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MINNEAPOLIS, MINN.,

DESIGNERS AND BUILDERS OF

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STEEL STRUCTURES

Large Stock of ==

Beams, Channels, Angles, Plates, Etc.,

For Immediate Shipment.

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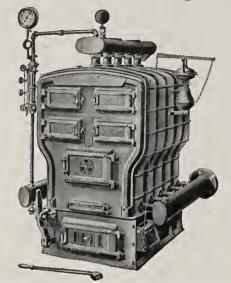
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Sewer and Water CONNECTIONS

814 NICOLLET AVENUE

MINNEAPOLIS

"The Boiler Magazine"



"AMERICAN" BOILER FOR STEAM HEATING

Successful Boilers and Radiators

Heating Supplies of Every Description

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-CHICAGO-

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GENERAL..... Contractors and Builders.

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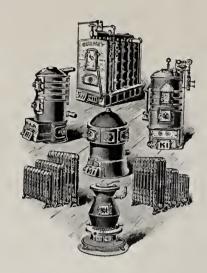
SUCCESSOR TO NORTHWESTERN SLATE CO.
DEALERS IN

Roofing Slates, Urinals, Slate Treads, Slabs and

Slate Black Boards. We make a specialty of

Black Board Setting for School Buildings.

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Hot Air Furnaces and Combination Heaters. Steam and Hot Water Heating and ventilating apparatus. Sanitary Plumbing and Gas Fitting. Engineers' and Steam Filters' Supplies.

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STEAM AND HOT WATER
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SANITARY PLUMBING,
PIPE CUTTING, PIPE COVERING,
GAS FITTING.

313 Third Avenue South,

MINNEAPOLIS, MINN.

Telephones: N. W 900 2. T. C. 802. W. I. GRAY GEO, K. BELDEN

W. I. GRAY & CO.

Contracting Engineers.

Electric Light, Heating, Ventilating and Water Works Plant.

804 Sykes Block,

Minneapolis, Minn.

Mackolite Fireproofing Company

105-107 E. RANDOLPH ST., CHICAGO, ILL,

Manufacturers and Contractors for

Light Fireproofing Material

For all classes of fireproof and semi-fireproof buildings.

Floors, Roofs, Partitions, Furring Tile, Etc.
Fireproof Plaster Boards

For wood construct on.

Write for prices and estimates.

THE Chamber of Commerce of Minneapolis installed the most complete and expensive Power and Heating plant in the state of Minnesota in their new building, and after exhaustive tests decided to cover same with



Carey's 85 per cent Pure Magnesia Pipe Covering

The Deere-Webber Co., the largest Implement dealers in the entire Northwest roofed their immense 8 Story Warehouse in this city, with

Carey's Magnesia Cement Roofing

the lightest, most servicable and least expensive first-class roofing now manufactured.

KEES & COLBURN, Architects of both Buildings.



W.S.NOTT COMPANY

SOLE NORTHWESTERN AGENTS AND CONTRACTORS,

200-206 First Ave., South,

MINNEAPOLIS,

MINN.

WM. RHODES, President.

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MANUFACTURERS OF

Galvanized Iron Cornices, Window
Caps, etc., Corrugated Iron, Hayes
Patent Skylights, Fire-proof Doors

and Shutters.

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ST. PAUL, MINNESOTA.
ESTABLISHED IN 1870.

OFFICE AND WORKS ESTABLISHED IN 18
FORT, COR. W. Fifth Street. INCORPORATED IN

ROOFERS IN

Asphalt, Pitch and Gravel.
Slate and Iron.
Metal Ceilings.

ST. PAUL, MINN.



Steel Ceilings are very beautiful, durable and not expensive.

SPECIALLY VALUABLE IN

SCHOOLS, CHURCHES AND STORES.

WE MANUFACTURE MANY HANDSOME PATTERNS

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Send for Catalogue.

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THE WESTERN ARCHITECT

IS PUBLISHED THE 15th OF EACH MONTH BY
THE WESTERN ARCHITECT PUBLISHING COMPANY.

FRED'CK KEES, Minneapolis, Minn., President.

J. WALTER STEVENS, St. Paul, Secretary.

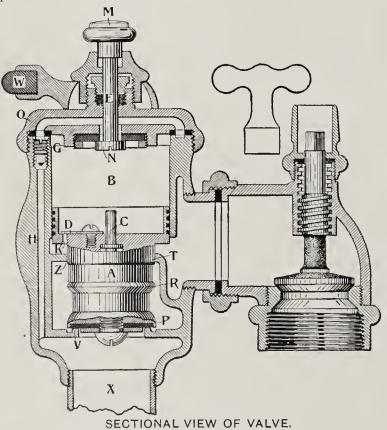
F. A. GREENLAW, General Manager.

Insurance Exchange Building, MINNEAPOLIS, MINN. St. Paul, Commercial Building.

THE NETHERY HYDRAULIC FLUSH VALVE.

During the past ten years repeated attempts have been made to construct a Flush Valve which will eliminate the ordinary water closet tank, which has proven to be not only unsightly in appearance, but noisy in operation and imperfect in its mechanism, and in fact one of the most unsatisfactory problems that an architect has to handle. Some of these valves are giving fair satisfaction, but none of them appeal to us from a technical standpoint with as much force as the valve on this page.

It differs from the other Flush Valves on the market owing to the fact that it is both opened and closed and in fact—held closed by Hydraulic Pressure. It is also as simple in its mechanical construction as a valve could be made, there being but three pieces, namely, the cylinder, the cap and the piston, all constructed of No. 1 Bibb Metal 85 per cent pure.



The valve is opened by pushing the push-button (M). The water contained in valve chamber (B) escapes through the cap (O) and down by-pass (H) in the valve casing into the discharge pipe (X). The rate of discharge through by-pass (H), regulated by the screw (G) regulates the rapidity of the rise of valve piston (A). Upon the rising of piston (A)

to the top of valve chamber (B) the pin (C) closes the valve (N), whereupon the upper valve chamber (B) begins to refill through the opening (K) in piston head. The rapidity of the filling of the upper valve chamber (B) therefore the rapidity of descent of piston (A) and the quantity of water discharged at each operation of the valve is controlled by the disk (D). By this regulating disk practically any desired quantity of water up to fifteen or twenty gallons can be drawn at each operation of the valve. In the descent of piston (A) the closet flush is obtained while the piston area between piston ring (P) and piston ring (R) is passing the supply opening and the closet seal or refill is accomplished while the piston is passing opening from piston ring (R) to piston ring (T) at which point of its descent the base of piston has reached its seat (V) and flow ceases.

An important feature of the valve and a point not explained in sectional cut—is the way in which any possible wear of the piston caused through friction is prevented. Unlike other valves, the supply is not a direct communication between inlet and outlet. The space through which the water enters, the valve (above the letter T on sectional view) is too small to admit sufficient water to raise the piston—but this opening continues entirely around the valve—the cylinder being cast in hollow form, as a result of which the water presses inward and upward from all sides at once, holding the piston exactly in the center of the valve chamber and preventing the friction and wear on valve, such as would occur if the water entered from one side only.

One of these valves is in operation in the show room of the National Brass & Metal Co., Corner 3rd Ave. and 3rd St. South, Minneapolis. They show it in operation on seventy down to five pounds pressure without any re-adjustment of the valve. Under the highest pressure we found it to be perfectly noiseless.



SHOWING VALVE ATTACHED.

So great is their confidence in the valve that this company guarantee that it will give a perfect flush and refill at each push of the button, that it will absolutely prevent waste of water (as it cannot be propped open), also that it can be kept in perfect condition with less attention than any closet valve on the market.

Below is a list of installations or specified jobs, mostly in New York City, which will show what success the valve is meeting in the East.

No. of

Valves Building and Location Architects Address

- 35 City Club, W. 44 St., N. Y., Lord & Hewell, 16 E. 23rd St.
- 35 Apartment at 141st St. and 7th Ave., Harry T. Howell, 3rd Ave., 138th St.
- 150 Hotel opp. Museum of Natural History, G. F. Pellham, 503 Fifth Ave.
- 150 New Bldg. for Butterick Publishing Co., Horgan & Slattery, 1 Madison Ave.
- 75 Webster Apartment, W. 45th St., Tracy & Swartwout, 156 Fifth Ave.
- 130 Hotel, Bdwy & 57th St. N. Y., Construction Realty Company, 112 W. 42nd St.
- 105 Clark Hotel, 55th St. & Bdwy, Nathan E. Clark, 87th St. &, Madison Ave.
- 85 Alpha Realty Co., 15 E 60th St., R. C. Gildersleeve, 160 Fifth Ave.
- 50 Ethical Culture Bldg., Carrere & Hastings, 22 E. 41st St.
- 10 Criminal Court Bldg., N. Y. Louis Horn, 27 W. 33rd St.
- 35 Home for Aged Men, Brooklyn, N. Y., Lord & Hewell, 16 E. 33rd St.
- 50 Bessemer Bldg., Pittsbg., Pa., Grosvenor Atterbury, 20 W. 43rd St.
- 60 Jail at St. Paul, Minn.
- 21 Vose & Sons' Piano Co., Boston, Mass.
- 50 Factory at New Bedford, Mass.
- 90 St. John's College, Fordham, J. E. Kirby, 5th Ave. and 40th St.
- 85 Manhattan College, University Heights, J. E. Kirby, 5th Ave. and 40th St.
- 51 Studio Apartments, 67 St. Livermore, Pollard & Steinman.
- 400 Hotel 35th St. and 5th Ave., Hiss & Weeks.
- 385 Knickerbocker Hotel, Bdwy., 42nd St., Davis & Marvin. In conjunction with this, the Nethery Co. have issued a book explaining in detail the sizes of pipe necessary for direct pressure systems, also arrangement for operating from a storage tank placed above the highest fixture. This Booklet contains the only tables showing friction in small water pipes ever issued. The National Brass & Metal Co. of Minneapolis, Northwestern Agents and Liscencees, will gladly furnish this booklet to any one interested, also any further information desired.

A LARGE CONCERN.

One of the largest and strongest concerns in the west engaged in the building stone business is that of William Penn & Co., of West Superior, Wis. They have shipped during the first half of this year 150 car loads of their cut stone to fill the large contracts they have already secured, besides having on hand large orders from La Crosse, Wis., Ada, Minn., Orange City, Ia., Walker, Minn., and Webster, S. D., and many other orders from different sections in the northwest.

They are at present employing over eighty men in their yards at Tower Slip, Superior, and their business under strong and able management is constantly and rapidly increasing in every direction.

Wanted:—A new line of general art, architectural and engineering catalogues. Address Herbert C. Chivers, 322 Wainwright Bldg., St. Louis, Mo.

EVERY ARCHITECT SHOULD HAVE IT.

We have just received in pamphlet form the report of Prof. Charles L. Norton, of the Massachusetts Institute of Technology, on "Tests for Sound Deafening for the Dormitories of the New England Conservatory of Music," which was published in full in "Insurance Engineering," for August, 1902.

While architects and builders may have had an opportunity to read some extracts of this report in the building trade publications of the country, many of them have not had the privilege of reading it in full. Because of the extreme importance of this report of Prof. Norton's to those interested in building affairs, the manufacturer of "Cabot's Sheathing and Deafening Quilt," which was used in one of the rooms of the New England Conservatory of Music Building, the other rooms being supplied with other so-called deafening products, has had the report printed in this convenient and condensed pamphlet form, which will be greatly appreciated by that portion of the public who are interested in matters pertaining to building.

The "Cabot Sheathing and Deafening Quilt" is made of cured eel-grass, a seaweed that is matted into a laminated cushion, held in place by two layers of tough paper which are sewn together. This grass is very tough and is absolutely uninflamable, and will not only keep out the heat in summer, but will also keep out the intense cold of winter, as one layer of it is equal to nearly six layers of common paper, and besides is very much better, and it is at least one-half cheaper than back-plastering.

This "quilt" prevents the passage of sound through floors and partitions by breaking up and absorbing the sound-waves. It is the only deadener having this property, and is therefore immensely superior to the ordinary felts. Architects now accept it as the standard deafener, and it is generally used throughout the United States.

INDIVIDUAL LIGHTING PLANTS.

It will perhaps be interesting to a great many architects and contractors throughout the north and west to know that there is a thoroughly reliable gas plant on the market for lighting and cooking and has been in practical use in the east for several years—among the users being very well known people such as Hon. Abram S. Hewett, New York, Wm. S. Post, New York, J. G. Schurman, Pres. Cornell University, J. Hopkins Smith, etc., and even Uncle Sam himself is the largest user of all, having hundreds of the "Colt" Carbide Feed Acetylene Generators in operation at army posts, Indian schools, light houses, docks, etc.

Acetylene gas is the most perfect illuminant, being nearer the sun's rays than any other. Poor makes of generators in the west especially, have hurt the reputation of acetylene gas some machines causing offensive odors to fill the house, burners emitting soot, etc.; but with the "Colt" perfect satisfaction is assured.

No mantles are required with acetylene, a pure, steady, white, sparkling light being obtained without. There being no smoke and very little heat from the light; wall decorations are not injured and electric globes can be used. It is the easiest light on the eyes and house plants thrive where it is in use. Acetylene is far superior as an illuminant to any other, and has the advantage of being as cheap as kerosene oil.

Cooking is practicable where a "Colt" is used, and the cost is but a trifle more than city coal gas at \$1.20 per 1000 feet.

The "Colt" machine has been selected by the Minnesota State Fair Association to light the grand stand, main building, poultry building and several smaller ones, and an exhibit will be made of Colt apparatus in the main building, which, no doubt, will be very interesting.

Architects and contractors will be glad to recommend this machine for buildings which are not contiguous to city gas and electric plants, or where good service cannot be obtained. The leading architects of New York, such as Post, Gilbert, Howell, Stokes, Lord & Hewlett, and Wheeler, recommend it.

BECOMING POPULAR WITM BUILDERS. HOLLOW CEMENT STONE.

Some products in the building material line spring into popularity and general usefulness, and there is no special cause for wonder, for they seem to have been created to meet "a long felt want" which existed prior to their advent, and they simply and naturally step into their place of preordination in the furnishing or construction of a building. They satisfy the needs of the owner, the architect and the builder when the irresistible logic of their utility speaks out their wonderful merits. In fact so plainly evident is their value and necessity that the first thought is, "Well, its strange some one did not invent that long, long ago."

Architects and contractors and builders generally, as well as owners, are anxious to become acquainted with this new material for building and its method of manufacture, with the evident view to its adoption.

Cement, in building construction, is used in two ways: 1st, the solid concrete, either plain or reinforced with metal rods of various kinds. This is built up in the wall. 2nd, the hollow cement concrete blocks, made in machines or molds, and, after seasoning, laid up in the wall like any stone. Each has its own field. That for hollow blocks is much greater, as they are adaptable to any size or style of building.



POURING THE STONE.

There are several devices for making hollow concrete blocks, all using the same principle. They consist of a mold, having four removable sides, and cores which draw out of the bottom. The material, composed of cement and fine sand, is mixed in proportion of one of cement to four or five of sand, with about 10 to 15 per cent of water, making a very dry concrete, which is tamped or pressed into the mold, the top struck off, the cores withdrawn, the sides removed, and the blocks removed on a false bottom and put away to "set" and season. This produces a "Hollow Concrete Block." In this process the concrete can be only sufficiently wet so as to "pack" well. If more water is used the stone cannot be removed from the mold. To develop the full cementing power of Portland cement, it must have a surplus of water. The reasons for this are as follows:

1st. The action that takes place when Portland cement and water are brought together, is crystalization, that is crystals are formed by chemical union of cement and water. When these crystals are formed in contact with foreign material, such as sand or gravel, a bond is formed between adjacent particles of the sand or gravel, by this uniting crystal. In this chemical

action the cement absorbs a large quantity of water. If sufficient water is provided, incomplete crystalization of the cement must result, and a part of the cement is wasted.

2nd. The closer the particles of sand or gravel are brought together, the less space there is to be filled with cement. Consequently the more compact the mass is, the more particles of material the same amount of cement will come in contact with. It follows that for the economical use of cement, the greatest density is necessary. The surplus of water creates a dense condition of the same. This is illustrated in the process of "flooding" in refilling sewer trenches. No amount of tamping can accomplish the same result.



THE STONE YARD.

This wet process of manufacture as used by K. Dykema Sons, No. 29 Fountain street, Grand Rapids, Mich., which we herewith illustrate and describe, makes the most economical, most dense and most beautiful shape of hollow, concrete building blocks that we have yet examined. It is an absolute fact that by this method of manufacture these blocks of stone can be made in the 12-inch size at a price equal to \$3.50 to \$4 per thousand for brick, besides making the price of laying them in the wall at a figure equal to \$2.50 to \$3 per thousand for brick, which any one at all familiar with brick work will know is about one-half the expense of a brick wall. In 8-inch size they can be made equal to the cost of wood for the construction of residences.

Some responsible builder or concern located here in the northwest should write K. Dykema Sons, at the above address, and secure the right for manufacture of this cement-stone from their beautiful designs and by this most scientific method.

BELIEVES IN EXPANSION.

- M. J. O'Neil, the most prominent man in the plumbing and heating business in St. Paul, has established a branch in Minneapolis at 814 Nicollet avenue—two floors and basement—with the finest show rooms in the northwest.
- J. G. Beattie, the well known Minneapolis plumber, will have charge of this branch and will carry a complete line of the latest plumbing and heating fixtures. Mr. Beattie needs no introduction to Minneapolis people, having been identified here for so many years with a high-class plumbing business. He will be glad to show his many friends and patrons all the newest and best things in the plumbing and heating plant line, sanitary plumbing, steam and hot water heating, gas and electric fixtures.

AT THE FRONT.

That the G. Drouve Co. of Bridgeport, Ct., are at the front in their line of business, may plainly be seen from the recently filled contracts for their products for large and important buildings in various parts of the United States and Canada as follows:

The Thomas Davidson Manufacturing company, Montreal, Canada, Lovell apparatus.

Sheet metal work on building for Charles A. Matthies, White Plains, N. Y.

Lovell apparatus in worsted mills of Fred L. Sayles Company, Pascoag, R. I.

Lovell apparatus in the McNab and Harlan building, Paterson, N. J.

Skylight and sheet metal work on the new building of North and Judd Manufacturing company, New Britain, Conn.

Lovell apparatus in the Meridian Cotton Mills, Meridian, Miss.

Lovell apparatus in the Clinton Woolen Manufacturing company, Clinton, Mich.

Skylights of the new buildings for Barnum and Bailey, circus winter quarters, Bridgeport, Conn.

Lovel apparatus in the Monessan Pennsylvania plant of the Pittsburg Steel Company.

Lovell apparatus in the Ravine Mills Company, Vernon, Conn.

Lovell apparatus in the Union Typewriter company building, Syracuse, N. Y.

Lovell apparatus in the Ansonia Brass and Copper company building, Ansonia, Conn.

Lovell apparatus in the Larkin Soap company building, Buffalo, N. Y.

Lovell apparatus in the E. Ingraham building, Bristol, Conn.

Lovell apparatus in the Union Steam Pump company building, Battle Creek, Mich.

Lovell apparatus in the Cumberland Electric Light and Power company powerhouse, Nashville, Tenn.

Lovell apparatus in the Lamb Knitting Machine company, Chicopee Falls, Mass.

Lovell apparatus in the Carter-Crume factory, Niagara Falls, N. Y.

It is hoped that the architects and builders of the west may see the merits and advantages of the use of the Lovell window and shutter device, made by the G. Drouve company at the above address.

It is perhaps needless to say that estimates and all detailed information regarding their valuable window shutting device will cheerfully be given upon request.

OPENING OFFICES IN MINNEAPOLIS

The number of dealers in stone, lime, cement, brick, etc., in Minneapolis, is constantly being augmented. The latest new comers are Fowler & Pay, the well-known concern of Mankato, Minn., whose dealings in the above materials have so greatly increased throughout the northwest that they were compelled to erect warehouses at the Minnesota Transfer, where shipping facilities are in every way better for supplying the trade in the territory north and west of the Twin Cities.

This move of this old and reliable concern, caused them to also open an office in Minneapolis, from which they can conduct this end of their large and growing business, although their home office still remains at Mankato.

It is probable that both Mr. Fowler and Mr. Pay will each spend a portion of their time in the Minneapolis office, which is located at suite 214-215 Lumber Exchange building, where they will be pleased to attend to all business of this section, and where they can become better acquainted with their rapidly growing trade.

USEFUL AND INSTRUCTIVE.

The Kellogg-Mackay-Cameron company, of Chicago, Minneapolis, Kansas City and Seattle, have issued and are now mailing to architects, engineers and the heating trade, a useful and instructive catalogue descriptive of their radiators, showing in handsome half-tone cuts the different styles and sizes, together with a description of the heating surfaces of the same.

Besides containing a complete general telegraph code, the catalogue also has their radiator telegraph code, as well as a scientifically written article by Morris E. Ebersole on the manufacture of radiators, from the crude castings up to the finished article ready to set in place.

The Kellogg-Mackay-Cameron company claim to have attained the highest degree of perfection in the construction and efficiency of radiators, and if the beautiful cuts of their goods count for anything, we are of the opinion that they have not exaggerated in the least in what they say about their products.

PERSONAL MENTION.

Mr. George H. Gibson has resigned as manager of the Advertising and Publication Department of the B. F. Sturtevant Co., of Boston, Mass., to accept an appointment with the International Steam Pump Co., having offices at 114-118 Liberty street, New York City. Mr. Gibson was formerly connected with the Westinghouse Companies' Publishing Department of Pittsburg, Pa., and was for two years a member of the editorial staff of the Engineering News of New York City.

The Winslow Elevator and Machine Co., of 96-100 North Clinton street, Chicago, are sending out an illustrated circular of their electric elevator engines for passenger and freight elevators and dumb-waiters. This well-known and reliable house make everything desired in the elevator line, and the half-tone cuts in their circular shows many different styles and designs of engines for various requirements. A letter or postal of inquiry to them at the above address will bring all necessary information.



LOW PRICES ESMIMATES FURNISHED

STEAM AND HOT WATER BOILERS

D. R. Black,

Plumbing, Steam and Hot Water Heating.

20 THIRD AVE. WEST,
DULUTH, MINN.

TELEPHONE 450.

Uniform Temperature



January 14th, 1903.

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"Enclosed please find check for the amount of my account. The Regulator appears to be perfectly satisfactory and I believe will fully meet the requirements.'

> F. E. V SHORE. Des Moines, Iowa.

Correspondence with Architects Solicited.

Special price on our Device for Architect's personal use on their own plants.

Electric Heat Regulator Co. Fourth and Phoenix Sts.,

MINNEAPOLIS,

THE MOST PROMINENT

····

ARCHITECTS OF NEW YORK Such as Post, Gilbert, Wheeler, Gifford, Thale, Renwich,

Aspenwall & Owens, Lord & Hewlett, etc, know of and highly Recommend the

"GOLT" Acetylene Gas Generator

(CARBINE FEED.)



Manhanset House, Shelter Island, N. Y. using 1000-light plant.

A Perfect Working Machine.

Easy to re-charge, emits no odor, wastes no gas, guaranteed satisfactory

We are aware the Architects of the Northwest know of other machines which have proven failures, but we wish to inform them that the COLT" will please in every case, and is being used extensively, especially throughout the East for lighting all kinds of buildings-large or small. COOKING can now be done economically and satisfactorily with Acelytene gas when the COLT generator is used. The many points of superiority of Acelytene over all other illuminants and the "COLT" over all other machines is well set forth in a finely illustrated catalogue which we will be glad to mail on application,

N. W. Agency, J. B. COLT CO.,

I. E. BURT, Manager

238 Hennepin Ave., MINNEAPOLIS, MINN.

The "COLT" took highest award, World's Fair Buffalo.

IMPORTANT

HE great saving in both material and labor secured through our end-matched flooring invention, Patent No. 531,711, as well as the superior quality of the floors, has led to the general adoption of end-matched flooring all over the United States.

The Government engineers, after the usual careful and painstaking investigation, have also approved it and specify its use in Government Buildings.

While we expect to enforce our rights to the extreme limit of the law, we have made arrangements to protect the public and give builders and others an opportunity to procure the end-matched flooring without danger of litigation. This may be done through our licensees who, in danger of litigation. This may be done through our licensees who, in order to identify the licensed flooring, will invariably mark it Wilce Patent Jan 1st. 1805, together with their own name or trademark,

Rumors are afloat that the price of end-matched flooring will soon be advanced two or three doilars a thousand. We wish to say that there is no foundation for any such rumor, and in this connection we ask you to

FIRST. That the United States Circuit Court has fully sustained our Patent.

SECOND. That we not only consented but joined in the request to reopen the case to permit further evidence to be submitted.

THIRD. That this action does not indicate any change in the opinion of the Court, as it was by consent of both parties.

FOURTH. That end-matched flooring has not been advanced in price and will not be at any time, any more than is warranted by the usuat conditions governing the lumber trade.

FIFTH. That there is not an inch of waste in laying end-matched flooring, and besides this there is a great reduction in the cost of

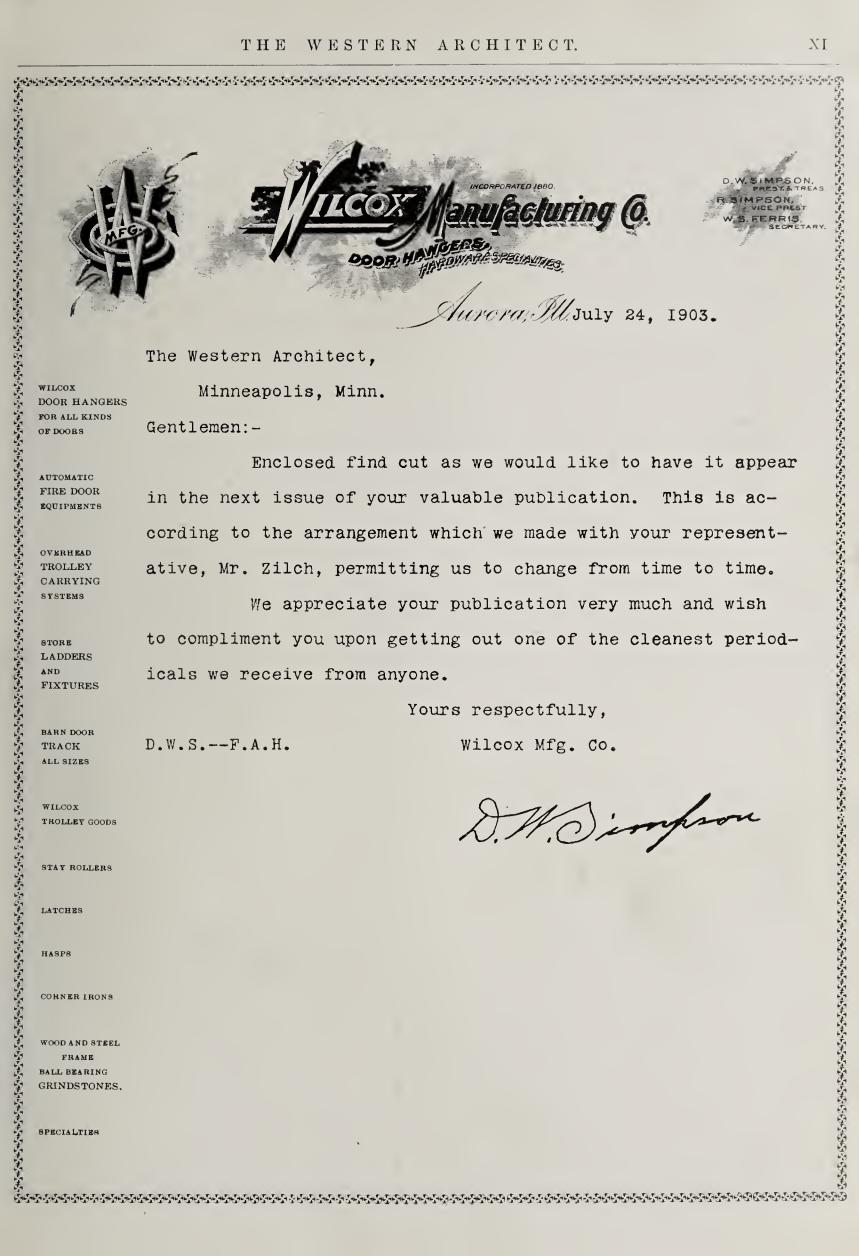
SIXTH. That it makes a better floor.

SEVENTH. That end-matched flooring will always be sold at a price that insures the builder a substantial financial saving over any other flooring in use of equal quality.

EIGHTH. That in using end-matched flooring an under or sub-floor is unnecessary, thereby saving the cost of material and of laying such

Use No Other, Buy No Other.

Respectfully yours, GEO. C. WILCE, THOS. E. WILCE.



DRAKE MANTEL & TILE CO. MANTELS-MARBLE-MOSAICS.

MANUFACTURERS
WHOLESALERS
CONTRACTORS



ST. PAUL, MINN., 66 E. THIRD ST.

MINNEAPOLIS, MINN., 510 SECOND AVE. S.

FACTORY, PLATO AVE. AND C. G.W.RY.

Cabot's Shingle Stains

A RE the pioneers of their line. They inaugurated shingle-staining and made the wide vogue of the shingled house possible. All other shingle stains are followers upon their success, but lack their of depth and freshness of color, burability, wood-preserving properties and freedom from blackening.

Samples and full particulars will be sent upon application.

AGENTS AT ALL CENTRAL POINTS.



Shepley, Rutan & Coolidge, Arch'ts, Boston.

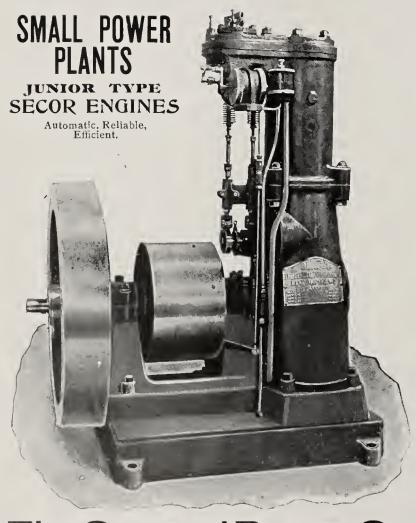
Cabot's Sheathing Quilt

A SCIENTIFIC non-conductor of heat and sound. Not a mere felt or paper, but a soft, resilient cushion of dead-air spaces, giving the most perfect conditions of heat insulation or the absorption of sound-waves. Indestructable by moths, vermin or decay and uninflamable.

ASBESTOS QUILT,

the only sheathing made that is heat, sound and fire proof.

SAMUEL CABOT, Sole Manufacturer, 70 Kilby Street, BOSTON, MASS CEORGE H. LAWES & CO., Agents, ST. PAUL and MINNEAPOLIS.



The General Power Co. 81-83 Fulton Street, New York City Write for Circular B.





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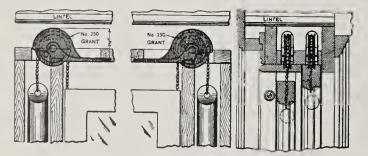
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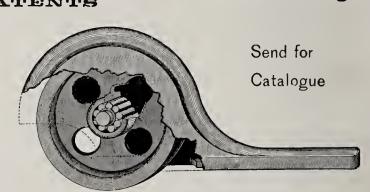


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DEVOTED TO ARCHITECTURE - AND ALLIED ARTS

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Plumbers in the larger towns of Minnesota, after getting the legislature to fix things up for them as well as they knew how to have it done, now find their scheme badly at fault. The state licensing act for journeymen plumbers was made to cover only those working in towns of more than 10,000 inhabitants, while pains and penalties were to fall upon him who in such towns employed the unlicensed. Now comes Judge Holt and declares the law unconstitutional, because of its excepting small towns, and the plumbers see little hope of getting the rural legislator in line.

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The passing of the only Whistler removes from the art world a unique figure, who has left upon it a deeper impression than he is commonly credited with. Going back to the time when Ruskin was attempting to suppress Whistler and one of his methods by declaring that Whistler was "flinging a pot of paint in the face of the public and calling it art" it is undeniable that there were few things in art to remind one of Whistler's ways where now there are many. Whistler might doubtless have left a still deeper impression had he cared to seem in earnest himself. People could hardly be expected to expect much of a man who would write a book on the "Gentle Art of Making Enemies."

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When some gentlemen went about building a sky-scraper without regard to legal limitation of height on Copley Square in Boston some years since, there is no evidence that they did so with the motive of earning the thanks of the public. Yet if rumor is true they have done just this, for they are said to have exhausted every legal resource in defending their right to override the law, and to have obtained their final turning down from the U.S. courts of last resort. If such is really the case the public may get double pleasure out of the razing of the stories of this sky-scraper which are above the legal limit; for not only are the owners suitably punished for their presumption, but they have been to the expense of establishing the principle of public control in such cases.

The great upheaval in the New York Building trades has subsided and peace and harmony is promised for the balance of the building season at least. But the profession of business agent to labor unions has fared badly, so badly that the unions themselves appear only moderately reluctant to dispense with the services of these gentlemen, some of whose business methods have led them to gaol and cast such a slur on the whole profession that business will be dull with them for a time not only in New York but in the country at large. No one has appeared thus far to predict any great industrial depression as impending because of the forced inactivity of these same business agents.

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THE calling of the great financial promotor is also passing under a cloud, and it would be well for the country if for a good long period it would recognize the industry of this class also at its true worth. Perhaps the value of good laws in keeping the industry of the promotor within proper bounds, is nowhere better illustrated than in the street railway situation. Street railway development has, as all know, far outstripped that of steam railways for the period since the coming of the trolley. Reckoning on the basis of single track road, the mileage is said to have increased more than 175 per cent within the last dozen years. The average capitalization of these roads is given as \$96.287 per mile on the single track basis for the country at large. In Massachusetts. however, where until within a few months it has always been the policy to keep the stock and bond issues of corporations as close to the cost of the properties as possible, these roads are capitalized for only a trifle over \$39,000 per mile. This Massachusetts average includes the Boston Elevated road at \$591.414 per mile. While Massachusetts lines are capitalized at less than \$40,000 per mile, they probably cost more than those of Minnesota, which carry a capitalization of \$107,000, or of Maryland or Missouri, either of which carry over \$150,000 per mile. In some properties this watery residue, this excess of capitalization over cost, this product of the promotor's industry is being squeezed out of the "widows and orphans" and "lambs" who bought it at such a rate as to cause fear of panic in quarters not afflicted. And no wonder that the faint-hearted tremble when they read of shrinkage in Mr. Morgan's Steel Trust and Shipping Trust stocks amounting to \$400,000,000. Of course much of the latter and of other similar "property" never passed to any genuine purchaser, and the collapse has come, when general trade conditions are good; but had it been coincident with bad crops and low prices for farm staples as was the collapse of the real estate bubble of a decade since, there is no telling what it might have knocked down in its fall.

Steel Trust stock has been going down so much and so long that consumers of steel are beginning to feel hurt at the delay of steel prices in following. And it is asking a good deal of them to continue to pay cheerfully just as much for the steel as they did when they were expected to pay dividends on all that water.

* *

EMPLOYING plumbers in St. Paul who sought to obtain from Judge Kelly a permanent injunction against interference with their business by members or agents of the Plumbers' Union, have not obtained from the court nearly as much comfort as did the Minneapolis employers of electric wire workers from Judge Cray. The effect of Judge Kelly's decision has perhaps not had time for development, if indeed it is not discounted by conditions of supply and demand. He seems, however, to have held such wholesome views of the rights and limitations of the parties to the controversy as to merit publicity. Some of these views are as follows:

"The employer, if he be not obligated by time contracts, should he be unwilling to grant even lawful demands of his workmen, may without subjecting himself to the law, discharge his servants in a body. He can close his business—a factory, maybe—and keep it closed until his employes are willing to come to his terms. He will not be violating the law of the land, because he is free to use his own as he chooses. Of course, if he do these things for greed and oppression, there is a higher law, but of that we do not speak.

Laboring men whose capital is brain, muscle and skill have the same right—no more, no less—of combination and co-operation one with another for achieving any lawful purpose, as has that other force controlled by men, which, though silent and unseen, is none the less powerful and which we call money.

To prevent by violence, or coercion or intimidation another workman from taking or retaining employment which is satisfactory to him is to offend against the plainest rule of justice.

To warrant an injunction in a case like this, the right to it must be made clear, the injury impending and irreparable if it fail. It is a drastic remedy, and is to be invoked only—where the ordinary process of the law is powerless for relief."

Judge Kelly appears less ambitious to assume the management of things in general through injunctions than do some of our courts, and for that reason his views of the rights of employers and employed bear all the more weight. The electric wire workers case referred to in our last issue has, it is announced, been appealed to the supreme court of the state, and it is to be hoped that the action will bring from that body something clear and tangible in the way of an authoritative statement of the rights and limitations of parties to labor disputes.

LITTLE towns Down East have a praise-worthy way of celebrating at long intervals and in this way showing a forgetful world where people of note came from. At the recent 150th anniversary celebration of Spencer, Mass., it came to light during the ceremonies that not only was Elias Howe, inventor of the sewing machine, born in Spencer, but that his half-brother William, was the inventor of the Bridge Truss bearing the name.

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THE Art Commission recently appointed by Gov. Van Sant of Minnesota under an act of the last legislature have organized so far as to elect the following officers:

The state appropriates \$2,000 per annum for the use of the commission in promoting exhibitions, etc. Industrial art is to be encouraged and at least one exhibition held in the state each year, no two successive ones in any one city. Members of the commission serve without salary.

A collection of objects of art is one of the objects sought, presumably to be housed in the state capitol.

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AFTER all that has been said about the wicked ways of lumbermen and the desolation that marks their path through the pine forests, now come the lumbermen themselves with loud protest against the rapid denuding of large areas of Indian Reservation pine land contemplated by the officials of the Interior Department. Still more bewilderment is in store for him who tries to square this action of the Department with the preachments from higher up in the executive branch of the general government.

In New York a great outcry has gone up about the management of a part of the forest area in the Adirondacks by Prof. Fernow who used to be at the head of the Forestry Bureau of the general governnent, but of late has had the direction of the State School of Forestry which has been run in connection with Cornell University. Whatever the facts about the way the lands in the Adirondacks set apart for the State Forestry School passed through the fires of the early part of the season, enough clamor was raised against the management of the lands by the school authorities to induce Gov. Odell to veto the appropriation made by the legislature for its continuance, so that now the school is about the same as if it were not. In fact the authorities are so badly discredited by the newspaper reports that it need occasion no surprise to see the lumbermen posing as the true conservators of the forests.

OBITUARY.

Mr. George F. Shepley, of the firm of Shepley, Rutan & Coolidge, died last month in the Engadine, at St. Morris, Switzerland.

Mr. Shepley was born in St. Louis in 1860, of a distinguished family, his father having been one of the most brilliant lawyers in the city. The younger Shepley received his professional education in Boston, graduating from the Massachusetts Institute of Technology in 1882. With his classmate, and future partner, Mr. Charles A. Coolidge, he entered, immediately after graduation, the office of H. H. Richardson. the death of the latter, Mr. Shepley and Mr. Coolidge, with Mr. Rutan, who had also been for many years connected with the same office, continued in accordance with Mr. Richardson's formal wish the business which he left unfinished, and soon acquired for themselves a high reputation, carrying out a large number of important works. Among these the best known are the Ames building in Boston; the North Union railway station, in Boston, one of the most beautiful railroad buildings in existence; the South Terminal station, the largest railway station in the world; the Hartford station: the buildings of the Leland Stanford University, in California; the Art Institute and the public library, in Chicago; the Congregational House, in Boston; the Union station in Albany, and many private residences and mercantile buildings. Mr. Shepley, who married Mr. Richardson's daughter, was peculiarly identified with the work of that great artist, and the Galilee porch which was added to Trinity church, in Boston, some years ago, is quite worthy of the building. Mr. Shepley's health had always been delicate and the labor and anxiety of professional life severely tried his constitution. For a time he found it necessary to spend a part of the winter months in the dry climate of Switzerland, usually in the Engadine; but this condition seemed to pass away, and he had been able for some years to endure the winters at home, until, in January last, the appearance of grave symptoms made it necessary for him to leave his work and seek again the mountain air of Switzerland, unfortunately without benefit. Mr Shepley was always deeply interested in professional matters, and was prominent among the directors of the American Institute of Architects, so that he was very well known in professional circles throughout the country, and was universally beloved for his quiet courtesy. His work reflected the refinement and delicacy of his character. and, although he had to struggle constantly against physical weakness, few architects have been able to impress themselves more thoroughly upon their buildings, and his early death is a loss to American art. as well as to the profession.

THE ONLY WHISTLER.

James McNeil Whistler, who has just died, held a peculiar place among artists, and among men. He was individual, orginal in all things; mentally and physically he was eccentric, and he always gave one the impression in his best works of one who would never do the great things that he could do. So the world will look in vain in succeeding years for the great work which should truly immortalize him. He did not regard it as worth while, perhaps; yet his portrait of his mother, now in the Luxembourg gallery, shows how capable he was of rising to heights of fine expression, as well as evincing an exquisite technic. His elements in this picture are the simplest; an aristocratic old lady in black, with folded hands, and a lace cap, sits on a chair in a plain room. There is not a bit of challenging color, but there is depth and richness of tone; the painting is wonderfully refined and not the least impressionistic; but the power of the picture is in its fine spiritual interpretation of a life and a character, and one can well believe that the artist had his heart in this work,-though many who knew him thought and said that he had no heart at all. He was fond of simplicity, and liked to reach it by subtle and complex ways; thus when he painted his "White Girl,"—all white, standing on a white wolf-skin mat, one immensely admired the marvelous differencing of textures and of keys of tone, with the one motive. But one scarcely remembers the face of the subject. Whistler did produce some remarkably strong portraits, but he would only paint what he wanted to paint,-money could not persuade him to do other. His color effects were very unusual, and opinions will always differ as to their merit. He was truly an impressionist, and cared little for detail in color; his "arrangements" in blue and gold, or in lilac and silver, his "noc-turnes" and "harmonies," consequently affronted those who could not enter into sympathy with his idea. John Ruskin once expressed himself in the very definite and vigorous fashion he had, concerning Whistler, who, he said, "threw a pot of paint in the face of the public" and dared to call it art. Whistler sued the critic for damages, and the pictures that furnished the provocation for the remark were exhibited in court, the result being that the jury awarded the artist one farthing damages. That farthing Mr. Whistler hung on his watch chain and used to exhibit it with sardonic pride. Artists themselves greatly value these paintings, regarding them as unrivaled for rare qualities. And there is no dispute anywhere as to his rank as etcher, in that it is conceded he has had no superior in our day. Any one who has studied Whistler's etchings, for example at an exhibition by the Grolier club, will recognize an unerring perception of the value and significance of a line. His celebrated little character portrait called "Joe" is an instance of this mastery of the first principle of the etching, of which many who practice the art know very little.

Whistler's whimsical and willful personality was betrayed at a glance; that favorite white lock of hair which he trained to hang down on his forehead revealed a vain mind, dwelling on itself, conscious of eccentricity and cultivating it. He nevertheless objected to having his pecularities recognized irreverently, as by Du Maurier in Joe Sibley, whom we met in the tale of "Trilby." Mr. Du Maurier had to change the book under penalty of prosecution. He apparently lacked humor and pathos, but he was a clever talker and had a biting and unkind wit, which spared no one. He wrote ingeniously, in a purely Whistlerian style, and "The Gentle Art of Making Enemies" was no joke, but a self-appreciation of uncommon merit. Many are the anecdotes of Whistler current among his craft, who knew him in London or Paris, where he had lived most of the time of late, or in Venice or Rome. He was a figure in the society of these capitals. Every one will recall his remark when a group of fashionable women were discussing Sir Frederick Leighton, the president of the Royal Academy, whose forte was omniscience, who was handsome and knew it, and was a notable ladies' man. One said how beautifully he talked, another how delightfully he sang, another how well he played some instrument, whereupon Whistler advanced the timid remark, "Paints a little, too, I believe." He used to coruscate sharp sayings, and 'tis said he furnished many a social spark with wit, which they would retail and often spoil the point of. To one of the esthetes who exclaimed after a sally, "Oh, how I wish I had said that!" Whistler said quickly, "You will say it, Oscar." There will never be quite another such man and artist as McNeill Whistler,—who because he was born in America is called an American, though he had no love for his native land, nor any characteristic of its people.—Springfield Republican.

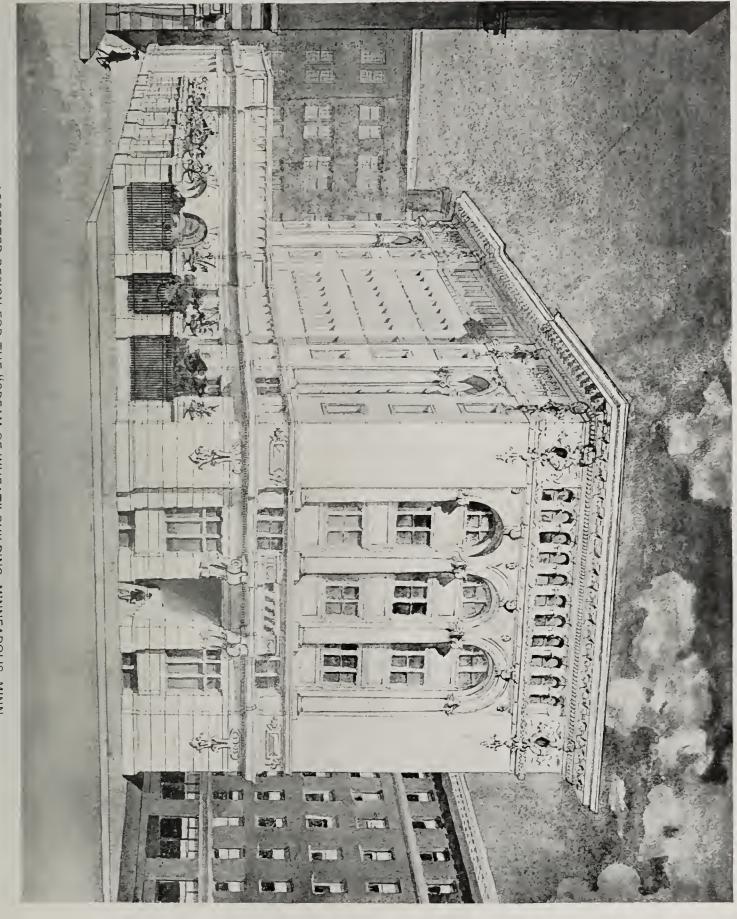
MANKATO'S STONE FOR MINNESOTA'S CAPITOL.

Mankato limestone has been discovered to be capable of taking a high polish, rendering it in appearance similar to the Italian marble for interior finish.

It has remained, however, for the capital commission to discover that the stone can be polished for interior finish.

A large pilaster of polished Mankato limestone has been put up in the main corridor of the new capitol. The stone can be produced in a variety of colors, shading from light yellow to a deep pink.

The capitol commissioners claim they discovered the capabilities of this stone, and the owners of the quarries admit that they did not know that it could be polished. For interior use the stone is first sawed and smoothed, then rubbed and polished. In appearance it resembles the famous Sienna marble, and may be used to produce the same effect.



ACCEPTED DESIGN FOR THE "CREAM OF WHEAT" BUILDING, MINNEAPOLIS, MINN. Harry W. Jones, Architect, Minneapolis.

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A COMPETITIVE DESIGN FOR THE "CREAM OF WHEAT" BUILDING, MINNEAPOLIS, MINN.
L. S. Buffington, Architect, Minneapolis.

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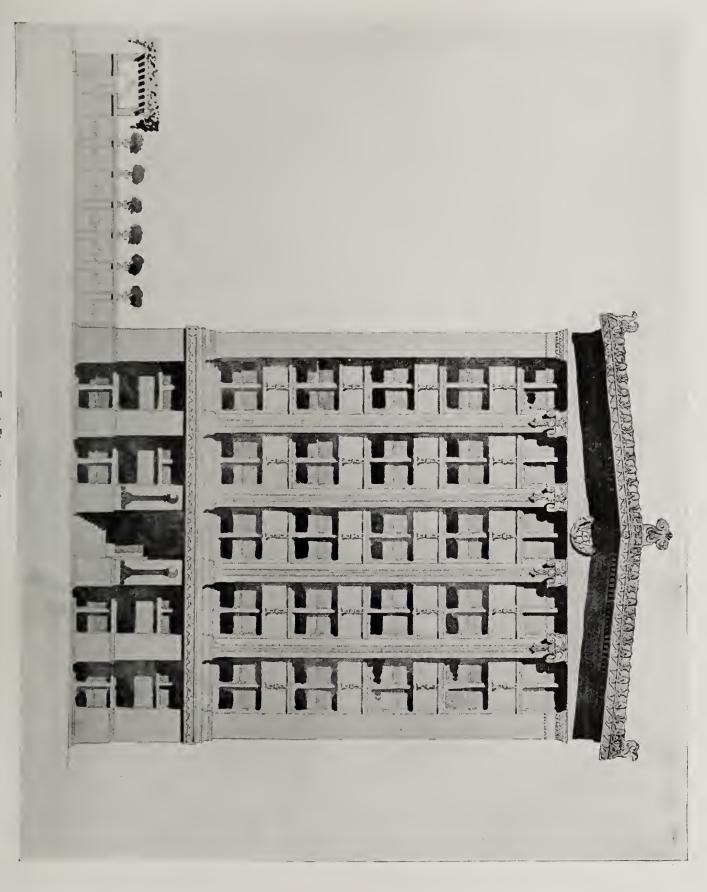


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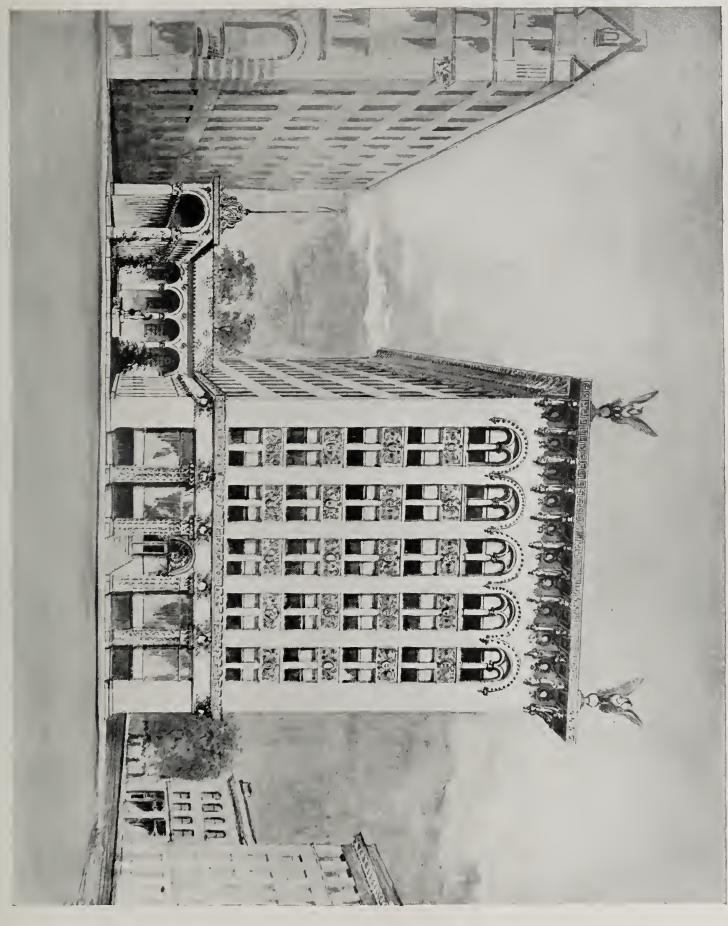
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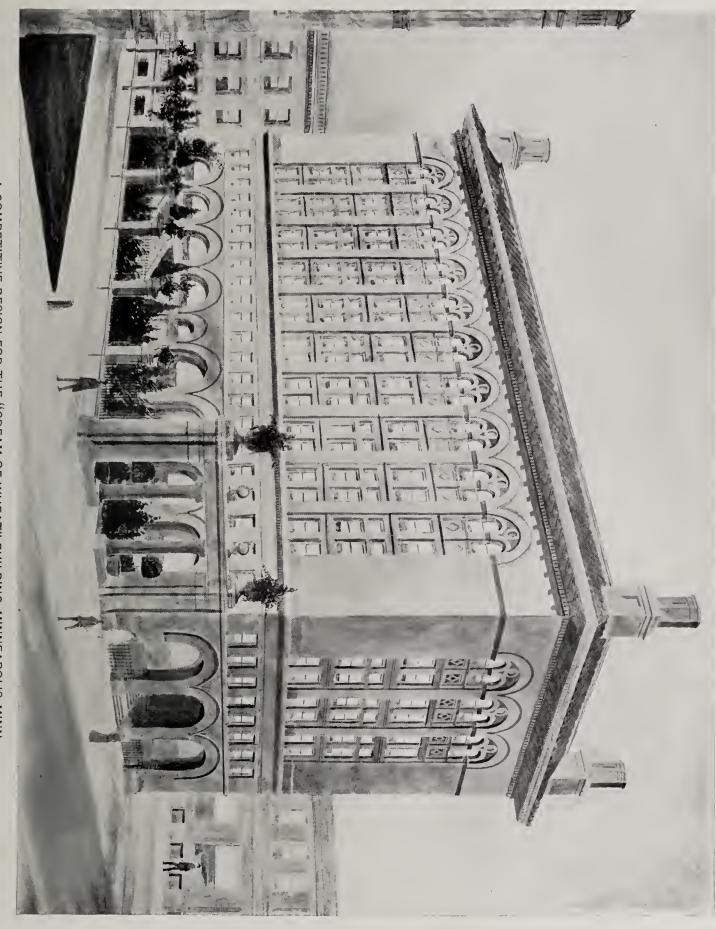
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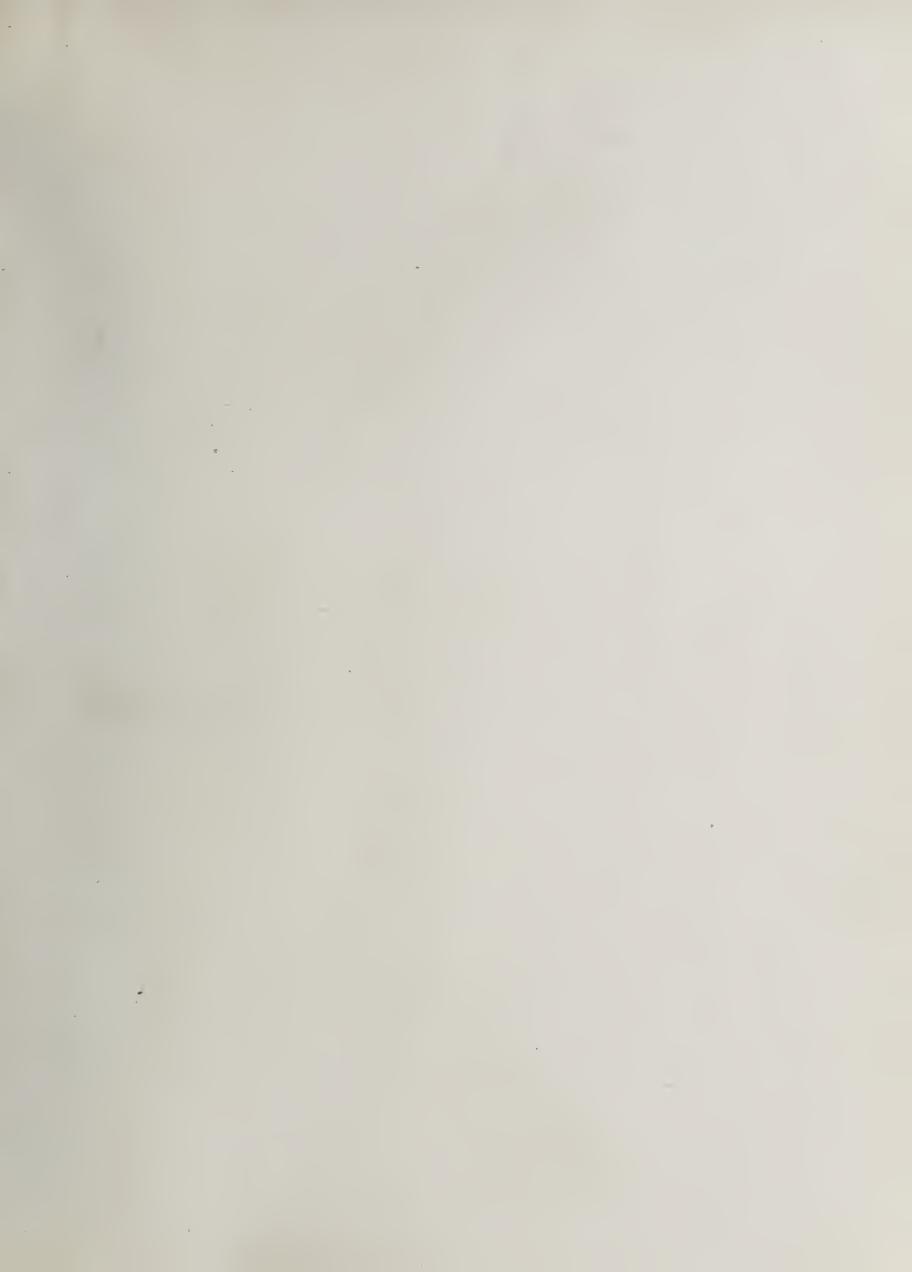
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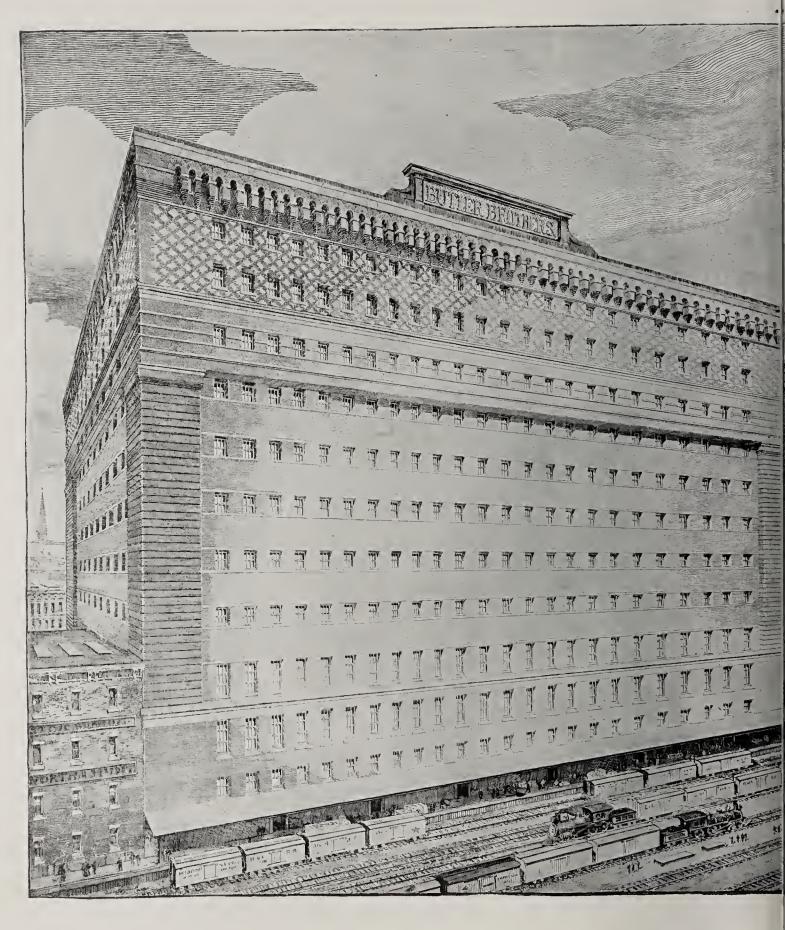
Harry W. Jones, Architect, Minneapolis.

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A LONG TIME IN BUILDING.

The great cathedral of St. John the Divine, which is to be erected in Morningside Park, near the Grant monument and Columbia University, New York, is growing slowly, very slowly. At the present rate of progress it will be as long building as St. Peter's Cathedral at Rome, which wore out ten architects and forty-three popes and was consecrated 176 years after the foundations were laid. The new cathedral at New York is not to be so large as St. Peter's, but the plans are imposing, and there is a good deal of enthusiasm shown by many members of the Episcopal diocese of that city. It is being built in spots. The great arch of the choir has been completed. The extreme east wall has been built up to the height of thirty or forty feet, and here and there portions of the foundations have been laid. The grounds are covered with cut stone and a good deal of rough material, but there seems to be no regularity or system and the work goes on by fits and starts. Sometimes we have seen as many as a hundred men working industriously; and then again half a dozen will be sputtering around without method. The trouble seems to be a lack of means, although there is a popular impression that Bishop Potter has \$5,000,000 in the bank or guaranteed.

Individual subscriptions have been made for various parts of the building. For example, according to the original plans, there were to be thirty-two great monolithic columns in the choir, each fifty-four feet high, six feet in diameter and weighing 160 tons, which is two-thirds the size of the obelisk in Central Park known as Cleopatra's Needle. Each of these columns is intended to be a monument for some individual whose heirs or descendants have sufficient gratitude or respect for his memory to contribute the expense. Bishop Potter will erect one in memory of his father, the late Right Lorenzo Potter; John Jacob Astor will erect one in memory of his father, and the heirs of the late Dean Hoffman will put up one in his honor, but the difficulty of shaping and transporting the columns from the quarries at Vinalhaven, Me., have been found insurmountable and the monolith idea has been reluctantly abandoned. If the plan had been carried out these would have been the greatest monoliths in the world, two feet higher and one foot more in diameter than the great plaster columns in the persistyle at the world's fair, which were fiftytwo feet high and five feet in diameter. It is now proposed to put them up in two sections.

There is a prospect that the Architectural League of New York will have an exhibition under its auspices during the winter of 1904. The name suggested is the National Architectural and Allied Arts Exposition. The place considered is the new Herald Square Exhibition Hall, which is the ninth floor of the new Macy Building, at Broadway and 34th street. Mr. Frank E. Wallis is the secretary of the league.

AN IMPORTANT CONCERN.

Architects and laymen marvel at the extent and magnitude of the work of D. H. Burnham & Co., architects, Chicago. They have in hand work of the greatest magnitude in the largest cities of the country, extending from New York to San Francisco and as far south as New Orleans. They have on the pay rolls a force of 90 men and claim that they cannot put more men to work in Chicago because of the lack of space in their offices in the Rookery building. This is not written with a view to pleasing any one in particular, but to call attention to facts as they exist, and as such it is worthy of serious consideration for architects and professional men throughout the country. The writer does not have in mind very much data concerning the operations of the great Richardson; they were thought to be marvelous, but alongside the operations of Burnham they really become very insignificant. Most people interested in building remember the firm of Burnham & Root and its success, their success in securing the World's Fair buildings, the subsequent appointment of Mr. Burnham to the position of Director of Works, his work in that connection having never been equaled. After the fair he was afforded time, owing to the depression and lack of commissions, to relax. He had a lease on office space for which he had to pay rent but in which there was scarcely anything to do. Of course, this was an insignificant matter, in a sense, to Mr. Burnham, because he had ample means. During the past few years his work has increased until he has now reached a plane before which the operations of any other firm or any individual architect are not to be compared. It is but just to say with respect to other architects that his work may not be better, he may not be more capable, but the vast volume counts and there must be some reason for it. It is always interesting, particularly to young men, to observe, to study and to ponder the characteristics of great men and the traits which make them successful, and in reflecting upon this we can but recall the practice so prevalent in England and which prevailed for a short time in the early history of this country of the apprenticeship system with the customs which provided for the indenturing of young men to profession or trade, his parents or guardians paying a considerable sum for the association with successful practitoners in their respective lines. It would be well worth a considerable sum of money for any one to be associated with Mr. Burnham for a year or two and to acquire from him if possible the characteristics of success. But this is impossible. In the first place Mr. Burnham is very busy and a young man would scarcely have an opportunity to be with him one day in six, if that much. Architects and builders will do well to study their methods and see whether it is World's Fair reputation, executive ability, or artistic grace far in advance of all others, that makes for the success of this firm.—Exchange.

IMPROVEMENT OF THE CHANDELIER FOR GAS AND ELECTRIC LIGHTING.

Of all the changes which modern progress has brought about during the last twenty-five years, there is certainly nothing which has been so completely revolutionized as the lighting of our homes.

It seems almost incredible that so short a time back we were all content to sit down to dinner under a gas chandelier of three or four burners, with a flood of yellow light falling on us, unsoftened by any shades, and a stuffy, gas-laden atmosphere.

Nor was this all, for in order to get the chandelier nearer to the dining table, the water-slide pendant had been invented, and only so far back as the year 1900 the British medical journal, "The Lancet," protested strongly against the chandelier, which is still in use in hundreds of old-fashioned houses.

"If we do not go so far as to say that the waterslide gas pendant should be made illegal," says the "Lancet," "we certainly think that no prudent householder should put one into his honse. It is never ornamental, it frequently occasions alarm, and in not a few instances it has been the cause of death. As every one knows, the principle of this chandelier is that of a water seal, which, of course, fails when there is no water in it."

The subject was taken up in various papers, including the "Journal of Gas Lighting," and everyone entirely agreed with "The Lancet."

The great difficulty was, how to replace the sliding gas pendant. Very many householders fought shy of the electric light. The Wenham was tried, but this was placed so high up it was not suitable for lighting the dinner table, nor yet the drawing room.

The incandescent burner had been introduced, but the inconvenience of this was, that as the slightest jar broke the mantle, the pendant had to be stationary, and a fixed chandelier could not be placed low enough down. Few people are aware that a gas light suspended three feet above the table gives only oneninth of the light on the table which it would give if placed one foot above the table.

With the chandelier overhead the source of light shines directly on the eyes, and this causes the pupil of the eyes to contract, thus shutting out a corresponding amount of light from the objects looked at. It is just the same as in bright sunlight, when the sight is "dazzled" and the light, as it were, wasted.

The first principle, then, of artistic lighting is to shade the source of light from the eyes, and at the same time to throw a good light upon the surface to be illuminated. For shops and public buildings the main object is, of course, to get as brilliant a light as possible, and the unshaded electrics and incandscents answer this purpose.

In the homes, however, it is an absolute necessity that the lighting should be arranged with all due regard to the comfort of the inmates. In French houses where electric light has not been introduced, oil lamps are still the order of the day. Gas is very much used for kitchen purposes and for hall lighting, but as a rule the old-fashioned oil lamp pendants still reign supreme for the dining table, and oil lamps or candles for the dining room. The lamp and candle shades are exquisite and the wall brackets and candelabras for the lamps and candles in keeping with the style of each room. In many of the French homes we see those lustre pendants and bead fringes, at which only a few years back we laughed heartily, as being relics of a former age. Now that these same lustre pendants and bead fringes are the "latest thing," and consequently are being sold at high prices, we should be only too glad to own these authentic chandeliers of ancient date, instead of the copies of them, with which we poor modern people are obliged to content ourselves. The French who are extremely conservative, still use wax candles in these lustre chandeliers, instead of having imitation candles to form gas burners. This system of lighting is very effective in a house which is furnished throughout in French style, but nothing is more incongruous than lustre chandeliers and candelabras in rooms furnished in "Modern Art" fashion.

In England nearly every house which has not electric light has the incandescent burners. When these burners came into general use the great drawback to them was the fragility of the mantle, as the jarring caused by the drawing up and down of the slide chandelier was sufficient to break this delicate mantle. The new burner was therefore fitted to fixed pendants, but the light was then unsuitable for diningrooms as it was too high up and women declared it on that account to be "unbecoming."

As in ninety-nine cases out of a hundred a woman's word is law with regard to the artistic arrangement of the home, something had to be done in order to reconcile the incandescent burner and its feminine adversaries.

One of the leading English firms for electric and gas fittings undertook the great task, and the "Surprise Pendant"—a chandelier specially designed for the incandescent burner—was soon patented in every important country. By means of this ingenious invention the light can be brought down within a few inches of the table, and can be pushed up high out of the way when not in use. By a touch of the finger and without the slightest jerk, it can be brought to the edge or center of the table, for it is so perfectly balanced that it remains in any position to which it is moved, within a three feet circle. When raised to its greatest height the light is three feet six from the ceiling, and when at its lowest, it is nearly eight feet below this.

The light is shaded by a patent shade which effectually screens the eyes and at the same time diffuses the light, so that a single burner, consuming four feet of gas an hour, will thoroughly well light a room 18 by 14 feet, giving off one-third of the heat and products

of combustion, which a three-light chandelier would give off, and at the same time throwing more than eight times the amount of light on the table.

By this system the air is kept pure, the ceilings and decorations free from injury by smoke, and the maximum of light and comfort is attained at the minimum of expense. In England, the "Surprise Pendant" is now universally used, and it has also been adapted for electric light. For drawing and dressing rooms, libraries and offices, wall brackets on the same principle are made, so that the light may be moved about to any position required. Photographers and dentists find it of great service in their work, as they can move the pendant to any position and wherever it is placed it will remain stationary.

Gas has not hitherto been used in the private apartments of King Edward, but these Surprise Pendants have now been largely adopted in the lighting of Sandringham House. The same system has been carried out in York Cottage, the residence of the Duke of York.

So greatly has the convenience of this pendant been appreciated, that the inventor decided to adapt it to the electric light, and as far as is possible it is now being manufactured in various styles in order to suit any rooms.

A patent ceiling fitting is used for these pendants, which permits them to be fixed either to a wooden ceiling block; or screwed on to iron pipe in the ceiling

or hung from the ceiling without any alteration whatever. It is impossible to damage or twist the wires when turning the pendant in a horizontal direction and the ceiling fitting is so arranged as to completely insulate the pendant from the building.

The same firm has now gone largely into the manuafcture of electric and gas fittings of the Art Nouveau.

After passing through all the old English styles, and the more or less ornate styles of the various French epochs, particularly the Louis XV. and Louis XVI. with their beautiful scrolls, gilding and floral designs, their lustres and the effective cut glass bowl pendant which has lately come into such favor for electroliers, something entirely new was wanted.

"Modern Style" was introduced and was soon in vogue with some of the crudest and most grotesque designs which it was possible to invent.

All this, however, has been gradually modified, and the latest evolution is the Art Nouveau, which now reigns supreme and seems likely to hold its own for some time to come.

Some of the most beautiful gas and electric fittings are now made in this new style, and the very latest thing of all is the new iron work either in natural coloring, finished black or silvered, and this is, of course, specially suitable for the original designs of the Art Nouveau.—A. Hallard in Architectural Record.



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ABOUT ROOFS.

The roof may be said to be the essential feature distinguishing a building from the other structures of man; hence, architecture has been described, simply, as the glorifying of a roof. The boasted triumphs of classic architecture, the column, architrave and frieze, were but the supports of a roof. To cover and enclose a space of moderate area, the ancients were compelled to relinguish a large portion of it to columns and cross walls; producing an edifice without acoustic possibilities and without light. Large gatherings of the people for political purposes, amusement and exercise, had no place more protected than the open forum, the uncovered amphitheater and the wind-swept field.

It remanied for the monks and master-builders of the Dark and Middle Ages to perfect a construction whereby a considerable space could be covered, without intervening or obstructing columns.

The clere-story of many an old Gothic cathedral, covered by a blackened roof supported on arches of interlocking timbers, the whole sustained and braced by pillars and flying buttresses of stone, still stands, a marvel of strength and airy symmetry, to attest the ingenuity and skill of the mechanics of these robber races.

In the construction, if not in the glorification, of a roof, the architect and engineer of the present have surpassed all such works of the past. In our own country, there are some covering, without intermediate support, whole acres of space; any one of which, produced in Doric days, would have been classed among the worders of the world. Such are the Madison Square Garden and the armories of New York, the great mill buildings of our manufacturing centers, the Auditorium of Chicago, and that latest and grandest triumpth of the builder's skill, the Manufacturers and Liberal Arts Building of the World's Fair; and even this vast roof, for it is nothing more, need excite no wonder in the modern builder. It had long been conceived and was possible, and required but the need, the occasion and the means to bring it forth.

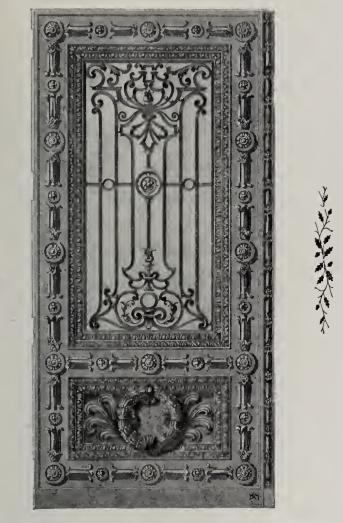
As the architecture of the past has been broadly defined to be the glorifying of a roof, so modern office building construction may be roundly described to be the utilization of floors. For such buildings a flat roof is generally preferable; and, partitions being carried from basement to roof, intermediate supports for the latter can be easily provided and a construction similar to that of the floors naturally followed.

David M. Parry, president of the National Manufacturers' Association, confirmed the report that a company had been planned to insure employers of labor against strikes. He said it would be a mutual agreement and would be kept secret, so that a union would never know whether it was fighting combined capital or an individual employer. The company would aim to protect independent workmen as well as employers.

A severe blow was dealt the trades union grafters in New York on the 27 ultimo, when Lawrence Murphy, treasurer of the journeymen's stonecutters' union, was found guilty of grand larceny in the first degree for embezzling \$12,000 from the union. His attorney made a strong plea to the jury in his behalf, urging that he be not made the scapegoat for a lot of "blackmailing grafters." Murphy's defense was that the stolen money must be the money taken from its true owners and the stonecutters' union never was the true owner of the money. The maximum penalty is ten years in the penitentiary. Murphy and his associates who testified in his behalf during the trial told how the trick was done. Murphy's lawyer called Col. Andrew D. Baird, one of New York's well known contractors, to the stand to tell of a \$10,000 check transaction which had been made the principal feature of the trial. Col. Baird testified that he had received a call from Daniel Call, president and walking deleunion and wanted \$50,000. Asked why they wanted gate of the stonecutters' union on March 13, the day his employes went out on a strike. President Call of the union said they came from the stonecutters' \$50,000 they said they would have to be paid that amount before the men could go back to work. Col. Baird offered \$5,000 and after repeated conferences the committe from the union agreed to accept \$10,000, whereupon the money was paid over. It is such leaders as this that bring unions into disgrace and deprive honest hard-working men of the respect they should otherwise have.



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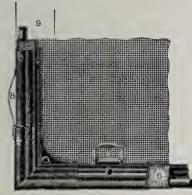
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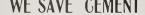


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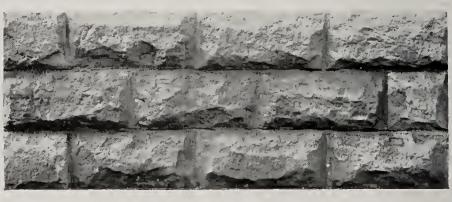
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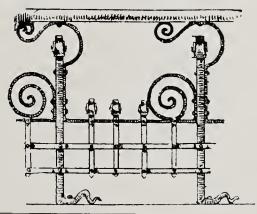
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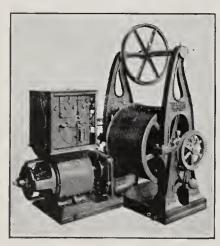


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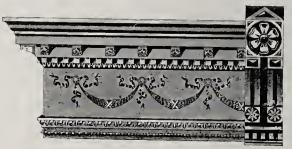
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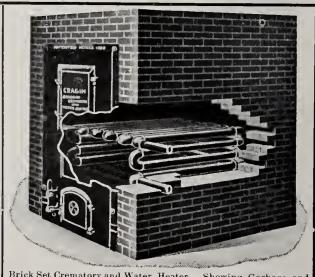
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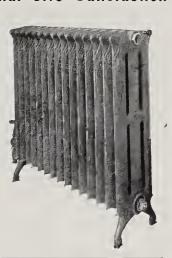
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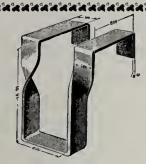
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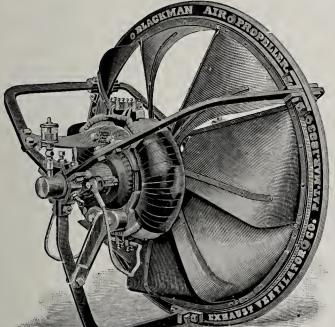
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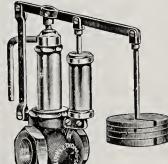
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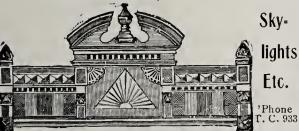
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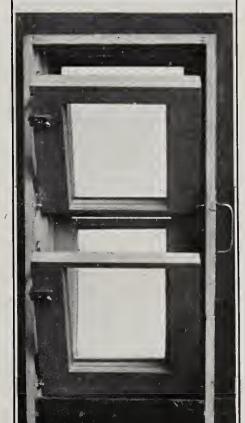
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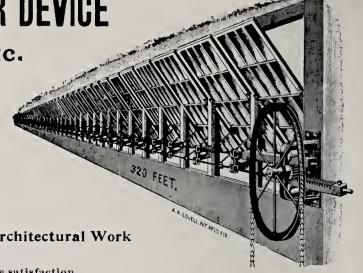
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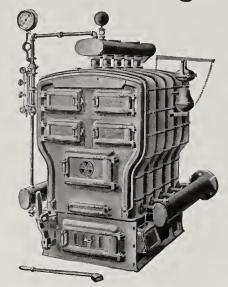
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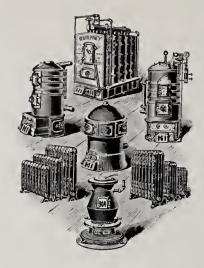
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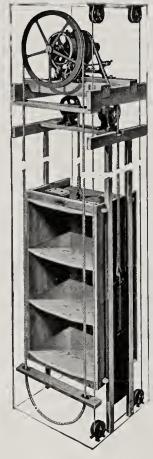
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A COMPLETE CATALOGUE.

The American Well Works of Aurora, Ill., have lately received from the press their new 1903 Catalogue, a copy of which we now have before us. It is replete with illustrations of all kinds of machinery, pumps, engines, drills, etc., used in sinking wells and operating water lifting apparatus.

The booklet also contains a complete description of each machine, as well as all the different parts thereof, besides having a simple and condensed price list.

No other similar work that has reached this office is so interesting and valuable to those connected with the well drilling and pumping business as this catalogue of the American Well Works, who will cheerfully mail a copy to all who may write them at the above address.

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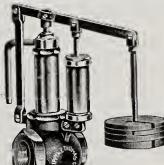
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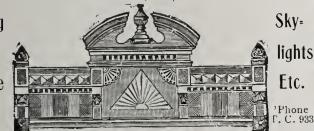
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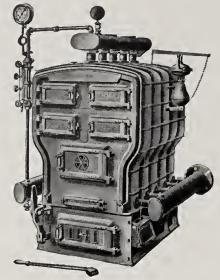
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OF GREAT IMPORTANCE.

We have just received circular form 88 of The American Well Works, of Aurora, Ill., of their well pumping machinery and devices which has lately come from the printer's bands.

Among the many different things that are illustrated in this circular may be mentioned Chapman's Patented Air Water Lifting Machinery that has been in extensive use for over ten years. By its use over one-half million gallons of water can be pumped per day from a four-inch artesian well, even when the natural rise of the water is several hundred feet below the surface. There is also illustrated the American Well Work's Patented Revolving Hydraulic Well Sinking Machinery, which has supplanted all other methods in the Texas oil fields, for the reason that over 1,000 feet five-inch diameter wells have been sunk, tubed and completed in twenty-four hours, whereas it took from two to four months by the standard drilling system to complete a 1,000-foot well. Theirs is the only practical process for sinking wells through clay, slate, shale, quicksand formations, etc.

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All work turned out by them is guaranteed to be of the truest and best, and all those who may be interested in anything pertaining to the sinking of wells, pumping machinery, or the raising of water by air lifting devices should write to the American Well Works for their complete circular covering all these devices, which will be mailed upon request.

COMPLETING THE OMAHA POSTOFFICE.

The United States postoffice at Omaha, after several delays, is being pushed to completion. McNulty Bros., of Chicago, have the contract for plastering, and are using Kallolite Cement plaster, manufactured by the Cardiff Gypsum Plaster Co., Fort Dodge, Ia.

A NEW DIRECTORY OF ARCHITECTS.

This directory has just been brought out by Wm. T. Comstock, of 23 Warren St., New York, the well known Architectural Publisher. This issue of 1903-04 while in new form is a revival of a directory of architects by the same publisher issued for several years. In taking up the matter again a very careful list has been prepared, giving the names of the architects and their addresses and in case of firms the individual names of the partners under the firm name. By initial letters in brackets opposite the names membership of such societies as the American Institute of Architects, Architectural League, etc., are indicated.

The work in its present form has a much larger page than the former issues which it will be remembered were small books bound in red. The color of cover, however, is retained and now makes quite a presentable volume. Much new matter has also been added to it, such as lists of the "Architectural Schools," the names and officers of the different "Architectural Societies," a list of periodicals devoted to "Architecture and Building" and under the title of "Specification Index" a classified list of addresses of the various manufacturers and dealers in articles of use and interest to both architects and builders.

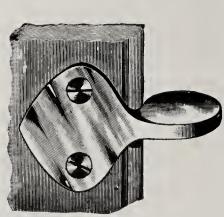
It gives not only the addresses of the architects, but much other useful information of value to architects and builders and manufacturers and dealers in building materials and appliances.

One feature we are pleased with is the large clear type used in the list of names. This cannot fail to be appreciated by one one having to address envelopes from this list.

The whole work shows careful preparation, and we believe will be heartily appreciated by both architects and dealers. It is issued at the moderate price of \$2.00.

THE WILLER SASH LIFT AND WILLER HANGER.

The Willer Manufacturing Company, manufacturers of inside blinds, door and window screens, Milwaukee, Wis., has



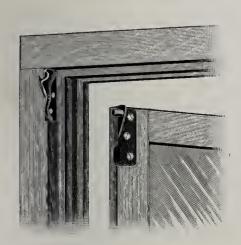
THE WILLER SASH LIFT.

just hit upon a very essential article so needful in every residence or building of any kind. They have concluded to place it upon the market in connection with their principal specialties, blinds and screens. It is the Willer sash lift, a very simple device for the purpose it is intended, yet by far the most practical that has ever been invented. If one considers the aggravating task of closing an upper sash in the window on which lifts of any kind opened to lower or raise it, this lift will and must ap-

peal to every one, and architects especially, as the one kind to use. It is furnished in all the well known finishes to match any hardware in the respective rooms of any modern dwelling.

Accompanying the illustration of the foregoing is one also of the Willer hanger for storm sash and full size screens. They are now offering to the trade this device, which they claim is far ahead of anything of the kind now on the market. The device is used to hang storm sash and full sized screens at the top so that they can be swung out from the bottom.

In the case of screens for the purpose of washing and cleaning windows and in case of storm sash for same purpose and



THE WILLER HANGER.

also that of ventilation. The storm sash and window screens can be fitted and hung in place easily from the inside, obviating the necessity of using ladders to do the work on the outside. They are also easily put in place. The absolutely device is self-locking. Storm sash and window screens once in place can never be blown off by the wind. The device when used storm sash only does not in any way interfere with the outside sliding screens; sup-

porting brackets are secured to the upper corner of the window to the edge of the casing and do not disfigure the appearance of the windows from the outside, as the brackets are fastened securely to the face of the casings. The device is made of wrought steel which insures great durability. Architects, contractors, carpenters or house owners will be furnished with full descriptive circulars giving particulars if their hardware dealer does not carry both of the foregoing articles in stock.

HEAT REGULATION.

A home is well heated, both for comfort and health, only when it is uniformly heated at all hours of the day and night. A shifting temperature, from extreme heat to an uncomfortable degree of cold, is expensive in the cost of fuel, is uncomfortable, and above all, is unhealthy.

Various devices, expensive and inexpensive, have been tried during the past ten or fifteen years to regulate the temperature of our homes, and all but one has failed to meet all the requirements of the case—this one is the Minneapolis Electric Heat Regulator, and it will stand all the tests that can be applied, and it is comparatively cheap in first cost. It is simple and as positive in action as a door-bell and a clock, for it is run by clock-work—that is, it is regulated by a battery. When it is set—and to set it means simply to turn a screw at 70° for the day temperature—it keeps that temperature in the home all day long; when it is set at 60° or 65° for the night temperature, it keeps that all night long; however, it does not keep either temperature a part of the time, and one of fifty or of eighty degrees some of the time—as the best plant ever made will do when not regulated by such a device.

When a low-priced apparatus will do this, and will save in fuel almost its entire cost every year, while adding to our homes a degree of comfort and of healthfulness not otherwise obtainable, why should it not be put on every heating plant in America? There certainly is no reason.

Mr. W. L. Klein, who was for a number of years editor of the old Northwestern Architect and of the Builder and Decorator, and who made a national reputation by his studies and writings upon the subject of heating and ventilation, says of the Minneapolis Electric Heat Regulator: "I have used this 'regulator' several years in my house, and it has never once failed to act instantly when the temperature of the room reaches the point at which the regulator is set. I consider it well-nigh indispensable in one's home."

CHANGE OF LOCATION.

The American Radiator Co., which for a number of years has had its Northwestern offices in the Guaranty Loan Building, of Minneapolis, has recently moved into its new location on the ground floor of the Walton Block, at 204 South Fourth street, where Mr. Frank R. Mason, the popular manager of their Minneapolis branch, states they will exhibit the finest line of boilers and radiators ever shown in this section of the country. With plenty of room and good light, together with first-class facilities for showing their excellent lines, we have no doubt they will be able to accomplish their purpose in a tasty and artistic manner. They will be pleased to receive all their old and many new patrons at their new location.

(For other Matter in this Department see page XXII.)

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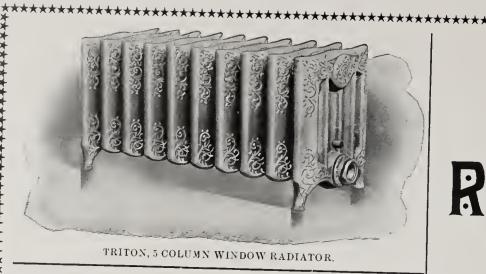
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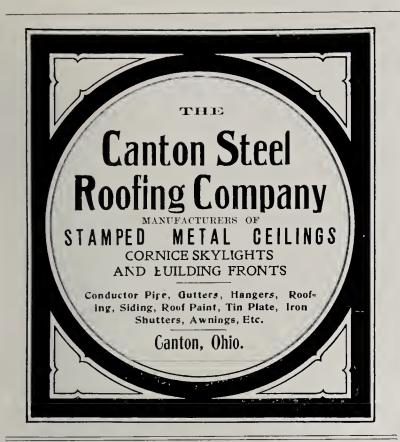
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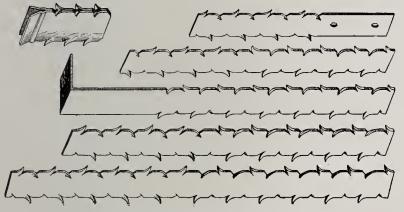
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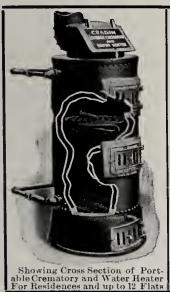
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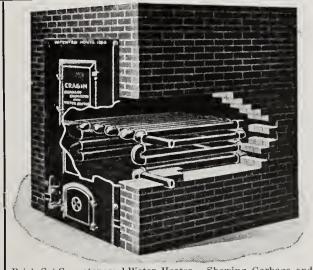
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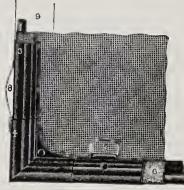
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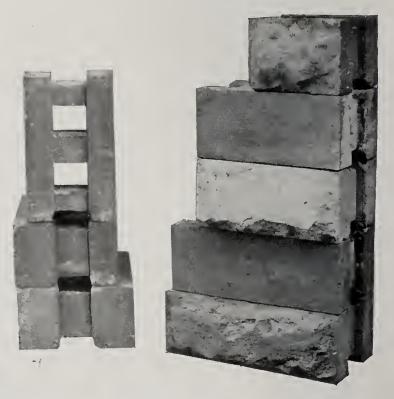
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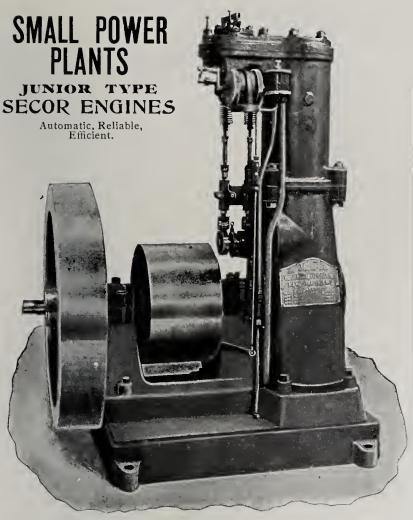
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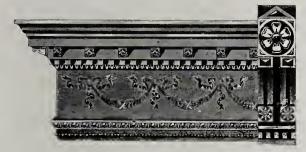
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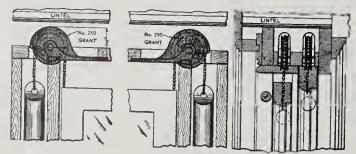
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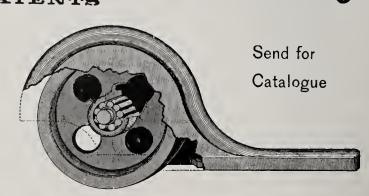


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