

Southern Architect and Building News

Entered as second-class matter at the postoffice at Dalton, Ga., under the Act of March 3, 1879.

VOL. XLIV. \$2.00 Per Year—Monthly DALTON, GA., and ATLANTA, GA., FEB., 1920 NO. 4
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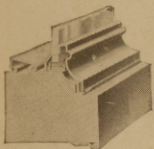


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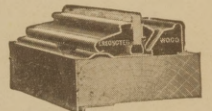
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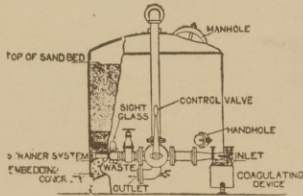
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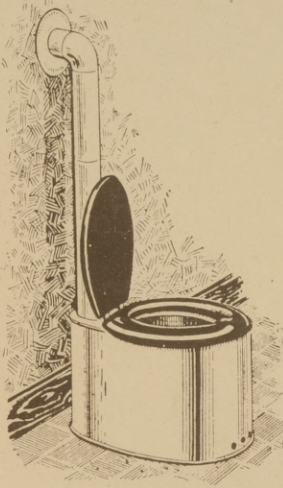
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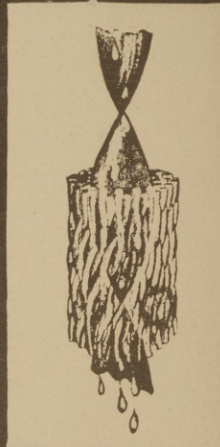
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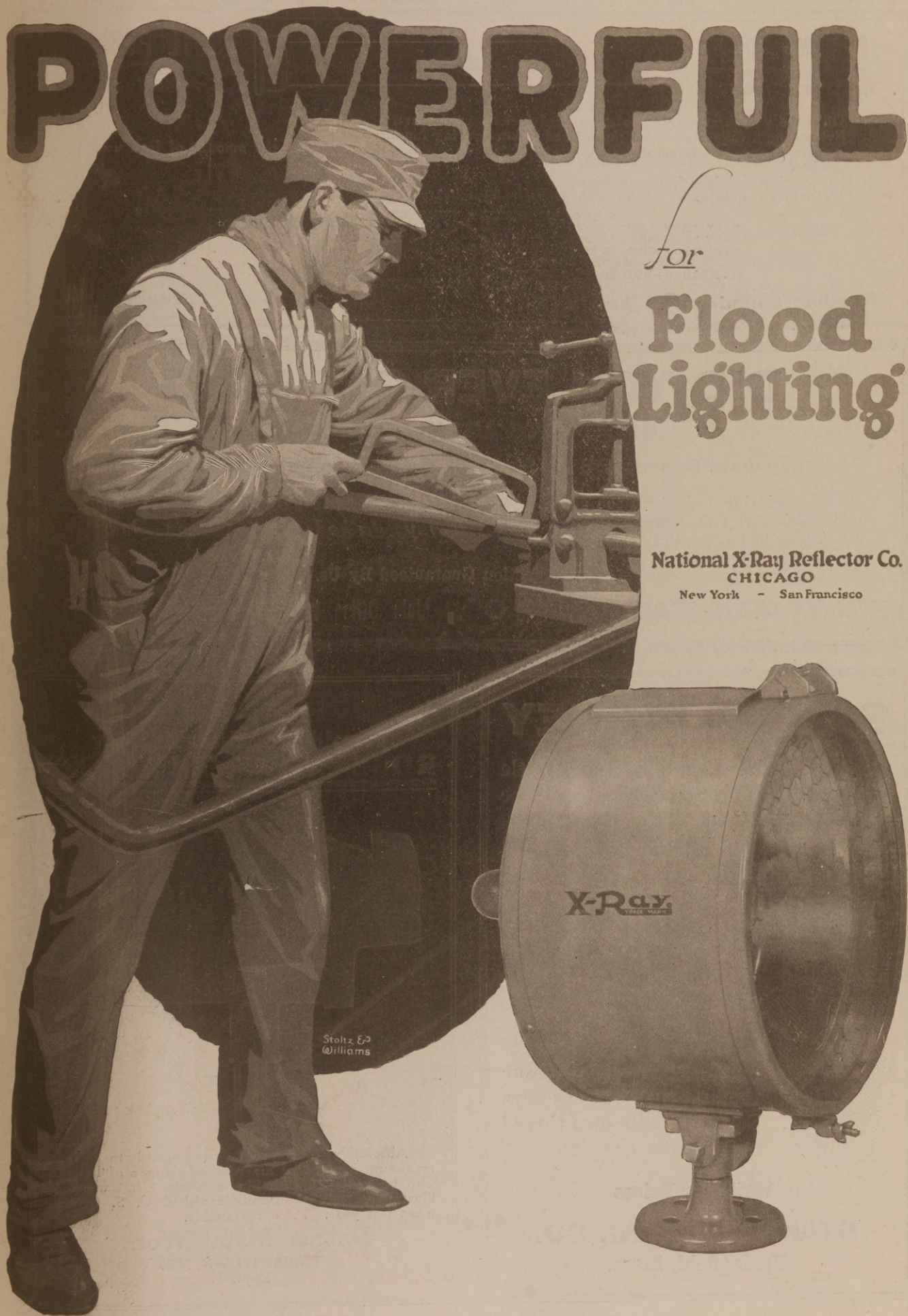
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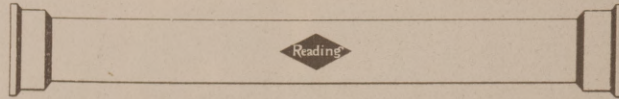
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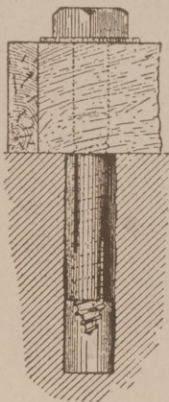
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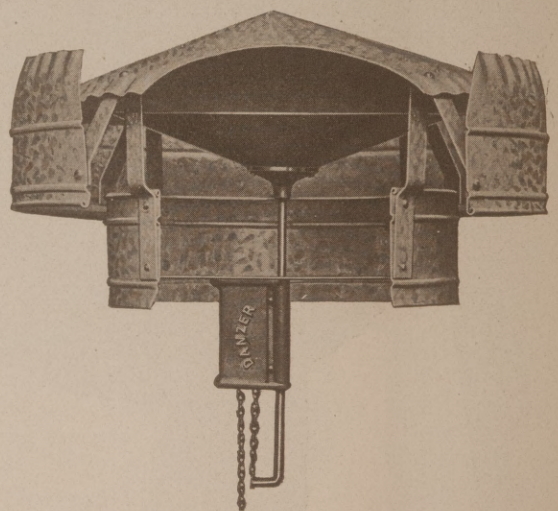
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IN ANNOUNCING the publication of the results of the competition conducted under our auspices last summer by the Architectural Forum for a Face Brick house to cost \$7000, we wish to express to the architectural profession our sincere appreciation for its splendid response.

We are told that both in point of the number of drawings submitted and in their artistic merit, this competition has set a new standard. The jury of awards, which was asked to select for publication the best fifty drawings, said that a hundred and fifty designs worthy of reproduction might easily have been chosen. And so we add to our thanks our hearty congratulations.

The results of the competition, therefore, abundantly fulfilled its object, which was to assemble designs of artistic small Face Brick houses for distribution in com-

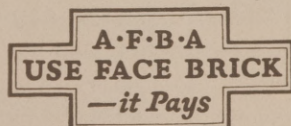
munities beyond the reach of the architectural profession.

But not the least pleasing feature to us has been the willingness of the profession to co-operate with us in stimulating a nation-wide interest in better-designed homes. We believe this augurs well for the future, for only through a cordial co-operation between architects and material manufacturers can the standard of our domestic architecture be raised. The efforts of each of us can complement those of the other.

We can, through our booklets and our advertising, do for architects what they cannot profitably do for themselves—arouse a wider artistic appreciation, and thus in time create a broader field for the practice of architecture. Architects, on their part, can furnish us with the material to carry on this work.

“The Home of Beauty” is the title we have given to the booklet in which we present the fifty designs adjudged best by the jury of awards in last summer’s competition. We believe it will prove interesting to the profession especially in showing present-day tendencies in small-house designing.

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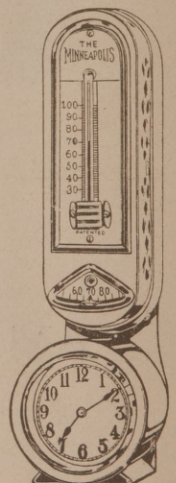
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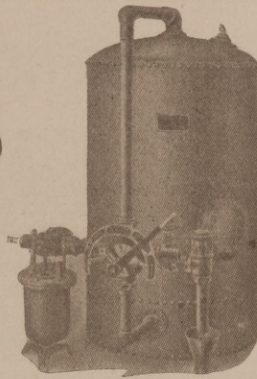
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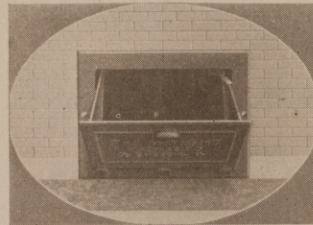


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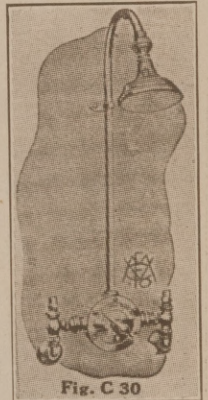


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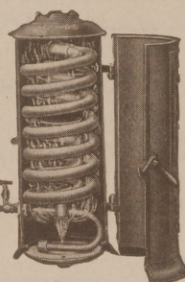
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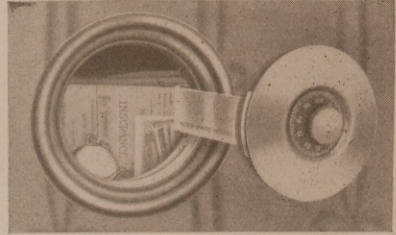
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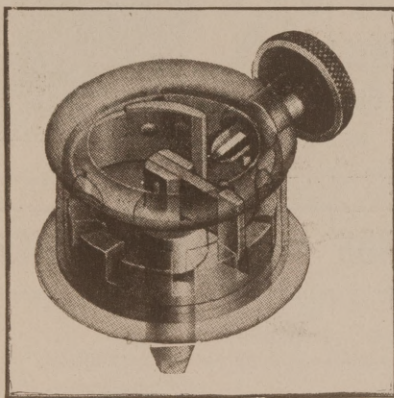
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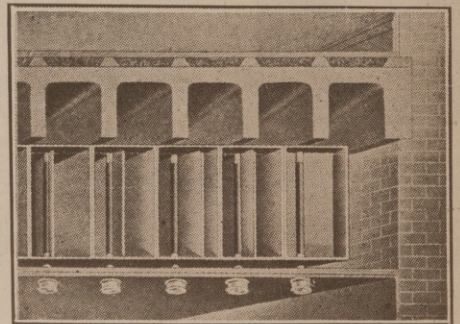
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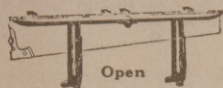


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The Sixth City Sheet Metal Works Co., Cleveland, Ohio

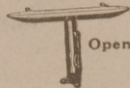
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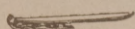
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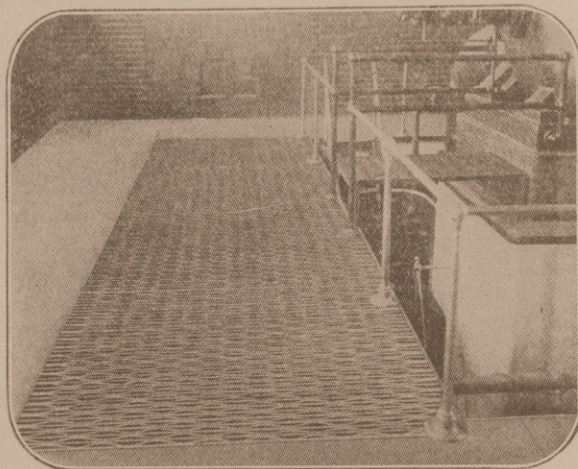
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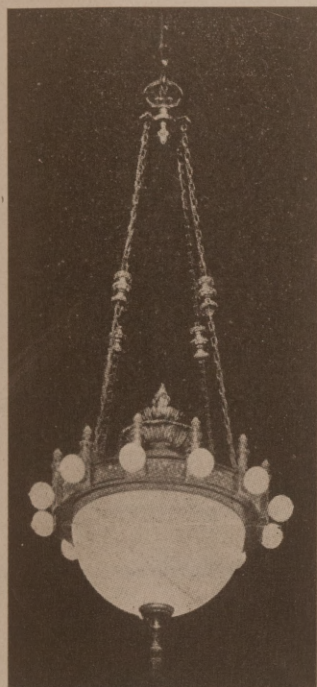
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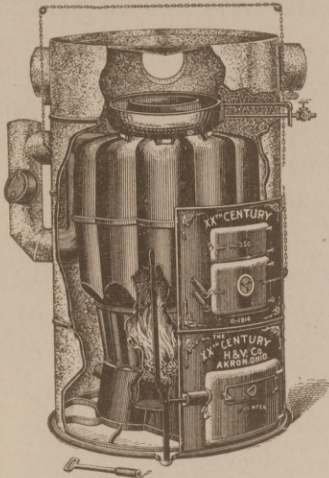
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Southern Architect and Building News

WITH WHICH IS CONSOLIDATED "SOUTHERN BUILDING RECORD"

VOL. XLIV.

DALTON and ATLANTA, GA., FEBRUARY, 1920.

No. 4

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 publication.

We cannot be responsible for changes not made, when copy and cuts are received later, or submit proof.

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Architectural Styles to Change.

"Architectural styles, like clothing styles, are prone to run in circles," said L. E. Stephenson, of the Brick Selling company, with plant at Lovick, Ala. "Many years ago, when a rich man wanted to build a fine residence for his family, he invariably had brick imported from England. Later Americans discovered they could make this material as well as manufacturers from the mother country and consequently brick dwellings became common.

"But new builders came along and by the use of

new machinery converted a great part of the country's forests into dwellings. And so until now it has been the rule, rather than the exception, to build with lumber.

"However, the present scarcity is one that is serious. The forests have been depleted and labor is high. Therefore wood material necessarily comes high. I believe the time has come when the brick will come into its own again. With lumber prices soaring as they are, contractors are beginning to look to the kilns.

"My company has prepared for the emergency and we are ready to supply nearly any demand."

That Go-ahead Spirit.

An inspiring suggestion of how good organization work can put a town ahead, is given at Bonham, Texas. The Board of Trade of that city claims credit for promoting during the past year, the following developments:

Additional paving for the city at a cost of \$100,000.

A potato curing plant capitalized at \$20,000, and holding 20,000 bushels of potatoes.

A compress and warehouse company, capital \$40,000.

A natatorium, obtained by subscription, cost \$7,000. The Board is now promoting a bridge over the Red River costing \$125,000. The list given above does not include a number of private enterprises which the Board fostered, one of these being a business school.

The above named town is one of the hundreds of Southern communities that is showing the go-ahead spirit. Any town, whether it be a large city or a small country village, can accomplish results equally remarkable in proportion to population and resources, if the people will take hold and work for progress. Much of this feeling has already been manifested in many Southern cities. With this community spirit, and a readiness on the part of the people to work and talk for their home town, it can advance and secure advantages previously regarded as impossible.

Figure This Out for Yourself.

A shortage of nails is seriously handicapping building operations, and that at a time when houses are needed most. There has been a shortage in this indispensable building material for some time, but recently it has grown so acute that in many places

building is at a standstill. Blame is laid on the strikers, especially the steel workers, and perhaps this is in part correct, although nails were short before the strike began. But when the strike of a union steel worker in Pennsylvania throws a union carpenter in Georgia and the South out of a job, it is time to stop and figure just how for the brotherhood of man—and unionism—reaches.

An Example of Investing Time.

An advertisement of a well known educational institution states the following interesting, but often overlooked fact:

"Has anyone ever told you that, in one respect, you are as rich as Rockefeller, as well off as Schwab and J. P. Morgan? Well, you are. When you were born Nature deposited to your credit in the Bank of Life a great big ample capital of Time. You have all the time there is—twenty-four hours each day. In that one thing, you are as rich as the wealthiest man in the world."

A logician might put the matter thus: Material wealth is measured by a standard called money. Time is money. Therefore, if you have all the time there is you have all the money there is.

Substantially that logic is sound. The vast majority of human beings exchange their time for money. Investing time, therefore, is simply a matter of intelligent exchange. It is in the hands of every man to make a minute or an hour or a day or a week earn more money for him by the simple process of exchanging more of his time for more money. The more he gives the more he is likely to get.

Invest your time wisely, generously, thriftily; save it as you would your money, avoid wasting it as you would avoid wasting money. You will find it at once the most fascinating and the most profitable thing in the world.

What About New Building for 1920?

The present activity in building is largely the result of government restriction in war time, which prevented building from following its normal course and caused the accumulation of a large demand for dwellings and other structures. The low point to which building activity is graphically shown in the accompanying diagram, which is based upon the statistics of the value of building permits issued for twenty leading cities from January, 1915, to September, 1919.

Much of this variation is due, of course, to the high prices of labor and materials, but the figures indicate, nevertheless, great activity in the building industry. Much of the building is still uncompleted, and unquestionably much additional building will be undertaken next spring. A violent spring rise beginning in February and reaching its maxi-

mum about April or May usually occurs in the issuance of building permits. Such a rise may apparently be expected in 1920 and seems not unlikely to carry the valuation of proposed building beyond any point heretofore attained.

Ordinarily, such a building boom, coming during a period of general business activity, would be a sign that a business depression might be expected before long. This may, indeed, be a sign that lessened business activity is coming, but in view of the manifest reasons for present building, pre-war interpretations do not appear to be entirely warranted. The present building boom, if it can be so designated, is based, not upon a speculative foundation, but upon a real and urgent need for new structures.

Building Material Problem.

Replies to a questionnaire sent by many manufacturers of building materials throughout the country by S. W. Strauss & Co., New York, are said "to indicate heavy underproduction in all these lines as result of the labor situation. It is the concensus of opinion among these interests that prices for all building materials will continue to go to higher levels. There is a very heavy demand indicated for all commodities used in construction work and it is expected that the amount of building activity this year will be limited only by the ability of the material manufacturers to keep up production. The manager of one of the largest manufacturers of steel products replied to a questionnaire as follows:

"In our opinion the demand for building materials at the present time exceeds the available supply, at least in the eastern half of the United States. This is particularly true as regards steel products, such as reinforcing steel, expanding metal, lath and steel windows. We are not producing as much as in normal years.

"We believe the upward trend in general costs of building materials will continue, and that there will be no recession during 1920. We are anticipating unusual activity in building and construction work, providing the building trade unions agree to produce instead of striking."

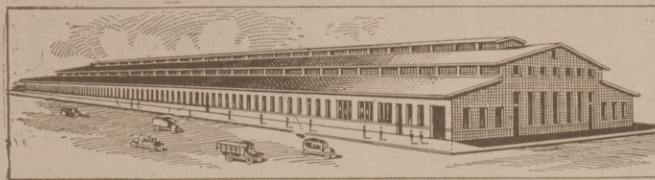
"The president of a terra cotta company said:

"In my opinion the demand for building materials at the present time is greater than the supply, and we are producing only about 50 per cent of what we produce in normal years. The main cause of underproduction in the building material industry is the poor labor situation. The present upward trend in general costs in building materials will continue until there is greater production, which must be brought about by a very considerable increase in the available constant supply of labor."

Other replies along the same lines are quoted.

INTERNATIONAL STEEL & IRON CO., Evansville., Ind.

S
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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.

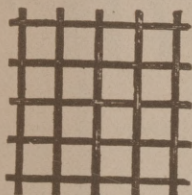
Elevators, Cornice and Skylights
Steel Ceiling

STORE FRONTS
Write for General Catalogue

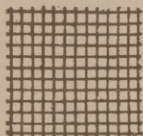
Millwork and Glass, Ornamental Iron
Certain-teed Roofing.

"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.

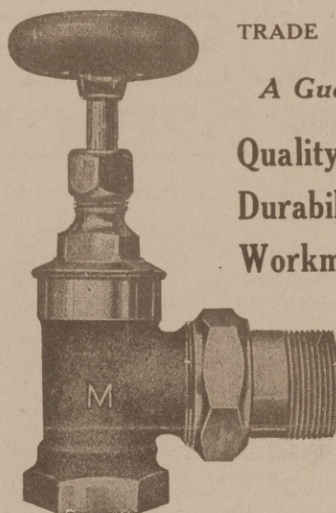
Estimates Promptly Made. Send for our Wire Cloth Catalog
No. 20, Wire Work Catalog No. 19.

**STRUCTURAL STEEL
ORNAMENTAL IRON**

Snead Architectural Iron Works

LOUISVILLE, KY.

Plain or Fabricated Steel for Immediate
Shipment.



TRADE **M** MARK

A Guarantee of

Quality
Durability
Workmanship

Extra Heavy Quick Opening Hot Water Radiator
Valve with Union.

Let us send you our best prices.
Let us figure on your requirements.

Manufactured by

Milwaukee Valve Co.

139 Burrell St.,

MILWAUKEE, WIS.

Standard for a third o 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



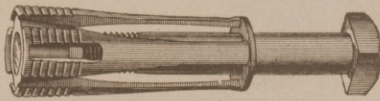
Why not join them? Write for information and prices.

Hartman Ingot Metal Company

2511 to 2525 W. 21st Street

Chicago

Do You Want the BEST Expansion Bolts?



THE BROHARD COMPANY,
PHILADELPHIA, PA.

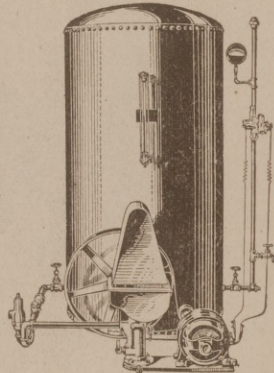
HOOSIER Water Service

For Farm and Suburban Homes.

The farm home owner of today is interested in every improvement which will serve to provide a modern home.

An adequate and convenient water supply is his first consideration, because of the constant need for water in and about the home.

Send for Bulletin F



and familiarize yourself with the Hoosier System line of water supply equipment. Water systems for operation by any kind of power, and for various depths of wells are shown. You can make use of this knowledge in the plans of farm homes which you prepare.

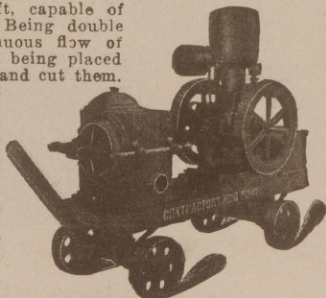
Flint & Walling Mfg. Co.

Dept. S, 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: Perrin, Seaman & Co., 57 Oliver St., Boston, Mass.

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.

JOHN A. BROOKS
283 Burlingame Avenue, Detroit, Michigan

"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

FOR BASINS, SINKS, TRAYS AND BATHS.

Write for prices.

ESSEX FOUNDRY
Newark, N. J.

SILVER LAKE A Sash Cord

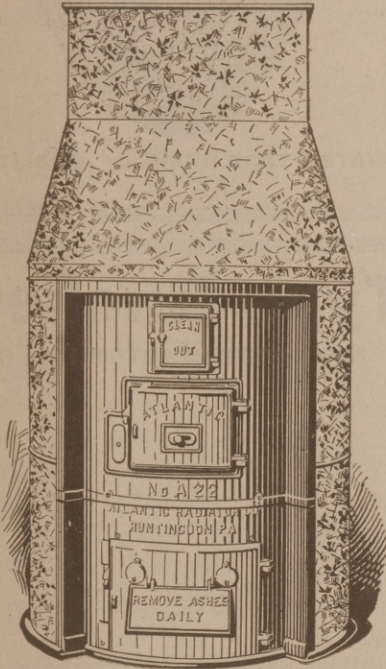
The guaranteed sash cord (since 1869 the standard) not only outwears common cords, but outwears chains and ribbons. The name Silver Lake A is printed on every foot of the genuine. Guaranteed full lengths.

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

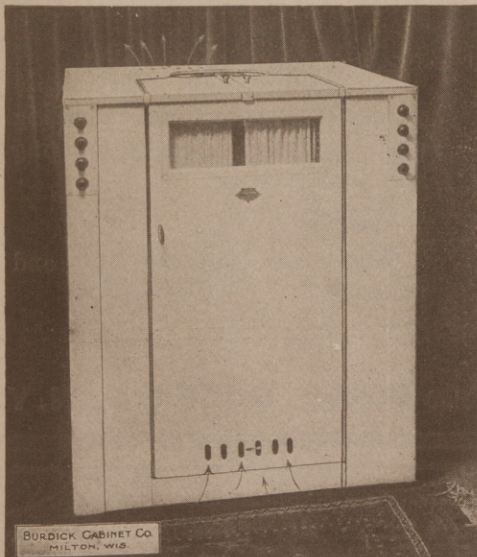
Atlantic Radiator Company

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

Works:
HUNTINGDON, PA.

MODERN BUSINESS BUILDERS BURDICK LIGHT BATHS

Are constructed upon basic principles of Therapeutic efficiency which have secured for them the highest awards by recognized authorities.



BURDICK CABINET CO.
MILTON, WIS.

Observe ventilators at bottom of front door and top of cabinet which permits of free circulation of fresh air.

Their Practical Value

Has brought the Light Bath into universal popular demand in American Hotels, Sanitaria and Homes.

Their Surpassing Advantages

Burdick ventilating system.
Sanitary adjustable collarette.
All steel construction.
Standardized by National Board of Underwriters.
Types for every purpose.

Adapted for use in U. S. Military Hospitals.

Write today for free book, "Health and Efficiency—How to get it," and a copy of our illustrated catalogue in three colors.

BURDICK CABINET COMPANY

Chicago Office:
614 Venetian Bldg.

General Office and Factory:
MILTON, WIS.

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

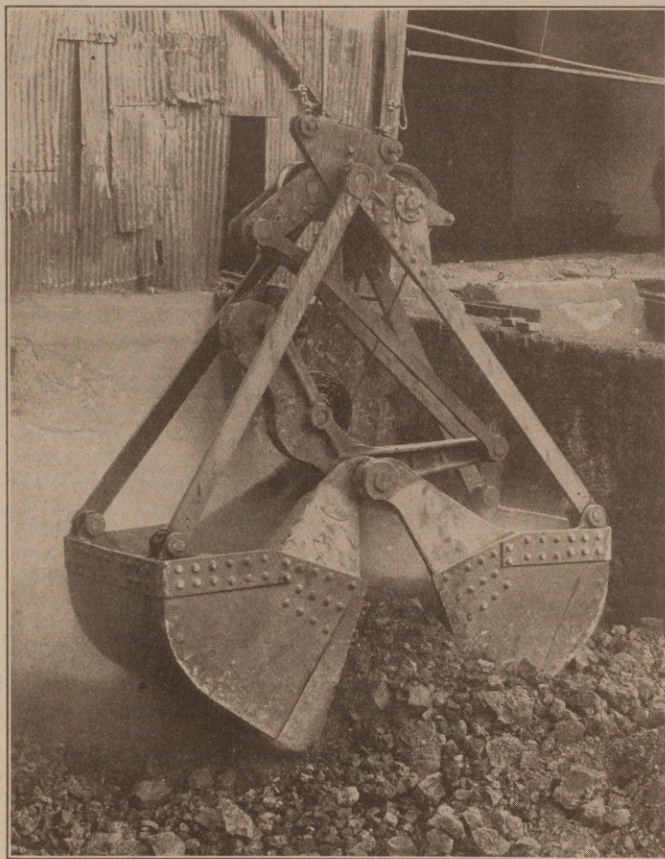
**CRAMPTON-ARLEY BRASS CO.
KANSAS CITY, MO.**



THE BACK WATER TRAP DRAIN OF QUALITY

“BUFFALO” Standard Type Bucket

A product backed by 40 years experience in the manufacturing of contractors' equipment.



Buckets constructed entirely of Steel Lip Plates of High Carbon Steel which are attached in such a manner as to take all shear from rivets.

All Bearings bronze bushed with suitable oiling device.

SPECIAL ATTENTION IS DIRECTED TO THE BUFFALO EQUALIZING ARM—THE PRE-DOMINATING FEATURE OF ALL BUFFALO BUCKETS. Causes scoops to travel with uniform speed—insuring a MAXIMUM LOAD AT EVERY DIG.

We build buckets from 1/2 to 3 yards for excavating, handling coal, sand and gravel—dredging and similar work.

Write us for catalogue and prices.

Buffalo Standard Type Bucket, designed for handling coal, sand, gravel and similar bulk materials.

BUFFALO HOIST & DERRICK CO., 129 Erie Street, BUFFALO, N. Y.

IRON PIPE RAILINGS

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.

Dept. R.

PIPE RAILING CONSTRUCTION CO., Long Island City, New York

Building Activity Increasing.

"Instead of growing smaller the building boom in Birmingham is increasing in volume, according to Charles M. Allen, senior member of Charles M. Allen and son, one of the best known contracting firms in Birmingham," says The Ledger of Birmingham. "Mr. Allen declared that his firm had more work than it could do and was being pressed to accept orders.

"There is no let-up in sight in the demand for houses and the building boom in this city shows no signs of slackening," declared Mr. Allen. "I believe it will be 10 years before the supply catches up with the demand, unless there is a great increase in the production of both lumber and hardware.

"Our firm has every available man at work and we don't know where another can be found. A man called us up the other day and wanted to know where he could get a man to do a day's work at his home and we couldn't tell him. We didn't know.

"It is really amazing the number of dwellings that are being erected in the city. During the war everybody doubled up, that is, more than one family lived in one house. Before 1914 it was very rare to see more than one family in any other kind of house than an apartment building. Now the reverse is true and it's rather hard to find a house with only one family in it. Naturally such conditions are not pleasant and as soon as they can obtain houses these alliances are being dissolved. Hence the increasing and urgent demand for houses.'"

Water System in Home.

Mine is a pneumatic system where only air is stored in a small tank and this air operates a compressed air pump in the well and one in the cistern. This system I have found very satisfactory, considered in the light of three years' wear and tear, and supplying water to all the farm.

If possible have the bathroom above the kitchen

and the laundry below it. This saves much piping. If a bathroom is necessary downstairs have it as near the kitchen as possible, but not out on a cold porch. A men's wash room on the back porch is worth its cost many times over.

The kitchen should have a good enameled sink and drainboards. The bathroom should have a tub with shower attachment, washbowl and seat, while the laundry should have a three-compartment stationary tub. The floor of the washroom should be cement and have a sharp incline toward a floor drain.

Spend several months studying what you want, then buy the equipment and have everything ready when you start to install it. If you start now you will be ready to put it in next summer. Draw your own plan over and over until you are sure it is right.

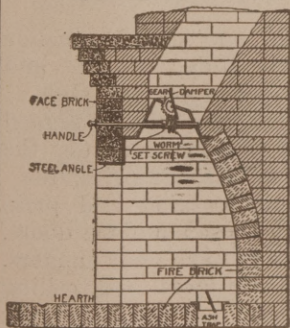
Be sure that the open joint tile drains which carry away the sewage are away from the cistern and below it. Sandy land will need only a hundred feet of common field drain tile, but clay land will take four times as much. They should have a drop of an inch every four feet.—Subscriber, in The Progressive Farmer.

Modern Apartments.

Apartment houses that are as model and up-to-the-minute as any in the country are being erected in different cities of the Southeast. In no departments of architecture and construction has there been any greater advance in recent years than that pertaining to the erection of buildings of this character.

Miami, Fla., is one of the cities in the Southeast in which there has been great activity in the erection of high-class apartment houses. One of these, a five-story structure, The Fairfax is thus described by the Miami Metropolis:

Fairfax is to be made by Ralston Bros. to stand for the finest in apartment accommodations which modern building ingenuity and artistic ideas can



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.

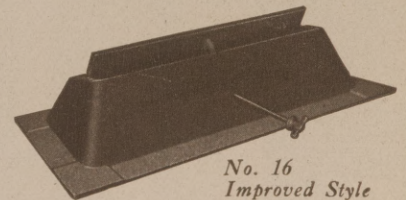
The price is low enough so a Stover Damper can be used in every fireplace. Made in several styles for all size openings. The Improved style shown above is one of the most popular.

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.

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

Name Business
City State



No. 16
Improved Style
Made in 7 Sizes

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, Guages, Thermometers, Etc.

MANHATTAN DIAL MFG. CO.

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

provide. The leasee of an apartment in this building finds that he is provided with gas, with water, with light, with ice, with pure drinking water, with a telephone having city connections, with daily maid service, with high-grade elevator service, with extra trunk room space, etc. He finds that he is given a beautifully appointed apartment in which neither expense nor pains have been spared in furnishing.

The furniture throughout the apartment house is in ivory and mahogany, the portieres are of stylish monk cloth, and the window hangings are of rich draperies hung over cream-colored curtains. Fine artistic sense has been displayed in the color combinations, and some unusual and beautiful shades are to be found worked in, for instance, the taupe carpets and mulberry hangings.

There are 50 apartments in the buildings, each with a comfortable living room, a folding bed which disappears in a wall recess, a completely appointed kitchenette with outside ice delivery and garbage removal, and a bathroom with built-in tub and porcelain fixtures.

On the second floor of the building is a commodious and beautifully arranged lounging room or lobby, overlooking Royal Palm park, which opens onto a delightful portico over the sidewalk.

Unique heating facilities in the shape of gas steam

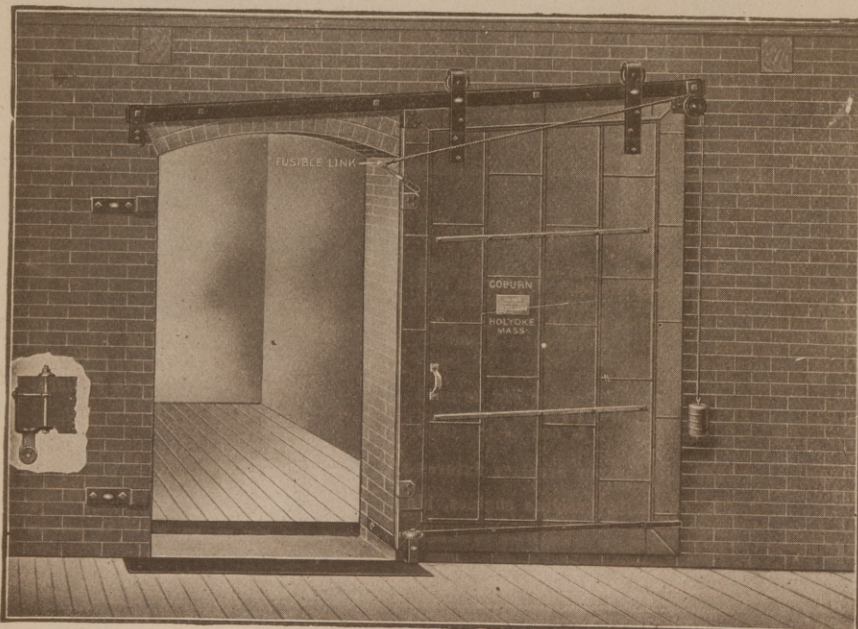
radiators are provided in each apartment so that each leasee may have exactly as much or as little heat as he may desire.

The building itself is of reinforced concrete construction, the front of which is finished in classic design with graceful half-pillars extending from the base to support the cornice. Tan and white stucco has been used to good advantage to bring out the lines of architecture which have caused this building to be ranked among the most beautiful in the city.

Must Have a Certificate.

The act passed by the Georgia legislature at its last session entitled "An Act to make it unlawful for any person to use the title 'Architect' in the State of Georgia without securing a certificate of his, or her, qualifications to engage in the practice of Architecture under the title of 'Architect,' etc.," approved August 18, 1919, is now in force.

All architects practicing in Georgia should apply at once to G. Lloyd Preacher, secretary of the State Board for the Examination and Registration of Architects, Masonic Bldg., Augusta, Ga., for blank application forms and certificates.



COBURN Fire Proof Doors FOR ALL PURPOSES

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.
Compan
HOLYOKE, MASS.**

OVER 33 YEARS IN BUSINESS

For over 33 years The Southern Architect and Building News has been doing business in Atlanta. It's a fine record, one-third of a century, in one business, at the same place.

During that time we have bought and consolidated with The Southern Architect more than half a dozen other building papers, thus surviving all competitors that cover the entire South.

Single Contracts Covering 20 Years

There are in the paper today advertisers who have been in every issue for more than 20 years. That is a good record and tells its own story. People who stay in one paper for 20 years must find that it pays, else they would go out. That is the best evidence that it pays others and will pay you.

Financial Backing Worth Something

Ask the Commercial Agencies, Bradstreet, or Dun, about our financial standing. Ask any bank in Atlanta about our straightforward way of doing business and you will find that our record is clean. That is worth something—to know you are dealing with honest people.

Covering a Vast Territory

The Southern Architect and Building News covers a vast territory, reaching from Baltimore to Western Texas. The high price of cotton has made this section a larger buyer of building material of all kinds. New houses of all kinds are being built and old ones remodeled. With this one paper you cover a field not covered by any other building paper. It is the most practical advertising you can do. There is no waste. Every reader is a buyer in your line.

Let us quote you rates that will make you think. Your competitor is getting part of this trade. Let us help you get your share. Address:—

Southern Architect & Building News

ATLANTA, GA.

For 33 Years the Only Building Paper in the South

The Advertiser Who Thinks

The advertiser who thinks, who studies out the small details of his advertising problems, is the man who makes every dollar of his publicity fund earn results. The hap-hazard advertiser can lose millions before you can say "Scat!"

Think Over This Problem

Take *The Southern Architect and Building News* as an example. This has been the only building paper covering the entire South for over 30 years. In other sections there are several building papers, covering the same territory—accounting for some waste. By using *The Southern Architect* you not only cover an exclusive territory, but you have no waste circulation. Every reader is an architect, builder, plumber, or heating engineer.

Furthermore, *The Southern Architect* is the HOME paper of these readers. They are more or less clannish and like to see their home paper patronized. By using it you secure their good-will. They appreciate your patronage.

The Most Practical Advertising on Earth

To sum up, you get the most practical advertising possible by using *The Southern Architect*. You reach people who are buying millions worth annually in your line. You secure the good-will of our readers, because they like to see their home paper supported. You pay for no waste circulation. You cannot reach these buyers through any other one building paper who will appreciate your patronage so much. You cannot go wrong in sending us your order now, when the South is such a big buyer.

Let Us Show You the Way

Write us for rates. You will be surprised at the wonderful field you can cover at a very small expense. Give us a chance to figure on your space.

Southern Architect & Building News

ATLANTA, GA.

For 33 Years the Only Building Paper in the South

Waste in Advertising

Millions of dollars are wasted every year in this country through badly placed advertising of building material and building equipment.

QUANTITY of circulation is being bought and paid for, when **QUALITY** of circulation is what the advertiser needs and wants.

Manufacturers of building equipment are using space in papers where not one reader in ten is a buyer of what the manufacturer has to sell. The other 90 per cent is dead waste.

Bad Advice is Responsible

This is caused by bad advice of some one who handles the manufacturer's advertising appropriation. The manufacturer is busy. He leaves the spending of his advertising fund to some one who does not know the difference between **QUALITY** and **QUANTITY** of circulation. A paper of 100,000 general circulation is selected while a paper with 20,000 select circulation is turned down. But the 100,000 circulation paper has one reader in 10 who buys building equipment, while every reader of the other paper is a possible buyer. The manufacturer is the loser, through bad advice.

The Southern Architect and Building News goes only to buyers of building material and equipment. Every reader counts. There is no waste. Furthermore, the paper covers a territory not reached by other building papers. It is the most practical advertising that can be had.

Buy Quality, Not Quantity

In spending your publicity fund insist on getting **QUALITY**. Insist on reaching people who are in the market for goods in your line. Don't pay for waste circulation. Have a "say" in where your money goes.

Let us send you our rates for reaching select buyers. We can help you. Address:

Southern Architect & Building News
ATLANTA, GA.

The Only Building Paper in the South for 33 Years

MISTAKES IN ADVERTISING BUILDING EQUIPMENT

The average architect is a shrewd thinker. He is a man of culture and of ideas. He analyzes things and is naturally proud and jealous of his profession.

In the building of a house the architect naturally expects to have the "say" in the kind of materials to be used. It is up to him to specify the roofing, brick, marble, flooring, lighting fixtures, furnace, doors, paint and dozens of other things. The prospective owner of the house is not supposed to know the kind of material that should be used. The architect is the man who should settle that question. His education fits him for deciding that point. It is his business and belongs to no one else.

Wasting the Advertiser's Money

Of late years manufacturers of building material have been led astray in advertising their product—that is, a large number of them have been badly advised in their publicity expenditures. Many of them have been induced to use papers of general circulation where one reader out of 50 is a prospective buyer. The manufacturer, in this case, not only pays for 50 per cent waste circulation, but the architect sees in this kind of publicity a movement intended to rob him of his legitimate field of work.

Going Over the Architect's Head

This kind of publicity, in a way, goes over the head of the architect and perhaps does more harm than good.

The place for building material advertising is in the Architectural and Building Papers. There your product comes before the architect, who must finally decide whether to use it or not. He is the man you want to reach, he is the man you want to impress. Spending your money in other papers is often worse than waste.

The Southern Architect and Building News is the one building paper, which for over 30 years has covered the entire South. Let us show you the value of using it. Address:

Southern Architect & Building News

ATLANTA, GA.

The Only Building Paper in the South for 33 Years

Something New

Water heated without additional cost while cooking on gas range, by use of the

ELLIOTT Combination Water Heater and Gas Stove Top

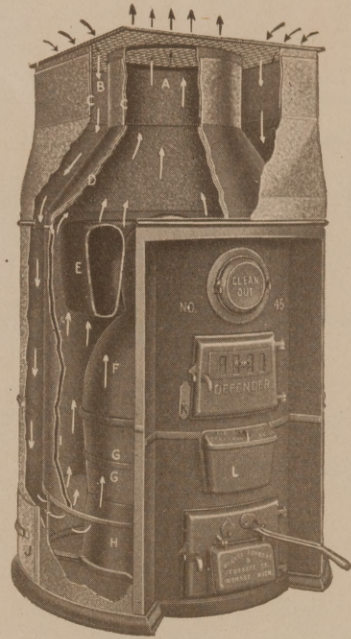
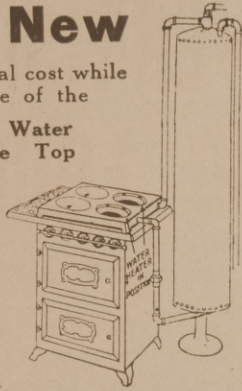
Soon pays for itself in gas-saving. Sizes to fit any gas range.

Not necessary for boiler to be close to range. Can also be attached to oil stoves.

State Rights Offered to Reliable Men. Write Today.

Elliott Water Heater Co., Inc

1246 Myrtle Ave., Brooklyn, N. Y.



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

Write for pamphlet and prices.

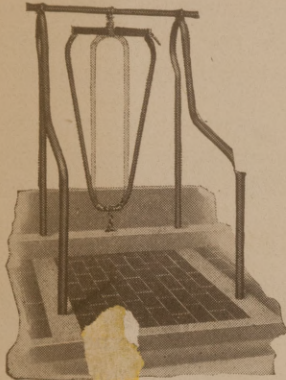
The Monroe Foundry & Furnace Co.

MONROE, MICHIGAN.

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,

Cedar Falls, Iowa

National Mosaic Tile Co.

MOBILE, ALABAMA.

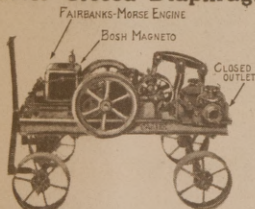
Manufacturers of Adamantile, a high grade Spanish Cement floor tile, has been used in Europe for centuries, introduced in America by us about ten years ago.

Write us for booklet of information regarding this product.

CONTRACTORS

Your Pumping Problem Solved

Carter Closed Diaphragm Suction & Force Pump



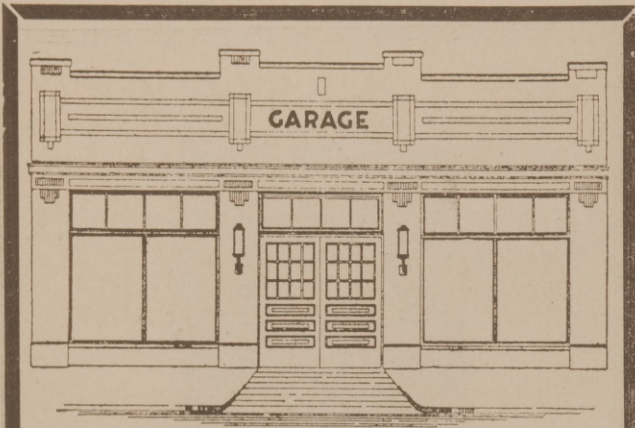
No Flap Valves to clog. Total lift of more than 30 ft. All water carried to any desired point away from and above excavation in hose. Most economical to operate. Easiest to move. Fewest repair parts. Most dependable.

Limited Territory Still Open to Dealers.

WRITE FOR BULLETIN "D"

RALPH B. CARTER CO., Mfg

152 CHAMBERS ST., NEW YORK



PUBLIC GARAGES

Do not let the construction of the modern garage worry you. Our garage department will relieve you of these cares.

Steel Roof Trusses.

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

Steel Sash.

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

Skylight and Roof Ventilators

Non-leaking metal skylight frames and standard types of roof ventilators can be supplied promptly.

Show Windows and Doors

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

Write for Catalog.

George L. Mesker & Company

Complete Store Fronts EVANSVILLE, INDIANA

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.

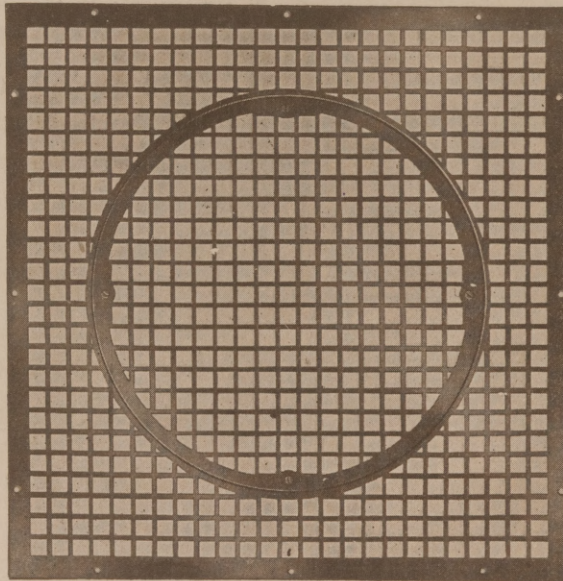
BEDFORD, INDIANA.

Double Gratings for Pipeless Warm Air Heaters

Plain Lattice Design

WALWORTH DOUBLE REGISTER GRATINGS

are made substantially, with round center for warm air supply and square cold air intake.



WALWORTH DOUBLE REGISTER GRATINGS

are made in eleven sizes. We carry a complete stock for immediate shipment.

Write us today for information and prices.

THE WALWORTH RUN FOUNDRY COMPANY

Manufacturers

**WEST 27th STREET
CLEVELAND**

OAK FLOORS

(For Everlasting Economy)

INDUSTRIAL housing groups demand wear-resisting floors even more than do the most costly residences. And good appearance is no less desirable in the one than in the other. The lower grades of OAK FLOORING are a perfect answer to these requirements. May we advise with you?

OAK FLOORING
MANUFACTURERS' ASSOCIATION
1020 ASHLAND BLOCK: CHICAGO:



THE MARK OF QUALITY
AND RESPONSIBILITY

STRUCTURAL IRON WORKS

FOUNDRY AND MACHINE SHOPS

GRAINGER & CO., Inc.

Established 1833

Tenth St., Louisville, Ky.

VINCENT'S TRACING PAPER

The Best Permanent Substitute for Tracing Cloth.
1—Very transparent. 2—Exceptionally strong. 3—Being rolled on a large core it will lay flat on drawing board to the last yard. Others to follow.

In rolls of full 20 yards; 30, 36 and 42 in. wide.
Sample from your dealer—or from the maker.

GEORGE VINCENT, 422 E. 53rd St., NEW YORK

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CONCRETE MACHINERY

Continuous Mixers

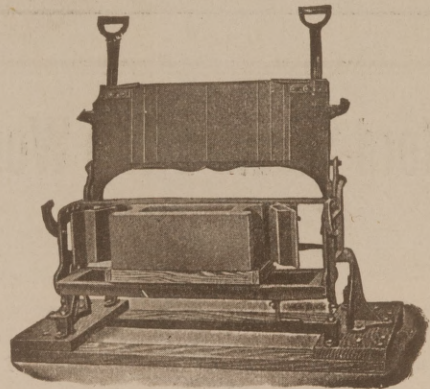
Batch Mixers

No. 5 Miles Block Machines

No. 4 Singer Block Machines

No. 5 Automatic Tampers No. 4 Automatic Tampers

Universal Adjustable Sill Cap and Step Molds.



We have devoted the past 24 years to the manufacture and perfection of our concrete machinery and fully guarantee same.

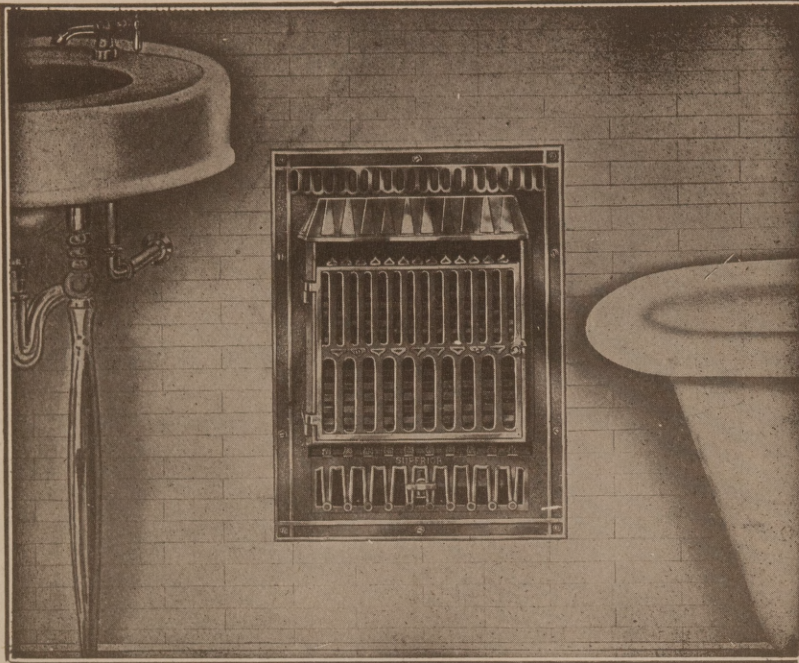
Write or wire for our catalogues and dealers proposition. It will be worth your consideration.

DEPT. 28.

The Miles Manufacturing Co.

JACKSON, MICH.,

U. S. A.



U. S. Pat. June 28,
1910

Side View
Side of Cast
Front:

14 ins. wide
18 ins. high

Size of Body
of Heater:

12 1/2 ins. wide
16 1/4 ins. high
4 1/2 ins. deep.

For Natural and Artificial Gas

THE Superior bathroom heater differs materially from any other device for bathroom heating. The front is of Colonial design, cast iron, heavily plated, which is fitted with a door for convenience in lighting without danger of being burned. It is constructed to be used in the regular wood partition, tiled or plastered wall of the bathroom and has the appearance of a hot air register, set 14 or 18 inches from the floor.

It is fuelless and odorless, as the flames come in contact with nothing but air, (thereby eliminating asbestos and other artificial substances commonly used in all other types of heaters, which become soiled and unsightly.) Its construction is such as to make it entirely free

Superior Bathroom Heater in Use with Tiled Bathroom.

from any danger whatsoever from fire, the body of the heater being lined both inside and outside with heavy asbestos, as well as having a large circulating cold air space around the inner frame which contains the burner. The inner frame also is covered with heavy asbestos.

The burner, which is made of Imported Lava Tips, is fitted with an adjustable check for regulating the combustion on the different pressures of gas. No air mixer is used, as the gas comes in contact with the air through very small lava tips; it mixes and purifies itself, leaving no odor from the gas whatever. It is made so that the heat from the gas jet causes the air furnished to be drawn from the floor through the fender and pass up over the flame, discharging itself back into the room, thus creating a continuous circulation of pure air through the room at all times.

ODORLESS AND FLUELESS

This heater is equipped with lower corrugated copper reflectors and an upper corrugated deflector, also, upper reflector and baffle plate on the cast door for directing the products of combustion back to the point where it comes in direct contact with the air drawn from the floor, which greatly purifies it. The deflector plate not only directs the heat, but hides the gas jets and reflects the light down upon the lower reflectors, giving a very luminous and pleasing effect. This method of heating a bathroom is not only convenient, but very economical and safe, doing away with the objectionable bathroom stove.

The Superior Bathroom Heater not only ornaments the bath-room handsomely but it quickly heats it to just the desired temperature at the least expense. By its use it is possible to bathe and complete the toilet in perfect comfort without firing an expensive furnace which too frequently destroys the delightful coolness so much appreciated in all other parts of the house during warm weather. In fact, it is a necessity in every up-to-date modern home.

Leading architects and designers throughout the United States and foreign countries always specify "Superior" Bathroom Heaters when the heat is desired. The front is heavily plated and polished as handsomely as a watch case.

This heater is made for either outside or inside connection, and whenever neither kind is specified in the order, the kind for outside connection will invariably be sent, as that style is generally preferred when the gas line is not inside the wall. In plan for new house the pipe should be about 5 inches to the left of center of opening and come up just as high as the bottom of same, for convenience in setting.

FINISHES:—NICKEL, JAPANESE BRONZE, or BRIGHT BRASS.

Be careful to specify finish and to state whether outside or inside connection is wanted when ordering.

Complete with valve and adjustable check. Bright Brass, Nickel or Japanese Bronze Finish.
NO FLUES NO ODOR NO ASBESTOS NO LARGE GAS BILLS NO DANGER FROM FIRE

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General Offices and Factory: Corner Said and Magnolia Streets, North Side.

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INCORPORATED 1888

Bedford, Indiana

INDIANA LIMESTONE

SAWED, PLANED, TURNED OR CUT

Estimates promptly furnished

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Bowling Green White Limestone Ohio Buff Mountain Sandstone
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RODIX & MALONE

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SALES AGENTS

STAR STONE COMPANY

QUARRYMEN

INDIANA OOLITIC LIMESTONE

112 West Adams Street,

CHICAGO, ILL.

Others Discuss Some Timely Topics

Bib Furnace Manufacturers Reduce 1920 Prices.

If the present industrial situation continues, the commercial supremacy which America won during the war will be lost. Some manufacturers seem to be endeavoring to maintain the high prices and exorbitant profits of war days by restricting their output so as to keep the supply less than the demand.

While prices in all lines of business have shown an upward tendency, the Monitor Stove Company, of Cincinnati, the largest manufacturer of warm air furnaces in the world, announces a substantial reduction in prices of CaloriC furnaces for 1920. The success of the CaloriC Pipeless Furnace has been so remarkable from the very start when it was introduced ten years ago that practically the entire output of the Monitor Stove Company is now devoted to the manufacture of this specialty.

In spite of the higher costs of labor and materials than ever before in the history of the company, the Monitor Stove Company has been able, by marketing a quality product through aggressive advertising and selling methods, to build its business to the point where quantity production has enabled it to reduce prices. It is the largest advertiser in the furnace business, and the company expects its sales for 1920 to show a phenomenal increase over the sales of 1919.

Demand for Housing.

The demand for additional large volume of houses is imperative in many cities and towns in the Southeast. Much building was done last year after construction was begun in earnest, but despite the amount of building done the demand in the Southeast for more housing is as acute as it was before. The following, which is applicable to many cities in the Southeast, is from The Chronicle of Augusta, Ga.:

"If there is one crying need in Augusta above all others it is the need of houses for people to live in. There is an acute scarcity of homes and apartments and the people who have money are deterred from building because they say the price is too high. Contractors, architects and material men have been preaching for the past two years that the price of building is not going to get any less at any time soon, and, in fact, it would seem that the prices will get higher. Therefore, build now before you have to pay more.

"There are citizens being lost to the community almost every day because we have insufficient housing capacity. There are numerous families who are not here now because we have no modern apartments available. The answer to the whole proposition is to

build, build, build and then charge a fair return on the cost. If it cost \$5,000 to build a bungalow that cost \$2,000 five years ago, build and charge a proportionate increase in rent. The man who wants to rent a home or an apartment doesn't expect to get it as cheap as he did five years ago. That man is getting more money than he did five years ago, and while the cost of living has exceeded the average advance in salaries, still people have to live somewhere and they will pay well for a good home or an apartment, and if they have to economize, they can economize in another direction."

Why Wait About Building?

The Herald of Albany, Ga., says: "People who contemplate building and have been waiting for lumber and other necessary material to 'go down' are gradually realizing that they have been losing time and getting nothing in return, and present indications are that 1920 will witness the greatest building activity in the history of the country."

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



Warren & Wetmore, Architects.

Skylight VENTILIGHTERS in one of the class rooms of the Nautical College, Seaman's Church Institute of New York.

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.

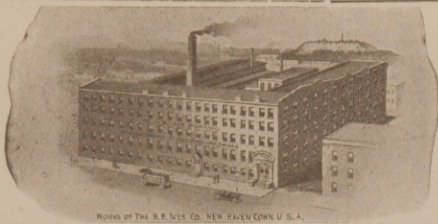
They fit anywhere and are made in any size for skylights, windows, porches, etc. They are made in any shape for any opening, round, semi-circular, square, etc. Burglar or fire alarm wires, sprinkler pipes, other pipes or parts of building construction, even columns passing through them, do not interfere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

Send for our new catalog F.
LIGHTS VENTILATES SHADES PROTECTS

SIMON VENTILIGHTERCO., Inc.

101 Park Avenue

New York City



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

THE H. B. IVES CO.

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

ESTABLISHED 1876

INCORPORATED 1900

Manufacturers of
BUILDERS' HARDWARE
 HIGH GRADE WINDOW AND DOOR SPECIALTIES
 Write for Illustrated Folder.

The Year's Building Record.

In the entire country the 1919 building projects will reach \$2,600,000,000, says a New York authority, based on F. W. Dodge Company reports. This includes engineering operations and construction of all forms. It is nearly a billion dollars above the 1918 total, which held the high record. Current projects are one-third residential, one-third industrial, 15 per cent for general business and 10 per cent for public works and utilities.

Builders in New York City district are rounding out a \$550,000,000 year, more than one-third of the building being residential. While Manhattan's main activity has been in business projects, Brooklyn and Queens are bustling with home building, and suburban operators have put up small houses by the hundreds and vastly improved transportation facilities.

Capital for building seems to be most available in the Central West, where operations are running past all previous volumes. Reports from Illinois, Indiana, Iowa, Wisconsin, Michigan, Missouri and Kansas show outlays of \$820,506,000 for eleven months of the year. All parts of the country show good gains over their old high records. New England, in its rush to get abreast of the demand for homes, has called for outlays of \$207,288,000 during the year and the middle eastern section has a record of nearly double the best volume of any preceding year.

Peace in the New York industrial field is tentatively assured for 1920 by the agreements now pending between the Building Trades Employers' Association and the Building Trades Council, the latter representing 41 unions in New York City and Long

Island, and 150,000 employees. Negotiations have been in progress for a year and the agreement is considered by far the most important step ever taken toward amicable working arrangements between employers and employees. Strikes are made improbable during 1920 by this agreement and a clause is provided for the continuation of the plant into 1921.

The purpose of the measure is "to obtain continuity of employment and uninterrupted production" and it provides for a permanent board of arbitration. It would seem to herald a new industrial day.

Doing Things Right.

Get the habit of doing things right. This will mean: Greater production, less waste, increased earnings. Work for good times all the time.—Wm. B. Wilson, Secretary of Labor.

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.



Herrick Refrig. Co.
 Waterloo, Iowa

Your Biggest Wishes Answered!

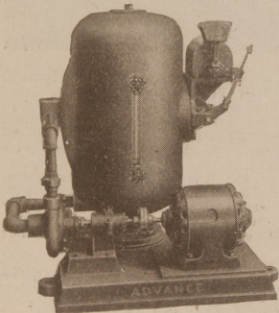
Herrick Outside Icing Refrigerator

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.
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AUTOMATIC ELECTRICAL CONDENSATION PUMP AND RECEIVER



For Vapor and Low Pressure Steam Heating System

We guarantee absolute satisfaction on return systems where our outfits are used. There is a partial vacuum produced on the return mains and receiver of these outfits. The water is automatically discharged into boiler at pressures ranging from zero to twenty pounds, and we insure positive protection against overloading motor with our special safety nozzle.

Write now for Bulletin RH 205.

ADVANCE PUMP & COMPRESSOR CO.,
 Battle Creek, Michigan.

Every Builder Needs This Hoist

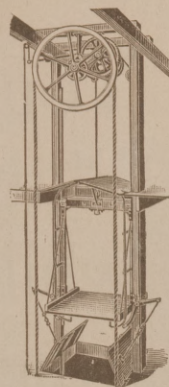
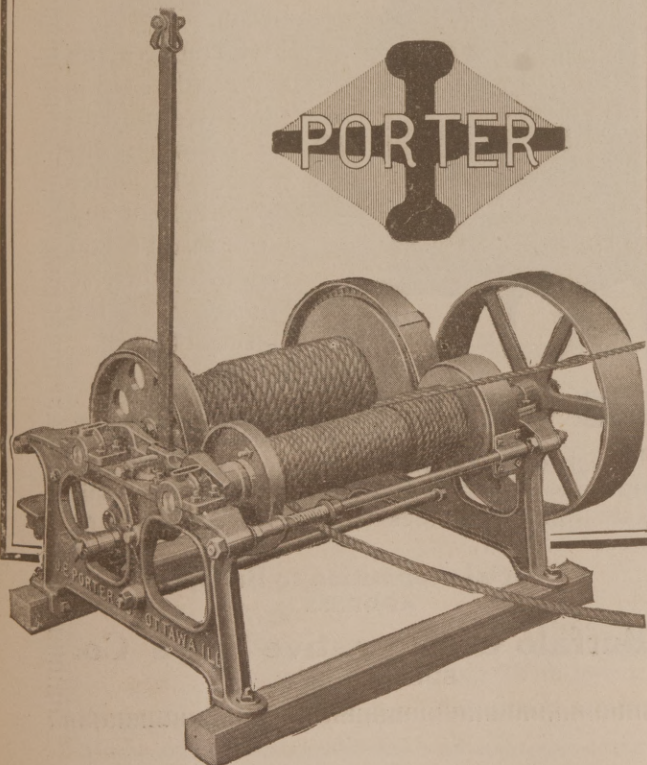
Here is the simplest, strongest hoist made. It has fewest parts—fewest to pay for—and its simplicity insures dependability. Taken apart or put together in ten minutes by the most inexperienced man. A few cents a day will operate it.

PORTER Single Lever Hoist

One lever controls the operation. Cannot be thrown into gear accidentally. Ball-bearing thrust collars absorb friction. Frame is as sturdy as metal can make it—heavier than other hoists, and absolutely break-proof. Like all Porter products, it is fully guaranteed.

Write for complete illustrated details of construction and operation.

J. E. PORTER CO., 819 Guion St., Ottawa, Ill.



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ELEVATORS

FOR ALL PURPOSES

DUMBWAITERS

SIMPLEX CHAIN HOISTS

CRANES

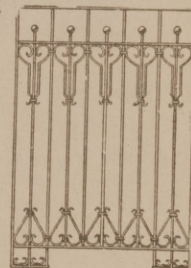
Chain for All Industrial Purposes

J. G. SPEIDEL

READING, PA.

Brass Rails

OF EVERY DESCRIPTION
FOR THEATRES, BANKS,
CHURCHES, OFFICES, Etc.



Let us bid on all BRASS AND BRONZE WORK. Inducing Prices, High Class Workmanship. Send us list of Requirements. Write for Catalog.

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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"OTELLO" PAINTS

An excellent and inexpensive substitute for red lead on new steel

Acid Proof

Prevents wood from expanding and contracting through absorption of moisture

Half the cost of oil paints

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Plumbing—is it worth
while to consider any
other ?



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FIREPLACE FIXTURES



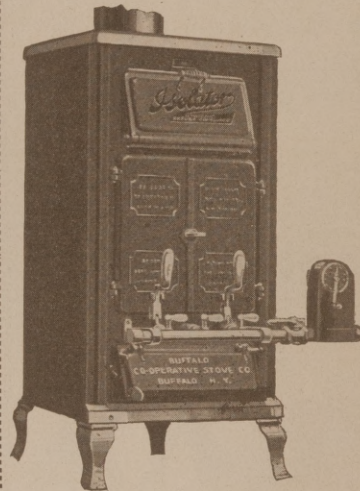
Grates and Furnishings

Suggested settings for the newest designs
of andirons may be had upon request.
Write for Catalogue No. 32.

Chattanooga Roofing & Foundry Co.

Chattanooga, Tenn.

The Coziest Homes Today



have no garbage
cans at the back
door step.

Incineration at the
source of origin is
the modern meth-
od of waste dis-
posal. In justice
to your client and
yourself you
should familiarize
yourself with the
merits of the

ISOLATOR GARBAGE CONSUMER

It is installed in the kitchen or basment and
operates with natural or artificial gas. Investi-
gate the possibilities of this new sanitary
necessity now.

Special proposition to Builders
ADDRESS

Buffalo Co-Operative Stove Co.
BUFFALO, N. Y.

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.

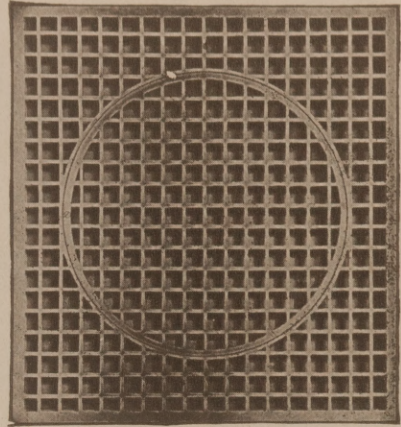
Send accurate measurements of rooms for colored sketch with exact estimate of cost of the flooring required. Instructions for laying and finishing accompany all orders shipped.

Send for free catalog in natural wood colors.

Wood-Mosaic Company
New Albany, Indiana

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

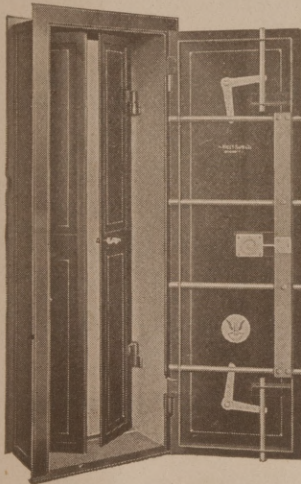
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The Hall's Safe Company



No. 1AA Fireproof Vault Door.

Wall Opening
79 High
32 Wide
20 Deep

P. O. BOX 846.



CINCINNATI, OHIO

SALESROOM: NEW YORK, N. Y., The Walker Safe Co., Inc., 388 Broadway.

MANUFACTURERS OF

- Vault Fronts
 - Vault Linings
 - Grills and Gates
 - Omnibuses
 - Chests
 - Deposit Boxes
 - Filing Devices
 - Wall Safes
 - Tabernacles
- Fire Proof Safes—Burglar Proof Safes—Manganese Safes with Hall's Key-Combination or Time Locks.

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.



BUILT IN STEEL KITCHEN



Type "AB2" Bisk Kitchen in a Living Room

A Complete Kitchen hidden away behind ornamental doors. Space required, only 7 feet 6 inches long, 7 feet high, 18 inches deep. Total floor space 18" x 90".



YOU house more people, more comfortably, in less space, by the use of Bisk. You derive more income with a smaller investment, by the use of Bisk. Bisk is a truly requisite item in keeping with the national problems of present necessities in housing. Bisk will save you floor space to the extent of giving you 6 apartments where you could get only 5 ordinarily. Result—minimum gain of 20% in accommodations and an equal gain in rental return. Bungalows sell on sight when Bisk equipment is installed.

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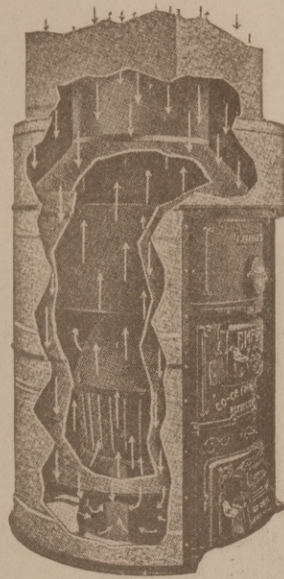
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Boston Office, 185 Devonshire St., Boston, Mass.

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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 moderate buildings, large and small, and prices to suit the pocketbook.

Write for complete literature.

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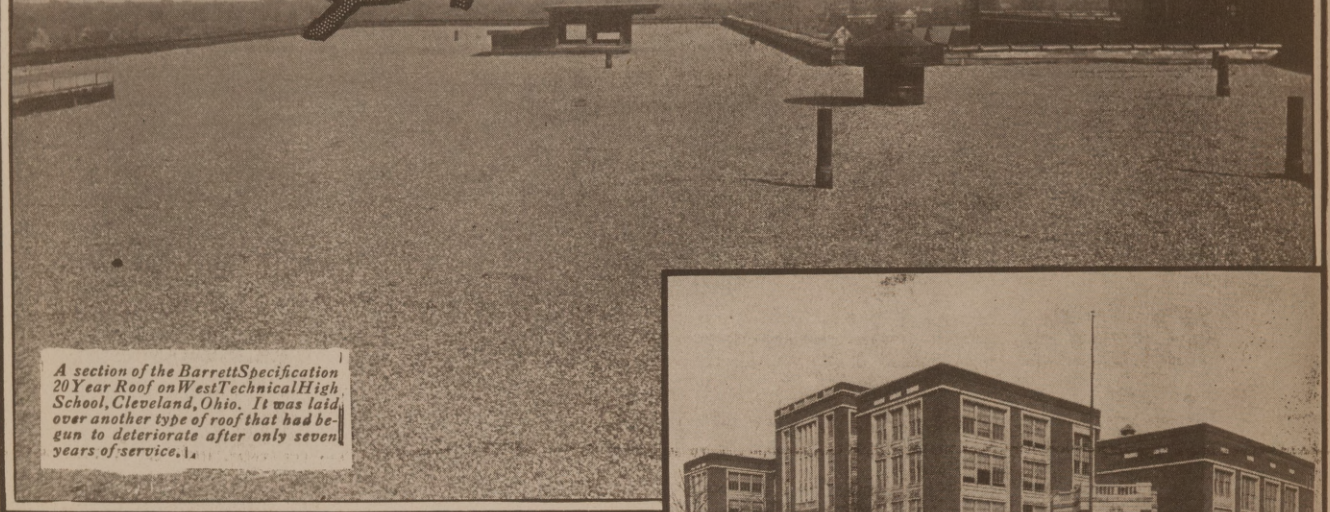
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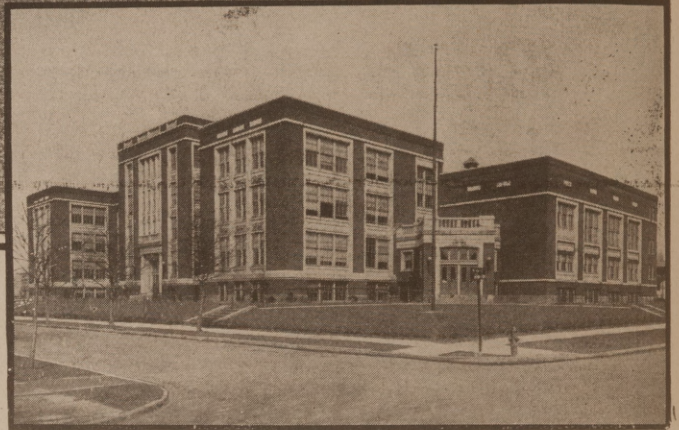


CROSS
PIPELESS

Barrett Specification Roofs



A section of the Barrett Specification 20 Year Roof on West Technical High School, Cleveland, Ohio. It was laid over another type of roof that had begun to deteriorate after only seven years of service.



How to be sure of a 20-Year roof—

THE West Technical High School, Cleveland, Ohio, pictured above, has just been re-roofed with a Barrett Specification Roof over another type of roof that had begun to deteriorate seriously after only seven years of service.

When the Barrett Specification Roof was finished we handed the City Officials of Cleveland a Surety Bond, issued by the well-known United States Fidelity & Guaranty Co., of Baltimore, which guarantees the roof to last for at least 20 years without maintenance expense of any kind. The probabilities are that this roof will last nearer 30 years.

There is only one way to be absolutely sure of getting the kind of roof you want—a genuine Barrett Specification Roof—and that is to write this standard paragraph into the building specifications.

"The roof shall be laid according to The Barrett Specification dated May 1, 1916, and the contractors shall obtain for us, without additional cost, the Barrett 20-Year Guaranty Bond."

This simple paragraph takes all the gamble and worry out of roofing, for both owner and architect.

Such expressions as "Barrett Specification type of roof," "Five-ply felt-and-pitch roof" or "Barrett Specification Roof, or equal," should never be permitted in a building specification.

The 20-Year Surety Bond Is Free

The 20-Year Surety Bond will be furnished on any roof of 50 squares or over, in cities of 25,000 or over, or in smaller places where Barrett Inspection Service is available. There is no charge for this Bond. Our only requirements are that the Barrett Specification shall be strictly followed and that the roofing contractor shall be approved by us.

A copy of the Barrett 20-Year Specification, with roofing diagrams, sent free on request.

New York
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Seattle
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Kansas City
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Southern Architect and Building News

VOL. LXIV.

DALTON and ATLANTA, GA., FEBRUARY, 1920.

No. 4

If You are Going to Remodel These Ideas will Help You.

THIS article is designed to give you ideas that you can use in remodeling your own house wherever and whatever it may be, whether you want to do a lot or just a little, writes Richardson Wright in *September Farm and Fireside*.

It lists the steps in remodeling in the order of their importance, gives you costs on each item, and shows you how you can make your house over completely at one time for \$2,791; or how you can spread the work over several years, making one improvement at a time, at a cost of only a few hundred dollars a year.

It is so planned that you can scale it up or down to fit a big house, a medium-sized house, or a small house. And when completed you will have a home thoroughly modern and attractive, with separator, office, and miscellaneous wings; heating and plumbing system; sleeping porches, gardens, etc.

The plan is presented to you now so that you can work out your ideas during the winter, and be in position next spring to know just what you want to do.

As to the practicability of what I give you here, I can only say that, with many years of personal experience with all kinds of building problems, and with the experience of the best architects, builders, and home owners throughout the country to draw on, I have summed up, after many weeks of careful investigation, the soundest and most economical suggestions I could develop from the whole field.

Of the methods by which a man and woman may make a home, none are more fascinating than restoring or remodeling an old house. Half the work is already done. The remainder will be successful according to the measure of your imagination, your ingenuity—and your purse. For the farmer it may also be the most practical sort of house.

The farmer can either restore the old house to its one-time architectural glory, or else so rebuild it that the original property is scarcely recognizable. In either case he must modernize its living facilities. The methods of rebuilding and restoring consequently combine architectural and sanitary improvements.

If an old farmhouse suits your needs, restore it;

but be sure to restore it according to the architectural character of the original. Nothing is worse than a New England Colonial farmhouse made hideous with jig-saw decorations, porches of unsuitable design, and modern, big-pane windows. Or again, a house may eventually prove too small and additions be required. The same rules apply here. Have a heart for the man who in old times dreamed and executed a beautiful home. Don't put a red brick wing to a shingle house when a shingled wing will serve the purpose. In restoring, your work should be limited to putting in new parts where the old have worn out, preserving both the exterior and interior with paint, relaying floors and introducing the modern conveniences of good plumbing and sewage disposal, and heating and lighting plants.

Your success with either restoring or remodeling a house will depend greatly on the original property. Before proceeding investigate these points:

1. Location of the house. Does the house stand above the level of the road? If not, you will receive drainage from the road. The same applies to the other immediate surroundings. The house in a pocket will be damp, its cellar wet, washouts will ruin the land, and you will have difficulty in laying suitable drainage. Land sloping away from the house, preferably to the south and southeast, affords the best location.

It should not be too near the road, else the housewife will have difficulty in keeping her rooms clean, and the house itself will have no approach which is requisite for its setting.

You should also consider the house in relation to the other farm buildings. This will very much depend on the region you are in. The New England grouping connected the house with the barn by a series of arched passages used for woodsheds, machinery storage and chicken houses; the Pennsylvania and New Jersey ground plans show the farm buildings built around a large square. Whatever the location of the house, its immediate surroundings should be kept separate from the other buildings. This will reduce fire danger and give the dwelling the proper atmosphere that it deserves. The house

should have its own kitchen garden, flower gardens, and stretches of lawn—a sphere the housewife should control.

2. The second question is the location of existing rooms. What do the present rooms look out on? If the view from the living-room, for example, is unpleasant, you will find yourself not wanting to use that room. This problem can be solved by the rearrangement of the rooms inside and the development of gardens outside.

3. To what extent are modern improvements necessary? Heating and lighting plants, a good sewage-disposal system, and up-to-date plumbing add to the efficiency and comfort of all concerned. Modernize your home and your boys won't be lured away to the city.

4. A fourth investigation should cover the actual condition of the house structure—its flooring, beams, roof, etc. In many instances a new roof is needed, or new floors.

To illustrate these points I am taking a house built about fifty or seventy-five years ago. It lacks in everything modern. By restoring it theoretically we can get at the question of what has to be done and what the improvements will cost. The frame of the house—i. e., its beams—are in good condition. Its shingled or clapboard walls are firm, and the roof in a fairly decent state which will require only an occasional shingle or a new set of flashing tins to assure its being water-tight against storms. The chimneys need pointing. There is a cellar under part of the house.

The average farmer might not select such a house to work on, but it has been chosen here because it affords so many points of development.

In restoring and rebuilding this house we are making room for a family of four—man, wife, and two children. Space will also be provided for an office and sleeping porch, a separator-room, laundry, down-stairs toilet, and a kitchen porch, together with a kitchen and outside entrance to the cellar.

The architectural character of the house is New Jersey farmhouse style. Roof and walls are shingled. Windows, as we find them, are large-paned. The chimney stacks afford fireplaces on either side. A wide porch extends across the front, added some years ago, and trimmed with a dizzy frill of jig-saw work. Inside the rooms follow the general plan of hall, with dining-room and kitchen on one side and big living-room on the other. Upstairs are four bedrooms and no bath. Heating was by stoves. A pump supplied water for the kitchen. Lighting was by lamps. Now we are going to restore, rebuild, and bring this house up-to-date.

The original house has a frontage of 40 feet, and is 28 feet deep. To this we are going to add an ex-

tension—a separator wing and an office with a sleeping porch above it.

Off the kitchen corner we plan a one-story shingled extension 24 feet long and 14 feet wide. This will house a separator-room, a laundry, down-stairs toilet, kitchen closet, and back porch. The porch contains the icebox, easily reached from the kitchen, and a broom closet, and gives access to the laundry and separator-room. The housewife goes from the laundry across the porch to the drying yard, a stretch of grass behind the vegetable garden safely removed from the dust of the road.

In order to preserve the general character of the original, we will clapboard the walls of this extension. The inside studs may be left uncovered, or finished with wall board, as one desires.

Two windows are provided on the side facing the drying court, a door at the end nearest the barn, a loading platform midway down the other side, with windows to light the toilet and laundry. On this side the roof has a four-foot overhang to shelter the loading platform and the stacks of firewood on either side of it, the firewood being easily reached through a back kitchen door.

The other addition contains the office and the sleeping porch. Every farmer ought to have an office where he can keep the accounts and records of his stock and sales, a room especially given over to that purpose. In this extension, doors lead to the living-room and to the back yard. One window lights it sufficiently, for the office measures only 10 x 11 feet. Off one corner we run a 17-foot pergola, which, with the office wall, forms a background for the flower garden.

Both these extensions can be built on concrete foundations. The roofs may, if one desires to make them fire-proof, be covered with asbestos shingles. The floor of the separator-room and laundry are to be concrete, the roof of the sleeping porch is duck.

Other exterior improvements include the introduction of long French windows in the front and living-room sides, thus giving access respectively to the porch and flower garden. On each side we have built out the chimneys at the base, leaving the bricks exposed—a pleasing architectural feature. In respect to the original architecture we have cut off the jig-saw work, substituted small-pane sash for the large ones, and added shutters. In the rear the original bulkhead entrance to the cellar has been turned around, and widened to give ample space for carrying down milk cans to the cooling-room.

Now we go inside the house. As the plans show, there is a large, house-depth living-room, with a window on the rear yard, a door to the office, and our new French windows leading to porch and garden. The fireplace has also been restored for use.

On the other side of the hall the kitchen and din-

ing-room have been made into one big room with sliding doors. There is a dining-room fireplace in the corner, and behind it, on the other side of the partition, stands the range, both using the same chimney. In developing this one big kitchen-dining-room we are hoping that the farmers of America may see the opportunity for picturesque treatment that the farmers of the Continent have long since developed.

We find the stairs going up straight to the second floor. We are turning these in order to get space for a bathroom at the rear, and cutting a little into one of the chambers to make room for the landing. At the front we are introducing linen closets, and using the remaining space for front chamber closets.

The owner's rooms are in suite—a front chamber for the young children and a back bedroom, with sleeping porch, for the parents. Ample closets are provided. There is easy access to the bathroom.

The structural changes to the house itself are really small. The bathroom is a necessity and the downstairs toilet a convenience. It is built up on one stack of plumbing, the most economical we can devise. This will provide service for the laundry, toilet, separator-room, and kitchen sink. Hot water is also piped into the separator-room, laundry, and bath. The sewage is taken care of by a septic tank.

The two other modern improvements are heating and lighting plants, which we will discuss when we come to the matter of costs. They are expensive items, but they will amply repay in comfort and convenience.

It is not to be supposed that the farmer—unless, of course, he is very well off—will make all these changes in one year. He can very well extend them over three years, adding the separator wing first, then the office, and finally developing the gardens. His heating and lighting plants and plumbing should be installed the first year. The small addition necessary for the office extension can easily be made the second.

In developing his house he should keep a definite plan constantly in mind. He should know what the finished homestead is going to look like, and stick as close as possible to the original design. And in creating the design for the house he should also make a strict division between what belongs to the farm and what to the home. The farm lands are under his supervision; the house lands should be under the wife's. That flower garden is hers, and so is the house vegetable garden and the drying yard. She should be mistress of all she surveys in that house. Too many farmers conduct their homes as a sort of necessary evil to farming, an adjunct that has to be put up with. Give the woman a chance—and see what she'll do with it.

Figuring an exact cost on these various improve-

ments is extremely difficult because of the unsettled condition of labor and the high prices. The figures given here are on the basis of current New York prices—the highest in the country. From them you can get an approximate idea of what the improvements in your section would be, by using this table:

Philadelphia and suburbs.....	10-15%	less
Northern New England.....	20%	“
Southern New England.....	19%	“
Middle South (Kentucky and Maryland)	30%	“
Chicago and vicinity.....	11%	“
Middle West (Ohio, Michigan, and Iowa)	47%	“
Pacific Coast and Northwest.....	18-50%	“
Colorado and vicinity.....	18%	“
Southwest (Arizona and New Mexico)...	30-35%	“

Each of these localities is affected to a greater or less degree by the cost of labor and transportation. In many instances much of the work can be done by the farmer himself. Again, the materials may be near at hand. All of these variations change the sum total of ultimate costs.

Setting them down in detail, we have, for the separator wing, which is 24 feet long by 14 feet wide:

Foundations—

Concrete footings—Cement, 6 barrels.....	\$18
Forms— $\frac{7}{8}$ -in. boards and studs.....	24

Floors—

Concrete floor in separator-room and laundry—Cement, 2 barrels.....	6
--	---

Exterior Walls—

Studs, 3M	18
Sheathing, 1M, 3-in.....	55
Paper	3
Beveled siding, 9M.....	60

Roof—

Framing—Rafters, 5M	30
Shingle lath and shingles.....	40

Millwork—

4 windows at \$7.....	28
4 doors at \$6.....	24
Porch flooring	4

\$310

The office extension, which is 10 x 11 feet and has a sleeping porch above, figures out at:

Foundations—

Concrete footing—Cement, 3 barrels.....	\$ 9
Forms—Boards and studs.....	12

Exterior Walls—

Studs	5
Sheathing, 5M	27
Siding, 5M	30
Paper	2

Flooring—

First and second floor framing, 3M.....	18
---	----

First and second floor boards.....	13
Roof—	
4 posts for roof.....	8
Roof framing, 2M.....	10
Shingles and lath.....	9
Duck roof	32
	————
	\$175

The miscellaneous expenses to consider are:

Painting—Ready-mixed paints for all jobs.....	\$35
Window sash—17 new window sash at \$5	
a window	85
French doors—3 French doors at \$20 each.....	60
Dutch door and hardware.....	25
Shutters—17 pairs of shutters at \$4 a pair.....	68
Extra balusters, newels, etc., for stair change...	15
Concrete steps to cellar.....	8
Lumber	5
Closets—	
Lumber, 3M	20
Lath and plaster, 40 sq. yds. (materials	
only)	10
	————
	\$331

As the reader can readily see, each of these items is capable of generous reductions. The gardens, fences, and pergola can be developed without such an expense, the excavating can be cut in half, and the chimney work may be reduced perceptibly, as it merely requires an extra layer of brick at the chimney bases and a general pointing at the tops. Again, as I have suggested, this work can be extended over a period of years and advantage taken of reductions that may come.

The heating plant should provide a furnace capable of burning both wood and coal. In extremely cold weather the living room heat can be cut off and the dining-room-kitchen used for living purposes. The price of a hot-water plant to heat the entire house will cost approximately \$750, including installation.

The choice of lighting plants lies between electricity and acetylene gas. Both have their respective merits, dependent on local conditions. The one advantage of the electrical system in this instance is that it can be housed at the base of the water tower by the barn, the same room being occupied also by the electric pump which gives water supply from a pneumatic tank. An electric-light system for this house, providing 20 outlets, costs approximately \$400, and the necessary wiring \$125, or a total of \$525.

The plumbing system is a simple, one-stack plan to serve the bathroom, kitchen, laundry, separator-room, and down-stairs toilet. These fixtures and their installation will cost approximately \$700.

We therefore have a total for the material necessary for these improvements, labor not being figured:

Separator wing	\$310
Office wing	175
Miscellaneous wing	331
Heating	750
Lighting	525
Plumbing	700
	————
	\$2,791

There is just one more word to say on costs: Paint will reduce the costs of upkeep. It is one of the best insurances against time and storm and wear and tear you can carry. Keep the house painted.

Don't be afraid of spending money on your home. The best investment you command is your house—an investment paying big interest to yourself and your children.

American Lumber Wanted in Italy.

It is stated by one who is well informed as to the lumber trade of Italy, and who gave Trade Commissioner Nelson C. Brown considerable information during his investigation here last year, that the Italian market is practically bare of lumber at the present time and that pitch pine especially is in demand. Efforts have been made by Italian dealers to supply their needs from Austria, which previous to the war furnished the bulk of the lumber imported into Italy, but it has been found impossible to obtain shipments of any large quantities. It appears that Austrian competition need not be feared for some time to come and that the time is ripe for American firms to enter the market.

Building Ordinance for Small Cities and Towns.

The National Lumber Manufacturers Association, Chicago, has issued in a small book a form of building ordinance to meet the demand for such a law affecting or relating to fire limits and the construction, alteration or repair of buildings in communities of 30,000 population or less. It is further remarked that a thorough canvass of the field has revealed that there are more than 1,000 such cities in the United States without any building regulations. It is intended to serve as a reasonable regulation of ordinary building construction where congestion is not abnormal. Changes and revisions may be made to suit local conditions, but the general provisions of the ordinance will doubtless be found acceptable to all who turn to the book for advice.

Standard Contract Form

From News-Letter of The Associated General Contractors of America.

THAT a standard form of contract acceptable to the contractor, engineer, architect, and owner can be developed has been the experience of Manitoba, where for some fifteen years a standard contract form has been in general use except on governmental and railway operations. Copies of the forms used for the general contract and for sub-contracts have been secured by the A. G. C. Committee on Contracts through E. Cass, a contractor for many years in Winnipeg. Mr. Cass writes as follows concerning the subject of contracts:

“For many years I have been very much interested, as a contractor, in having an equitable contract to work under. I might say here in regard to the uniform contract which has been in vogue here in Manitoba for twelve or fifteen years, that it has given entire satisfaction to contractors, architects, engineers and owners. As you are aware, I stated before the conference of the Association of Canadian Building and Construction Industries at Attawa that federal and provincial governments, railways and municipalities were exempt from using this uniform contract.

“At the time this contract first came into force here, it was found very difficult to get owners and architects to agree to using this contract; consequently in order to obtain their consent, we made the exemptions referred to above. Unfortunately during the many years this contract has been in vogue, our Exchange has taken no active steps in eliminating these exemptions. Personally I feel that if the builders' exchanges throughout the country were alive to their own interests, they would take steps to have this, or perhaps some modified form of contract brought into general use. Some of the contracts we are obliged to sign here today give the contractor no status under the law and in many cases actually hold them responsible for the mistakes of architects and engineers.

“It has always been a surprise to me what little organization and cooperation existed among the contractors of both the United States and Canada and I am glad to feel that they are now becoming aroused to the necessity of cooperation and uniform methods in the carrying out of their various undertakings. In this way, only, can they minimize the many difficulties to be met in the contracting business.”

The provisions of the Manitoba standard contract form covering liquidated damages and arbitration are given below:

Article VI. The contractor shall complete the whole of the works comprehended in this agreement by the.....day of.....A. D. 19....provided

that the contractor shall, for every day after the date here fixed for completion thereof the Owner shall be delayed solely through the Contractor's default, in obtaining any use and benefit of the works, pay to the Owner as liquidated damages for such delay at the rate of six per centum per annum on the total amount of the contract price. In no case shall the Owner be entitled to a claim over six per centum per annum on the said contract price by reason of any special damage from delay.

Article XIII. Any arbitration herein provided for shall be as follows: The Contractor and Owner shall each appoint one arbitrator and such arbitrators shall appoint a third. If the arbitrators fail to agree on the appointment of a third arbitrator, either party may upon two days' notice to the other apply to a Judge of the Court of King's Bench for the Province of Manitoba to appoint such third arbitrator. The decision of any two of these three arbitrators shall be final and binding. Each of the parties hereto shall pay one-half of the expenses of such reference. A party who has not been appointed an arbitrator after the other party has appointed one shall do so within two days after being notified in writing by such other party to do so. If the arbitrator of either party shall fail to proceed with the consideration of matters within three days after being requested in writing by the other party's arbitrator so to do, such other party's arbitrator shall, if a third has not been appointed, be at liberty to act as sole arbitrator and his decision shall be final and binding, or the other two arbitrators, if a third has been appointed, may forthwith appoint an arbitrator in lieu of the one who has failed to proceed as aforesaid, and the decision of two of such three arbitrators shall be final and binding. If either party has done all reasonably within his power to comply with the provisions herein contained as to securing an arbitration, but by reason of the default of the other party or of the Architect or of the arbitrator appointed by such other party or by reason of the Architect failing to adjudicate or certify in respect of any matter or thing upon which he should under the terms hereof, adjudicate or render a certificate or by reason of the arbitrators being unable to agree, or if no award is made within a reasonable time, such party may take such action as would be permissible in the courts in the same way as if no reference of the matter in question either to the Architect or to arbitration had been herein provided for and the other party shall not be at liberty to object that the adjudication of the Architect or a certificate

from him is prerequisite or that the remedy is only by arbitration or that arbitration is a prerequisite to such action being taken or that the appeal to arbitration having proved abortive, the decision of the Architect is final and binding. An award under the provisions of this Article may be made as a rule or judgment of the Court of King's Bench.

Motion Pictures of Industry.

The Indiana Limestone Quarrymen's Association, Bedford, Ind., has had a three-reel motion-picture film made by the Rothacker Film Manufacturing Co. of Chicago, showing the wonderful machine methods employed in quarrying Indiana limestone

and the extensive factory system used in preparing the material for market. After picturing the removal of the earth covering the deposits of stone by hydraulic process or by steam shovel, the films portray steam and electric channellers traveling back and forth cutting vertical channels two inches wide and from 10 to 14 feet deep into the masses of stone. Breaking the stone loose by means of wedges is next shown, then how the blocks—some of them weighing 250 tons each—are lifted from the quarry. The processes of sawing, planing, turning, cutting and carving are represented by rotation. The film is to be displayed before architectural organizations, college students, building conventions, etc.

Forest Exhaustion is Threatening Remedy Lies in Federal and State Action

THE RATE of depletion of the forests of this country is more than twice, probably three times, what is actually being produced by growth in a form serviceable for products other than firewood. Consequently high prices of lumber are not wholly due to increased costs of production. An important factor is the ever-retreating sources of timber supply. Already the supplies of all the great eastern centers of production are approaching exhaustion, with the exception of the South, and even there most of the mills have not over 10 or 15 years' supply of virgin timber. Already the southern pine is being withdrawn from many points as a competitive factor and its place taken by western timbers. This inevitably results in added freight charges, which the consumer must pay.

These facts are called to public attention in the annual report of the forester of the U. S. Department of Agriculture, recently published. Their presentation is accompanied by a plea that the nation adopt an enlarged program of public acquisition of forests by the Government, the states, the municipalities, and protection and perpetuation of forest growths on all privately owned lands which may not better be used for agriculture and settlement.

In the early years of the present century it looked as though the management of forests as permanent, productive properties might be voluntarily undertaken by private owners on a large scale, but since then the situation has materially changed. The need for the adoption of an enlarged program of acquisition, the U. S. Department of Agriculture points out, has become increasingly urgent. More than 20 years ago the Division of Forestry, as it was then called, offered to give advice and assistance to private tim-

ber owners who might wish to consider applying forest management to their properties. By the middle of 1905 requests had been received for the examination of private holdings, large and small, comprising in all 10,900,000 acres of land. Many of these requests were from large lumber companies and other owners of large timber tracts. On the strength of the showing made by the preliminary examinations, a number of these large owners entered into cooperative agreements for the preparation of working plans.

But private interests failed to follow up the beginning, and the Government and the state, in the opinion of the Department of Agriculture, must join hands to work out a program that will correlate public and private efforts looking to the protection and proper administration of forests. The function of the Federal Government, in addition to handling the national forests, it is suggested, would be to stimulate, guide, and coordinate state action and conduct necessary investigations regarding the best methods of forestry, to assist the states in the classification of land, and to harmonize action between the different states. The states would also handle public property owned by them and they would have a further direct responsibility in connection with the protection and perpetuation of private forest lands.

With regard to the Federal attitude toward private forestry, it is suggested that the Government would work primarily through state agencies. To indicate the proposed policy, a Federal law would be necessary authorizing the Government to cooperate with the states in bringing about the protection and right handling of forest lands within their borders and providing means for such cooperation.

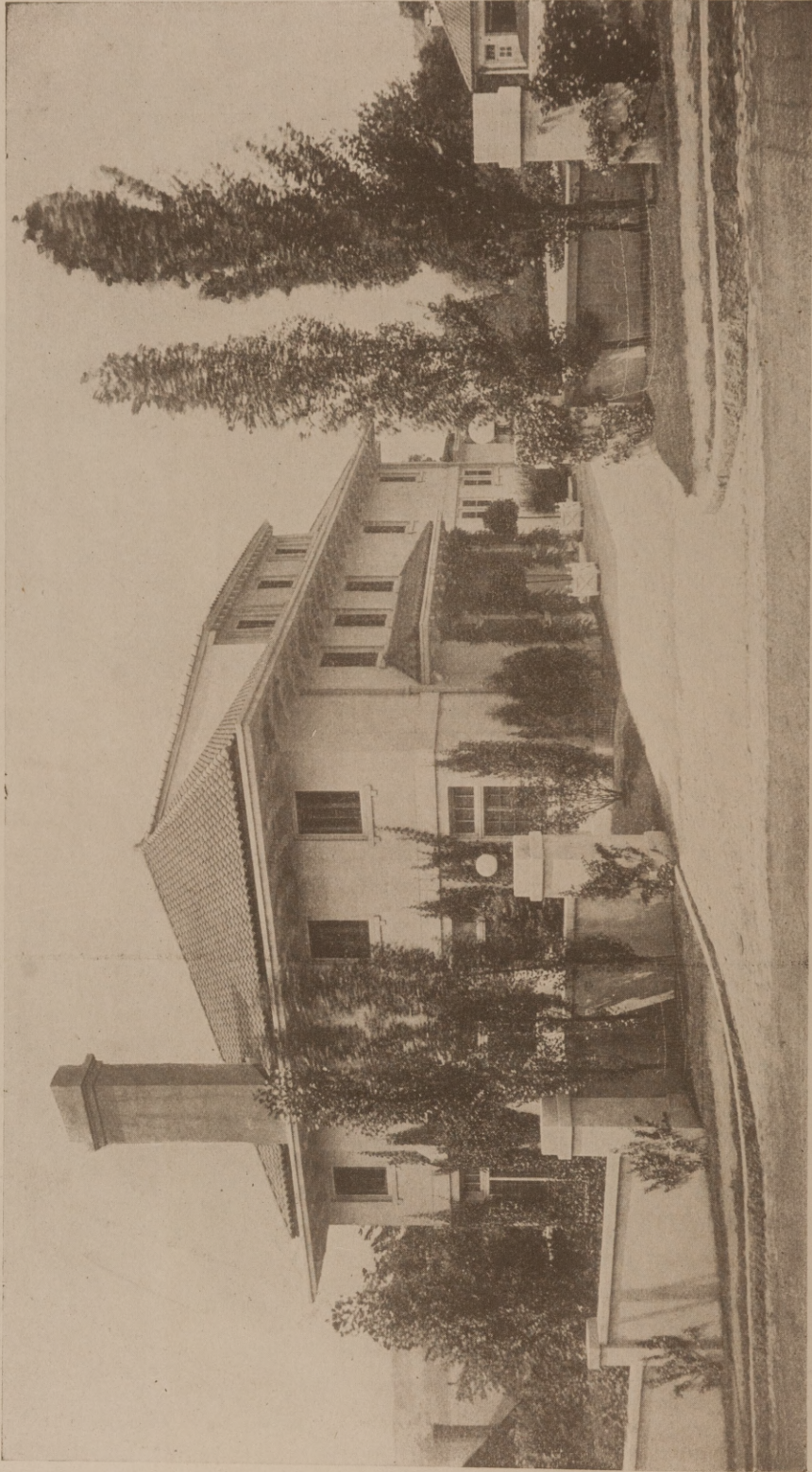
Some Pretty Homes North and South



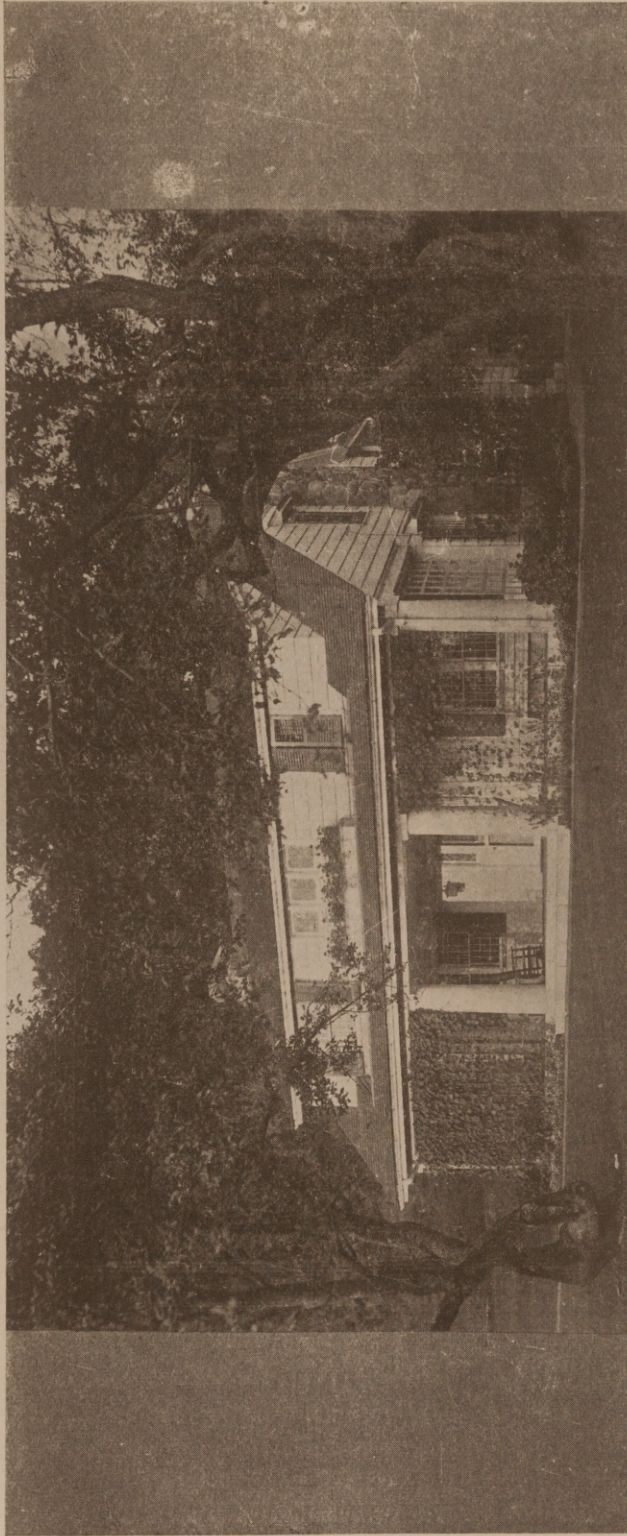
Hofe of Wm. H. Fleming, Augusta, Ga. W. T. Downing, Architect, Atlanta, Ga.



E. S. Shorter Residence, Eufaula, Ala. Curran R. Ellis, Architect, Macon, Ga.



Home of Mrs. Daniel Simonds, Fitchburg, Mass.



These two houses show how adaptable this style is for varying situations. The front elevations are almost identical, with the exception of window treatment. Here the window box upstairs is particularly attractive and the screen of vines pleasing. In a setting of trees and stone walls such a house as this is very attractive.

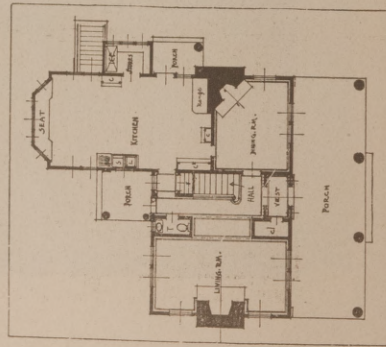
A HOME AND A SUPERINTENDENT'S COTTAGE AT ARDSLEY. Arthur T. Remick, Architect.



Comparing the side view of Mr. Wood's house with the side view of the cottage below, it is evident that this design is adaptable to different effects. The perspective is slightly distorted; a truer picture appears alongside.



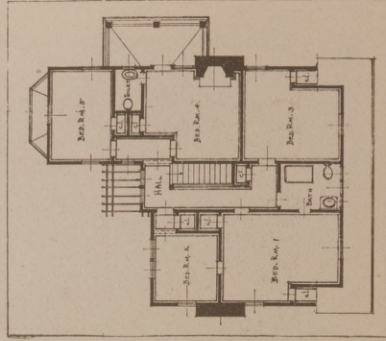
The difference in effect of brick and stone chimneys is very well evidenced in comparison of this photograph and the one below it. Brick appears to advantage in a flat situation unincumbered with much foliage.



The front view of the house would not suggest the ground plan shown here. The dining-room is for the use of the owner when the main house on the estate is not occupied.



Where the house above is cut off slightly in back of the chimney, a kitchen wing has been built on this superintendent's cottage to provide for the needs of the help on a large estate. The side view is not spoiled by any means with this addition.



The bedroom, with an adjoining bath, is made separate for the incidental use of the owner. These plans are for the use of a superintendent's cottage and not a home.



A Pretty Suburban Home at Dallas, Texas.



Tampa View Co.

Residence of Wm. D. Richardson, Tampa, Fla. Courtesy Mr. L. F. Drake, Architect, Tampa, Fla.



Stable and Coachman's Cottage—The Tracy Dows Place, Rhinegeck, N. Y. Albro & Rineberg, Architects.

LUMBER DEPARTMENT

Southern Architect and Building News

VOL. XLIV.

DALTON and ATLANTA, GA., FEBRUARY, 1920.

No. 4

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Indianapolis, Ind.



A New Year's Message to The Lumbermen of America

THE time has come when men who prize liberty and democracy uphold the law and the constitution; when men who believe in representative government and in government of the people, by the people and for the people shall join in the maintenance of this Republic against all enemies within or without.

The ideals that made America are being assailed. Misguided men seek to tamper with the constitution of our government, the very charter of our liberties. Bent on revolution, they would cast into discard institutions upon which stands our national life. Throughout the world the spirits of restless men demand "something for nothing." The desire to possess has outstripped the desire to earn. Men and nations follow after false gods.

In our government the people must be made to mean all the people. Special favors and class legislation must cease. All associations of men, just as

all men individually, must be equally responsible before the law. The individual rights of men, the righteousness of which has stood the test of generations of industrial and political evolution, must be inviolate.

In the struggle for human liberty and democracy throughout the world may that liberty be not a sham and may that democracy be not found to be the shadow without the substance.

In the end the Right always triumphs. May we, the lumbermen of this nation,—proud and stalwart Americans—with such means as we may have, hasten the triumph of Right so that the blessings of liberty, unimpaired, may be passed on to those who come after us.

John Henry Kirby,

President National Lumber Manufacturers.

December 20, 1919.

Forest Fire Damage Greatest in Middle West

DAMAGE by forest fires in the eastern section of the country, and likewise in the Mississippi Valley, is far in excess of that in the West, great as is the devastation of timber in that region. This statement is based on averages recently compiled by the Forest Service, United States Department of Agriculture, from data covering the three-year period ending in 1918, reports for fires in 1919 not yet being available.

The average annual loss for this period due to forest fires in the entire country was \$20,727,917. The average of the areas burned annually was 13,969,331 acres. The region lying to the east and south of Ohio, Kentucky and Tennessee included 47 per cent of the total area burned and sustained 32 per cent of the total damage. In the Mississippi Valley (exclusive of the state of Mississippi which is included in the region indicated above) the damage was 61 per cent of the total, while the areas burned was 46 per cent of the total devastated acreage. The heavy average damages, of course, reflect the unusually heavy losses in Minnesota in 1918 which alone aggregated 28 million dollars. The damage caused in the Rocky Mountains and the region beyond was but 7 per cent of the total area burned.

These facts are cited to show the great need for

more efficient fire prevention measures, east as well as west. The reports also indicate that the greatest number of fires were started by farmers burning brush and by railroads. The other principal causes in order of importance were incendiarism, campers, and lightning. About one-fourth of the total number of fires were of unknown origin.

What Caused the Fires?

The burning of brush in the process of clearing land for cultivation was responsible for an average of 5,173 fires in the three-year period or 14.8 per cent of the total. The extension of cultivation to new lands for war production was doubtless an important factor in this situation although even in normal times this class of fires is unusually common. More than half of the fires from this cause occurred in the eastern section of the country, one-fourth of the total, on the average, occurred in the Mississippi Valley, and but 12 per cent in the Rocky Mountains and the region beyond.

In the East, railroads also were responsible for a greater number of fires than they were in the West, the average number per year attributed to them being 5,063. The war, too, doubtless contributed to this result due to congested traffic conditions along the Atlantic seaboard. Nearly three-fourths of such

fires took place in the eastern section of the country; 16 per cent occurred in the Mississippi Valley, and but 12 per cent in the West.

Next to brush burning and the railroads as causes of fire stands incendiarism. According to the Forest Service, 4,597 was the average number of malicious origin in the three-year period. More than half of these occurred in the eastern section and something more than one-fourth in the Mississippi Valley, being centralized in the southern portion of both these divisions. This result reflects the common practice of southern grazing interest of deliberately setting fire to the woods.

The average number of fires started per year by careless campers was 4,096. Here the West ranks relatively higher than in the case of some of the other causes, 31 per cent of these fires of camp origin having been reported in the West, while 46 per cent occurred in the East and 23 per cent in the Mississippi Valley.

The average number per year of fires started by lightning was 2,875, of which 69 per cent occurred in the West, 27 per cent in the East, and but 4 per cent in the Mississippi Valley. In addition to the causes mentioned lumbering operations started 6.4 per cent of the fires; miscellaneous causes, 6 per cent; and unknown causes, 24.9 per cent.

Valley Fires Were Big.

While in most instances the number of fires from various causes is considerably higher for the eastern section of the country than for the other two main divisions, because of its considerably denser population, the total damage in the East was scarcely more than half that sustained by the Mississippi Valley. In other words, while the Mississippi Valley had fewer fires, they burned for the most part unhindered through lack of a protective organization, so that the burned area was practically as great as that burned over by the multitude of fires in the East, which because of prompt attentions were extinguished for the most part before they gained any considerable headway.

Lumber Men Protest Rail Rate Raise.

Protest against the increase in freight rates on lumber for export to the level of rates for domestic transportation, put into effect December 31 by five southern railroads under an order issued by the Railroad Administration June 24, 1918, was determined upon at a meeting of delegates from practically all lumber and traffic associations and a number of chambers of commerce in the Southwest and Southeast.

Telegrams of protest were sent immediately to Max Phelan and Edward Chamber, Director of the Federal Railroad Administration, and a hearing at Washington, January 28, was asked.

A. G. T. Moore, of New Orleans, traffic manager of the Southern Pine Association, who called the meeting, was made chairman of the permanent committee to carry on the fight against the increase. The opposition will be taken to Congress if necessary, it was said.

The order making possible the advance affects all commodities, it was asserted, but has not been put into effect on any except export lumber rates.

Delegates attending the meeting included A. A. Adams, of Chicago; A. Campodonica and P. A. Jordan, of New Orleans; L. M. Shepardson, of Pascagoula, Miss.; Thomas E. Grady, of Savannah, Ga., and P. A. Rogers, of Laurel, Miss., in addition to Mr. Moore.

Organizations represented included the Southern Pine Association, the Southern Hardwood Traffic Association, the Southern Cypress Manufacturing Association, and the Georgia and Florida Sawmill Association.

Charter to Contractors.

A charter has been issued to the Maloney-Lupfer Company, building contractors, Kissimmee, Fla. The capital stock is \$40,000. The officials are: President, Frank Maloney; vice-president, J. E. Lupfer; secretary and treasurer, S. L. Lupfer.



Our Trade in Hydraulic Cement Since 1914

IF EXPORTS of hydraulic cement from the United States continue until the end of 1919 at the rate shown for the first three quarters, the total for the calendar year will exceed 2,386,000 barrels, valued at \$7,367,000, constituting the high record with regard to values.

The war cut off imports of cement from European countries into the United States, but increased both domestic production and exportation. The exports consist chiefly of Portland cement and are only a small percentage of the total domestic production. The quantity exported in 1914 was 2.4 per cent and in 1915 less than 3 per cent of the total production of hydraulic cement in those years, 2.7 per cent in 1916 and 1917, and 3.1 per cent in 1918. The increase in exports since 1915 is chiefly due to a gain in the South American and West Indian trade in this commodity.

Import Trade Cut Off During War.

With the exception of small amounts from Canada, the import trade was practically cut off during the war, but it had been declining for a number of years preceding the outbreak of hostilities in 1914. For 20 years prior to 1907 the average annual importation of hydraulic cement exceeded 2,000,000 barrels (of 376 pounds net), which was followed by a drop in the annual receipts until 1912, the returns for that year amounting to 68,503 barrels; 84,470 barrels were received in 1913, and 120,906 barrels (459,443 hundredweight) in 1914.

With the outbreak of the war receipts of imported cement declined—from 160,390 hundredweight in 1915 to 6,855 hundredweight in 1916, 8,829 in 1917, and 1,146 hundredweight in 1918, the bulk of this cement, as already stated, coming from Canada. Of the 31,807 hundredweight, valued at \$50,795, imported during the nine months ending September, 1919, 26,880 hundredweight, invoiced at \$48,000, or \$1.80 per hundredweight, came from Austria-Hungary.

The reduction in the American imports of cement during recent years can be attributed in part to the increased output at low cost of the domestic industry. In 1914 Portland cement was manufactured in 110 plants scattered throughout the States at an average factory price per barrel in bulk of \$0.927, and in 1915 at \$0.86 per barrel in 106 factories, according to statistics compiled by the United States Geological Survey. The average import price was \$0.417 per hundredweight in 1914, but dropped to \$0.356 in 1915; in 1916, it was \$0.718, in 1917, \$0.688, in 1918, \$1.03, and January-September, 1919, it rose to \$1.60.

Brazil the Leading Purchaser of American Cement.

The bulk and weight of cement, coupled with the necessity for keeping it dry, make transportation costs for long distances excessive as compared with the value of the product itself; hence cement is not the most desirable commodity in foreign trade. But that it can be shipped long distances and marketed profitably in foreign countries is evidenced by exports of American hydraulic cement amounting to 1,189,612 barrels to 51 countries during the nine months ending with September, 1919. The average annual exportation of cement from the United States during the four years of the war (1915-1918) was nearly 2,500,000 barrels, notwithstanding a rise in value from \$1.44 per barrel in 1914 and \$1.49 in 1916 to \$2.06 in 1917 and \$2.66 in 1918. In the part-year 1919 there was a further advance to \$3.09.

During the first three quarters of the current year Brazil has been the leading purchaser of American cement taking 488,000 barrels, valued at \$1,503,000, followed by Cuba with 333,000 barrels, worth \$1,016,000; Argentina with 314,000 barrels, invoiced at \$936,000; Mexico with 97,000 barrels, worth \$314,000; Panama with 94,000 barrels, valued at \$226,000; Peru with 62,000 barrels, invoiced at \$201,000; Colombia with 55,000 barrels, worth \$178,000; Chile with 45,000, worth \$154,000; and the Dominican Republic with 43,000 barrels, valued at \$146,000. Shipments of 11,600 barrels, worth \$39,000, were made to distant Madagascar in January.

Diversity of Uses.

Improved processes in domestic production greatly lowered the price of Portland cement, and this, with the increased scarcity and high price of lumber, brick, and stone, led to its more extended utilization for a variety of purposes. Vast quantities of cement were consumed in such Government projects as the Panama Canal, the Galveston breakwater or sea wall, the Roosevelt Dam, and other engineering and reclamation works.

City fire ordinances limit the use of lumber for building purposes, but these restrictions do not apply to Portland cement. It is used in the construction of reinforced concrete buildings, for sidewalks, sewers, subways, and in road making. In farming regions Portland cement is largely replacing lumber for building barns, silos, ice houses, bridges, culverts, dams, aqueducts, drainage and irrigation systems, and for watering troughs, fence posts, and telephone poles.

According to the War Industries Board, enormous quantities were consumed by the Government during the war in the construction of fortifications, gun emplacements, dry docks, sea walls, wharves,

armories, barracks, warehouses, munition factories and magazines, trench linings, bomb-proof shelters, incinerators, concrete barges and ships, and even for certain structures in the interior of battleships. The quantities of cement shipped to France during the war for the purposes mentioned, if transported on Government vessels, are not included in the declared exports quoted above.

Louisiana Engineers Elect.

At the annual election of the Louisiana Engineering Society held in New Orleans recently, the following officers were chosen for the coming year: John Riess, president; R. S. Manley, vice-president; James M. Robert, secretary; Walter B. Moses, treasurer; C. S. Williamson, Jr., G. W. Lawes and J. S. Barelli, directors; and Walter B. Moses, chairman of the entertainment committee.

After the election of officers, the society gave its annual smoker at Francois' restaurant, at which A. M. Lockett presided. The principal address of the evening was delivered by Bradley Stoughton, of New York City, secretary of the American Institute of Mining and Metallurgical Engineers, the guest of honor, who outlined the general policy of the various engineering organizations throughout the country, with special reference to welfare work and legislation. The retiring president, Ole K. Olsen, gave a resume of the year's work of the society, and there were short talks by the incoming president and a number of government engineers.

Georgia Tech Engineering Society.

A section of the Society for the Promotion of Electrical Engineering has been organized at Georgia Tech and 26 members have already been enrolled. At a meeting recently held the following officers were elected: Dr. D. S. Elliott, chairman; Prof. R. S. King, vice-chairman, and Prof. R. R. Kirk, secretary and treasurer. A program committee consisting of Profs. Eldred, Daniel and Perry was appointed, as well as a membership committee consisting of Professors Emerson, Caldwell and Pleudderman.

It is planned to interest many Atlanta business and professional men in the local section of the S. P. E. E. The local organization will meet monthly for the purpose of listening to talks from men prominent in the engineering profession and also for the purpose of discussing local and national problems of engineering education.

Peat for Paving Stone.

The commercial Museum of Philadelphia has been holding a large exhibition to illustrate the possibilities in the utilization of peat. There are about 11,188 square miles of peat bogs in the United States, capable of producing more than 12,000,000,000 tons of

fuel. The exhibit shows how, apart from its use as fuel, peat may be spun into yarn, made into paper, used for packing, etc. It is valuable as a preservative, as it contains large amounts of humic acid. Ground up peat may also be used as a filler for fertilizer, making possible the use of slaughterhouse waste for this purpose; also as a filler for stock feed, such as molasses. Its manufactured products include insulations, soundproof boards, paving stones, and alcohol.

Wants Iron, Lumber and Cement.

Henri Raveau, Casablanca, Morocco.—The products I am mostly interested in are round iron for cement construction, diameter, 5, 6, 8, 10 and 12. Timber, especially thick plank, 8x23 cm., or 8x11 cm., m/m; small beans and angle iron, in standard sizes. In red pine or other wood of same quality, and the half plank, 8 x 8 or 8 x 11 cm.; Portland cement and artificial cement in barrels; spruce telegraph poles; iron (steel) wires 15/100 and 20/100, galvanized wire 25/100 and 30/100 mm. for telegraph lines; sheet iron (thin). Quotations must be c. i. f. Casablanca and commission included. Correspondence in French suggested.

Christiania Building Material Exhibition.

There will be an exhibition from April 19 to May 3 at Christiania held under the auspices of the Norwegian Housing and Town Planning Association. Among the materials to be shown are those necessary in erecting residences, such a ceiling and wall materials, flooring, tiling for interiors and for roofs, heating and sanitary equipment of all kinds, electrical equipment for heating and for domestic power. Ready-made buildings will also be exhibited.

American concerns are invited to take part and invitations have been issued to the manufacturers of other countries.

Applications for space may be sent to the American consul general at Christiania to be transmitted to the proper authorities, but the consul general can not assume any responsibility for obtaining such space. The space is limited. The rate of exhibitors, payable in advance, is 55 crowns for each square meter, but a refund will be made if any funds remain at the close of the exhibit. No space may be secured after February 15. The allotments of space are in the hands of the committee, both as to the amount of space and the location. However, there will be no preference shown to concerns with local agents over those not so represented.

A suggestion is made to prospective exhibitors of ready-made houses that on account of the restricted space for the exhibit, consideration be given to models not exceeding three or four cubic yards instead of entire buildings.

New Zealand Building and Construction Notes

THE outlook for building and construction work in New Zealand for the next year is very promising. A record number of houses are now being built in all parts of the Dominion and several cities are experiencing a moderate building boom.

The Government is placing contracts with builders for workers' dwellings in various parts of New Zealand. The principal work is being carried on in Wellington.

There are five buildings of small apartments to be erected in Auckland in the near future at an aggregate cost of \$363,300 and will house 250 families.

The first residential block to be erected will be a five-storied addition to the existing block known as "Courtville," and will consist of 15 self-contained residences, three on each floor. The construction will be fireproof, with brick walls and floors, partitions, stairs, and roof of reinforced concrete; two bedrooms, kitchenette, and bath, with balconies at back and front. The building will cost over \$103,000, and Messrs. Fletcher Bros., Auckland, are the contractors.

Within a couple of months a five-story building containing 30 flats will be erected on the corner of Pitt and Beresford Streets, Auckland, with a frontage of 100 feet on both streets. The flats will consist of three rooms and bath. There will be a restaurant on the main floor and accommodations for about 12 motor cars.

The cost of the structure will approximate \$121,662 and will be erected by Fred A. Brown, Auckland.

Another apartment house containing 80 flats is to be erected in lower Symonds Street, Auckland, at a probable cost of \$287,657. The building is to be called "Marlborough Chambers" and is to contain suites of three rooms with bath. The lowest rent will be \$6.08 or \$7.30 per week.

Another fireproof building of 12 flats is to be erected in the suburb of Devonport. The building will have a frontage of 88 feet and will cost about \$53,531.

Many small buildings are being erected around Hamilton, a thriving town 90 miles south of Auckland. A rough calculation of the work on hand by local architects in this vicinity totals over \$2,000,000. A building is to be erected for the Farmers' Auctioneering Co. at a cost of \$121,662. Mr. Chitty of Hamilton is the contractor. Cheese and butter factories are extending their establishments in this district, and a new dried-milk factory is also being erected at Hautapu at an expense of \$97,330.

The Auckland Hospital Board has plans on foot for buildings which amount to over \$583,980. One

of the buildings is for an auxiliary hospital on 125 acres of ground at Manurewa, 15 miles south of Auckland, costing about \$145,995. A fireproof fever ward is also to be erected according to modern requirements, at a cost of over \$145,995. A building for an up-to-date laundry is to be installed and equipped for the use of the hospital in Auckland City. Correspondence should be addressed to Secretary Hospital Board, Auckland.

A nine-story warehouse is to be erected early in the new year in Courtenay Place for the Colonial Motor Co. (Ltd.), at a cost of \$480,000, which will be the tallest building in Wellington. Correspondence should be addressed to the company.

Contract has been let for a large new theatre with a seating capacity for approximately 2,000 persons. The erection will cost \$194,660. The front will be finished with Oamaru marble.

A new bridge is about to be constructed over the Waikato River at Horotiu of reinforced concrete. It will be of arch design, with a main span of 126 feet and six flank spans of 24 feet each. The bridge is to cost \$329,000. Correspondence should be addressed to the Waikato County Council, Hamilton.

Atlanta December Permits.

Building permits issued in Atlanta in December showed an increase of 800 per cent over the same month last year, according to the completed report, contained in the latest issue of Dun's Review. The total amount of permits issued during the month in Atlanta was \$813,894, approximately nine times the amount for 1918, which was \$90,739.

In reporting an average increase in building activities in the United States during 1919, Dun's Review figures that for the entire United States the average advance will be about 200 per cent.

Builders' Convention for Savannah.

Savannah has been chosen as the place for the 1921 convention of the National Builders Exchanges. Information to this effect from the convention just closed at Indianapolis has been given publicity in the South.

Savannah won the big convention over New York, San Francisco, St. Louis, Columbus, Ohio, and several big cities.

With this convention will come to Savannah also the first national meeting of the Association of Manufacturers' Agents, recently organized, with John N. Davis, of Savannah, as president, and Meldrim Thompson, also of Savannah, as secretary.

The Personal Side of Busy Workers

Prof. Francis Smith in Lecture.

"Greek and Roman Architecture" was the subject of an interesting lecture January 22 in Atlanta by Prof. Francis P. Smith, of the school of architecture of the Georgia School of Technology. The lecture was given on the ground floor of the Carnegie library and was illustrated with stereopticon views.

Prof. Smith will probably give a series of lectures on "The History of Architecture." At this lecture a special invitation was extended to all Atlanta architects and other technical societies, the senior class in architecture at the Georgia Tech, and all of the public to whom his subject might appeal.

New Macon Architect Firm.

W. Elliott Dunwody, Jr., and William F. Oliphant, Macon architects, announce the formation of the firm of "Dunwody & Oliphant, Architects," with offices in the Jaques Bldg., Macon, Ga. A. Sidney Brown is also identified with the new firm, as associate architect.

Mr. Dunwody was formerly of Nisbet & Dunwody, well-known Macon architects.

The new firm begins business with interesting work already on the boards, and with prospects for the new year exceptionally bright.

New Offices Opened.

F. C. Thornley & Co., Inc., constructing and consulting engineers, announce the opening of their offices at 31 W. 43d St., New York.

Building Service.

Eubank & Caldwell, architecture and construction, 6 Kirk Ave., S. W., Roanoke, Va., have just organized a building service company at Roanoke. The firm plans, buys material and erects buildings complete for owners or their agents, charging a fixed fee for this service. The firm is composed of Beaufort N. Eubank and J. Walker Caldwell.

Conklin Joins Architect Firm.

Burge & Stevens, architects, have announced that with the beginning of the New Year this firm will be reorganized and a junior partner added in the person of Walter E. Conklin, forming the firm of Burge, Stevens & Conklin.

Burge & Stevens began business in Atlanta one year ago and during the year have executed many important contracts. Mr. Conklin comes to the firm with splendid preparation for this work. He is a graduate of the Georgia School of Technology in the class of 1914. For a time he was connected with Arthur Tufts, contractor, and during the war served in France with the construction division of the army.

Contractors at Rock Hill.

H. Campbell & Son, general building contractors, formerly of Wapakoneta, O., have moved to Rock Hill, S. C., where they will engage in business.

Pioneer Builder Dies.

Ferdinand D. McMillan, builder of the most picturesque and unusual home in Atlanta, died recently at the age of 79 years. He was a pioneer citizen of Atlanta, a veteran of the Southern Confederacy, and a man of considerable wealth. His wife, who was Miss Lucy E. Reagan, of Conyers, is a sister of Judge E. J. Reagan of McDonough.

The McMillan home is built on a cliff on Fifteenth street, overlooking the entrance to Ansley Park. Instead of grading down the lot and terracing the lawn, as most owners would have done, Mr. McMillan faced up the front with a granite retaining wall as high as the eaves of a three-story apartment house on a lot adjoining. On top of the cliff, clear out of sight of the street, he built his house, a big, comfortable, hospitable structure of granite and brick.

The entrance to it leads through a door in the granite retaining wall. You ring a bell, the door is unlocked from above by an electric wire, and then you mount a long granite stairway leading up to the summit of the cliff. On reaching the top you find a beautiful flower and vegetable garden, irrigated with underground pipes, a fountain in the center named for Uncle Remus, with two marble rabbits poised on the edge of the basin, and a wide inviting veranda screened with roses.

Rooms in the house are named for different states, with the seal of each state above the fireplace. The bricks of the fireplaces and mantels are a peculiar pattern designed by Mr. McMillan, who was quite an inventor, the corners being knocked off to form an irregular corrugated effect, which lately has been copied by manufacturers of fancy brick.

Mr. McMillan was an ardent reader and had a fine library. He took a keen interest in civic enterprises of all kinds, and though above 70 years of age, was one of the most active workers in all the "drives" in Atlanta in recent years.

Greeting Cards Received.

The Southern Architect & Building News wishes to acknowledge the receipt of two handsomely engraved New Year's greeting cards from the Danzer Metal Works, Hagerstown, Md., and The Winkle Terra Cotta Company, St. Louis, Mo., both of which we sincerely appreciate.

Atlanta's Big Building Year.

Exceeding the figures of previous years for the value of building permits issued, which, as announced from the office of the city building inspector totaled \$10,442,739 for 3,022 permits issued during 1919, Atlanta started the new year at a pace which bids fair to pass even the mark of last year.

Two permits totaling \$210,000 were issued recently and the application of still another permit valued at \$400,000 was filed at the office of the city building inspector.

The first permit for the new year was issued to the Grady Apartment company to build a three-story brick and hollow tile apartment house, containing sixty-nine apartments, of from six to nine rooms each, at a cost of \$175,000. This new apartment house will be located at 1295 Peachtree street. C. E. Frazier is the architect.

The second permit was for the erection of a one-story brick and hollow tile building at 267 and 269 Marietta street at a cost of \$35,000. Linton C. Hopkins is erecting the building and the Flagler company will have charge of its construction.

The George Muse Clothing company has made application for a permit to erect its new home at the corner of Peachtree and Walton streets. The building will cost \$400,000 and will be constructed by the A. J. Krebs So. A permit was issued recently to the contractors to wreck the three-story brick building which now stands on this lot.

The detailed classification of the permits issued during 1919 follows:

- Permits for brick business houses, 108; valued at \$2,586,025.
- Permits for frame business houses, 46; valued at \$55,860.
- Permits for factories, 13; valued at \$604,590.
- Permits for apartment houses, 63; valued at \$1,865,600.
- Permits for churches, 8; valued at \$32,400.
- Permits for public buildings, 3; valued at \$610,000.
- Permits for frame dwellings, 661; valued at \$2,874,836.
- Permits for repairs and alterations, 937; valued at \$735,950.
- Miscellaneous permits, 1,036; valued at \$894,228.

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

31614.—A commercial agent in Bulgaria desires to purchase large quantities of nails for building and carpentry. Correspondence may be in English.

31645.—A landed proprietor and general merchant in India desires to purchase in the United States hardware and carpentry tools, building material, paints, cement, corrugated iron sheets, etc. References.

31657.—An engineering corporation in China desires to secure agencies for the sale of building materials, construction machinery, and engineering supplies. Quotations should be given c. i. f. Chinese port. Payment, confirmed bankers' credit. References.

31720.—A technical engineer from Norway is in the United States and desires to secure agencies for the sale of all kinds of metals, machinery, electrical goods, building material, industrial supplies, hardware, and all other articles of a technical nature. Reference.

31737. A commercial traveler who has represented an American firm in Spain and Portugal is about to return to Spain, and desires to secure an agency for the sale of iron and steel products, labor-saving devices, electrical goods, roofing material. Quotations should be given c. i. f. Spanish port. References.

31762. An import firm in Greece, desiring to introduce American lumber, wishes to purchase pitch pine, white pine, and flooring, in accordance with specifications which were forwarded and may be obtained from the bureau or its district offices. Samples and quotations are desired for certain lumber and timber, which is included on specifications. Quotations should be given c. i. f. Grecian port. Terms, payment against documents at port of shipment. Correspondence may be in English. References.

31767. An American firm of purchasing agents having branch offices in Mexico desires to secure an agency for the sale of machinery, hardware, glass, building materials. References.

31774. A firm in New Zealand desires to purchase and secure an agency for engineers' machine tools, woodworking machinery, steam brass work, plumbing supplies and tools, machinery for making galvanized-iron spouting and roofing materials, cornice brake machines, builders' hardware, hollow-wire petrol lighting systems, brass and copper sheets, tubes, rods, etc., and electric motors, D. C. and A. C. References.

Alabama Architects Elect Officials.

A Birmingham architect, Hugh Martin, was elected president of the state chapter of the American Institute of Architecture at its meeting at Auburn. Other officials were chosen as follows:

George Rogers, Mobile, vice-president; Eugene

H. Knight, Birmingham, secretary and treasurer. Frederick Ausfeld of Montgomery is the retiring president.

The meeting was held at Auburn in connection with a meeting of the department of architecture at Auburn. W. T. Warren of Birmingham, an alumnus of Auburn and of Columbia, delivered an address to the student body in the afternoon.

Edwin B. Lancaster, Auburn student, won the prize this year for the best design and plans for a building submitted in the annual contest. Mrs. C. C. Thach, wife of President Thach, entertained the visiting architects with a luncheon at her home.

W. M. King, of the firm of Wheelock and King of Birmingham, was elected a member.

The aims and objects of the Alabama art league was indorsed by the state chapter and also the national association's of arts at cooperation with the government in meeting the housing problem.

Building Conditions in Italy.

Among other proposals to stimulate building in Italy, it has been suggested, says the Trade Commissioner at Rome, that under certain conditions new buildings should be exempted from taxation for a period of 15 years for dwellings for the better class, and 20 years in the case of tenements. Previous to 1914, building companies and individuals in Rome constructed from 10,000 to 14,000 rooms per year, which, however, was barely sufficient to take care of the normal development of the city. During the war, of course, private building operations practically ceased and since the armistice little has been done. The great building institutions have suspended new construction for the reason that the increased cost of materials and the higher wages which must be paid to workmen, do not permit their stockholders to derive a reasonable profit. Private builders, according to the Trade Commissioner, are in the same position and are doing nothing. In all the principal Italian centers of population from the shortage of housing accommodations is acute and strenuous efforts are being made to stimulate action in order that relief may be afforded.

Construction in New York State.

To authorize and require the State Industrial Commission through the Bureau of Employment to obtain during the first three months of each year from the several state departments and localities current information regarding all public works projected under construction and to publish this information annually in April in summary form is one of the recommendations recently submitted to the governor of New York State by the State Reconstruction Commission, says the Bureau of Labor Statistics in its last monthly bulletin. In its report the

commission dealt generally with the problem of employment in the state and felt that one of the most practical duties would be to emphasize the desirability of planning public improvements upon a long-term basis and prompt action in pushing forward the work outlined, with special vigor whenever industrial depression threatens.

It is also recommended that the industrial commissioner through the Bureau of Employment, develop a program with a view to the organization of the labor market to bring about extensive dovetailing of winter and summer trades and to stimulate the use of subsidiary trades; also with a view to concentrating attention upon the need of industrial training, and in the case of seasonal employment or depression, urging employers to shorten hours rather than discharge employees.

It looks toward the development of the state employment service into an ultimate monopoly and the convening in April or May of an annual conference of all public works authorities throughout the state to discuss engineering, financial, employment and other common problems.

First Pan American Exposition of Architecture.

Architectural and professional institutions of the United States are invited to send exhibits to the first Pan American Exposition of Architecture, which will take place in the city of Montevideo, Uruguay, from the 1st to the 7th of March, 1920. Copies of a preliminary program of this meeting in Spanish may be seen at the district and cooperative offices of the Bureau of Foreign and Domestic Commerce.

Wages Sawmill Employees Higher.

Hourly wages of sawmill employees are 94 per cent higher in 1919 than in 1913, according to a statement issued by the Bureau of Labor Statistics of the United States Department of Labor.

It is further shown that the cost of living in the United States increased 75 per cent between 1913 and the spring of 1919. The estimate of change in cost of living was taken from the October, 1919, issue of the Monthly Labor Review, which showed these figures from July, 1914, to June, 1919. A subsequent estimate was made extending the comparison back to the year 1913.

The figures given as to wages for the years prior to 1919 are based on reports that have been published by the Bureau. Those for 1919 are the result of a comprehensive industrial survey made within the last year. This survey covered representative establishments in 28 industries.

Building and Construction News

Road and Street Construction.

Brunswick, Ga.—Bids will be received until February 26 by board of commissioners of Glynn county, P. E. Twitty, clerk, for constructing approximately six miles of federal aid road with 37,147 square yards of either brick, concrete or asphalt pavement. E. R. Conant, project engineer, Brunswick.

Brunswick, Ga.—L. R. Akin, Brunswick, and others (citizens of Glynn, Camden and McIntosh counties) are organizing companies to acquire delta, bridges, etc., of former Georgia Coast & Piedmont railroad, recently junked; planned to plank the road from Darien to the Glynn county road; under this plan, the Altamaha River bridge will be used as a highway bridge.

Butler, Ala.—Bids are invited until February 24 by State Highway Department, W. S. Keller, state highway engineer, Bell Bldg., Montgomery, Ala., for constructing 6.3 miles of state-aid road in Choctaw county, between Butler and Riderwood; 16,389 cubic yards sand-clay surfacing; 47,796 cubic yards excavation; 10,698 feet lumber; 1,080 lineal feet piling.

Mayo, Fla.—Lafayette county commissioners will build hard roads; \$600,000 available; Young-Merrin Co., engineers, Dade City, Fla.

Talladega, Ala.—State Highway Department, W. S. Keller, state highway engineer, Bell Bldg., Montgomery, Ala., invited bids until February 24 for constructing 5.69 miles of state trunk road between Sylacauga and Coosa county line; 14,838 cubic yards topsoil; 26,569 cubic yards excavation.

Tampa, Fla.—Issuance of \$170,000 of road and bridge bonds by district No. 5 of Hillsboro county was issued. County Commissioner T. L. Hackney.

Alexander City, Ala.—City will pave residential streets; material not selected. Survey soon to be made. Thomas C. Russell, mayor.

Anniston, Ala.—City contemplates paving both business and residential streets, and is now considering financial plans; estimated that it will cost \$60,000 to pave Nobel St.; paving of Wilmer, Quintard and Leighton Aves. and of Ninth, Tenth and Eleventh Sts. is also urged. J. L. Wikle, mayor.

Moultrie, Ga.—Municipal bonds were voted for following purposes: School buildings, \$35,000; paving, \$60,000; sewer extension, \$10,000. The Mayor.

Newberry, S. C.—Issuance of \$60,000 municipal bonds for paving streets is planned. Eugene S. Blease, mayor.

Conway, Ark.—Faulkner county commissioners; construct 100 miles hard-surface road; will let contract.

Ozark, Ark.—City; lay 3 miles sidewalks; concrete; Zeb. Ward, contractor, Little Rick.

Van Buren, Ark.—City, Improvement District No. 3, W. J. Martin, mayor; pave 23 miles streets.

Slbany, Ala.—City, Mayor Dillehay; pave streets; \$400,000; W. M. Leftwich & Co., contractors, Nashville, Tenn.

Jacksonville, Fla.—City commission, John S. Bond, chairman; construct 67,000 square yards brick pavement on concrete base, cement filler; \$300,000; James Y. Wilson, contractor; Frank M. Edwards, city engineer.

Crowley, La.—Acadia Parish Police Jury; construct roads in District No. 1; voted \$55,000 road tax.

Donaldsonville, La.—Ascension Parish Police Jury; W. B. Stuart, president; construct roads in District No. 2; \$30,000 bonds.

New Orleans, La.—City plans paving; Thos. L. Wilis, city engineer, advises Manufacturers Record: Soon offer \$1,600,000 bonds for 1920 street improvements; 167,300

square yards pavement with sub-surface drainage and incidentals.

Leonardtown, Md.—St. Marys county commissioners, construct roads; contemplate \$300,000 bonds; probably supplement \$600,000 state appropriation.

Greenville, Miss.—City; construct 53,130 square yards pavements; concrete; tarvia; concrete base or gravel base; 23,780 lineal feet curb and gutter; 26,690 cubic yards excavation; bids until March 1.

High Point, N. C.—City, D. A. Stanton, mayor; resurface 15,000 square yards on Centennial Ave. and E. Washington St.; bitulithic; bituminous concrete; bids until February 17; A. E. Taplin, engineer.

Nashville, N. C.—North Carolina State Highway Commission, Division Office, Raleigh; construct 8.81 miles state highway; federal-aid project No. 67; 93,308 square yards one-course concrete pavement; 18,996 cubic yards borrow; 17,045 cubic yards earth excavation; bids until February 5; W. S. Fallis, state highway engineer, Raleigh.

St. Pauls, N. C.—City, J. C. Lentz, mayor; construct sidewalks; curb and gutter; vote March 1 on \$25,000 bonds; Carolina Eng. Co., engineer, Wilmington, N. C.

Raleigh, N. C.—State Highway Commission; awarded contracts: Powell Paving & Contracting Co., Columbia, \$263,799, 8.74 miles concrete paving in Alamance county; W. E. Graham, Mount Kula, \$39,979, 8 miles topsoil road in Davie county, project No. 85; \$151,000, 21.42 miles topsoil road in Surry county, projects 91 and 92.

Vanceboro, N. C.—Town, Stonewall Jackson, mayor; construct 14,000 square yards pavement; brick; bids until February 27; R. R. Eagle, engineer, Newbern, N. C.

Wilson, N. C.—Town; pave streets. Address The Mayor.

Bank and Office.

Huntsville, Ala.—A. L. Rison; plans erection bank and office building.

Tuscaloosa, Ala.—City National Bank; contemplates erecting building, Broad St. and 23d Ave.

Athens, Ga.—Alexander-Garrett Real Estate Co., Augusta; remodel Holmón Bldg. for offices.

Atlanta, Ga.—Adolph Samuels; erect office building; 8 stories; exterior, pressed brick; site 50 x 100 feet.

Columbus, Ga.—Merchants & Mechanics' Bank, J. S. Key, president; erect \$50,000 building; 35 x 150 feet; brick; metal roof; marble floor; hot-air heat; electric lights; steel and concrete sidewalk; Marbray & Ufinger, architects, 56 Liberty St., New York.

Fitzgerald Ga.—Exchange National Bank, William R. Bowen, president; erect building.

Memphis, Tenn.—People's Bank & Trust Co., S. W. Portlock; expend \$30,000 to \$40,000 for remodeling and enlarging building; install new fixtures; plate-glass front; marble steps, etc.; Jones & Furbringer, architect, Porter Bldg.

Fort Worth, Tex.—Millers' Mutual Fire Insurance Co., G'en Walker, manager; erect \$100,000 building; E. E. Bewley and others, committee.

Norfolk, Va.—South Norfolk Bank; erect \$25,000 brick building.

Charleston, W. Va.—Charleston Coal Exchange; erect office building; clubrooms, grill, assembly hall and 150 offices.

Wheeling, W. Va.—Conservative Life Insurance Co., C. E. Peters, president; expend \$100,000 for 2-story addition and improvements.

Homer, La.—Perry L. Pyle; erect building for American National Bank; 29 x 110 feet; brick; tile floors; bids opened in about 30 days.

Jennings, La.—Calcasieu National Bank, H. H. Hoag,

manager; erect addition; Favrot & Livaudais, architects, Perin Bldg., New Orleans.

Monroe, La.—Ouachita National Bank; erect 6-story building; ultimate plans call for 10-story structure.

New Iberia, La.—Iberia Building Association, E. F. Millard, president; erect \$15,000 to \$20,000 bank building.

Clinton, Md.—Clinton State Bank; erect \$10,000 building; 26 x 50 feet; concrete and brick; tin roof; cement floors; hot-water heat; A. P. Clark, Jr., architect, 816 14th St., Washington, D. C.

Starkville, Miss.—People's Savings Bank; considering building.

Springfield, Mo.—Walter C. Hawkins; expend \$20,000 to remodel building, College and Campbell Sts., for offices; Hawkins & Hoener, architects.

St. Joseph, Mo.—American National Bank; expend \$30,000 to remodel building; Walter Boschen, architect, Tootle-Lacey Bldg.

St. Louis, Mo.—LaFayette South Side Bank; erect \$100,000 addition; 1 story and basement; 55 x 133 feet; stone and brick; fireproof; Widman & Walsh, architects, Wainwright Bldg., and Geo. Pankau, associate.

Wilmington, N. C.—Bank of St. Pauls; increased capital to erect building.

El Reno, Okla.—First National Bank; remodel building; 2 stories; \$15,000 to \$20,000; Chas. P. Nieder, architect, Empress Theater Bldg., Oklahoma City.

Haskell, Okla.—First National Bank; erect building; 2 stories; 50 x 70 feet; brick; reinforced concrete and steel; reinforced concrete floors and foundation; \$60,000; M. F. Hardin, architect, 504 Equality Bldg., Muskogee.

Hartselle, Ala.—First National Bank will erect bank building; 2 stories.

Tampa, Fla.—Exchange National Bank, President Clewis, will erect bank and office building on lot 105 x 105 feet; 15 stories; banking quarters and stores on first floor and offices above; construction may not be begun this year.

Chester, S. C.—Dr. N. R. McFaddue and associates have plans by Architect J. S. Starr, Rock Hill, S. C., for store, bank and office building; 75 x 83 feet; two stories and basement; brick, stone and hollow tile; built-up gravel roof; tile and wood floors; steam heat; electric lights; three stores on first floor; bids will be received about February 15. Address Mr. Starr.

Jacksonville, Fla.—B. S. Levy has purchased Realty Bldg., four-story office building; will improve.

Church Buildings.

Atlanta, Ga.—Congregation of Druid Hills Baptist church contemplates erecting church building to cost \$175,000. The Pastor.

Macon, Ga.—Campaign has been inaugurated by Cherokee Heights Methodist church to raise \$50,000 for building new church. Rev. C. S. Oliff, pastor.

Samson, Ala.—Baptist church will erect brick building. Rev. C. P. Atkinson, pastor.

Tuscaloosa, Ala.—First Presbyterian church adopted plans for \$100,000 edifice previously mentioned; classic design; modern Sunday school room, with class rooms and large lecture room; large kitchen, where refreshments can be prepared for entertainments. The Pastor.

Florence, Ala.—First Methodist church; rebuilding structure noted damaged by fire at loss of \$75,000. Address The Pastor.

Tuscaloosa, Ala.—First Methodist church; erect building. Address The Pastor.

Dumas, Ark.—Baptist church; erect \$25,000 building. Address The Pastor.

Lockesburg, Ark.—Methodist church; plans to erect building. Address The Pastor.

Stuttgart, Ark.—First Baptist church; plans to erect \$25,000 building to replace structure noted burned. Address The Pastor.

Jacksonville, Fla.—First Church of Christ, Scientist; erect \$75,000 building. Address The Reader.

LaGrange, Ga.—Baptist church; erect \$150,000 building. Address The Pastor.

Nicholasville, Ky.—Catholic church, Rev. Father William O'Hare, pastor; erect \$40,000 building.

Lake Charles, La.—Catholic church; erect \$17,000 to \$20,000 church and school for negroes; Rev. Father A. J. Hackett in charge of construction.

Aquasco, Md.—St. Mary's church; erect \$15,000 building. Address The Pastor.

Baltimore, Md.—Patterson Memorial M. E. church, Rev. Louis St. Claire Allen, pastor; erect church and community building, Clement and Hanover Sts.; 50 x 60 feet; brick, stuccoed; tile roof; reinforced concrete and wood joist floors; steam heat; cost about \$100,000; W. H. Ewing, Jr., architect, Munsey Bldg.

Baldwyn, Miss.—Presbyterian church; erect building. Address The Pastor.

Quitman, Miss.—Methodist church; enlarge building. Address The Pastor.

Kansas City, Mo.—Epworth M. E. Church, South; erect \$30,000 building. Address The Pastor.

Concord, N. C.—First Baptist church, W. A. Stribling, chairman of committee; plans to erect \$40,000 building.

Winston-Salem, N. C.—First Baptist church, Rev. J. B. Weatherspoon, pastor; erect parsonage.

Brenham, Tex.—St. Paul's Evangelical Lutheran church, Rev. E. A. Sagabiel, pastor; erect \$40,000 building.

Charlotte, Tex.—Baptist church; erect building. Address The Pastor.

Houston, Tex.—Christ Episcopal church; plans to erect community-house near Rice Institute; contain girls' dormitory, chapel, cafeteria, ballroom, etc.; Rev. Harris Masterson, 3702 Burlington Ave., in charge.

Memphis, Tex.—Hellenic Orthodox church, Rev. Dionysios Theodosian, pastor; erect \$50,000 building; auditorium, seat 600; Sunday school room in basement; 35 x 75 feet; N. Docos, architect, Chicago.

San Angelo, Tex.—Presbyterian church; erect \$25,000 building, Fort Stockton. Address The Pastor.

Victoria, Tex.—Presbyterian church; erect brick and tile building with basement; Jul. Leffland & Son, architects, receive bids until February 20.

Wichita Falls, Tex.—Fourth Street Baptist church; erect \$20,000 building; gift of Mrs. Lillis Morgan.

Lynchburg, Va.—Floyd Street Presbyterian church, H. M. Hackett, chairman of committee; erect building.

Richmond, Va.—St. Thomas Episcopal church, Rev. F. Ernest Warren, pastor, Ginter Park; remodel and enlarge building; \$20,000.

Residences and Apartments.

Albany, Ala.—P. Ballas; erect residence.

Auburndale, Fla.—J. Flannigan; erect residence.

Auburndale, Fla.—P. E. Braaddock; erect residence.

Auburndale, Fla.—E. K. Anderson; erect residence.

Delray, Fla.—George W. Fryhofer, Chicago; reported to erect several cottages.

Pensacola, Fla.—Harbeson Syndicate reported to erect 60 to 70 dwellings for employees at Bullard.

Tampa, Fla.—Dr. L. A. Bize, president Citizens'-American Bank; erect residence.

Tampa, Fla.—W. F. Miller, manager Exchange Supply Co.; erect residence.

Atlanta, Ga.—W. H. Hall; erect \$16,000 brick-veneer residence.

Atlanta, Ga.—J. B. Daniel; remodel residence; brick veneer; 2 stories; \$7,500.

Atlanta, Ga.—Dave F. White; erect \$8,000 residence; 2 stories.

Lafayette, La.—Fred Voorhies; erect residence; \$10,000.

Baton Rouge, La.—Baton Rouge Improvement & Realty Co.; erect 10 frame bungalows, St. Tammany St.; \$17,015.

Lafayette, La.—Ben Williams; erect \$10,000 dwelling.

Louisville, Ky.—Bruce Haldeman, W. I. Kohn and others; organize company to erect 50 dwellings, Dulaney Place; also establish planing mill.

Shreveport, La.—United States Drilling Corporation, W. R. Hallie, president; erect 6 bungalows.

Miami Beach, Fla.—L. B. Boyd is erecting 2-story residence.

Miami Beach, Fla.—A. L. Sammons has begun construction of bungalow.

Roanoke, Ala.—Ed Buckalew will build residence.

Roanoke, Ala.—Mr. Boulware will erect five bungalows.

Savannah, Ga.—John K. Sanders has permit to erect 2-story, frame residence; day work.

St. Petersburg, Fla.—Three residences of six rooms each will be erected by Charles DeBoise; \$7,500.

St. Petersburg, Fla.—Two residences to contain seven rooms each will be erected by E. H. Lewis; \$7,600.

Valdosta, Ga.—Bungalow will be erected by J. T. Mathis.

Atlanta, Ga.—Residence will be erected by J. Van Rogers; brick veneer; \$12,000.

Atlanta, Ga.—Fifteen residences to cost aggregate of \$180,000 will be erected by H. W. Nicholes and J. E. Kerr; one story; brick veneer.

Waycross, Ga.—Residences will be erected by T. L. Dupree.

Miami Beach, Fla.—Architect Fred Wagner is preparing plans for \$20,000 apartment house.

New Smyrna, Fla.—Mrs. N. F. Brandt will build duplex apartment house on site recently purchased.

St. Petersburg, Fla.—B. R. Hutchings will erect apartment house; 2 stories; cost, \$5,000.

Clearwater, Fla.—Clearwater Beach Island Bridge Co., W. H. Schooley, manager, will erect 10 or 12 cottages at Clearwater Beach.

Columbus, Ga.—Number of bungalows will be erected by Perkins Hosiery Mills.

Daytona, Fla.—Arthur D. Mellor, Pittsburgh, Pa., will erect bungalow on site recently purchased.

Daytona, Fla.—Julian A. Arroyo will erect handsome residence on site 300 x 400 feet recently purchased; Spanish type of architecture.

Eastman, Ga.—J. H. Roberts will erect residence in place of one that was burned.

Greenville, S. C.—Two residences to cost aggregate of \$10,500 will be erected by W. S. Barr and H. L. Barr.

Greenville, S. C.—Residence will be erected by R. A. League; \$5,500.

Griffin, Ga.—Residences are now being erected by Griffin citizens as follows: Dr. T. Ellis Drewry, two; E. R. Clarkson, two; J. P. Nichols, Sr., two; T. L. Shepard, two; J. W. Lowe, two; Dr. E. G. Bowden, two; R. M. Hammill, two; Mrs. H. P. Ogletree, one; J. W. Slade, one; J. F. Grant, one.

Jacksonville, Fla.—P. J. McCulough will erect residence to cost \$8,000; permit issued.

Jacksonville, Fla.—C. C. Clayton has permit to erect residence to cost \$5,000.

Jacksonville, Fla.—N. Z. Butterick has permit to erect two dwellings costing \$5,000 and \$5,500, respectively.

Jacksonville, Fla.—Permits issued to erect residences: H. T. Church, two frame residences, \$2,000 each; J. W. Bennett, two residences, \$2,000 each; W. G. DeReynolds, frame, \$2,000; F. A. Waldman, concrete block, \$2,000; Mrs. Bertha

Helms, two concrete block bungalows to cost \$3,500 each; J. R. Vernon, frame, \$3,500; C. K. Hyatt, concrete block, \$4,000.

Schools and Colleges.

Smithville, Ga.—City plans erection of \$60,000 school building. The Pastor.

Augusta, Ga.—Richmond county board of education has bought site on which Monte Sano school building will be erected.

Bessemer, Ala.—Election will be held March 1 upon issuance of \$300,000 of municipal school building bonds. The Mayor.

Camden, S. C.—Issuance of school building bonds by school district No. 1 of Kershaw county is contemplated. Secretary, county board of education.

Chester, S. C.—Board of education contemplates erecting school building on College St. and school building for negroes at Jetersville; legislative authority to issue \$50,000 of bonds has been asked. The Secretary.

Chester, S. C.—Election upon issuance of school building bonds by Chester county may be held. Chairman, county board of education.

Columbia, S. C.—Chicora College for Women has retained E. S. Draper, landscape architect and city planner, Charlotte, N. C., and New York City, to advise on selection of college building.

Gadsden, Ala.—Board of education of Etowah county will erect 8-room school building at Burns Academy. The Secretary.

Landrum, S. C.—Issuance of bonds for erecting school building is contemplated. School Trustees.

McClellanville, S. C.—Board of school trustees, R. M. Lofton, chairman, invites bids until 12 o'clock, noon, February 10, for erecting two-story high school building after plans by Architects Benson & Barbot, Charleston, S. C.; plans may be obtained from the architects; bids are to be filed with W. H. Graham, secretary of school board.

Moultrie, Ga.—Municipal bonds were voted for following purposes: school building, \$35,000; paving, \$60,000; sewer extension, \$10,000. The Mayor.

Rome, Ga.—City board of education will ask city commission to order election upon issuance of bonds for erection of 12-room fireproof school building. The Mayor.

Schlater, Miss.—Election will be held February 10 upon issuance of \$45,000 of bonds for erecting agricultural school building. Secretary, county board of education, Greenwood, Miss.

Albany, Ala.—Board of education; plans erection \$200,000 high school.

Bessemer, Ala.—City votes March 1 on \$300,000 bonds to erect, enlarge and repair public schools, grammar schools and high school; J. H. Disque, president school board.

Decatur, Ala.—Board of education; considering erection several schools; \$200,000.

Florence, Ala.—Board of education, F. T. Appleby, superintendent city schools; erect \$70,000 grammar school; 10 rooms and auditorium; brick veneer; composition roof; wood floors; steam heat; electric lights; bids opened in February. Address Geo. D. Waller, architect, Bliss Bldg.

Gadsden, Ala.—Pilgrims' Rest, Brannon Springs and Burns Academy school district will consolidate and erect building at Burns Academy; probably 8 rooms. Address County Board of Education.

Kingston, Ark.—Board of education; erect 3 buildings for Kingston High school—agricultural department, boys' and girls' dormitories; concrete; agricultural department to have basement and shower baths.

Business and Store Buildings.

Albany, Ga.—Garrett Flemin and S. W. Rubin contemplate remodeling store buildings.

Atlanta, Ga.—G. F. Willis will erect five stores on Peachtree St., and site is now being cleared; each store will be 20 x 100 feet; brick; tile; plate glass; metal ornamentation; cost, \$100,000.

Bessemer, Ala.—Four-story store building will be remodelled by Erlick & Lefkovits; three entrances; steam heating; elevators.

Birmingham, Ala.—Building to cost \$20,000 will be erected by J. C. Hodges; one story; brick; to be occupied by Hagan-Dunlap Drug Co.

Birmingham, Ala.—J. Rivers Carter has permit to erect brick building.

Birmingham, Ala.—Highland Investment Co. (Maurice Letaw, Everett Shepherd, John B. Reid and others) will erect four two-story buildings after plans prepared by Architect E. H. Knight, Birmingham; cost, \$60,000. Company contemplates erecting several other stores.

Butler, Ga.—C. W. Bazemore will erect building to be occupied by barber shop; 25 x 60 feet; brick; front of press brick and plate glass.

Charleston, S. C.—Building will be erected by H. M. Lazarus & Co.; three stories and basement; brick.

Greenville, S. C.—Two-story building will be erected by J. C. Haley.

Griffin, Ga.—R. Z. Ison will remodel two store buildings and build new front; reported that P. Whitmire, Atlanta,

Ga., will open jewelry store in center building, and that other building will be occupied by barber shop.

Jacksonville, Fla.—B. P. Kennard has permit to remodel brick store building at cost of \$6,000.

Jacksonville, Fla.—Permit issued to W. Weir to erect building at cost of \$3,500.

Key West, Fla.—Haimie Markovitz and Herman Wolkovisky bought business building for \$26,000 and contemplate remodeling it for mercantile purposes or convertin it into moving picture and vaudeville house.

Metter, Ga.—I. A. Brannen and Lawton Brannen will erect store building for occupancy by E. O. Meadows & Bro.; two stories; 70 x 120 feet; brick.

Albany, Ala.—Patterson Mercantile Co.; erect 5 stores on Moulton St.

Albany, Ala.—S. M. Thompson and Dr. F. P. Pettey; erect 2-story brick business building.

Birmingham, Ala.—Batterton Coffee Co.; erect 3-story building; \$100,000.

Huntsville, Ala.—W. T. Hutchens; erect store building.

Huntsville, Ala.—J. D. Rice; erect business building.

Athens, Ga.—Michael Bros.; enlarge store building; erect 3 or more stories.

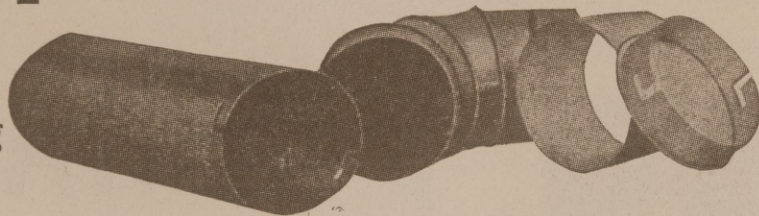
Huntsville, Ala.—C. F. Bost; erect store.

Blytheville, Ark.—Arkansas Grocery Co., Will Pyles, manager; erect \$100,000 fireproof building.

Dade City, Fla.—Harry Neal; plans to erect brick or concrete business building; 1 story; foundation for 2 additional stories.

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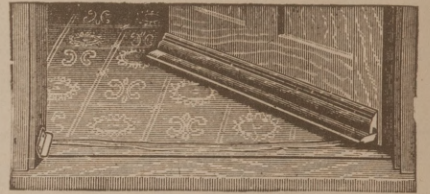
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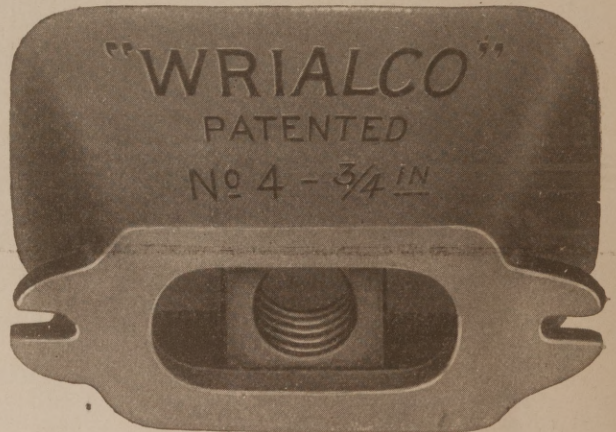
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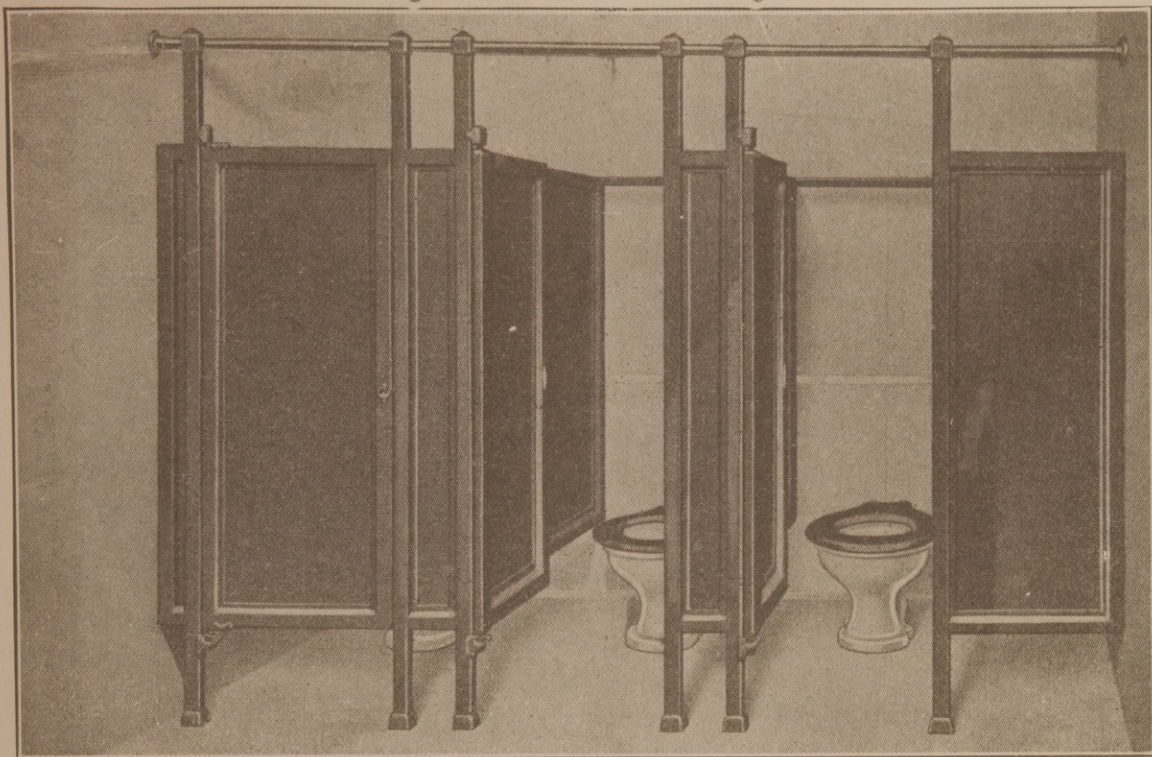
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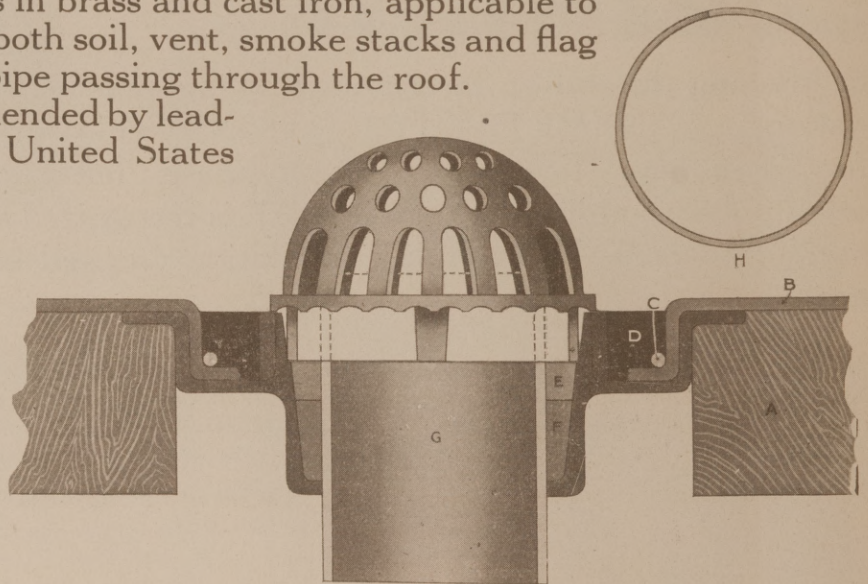
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Manufacturers of Ambler Linabestos Wallboard, Ambler Asbestos Building Lumber, Ambler Asbestos (Century Brand) Shingles, Ambler Asbestos Corrugated Roofing and Siding, 85 per cent. Magnesia and Asbestos Pipe and Boiler Covering, Asbestos Textiles,



WAGNER

Overhead Carrier System In World's Largest Hotel

To permit men to work above the mammoth glass and metal arched ceiling in the lobby of the Hotel Pennsylvania, New York City, the world's largest hotel, a Wagner Overhead Carrier System was installed in each of the seven bays, between the heavy steel girders. This effectively illustrates the wide range of uses of Wagner products. They are invariably chosen where strength, smooth, quiet, easy operation and freedom from trouble are the dominant requisites of the equipment to be installed.

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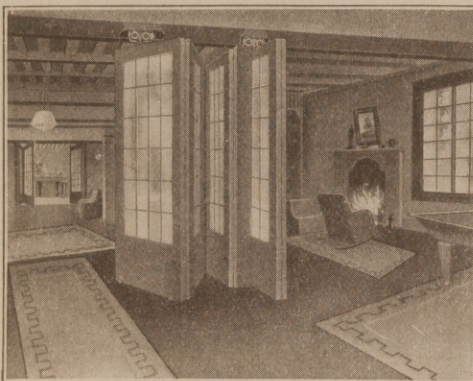
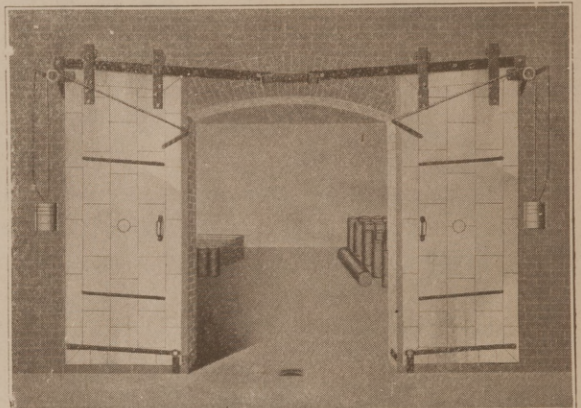
Architects and builders are urged to consult the Wagner Engineering Department on proposed equipment. Valuable suggestions and ideas will be given, without charge. Ask for catalog C 18.

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Fire Door Fixtures

Simple and practical in design, durable in construction, they last for decades without repairing. All Wagner Fire Door Hardware is approved by the Underwriters Laboratories, Inc.

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Accordion folding doors are unequalled for dividing large spaces in churches, halls, auditoriums, public buildings and even homes, into different areas. The Wagner line of Door Hangers embodies every type needed for this purpose. Their use insures easy, silent operation of doors and freedom from trouble. Ask for Catalog P 19—it is profusely illustrated and contains detailed information and prices.

WRITE FOR CATALOG.—If you are interested in any of the following subjects we will appreciate a request for special catalog.

17—Elevator Door
Equipment
G 19—Garage Door
Equipment
H 19—Door Hangers
and Tracks

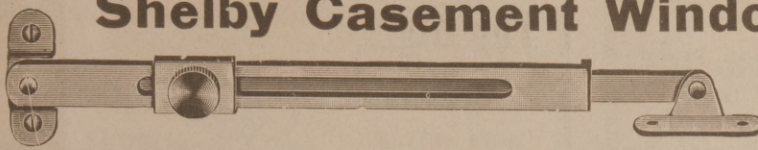
P 19—Hangers for
Sliding Flush,
Parallel and
Accordion
Door Parti-
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WAGNER MANUFACTURING COMPANY

Dept. B, Cedar Falls, Iowa, U. S. A.

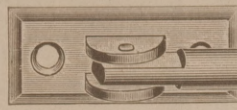
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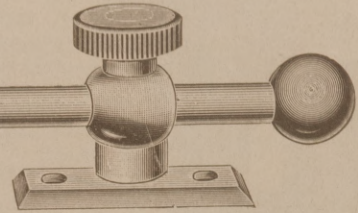
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No. 1 This Adjuster is universal for right or left hand windows opening in or out. Will hold the window positively locked in any position. Can also be used as a friction stay. It is also furnished with brackets to be used where attachment to window casing or trim board is necessary.



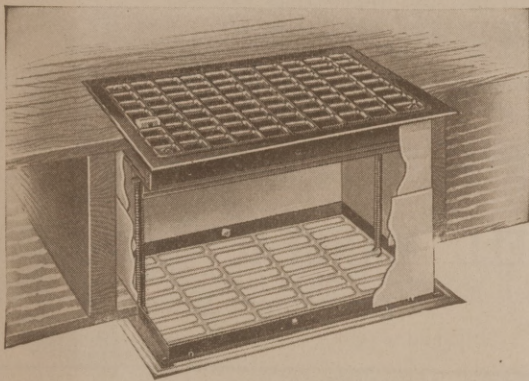
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No. 2 This Adjuster is for right or left hand windows opening out. It is very strong and has 3/8 inch wrought steel rod made in 8, 10, 12 and 15 inch lengths.



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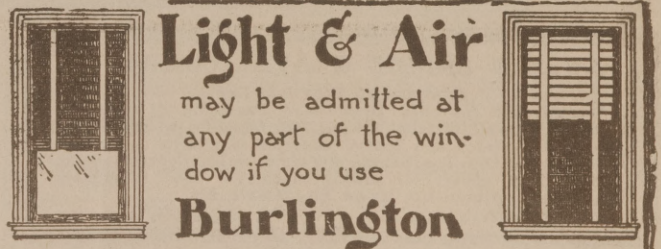
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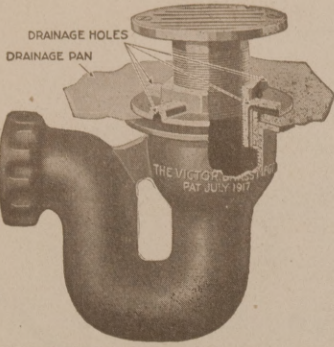
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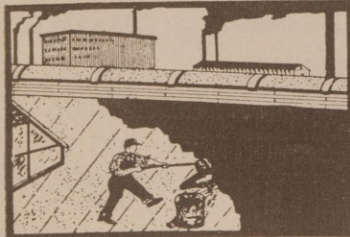
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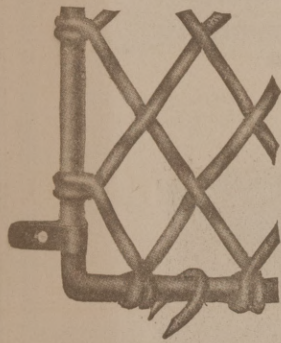
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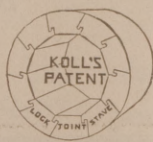
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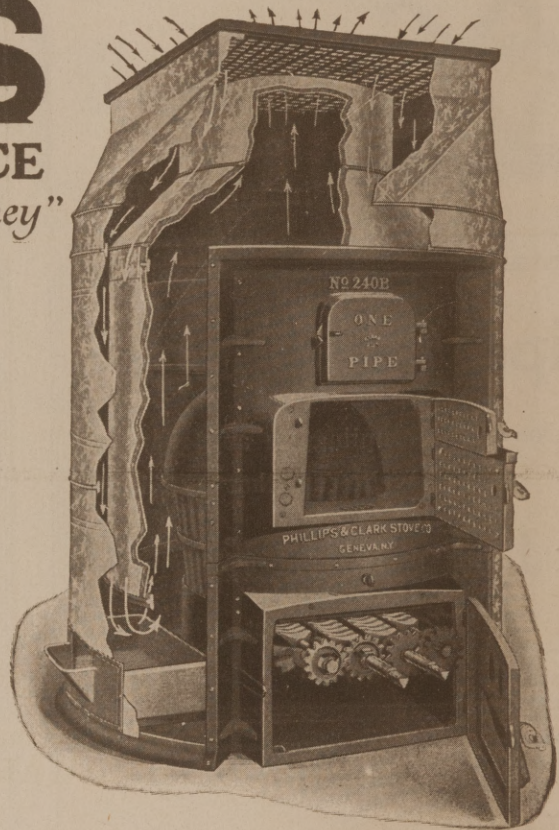
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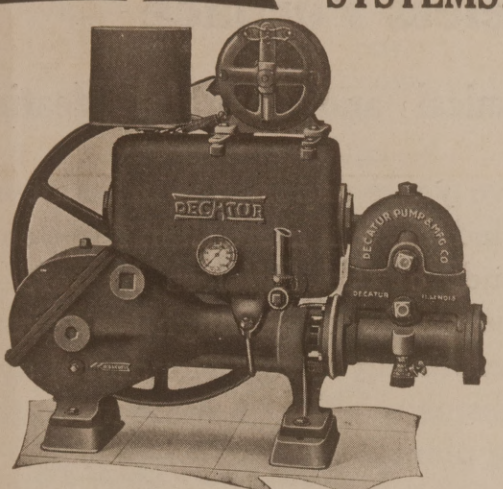
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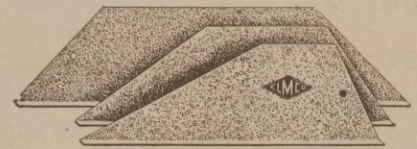
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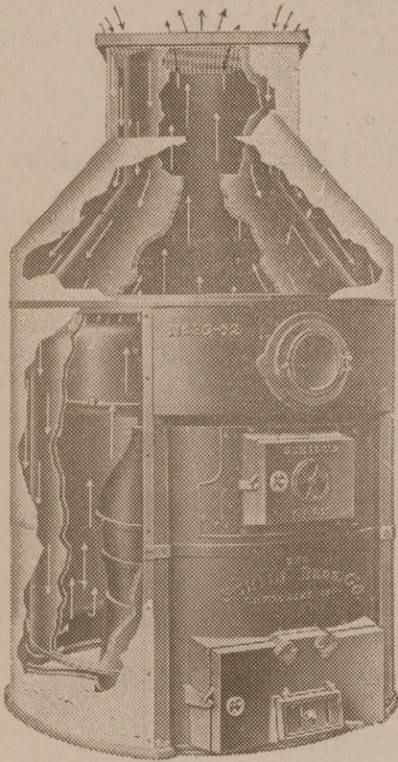


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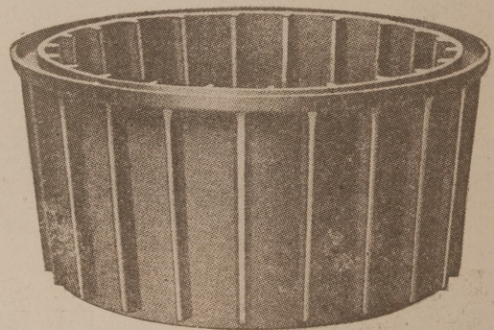


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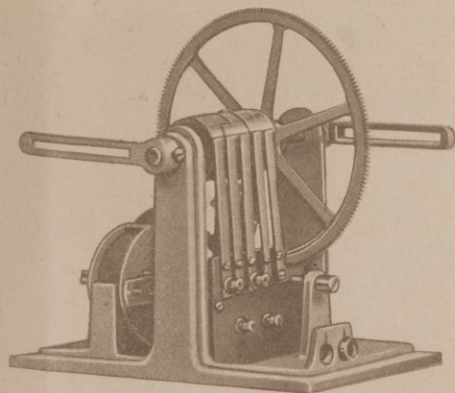
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You drive the screw holes with a hammer in any material.

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DEPARTMENT 52

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- 8—They can be used in any place a screw can be used.
- 9—By using screw holes, screws can be used in many places, and in many materials where it is impossible to use screws without them.
- 10—These are the only ready-made screw holes in the world.
- 11—No special screws are needed. These screw holes fit any wood screw or machine screw now in stock.
- 12—They make the neatest possible job in any material.
- 13—Every store where screws are sold must carry them in stock, because the line of screws is not complete without screw holes for them.
- 14—Every shop and factory where screws are used must also have these screw holes to fit the screws.
- 15—They are endorsed by all dealers in screws and by all users of screws.
- 16—Screw holes are entirely new and the world supply is yet to be furnished.
- 17—This is a progressive Old World of ours, and every active person in it must adopt all improved methods, and all new articles that will help him keep in the front line of progress.
- 18—Be among the first to stock up in screw holes if you are a dealer in screws.
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Prevents Lightning Losses

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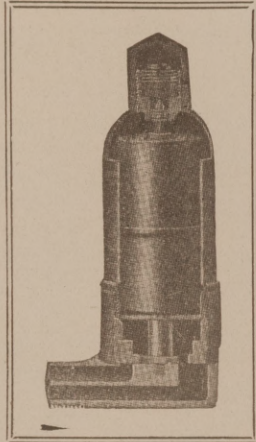
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Guaranteed for five years.

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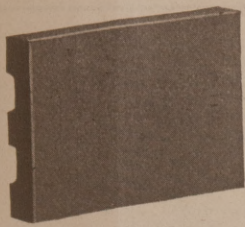
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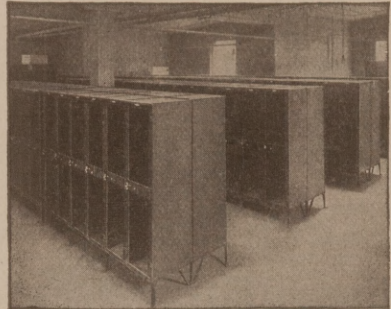
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Tablets

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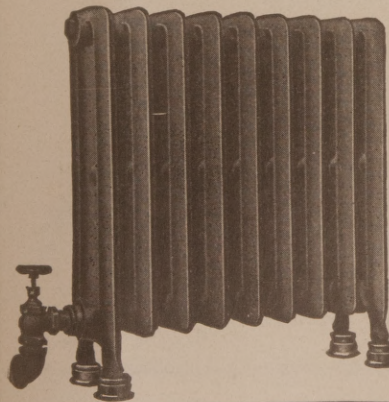
Address

The Cincinnati Mfg. Co.

Cincinnati,

Ohio

ADJUSTABLE FOOT



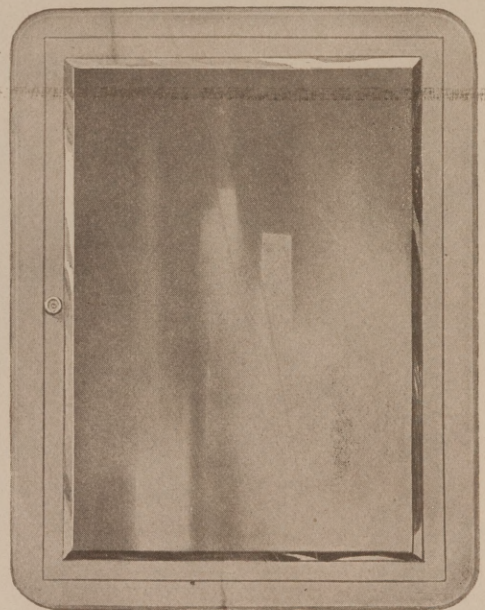
The Jennison Ad-
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it up in a jiffy.

Simply the twist
of your wrist un-
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Jennison Co.
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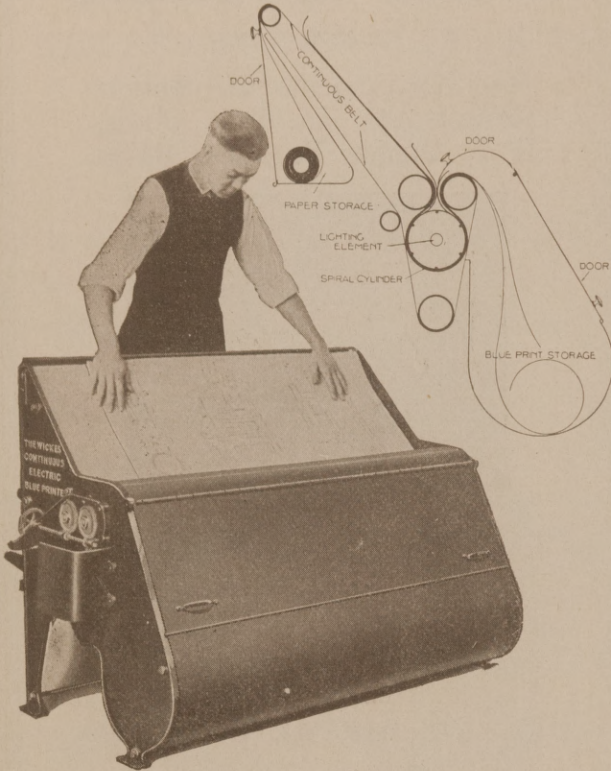


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The Wickes
Continuous Electric. Sells
half the price. Uses half
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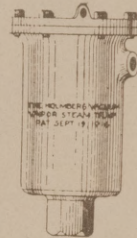
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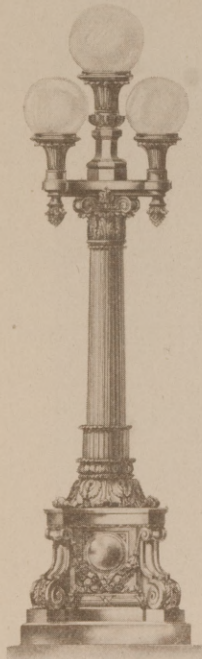
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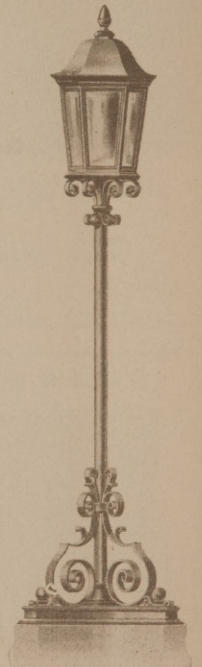
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Think of being able to use a material that requires absolutely no allowance to be made for contraction or expansion.

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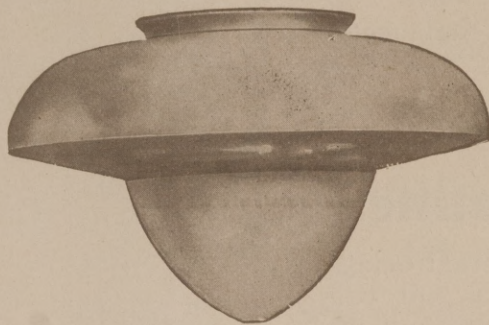
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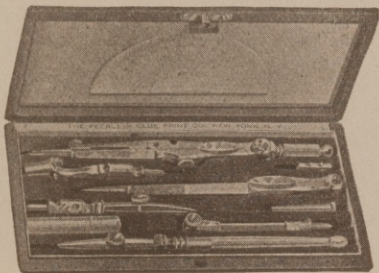
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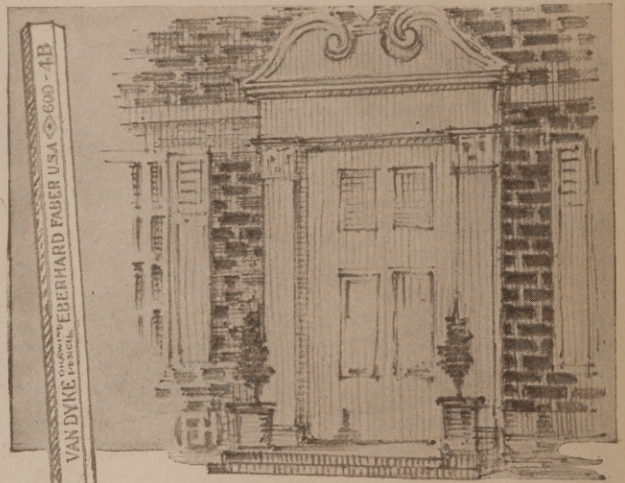
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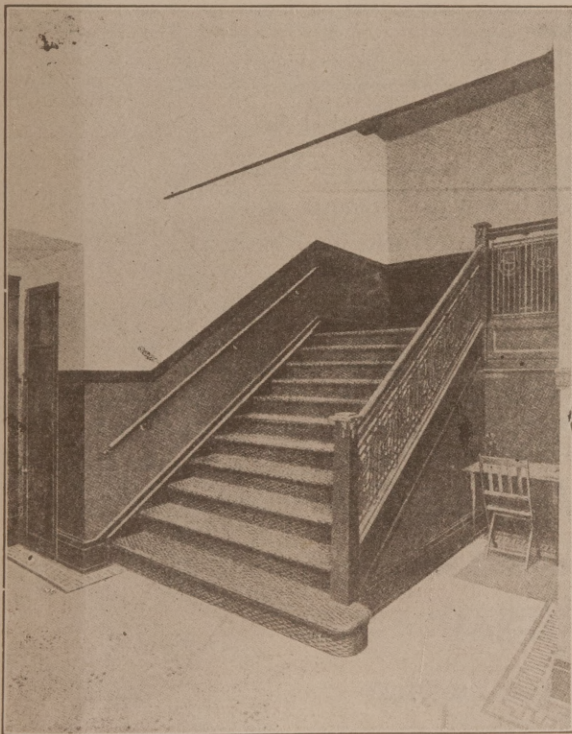
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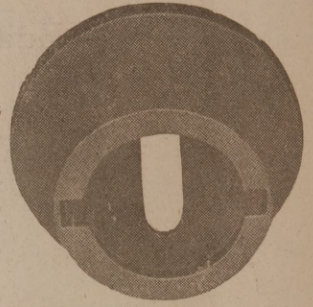
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8. Only insert made which has up and down and side adjustment complete in itself.
9. Easy to install, drive two nails in form and already for concrete.



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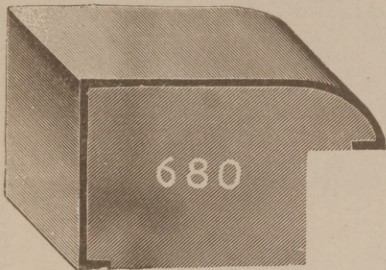
10. Locked in all positions.
11. Rod can be used with hook instead of nut or head.
12. Absolutely fool proof, cannot be misplaced in any way due to carelessness on part of mechanic.
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Our 3/16th thickness

Crystal Sheet Glass

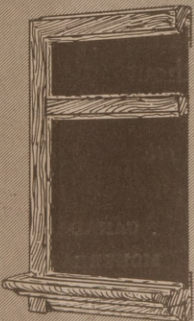
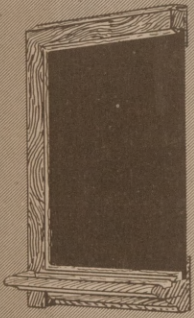
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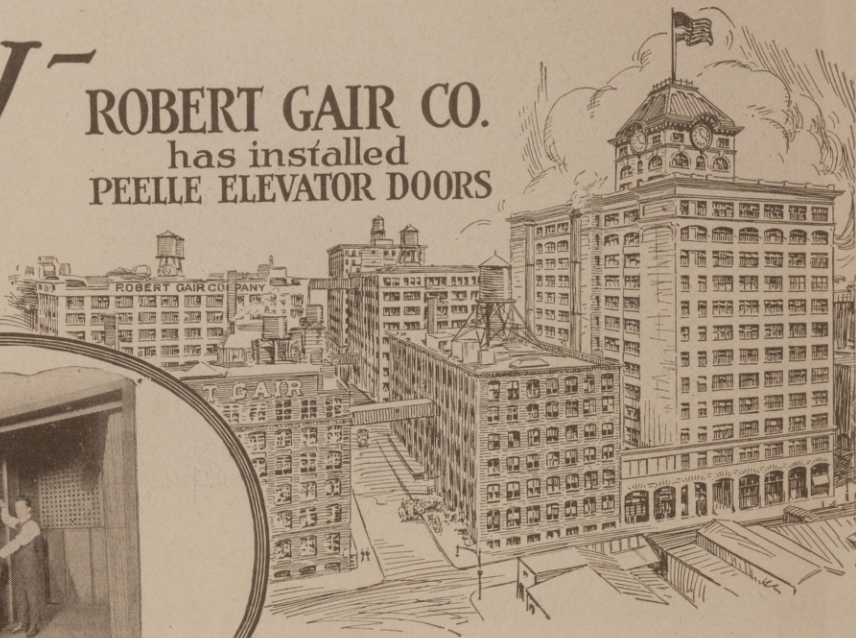
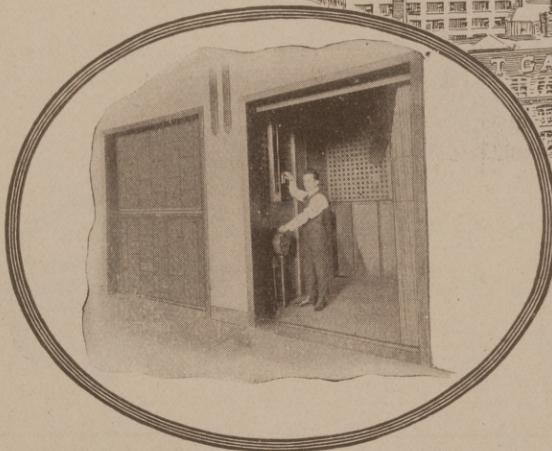
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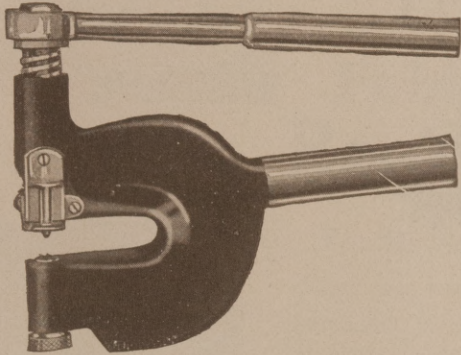
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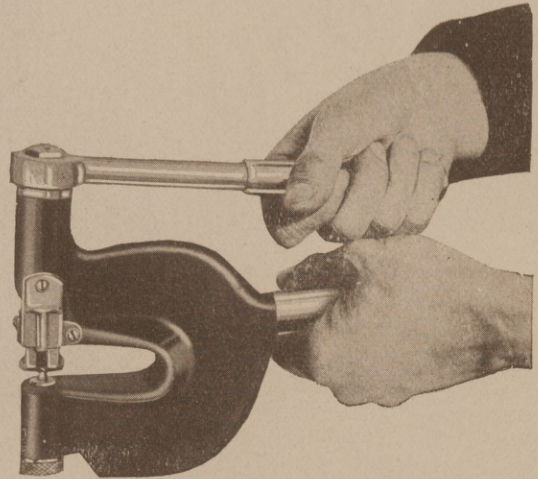
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Can be used in any position and in places ordinarily inaccessible.

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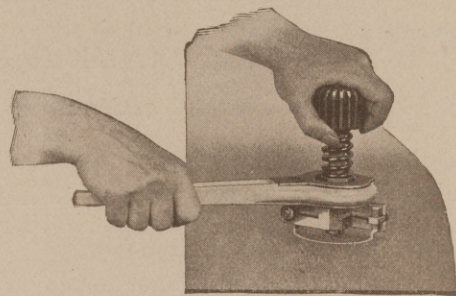
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*Is the
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This little clip, when mounted onto a section of HANDY pipe, makes the Handy STICK TIGHT joint. You simply push two sections of pipe together (like placing the cap on a fountain pen) and it snaps to a tight fit—**AND STAYS TIGHT.**

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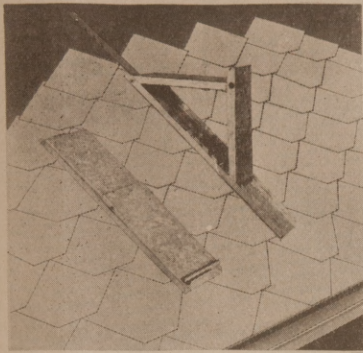
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*Use HANDY Pipe and your jobs will
cause customers to boost for you.*

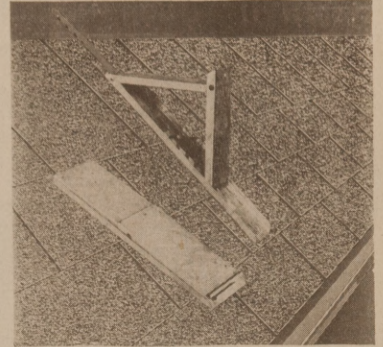
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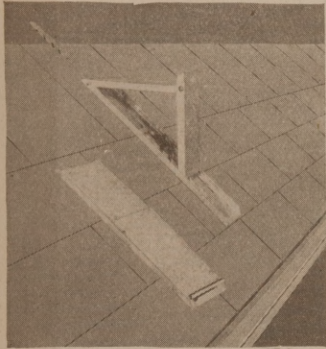
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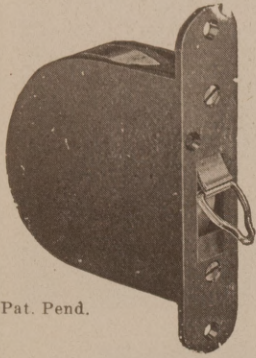
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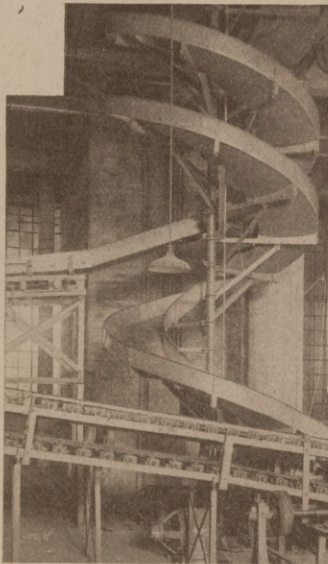
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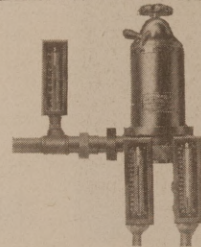
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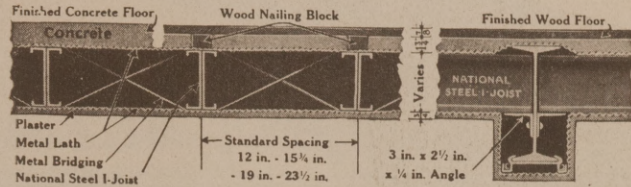
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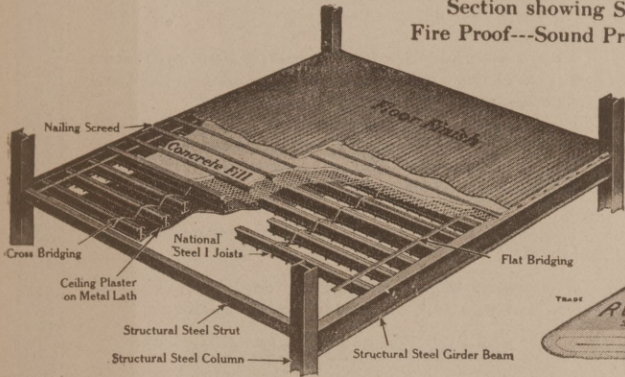
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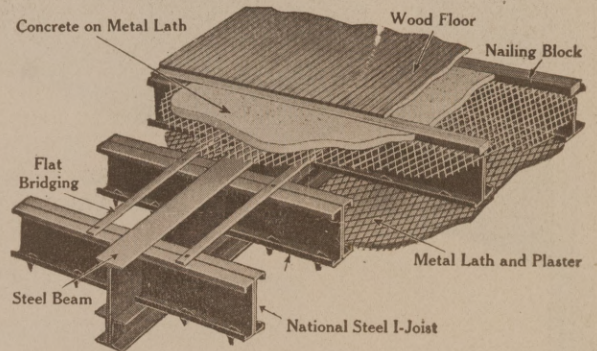
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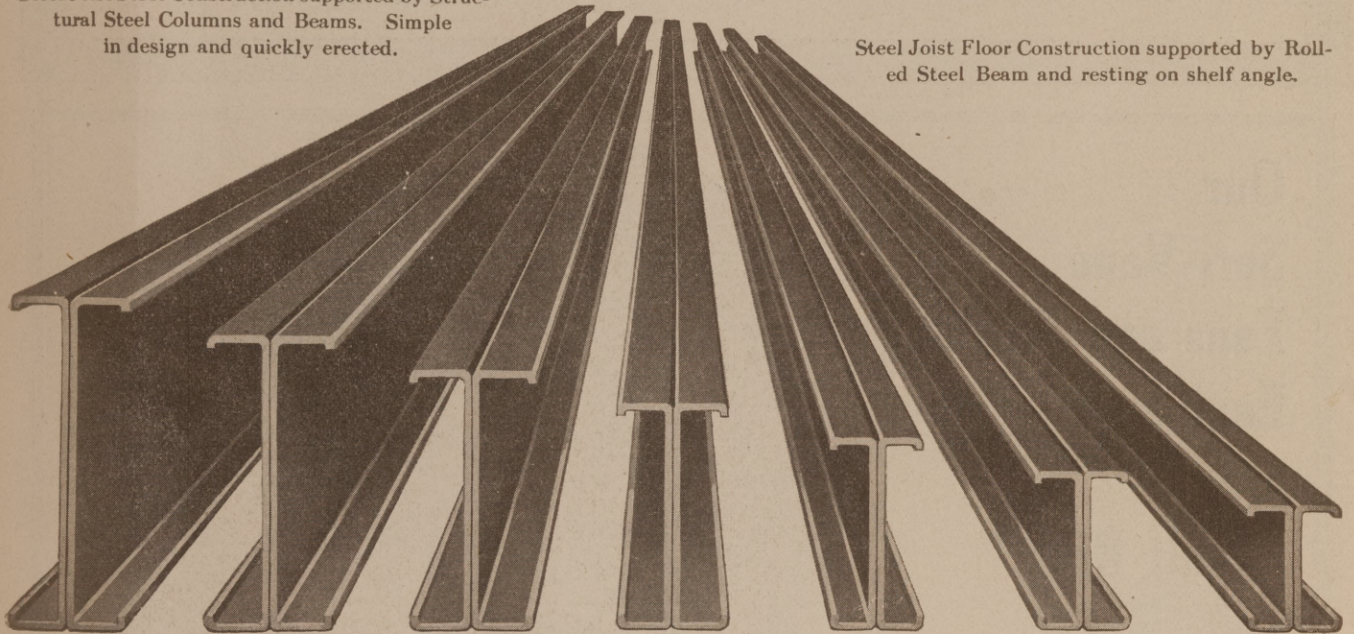
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In using it you are combining surface-texture with color-tone. Artistic and exceedingly practical. Has all the advantages of mechanically perfect press brick and none of the disadvantages.

Let us send you a set of four representative samples.

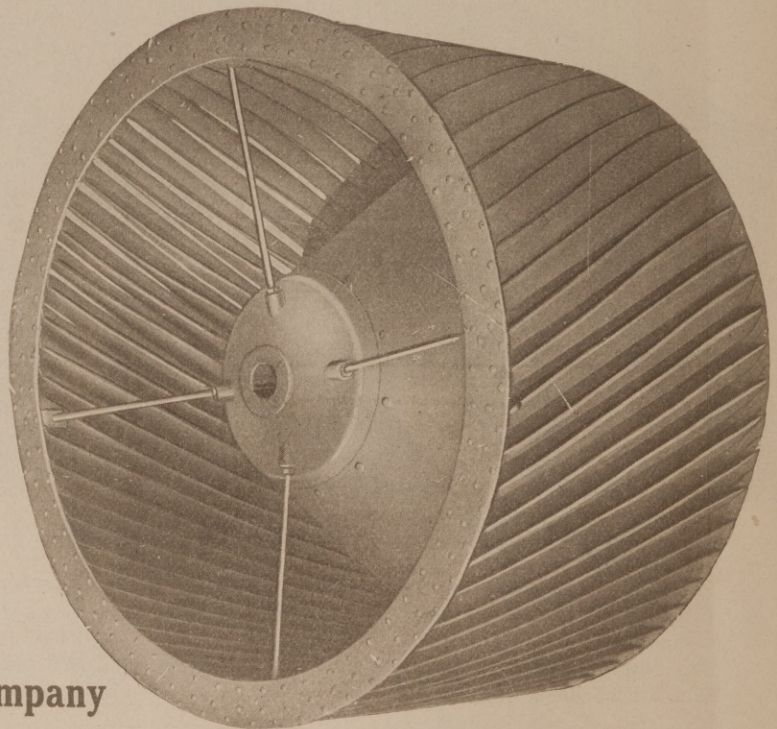
We would like to have your candid opinion of them and you will be under no obligation.

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”



Mathis Brothers Company

THE NEW YORK BLOWER COMPANY

Main Office: Transportation Bldg., Harrison & Dearborn Sts., CHICAGO, ILL.

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629 Nicholas Bldg.,
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To The Saturation Point

Moisture is a sly and insidious destroyer. Disintegration and decay quickly begin where moisture strikes in.

The serviceability of a building paper is in direct ratio to its water-proof qualities.

There's no doubt about NEPONSET Black Waterproof Building Paper being **absolutely** waterproof. Take a strip of it and immerse it in a bucket of water. Leave it there a long time—it will not disintegrate. An ordinary sheathing paper will not stand this test.

NEPONSET Black Waterproof Building Paper is impregnated with the special NEPONSET Waterproofing preparation until every square inch of it can hold no more. It is waterproofed **to the saturation point**. Not just coated or surfaced!

BIRD & SON

INCORPORATED
(Established 1795)

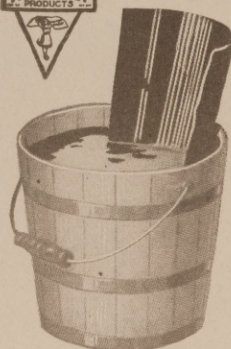
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Makers of NEPONSET Twin Shingles,
NEPONSET Roll Roofings and NEPONSET Board.





INDIANA LIMESTONE



Detroit Trust Co., Detroit, Mich.
Albert Kahn, Architect, Detroit, Mich.

Judge an organization not by a few "picked" buildings but by the average job the firm turns out.

Regardless of your location we can refer you to some building with stone furnished by Ingalls.

Your requirements will receive prompt and careful consideration by a force of estimators always ready to serve you. Send us your plans—they will be promptly returned.

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.



CONTROLS LIGHTNING
None Genuine Without this Trade-Mark

LIGHTNING RODS

That Are 100% Protection
The Best By Test

CARPENTERS and BUILDERS make large PROFITS selling our ALL FEATURE CABLE made of 36 strands of PURE SOFT COPPER with AUGER SHAPE PURE SOFT COPPER STRIP in center, which keeps the ground rod moist at all times. That's not all, it has all the wires on the outside exposed to the surface.

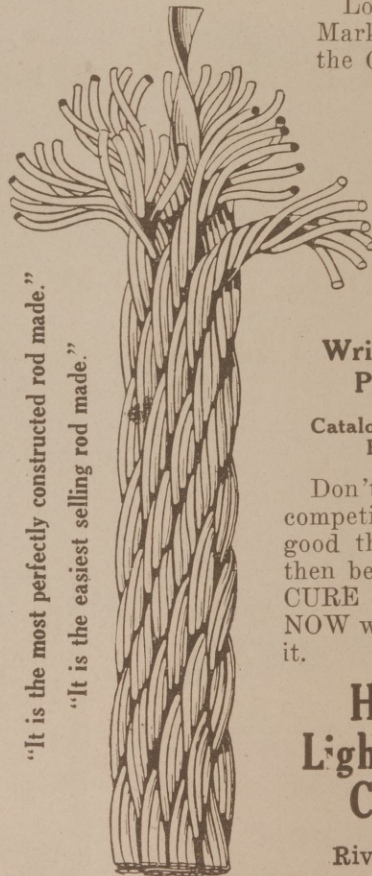
COVERING a period of 20 YEARS there has been over 120,000 buildings equipped with this SYSTEM without one single loss.

Your CLIENTS rely on your good judgment when they build. Lightning Protection is indispensable to their COMFORT. When you supply them with the HAWKEYE SYSTEM it means GUARANTEED PROTECTION for a Lifetime.

Don't be satisfied with just selling rods. Sell ABSOLUTE LIGHTNING PROTECTION. It costs no more than the ordinary.

Look for the Trade Mark on the Spool of the ORIGINAL ALL

FEATURE LIGHTNING ROD. It is a sign of a MOIST GROUND ROD.



"It is the most perfectly constructed rod made."

"It is the easiest selling rod made."

Write for Our Proposition

Catalog, Samples and Prices Free

Don't wait until your competitor sees it is a good thing. You will then be too late. SECURE the AGENCY NOW while you can get it.

Hawkeye Lightning Rod Company

Riverside, Iowa

Only 100% Efficient Closet Bowl on the Market

The APEX Closet Bowl is designed with a special cleanout device through which any obstruction can be located and removed by anyone in a few minutes without the use of cleanout tools.



THE APEX
We furnish complete combination if desired.

A Strictly Sanitary Feature

Should the bowl become clogged, it is absolutely prevented from overflowing by the non-overflow feature. Positive insurance against ruined ceilings, walls, carpets and other consequential damages resulting from overflowing closets.

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210 AMERICAN MECHANICS BLDG., TRENTON, N. J.

For full information, write Trenton office.

The C. Pardee Works

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”

Was Installed in

THE PENNSYLVANIA HOTEL

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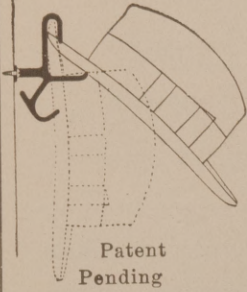
THE UNIVERSITY CLUB

THE PATERNO APARTMENTS

ASTOR COURT APARTMENTS

STATLER HOTEL, DETROIT

The Demand Must Be Filled by You,
Mr. Builder



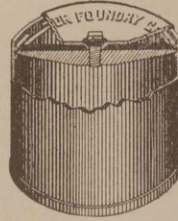
Have your buildings finished right up to date by installing Universal Apparel Hooks. Look at the picture. It explains the clever principle.

These hooks can now be had in large quantities at reduced prices. Tell us how many you need and we will try to satisfy you.

Correspondence solicited. Write

MONITOR PATTERN & MFG. WORKS, 50 Lothrop Ave. DETROIT, MICH.

EXCELLO
ALL IRON
CLEAN OUT



You will never know how good they are until you try them; better, stronger, more simple, and cheaper. Heavy cross bar is up close to the lid, so that our brass bolt is short, which increases its strength, and eliminates any chance of twisting it off. Made in 2-inch, 3-inch and 4-inch.

We also make a long line of Floor Drains, Boiler Stands, etc.

Send for booklet

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QUARRIED EXCLUSIVELY BY

THE NORTH CAROLINA GRANITE CORPORATION

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J. D. SARGENT GRANITE CO.
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Will Quote on Finished Building and Monumental Work
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This Modern
CLOSET

is convenient, sanitary and beautiful. It is the equal of the modern flush closet of city homes.

The Waterbury
**SANITARY
CAUSTIC
CLOSET**

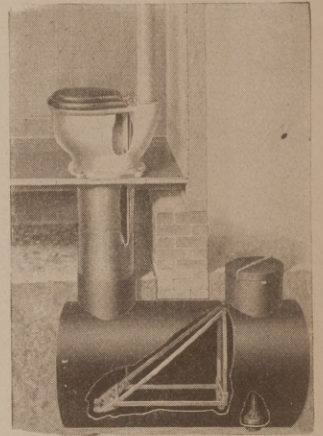
affords modern closet convenience for homes, schools, factories, churches and all buildings where water and sewers are not available. Town and farm families are demanding the convenience, and comfort of indoor closets. The "Waterbury" so completely supplies this need that it surmounts all competition.

CONTRACTORS

Introduce this modern standard of closets in your community and you will uncover an active demand for hundreds of them. There's real profit in the "Waterbury" too. Retail price about \$80, freight equalized with Cincinnati.

Write us at once for information on exclusive agency offer.

The Waterman-Waterbury Co.
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MAKERS OF FINE CHAIRS

CORRESPONDENCE INVITED FROM ARCHITECTS.

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Building Economy

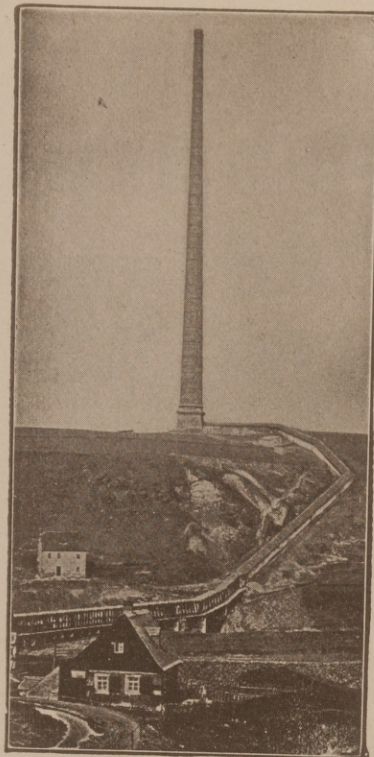
is not always in the initial cost. Cheap material is sometimes just as pleasing to the eye but in the long run, when taking into consideration the cost for maintenance, the best is the most economical.

SAMPLES—miniature or full size—will be forwarded to you upon request, all charges prepaid.

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"Manufacturers of Enameled and Fire Brick."

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**Perforated
Radial
Brick
Chimneys**

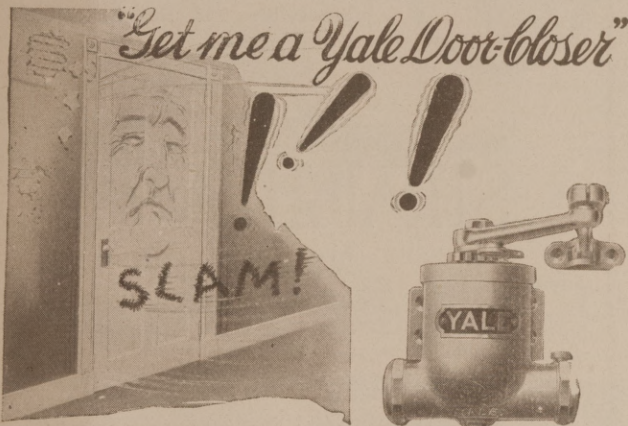
460-Foot Heinicke Chimney has carried acid gases for 21 years with no decay whatever.

H. R. HEINICKE, Inc.

Designers and Builders

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Any door is a better door with a Yale Door Closer.

On every main entrance, library, kitchen, bath and screen door, there is need for a Yale Door Closer.

The Yale Reversible Door Closer comes in sizes and finishes to suitably and completely fit every kind of door.

In mechanical construction and design the 'Yale' is typical of every other Yale product—and proves itself better in operation and ease of maintenance in hundreds of thousands of installations under all conditions of use and climate.

Correspondence is cordially invited.



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 together with testimonials from such prominent architects as Cass Gilbert, also the Lackawanna and Pennsylvania 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.

RELIANCE FIREPROOF DOORS and WINDOWS

ARE USED FOR

High-Class Buildings

Reliance Fireproof Doors, Windows and Trim are selected because of their superiority in design, efficiency, material and workmanship.

The facilities of the Plant and organization of the company are such that architects and owners can be assured that all contracts will be executed within the allotted time and that every attention to detail necessary for the satisfactory completion of the work will be promptly accorded.

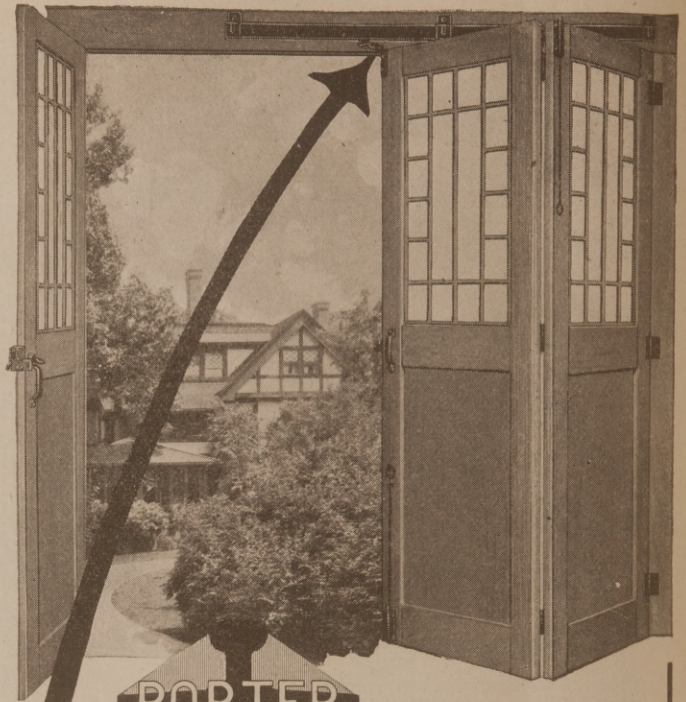
Plans and specifications sent for the purpose of estimating will be promptly returned at this company's expense, and if architects desire, details will be submitted showing most practical and economical methods of securing best results under special conditions.

WE SPECIALIZE IN 16 GAUGE
BRONZE-COVERED DOORS

Reliance Fireproof Door Company

West and Milton Sts. & Greenpoint Ave.
BROOKLYN, N. Y.

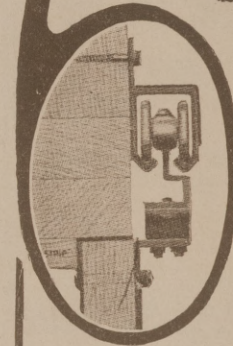
Represented in all the Principal Cities



PORTER

These Doors Shut Tight

In the oval is shown the reason why the Porter "Straight-Away" Garage Door Track and Hanger insures a perfect fit of doors against jamb and weather-strip. The offset swivel, an exclusive Porter feature, makes it impossible for doors to sag, spring or bind.



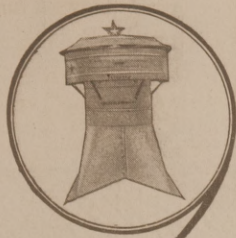
STRAIGHT-AWAY No Sag Garage Door Track & Hanger

No other garage door hanger has as many important advantages. It is storm-proof and every door keeps rigid alignment whether open or closed. The straight track saves space because the doors are folding-sliding. The "Double V" construction reduces friction to the minimum.

Use the Porter "Straight-Away" in the garages you build, and you will be sure of satisfied clients. Every "Straight-Away" is fully guaranteed. Write for our illustrated descriptive literature.

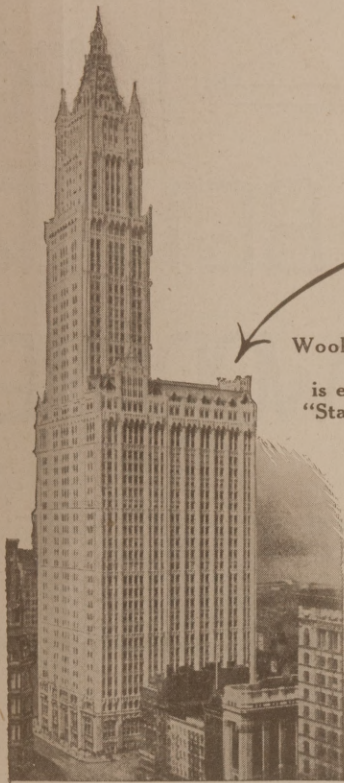
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When Good Ventilation is Required
Specify
"Star" Ventilators

Patented



Woolworth Building
New York
is equipped with
"Star" Ventilators

INSTALLED on buildings of any design—
mills, factories, warehouses, churches,
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"Star" Ventilators have demonstrated their
ability to exhaust foul air with maximum
efficiency and economy.

The U. S. Government adopted the "Star"
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FITS-'EM-ALL PIPE REST



The most serviceable and convenient Pipe Rest made. It holds the pipe or fitting firm and steady and gives all the service of the old style type of pipe rest, and, in addition, can be used where the old style type cannot. Its usefulness is not limited and its cost no more.

Fits any soil pipe, either standard or extra heavy.

Worth double its cost for taking out a cracked pipe.

No disappointment if you forget to put the Pipe Rest on before you calk the joint.

Best for remodeling work.

Best for durham work.

No more tying up Pipe Rests and smashing fingers when Pipe Rest slips.

Fine thing for down spouts and soil pipe work in brick chases.

Made in all sizes from 2 to 10 inches, for soil or durham pipe.

Two-inch size, 30 cents net. Four-inch size, 40 cents net.

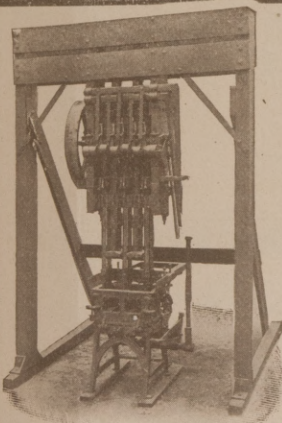
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BLAKE SPECIALTY COMPANY

1607 MILL STREET, ROCK ISLAND, ILLINOIS

THE IDEAL CONCRETE MACHINERY CO.

1308 Monmouth Ave., CINCINNATI, OHIO

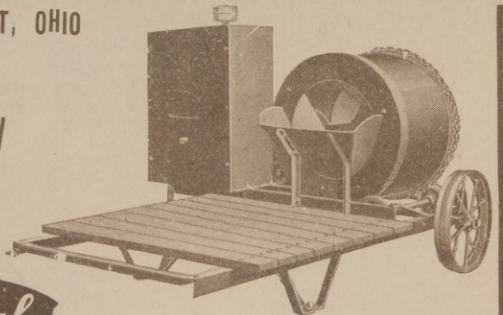


Catalog No. 28



Catalog No. 30

Concrete
Machinery
for all
Purposes



Catalog No. 33

BETTER HOMES MAKE BETTER WORKMEN



Health is the first consideration. And health means contentment — ambition — greater loyalty. Without modern toilet conveniences in the homes of your workmen, you are working against the odds of human nature and medical science.

"My district is unsewered"—is no longer an excuse.

Kaustine System Toilets

TRADE MARK

REQUIRES NO WATER NOR SEWER CONNECTION

Based on principles advocated by health authorities. Dispose of sewage immediately after discharge from body. Chemical reaction insures sanitation.

No bailing, as with ordinary chemical closets. Sewage is flushed into leaching pool, by means of drain valve, after disinfection in Armco Iron tanks. Kaustine tanks and all metal parts are constructed of Armco Iron and specially treated.

Convenient—Healthful—Odorless. The Kaustine System gives your employes' families city conveniences. Easily installed. We can tell you

how best to solve the problem in *your* locality. Write for this information and for the Kaustine catalog, which has revolutionized sanitation in mill and factory villages.

KAUSTINE CO., Inc.
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Trenton, N. J.

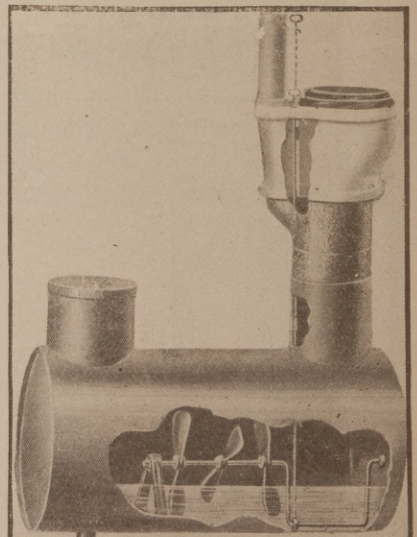
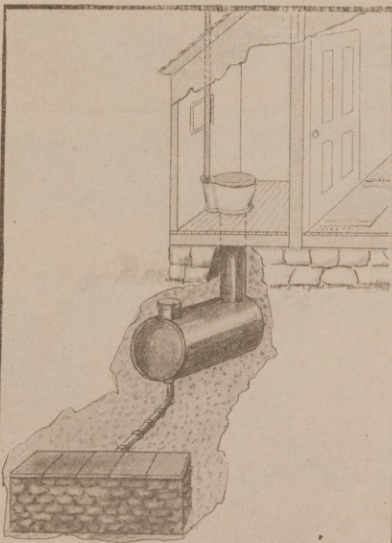
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Atlanta, Ga.

Oakland, Cal.

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Toronto, Ont.



THE COATES INSIDE CHEMICAL CLOSET

From Manufacturers Direct. No Agents' Profits.

The greatest of all modern conveniences. Rids suburban and farm life of one of the greatest drawbacks. The small town or farm home can now enjoy every advantage of the city dwellers and at no trouble. This convenience is a necessity for health, comfort and safety.

**No Plumbing; No Holes Cut in Floor;
No Water Pipes; No Freeze-Ups;
Sanitary and Odorless.**

THE COATES INSIDE CHEMICAL CLOSET is approved by the highest medical authorities. It not only adds to comfort and convenience but to health as well. No home complete without one. Mail us your order today. **\$17.50.**

Winter Will Have No Worry

Winter is coming. Will you go another season shoveling snow and freezing like you did last winter, or will you secure the COATES INSIDE CHEMICAL CLOSET and enjoy city comfort the year round? You owe it to your family to do away with the old outdoor closet. You can buy the COATES on a positive money-back guarantee, if not just as represented. Cost less than 5c a week to operate.

**No Agents—Sold Direct
Full Value for Your Money
and a Square Deal Always**

**Now
\$17.50
Was
\$22.50**

THE COATES INSIDE CHEMICAL CLOSET is strongly and handsomely made. It is scientifically constructed—no odors—no trouble. Finished in pure snow white enamel and can be readily installed in 30 minutes by any one in any place in the house. A toilet you can show your friends and be proud of. Order today on our positive guarantee. Shipped anywhere, on receipt of above price.

**Special Discount on 12 or
More**

Manufactured by

COATES SANITARY MANUFACTURING CO.

P. O. Box 65.

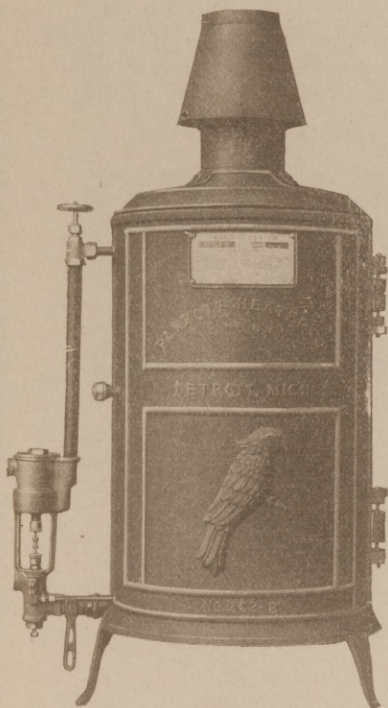
Grand Rapids, Mich., U. S. A.





W. R. Thatcher,
General Mgr.

Is the man that taught the Parrott to make cold water hot quick as a flash at a turn of a faucet. Write him a letter and learn why 90% of the Detroit Master Plumbers are selling and advocating Parrott Heaters. He will tell you how to make money.



Special Feature

You can remove coil or any part without removing a bolt, screw or nut.

PARROTT

Automatic Gas Water Heater

They Sell on Sight

Built on honor—
Built to last—
Lowest first cost—
Fewest number of parts—
Least to get out of order—



Specification

Jacket heavy cast grey iron—
Finish black and gold—
Coil—Copper—84 feet.
Burners only six in circle.
Pilot flash type.
Valve, bronze—cast in one part.
Exclusive feature—Condensation plate—
protects burners.
Capacity—three gallons per minute—artificial gas—more on natural.

SOLD ONLY TO PLUMBERS

Be a live wire merchant

Use your head, let the other fellow use his hands and feet. One sure way to know about the Parrot—order one, try it out—you will be convinced it is the best in the world, regardless of low cost.

Parrott Heater Co.

224 21st Street

DETROIT, MICH.

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.**

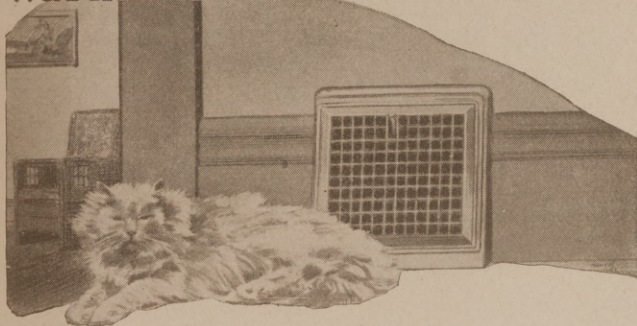
Dealers in the Celebrated

**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

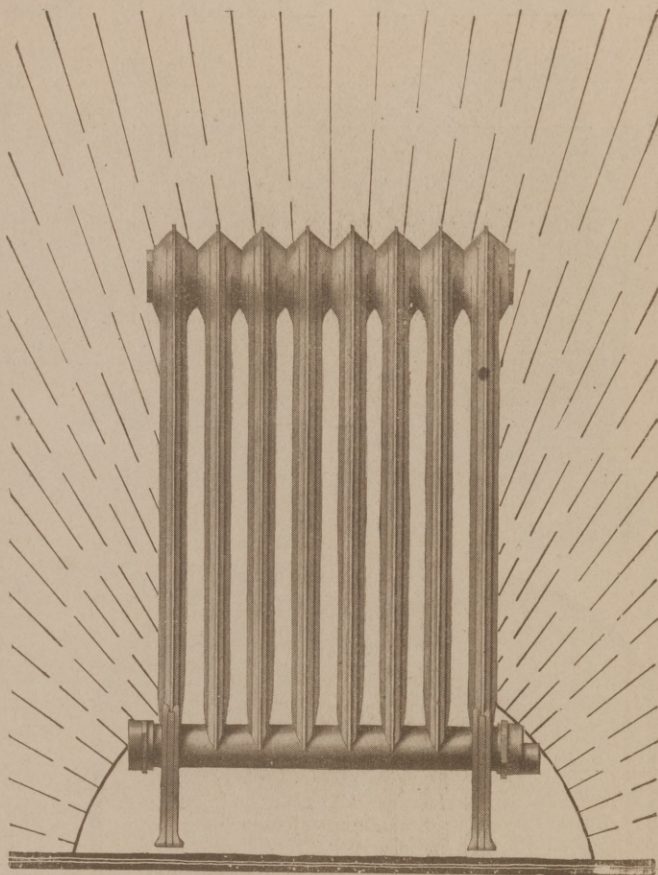
AS Michael Angelo said to the man who asked him why he spent so much time on a trifling detail: "Trifles, my dear sir, make perfection and perfection is no trifle."

In Columbian 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 Columbian Registers make a combination of which the heating contractor can be proud.

Have you the latest Catalog?

The Columbian Hardware Co.
CLEVELAND, OHIO



Announcing a
New Feature of

Pressweld Radiation.

This announcement of the new Pipe Bottom, Self Drainage feature of Pressweld Radiation proclaims an entirely new era in heating by radiation. It gives to Pressweld three additional and pronounced advantages—increased heating area, greater air circulation between the sections, and the distinction of being the only radiation positively drained of all condensation. With the advent of this Pressweld development, the last possible objection to sheet metal radiation is forever removed. Pressweld, now, gives ever greater service.

Write or wire for full particulars.
Address Dept. "C"



**The American Pressweld
Radiator Corporation**

DETROIT
MICHIGAN

If Your Clients Knew

the solid comfort, the genuine satisfaction to be enjoyed by the use of the

PEERLESS DOME DAMPER

they would specify it themselves.

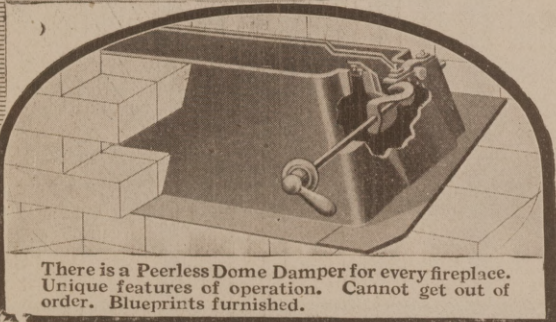
- It saves fuel.*
- It regulates draft.*
- It increases the heating capacity of fireplace.*
- It keeps the temperature uniform.*
- It prevents back drafts and dirt from blowing into the room.*
- It reflects the warmth and glow from an open fire into the room instead of sucking it up the chimney.*

You can win the enduring gratitude of your clients by specifying

PEERLESS DOME DAMPERS, PEERLESS ASH TRAPS AND PEERLESS ASH DOORS.

Have our Catalog in your files? We will be glad to send you one and also the name of the Peerless dealer in your city. . . .

PEERLESS MANUFACTURING CO.
INCORPORATED
 Makers of Fireplace Furniture
 LOUISVILLE, KY.

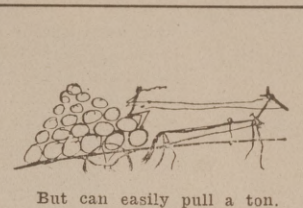


There is a Peerless Dome Damper for every fireplace. Unique features of operation. Cannot get out of order. Blueprints furnished.

Get the Idea of the Martin Method



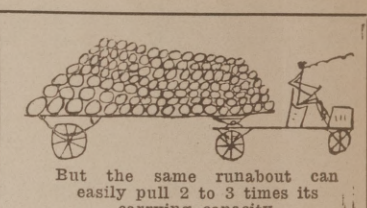
A horse cannot carry more than 1/4 ton



But can easily pull a ton.



A runabout will soon break down under a ton strain

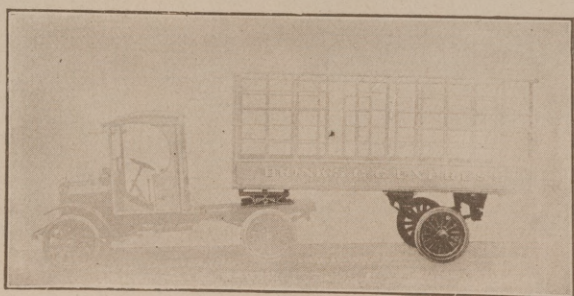


But the same runabout can easily pull 2 to 3 times its carrying capacity.

THE MARTIN METHOD multiplies the load-carrying capacity of the automobile three fold.

THE MARTIN METHOD is based on the famous Martin Rocking Fifth Wheel, which makes the connection between the motor chassis and the Semi-Trailer.

THE MARTIN METHOD combines perfect steadiness with the necessary amount of flexibility.

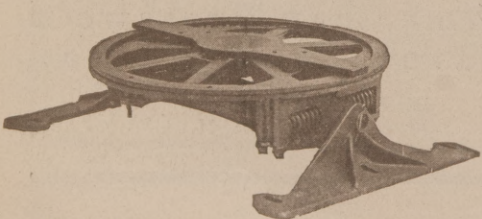


Showing how the Martin Fifth Wheel and Rear End Assembly constitute a trailer chassis.

THE MARTIN METHOD makes a very small investment bring your motor truck up to date, and with increased load-carrying capacity.

THE MARTIN METHOD is immediately available. We supply parts or Semi-Trailer complete.

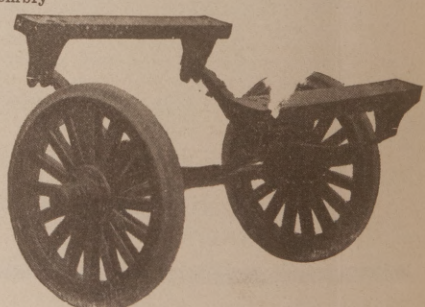
Write for our interesting and fully priced catalog showing Fifth Wheels, Rear End Assemblies, and Semi-Trailers, 1 to 10-ton capacity.



Martin Spring Type Rocking Fifth Wheel.

Martin Rocking Fifth Wheel Co.
 P. O. BOX 1244-R
 Springfield, Mass.

Manufacturers of Martin Rocking Fifth Wheels, Semi-Trailers, Semi-Trailer Parts, Rear End Assemblies, Floating Bearing Axles, Castor Jacks.



Martin Rear End Assembly.



The Concrete Roofing Tile Business

Approved by underwriters
Specified by Architects
Adds beauty and permanence
Light weight
Low in cost
Interlocking

Fireproof
Frostproof
Stormproof
Waterproof
No wear
No repair

Easy to make---easy to sell
"A roof for all time"

In very few words this advertisement will explain the opportunity that is open for you to enter a profitable and growing business.

In the first place, Walter Concrete tile represents a universal roofing material. No better roof can be applied to the most expensive structure, and the economy of Walter Concrete tile brings them within the reach of the most unpretentious home builder. The roofs thus made are absolutely fireproof. They are permanent and will outlast the rest of the building.

Wherever Walter Concrete tile have been manufactured and offered for sale they have met with the instant approval of architects and the enthusiastic endorsement of builders and owners. The market for the product is therefore already established, and there is no competition as architects and builders will specify WALTER CONCRETILE immediately after they have seen them.

The investment required for establishing a Walter Concrete tile plant is not excessive. The chief thing being a determination on the part of the organizers to establish a REAL manufacturing business, back it with sufficient capital to give it an opportunity to expand, put it in charge of a competent man who can handle the manufacturing problems and the sale of Walter Concrete tile to the public will take care of itself.

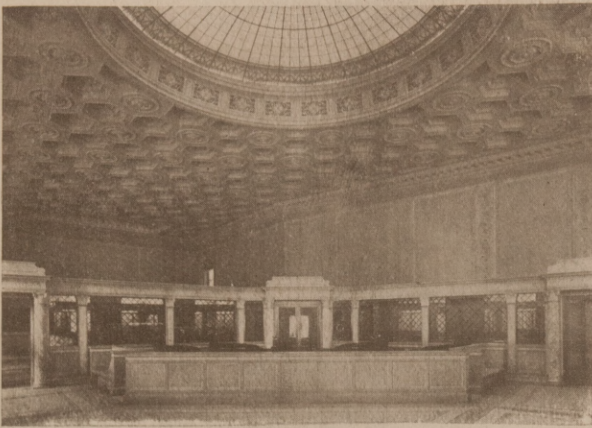
Wherever Walter Concrete tile plants have been established they have been established only after the most careful investigation upon the part of the local investors.

There is an opportunity for you in your vicinity. We have nothing to sell on a royalty basis—we sell you all necessary tile making equipment, including all special forms and molds for any style of roof outright; and we protect you from competition by not establishing another plant in your territory. The profit is large and the product easy to sell. We want to hear from the right kind of people.

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Indianapolis, Ind



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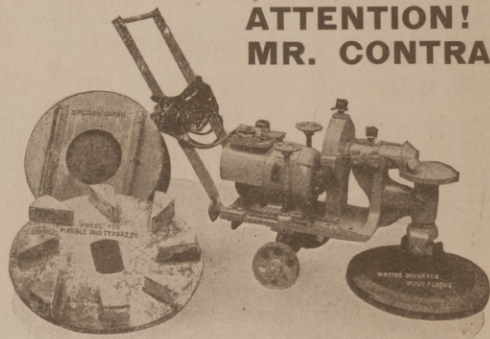
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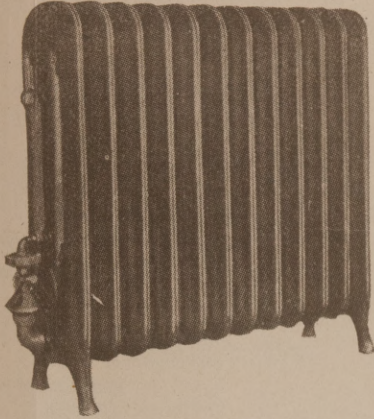
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 (It will do the same for you). Operated by one man, but does the work of six and does it better.
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BECAUSE—It is the most simply constructed machine on the market, the easiest to operate and keep it in repair.
BECAUSE—It saves hand work by finishing close up to the base.
BECAUSE—It will pay for itself within three months, and last a lifetime.
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BECAUSE—It is the only machine with adjustments to regulate the weight on the grinding wheel. (YOU WILL SEE THE ADVANTAGE). Write us for further information.
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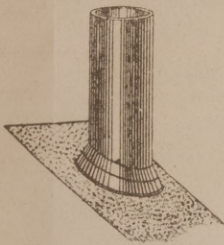
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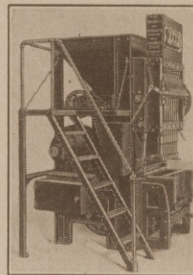
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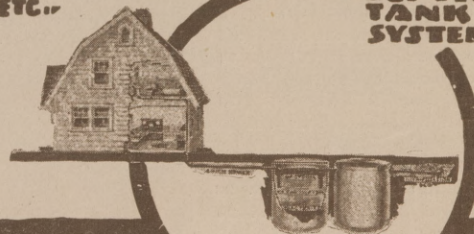
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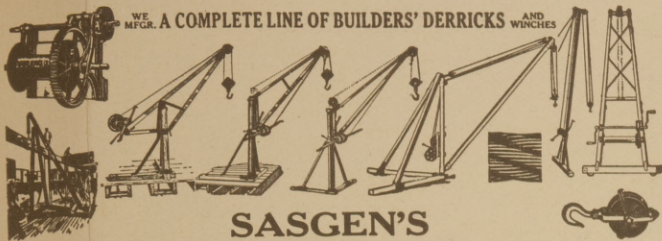
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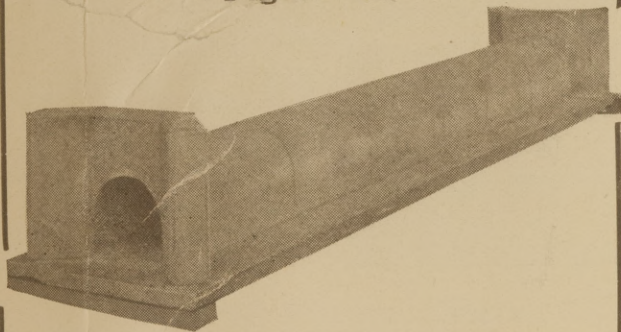


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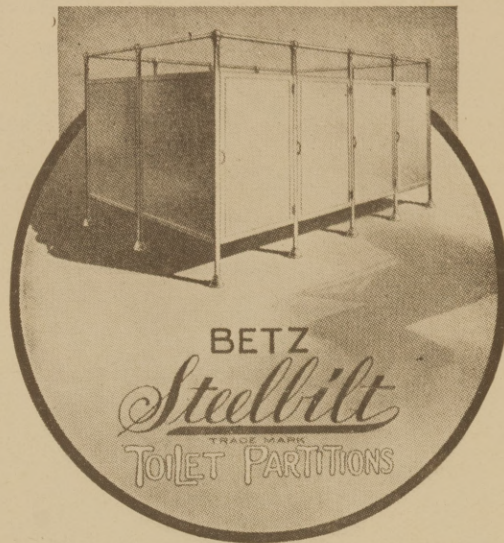
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