its tendency to dispel moths. While one could not depend entirely on the presence of cedar lining in a closet to overcome the trouble caused by moths, at the same time it helps.

Local home builders are particularly fortunate in that they can obtain these four woods from the local mills in any pattern used in common practice of home building and can thus insure for themselves more attractive and serviceable homes than is the case where builders are confined to the use of one or two woods that may be carried by local dealers.

The demand for lumber that is evidenced from all parts of the world, would indicate no reduction in prices in the near future and the prospective home builder will not gain by putting off building in the hope of cheaper lumber as long as the need for reconstruction exists.

## **Promising Field for Heating Engineer**

**V**ENTILATION, as one of the fundamental necessities of modern industrialism, is being widely discussed, and its vital importance recognized in official circles. Not only is this taking place in the United States, but also in Canada, the latter country at present contemplating the passage of parliamentary statutes to bring about needed changes.

Samuel Gompers, as chairman of the Committee on Labor—including Conservation and Welfare of Workers—appointed among his divisional committees, to recommend means of protection under war conditions, one to deal with the subject of Requirements and Standards upon Heating and Ventilating. It was made a part of the National Committee on Welfare Work, the chairman being Louis A. Coolidge, who is also chairman of the Welfare Department of the National Civic Federation of which Mr. Gompers is vice-president. Werner Nygren, consulting engineer and chairman of the Divisional Committee upon Heating and Ventilation, prepared the recommendations on this subject.

As the writer points out there is a general lack

of understanding of the purely commercial advantages to be gained by the effective ventilation of working spaces, and it is an established fact that proper provisions of this kind usually pay for themselves. He advocates the inauguration of a persistent educational campaign, among other things, and if this advice is followed by the progressive heating and ventilating men of this country the results will be of much benefit to employer and employee.

Many people still believe that opening a window or knocking a hole in the roof constitutes all that is necessary to provide satisfactory ventilation, but this is an absurd theory and one that can be quashed without much difficulty. Ventilation is no longer a question of guesswork, neither can flat rules be laid down as to what constitutes effective ventilation in structures of various capacities. Careful consideration must be given in each instance as to, the type and capacity of the building, number of employees, nature of the work, atmospheric conditions, humidity, dust, gases, etc., before a final de-



cision can be rendered as to the type of equipment that will give the best results.

The United States Government once had a striking example of the efficiency of adequate ventilation and air conditioning when, by actual test, it was found that the number of days lost through sickness of employes was cut nearly one-half, when they moved into a new, modernly equipped building.

Where comfort and health are maintained in a factory, there is the resultant increase in efficiency and a strong possibility of a decrease in accidents in that the employe, working in a clear, pure atmosphere, is going to be more alert and watchful than where conditions are the opposite.

What is true of industrial conditions also applies to buildings whose conditions affect the public health, such as schools, churches, auditoriums, moving picture theaters, etc. It is particularly true of moving picture theaters, which have grown so popular as to make ventilation and air-conditioning the first essential. Much progress has been made in Chicago, where it is compulsory to exhibit a certificate, issued by the Ventilation Bureau, in the lobby of the theater to prove that the equipment conforms with the ordinance.

A moving picture theater, properly ventilated, reflects its value in increased patronage and larger box office receipts, whereas, if improperly ventilated, it is a serious menace to the community and should not be tolerated. Here, as elsewhere, ventilation should be given first consideration and not an after thought, to be handled in such a manner that proper ventilation is often an impossibility.

Profitable business awaits the enterprising heating man, who familiarizes himself with ventilating and air-conditioning possibilities and places such information before the proper authorities.

#### **New President U. S. Chamber of Commerce.**

Homer L. Ferguson, President and General Manager of the Newport News Shipbuilding and Dry Dock Company of Newport News, Va., has been elected President of the Chamber of Commerce of the United States.

Mr. Ferguson, who has been a member of the Board of Directors since February, 1914, and who has been actively identified with the Chamber's work, succeeds as President, Harry A. Wheeler of Chicago, who declined reelection. Mr. Wheeler, who served as President the first two years of the Chamber's existence and who was called on last year to serve another term during the war emergency, could not accept the place.

Mr. Ferguson was nominated for the presidency by a nominating committee of the Board of Directors immediately after the Chamber concluded its Annual Meeting at St. Louis on May 1. His was the only

name placed in nomination after Mr. Wheeler declined reelection and the vote, taken by mail was unanimous.

Born at Waynesville, N. C., March 6, 1873, Mr. Ferguson was educated at the United States Naval Academy, graduating in 1892, and at Glasgow University, Scotland, finishing there in 1895. For eleven years he was a Constructor in the United States Navy, leaving the Navy in 1905 to become General Manager of the company of which he is now President. He is a member of the Society of Naval Architects and Marine Engineers, the Society of Naval Engineers, the Engineers' Club, New York, and the Army and Navy Club, Washington.

In addition to Mr. Ferguson, the following other officers were elected by the Board:

Vice President: Eastern District, A. C. Bedford, New York; North Central, Joseph H. Defrees, Chicago; South Central, Thomas F. Gailor, Bishop of Tennessee; Western District, (To be filled later).

Honorary Vice Presidents: Barry A. Wheeler, Chicago, John H. Fahey, Boston; A. B. Farquhar, York, Pa.; Charles Nagel, St. Louis; R. G. Rhett, Charleston, S. C.

Executive Committee: Joseph H. Defrees, Chicago, Chairman; Max W. Babb, Milwaukee; A. C. Bedford, New York; W. L. Clause, Pittsburgh; L. S. Gillette, Minneapolis; P. H. Gadsden, Charleston, S. C.; Frederick J. Koster, San Francisco; James R. MacColl, Pawtucket, R. I.; C. A. Otis, Cleveland; L. E. Pierson, New York; M. J. Sanders, New Orleans.

Twelve members of the Board of Directors have been named by the Chamber's membership as follows:

Frank H. Johnston, New Britain, Conn., (re-elected); Lewis E. Pierson, New York, (reelected); Henry M. Victor, Charlotte, N. C.; P. H. Gadsden, Charleston, S. C.; Frank Kell, Wichita Falls, Texas; Clarence H. Howard, St. Louis, (reelected); Max W. Babb, Milwaukee, (reelected); George H. Barbour, Detroit; Charles C. George, Omaha; A. E. Carlton, Colorado Springs, Colo.; J. E. Chilberg, Seattle, (reelected); Frederick J. Koster, San Francisco.

#### **A. A. E. Adopts Resolution.**

The following resolution was adopted at the fifth annual convention of the American Association of Engineers:

Resolved, That the executive committee be authorized to appoint a committee of three or more to promote the non-technical interests of engineers in public service, with the Government, states, counties and municipalities.



# Some Pretty Examples of Modern Church Architecture



The Nave—Christ Church, Norfolk, Va. Watson & Huckel, Architects, Philadelphia, Pa.





Christ Church, Norfolk, Va. Watson & Huckel, Architects, Philadelphia, Pa.





St. Joseph's Cathedral, Macon, Ga.



### Engineering Congress Next Year.

Arrangements have been made for a general engineering congress to be held in Batavia, Java, May, 1920. It will deal with harbors and means of communication (including railways, tramways, telegraphy, and telephony); irrigation, drainage, waterworks, etc.; roads and bridges, town planning, architecture, etc.; the production of energy, electricity, and industries (including ironworks, factories, and agricultural industries); mining and geology. It will deal with other subjects also, such as technical education, the artisan question, building materials, and aerial navigation. Invitations have been issued to engineers in countries bordering on the Pacific and Indian Oceans. The main object is to influence the technical development of eastern Asia.

The proceedings will be conducted in Dutch and English, and it is expected that this congress in Batavia will do much toward solving technical problems, as well as toward assisting in the development of the pan-Pacific movement by the opening up of new routes and the consequent extension of trade and the dissemination of information.

The address of the secretary of the congress is Kebon Sirih 56, Batavia, Java, Netherlands, India.

### Dallas Engineers Get Together.

The Dallas Chapter of the American Association of Engineers was installed by National Secretary Drayer at a meeting May 23 in the Chamber of Commerce Auditorium. The meeting was attended by non-members as well as members of A. A. E. and resulted in the starting of a Dallas Engineers' Club to include all engineers of that city. A committee is being formed, composed of representatives of all national societies, to study the situation and to report with recommendations. The suggestion for an all-inclusive local club was made by Jacob H. Brillhart, chief engineer of the Mosier Mfg. Co., and representative of the Texas Association of the American Society of Civil Engineers.

The meeting went on record as unanimously in favor of licensing and a committee of members of A. A. E., with Arthur P. Denton, district engineer of the Portland Cement Association, as chairman, was appointed to go over the bill drafted by the Texas Association of A. S. C. E. Engineers all over the state will be enlisted to support the final bill and to see that it is enacted into law by the next legislature.

Civic activity, publicity, legislation, compensation, national and local organization were discussed. The suggestion that there be an all-inclusive democratic national organization that could speak with

authority on public questions and speak with a voice that would be heard was heartily applauded. The thought was expressed that such an organization should be parallel to the form of our political government, so that proper contact could be developed for political activity. It was felt that A. A. E. is flexible enough in organization to adapt itself to such a need.

### Wooden Walls Fire-Resistive.

Not long ago in a storage warehouse fire, in Chicago, a so-called fireproof building burned out its contents and its concrete walls were badly damaged. Fire spread from room to room and from floor to floor through holes in walls and floors that were in no case larger than six inches in diameter, left for the installation of steam pipes.

It was behind an unbroken wooden partition on one of the upper floors that the firemen were able to make a stand to check and finally control the blaze. The wooden wall was more potent for fire control than all the incombustible materials of which the building was constructed.

This was not a "freak" occurrence and it should be noted by building code makers. An unbroken wooden plank partition giving no edges for the fire to attack, is itself, to a certain degree, more fire resistive than most concrete walls as wood is a better non-conductor of heat than concrete and because of the disintegrating qualities of concrete and its porosity, the solid wooden wall stands to great length under fire. In many cities a wooden building of mill construction provided with a sprinkler system will have the same rate of fire insurance as a similarly constructed concrete building.

### New Record at Atlanta.

May building permit valuations in Atlanta, Ga., amounted to \$1,171,578, which was a new high record for May since 1912. A total of 319 permits were issued in the month, 93 having been for the erection of frame dwellings at an estimated cost of \$412,409; nine for apartment houses to cost in the aggregate \$257,000; seven for brick business buildings totaling \$216,000 and one for an office building with store rooms, \$120,000.

### Albert Mion Drowns.

Albert Mion, member of the contracting firm of Mion Brothers, of Atlanta, aged twenty three, was drowned while stationed on work at Beatrice, Nebraska, in association with his brother in Omaha. He had resided in Atlanta many years and had only been discharged from the army about two months ago. He was the second of the family to meet his death by drowning.



# Trade Notes of Interest

## **Forms A New Company.**

It will be of interest to our readers to learn that H. G. Franklin, formerly president of The Franklin Plumbing & Heating Co., and owner and patentee of the celebrated Franklin Quick Removable Gas Burner System, has formed a separate company which will be known as The Franklin Gas Burner Mfg. Co., with offices and factory located at the N. E. Cor. Vine & Mitchell Aves., Cincinnati, Ohio.

The Franklin burner is rapidly becoming known all over the country and is filling a much needed want by reason of the uncertainty in the supply of gas in various localities, as it can be removed in a minute's time without tools, ready to burn coal or back again in the same time.

On account of its very high efficiency the increased price of gas will stimulate sales for this device as one can compete with coal by using this system at least four months during the winter, making it possible to take advantage of both the gas and coal market as desired.

The Franklin burner is sold by all leading jobbers, plumbers and heating men and is being specified on new jobs by the leading architects.

For further information and descriptive matter, write the manufacturer.

## **Opens Chicago Sales Office.**

Wm. B. Scaife & Sons Company of Pittsburgh announces the opening on July 1st, of a Chicago Sales and Engineering Office at 38 South Dearborn Street; with Charles F. O'Hagan, formerly Chief Engineer of the company at Pittsburgh, as Resident Engineer and Manager.

This company is the oldest manufacturing concern west of the Allegheny Mountains. During the more than one hundred years since their business was founded, they have from time to time as conditions arose, added to their manufacturing facilities. They now manufacture Black or Galvanized, Riveted, Brazed or Welded Steel Tanks for air, gas and liquids, Steel Shipping Drums, Range Boilers, Steel Structures, also the well known We-Fu-Go

## **Makes New Connection.**

E. A. Hitchcock has recently become connected with the Bailey Meter Company of Cleveland, Ohio, as Vice President. He will supervise the training of technical graduates for the company's service and sales departments. During the past six years he has been connected with the E. W. Clark & Company Management Corporation as advisory, consulting and

power sales engineer. Previous to that time he was Professor of Experimental Engineering at Ohio State University.

## **Jennings Pump Body Sales Office.**

The Jennings Automatic Dump Body Inc., with general offices at Roanoke, Va., announces that all business from New England and Middle States will be handled by the Columbia Wagon Works, Columbia, Pa.

## **Removal of Office.**

The Mathis Brothers Company, owners of the New York Blower Company, announce the removal of their offices from Archer Avenue and Canal Street to Transportation Building, Room 513 in Chicago.

## **"Star" Ventilator Catalog.**

There has just come from the press a new "Star" Ventilator catalog giving in detail the construction of these ventilators made by Merchant & Evans Co., of Philadelphia, table for standard bases as well as table of sizes and material used. The fact that the U. S. Government has adopted them is proof of their efficiency and beauty of design. This catalog free upon application. Write for it.

## **Makes Accurate Casing Rings.**

A very important part of the warm air heater is the casing ring. To be of the greatest possible value it must be air tight and made of serviceable material. The Walworth Run Foundry Company of Cleveland, Ohio, makes steel casing rings, of individual measurements and requirements. These rings have lugs for double casings and are also made without lugs for single casings. They are manufactured in full circles or in partial circles for cast fronts. The manufacturers guarantee these rings to be exact in measurement and true in circumference, and as the Walworth Run Foundry Company is known throughout the trade for its high grade products, dealers need have no hesitation about writing for detailed information. Prices are furnished upon application and catalog and literature may also be secured by writing to the Walworth Run Foundry Company of Cleveland, Ohio.

## **Foreign Trade Opportunities.**

Where addresses are omitted they may be obtained from the Bureau of Foreign and Domestic Commerce, Washington, D. C., and at the branch offices of the Bureau, 315 Custom House, New York, N. Y.; 629 Federal Building, Chicago, Ill., and Association of Commerce Building, New Or-



leans, La., and 310 Custom House, San Francisco, Cal. For convenience in filing, please use separate letter sheet for each trade opportunity request.

29420.—Agencies are desired by the head of a firm in New Zealand who is now in this country for the sale of motor cars, automobile accessories, including tires; electric trucks, ½ to 7 tons; gasoline trucks; electrical machinery and supplies, including motors, generators, batteries, wires, and cables; laundry, woodworking, and hydraulic machinery; agricultural tractors, machine tools, vulcanized fiber products, artificial leather, graphite products, steel products, building materials, fans and blowers, pipes and fittings, paper, strawboard, cardboard, twine, and string. Reference.

## Building and Construction News.

### Bank and Office Buildings.

Columbia, La.—C. D. Thornhill will rebuild burned office building.

Butler, Mo.—Farmers' Bank, Arthur Duvall, cashier, will erect building; 2 stories and basement; 42 x 130 feet; Wight & Wight, architects, 401 Fourth National Bank Bldg., Kansas City.

Buckner, Mo.—Bank of Buckner, W. W. Ewing, cashier, will erect building; 1 story and basement; 33 x 65 feet; brick; stone trim; Owen & Payson, architects, 202 Reliance Bldg., Kansas City.

Greenville, S. C.—O. B. Van Wyck, Greenville Mattress & Mfg. Co., purchased site on Pendleton street and will probably erect office building; 3 or 4 stories.

Greenville, N. C.—Farmers' Bank Building Co., Inc., will erect building; Benton & Benton, architects, Wilson, N. C.; Paul L. Clodfelter, Secretary-Treasurer, Greenville, building; fireproof floors; alter heating, etc.; cost \$100,000; house on 4th Street S.; 4 apartments.

Kerrville, Tenn.—Bank of Kerrville, M. A. Sullivan and others, will erect building; 20 x 40 feet; 2 stories; brick; paper roof; concrete floors; D. J. Sullivan, architect.

Fort Worth, Tex.—Livingstone Oil Corp. purchased site on 4th street; 75 x 100 feet; plans to erect 10-story office building.

Plano, Tex.—Farmers and Merchants National Bank purchased building and will expend \$18,000 to remodel.

Ranger, Tex.—Harry A. Cole, Austin, will erect store and office building.

Tyler, Tex.—Citizens' National Bank, Gus F. Taylor, president, will erect building; 6 or 8 stories; 50 x 100 feet.

Waxahachie, Tex.—Citizens' National Bank will remodel building; rebuild interior, increase vault space, etc.

Richmond, Va.—Planters' National Bank will remodel building; fireproof floors; alter heating, etc.; cost \$10,000; Alfred C. Bossom, 366 5th avenue, New York, and Carneal & Johnston, Richmond, associate architects.

Huntington, Va.—Dr. C. W. Warnock will erect store and office building.

Atlanta, Ga.—Atlantic Ice and Coal Corporation will erect office building for its general offices; three stories; \$50,000.

### May Building Permits.

Building permits for May from 164 cities officially reported indicate clearly that a "go-ahead" policy for construction is under way. Only 28 cities out of the 164 show a loss compared to last year's statistics, and the total of \$105,470,299 for May of this year is a 110 per cent gain over the total of \$49,763,085 for the same cities during the corresponding period of last year.

In comparison to 1918 figures for the corresponding month, January, 1919, showed a loss of 12 per cent; February a gain of 48 per cent; March a gain of 77 per cent, and April a gain of 91 per cent.

These totals give a gain of 73 per cent for the first 5 months of 1919 over 1918.

Columbus, Ga.—Interior of building will be remodeled for occupancy by Columbus Savings Bank, G. Gunby Jordan, president.

Fitzgerald, Ga.—Exchange National Bank has selected site and perfected arrangements for erecting bank and office building; probably six stories.

Macon, Ga.—Macon Savings Bank will add three stories to five-story building that it has just purchased; bank will have quarters in the building. J. W. Cannon, vice-president.

Montgomery, Ala.—Fourth National Bank purchased three-story building, and upon expiration of leases will remodel first floor for its occupancy.

Valdosta, Ga.—Directors of First National Bank decided to begin immediately erection of bank building; plans by Architect Lloyd Breer, Valdosta.

### Church Buildings.

Butler, Ga.—Congregation of Methodist church contemplates erecting church building to cost \$15,000; brick; The Pastor.

Florala, Ala.—Church building will be erected by Baptist church; \$40,000, of which one-half is in hand; following is building committee, which will secure plans: J. P. Doster, J. W. Hart, T. J. George and H. A. Hughes.

Macon, Ga.—Synagogue to cost \$15,000, or more, will be erected by Congregation Sherah Israel, H. Marshall, president.

Chattanooga, Tenn.—First Christian church will erect annex; Albert S. Caldwell, chairman church board.

Dyersburg, Tenn.—Christian church will erect \$40,000 building. Address The Pastor.

Rusk, Tex.—Methodist church, Rev. J. W. Goodwin, pastor, will erect building; cost \$25,000; bids opened June 30; Lindsey & Kilmer, architects, Greenville, Tex.

El Dorado, Ark.—Baptist church will erect building; cost \$75,000. Address The Pastor.

Americus, Ga.—Calvary Episcopal church will erect building; cost \$25,000; Ben C. Hogue, architect, Macon.

Vidalia, Ga.—Baptist church will erect building. Address The Pastor.

Lexington, Ky.—Park Avenue Methodist church will erect building at High and Clay streets. Address The Pastor.

Baton Rouge, La.—B'Nai Israel Congregation will erect



\$10,000 annex; 2 or 3 stories; I. H. Rubenstein, Harry L. Cohn and others, committee to secure funds.

Louisville, Ky.—Crescent Hill Baptist church, Rev. Chas. L. Graham, pastor, will erect building.

Richmond, Ky.—Presbyterian church, Rev. R. L. Telford, pastor, will erect building; cost \$18,000.

### Dwellings and Apartments.

St. Petersburg, Fla.—A. C. Alexander, Waverly Hall, Ga., will erect apartment-house; 24 suites; 80 x 100 feet; cost \$60,000.

St. Petersburg, Fla.—J. A. Johnson will erect apartment-house on 4th street; 4 apartments.

West Palm Beach, Fla.—W. L. Woodcock will erect business building; upper floor for apartments.

Atlanta, Ga.—Dr. Horace Grant will erect 3 apartment-houses; brick; stone facing; 6 suites, 4 and 5 rooms; cost \$75,000; also plans to erect theater; seating capacity 1,000.

Griffin, Ga.—J. W. Gresham and J. A. Evans will erect apartment-house; Stone Mountain granite and white press brick; Indiana limestone trim; first unit to contain 12 suites; A. F. N. Everett, architect, Atlanta.

Little Rock, Ark.—Baldwin & Falk purchased 20 lots in Cook Addition and will build 20 bungalows; construction by owners.

Daytona, Fla.—Frank W. Noble will erect residence; cost \$20,000.

West Palm Beach, Fla.—West Palm Beach Development Co. will develop 71 lots with 50-foot frontage; asking bids on 8 bungalows and 1 house; Palm Beach Guaranty Co., W. L. Bragg, president, handling details.

Atlanta, Ga.—Lee Hagan will erect dwelling; hollow tile and brick; cost \$25,000; Arthur Neal Robinson, architect.

Atlanta, Ga.—A. L. Myers will erect dwelling at Boulevard Park; brick veneer; slate roof; cost \$10,000; Walker & Chase, architects, 14 Peachtree street; construction begins about July 10.

Griffin, Ga.—Board of Trade is promoting organization of \$50,000 company to erect dwellings.

Atlanta, Ga.—Three apartment houses to cost aggregate of \$75,000 will be erected by Dr. Horace Grant.

Dublin, Ga.—W. F. Walker will erect brick-veneer residence after plans being prepared by Architect P. E. Dennis, Macon, Ga.; slate roof; cost \$8,000.

Fort Valley, Ga.—Plans are being prepared for residence to be erected by John H. Baird.

Kingstree, S. C.—Bungalow will be erected by Charles H. Singleton; brick veneer; hardwood floors; tile porches.

Laurel, Miss.—Residence will be erected by J. B. Bridges.

Macon, Ga.—G. T. Kinnett has revised plans by Architect Curran R. Ellis, Macon, for residence to be erected at Rivoli, and will award construction contract in about a week; brick veneer; tile roof; hot-water heat; cost \$15,000.

Macon, Ga.—Architect Curran R. Ellis is preparing plans for bungalow for Davenport Guerry, to be erected near Rivoli; brick; composition roof; cost \$4,000.

Marshallville, Ga.—Bids are now being taken for erecting one-story brick veneer dwelling for Mrs. W. P. Phillips after plans by Architect Curran R. Ellis, Ellis Bldg., Macon, Ga.; tile roof; seven rooms.

Tire Co., Akron, Ohio, will erect residence on island of twelve acres, eighteen miles from here; grounds will be beautiful; seawall will be constructed; cost will be \$500,000 to \$1,000,000, it is stated.

Miami, Fla.—Amy J. Diggs has permit to erect residence in Coral Park; frame; \$5,000.

Miami, Fla.—Residences will be erected by Ben Coraft; concrete block; \$5,000; permit issued.

Miami, Fla.—Roy Morrison will erect residence; two stories; frame; \$2,500; permit issued.

Miami, Fla.—C. F. Goodman has permit to erect frame bungalow to cost \$3,000.

Miami, Fla.—Lucile E. Wittig will erect residence to cost \$1,500; permit issued.

Montgomery, Ala.—Miss A. Chandler has permit to remodel residence at cost of \$2,000.

Perry, Ga.—Architect Curran R. Ellis, Macon, Ga., has prepared plans for \$4,000 frame residence for C. E. Brunson; contract not yet let.

Roanoke, Ala.—Residence will be erected by Raymond L. Hodges.

Rock Hill, S. C.—Architect N. G. Walker, this city, is preparing plans for twelve residences to be erected by Hamiltan Carhartt Mill at Carhartt Station, between Rock Hill and Fort Mill; bath-rooms; electric lighting.

Rome, Ga.—Bids are wanted for erection of residence for John C. Glover.

Rome, Ga.—B. S. Fahy will erect residence.

Rome, Ga.—Residence will be erected in East Rome by William G. McWilliams.

Rome, Ga.—Mrs. Ben C. Yancey will erect residence.

Rome, Ga.—Bungalow will be erected by Dr. A. W. Van Hoose for occupancy of faculty of Shorter College.

Savannah, Ga.—Estate of W. L. Exley will erect two one-story, frame residences; permit issued.

Savannah, Ga.—Geo. S. Clark has permit to erect one-story, frame bungalow.

### Schools and Colleges.

Birmingham, Ala.—Board of education of Jefferson accepted plans for school building to be erected in Maxine district; four rooms; \$6,000 to \$7,000; board has asked for proposals of location and for plans for high school building which it is proposed to erect in Little Warrior district at cost of \$35,000. The Secretary.

Huntsville, Ala.—Board of education of Madison county contemplates erecting additional school buildings, five buildings that will aggregate cost of \$100,000 now being in course of construction. The Secretary.

Isola, Miss.—Bids will be received until July 8 by O. T. Eddlemon and others, trustees for Isola consolidated high school district, for erection of school building, \$30,000; plans by Architect N. W. Overstreet, Jackson, Miss.

Laurel, Miss.—Issuance of \$34,000 of municipal bonds for extending sewers and waterworks system and constructing additional paving was voted. The Mayor.

Leslie, Ga.—Architects Edwards, Sayward & Leitner, Atlanta, Ga., will prepare plans for school building to be erected by newly-created school district of Leslie; about \$30,000. Superintendent of Education of Sumter county, Americus, Ga.

Quincy, Fla.—Plans for high school building to be erected by Gadsden county have been received. Secretary, county board of public instruction.

Tampa, Fla.—Site has been selected in Ybor City for school building to be erected with part of proceeds of school building bond issue of \$155,000 voted recently. Secretary, board of public instruction of Hillsborough county.

Wilmington, S. C.—Bids will be received until July 8 by J. M. Nickles, chairman of board of trustees of De la Howe Industrial school for erecting school building; two stories and basement; reinforced concrete construction.



\$60,000; copies of plans may be obtained from the architect, G. Lloyd Preacher, Augusta and Atlanta, Ga.

Lowell, Ala.—Board of Education will erect school; 1 story; 59 x 178 feet; brick; steam heat; S. L. Peavy, Principal.

Blackton, Ark.—Board of Education will erect school; J. P. Almand, architect, Boyle Bldg., Little Rock.

Leachville, Ark.—Board of Education will erect school; Mitchell Seligman and G. A. Edelsvard, architects, Citizens' Bank Bldg., Blytheville, Ark.

Luxora, Ark.—Board of Education, R. M. Forbes, president, receives bids until July 8 to erect annex to school; 42 x 89 feet and 34 x 42 feet; 3 stories; concrete foundation; brick walls; slate roof; wood floors; electric lighting; cost \$30,000; steam heat, \$4,000; plans and specifications from E. M. Weems, architect, Paragould, Ark.

Barberville, Fla.—Volusia County Board of Public Instruction, De Land, Fla., will erect central high school.

Crescent City, Fla.—Crescent City school district is considering bond issue to erect school; 1 story; brick; 6 rooms; auditorium to seat 500; cost \$35,000; Roy A. Benjamin, architect, Jacksonville; County School Superintendent, Palatka, Fla.

Jacksonville, Fla.—Duval county votes \$325,000 bonds to erect schools. Address Board of Education.

Lake Charles, La.—City School Board, Jas. N. Yaeger, superintendent, probably lets contract about July 20 to erect 2 buildings; brick; composition roof; wood floors; cost, including heating and lighting, \$125,000; Phillips & McCook, architects. Address J. W. Martin.

Vernon, Fla.—Board of Public Instruction, J. H. Varum, superintendent, receives bids until July 7 to erect 2-story school; bids on both brick and frame structures; plans and specifications at office of S. J. Walsh, architect, Pensacola, Fla., and office W. T. Laney, Chairman Board of Public Instruction.

Fitzgerald, Ga.—Ben Hill County Board of Education, J. H. Bullard, superintendent, will erect high school.

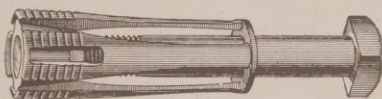
Milledgeville, Ga.—City voted \$47,000 bonds to erect school and \$93,000 bonds for waterworks. Address The Mayor.

Savannah, Ga.—Board of Education is considering erecting school in Chatham Crescent; cost \$75,000 to \$100,000.

Corinth, Miss.—City will erect school; 196-foot front; 3 stories; 30 or 32 rooms; auditorium to seat 1,000; cost \$75,000; R. A. Heavener, architect, Jackson, Tenn.; M. E. Moffit, Superintendent of Schools.

Doddsville, Miss.—Board of Education will erect training school for negro teachers; cost \$15,000.

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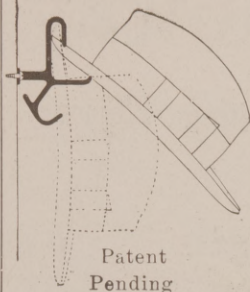
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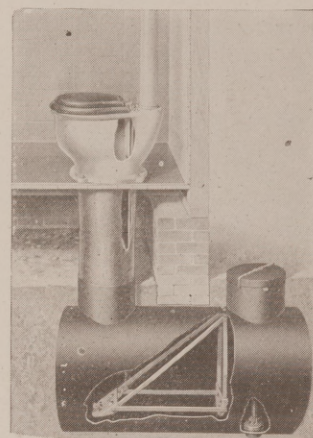
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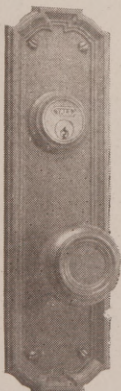
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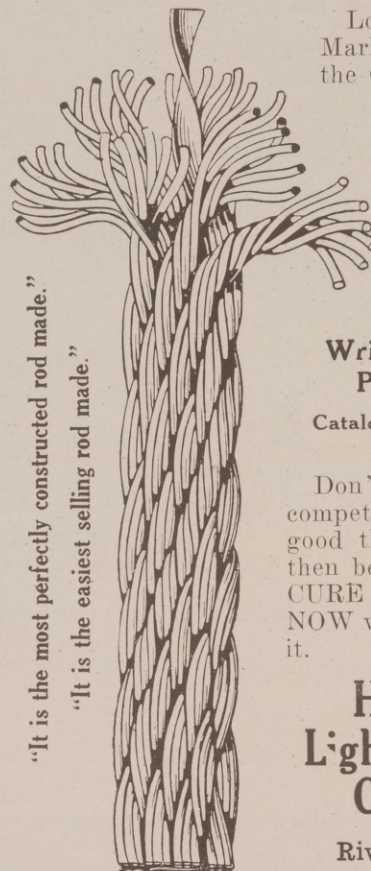
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*Mottled Purple*

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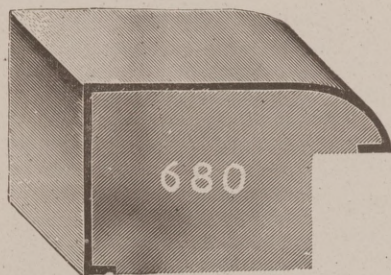
*Rustic Grey*

## Old English Slate Quarries

201 Devonshire Street

Boston, Mass.

## METAL COVERED WOOD AND SHELL MOULDINGS OF EVERY DESCRIPTION



Oxidized Copper, Statuary Copper, Nickel Silver, Copper, Brass, Bronze, Aluminum and Steel

Special Mouldings, Cases and Frames Made to Order.

*Quick Service. Write for Prices.*

## Chicago Metal Covering Co.

2833-2841 W. Lake St.,

CHICAGO

*for*  
**Stores, Offices  
and Homes**

# Hopson Metal Ceilings and Sides

The right ceiling—a problem that often confronts you. Solve it with Hopson Metal Ceilings. Easy and economical to install—and unexcelled for handsome effect.

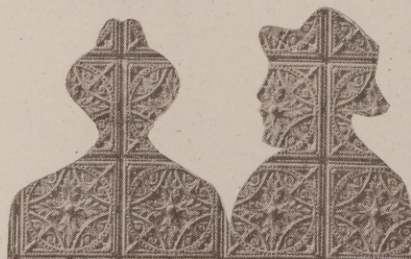
Our new line of steel ceilings is original in design and decorative to a degree never before attained. The requirements of the builder as well as the preferences of the owner have been skillfully embodied in our products.

Our catalogue—loaded with beautiful illustrations—shows what we have to offer. We hope you will Write for a Copy Today

**W. C. HOPSON CO.**

522 Ellsworth Ave.

Grand Rapids, Michigan







A STIPPLED Texture  
That Lends Artistic Effect.

## Stippled Brick

"DORIC" and "GOTHIC" shades of Stippled Texture Brick have an unusually beautiful surface lending itself to softness of color and producing an effect that is unmistakably distinctive.

This new face brick will satisfy the most exacting architect and his clientele and can be furnished in almost any shade you fancy.

In using it you are combining surface-texture with color-tone. Artistic and exceedingly practical. Has all the advantages of mechanically perfect press brick and none of the disadvantages.

Let us send you a set of four representative samples.

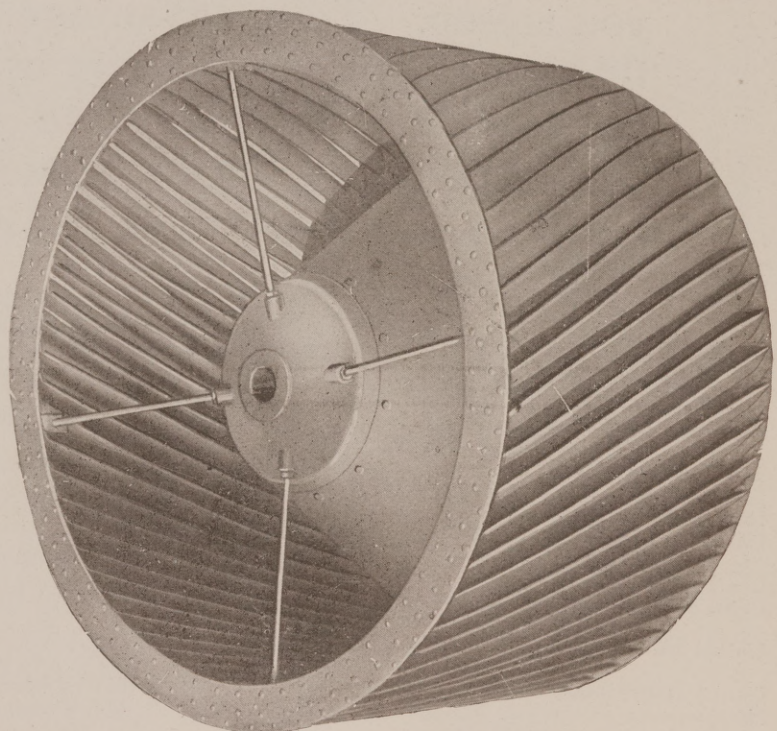
We would like to have your candid opinion of them and you will be under no obligation.

### Western Brick Co.

DANVILLE, ILL.

Capacity 100,000,000 Brick Annually.  
Also Western Hollow Building Tile.

Our  
Seri-Vane  
Fans and Steam  
Engines  
are  
"Built Right"  
and  
"Run Right"



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Main Office: 602 S. Dearborn Street, CHICAGO, ILL.

Works: BUCYRUS, OHIO

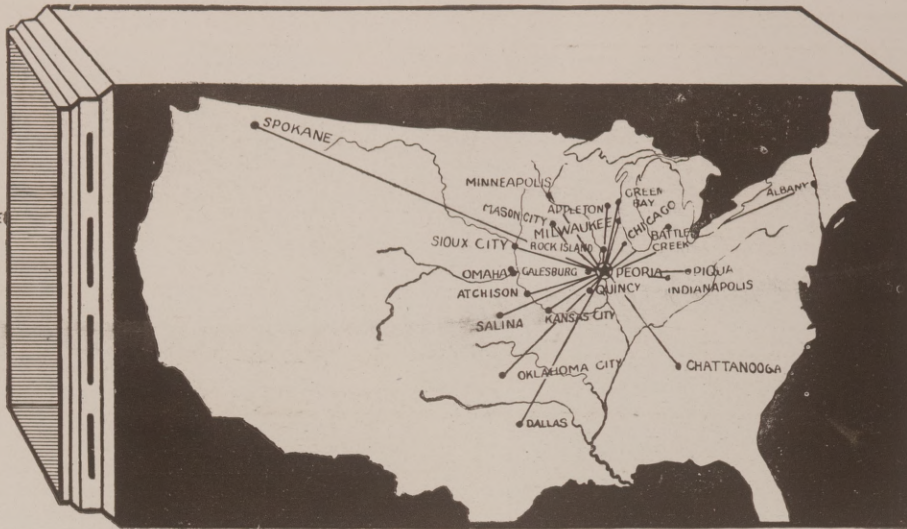
846 Leader-News Bldg.  
Cleveland, O.

303 B. F. Jones Bldg.,  
Pittsburgh, Pa.

502 Plymouth Bldg.,  
Minneapolis, Minn.

629 Nicholas Bldg.,  
Toledo, O.





## The Building Business is On the Jump All Over the Country

Reports from every section are exhilarating. Both city and country construction is making a hard effort to make up the time lost the last two years and to catch up with the demand for home and business structures.

**Don't let this wave of new business catch you asleep. Take advantage of it and post this map and list of jobbers of "handy" pipe up where you can refer to it. Some day you're going to need "Handy" Pipe---and you'll want it quick from the nearest jobber.**

### ILLINOIS

Clark-Smith Hardware Co. ....VPeoria  
Isaac Walker Hardware Co. ....Peoria  
Rock Island Register Co. ....Rock Island  
Willis Manufacturing Co. ....Galesburg  
C. H. Wurst Co. ....Quincy  
Robinson Furnace Co. ....Chicago

### INDIANA

Standard Metal Co. ....Indianapolis

### IOWA

Hunt & Schuetz Co. ....Sioux City  
Hawkeye Supply Co. ....Mason City

### KANSAS

Lee Hardware Co. ....Salina  
Blish, Mize & Silliman Hardware Co. ....Atkinson

### MICHIGAN

United States Register Co. ....Battle Creek

### MINNESOTA

United States Register Co. ....Minneapolis  
Northwestern Furnace & Supply Co. ....Minneapolis

### MISSOURI

United States Register Co. ....Kansas City  
The Meyer Furnace & Supply Co.,  
.....1306-8 W. 8th St., Kansas City  
The Security Stove & Mfg. Co. ....Kansas City

### NEBRASKA

Standard Furnace & Supply Co. ....Omaha

### NEW YORK

United States Register Co. ....Albany

### OKLAHOMA

G. E. Blockie Heating Co. ....Oklahoma City

### TENNESSEE

Chattanooga Roofing & Supply Co. ....Chattanooga

### TEXAS

Moncrief Furnace & Mfg. Co. ....Dallas

### WASHINGTON

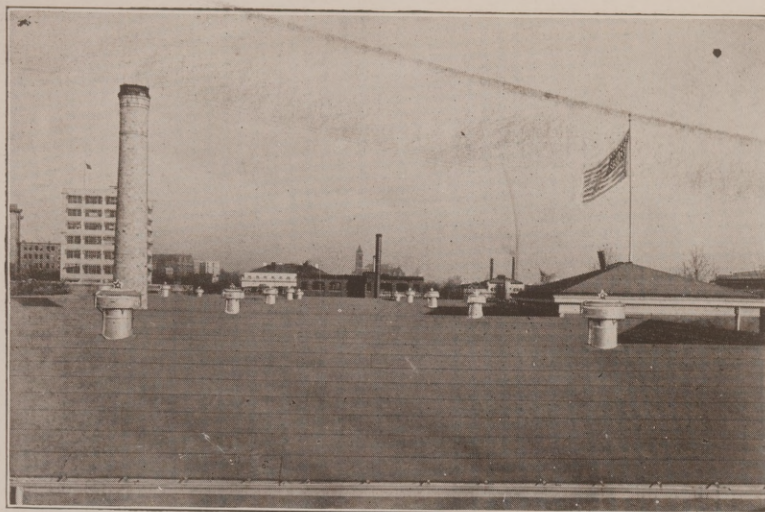
Holley-Mason Hardware Co. ....Spokane

### WISCONSIN

Morley-Murphy Hardware Co. ....Green Bay  
The Dunning Heating Supply Co. ....Milwaukee

**F. MEYER & BRO. COMPANY**  
**PEORIA** **ILLINOIS**





"Star" Ventilators on the roof of the Food Administration Building No. 2  
Washington, D. C.

## Pure Air Increases Efficiency

PROPER ventilation is a requisite of good business. More and better work results when the health of the workers is considered as of utmost importance.

## The "Star" Ventilator

(Patented)

was adopted by the U. S. Government as its War Standard for cantonments and other important buildings, on account of its High Efficiency and Simplicity of Construction.

The "Star" ventilates according to the natural law and is very economical, as it contains no parts that get out of order. Furthermore, you will secure more air exhaust, per dollar invested in the "Star" than with any other type of ventilator.

We also manufacture Evans "ALMETL" Fire Doors and Shutters (Underwriters' Approved), Metal Tiles and Shingles, all approved by the U. S. Government and High Grade Roofing Tin.



The "Star" Ventilator  
with a base

Important! Mark your inquiry for Dept. 22.

# MERCHANT & EVANS Co

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CHICAGO

ATLANTA

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**GEORGIAN TERRACE HOTEL and PONCE DE LEON APARTMENTS, ATLANTA, GA.**  
 These are plastered throughout with Cherokee Cement Plaster. Sold by Agents everywhere in Georgia and throughout the Southern States.

**SCIPLE SONS, Exclusive Agents for Atlanta.**

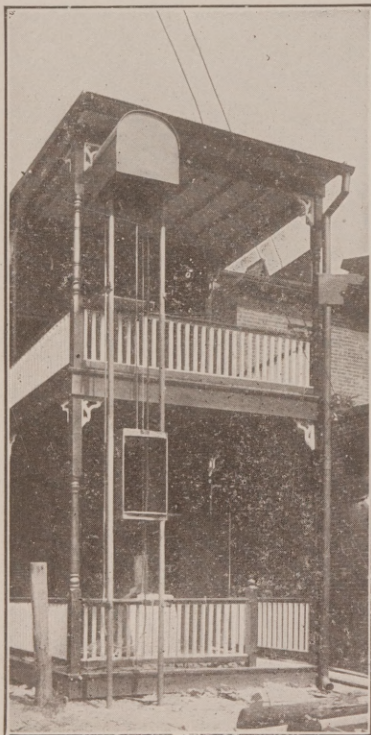
Manufactured by

**Southern Gypsum Co., Inc., North Holston, Va.**



**STANDARD ELECTRIC & ELEV. CO. INC. BALTIMORE**

118 E. Pratt Street



## **DUMB WAITERS BUILT TO LAST**

Fire-Proof—Steel Tube Construction—for Indoor or Outdoor.

STANDARDized construction permits Prompt Delivery and Quick Erection.

*Write for Prices.*

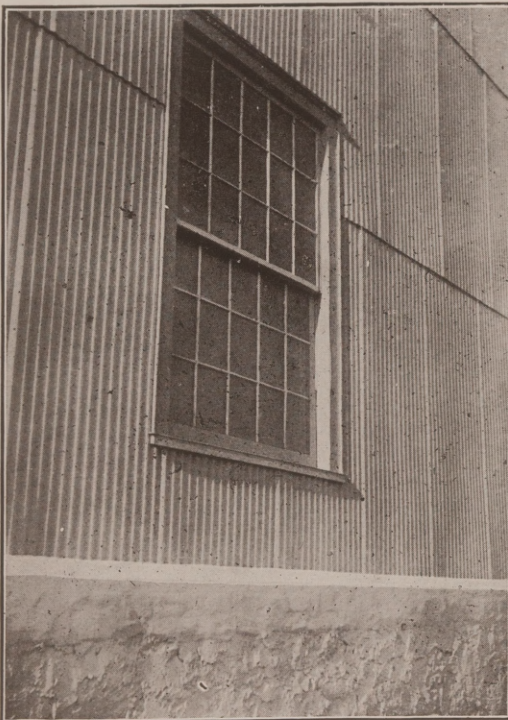


**AMBLER ASBESTOS BUILDING PRODUCTS**

# Ambler Asbestos Corrugated Roofing



Applying Ambler Asbestos Corrugated Roofing on Steel Structure



Ambler Asbestos Corrugated Siding, showing method of fitting around windows  
Window frame constructed of Ambler Asbestos Building Lumber

## Ambler Asbestos Corrugated Roofing and Siding

Hydraulic Cement  
Reinforced by Asbestos Fibre

Waterproof      Everlasting      Fireproof

MANUFACTURED BY THE

## Asbestos Shingle, Slate & Sheathing Company

AMBLER, PENNA.

FACTORS

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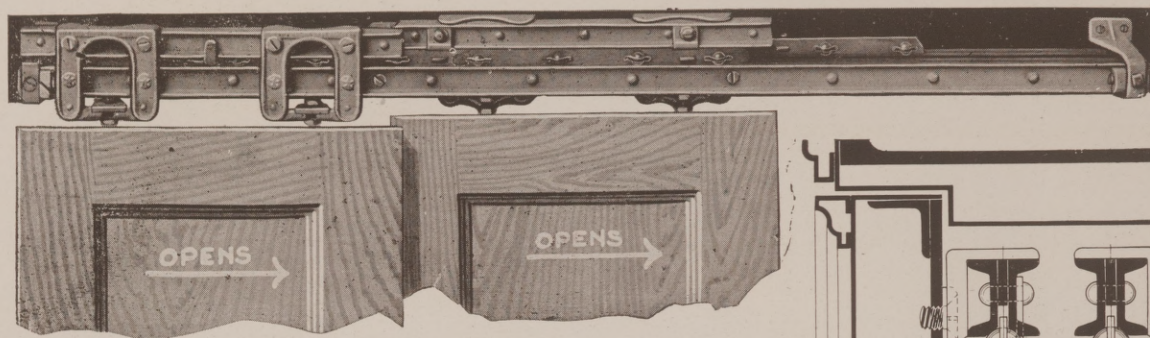
AMBLER, PENNA.

Asbestos Shingles (Century Brand)  
Asbestos Building Lumber and  
Asbestos Corrugated Roofing and Siding.



# WAGNER-STAR ELEVATOR DOOR EQUIPMENT

For Hotels, Office Buildings, Apartments, Clubs, Stores,  
Factories, Hospitals



**WAGNER-STAR BALL BEARING ELEVATOR DOOR HANGERS** have many noteworthy advantages including the following:

**Self-Cleaning Track**—Made of two 1½-in. structural steel channels milled smoothly on top to receive ball bearings.

**Large Bearings**—Bearing consists of a single row of solid steel balls ⅝-in. in diameter, which are held at equal distances from each other by a steel ball retainer fitted into the grooved track, so that the action is entirely ball bearing.

**Noiseless**—The open track used in Wagner-Star hangers positively eliminates noise, in addition to preventing the accumulation of dirt, which in time would cause the doors to stick, and would at all times cause undue wear on the bearings.

**Direct Application of Load**—Weight of doors is applied directly in a vertical plane to ball bearings and track. A notable feature of construction is the continuous bearing of Hanger Track Bar on the balls for its full length at all points of movement.

**Easy Adjustment**—Doors can be raised or lowered at any time by simply loosening nut and turning pendant bolt.

## FOR ALL TYPES OF DOORS

Wagner-Star Hangers are made for all standard types of single, two-speed, and center-parting doors. Hangers consist of upper and lower grooved steel tracks with large solid steel balls running between. Hangers and track are assembled as one unit.

## THE TWO-SPEED HANGER ILLUSTRATED ABOVE

has no racks, gears, lazy tongs, or levers. These parts, with their expensive maintenance, noisy operation and their unsightly appearance, are eliminated. The ball retainer of the fast door is connected with the hanger of the slow door by a malleable casting. Since the ball retainer moves at half speed of the door, it follows that the slow door will move at half the speed of the fast door, as the slow door is connected with the ball retainer of the fast door. Nothing is simpler; action is positive; both doors move at the same time, one at twice the speed of the other.

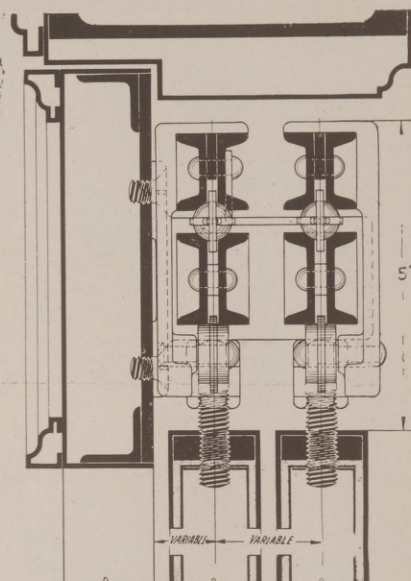
SEND FOR CATALOG 17

showing complete line of Wagner Elevator Door Equipment.

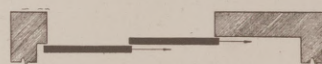
# WAGNER MFG. COMPANY

## CEDAR FALLS, IOWA, U. S. A.

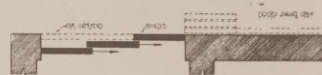
Manufacturers of Elevator Door Equipment, Door Hangers and Tracks for every purpose, Fire Door Fixtures and Overhead Trolley Carrier Systems.



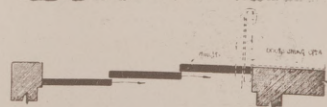
Cross Section of Hanger for Two-Speed Doors. ¼ actual size.



Plan of Two-Speed Doors Equipped with Types 200, 201, or 202 Hangers.



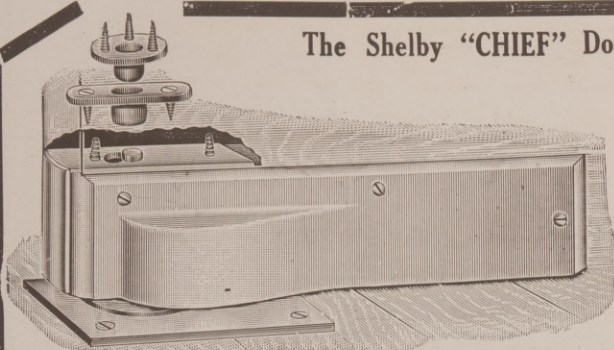
Plan of Combination Slide and Swing Two-Speed Doors Equipped with Types 200, 201 or 202 Hangers.



Plan of Combination Slide and Swing Two-Speed Doors Equipped with Types 210 and 211 Hangers.



## The Shelby "CHIEF" Double-Acting Ball-Bearing Surface Floor Hinge With Improved Pivot and Socket.



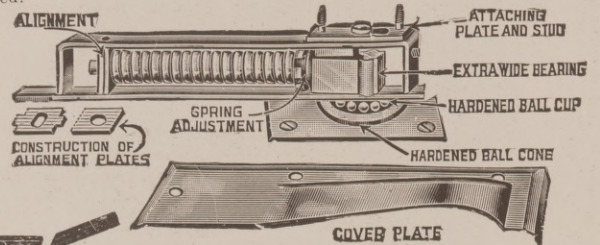
Ask for our new No. 18 catalog just off the press, illustrating over 250 articles of builders' hardware.

**The Shelby Spring Hinge Co.**

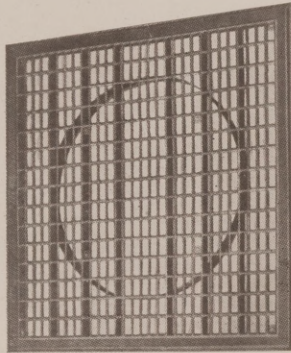
SHELBY, OHIO.

Installation of pivot and socket greatly simplified.  
Bore a  $1\frac{1}{2}$  inch hole  $\frac{1}{8}$  inch deep in top jamb for rim of pivot and  $\frac{1}{8}$  inch hole in top of door to receive the socket. Secure with wood screws, allowing the thickness of metal of socket for clearance between door and top jamb.

The difficult operation of mortising for pivot and socket entirely eliminated.



## "H & C" No. 260 GRATINGS FOR PIPELESS FURNACES



FRONT VIEW  
CLASS 260

Made to meet the conditions as they obtain in the installation of a one pipe furnace.

Strong, Durable.

Face is readily detached from frame.

Do you wish to learn of a line of Registers for Warm Air Heating, Ventilators and Grilles which for beauty of design, durability of finish and strength are not excelled? Then write

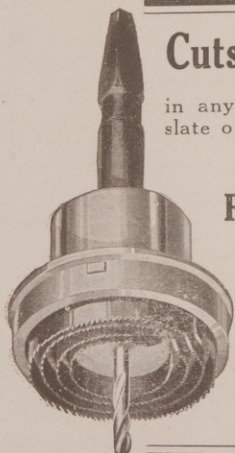
For Catalogue 16-S

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Branch Offices and Warehouses:

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## Cuts Perfect Round Holes

in anything—metal, marble, plaster, tile, slate or fibre, as easy as in wood.

## Misener Expanding Rotary Hack Saw

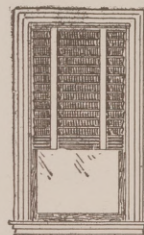
is the most satisfactory tool of its kind on the market. It is light, portable and should be in every tool kit.

Prices reasonable.  
Write for circulars.

**BARNE & IRVING, INC.**

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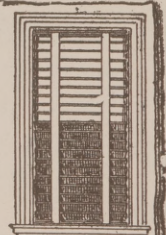
New York Office: - 50 Church St.



## Light & Air

may be admitted at  
any part of the win-  
dow if you use

## Burlington



## Venetian or Sliding Blinds

Write for Catalogue

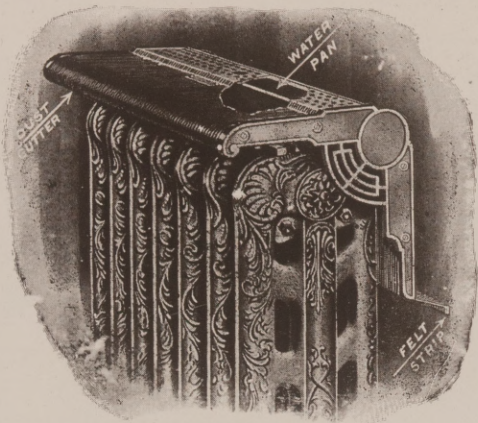
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SCREENS.  
for Windows and Doors

Burlington, Vt.



Appeals to Every Home Owner  
No Radiator installation is complete without the  
**Acme Radiator Shield**



Prevents walls and ceilings from being soiled by catching and retaining the dust circulated by radiator.

A new and novel feature is the invisible copper water pan set in top of shield over hottest part of radiator for supplying moisture to the air.

You can make an additional profit on your steam and hot water jobs by including the ACME Shield. Use on old as well as new work.

Made in plain or ornamental designs to meet every demand. Acme Radiator Shields are made both with and without water pan.

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**W. H. Johnson & Son Co.**

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We also build shields for hot air registers.

**The Big—  
Extremely Profitable—  
Coming Business**

for the south is silo manufacturing and building. Diversified farming is coming in the South. That means stock raising—corn growing and silos—thousands of them. You contractors and builders, this is your chance for big business—big profits and large opportunities. Make and build the **STONECAST** Concrete Silos. Get the territorial building rights.

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Climax Stoves,  
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All the best and all alike.

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A. Tillman Jones, Nashville, Tenn.	H. W. Cowles Eustus Lake, Fla.
	Lakeworth Mercantile Co., West Palm Beach, Fla.

and in every City, Village, Town and Cross-Roads of the United States.  
Send for Catalogue to

**THE TAPLIN-RICE-CLERKIN CO., Akron, Ohio**

"The exclusive Furnace, Stove and Range Folks of Akron and everywhere."

**Alabama Hewn Oak Timber.**

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**THE S. K. TAYLOR LUMBER  
COMPANY**  
MOBILE, ALABAMA

**POTTRY TILE AND BRICK**

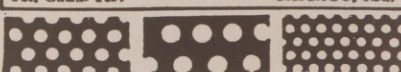
Made from scrap whiskey jugs and shale.  
80 STOCK SHAPES IN THREE DIFFERENT TEXTURES.  
Write for samples and cuts of artistic fireplaces.

**B. MIFFLIN HOOD BRICK COMPANY**

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Builders appreciate French

### Quality First

Standard Colorings  
for Interior and Ex-  
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Special Architectural  
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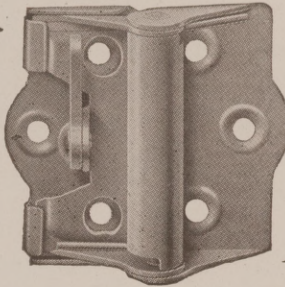
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## JIFFY →

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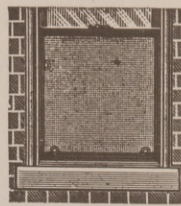


Ask Your Dealer to Show You a JIFFY HINGE

They are inexpensive, made in a variety of finishes and are sure to make a neat, satisfactory job. If your dealer cannot supply you, write for samples and prices.

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## Baker Improved Metal Frame Window Screen

Patented July 9, 1901.

The Very Latest and Best.

**STRONG, DURABLE, NEAT,  
ABSOLUTELY PERFECT**

Southern Agents:

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The Strongest and Most Economical in the Market. One-half the amount of our Mortar Colors will do the work of any others, and they are unsurpassed in strength, fineness and body.

Write for samples and quotations. We manufacture a superior grade of Red Oxide of Iron Paint for Railroad Cars, Bridges, Barns, Fences, Etc.

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Manufacturers of

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## Koll's Patent Lock-Joint Stave Wood Columns.

For Exterior and Interior Use.

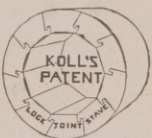
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Contractors' and Building Castings, Machinery and Material, Steel Beams, Girders, House Front Columns, Lintels and Plates, Engines, Hoist Rigs, Rope and Chain Blocks, Wire Rope, Boilers for Heating Buildings, Window Weights, etc., etc.

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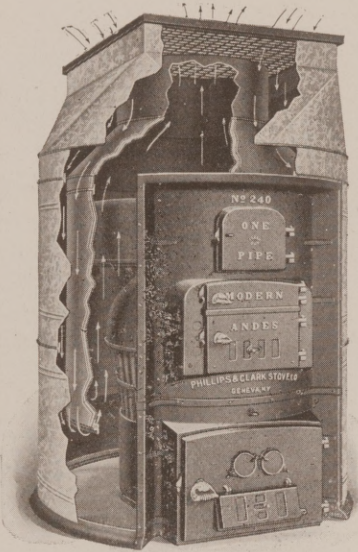
Capacity for 300 hands.

**Augusta, Ga.**



# ANDES CHEAPEST TO INSTALL

## SYSTEM One Pipe Furnace



One of our dealers who has tried 5 different makes told us so and now uses ANDES exclusively. A large contractor offered us \$10 per furnace higher than our competitors for the same reason.

It is cheapest because it takes less men, less effort and less time, but the real value is in the greater durability, and freedom from gas leakage that results from a perfectly made and fitted furnace.

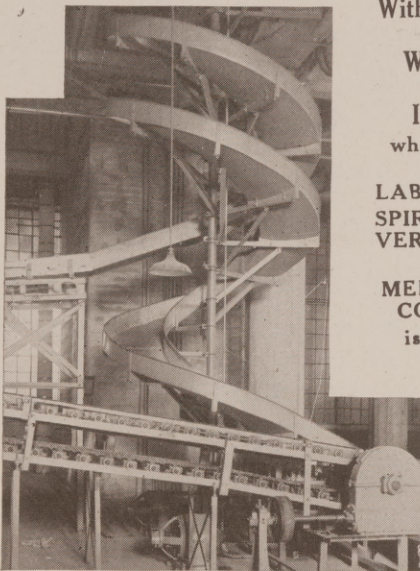
The Andes System offers unique talking points; points that appeal to the consumer, such as health, cleanliness and cheap heat.

Write for our free booklet, "Better Heating for Less Money" and for agency proposition.

**Phillips & Clark Stove Company, Inc.**

Established 1868.

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With Help Scarce  
AND  
Wages High  
NOW  
Is the Time  
when the need  
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LABOR - SAVING  
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AND  
MERCHANDISE  
CONVEYORS  
is imperative

We are  
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builders or  
direct with  
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When no standard form of conveyor is adequate, we design special machines.

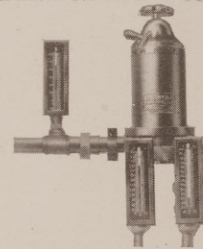
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**The Haslett Spiral Chute Co.**

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253 Calvert Bldg.  
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A WATER TEMPERATURE MIXING VALVE THAT IS CONTROLLED WITH A SOLID METAL THERMOSTAT CAN BE RELIED UPON TO PREDETERMINE AND MAINTAIN TEMPERATURES ACCURATELY AFTER YEARS OF SERVICE. THE "LEONARD" MIXING VALVE IS THAT KIND OF A VALVE.

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Rolling Ladders	Hardware Specialties

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ELMCO Handy Rafter Markers answer your need for a small building job on your farm or anywhere.



You don't need an expert to mark out your rafters. With a set of ELMCO markers your twelve year old

boy can mark out your rafters to fit.

### The ELMCO Handy Rafter Markers

(Patent Applied For)

Give you every angle and length you want for the ordinary small farm building. You only need a pencil and this set of markers to lay out your rafters the correct length—at any pitch you want. Saves

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Only \$1.00 per Set sent parcel post paid.

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## To Designers and Builders of Concrete Ships and Barges

We offer you the services of an efficient organization, that is prepared to execute contracts for Air-Brush Spraying, Waterproofing or Sand Blasting concrete, wood or steel work. If contractor wishes to use his own organization, materials will be furnished with instructions.

By our new process, we waterproof **anything**, from a silk handkerchief to a concrete ship. **We have just completed the coating of the first concrete ship built by the Emergency Fleet Corporation.**

Estimates gladly furnished on basis of total cost per square foot per coat. Send us drawings or blue prints, or better still, write and our engineers will call and take up any problem calling for Speed, Economy and Durability.

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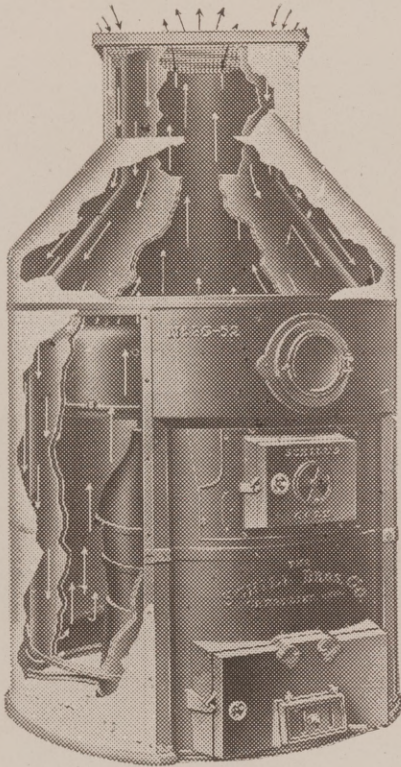
280 Madison Avenue, New York.

*"Our proof is waterproof—what's yours?"*



# Schill's Cozy Pipeless Furnace

*There are 8 good reasons why you should buy this furnace*

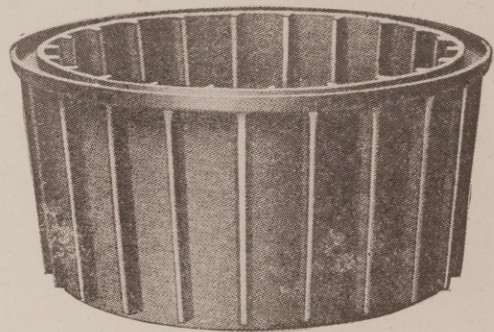


- 1st.—Base of "Cozy" is molded in one piece making it easy to level.
- 2nd—Grate bars of "Cozy" are triangular and so simply arranged that any one of the four can be removed without drawing fire.
- 3rd—Fire pot is of HEAVY DOUBLE RIBBED TYPE and GUARANTEED for 5 years.
- 4th.—Radiator of "Cozy" is very heavy and set in deep cups which insures it against escaping gas.
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- 6th—All inside insulations are of heavy gauge iron and so arranged that it is impossible for hot air to penetrate the cold air trace.
- 7th—Ash and feed doors very large.
- 8th—Our Cozy is in thousands of homes of satisfied users.

Furnaces are furnished with either double fire pots or one-piece ribbed fire pots, as shown.

*We offer for agents who are willing to go after the business a remarkable opportunity and will, at all times, protect your territory.*

Ask for our proposition and literature before considering the Agency for another.

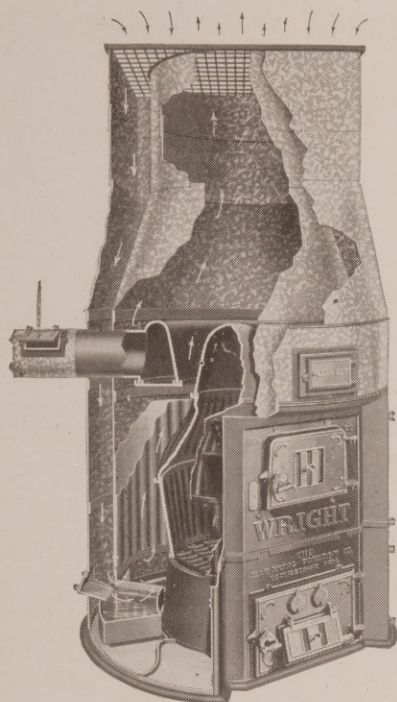


## The Schill Bros. Company

**CRESTLINE, OHIO.**

J. H. Taylor, Reistertown, Md., Eastern Sales Manager.





**EXTRA LARGE GRILLS  
TRIPLE INNER LINING  
SPECIAL HUMIDIFIER**

# The New Way Pipeless Furnace

No walls to cut. No pipes to run. No dirt. More heat. 35% less coal. Easy to install. No heat in basement. Thousands in operation and giving satisfaction. No danger of dealer losing profits by underestimating the amount of labor and material required, as furnace is shipped complete except smoke pipe.

Our Agency Proposition offers unlimited possibilities and big profits. Reserve your territory now.

**The Mahoning Foundry Company**

Youngstown, Ohio



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is a simplified heating system that combines efficiency, economy, ease of operation and installation. It is especially desirable because of its eliminating numerous warm air pipes in the basement and within the partition walls, and the special cold air duct, combining the whole system into a DUPLEX CASING AND REGISTER directly over it, that provides a cold air intake and warm air discharge, eliminating all friction and loss of heat, thus saving a considerable amount of fuel and delivering a maximum amount of heat.

SIMPLEX PIPELESS FURNACES can be installed in either old or new houses and with our directions, need no previous installation experience. PIPELESS FURNACES will increase the pleasures of life and rob the winter of its terrors.

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**The Wise Furnace Company**

Akron, Ohio

The Largest Exclusive Furnace Manufacturers in the United States.





"A Northwestern Ohio Finishing Hydrate"

Let's solve this Hydrate problem right now. Make certain of getting a fine, pure white, easy working and regular product by ordering

## MONARCH

We guarantee every pound.  
Write today for prices and information.

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PRODUCERS OF

## Imperial Gray Marble

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Send Plans for Estimates.

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Eternal Writing Ink  
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Drawing Board Paste  
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ARE THE FINEST AND BEST GOODS  
OF THEIR KIND.

Emancipate yourself from the use of corrosive and ill-smelling ink and adhesives and adopt the Higgins Inks and Adhesives. They will be a revelation to you, they are so sweet, clean, well put up, and withal so efficient.

AT DEALERS GENERALLY

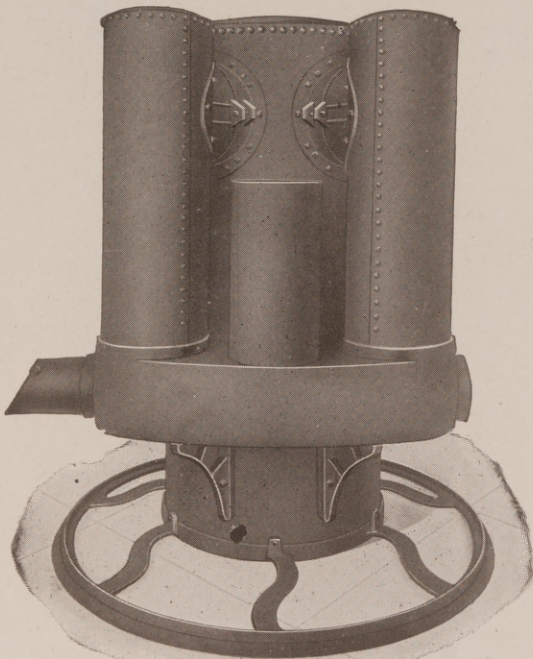
CHAS. M. HIGGINS & CO., Mfrs.,

271 Ninth St., BROOKLYN, N. Y. Branches: Chicago, London

# Back of the

# FRONT RANK

TRADE NAME REGISTERED



Back of the **FRONT RANK** Warm Air Furnace is 29 years of integrity, fair dealing, and thorough, conscientious attention to the warm air furnace business.

The back of the **FRONT RANK** Furnace tells the story---no other furnace has a larger fire travel---the radiators are of heavy steel, securely riveted and absolutely gas tight. There are other important features that make it advisable for you to

Buy the **FRONT RANK**  
For Residence, Church, School or Store

Our latest catalog tells all about the **FRONT RANK** Warm Air Furnaces---ask us to send you a copy. Plans furnished free.

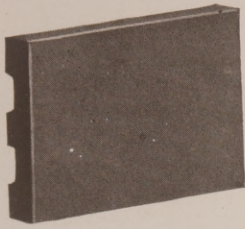


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Saint Louis, Missouri.





## QUARRY TILES For Floors

of Porches, Terraces, Corridors, Kitchens,  
Laundries, Hospitals, Power Houses,  
Waiting Rooms, Etc.

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PARKERSBURG, W. VA.

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## ELEVATORS

FOR

### Passenger and Freight Service

Electric

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Traction

Drum Type

Push Button



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Cellar Hoists

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Dumb Waiters

Elevator Gates

WE MAKE ALL KINDS OF ELEVATORS

ANY SPEED AND CAPACITY DESIRED

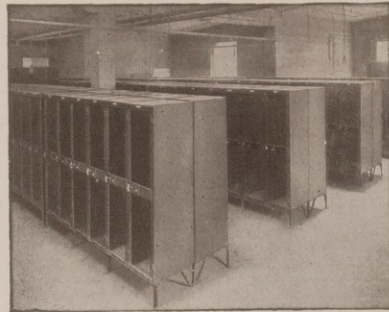
**The Warner Elevator Mfg. Co.**

CINCINNATI, OHIO.

## Metal Lockers

OF EVERY DESCRIPTION

Steel Equipments for Hotels,  
Restaurants, Hospitals, Clubs,  
R. R. Offices, Yachts & Ships



Machine Guards  
Steel Kitchen Shelving  
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Auto Tire Racks  
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STEEL SHELVING

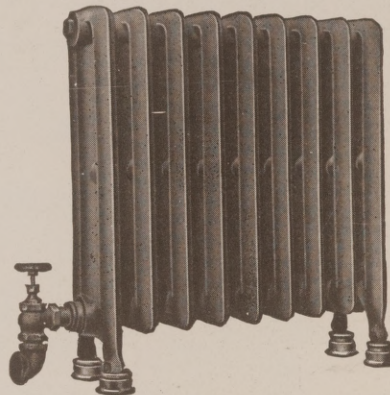
**DEXTER METAL MFG. CO.,**

Successors to Merritt & Co.

CAMDEN, N. J.

Wm. A. Parent, General Manager.

## ADJUSTABLE FOOT



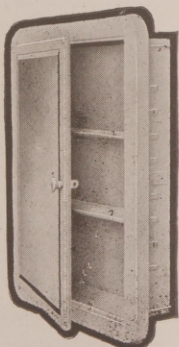
The Jennison Adjustable Foot jacks it up in a jiffy.

Simply the twist of your wrist unscrews it—raises it or lowers it as you desire.

A sample will be sent free upon request. Sold by jobbers.

**Jennison Co.**  
FITCHBURG, MAS

## THE BATHROOM



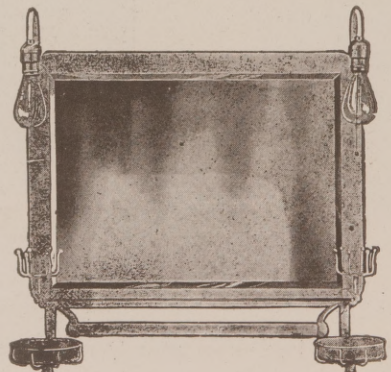
The modern bathrooms of today are not complete without the installation of "White-Steel" sanitary medicine cabinets, mirror fixtures and fittings. Although of the highest quality the cost is no more than that for ordinary equipment. We have supplied "White-Steel" fixtures for thousands of the most prominent apartment house, private residence and hotel projects, among the larger installations being the Hotel Pennsylvania (2500 bathrooms) and the Hotel Commodore (2200 bathrooms), both of New York City.

Send for our Black and White catalog. Our prices will interest you. No obligation.

**"WHITE-STEEL" SANITARY FURNITURE CO.**

Dept. 10.

Grand Rapids, Mich.



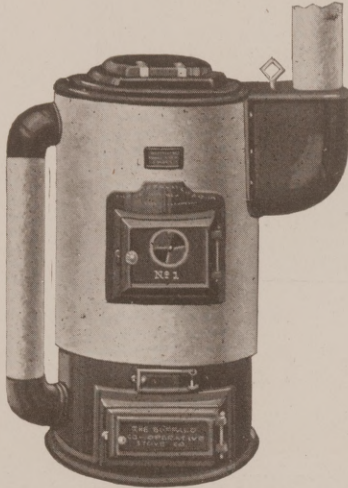


## QUICK TOILET FACILITIES

Ready for use just as soon as placed on the ground or job. No trenches to be dug, no plumbing to be done. Sanitary—Efficient—Economical.

### THE SANOTYPE TOILET INCINERATOR

Requires no fixtures. It is only necessary to make chimney or smoke pipe connection. Simple to install and operate. No chemical required.



Operates with wood, coal, or coke. All refuse and waste is reduced to clean ash.

The Sanotype is used the same as an ordinary water closet. It does not have to be fired until it is filled with refuse. No odor from accumulating waste.

*Catalog giving details free.  
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**Buffalo Co-Operative Stove Co.**

Department 7.  
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## Concrete Roads Are Now Under Construction in Lee County, Mississippi, and Fulton County, Georgia.



There is now under construction in Lee County, Mississippi, connecting Saitillo and Verona, twelve miles of magnificent Concrete Highway. Still another is under construction in Fulton County, Georgia, three miles from

Atlanta. These roads will last for all time, monuments to the Commissions that built them.

Let us send you "Concrete Highways"; it is free. Also "Concrete in the Country," devoted to the use of Portland Cement on the farm.

### DIXIE PORTLAND CEMENT CO.

James Building, Chattanooga, Tenn.  
**CONCRETE FOR PERMANENCE**

The No. 10 Cold Rolled Steel Combination Ceiling and Floor Plate

### B. & C. PLATES



B & C Plates can be put on at the completion of your work and fastened securely thru a simple but positive lock joint. The B & C Catalogue shows the unique construction of our many types and tells the full B & C story. What is your name and address?

The Beaton & Corbin Mfg. Co.  
Southington, Conn.

### COOK & LAURIE GRAVEL COMPANY

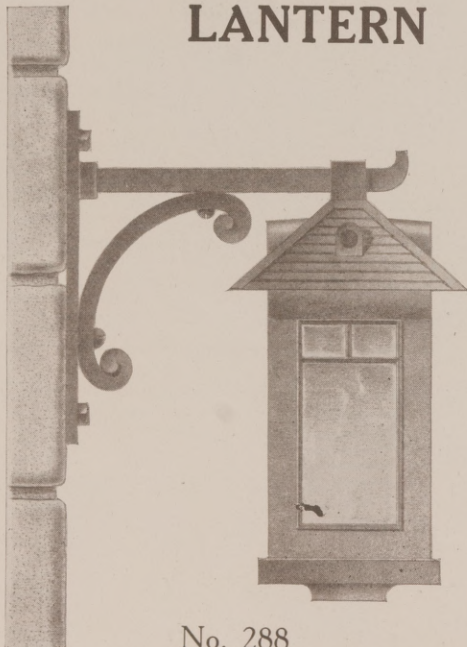
Capacity 15 Cars Per Day

Washed and Screened Gravel and Sand for all purposes. Concrete Gravel, Roofing Gravel, Reinforced Concrete Gravel (thoroughly tested and proved superior to granite in fire resisting qualities), Pea Gravel, Screened Sand, Concrete Sand, Marble Sand (finest for sawing marble). Used throughout Georgia and Alabama. Gravel Pit, Cook's Ala.

9 1/2 Madison Avenue.

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No. 288

Height Over All, 1'-8 1/2"

Scale, 1 1/2" = 1'0"

## SMYSER-ROYER CO.

ORNAMENTAL AND ARCHITECTURAL  
BRONZE AND IRON WORK

SPECIALISTS ON EXTERIOR  
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Write for our several catalogues showing Arts and Crafts Lanterns, Street Lights, Community Posts, Road Signs and Bulletin Boards and Ornamental Standards for Country Estates.

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OUR organization of twenty-five foremost slate quarries in Pennsylvania was satisfactorily tested in rendering urgent service to the Government in its housing needs.

Now our increased facilities are at your disposal. Most standard sizes carried in stock; special sizes made quickly.

But whether you need treads, wainscoting, urinals, closets or other slate units, we can make prompt shipment.

The drafting department gladly offers its help. Or if you send blueprint or other specifications we will make quotation.



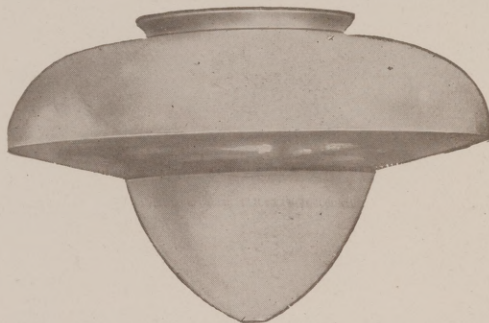
### The Structural Slate Company

*Manufacturing Five Carloads Daily*

Pen Argyl,

Pennsylvania

## PROMPT SHIPMENTS ON ELEVEN EIGHT TWELVE Better Say Express



Patented March 6, 1917

Four sizes: 10x4, 13x6, 16x6, 18x8.

In individual cartons, crated.

The unit without a bad habit.



### THE PHOENIX GLASS CO.

230 Fifth Avenue, New York City  
PITTSBURG CHICAGO BOSTON



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THE POLK SYSTEM JUNIOR machine is a wonderful business getter for concrete contractors. It builds a four-inch-wall monolithic concrete silo in dollar-for-dollar competition with the good grades of the wood-stave types.

In addition, it builds garages, well-houses, corn cribs, water tanks, cisterns, stock tanks, and many other permanent buildings about the farm home.

You can't afford not to know about it. Write.

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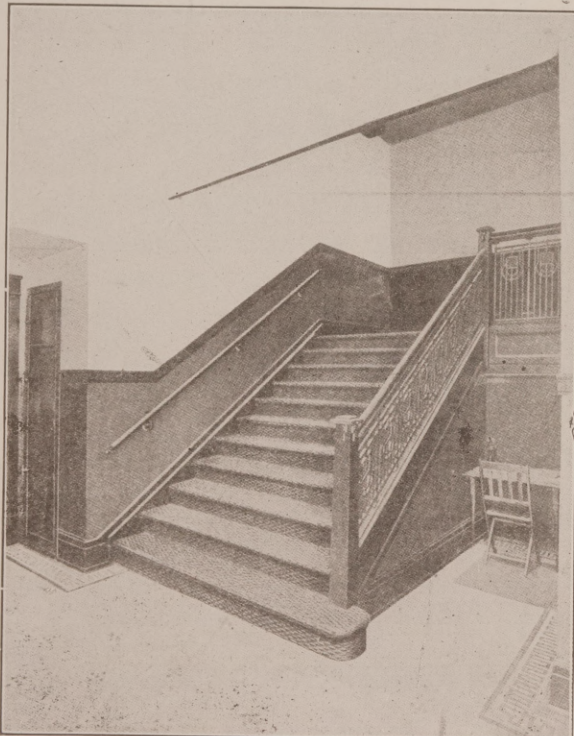
*Manufacturers of all kinds of*  
Sheet Metal Building Products



Send for our 180-page fully illustrated catalog which contains a vast amount of information on sheet metal products. The contractor's best reference book.

**Willis Manufacturing Company**  
GALESBURG, ILLINOIS.

### THE ONLY ONE-PIECE TREAD ON THE MARKET



Main Stairway, Central Medinah Temple, Architects Huehl & Schmid, Chicago.

Manufactured in Four Different Types Exclusively by  
Write Specialty Department **A. M. CASTLE & CO., CHICAGO**

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## FOR EVERY TYPE OF BUILDING

Slates are not only for the homes of the wealthy. They are so economical that the man of limited means saves money by using them on low-priced dwellings.

The first cost is somewhat higher than some other roofing materials—but in the end, slates are the lowest-cost roofing ever known.

They are suitable for every type of roof—whether angular, curving, sloping or flat. Use slates on your next building.



**VENDOR SLATE CO.**  
*Largest Shippers of Roofing Slate in the World*  
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—AND MINING—

### Wall Moulding and Dental Plaster

Its Working Qualities Make It a Favorite  
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MILLS: GLOBE, NEW MEXICO.

## Meyer's Cement and Liquid

For Patching and Repairing Marble, Granite, Slate and  
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Large Stock on Hand.

1 Kilo Can....\$1.50	Barrel Powder, 50 Kilos.\$ .80 per kilo
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We also handle Dugan's invisible Patcher for  
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Tile Department

Perth Amboy, N. J.

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Bright White Glazed Wall  
Tile, Floor Tile---all colors

"QUALITY and SERVICE"

THE REASON

## "PARDEE TILE"

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When in the market for Pipe Railing for Stairs, Bridges or Retaining Walls,  
send us your drawings. We can quote you prices that will be worth considering.

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*Hotel Fort Des Moines  
Des Moines, Iowa*

Our 3-16 inch

## Crystal Sheet Glass

Used in This Building.

*It is lower priced than polished plaster  
and is just as practical*

*Proudfoot, Bird & Rawson, Architects Des Moines*

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Crystal sheet glass is used in a number of prominent buildings.

If you want samples, prices or any information setting forth the advantages of this product, write

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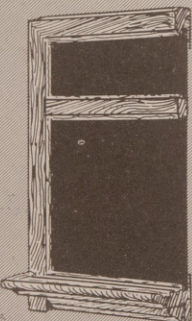
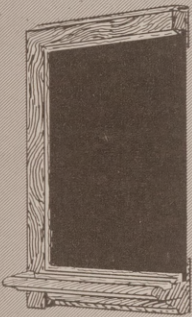
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Mexico, D. F. Mexico—Edificio

Comercial, 5 A Tacuba 76.



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## Perfect Jointing To Fit Exact Spaces

Accurate jointing is of the utmost importance to insure a perfect blackboard job.

Our expert "Jointers" apply the most painstaking care to this exacting work.

Every job must be perfectly true and smooth to conform to our rigid inspection at the mills.

We offer you the active cooperation of thirty-five quarries, mills and our Service Organization.

Send your requirements to us for an estimate.

Service Department

### Natural Slate Blackboard Company

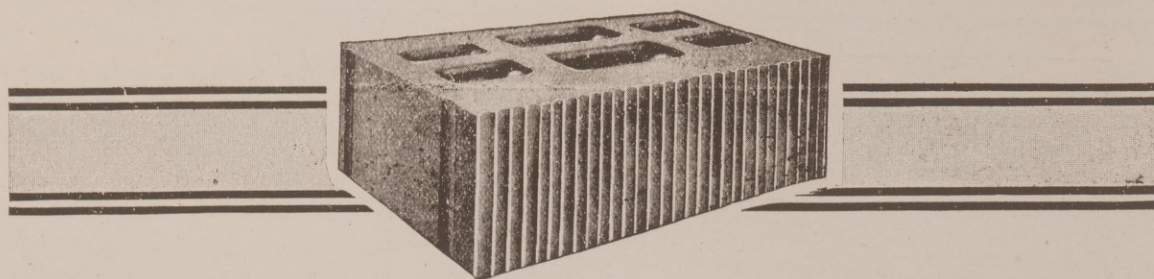
*Representing Thirty-five Quarries and Companies*

**Headquarters: PEN ARGYL, PENNSYLVANIA**

*Mills at Slatington, Wind Gap, Pen Argyl and Bangor.*

# "Absolutely Satisfactory"





# McIntyre <sup>Live</sup> Air-Space Building Tile

*—how you can make them at a profit*

The time for you to establish a McIntyre building tile plant is NOW.

If you wait until next spring you will probably find that some more enterprising chap has already established a McIntyre plant on the very site you had selected.

The demand for building units is going to be enormous. It represents a big opportunity for live men with the right kind of snap.

Here are the advantages of the McIntyre Live Air Space Building Tile as a building material.

It is a light unit and the masons like to lay it.

It being light it does not sacrifice strength. It is dense, strong, waterproof.

It lays up a wall that admits air at the bottom and lets it out at the top under the roof plate. This blanket of live air is a perfect insulator.

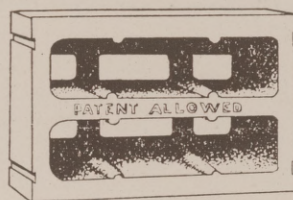
McIntyre tile walls may be put up at considerable saving over brick construction and at a lower cost even than wood frame construction.

These tile are manufactured on automatic machines in permanent plants.

The machines are operated by power and turn out from 2,000 to 3,000 building tile per day which will displace in the wall 12,000 to 18,000 common building brick.

We want to establish a McIntyre tile plant in every community where the proper raw materials are available and where a sufficient market is assured for the product.

This is a proposition to be taken up by men who have ability in handling concrete, who have the capacity for overseeing a simple manufacturing operation and who can secure the necessary selling organization.



Bottom View of McIntyre Building Tile

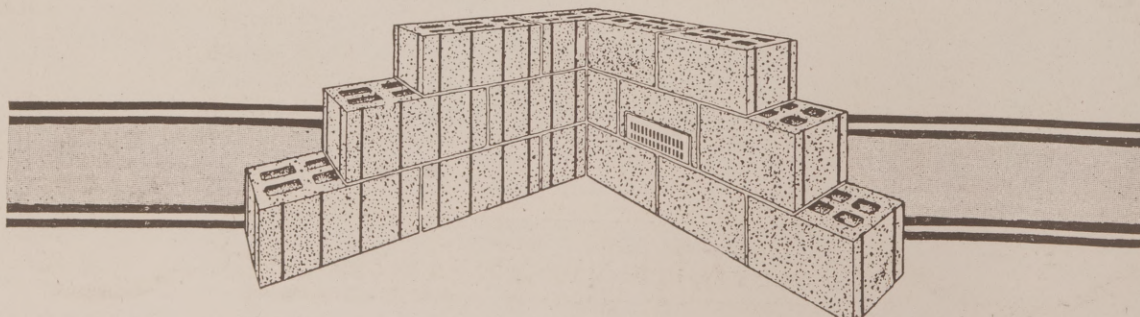
Note that this tile when laid in the wall really forms a triple concrete wall with two blankets of live air space. The design of the tile is such that it is easily taken hold of. It is a unit that workmen do not object to handling.

*Write for complete details, which will be outlined to you frankly.*

**The Concrete Engineering Co.,** **Engineers** **Cleveland, Ohio**  
**Building**

Exclusive Sales Agent for

**The Automatic Concrete Machinery Company**





# A Real and Complete Protection

Hundreds of industrial plants are securing efficient protection against thieves and enemy agents through the use of Page "Wire-Link" Fabric. Years of experience—in many cases, costly losses—have demonstrated the imperative need for enclosing both the factory itself and various special departments.

Page "Wire-Link" Fabric is ideal for both interior and exterior use, and offers a perfect protection material. It is light, durable and sightly. It is most resilient. The peculiar construction of

## PAGE WIRE-LINK FABRIC



renders it impervious to hard blows. Why not profit by the experience of others and secure Page Protection before the plant suffers misfortune?

Every manufacturing institution needs these partitions for stock-room protection; for protection to freshly painted products; for enclosing parts of the plant and portions of rooms without cutting off the light; for protecting machinery, tools, blue prints and other valuable items. No areas are disturbed, it is self-supporting, no light is cut off; it is sanitary and fire-proof.

Page "Wire-Link" Fabric partitions will add the best possible watchman to your staff. Also think of the many advantages of Page "Wire-Link" Fencing for the exterior of your plant—unclimbable—fire-proof—sanitary, real protection against incendiaries and thieves.

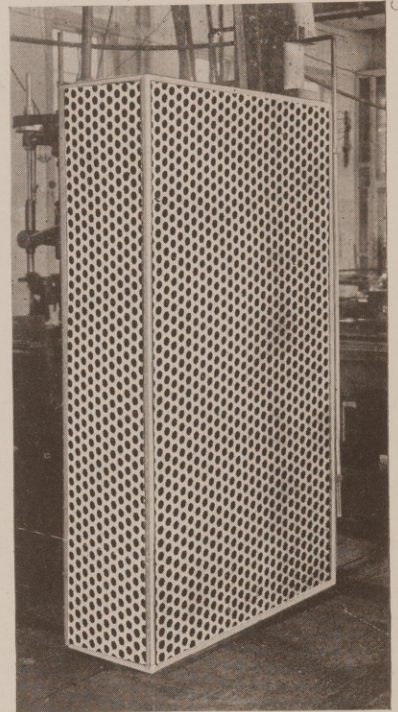
When you consider this positive protection, the improved appearance of your property as well as its increased value and the saving which results in eliminating loss and stolen materials from your overhead, the cost is inconsequential. Is your plant adequately protected?

### Other PAGE Products

Special Analysis Wire  
Armco Iron Welding Wire  
Galvanized Wire  
Wire Mill Products  
Armco Iron Magnet Core Wire  
Woven Wire Farm Fence  
Wire Lawn Fence  
Ornamental Iron Fence  
Architectural Iron  
"Copperweld"—Copper Clad Steel—Wire

### EVERY ONE THE DOMINANT PRODUCT IN ITS FIELD

Page "Wire-Link" Fabric is also made from rust-resisting "ARMCO" (American Ingot) IRON Wire which is drawn exclusively in Page Mills from "ARMCO IRON" Billets, the product of the American Rolling Mill Company, of Middletown, Ohio. We always recommend it where conditions of atmosphere or climate are conducive to corrosion.



Safety guards for exposed gears, belting, etc. Sanitary, durable and affords maximum protection to employees.

Write the Engineering Department at our Adrian Factory for Detailed Information; no obligation involved

## PAGE STEEL & WIRE COMPANY

Formerly Page Woven Wire Fence Company

Established 1883

ADRIAN, MICHIGAN Factories MONESSEN, PENNA.

Branches: New York, 30 Church Street; Pittsburgh, 644 Union Arcade; Detroit, 660 W. Fort St.; Chicago, 175 W. Jackson Blvd.



FOR USE  
WITHOUT  
RUNNING  
WATER

## SANITARY SEWAGE DISPOSAL " WITHOUT SEWERS

FOR RURAL HOMES MINING TOWNS INDUSTRIAL VILLAGES ETC."

NO CHEMICALS  
NO SCAVENGING!!  
FLY PROOF!!!  
ECONOMICAL!!

SEPTIC TANK  
CLOSETS!!  
AND!!!!  
COMPLETE  
SEPTIC  
TANK!!!  
SYSTEMS

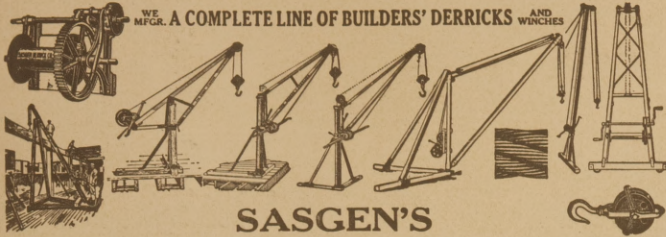
ENDORSED BY ALL  
HEALTH AUTHORITIES  
FULL INFORMATION ON REQUEST  
**SANITARY ENGINEERING CO.**  
CHARLOTTE NORTH CAROLINA

FOR USE  
WITH  
RUNNING  
WATER









## SASGEN'S

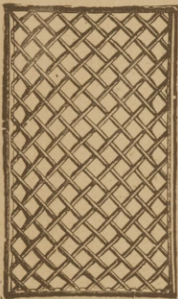
### Latest Illustrated Circular

Will show you how to get the right derrick at the right price, and get it quick. Write now for Circular No. 20.

SASGEN DERRICK CO., Grand & Albany Aves., CHICAGO  
Canadian Office: 1 Wabash Avenue, Toronto.  
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## THE FRED J. MEYERS MFG. CO.

Hamilton, Ohio



Manufacturers of  
Folding Gates  
Elevator Cars and Enclosures  
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Stable Fittings Iron Marquis  
Stairways Balustrades Balconies  
Gratings Jail Work  
Fire Escapes Builders' Iron Works  
Wire and Iron Lawn Furniture

Ornamental Wire, Iron and Bronze



## Brooks Lawn Sprinkling System

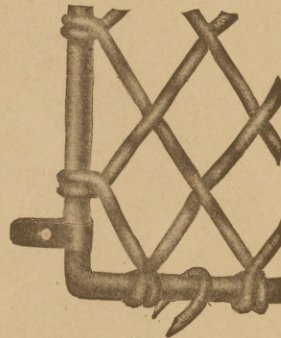
Frost-Proof-Underground

solves the sprinkling problem for lawns and gardens. Set level with the ground—no hose. Gives a fine misty spray like rain. Uses but little water. Cannot freeze as sprayer is automatically drained.

Write for Sample Sprayer and Booklet.

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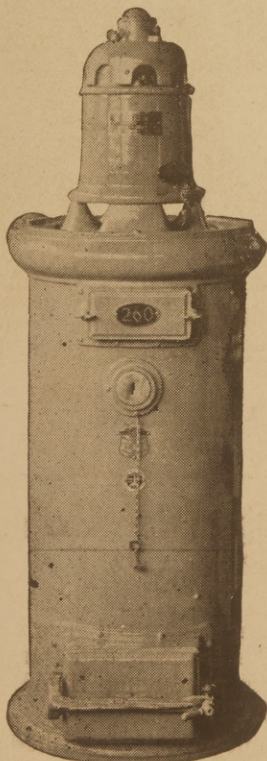
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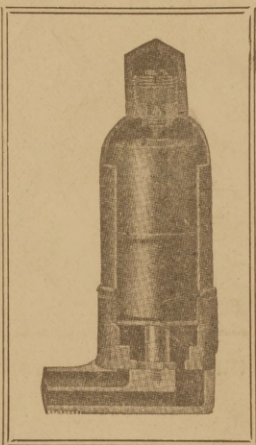
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