

NA
1
I56



Copyright, 1885, by The Inland Publishing Co.]

[Entered at the Postoffice at Chicago as second-class matter.



A MONTHLY JOURNAL
DEVOTED TO WESTERN INTERESTS.

OFFICIAL ORGAN OF THE
WESTERN ASSOCIATION OF ARCHITECTS.

VOL. V.—No. 4.

CHICAGO, MAY, 1885.

TERMS: { \$2.00 per year in advance.
Single copies, 20 cts.

CONTENTS.

EDITORIAL.

Page

The American Architect and Building News—
Organization of the Kansas City Association of
Architects—The Unbusinesslike Character of
Competitions—The Richmond City Hall Compe-
tition—A Sample Case of "Competition"—
Attitude of the Western Association in Regard
to Competitions—The Compulsory Closing of
Wells in St. Louis—"Skin" Building in Chi-
cago—The Overflow in Bathtubs—Hotel Fires
and Their Causes—The French Law in Regard
to Fires in Private Buildings..... 61

HINTS ON BUILDING.

By J. H. Carpenter, A. and C. E. Article III.—
Drainage and Foundations 64

TERRA-COTTA.

Paper Read Before the Chicago Architectural
Sketch Club, by W. H. Junge..... 64

BUDDENSIEK, THE SKIN BUILDER. 65

CEILING DECORATION.

By J. H. Carpenter, A. and C. E..... 66

ARCHITECTURAL JOURNALS 66

ASSOCIATION NOTES..... 67

OUR ILLUSTRATIONS..... 68

NEW PUBLICATIONS 68

MOSAICS 68

SYNOPSIS OF BUILDING NEWS 69

EDWARD DEWSON,

J. H. CARPENTER,

ARCHITECTURAL ARTISTS.

Perspectives rendered in Pen and Ink and Water Colors,
also Architectural Designing.

Address: J. H. CARPENTER,

Office of THE INLAND ARCHITECT.

SAM'L I. POPE.

CHAS. H. PATTEN.

STEAM AND HOT WATER.

Heating & Ventilating Apparatus,

WROUGHT IRON PIPE, FITTINGS, VALVES,
BOILERS, PUMPS AND ENGINEERS'
SUPPLIES.

PLANS AND SPECIFICATIONS FOR ALL KINDS OF STEAM WORK PREPARED.

SAM'L I. POPE & CO.,

193 LAKE STREET, CHICAGO.

TERRA-COTTA.

NORTHWESTERN TERRA-COTTA WORKS.

TRUE, BRUNKHORST & CO.

Proprietors,

*Manufacturers of all kinds of Plain and Ornamental
Terra-Cotta.*

Works: corner Clybourn and Wrightwood Aves.
Telephone No. 3259.

Office: Room 20 McCormick Block,
Telephone 5284. CHICAGO.

A. KLUGE,

(Formerly with J. J. McGRATH.)

INTERIOR DECORATION.

PAPER HANGINGS,
LINCRUSTA-WALTON,
RAISED FLOCKS,
IMITATION LEATHERS

157 Wabash Avenue, CHICAGO.

THE WIGHT FIRE-PROOFING CO.

Contractors for all kinds of Fire-Proof Work in

Porous Terra-Cotta or Hollow Tiles,

Also for Fine Plastering, Cementing and Concreting,

KEENE'S CEMENT INSIDE FINISH

As a Substitute for Wood.

SCAGLIOLA COLUMNS AND PILASTERS.

New York Office:
60 William Street.

Chicago Office:
202 La Salle Street.

THE BOSTON

Architectural Terra-Cotta Works,

H. A. LEWIS, PROPRIETOR.

384 to 390 FIRST STREET, SO. BOSTON, MASS.

Box 319, Mechanics' Exchange.

ILLUSTRATED PLATES SENT ON APPLICATION.

SEND FOR ESTIMATES.

SUBSCRIPTIONS

Taken for all

Architectual (and other) Publications,

FOREIGN AND AMERICAN,

At Publishers' Lowest Prices.

CHAS. MACDONALD & Co's Periodical Agency,

55 E. Washington Street, CHICAGO.

ALBERT A. RILEY,

GRATES, BRASS,
MANTELS, FIREPLACES,
TILING, FENDERS,
REGISTERS, ANDIRONS,
Etc. FIRE SETS,
Etc. COAL HODS, Etc.

178 Wabash Ave., Chicago, Ill.

BRANCH OFFICE AND SHOWROOM

OF

THE MEYER-SNIFFEN COMPANY,

(Limited.)

Importers and Manufacturers of

FINE SANITARY SPECIALTIES,

91 ADAMS STREET, CHICAGO.

Telephone 660.

J. B. SNIFFEN, Manager.

SEYSSSEL ROCK ASPHALT.

FOR SIDEWALKS, FLOORS, CELLARS AND ROOFS.

BITUMEN DAMP COURSE.

DAMP RESISTING SOLUTION.

29 Waverly Place, } E. H. WOOTTON { Box 382,
New York. } Bldrs. & Tdrs.
Exchange,
CHICAGO.

G. HINSTORFF,

IMPORTER OF

DRAWING MATERIAL.

LARGE STOCK. LOW PRICES.
CORRESPONDENCE SOLICITED.

PUBLISHER OF

BLANK SPECIFICATIONS for Brick and frame Buildings
Costing from \$500 to \$10,000 (sample per mail 30c.)

ARCHITECTS CERTIFICATE BOOKS.

AGREEMENT BLANKS FOR BUILDING.

Send for Samples.

G. HINSTORFF, 48 DEARBORN ST., CHICAGO.

PHOTOGRAPHS

—OF—

RESIDENCES, INTERIORS,
STORES, DETAILS, ETC.

Will send you 200 subjects if you promise to select
two dozen at \$6.00 per dozen.

J. W. TAYLOR;

No. 146 LA SALLE STREET, CHICAGO, ILL.

J. B. SULLIVAN.

ESTABLISHED 1855.

M. J. SULLIVAN.

J. B. SULLIVAN & BRO.

We respectfully call attention to the fact that our business is divided into three departments, viz.: We carry a very large stock of

WALL PAPER AND PAPER DECORATIONS,

Selected with great care from all the leading manufacturers. We have also many exclusive designs in Choice Hangings, which cannot be obtained elsewhere. We supply only first-class Paper Hangers to execute all work, and can guarantee satisfaction.

PAINTING AND GLAZING DEPARTMENT.

In this department we employ only the most skillful workmen, and use the best material that can be purchased.
We also do Calcimining and Fine Tinting.

FRESCO AND DECORATIVE DEPARTMENT.

Having Designers of High Merit we are prepared to produce the very latest effects, and can guarantee the very best possible results.

ALL WORK IN THE VARIOUS DEPARTMENTS IS UNDER THE PERSONAL SUPERVISION OF THE FIRM.

Competent men sent to any section of the country. Designs furnished. Correspondence solicited.

J. B. SULLIVAN & BRO.,

266 & 268 N. Clark St., and }
Room 15, 159 & 161 La Salle St., } CHICAGO.

TELEPHONE 8101.

**P. M. ALMINI,
Decorative Artist.**

Personal attention given to Fresco Painting in all its branches.

Designs and Estimates furnished upon all kinds of public buildings and private structures in any part of the United States.

ARCHITECTS ARE ESPECIALLY NOTIFIED that all designs executed by this Artist are according to the latest prevailing styles.

OFFICE: No. 243 Wabash Avenue,
CHICAGO, ILL.

Send for Designs and Estimates.

FINE PRESSED BRICK.**LOCKWOOD & KIMBELL,**

SOLE AGENTS FOR THE

PRESSED

ST. LOUIS HYDRAULIC
—AND THE—
TRENTON, NEW JERSEY,

BRICK.

Both so well and favorably known for their fine finish and elegant color. Also dealers in

Philadelphia, Baltimore, Milwaukee, and Fancy Molded Brick.

The above lines of Brick are known to be reliable in every particular, having stood the test of fire and weather for years, and are known to be the productions of the best manufacturers of the country.

A large stock of Pressed Brick constantly on hand at our new Warehouse and General Office at

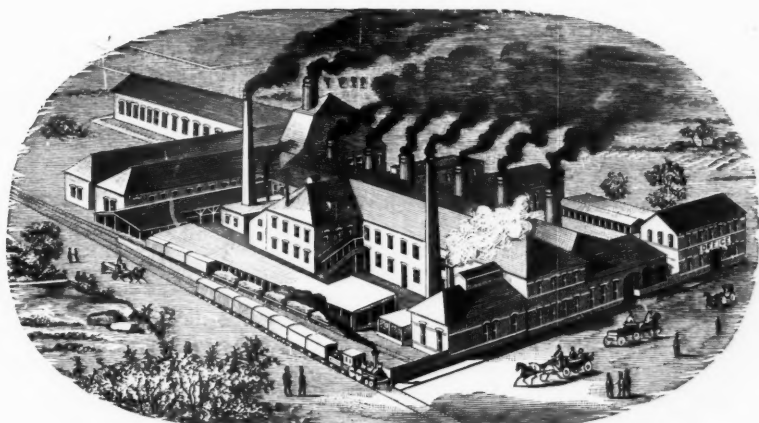
FIFTH AVENUE AND POLK STREET.

Architects and all interested are cordially invited to visit and inspect our Stock after April 12th.

THE LARGEST AND MOST COMPLETE TILE WORKS IN THE WORLD.

THE UNITED STATES ENCAUSTIC TILE COMPANY,

INDIANAPOLIS, IND.



is prepared to furnish Dealers, Architects and Builders with **PLAIN** and **ENCAUSTIC TILES** for laying floors in Public Buildings and Private Residences. We also manufacture an elegant line of **HIGH ART MAJOLICA TILES** for Mantel Facings, Friezes, Furniture, etc. Also, **GLAZED** and **ENAMELED TILES**, for Hearths, Wainscoting and Interior Decoration. Designs, Estimates and Sample Sheets furnished on application.

NORTHWESTERN AGENCY,

11 ADAMS ST., CHICAGO.

J. L. MOTHERSHEAD,

RECEIVER U. S. ENCAUSTIC TILE CO.

K. B. & S'. ENGLISH.
GIBBS & CO.'S ENGLISH.
STETTINER GERMAN.
LAGERDORFER GERMAN.
FIEVE A 7 BELGIAN.
ROMAN CEMENTS.
KEENE'S CEMENTS.

HOWARD FLEMING,

23 LIBERTY ST., NEW YORK,

IMPORTER OF

PORTLAND CEMENTS

FROM THE BEST MAKERS.

These Cements are Standard for quality and quantity and are used by Government Engineers. Memorandum Book mailed on application. Send for Circulars and Price Lists.

PROMINENT REAL ESTATE FIRMS.

REAL ESTATE

Bought, Sold and Rented on Commission.

MONEY TO LOAN ON REAL ESTATE
AT LOWEST RATES.

Building Loans made to responsible parties.

BAIRD & BRADLEY,

90 La Salle Street.

A. B. MEAD. Established 1867. A. L. COE

MEAD & COE,

REAL ESTATE AGENTS,

149 La Salle Street.

Take general care and management of Estates, including payment of taxes and collection of rents.

LOANS NEGOTIATED, secured by first mortgage on Real Estate in Chicago or vicinity. Correspondence invited.

Edison Electric Light.

THE ONLY PERFECT

INCANDESCENT SYSTEM.

It is in successful operation for general lighting from central stations in cities, towns and villages.

Over 100,000 Edison lamps are burning in isolated plants in the United States.

WESTERN EDISON LIGHT CO.,

185 Dearborn Street,

CHICAGO, ILL.

CALIFORNIA REDWOOD LUMBER.

THE BEST WOOD FOR INTERIOR FINISH KNOWN. NO SHRINKAGE. ALWAYS STAYS IN PLACE. TAKES AN ELEGANT FINISH. MAKES SPLENDID NEWELS AND BALUSTERS. IS DARKER AND RICHER THAN CHERRY, AND IS CAPITAL WOOD FOR CARVED WORK.

CALIFORNIA REDWOOD SHINGLES.

NO WARPING WHEN EXPOSED TO RAIN OR SUN. ALL SHINGLES **WARRANTED** CLEAR. WE COPY HEREWITH ONE OF THE MANY LETTERS WE HAVE RECEIVED.

GENTS:—THE CALIFORNIA REDWOOD SHINGLES I received of you have been used in ornamenting a gable. They are finished in Shellac and Rubbing Varnish, and are one of the most *charming features* of the house. They were disappointing at first, but after being exposed to the weather, began to take a **BEAUTIFUL RED COLOR**, and are becoming *more beautiful* every day. They are greatly admired by my patrons, and as their **COST IS SO LITTLE MORE THAN ORDINARY SHINGLES**, I hope soon to be able to use them to quite an extent on town and country frame houses.

STREATOR, ILL., May 5, 1884.

Respectfully yours,

F. S. ALLEN, ARCHITECT

WE HAVE ALL SHAPES,—SQUARE, DIAMOND, ROUND, OCTAGON, AND HEXAGON

CYPRESS LUMBER AND SHINGLES.

SPANISH CEDAR, VENEERS OF DOMESTIC HARDWOODS. ALSO RECEIVERS OF ASH, OAK, BUTTERNUT, WALNUT, CHERRY, AND OTHER FINISHING WOODS.

Exhibit of Redwood can be seen at the "Permanent Exhibit and Exchange of Building Materials and Implements," at 15 E. Washington Street, Chicago.

CHARLES B. CROMBIE & CO.

TELEPHONE No 1546.

254 South Water St., Chicago, Ill.

WRITE FOR PRICES.

KELLOGG, JOHNSON & BLISS,

AGENTS FOR ALL THE LEADING MAKES OF

Parlor Sliding Door Hangers,

MECHANICS' TOOLS AND CUTLERY.

Illustrated Catalogue sent free.

WE MAKE A SPECIALTY OF

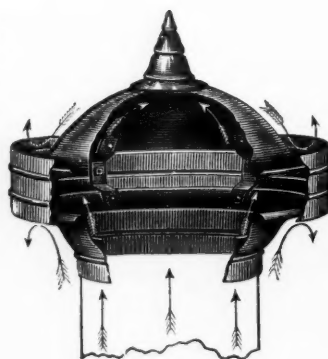
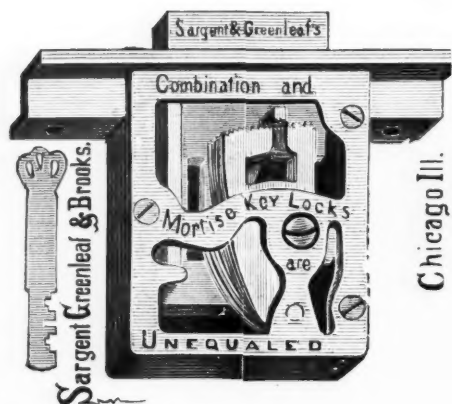
Builders' and Cabinet Hardware

Artistic Hardware

FOR FINE RESIDENCES AND PUBLIC BUILDINGS.

PARTIES RESIDING AT A DISTANCE CAN PURCHASE GOODS AS LOW BY MAIL AS IF THEY CALLED IN PERSON TO SELECT SAME.

108 & 110 Randolph St., CHICAGO, ILLS.



WE SELL:

Sargent & Greenleaf's Non-Pickable Flat Key Locks,

The Strongest, Safest, Most Simple and Secure Locks ever made.

Sargent & Greenleaf's Combination Locks,

SAFE, SIMPLE, STRONG. Used in U. S. Treasury, the Vault Doors of the Calumet, Montauk and New Board of Trade Buildings, in Chicago, and in the best Banks and Office Buildings in the Country.

Globe Ventilators,

A Sure Cure for Smoky Chimneys or badly Ventilated Houses, Churches, Factories, Schools, Halls or Theaters.

Spiral Riveted Pipe,

For Conductor Pipes, Ventilating Pipes. Also, for Heating Shops, Factories, Planing Mills, etc., with Exhaust Steam.

Adjustable Sheet-Metal Elbows,

Made of Tin and Galvanized Iron, from 1½ to 10 inches diameter.

PLEASE SEND FOR PRICE-LISTS, CIRCULARS AND DISCOUNTS.

SARGENT, GREENLEAF & BROOKS,

PLEASE MENTION THIS JOURNAL.

43 and 45 Franklin Street, CHICAGO, ILL.

HARRIS BROS'
Pressed, Ornamental and Enameled
BRICK,

OHIO ENCAUSTIC TILE Co's
Plain, Glazed and Encaustic
TILE.

ABBOT & WRIGHT, Agents,
161 LA SALLE STREET,
CHICAGO.

A Catalogue can be had on application by Architects. Special designs made to order. Orders promptly filled.

TIFFANY
PRESSED BRICK Co.

PRINCIPAL OFFICE
175 DEARBORN ST., CHICAGO.
(Commercial National Bank Building.)

WORKS AT MOMENCE, ILL.

MANUFACTURERS OF FINEST
PRESSED BRICK,
PLAIN AND ORNAMENTAL,
BY THE NEW
TIFFANY PROCESS.

JAS. VAN INWAGEN, Pres't.
JOEL TIFFANY, Vice-Pres't.
FRED. VAN INWAGEN, Sec'y.
SOLOMON SNOW, Bus. Mgr.

WM. ALSIP, Superintendent of Works.



"PERFECT" FURNACE.



"BRIGHTON" RANGE.



SALAMANDER FURNACE.

Richardson & Boynton Co.

MANUFACTURERS OF

ESTABLISHED 1849.

CORRESPONDENCE SOLICITED.

ESTIMATES FURNISHED
ON APPLICATION.

FURNACES,
RANGES,
STOVES,
REGISTERS, Etc.

84 Lake Street, CHICAGO, ILL. - 232 & 234 Water Street, NEW YORK.

The Wight Fireproofing Co.

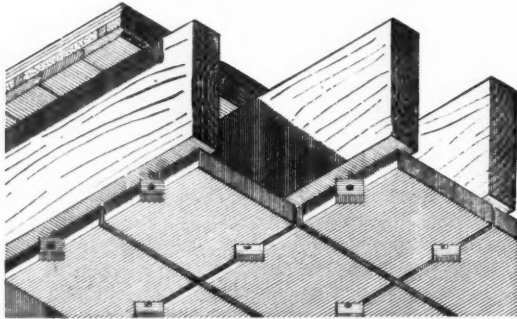
202 La Salle St., Chicago. 69 Washington St., New York.

Contractors for all kinds of Fireproof Work in

Hollow Fire-Clay Tiles and Porous Terra-Cotta,

IN ALL PARTS OF THE UNITED STATES.

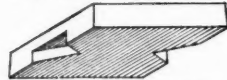
ILLUSTRATION OF POROUS TERRA-COTTA FIREPROOF CEILING



Patented April 16, 1878, and
March 6, 1883.



Top of Ceiling Tile.



Bottom of Ceiling Tile.

*500,000 feet of this Ceiling have been put up in Chicago, Milwaukee and Cleveland,
and it is now being put in the American Bank Note Building, New York.*

All forms of constructive Ironwork, such as Columns, Girders and Roof Trusses, covered with porous Terra-Cotta, and left ready for plastering.
Partitions, Furring and Roofing furnished and set.

SEND FOR ILLUSTRATED CATALOGUE.

Asbestos Flooring Felt.

Patented August 20, 1872.



*For Lining between Floors, under Slates, Shingles,
Clapboards, etc.*

Absolutely fire-proof, and unexcelled for deadening purposes
In rolls 44 inches wide. Manufactured only by

THE ASBESTOS PACKING CO

169 Congress St., Boston.

PERTH AMBOY
TERRA-COTTA CO.

GENERAL OFFICE,
Nos. 80 & 81 ASTOR HOUSE,
NEW YORK CITY,

MANUFACTURERS OF

ARCHITECTURAL
TERRA-COTTA.

WM. W. K. NIXON, 175 DEARBORN STREET
SOLE AGENT FOR CHICAGO.

P. HAYDEN, PRESIDENT.

ALBERT HAYDEN, RESIDENT DIRECTOR.

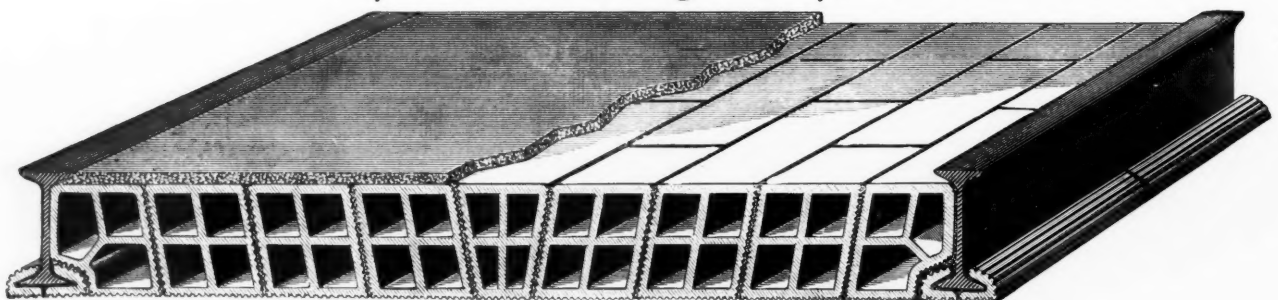
C. H. HAYDEN, VICE-PRES'T.

THE HAYDENVILLE

MINING AND MANUFACTURING CO.

MINES AND WORKS,

Haydenville, Hocking County, Ohio.



BEAM PROTECTION (Patented April 21, 1885).

MANUFACTURERS AND CONTRACTORS FOR

FIRE-PROOFING BUILDINGS

THROUGHOUT, WITH

HOLLOW TILE FLOOR ARCHES, COLUMN COVERS, GIRDER PROTECTION,

HOLLOW TILE PARTITIONS OF ANY REQUIRED DIMENSIONS.

VAULT LININGS, FLUE LININGS, WALL FURRING, ROOF TILES AND FIRE BRICK.

SPECIAL DESIGNS FURNISHED FOR ROOFS.

YARD, 1617, 1619, 1621, 1623, 1625, 1627, 1629 AND 1631 STATE STREET, CHICAGO.

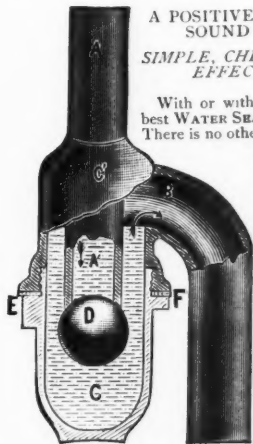
Address all Correspondence to

H. BUTLER, C. E., and Gen'l Sup't Fire-Proofing Department,

TELEPHONE No. 5279.

45 AND 47 LAKE STREET, CHICAGO, ILL.

THE BOWER Sewer Gas Trap.



A POSITIVE VALVE SEAL; A
SOUND WATERSEAL.
SIMPLE, CHEAP,
EFFECTIVE & DURABLE.

With or without the Valve, it is the
best WATER SEAL TRAP in the market.
There is no other Trap so sure of retain-
ing its WATER SEAL. none that approximates
it in the surety of the
VALVE SEAL. The
Valve keeps its seat by
floatation, and as com-
pared with other Valves
and Traps is little or no
resistance to the outflow
of water or waste. Il-
lustrative and descrip-
tive 48-page pamphlet
sent free on applica-
tion.

B. P. BOWER & CO.
Manufacturers,
CLEVELAND, OHIO.

THE LINE SELECTED BY THE U. S. GOV'T
TO CARRY THE FAST MAIL.

Burlington Route C.B. & Q.R.R.

The Only Through Line, with its own track, between
Chicago, Peoria and **DENVER**

Either by way of Omaha, Pacific Junction, Atchison or
Kansas City. It traverses all of the six Great States,
**ILLINOIS, IOWA, MISSOURI,
NEBRASKA, KANSAS, COLORADO**

With branch lines to their important cities and
towns. It runs every day in the year from one to
three elegantly equipped through trains over its own
tracks between

Chicago and Denver,
Chicago and Omaha,
Chicago and Council Bluffs,
Chicago and St. Joseph,
Chicago and Atchison,
Chicago and Kansas City,
Chicago and Topeka,
Chicago and St. Louis,
Chicago and Sioux City,
Peoria and Council Bluffs,
Peoria and Kansas City,
St. Louis and Omaha,
St. Louis and St. Paul,
Kansas City and Denver,
Kansas City and St. Paul,
Kansas City and Omaha.

Direct Connection made at each of its Junction
points with Through Trains to and from points lo-
cated on its branches.

At each of its several Eastern and Western ter-
mini it connects in Grand Union Depots with
Through Trains to and from all points in the United
States and Canada. It is the Principal Line to

SAN FRANCISCO, PORTLAND & CITY OF MEXICO
For Tickets, Rates, General Information, etc.,
regarding the Burlington Route, call on any Ticket
Agent in the United States or Canada, or address

T. J. POTTER, 1st V.P. & GEN. MGR., CHICAGO.
HENRY B. STONE, ASST. GEN. MGR., CHICAGO.
PERCEVAL LOWELL, GEN. PASS. AGT., CHICAGO.

WANTED

COPIES OF THE

Inland Architect & Builder,
No. 1, Vol. II.

Address:

INLAND PUBLISHING CO.,

17 TRIBUNE BUILDING,

CHICAGO.

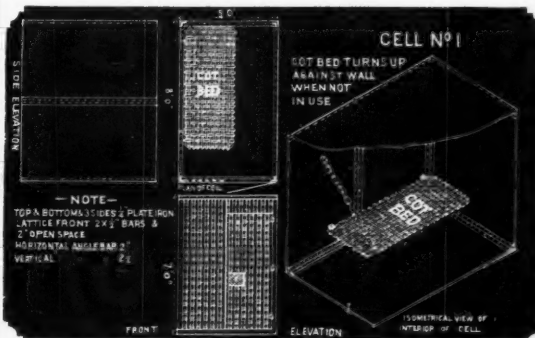
Office Clark & 16th St. Chicago.
Factory & Millers Ottawa Ill.
Pioneer Fireproof Construction Co.
PATENTEE'S
MANUFACTURERS
AND
CONTRACTORS
EVERY DESCRIPTION
HOLLOW SOLID
& POROUS
TILE
BUILDINGS
CHICAGO.

GLOBE IRON WORKS,

H. A. STREETER, Proprietor,

Nos. 35 to 41 Indiana Street, - - - CHICAGO, ILL.

COURT HOUSE, JAIL AND CELL WORK A SPECIALTY.



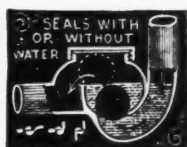
Manufacturers of Every Description of
**Structural and Ornamental
Iron Work.**

**STREETER'S PATENT SASH
FOR ASYLUMS.**

Iron Buildings. Store Fronts.
Iron Roofs. Riveted Girders.
Jail Work. Bank Vaults.
Columns. Stairways.
Railings. Gates.
Verandas. Crestings.
Skylights. Sash Weights.
Air Grates. Bolts.
Sidewalk-lights. Blacksmithing.

Contracts taken in any part of the Country

Put into the White House by the U. S. Government.

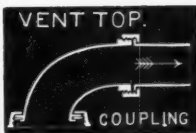


F. E. CUDELL'S

PATENT SEWER-GAS
AND BACKWATER TRAP

—FOR—
Wash-Bowls, Sinks, Bath and
Wash-Tubs.

204 Superior St., Cleveland, O.



JOHN C. HEWES, Sup't.

**American Asphalt Concrete and
Roofing Works.**

OFFICE: 156 LA SALLE STREET.

Trinidad Asphalt and Portland Cement Cellar Bottoms.
Driveways, Sidewalks and Boiler Pits a Specialty.

—ALSO—

Asphalt, Plastic and Gravel Roofing Done, and
Old Roofs Repaired.

All Orders Promptly Attended to.

CHICAGO, ILL.

McBEATH & ROWE,
IRON & STONE SETTERS
AND
BUILDERS.

OFFICE: 3208 Dearborn Street.

Contractors for the Stone Setting in Royal Insurance, the Iron and Stone Setting in the Home Insurance, the New Opera House; they have also completed the Setting of many of our new buildings and make a specialty of Terra-Cotta Setting. Their facilities for handling large contracts enables them to give estimates and take contracts in any part of the United States.

ISAAC M. HOLCOLMB, Pres't. ESTABLISHED 1873. CHAS. E. STREET, Sec'y.

THE FIRE PROOF BUILDING CO.
OF NEW JERSEY.

WORKS AT ELIZABETHPORT, N. J.

MANUFACTURERS OF

Fire-Proof Building Materials

OF EVERY DESCRIPTION.

FIRE-CLAY, HARD BURNT, AND POROUS

TERRA-COTTA BLOCKS

For FLAT ARCHES, CEILING,

PARTITIONS, ROOFING,

FURRING, . Of all Sizes.

Special shapes to order. A large Stock always on hand. Estimates furnished. Builders supplied.

OFFICE: 229 BROADWAY, NEW YORK CITY.

TOMLINSON & CARSLY

INTERIOR

Finishing

AND

Furnishing

Special Designs and Estimates
Furnished for all kinds of Interior
Finishing, Furnishing and Decorating.

FACTORY:

2242 to 2256 South La Salle Street.

L. F. CROSBY, Designer, 55 Central Music Hall.

CHICAGO, ILL.

Beaver, Hughes & Wetmore Co.,

215 STATE STREET.

Special and

Exclusive

Designs

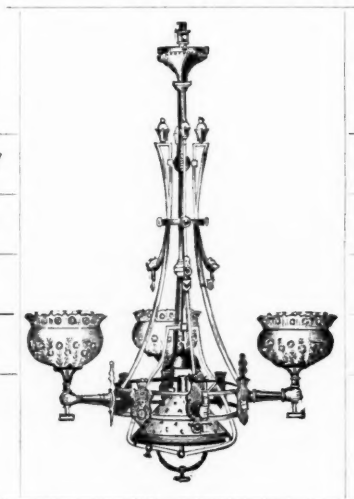
Furnished.

Combinations

in Gas

and Electric

Chandeliers.



DESIGNERS OF AND DEALERS IN

FINE ART GAS FIXTURES,

Prices same as at Factory. Special discounts given to Builders
and Contractors.

SANITARY PLUMBING

IN ALL ITS BRANCHES GIVEN SPECIAL ATTENTION.

JOBGING PROMPTLY AND CAREFULLY ATTENDED TO.

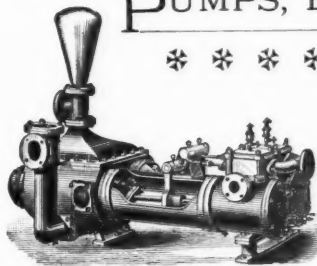
215 STATE STREET, CHICAGO.

* **JOHN DAVIS & CO.** *

DEALERS IN

STEAM HEATING AND VENTILATING APPARATUS

PUMPS, BOILERS, Etc.



* * * * *

PIPE WORK OF ALL KINDS.

69 to 79 Michigan Street,

CHICAGO.



Registered Trade Mark, May 1, 1883.



"Morton's Metal"

Champion and Cable

Sash Chains & Patented Attachments.

The most RELIABLE and CHEAPEST articles in the market for suspending

WINDOW SASHES.

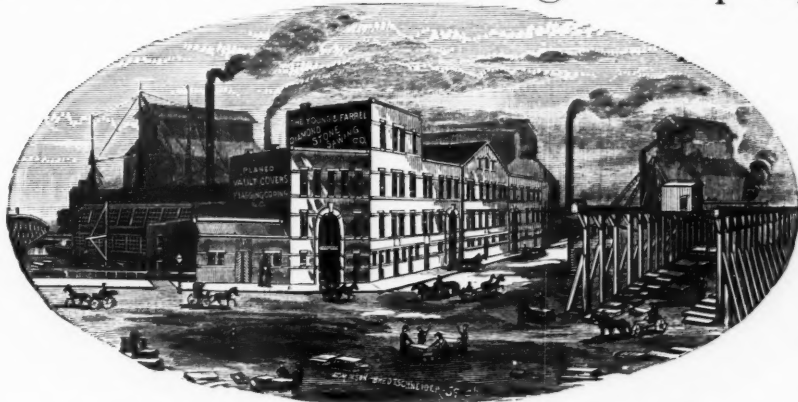
Have great tensile strength. Can be easily applied to any window, and give satisfaction wherever used. Samples sent to any Architect free on application. Now in use in all the leading cities throughout the United States.

MANUFACTURED ONLY BY

THOMAS MORTON, 65 Elizabeth St., New York.

THE YOUNG & FARREL

Diamond * Stone * Sawing * Company.



Contractors for Cut Stone, Planed Vault Covers, Flagging, Coping, &c. Sole Agents for the Celebrated Brinton Green Stone.

Unequaled facilities and stock large and varied, thorough organization and good work, and strict attention to every order large or small.

TWELFTH & LUMBER STS., CHICAGO.

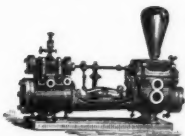
THE STANDARD STEAM PUMP.

FOR EVERY POSSIBLE SERVICE.

Strongest, Most Durable and Compact Pump in the Market.

WHEELER & TAPPAN, Sole Manufacturers.

Office, 88 W. Lake St. Works, 49, 51 and 53 N. Jefferson St., CHICAGO.
Send for Catalogue.



New! Scientific! Efficacious!

THE ONLY PERFECT

System of Ventilation.

THE AMERICAN PATENT PORTABLE

WINDOW

VENTILATOR.

FACTS NOT GENERALLY KNOWN:

Efficient Ventilation has been thoroughly demonstrated to be an absolute necessity for the enjoyment of physical health.

The fallacies of the old methods of Ventilation, now in common use, entirely overcome by a simple invention which has met with phenomenal success.

Send for Circulars, Testimonials, Etc.

AMERICAN VENTILATOR CO.

WM. SCHARNWEBER, Patentee,

6 & 8 Wabash Ave., CHICAGO.

"PERFECTION"

BEAUTY,

CONVENIENCE, SIMPLICITY,

INTENSE HEAT, NO SMOKE,

ECONOMY, CLEANLINESS, PERFECT DRAFT,



MANTELS AND—

GRATES.

SOLE MANUFACTURERS OF THE

"PERFECTION" GRATE

—WITH—

Shaking Basket and Folding Doors, Summer Front and Blower Combined, is the cleanest and hottest, as well as the most economical Grate Made.

Brass Grates and Fenders, etc.,
Bronze Grates, Fenders and Facings

TRENT ART TILES FOR FACINGS,
HEARTHES, ETC.

Send for Catalogue. Say where you got our address.

WM. L. PERKINS & CO.,

MANUFACTURERS,

OFFICE AND SALESROOMS:

180 Elm Street, - CINCINNATI, O.

Factory: 98 & 100 E. Second St.

READERS will please mention THE INLAND ARCHITECT AND BUILDER when corresponding with Advertisers.

E. A. HITCHCOCK, President.

GEO. F. NEALE, Manager.

C. W. BARNES, Treasurer.

CRYSTAL PLATE-GLASS COMPANY,

CAPITAL, - \$1,500,000.

MANUFACTURERS OF

POLISHED PLATE-GLASS,
SKYLIGHT AND FLOORING GLASS.

AGENCIES:

Chicago, George F. Kimball; Cincinnati, Albert Boehmer's Sons;
Minneapolis, Janney, Semple & Co.

AGENCIES:

St. Louis, F. A. Drew Glass Co.; Kansas City, Jno. A. McDonald & Co.;
St. Paul, Thomas H. Drew.

FACTORIES:

CRYSTAL CITY, MO.

GILBERT S. KING, Eastern Agt.

102 Chambers St., Room 40, New York.

ST. LOUIS, MO.

W. H. WELLS & BRO. CO.

48 and 50 Franklin Street,

—CHICAGO—

STAINED AND CUT
GLASS.

*—Designs and Estimates Furnished.

Exhibit of materials to be seen at the Permanent
Exhibit of Building Materials, 15 Washington Street,
Chicago.

HEALY & MILLET,
STAINED GLASS WORKS
223 & 225 WABASH AVENUE, CHICAGO.
FINE GABINET WORK
WOOD MANTELS WALL PAPERS,
AND INTERIOR DECORATIONS.
ORNAMENTAL TILE & FLOORING
SPECIAL CONTRACTS FOR CHURCHES.

McCULLY & MILES,

Stained Glass,

1, 3, 5, 7 & 9 MADISON ST.,

Cor. Michigan Avenue. CHICAGO, ILL.

F. D. KINSELLA & CO.

Stained Glass Works,

85 JACKSON STREET,
CHICAGO.

GEO. A. MISCH,

MANUFACTURER OF

STAINED GLASS,

Enameled, Embossed, Cut and Ground

—GLASS,

217 E. WASHINGTON STREET,

Bet. Franklin & Market Sts.

CHICAGO.

F. A. DREW, President.

A. H. WALLIS, Manager.

C. W. BARNES, Sec'y and Treas.

—French Silvering—

—Ornamental Glass Company—

914 St. Charles St.
St. Louis, Mo.

Manufacturers of
Art Stained Glass, Sand & Blast,
Cut & Embossed Glass,
Mirrors & Beveled Glass.

Special designs for
Stained glass
on application.
Old & damaged
Mirrors resilvered.

GEO. F. KIMBALL,

IMPORTER AND DEALER IN

Polished Plate and Window Glass, Coach, Car and Picture Glass,
FRENCH AND GERMAN MIRROR PLATES,
45 and 47 JACKSON STREET, Bet. State St. and Wabash Ave.,
CHICAGO."EUREKA" —THE ONLY PERFECT—
Substitute for Stained GlassSuitable for Churches, Store Fronts and Private Houses, etc. Illustrated
Catalogue, 25 cts. Also, manufacturers of H. Petrie's Pat. Burnished Gold Letters and Numbers. Send for Circular.
Agents wanted.ROOM 7, DOMESTIC BUILDING,
NEW YORK CITY.

C. L. SEIB, MAN'G CO.

Decorative Glass Mfg. Co.

218 Wabash Ave., Chicago,

Makes a specialty of embodying in every piece STAINED
GLASS which leaves its factory, however simple or elaborate,
a perfect harmony of colors.

STAINED GLASS

BY NEW PROCESS—VALUABLE IMPROVEMENT.
SEND FOR CIRCULAR.READERS, in corresponding with advertisers, will
confer a particular favor upon both the advertisers and
publishers by mentioning this Journal.METAL WORKERS
IN BRASS, BRONZE, AND
STERLING SILVER.

ARTISTIC STAINED GLASS.

New Designs. Send for Hand-Book, to

J. & R. LAMB, 59 CARMINE ST., NEW YORK.

CHICAGO BRANCH
PRODUCERS MARBLE CO.
THOS. A. HALL, MANAGER.Marble Tiles, Marble Wainscoting,
BUILDING MARBLE.

Telephone No. 3057.

East End Michigan Street.

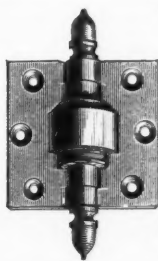
GET THE BEST
THE BROUGHTON
PATENT
Self-Closing Cocks,
— AND —
Stebbins Comp. Cocks
ARE THE BEST YET MADE.
MADE ONLY BY
THE E. STEBBINS MFG. CO.
SPRINGFIELD, MASS.

Represented by
GEO. W. MURPHY, No. 59 LAKE STREET,
CHICAGO.
Sold by all first-class Plumbers.

LEBOSQUET
BROS.

Steam Heating
APPARATUS
Combining the Latest Improvements.
Heating Private Residences a Specialty.
Send for Descriptive Pamphlet.

LEBOSQUET BROS., 75 Union St., Boston.



Union Spring Hinges
ARE
Simple, Easily Set, Cannot be
Put on Wrong.
They work either way, right or left.
All sizes. Single or double acting.
For Wire Screens or Light Doors,
they have no equal.
If your merchant does not keep
them, write to
M. W. ROBINSON, Sole Agt.
79 Chambers St., NEW YORK.

C. F. HOLLINGSHEAD,

WROUGHT-IRON RAILINGS,
FENCES,



Roof-Cresting, Finials, Etc.
Doors, Shutters,
Light Iron Roof-Trusses,
Fire Escapes, etc.

COOPER'S POINT IRONWORKS,
CAMDEN, N. J.

POWELL'S PATENT "STAR"
Bath, Basin, Sink & Tray Plugs WITH
RUBBER STOPPERS.



No more denting of Copper Bath Tubs, no cracking or
breaking of earthenware Basins, with the use of these
Rubber Plugs. Plumbers all prefer them; architects
specify them generally. Sold by Plumbers everywhere.

Manufactured by Wm. Powell & Co.
52 and 54 Plum Street,
CINCINNATI, OHIO.

A. H. Abbott & Co.
50 Madison Street, Chicago, Ill.

IMPORTERS OF AND DEALERS IN
ARCHITECTS' SUPPLIES.

Finest Swiss, German, English and French

MATHEMATICAL

AND

DRAFTING

Best known

DRAWING

TRACING

INDIA INKS,

WATER



INSTRUMENT

AND

MATERIALS.

brands of

PAPERS,

CLOTHS,

AND

COLORS.

SUPERIOR QUALITY OF
BLUE PROCESS or HELIOGRAPHIC Papers, T
Squares, Triangles, Draughting Scales, Rules, Tape Meas-
ures, Pencils, Brushes, and
Round Writing Materials, etc.

Send for Samples and Prices.



1884. JUST PUBLISHED. 1884.

FALL CATALOGUE OF BOOKS ON

—Architecture—
BUILDING, CARPENTRY, PAINTING
AND DECORATION.

Residents of Chicago and vicinity can obtain the above
Catalogue at the Chicago Branch Office of "Building,"
107 Madison Street, H. W. Knight, Manager, where a full
line of my books are on sale, or may address,

WM. T. COMSTOCK, Publisher,
6 Astor Place, NEW YORK.



The Fred J. Meyers M'fg Co.

MANUFACTURERS OF

WROUGHT-IRON FENCES,

ROOF CRESTING, JAILS, AND ALL KINDS OF BUILDING IRON-WORK.

Also Wire Bank and Office Railing,

WIRE WINDOW-GUARDS,

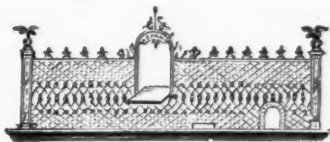
And Every Description of Wire Work.



Send for Illustrated Catalogue No. 33.

OFFICE AND WORKS:

419, 421 & 423 MADISON STREET, COVINGTON, KY.



THE AMERICAN BANGOR SLATE CO.

Miners and Manufacturers of PENNSYLVANIA

BLACK ROOFING SLATE,

FLACCING and other products from the famous Bangor Slate beds. The products of these beds
are of uniform color, and are equal in strength and quality to any produced in Penn-
sylvania. It will pay build-
ers and contractors to address
THE AMERICAN BANGOR SLATE CO. BANGOR, PA



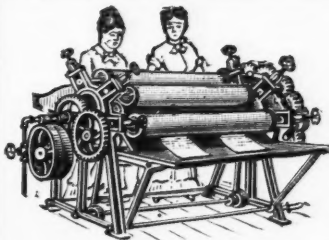
Troy Laundry Machinery Co. (Limited),

WASHING MACHINES,

Centrifugal Wringers, Steam Mangles, Ironing
Machines.

Complete Outfits for Hotels and Public Institutions our
specialty. Send for illustrated catalogue.

648 & 650 Fulton St., Troy, N. Y.
297 Wabash Ave., Chicago. 32 Dey St., New York.



GEO. W. GORDON,

—DEALER IN—

Improved Laundry Machinery

SUPPLIES and DRY-ROOM FRAMES.

295 WABASH AVE.,
CHICAGO.

WADSWORTH, HOWLAND & CO.
84 Washington St., BOSTON, MASS.

MATHEMATICAL INSTRUMENTS,
SINGLE OR IN SETS.

ARCHITECTS AND ENGINEERS' SUPPLIES, also
Manufacturers "BAY STATE PAINTS" and WOOD STAINS
of all kinds.

Catalogues of either Painters' Supplies or of Instruments, etc., mailed free
upon application.





KNISELY & MILLER

Slate, Tin and Corrugated Iron Roofers,
— MANUFACTURERS —
Galvanized Iron Cornices.

THE HAYES
PATENT
SKYLIGHT



*Under License, War-
ranted
NOT TO LEAK
From outside storm or
inside condensation.*

— CORRUGATED IRON FOR ROOFING. —

⊙ 129 & 131 S. CLINTON ST. CHICAGO ⊙

MESKER & BRO.

GALVANIZED IRON
CORNER WORKS

421 & 425 SOUTH 6TH ST. ST. LOUIS.
DESIGNS & ESTIMATES
— FURNISHED & APPLICATION

PETER E. POLI,
AND
DESIGNER.

MODELER



PLASTER
CENTER-PIECES.

BRACKETS AND CORNICES,
No. 21 Quincy St., CHICAGO.

BOSTON TERRA COTTA CO.

MOULDINGS
PANELS
CHIMNEYS
CRESTINGS

394 FEDERAL ST.
BOSTON MASS

*Illustrated Catalogue of 100 pages sent to
ARCHITECTS, BUILDERS and OWNERS upon appli-
cation accompanied by business card.*

HALEWIS

384-390 FIRST ST. SO. BOSTON

DYCKERHOFF PORTLAND CEMENT

Is superior to any other Portland Cement made. It is very finely ground, always uniform and reliable, and of such extraordinary strength, that it will permit the addition of 25 per cent more sand, etc., than other well known Portland Cements, and produce the most durable work. It is unalterable in volume and not liable to crack.

6,000 barrels have been used in the foundations of the Bartholdi Statue of Liberty, and it has also been used in the construction of the Washington Monument at Washington.

Circular with Testimonials and Tests sent on application.

MEACHAM & WRIGHT, Agents,
98 MARKET STREET, CHICAGO, ILL.

E. THIELE,
78 WILLIAM STREET, NEW YORK
Sole Agent United States.

The Metallic
CENTER PIECE
For Ceilings

Supersedes Stucco, and is Positively Unequaled.

MANUFACTURED BY
WARREN BROS.
47 and 49 West Lake Street,
CHICAGO, ILL.

SEND FOR CUTS. Samples at Permanent Exhibit and Exchange,
Cor. Washington St. and Wabash Ave.

J. BARTOLOMEI & Co.
Manufacturers of
Ornamental Centers
*Center Pieces, Decorative Cornice,
Brackets, Drops, Panels for Ceilings, Etc.*
10 NORTH HALSTED ST., CHICAGO, ILL.
Church and Theater Work a Specialty.

INNES & CO., CINCINNATI, OHIO.
Manufacturers of the
KENSINGTON ART TILES, ETC.,
Also, MANTELS, GRATES AND FIREPLACE DECORATIONS.

LAWRENCE MENDENHALL,
Manufacturers' Agent,
Room 16, N. W. cor. 4th and Race,
or Box 117, Builder's Exchange, CINCINNATI, O.

*Huginin Window Balances. No Weights. No Cords.
Runyon's Wood Mosaic Flooring.
Hartman's Sliding Inside Shutters.
Dudley Blind and Shutter Worker.
Wilber's Barn Door Hangers.
North's Automatic Blind Awning Fixtures*

HARDWARE SPECIALTIES INTRODUCED AND SOLD. CORRESPONDENCE SOLICITED.

ZANE & CO'S PATENT "THE SANITARY" WATER CLOSET.

With Offset or Straight Outlet.

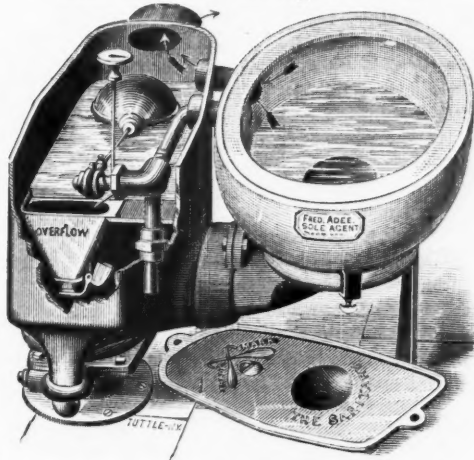


FIG. 1. STRAIGHT OUTLET.

With Painted or Enameled Reservoir.

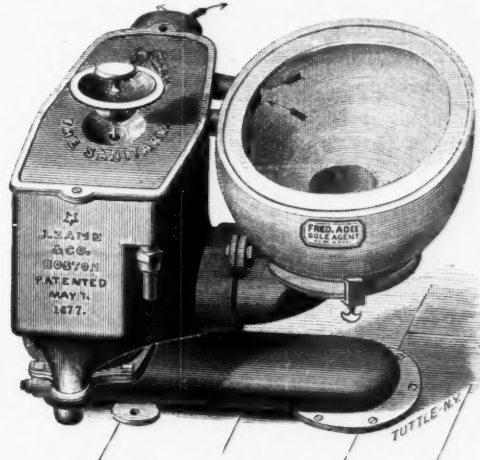


FIG. 2. WITH OFFSET.

The Best Water Closet in Every Respect that Has Ever Been Produced.

The general construction being such that the reservoir, which is thoroughly ventilated, cannot contain excreta or other offensive matter, and of sufficient capacity to hold enough water (about four gallons) to flush the soil pipe at each discharge of the closet, leaving the soil pipes free and clean their entire length, and so simple that it is difficult to set it so that it will not work. The only directions necessary being to set it so that the reservoir will be level and adjust the float to give the desired quantity of water.

These water closets are now made (and kept in stock by the undersigned) with a large (full 1 inch) water-way through ball-cock, expressly for use under pressure from cistern over head, say five to thirty feet above the closet, thereby securing a first-class flush from very low pressure.

We also make them with a reduced water-way in ball-cock for extremely heavy pressure, say 60 to 150 lbs. per square inch.

Where the pressure to be resisted is between 15 lbs. and 60 lbs. our regular closet, of which there are at present about 20,000 in use, will be found reliable in every case, but for very high or very low pressure (*which should be stated when order is given*) those with very large or very small water-way through the ball-cock will in either case secure a perfect flush.

Parties ordering water closets for use under cisterns or for use under excessive pressure, can now be supplied with Zane's "THE SANITARY" Water Closet, which, since 1878, has given greater satisfaction because of its reliability, durability and general perfection of construction than any other water closet ever placed on the market.

Every Zane's "THE Sanitary" warranted.

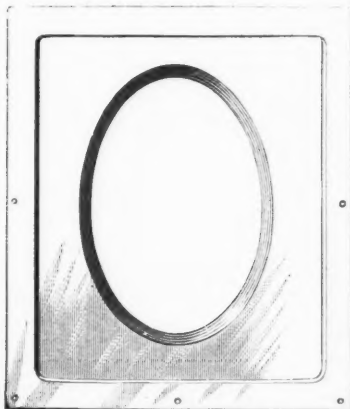
Price with Painted Reservoir, - - - -	\$32 00	} Box and cartage extra.
" Enameled Reservoir, - - - -	36 00	

NOTICE.

In calling attention to the articles illustrated we think the length of time which has elapsed since they were first introduced and the great satisfaction which they have always given—which is conclusively proven by the immense number already sold and now in use—justifies us in saying that they have no superior.

Zane & Co's "THE SANITARY" Water Closet was patented May 1st, 1877, and during the balance of that year only seven were sold, but since that time the sales have so rapidly increased that it is difficult to meet the present demand, there being about twenty thousand now in use. We attribute this very satisfactory state of our affairs to the fact that after having produced and introduced a strictly good article we have earnestly endeavored to not only keep up the high standard of quality, but to improve it where it was possible, and feel that we are really not claiming too much when we say they are the **best in the world.**

FRED ADEE & CO.



FRED ADEE'S

PATENTED

ENAMELED DRIP TRAYS

Made from stamped sheet iron, of such size and form as to be adaptable to most of the Water Closets and Hoppers now in use, and enameled on both sides. They are very thin and do not perceptibly increase the height of seat; have no raised edges to be let into the wood (requiring the services of a carpenter), but can readily be put in place by the plumber. They are to a certain extent flexible, are very light—not liable to be broken, and while presenting a much better appearance are in every respect superior to those made of cast iron, which can only be enameled on top, leaving the underside to rust and become foul.

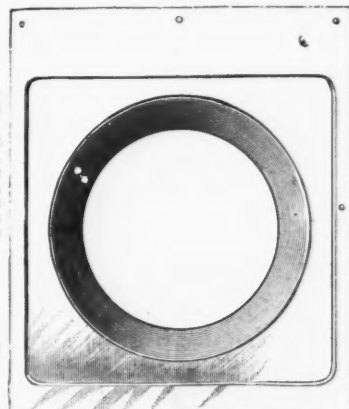
Price, Plain White, - - - - \$2 50 each.
Decorated, - - - - from \$5 00 to 7 50 "

In ordering please state what Water Closet or Hopper they are to fit.

FRED ADEE & CO.,

PLUMBERS' SUPPLIES,

52 Cliff Street, - NEW YORK.



"YALE" LOCKS.

FOR ALL PURPOSES. Catalogues on application.

ADDRESS:

The Yale & Towne Manufacturing Co.

STAMFORD, CONN.

OFFICES:

64 LAKE ST., CHICAGO.

62 Reade St., New York. 224 Franklin St., Boston.

15 N. Sixth St., Philadelphia.

Hallowell & Bodwell

Granite Companies,

DEALERS IN ALL VARIETIES OF **GRANITES**

ESTIMATES FURNISHED AND WORK PROMPTLY EXECUTED.

A fine collection of samples can be seen at the Permanent Exhibit of Building Materials, or at our office,

174 La Salle Street, Chicago, Ill.

GEO. F. BODWELL, Western Manager.

THE MASON CONTRACTOR ON McVICKER'S
THEATER, ILLUSTRATED IN THIS
NUMBER.

WILLIAM D. PRICE,

SUCCESSOR TO

WM. PRICE & CO.,

MASON CONTRACTOR

AND BUILDER,

OFFICE: ROOM 128, HOME INSURANCE BUILDING,

BOX 403, BUILDERS & TRADERS' EXCHANGE,

CHICAGO.

M. BENNER.

W. D. KENT.

M. BENNER & Co.

Structural and Ornamental

Iron Works.

WROUGHT-IRON FENCES,

ROOF CRESTING,

BALCONY AND STAIR RAILING,

Iron Doors and Shutters, Stable Fixtures, Jail
Work, Iron Bedsteads, Prismatic Lights,
Lawn Furniture,

FIRE ESCAPES AND STAND PIPES,

AND ALL DESCRIPTIONS OF

BUILDING AND MACHINERY CASTINGS.

Send for our new Illustrated Catalogue.

No. 260 S. Jefferson Street,
CHICAGO.



CHICAGO
Anderson Pressed Brick
COMPANY.
MANUFACTURERS OF
*Plain and
Ornamental*
PRESSED BRICK
OFFICE:
157 La Salle Street,
CHICAGO.

THE INLAND ARCHITECT AND BUILDER.

Vol. V.

No. 4.

MAY, 1885.

THE INLAND ARCHITECT AND BUILDER

A Monthly Journal Devoted to

ARCHITECTURE,
Construction, Decoration and Furnishing
IN THE WEST.

OFFICIAL ORGAN OF THE WESTERN ASSOCIATION OF ARCHITECTS
(A NATIONAL ORGANIZATION.)

PRICE \$2.00 PER YEAR.

L. MULLER, Jr., Manager. R. C. McLEAN, Managing Editor.
C. E. ILLSLEY, Associate Editor.

PUBLISHED BY THE INLAND PUBLISHING CO.
19 TRIBUNE BUILDING, CHICAGO, ILL.

SPECIAL CONTRIBUTORS:

JOHN W. ROOT,	WM. PAUL GERHARD,	W. L. B. JENNEY,
BENNEZETTE WILLIAMS,	P. B. WIGHT,	E. H. KETCHAM,
D. H. BURNHAM,	J. H. CARPENTER,	IRVING K. POND,

THE INLAND ARCHITECT AND BUILDER has a larger number of subscribers in the West than any building journal in the country. Advertising rates are very reasonable, and will be made known on application. We take pleasure in directing attention to the high character of our advertisements.

WE are glad to note that the failure recently announced of the well known publishing house of James R. Osgood & Co., who for the past eight years have been the publishers of the *American Architect and Building News*, has not in the least injured either the present condition or the future prospects of that journal, its current issue arriving at its usual publication time. The *American Architect and Building News*, during the years it has presented itself before the architects of the country, has been honored with the respect due to its great mission. It found its existence through the necessity of the American Institute of Architects for an organ that could fitly represent them, and disseminate their views and transmit their proceedings to the fraternity at large, and in this field it has won honor, both at home and abroad. We take this occasion not only to re-assure its many friends of its uninterrupted publication, but to express our appreciation of the many courtesies extended to us, the younger journal, by our eastern contemporary, and hope that under a new business direction it will be not less successful than in the past. We are pleased to learn that the editorial management continues in charge of those who have done so much to advance it to the high position it occupies in architectural journalism.

AS indicated in our last issue, the architects of Kansas City have organized an association under the name of the Kansas City Society of Architects, the object being to promote the artistic, scientific, and practical efficiency of the profession, to encourage the study of kindred arts, and to correct unprofessional practices. The president is A. B. Cross; vice-president, S. E. Chamberlain; secretary, F. B. Hamilton; treasurer, George Carman and James Bannon; H. Probst and L. L. Levering, trustees. The society will meet every Saturday, and will discuss questions of interest to the profession. The association starts out with a membership of twenty-one. The place the architects of Missouri are destined to occupy in the history of western architecture is an important one. The state is full of live, energetic, intelligent men, who see the opportunity for leaving the impress of their energy and talent upon the building of the future, and the Kansas City Society, with their peculiarly well managed building department, and citizens who appreciate handsome and well built structures, will occupy a front rank in all that tends toward professional advancement; an influence that will reach beyond their city into the newer and less populated states and territories. We wish them every success, and that their society may increase in membership and influence as its enterprise so well deserves.

COMPETITIONS seem to possess a fascination for architects, particularly in this country, which it is hard to reconcile with their otherwise sound judgment, or to explain on rational grounds. It is not from any flattering blandishment in the "Notice to Architects" which usually advertises a proposed competition. A form or manner of invitation (?) more entirely void of compliment or courtesy to the members of a liberal profession, supposed to be specially qualified by talent, education and experience for the practice of a scientific and artistic calling, could not well be devised. Nor is it from the seductive liberality of the prizes offered as bait in these delusive schemes. Seldom if ever do the so-called "prizes" exceed one-half or one-third of the cost value of the services called for. Often they are so conspicuously meager as to raise a question why the promoters thought it necessary to offer any prizes at all. These schemes are equally unsavory in all other respects. With a uniformity which is monotonous, they have always and everywhere resulted in disappointment to all parties concerned, except occasionally to the successful competitor, and in some rare cases to the owners also. Seldom are they unattended with serious loss to most of the participants, with suspicions more or less well founded of fraudulent practices.

THERE is too often a favored competitor in the background, or the promoters are deceived by false estimates of cost, or delusive perspectives, or by other classes of falsehood, or lobbying is resorted to, and corruption more or less gross. In these and countless other ways, the decision is won so often by the least meritorious design that modest and honest merit has no chance of success. It would not be difficult to show that the promoters of competitions also suffer disappointment quite as often as the architects, and their losses are as much greater as the cost of buildings exceeds that of the plans; but this must be reserved for another occasion. The only safe rule for both owner and architect is to beware of speculation. Let owners be content to pay for services wanted, and let architects be content with

work that is to be paid for. The latest noteworthy event in the way of competitions is in connection with that for the new City Hall at Richmond, Virginia. The advertisement, prizes, limit of time, terms, etc., are of the usual inadequate, irregular, vague order. Therefore, the editors of *The American Architect and Building News*, with a zeal worthy of greater success and more hearty thanks, undertook to "bear a hand" in the mutual interest of both owners and architects, and put this competition in such working shape that it might elicit designs from the better class of architects, and the competitors might be insured fair treatment. Accordingly they published a call to all of their architect readers to write an agreement that they would not compete for the Richmond City Hall under the arrangement advertised, but would compete, if requested, in case the terms were properly modified. They then opened a correspondence with Richmond authorities, inviting them to make certain necessary changes in their terms as an inducement for these architects to submit plans. One of the changes was to be an extension of time, and there were some other suggestions which would have been advantageous to both sides.

THE scheme was well devised, and ought to have succeeded. We regret to say it miscarried at both ends. The number of architects who responded to the editors' request in their behalf was not overwhelming, and the authority of Richmond, which in this regard appears to be singular, consisting solely of the city engineer, declined to accede. We confess that our regret is greater than our surprise. It would not be strange, however, if these editors should conclude that they had rather over-rated the disposition of American architects to coöperate for the common good in an important matter. Probably many were too busy for immediate reply, and forgot it afterward; and it is possible that some thought the chances of success too dubious for them to take any interest in it. On the Richmond side the reason alleged for declining the proposition was unique. It was, briefly, that "several hundred" (?) architects had already responded to the advertisement of the competition, and that to extend the time as desired would be "manifestly unjust" to those architects who had already begun their drawings. This appears to show conclusively that the world moves even in the most unexpected ways, for when before, in a competition, was any regard ever expressed to the architects? Were we prepared to set up for experts in rhetoric we should remark that the statement of "several hundred" architects having responded bore a strong resemblance to hyperbole. But there seems no doubt that a number of replies from architects, so called, have been received, and evidently there is a confident expectation that there is going to be an avalanche of plans.

IT is to be regretted that when architects enter into competition they so often develop a capacity for trickery which would discredit the heathen Chinese. A Western city, not a thousand miles from Chicago, was recently the arena of the following delusive, if not sharp practice. Several school houses were to be erected, of an aggregate value of \$50,000. Three architectural firms, A, B and C, who practically monopolized the local talent adequate to such service, held a preliminary caucus, and agreed that each should make a separate proposition for the work for a uniform price of three per cent. If this were for drawings, specifications and details, it would be nearly fifteen per cent below the schedule, and if for full service the discount would be forty per cent. A and B sent in their propositions as agreed, but C, evidently apprehending that the committee would be embarrassed in their decision if his note should be identical with

A's and B's, thoughtfully added an appendix, codicil or post scriptum, that he would lump the whole for \$1,000 even money. With this assistance the committee were enabled to see their way clearly, and promptly awarded the work to C. Meanwhile A and B are comparing notes, and berating themselves for their confiding simplicity in trusting to C's honor, etc., etc.

OUR correspondent, to whom we are indebted for this account, asks if our Western Association would be competent to deal with and repress such duplicity. We regret to say that our lasso is yet too short to reach unruly architects outside our membership, as in this case; and we would hesitate to "guarantee a cure" even within our ranks, at least not within any given time. Competitions are inherently treacherous; they are pervaded by the principles of original sin, both in the owner who wants to get service without paying for it, and in the speculative architect who will work for nothing in the hope he may prove the lucky man. Still we may recommend the Association even for such cases. We believe that these competitions are the most frequent and reckless in those communities where there is the least organization among architects; and that where architectural associations are maintained in their highest perfection, there we find the least complaint of scandalous competition and cutting of schedule prices.

AN ordinance has been passed in St. Louis for the compulsory closing of wells in all parts of the city where the water falls below a certain chemical standard of purity. This is done as a prophylactic against Asiatic cholera, which is generally expected to make its appearance somewhere in this country as soon as the hot season is fairly inaugurated. The only severe epidemic of cholera in St. Louis was in 1849, when the number of deaths from this disease was sixty-eight to every thousand inhabitants. In 1866 cholera re-appeared with a mortality of eighteen to the thousand. In the first instance well water was the only kind obtainable in the city. In 1866 the cholera was most severe in the old and crowded districts where wells were the main dependence, and where they were most subject to pollution. It is said that there was no cholera in the newer and finer residence parts, where the supply was chiefly hydrant water. City inspectors are employed to visit wells everywhere and obtain samples of their water. These are subjected to chemical analysis, and if they disclose an excess of chlorine it is assumed that the wells are recipients of sewage pollution, and are unsafe for use, particularly in cholera times. About three grains of chlorine per gallon is the limit.

THE Citizens' Sanitary Aid Association has taken this work largely in hand, and in order to awaken public interest in the matter they have prepared and printed a warning to the owners and users of well water in St. Louis, with statistics and descriptions of the foulness discovered in some of the wells now used for drinking purposes. For example, water from a very popular well on a street corner in a densely crowded section yields, by analysis, over fifteen grains of chlorine to the gallon. Another well which supplies two large tenement houses and several smaller ones, has 36.33 grains of chlorine per gallon, more than twelve times the normal limit. These are compared with the water found in various sewers. One sample of sewage yielded 23.57 grains of chlorine per gallon, another 16.22, another only 7.30 grains, while a mixture of sewage from ten different sewers yielded 17.83 grains of chlorine per gallon. These are startling figures, and a natural conclusion would be that those who use the wells described would improve their

health if they would henceforth draw their drinking water from the sewers, which apparently receive less of the contents of their privies than the wells do. The people of St. Louis, however, do not all take kindly to this compulsory closing of their wells on their condemnation by a chemist, and they are holding meetings and making combinations to resist this sanitary measure. Although architects will naturally incline to the side of the city, as sustained by science, in contrast to the less enlightened and more selfish view of the anti-well closers, the latter have many and very fair reasons in favor of their position. It is noteworthy, in this connection, that no less an authority than Mr. Baldwin Latham considers well water, if cold and pure, to be preferable to hydrant water for diarrheal complaints. In towns and cities the water in the street mains soon becomes as warm as the ground itself, and this is generally followed by a marked increase in such diseases. In London they first appear in those sections where the temperature of the hydrant water rises first, and they become epidemic chiefly with those who use the warm hydrant water.

CLOSE upon the heels of the Buddensiek disaster in New York comes the report of a similar one attended by greater loss of life, at Brooklyn; and the western contractor is apt to point with scorn at these evidences of scamped work and sham construction, and say we have no such record as that. But he speaks too fast, in a degree, though a long and intimate knowledge of Chicago buildings and that of other western cities reveals no contractor that can in any way be ranked with those exceptional notorious ones in the East. It is true that there are many buildings of unsafe construction in Chicago, but these, with one or two exceptions, were erected directly following the great fire, when the rush to complete, the price of material and labor, and the demand for labor, compelled the employment of many unskilled workmen, to the great detriment of many of the buildings then erected. Since that time the popular prejudice against inferior workmen has thrown the objectionable contractors out of employment, and the main difficulty the city building department has had to contend with has been the acts of parsimonious owners. One building of four or five stories, erected three years ago on a prominent corner by a man who has earned an unenviable reputation for skin building, was built of old bricks, with shell walls, and though exposed by the daily press no action was taken. Another building, but less important, has been constructed from the old bricks taken from a block demolished to give place to an imposing office building, the owner, though a man of wealth, being notorious for the tumbledown and unsanitary condition of the larger part of his property. What we need in Chicago is a more strictly conscientious and vigilant building department, one which cannot be reached by "influence" or hampered by a law that does not compel work to be torn down when erected contrary to its conditions.

IN an article on sanitary plumbing in a late number of the *American Architect*, we find the following extract from Col. Geo. E. Waring's recent contributions to the *Century* magazine quoted with approval. Speaking of bathtubs, he says: "If we suppose the tub to be filled to the level of the overflow, and its wastepipe to be removed, the water will immediately rise in the overflow-pipe to very nearly its height in the tub." Col. Waring's brilliant and forcible writings on sanitary subjects have done much to arouse public sentiment and to interest people in needful reform, and we believe we have never before had difficulty in following him. But in this matter of bathtub overflows, we must admit he travels too fast for our halting Pegasus (assuming always that it is of

ordinary bathtubs he speaks, and not of some special fixture). Were the wastepipe to a bathtub closed up, or were the hole in the bottom of the tub without a strainer, or were it materially larger than the wastepipe below, we would expect the water to rise as described in the overflow-pipe as soon as released by removing the plug in the tub.

BUT the wastepipe is free, smooth and without obstruction to the flow, except that due to friction and the slimy coating which sometimes forms, and occasionally to the very slight water seal of a separate trap. On the other hand the tub outlet is guarded by a strainer with six or more divisions which, even when clean, reduce the actual discharge area by nearly or quite one-half, beside materially neutralizing the pressure head of the flowing water. These strainers are rarely free, also, from bits of soap, lint, threads, etc., which gather on them and hang in festoons below them, until they often entirely close the outlet. Such is the ordinary arrangement and condition of the discharge outlet to bathtubs. While not disposed to dispute a statement, if based on ample experiment, that under such circumstances the water rises in the overflow-pipe as described, we admit that, *a priori*, we should consider that the discharge through the strainer would do well to fill the wastepipe full bore without any pressure on its upper surface. Very often, we suspect, it runs not more than three-quarters or two-thirds full. Of course there can be no rising in the overflow until the wastepipe is too small for the stream flowing through it, and which therefore not only fills it full but produces an internal pressure in the pipe, the amount of which can be measured by the height of the water column it sustains in the overflow-pipe.

A FIRE occurred in the Lindell hotel at St. Louis on the 28th of April last, which threatened for a time the entire destruction of the building, and placed in imminent peril the lives of its occupants. This hotel is one of the largest and finest in the country, six stories high, constructed of stone and iron according to the best methods in vogue twelve years ago, and cost, exclusive of the ground, \$612,000.00. The fire is supposed to have originated in rubbish in a storage room in the basement, and was probably incendiary in its origin. A wooden tube forming a casing for certain wires from the basement to the upper floors, carried the flames to the roof, which was partly burned away, together with the adjacent portion of the sixth story. The whole of the office portion of the rotunda was burned and fell into the cellar, when the fire department succeeded in checking the flames.

THE first Lindell hotel at St. Louis, burned to the ground eighteen years ago from a rubbish heap in the cellar, if our memory is correct. The first Southern hotel in the same city burned in the spring of 1877 from a blaze in the storage room in the basement. Now this hotel has again been in flames, narrowly escaping total destruction, and the total destruction of the Langham hotel in Chicago, recently, was from the same cause. It begins to look as if the only way to prevent splendid hotels from being destroyed by fires originating in their storage rooms will be to compel the managers to adopt these rooms for their sleeping apartments, or at least making them amenable to criminal process when a fire occurs. Under the *Code Civile* in France the tenant is made answerable for a fire which occurs on his premises, and can escape only by proving that it was due to no fault, imprudence or negligence on his part. Moreover a landlord or tenant on whose premises a fire occurs is liable to his neighbors for all damages from the extension of the fire. A good dose of such law, well administered and well followed up, would be a boon to this land of liberty in countless ways.

Hints on Building.

BY J. H. CARPENTER, A. & C. E.

ARTICLE III.—DRAINAGE OF FOUNDATIONS.

HAVING provided for all foreseen contingencies for the proper bearings for walls, it is now a duty to provide proper drainage that walls may not become soaked or undermined by water. It is a well known fact that walls draw water to them from what seems to be quite dry bottom, and by capillary attraction carries it into the basement, and from thence upward, until the whole house becomes affected with dampness—that dampness exists in almost every house is too well attested to be disputed, and has grown to be considered by many as a necessary evil. That it can be remedied when building, is also well known by architects and builders; but as it entails extra expense, which owners are unwilling to pay, the contractors are hardly to blame for omitting the necessary work—still it is as a rule best to notify owners of their danger from dampness, and leave it squarely with them to refuse the precautions against it. What seems to be dry soil when excavating is too often a delusion the spring rains dispel, by filling the cellar, unless some adequate outlet has been provided.

It is a custom with many to build a drain under the walls, but the labor is generally wasted, as the settlement of walls soon crushes it into a solid mass.

The drainage of foundation walls should be independent of all other house drainage, run to a proper catch basin, and connected thence to the sewer drainage; or what is better, if the grounds permit, that it have an independent run to some point beyond the building that is lower than the cellar bottom.

To obtain this drainage it is only necessary to extend the trenches for the footings a little wider, and fill the space formed with small broken stone, and cover it with straw and loam; or a pipe drain made purposely for it by all pipe manufacturers may be laid through it. All the water that collects will then be drained away, and the trench thus formed will be a barrier which will prevent dampness from making its appearance above the cellar bottom.

Owners are more often confronted with the necessity of providing artificial means for drainage, and do not have any of the natural formations of ground to assist them; and sometimes have in addition to provide for the neighbor's drainage which seeks its outlet through their cellars.

In the cities where an efficient sewerage system is in operation, drainage can be readily obtained by the systems which are pretty well known, but the greatest danger in using them arises from the careless way disconnections are made—by disconnections is meant the indirect methods of connecting the water with the sewer, by catch basins, air chambers, etc., that there may be no overflow of the sewer system into the cellars, and no danger from sewer gas. Where there are no sewerage systems, and the water can be conducted to some point lower than the cellar bottom, it is best to do it with a circular pipe, which is made in a small and large size, the smaller passing into the larger, which acts as a collar for it, and the joints of the former being capped with separate collars, in which is left an aperture of sufficient size to permit the entrance of drainage water—these being laid at the bottom of a ditch can be connected readily with trains of pipe from different directions.

Attempts have been made to use a combination tile, which provides for sewerage and drainage by different compartments; but it is so liable to accidents, and the sewerage sifting through, that we advise strongly against their use.

If possible to obtain an outlet of any kind for the water, we would advise the drains we treat of to be placed at a depth of three feet below the cellar bottom. The work of surface drainage is a part of sanitary science, and it is of the greatest importance to examine into all the surroundings of every house that we build, it being well proven that we are largely responsible for much of our own sickness, and of premature death, by the neglect of the commonest of known precautions. Every person is vitally interested in this important matter affecting our well-being, and should each for themselves, when building, search out the proper information as to what is best to do, and do it heroically, even if the pocket-book suffers for it, as we believe it far better not to build a house which insures us our coffin with the privilege of using it.

A site which cannot be drained must be avoided as a plague spot, and got rid of.

Besides the examination of the surroundings, the subsoil should be bored into and proved. A high water level in the ground affects the air below a building, which becomes damp, impure, and positively poisonous by absorbing gases—carbonic acid, etc.—which is drawn into the buildings when they are heated by the rising circulation of air—which is also increased by closed windows and doors, excluding the fresh air above ground.

Dry soil, though the best to live on, also has dangers from gases, which sometimes travel considerable distances by the absorption process; but this can be cut off by thoroughly concreting the cellar bottoms, and coating with asphalt. The necessity therefore arises for the exclusion of damp air by every resource known, and also the dry air from the soil.

It is customary for many to believe they can save these trifling expenses by not using the cellars, and by ventilation of the cellar, and many other unhappy delusions, but as such persons are indifferent to providing positively against the evil, they are too likely to be the first ones to grumble against the open windows for ventilation, when the first cold snap comes, and shut them with a bang, which means that every crack and shrinkage hole is, thereafter, to be the only means of escape for the fetid air their wives and family must breathe while they are away, and they themselves also at night when tired frames need fresh air to thoroughly refresh them for their labors.

(To be continued.)

Terra-Cotta.

BY W. H. JUNG.

PAPER READ BEFORE THE CHICAGO ARCHITECTURAL SKETCH CLUB, AT ITS REGULAR MEETING, APRIL 13, WITH A SYNOPSIS OF THE DISCUSSION WHICH FOLLOWED.

MY attempt to address you on this subject, I trust, will not be construed to infer that I believe you ignorant on the subject, but my endeavour is to formulate our present practice in manufacture that you may see the progress being made in this line of building material.

It is of course important that designers understand something of the methods employed in the manufacture of the various materials used in building. In fact, this knowledge is essential if economy is to be coincidental with beauty in design.

Every architect unconsciously acquires the main points regarding the handling of stone, wood, iron, and brick; but there are many branches of building work which they must investigate to learn its qualities, as they do not present themselves to the eye at every turn in building operations. And this examination must be frequent, as the processes of manufacture and development of uses are continually changing, and in no branch is it more so than in the manufacture of terra-cotta.

On good authority I can safely say the United States leads the world in the successful making of large straight pieces; and that it is possible to obtain here, at reasonable rates, work which cannot today be had in Europe, being notably the case with long strips of molding. This lead is not the result of accident, nor yet because of better workmen or material, but because of the careful sifting of methods, and constant application of ingenuity to solve the problems that arise.

Let us consider the three general processes or methods by which terra-cotta is put in shape for the kiln, so as to have a general idea of the various advantages and disadvantages under which the material can be applied at present.

Supposing we have the clay mixed and ready, and wish to start a modeled panel, say 10 by 10 feet. First, we prepare a frame enough larger than 10 feet square to allow for the shrinkage of clay both in drying and burning. We make this frame of wood, and as deep as we wish the bond of panel to be, put it in position on a strong easel or frame-work, taking care that the proper light is provided, and then fill this frame in solid with clay. We have now a large smooth surface of soft clay which will harden gradually, and on which the artist can sketch, model, and change until he has in the rough exactly what is wanted. At this stage of proceedings the joints are cut with long thin knives, and the designer notified to inspect the work. As soon as his approval has been secured, and all of his suggestions complied with, the work is ready to be finished by the artist. When completely finished, as far as he is concerned, special workmen lift the pieces one by one out of the frame, and hollow them out to avoid the danger of bursting in the kiln, as thick pieces sometimes will, as well as to save clay and forward the process of drying. There is now nothing left to do but dry and burn the pieces, and deliver them when they come out of the kiln.

The advantages of this system of preparing ornament lie in the marvelous rapidity with which the artist can work in soft clay, the opportunity of obtaining the approval of the designer, and making the changes his taste may direct, and in general, the peculiar finished and artistic appearance which the completed work shows, owing to perfect undercutting, and the free swing with which the artist has worked.

So perfect is this system, that indifferent stonemasons and woodcarvers frequently do most beautiful work in terra-cotta, being able to correct errors and experiment instead of having to stand by the first result.

The next general subdivision would be carved terra-cotta. It is a simple process. The partially dry clay works very quickly and easily so that no mallet or hammer is required, and simple woodcarver's tools can

be used. The effects obtained by this process are similar to stonework. The blocks are prepared in molds, with faces of sufficient thickness to stand carving. Here, again, there is a considerable advantage to the manufacturer, for although radical changes can not be made in the design, still any slips of tool or accidents of any kind can be corrected by sticking a little clay on the injured part.

And now we come to the mainstay of terra-cotta, the pressed or molded work. The molds are generally of plaster, and are not expensive. They are made over a model, also of plaster, with the ornaments, if any, modeled in soft clay and fastened to model with brads. The presser takes the mold, coats the inside with a proper thickness of clay, puts in partitions and cross partitions, and turns the whole over on a board of suitable size. Then by taking the mold apart and away the soft piece is left standing on the board to be carried away and dried.

Of course the most elaborate ornament or difficult molding is produced with scarcely greater cost than a plain piece of ashlar, so that to obtain the full advantage of terra-cotta it should be used for such work as is difficult to produce in other materials.

The molds, though not dear, cost something, and the designer should try so to arrange his details that each mold can be used in repetition on some part of the works at least four times.

The pressed work, if ornamental, can be finished to any point by artists; or the moldings and mechanical parts of piece can be turned out complete, and the ornamental portions carved before the piece gets hard. Indeed, should occasion demand, modeling can be superimposed on pieces which have been made in molds.

Such, in brief, are the methods now in use. I have tried not to burden you with descriptions of clay mining or mixing, nor in fact any of the points which purely concern manufacturers, and cannot come under the eye of the designer. All that he requires is a sufficient knowledge of the mechanical part to enable him to compare the manufacture of terra-cotta with other materials, and use its benefits to the best advantage. The designer must keep in mind the various factors of the result which he is aiming at. He knows well that each material has its place for which it is particularly adapted, and learns intuitively to discard some things and use others which he finds best adapted to his purpose. He cannot afford to waste time on anything which cannot be retained in the plans. He may be full of artistic longing to erect a building that shall be a monument to his skill as a designer, and yet have to content himself with a monument to his skill in cutting down expense. When he has such a problem in hand, soft finish, lights, shades, etc., are sour grapes to him (they have at times been sour grapes to all of us), but when opportunity offers how quickly the latest ideas are embraced.

How many manufacturers throughout the length and breadth of this country have only the quick appreciation of architectural designers to thank for their prosperity? In no line has this appreciation been more marked than in the case of terra-cotta, which, in the memory of every one in this room, has grown from a small beginning into an industry.

Terra-cotta men must not try to force the material where it does not belong. It has its place, but no more so than any other legitimate building material. They must not try to crowd out stone, wood, or slate, etc. Terra-cotta is not imitation stone, nor superior brick, nor a substitute for wood; it is a material with a definite positive rank, and its patrons and makers should try to see it used only where it can be used with dignity and to good purpose.

And now a word to sum up the disadvantages. They are now, in the present state of manufacture, simply two: 1st. Danger of delay in making; 2nd. Difficulty to obtain odd pieces at reasonable prices.

Forethought in letting contracts early enough, and rigid exclusion of the material wherever enough time cannot be given, will prove a sure cure for the first. The designer should unhesitatingly cut it out wherever time is too limited to obtain it properly made.

The cure for the second evil is easier, and more to the taste of manufacturers. It lies in the skillful adaptation by the designers of their work to terra-cotta, if that material has been decided on.

THE DISCUSSION.

In reply to questions, Mr. Junge explained further, that when making several small pieces which come together, it was usual to make them in a large piece and scratch the joints, to save expense in forming and handling; and if the small pieces were insisted upon, would charge extra.

Colors in terra-cotta to match stone is as easily obtained here as in Europe, but was not asked for, as the stone itself is abundant, and terra-cotta has been used for special work, and contrasted for effects. He did not believe stone and terra-cotta in the same color would come into general use, as the smoke in our atmosphere would soon discolor the stone and not affect the terra-cotta.

The differences between plain and semi-glazed terra-cotta he explained,

and the uses of the glazed work on fronts in contrast with the effects gained in the plain tints without glaze.

The difference in strength he elucidated in favor of terra-cotta, when it was good, and explained the practical tests for trying its quality.

Buddensiek, the "Skin Builder."

NEW YORK City has been afflicted for several years with a notorious "skin builder," called Buddensiek. The name, though not prepossessing, appears to be considerably the best part of the man. He claims to have put up more houses than any other three men in New York, and has, apparently, made it his cruel ambition to surpass all other skin builders known to infamy in the wanton depravity of his scamped constructions. Suit after suit has been brought against him for his murderous practices, but he has impudently defied the authorities to molest him, or to compel him to observe the requirements of the building laws.

This builder's latest achievement was the erection of eight five-story brick houses, on Sixty-second street, between Tenth and Eleventh avenues, of such inferior materials, and so shamelessly scamped, that they would not stand long enough to be finished. While the workmen were yet employed in them, they suddenly collapsed, and sank into their own cellars, a mass of ruins, so complete, that it is said a whole piece of timber could not be found in the entire row. This was in the daytime, in pleasant weather, and the houses had suffered no disturbance from any source; they fell down simply from their inherent inability to stand up.

Some thirty or more men were buried in the ruins, one was killed, twenty suffered injuries, more or less severe, and at last accounts ten or more were still missing. These houses were intended for two families on each floor, or eighty families in all. It is shocking to contemplate the probable consequences, had these buildings held together long enough for this Buddensiek to get rid of them, and to be fully tenanted. We must be thankful that for once he has overreached himself, and brought about that suspension of his deadly business, which the authorities of New York have shown themselves unable to accomplish after years of effort.

The evidence before the coroner shows that bricks and bats of bad quality were used, and in insufficient quantity, also poor lime, and not enough of it; and that in place of sand for the mortar, clay and loam were substituted from the cellar excavations. It is said that but one load of sand was ever brought to the premises, and that this was never used, but dumped on the street as a blind to the inspectors. The thin walls were built five stories high, of poor bricks, laid in mud, which froze, and held them in place during cold weather. Had the cold but lasted longer, or had the builder worked faster, the houses might have been finished and occupied before the warm weather came. As soon as the walls were thawed out, they fell in ruins.

The New York papers are at loss where and how to locate the responsibility between one Haug, the reputed owner, Buddensiek, the various sub-contractors, the bureau of buildings, and the city inspectors. This embarrassment is inevitable in the present condition of our building laws, and is one of their most serious defects. The *Graphic* inquires how it is that Paris, Berlin, and Vienna are so much better governed in these regards than New York, and surmises that there is need for a vast improvement at home.

This occurrence cannot be called an accident. It cannot be charged to ignorance, carelessness or mismanagement. The builder, his foreman, the sub-contractors and the journeymen all knew they were perpetrating a shameless fraud in the buildings they were erecting. They did not know to a certainty that the houses would fall before they could be finished. Doubtless they hoped not,—hoped they might stand long enough to be occupied. But they knew the work was perilously unsound from cellar to roof, that it was contrary to the law, and a treacherous swindle throughout. They knew that it was liable to fall, and to involve innocent victims in pitiable sufferings and death. They knew all this, but, believing that they would not personally have to answer for the consequences, they cruelly concluded they did not care. So long as they got their money, they consented to help erect the man-trap for the maiming and destruction of their fellow mortals.

Had there been an honest man among them, or a man with a merciful heart, surely he would have refused to aid in such an atrocious enterprise, even for good pay. Surely he would have put the too incompetent and inefficient authorities on their guard, and thus helped to interrupt this deed of wickedness.

We hope to find opportunity some time for comment on the widespread lack of high principle among the working journeymen of our day, to which much of our defective building is due. We can only remark here that the bricklayer or the stone mason who helps to build walls with mud for mortar, is either a fool or a rogue, who ought not to be allowed to practice his dangerous calling at all; and the same of all other workmen who will lend themselves for hire to the execution of work they know to be perilously scamped.

If these men did not know that mud was unsafe for mortar, they ought not to receive employment as competent mechanics; if they did know it, they belong in the penitentiary. We consider that every one of them is morally responsible for this accident, and for all the more deplorable results that might have occurred had the houses been done and tenanted; and it will be a great advance in the interest of good building, when, if possible, a means can be devised for making such workmen civilly and criminally responsible.

There is another class of men, not mechanics, whom we believe an impartial and just tribunal will not acquit of moral responsibility, at least, for such offenses as this. We read, "the lawyers made every effort in their power to override and intimidate coroner Martin" in his preliminary investigation.

We know there is a maxim, stoutly asserted by a portion of the legal profession, that a lawyer is at liberty to resort to any and all means in his power to assist the client who employs him. While we cannot believe that such a depraved principle has the support of the best men in that profession, there is not, to our knowledge, any pronounced condemnation of it even by them. Where, we ask, is the difference in moral responsibility between the mechanic, who for pay builds a five-story wall of soft bricks and mud, which he knows must fall sooner or later, and very likely kill some one, and the attorney who, likewise for pay, makes every effort in his power to enable the skin builder, who originated and carried out this wickedness, to escape the punishment which he most richly deserves, and which the law provides?

It is well, indeed, that even a murderer shall be convicted according to law. No fault will be charged upon the lawyer who assists a client, however depraved, to a fair trial. But there, certainly, the license of lawyers should stop. When they pass this limit and seek, by trick and stratagem, by deception and intrigue, to protect a known offender from the just penalty of his crimes, to overawe and intimidate a coroner in the discharge of his sworn duty, and to obstruct the course of justice, as in this scandalous case, then is it not the duty of honorable men, leaders in the legal profession as lawyers and as citizens, to repudiate such knavery, and hold up to deserved reprobation the shysters who practice it?

But for such lawyers doubtless this Buddensiek would have been arrested long ago, in his dangerous business, for we are informed that suits have repeatedly been brought against him. Doubtless, also, he has counted on such lawyers to shield him from justice in the future as in the past, and so has continued his disregard of the building laws. Thus they become, for pay, the accomplices of the worst offenders, and, by their readiness to shield from punishment, they constitute as dangerous an element in the community as the criminals who employ them.

Until there is a radical reform in this regard, it is vain to hope for safety by adding new building laws, and multiplying inspectors. A Buddensiek, with money, has ordinarily but little to fear from the law.

Ceiling Decoration.

(Illustrated by Drawing.)

BY J. H. CARPENTER A. & C. E.

THERE has been no time in art history in which ceiling decoration has not been of great importance, and the range of fancy has been over the whole circle of form and style that human genius has invented. Of all the interior surfaces of partitions the ceiling has been preferred for all delicately executed decoration, for the reason that it is not subject to the injury of wear and tear of side walls, and the effects of harmonies in color and design are not easily detracted by the after additions of furniture to the rooms and pictures or draperies on the walls. While the side walls have, as a rule, been finished with a certain regularity of design and quiet coloring, in order that the eye may not be fatigued or drawn away from the pictures and arranged *bric-a-brac*; that it may serve its purpose as a back ground faithfully, and as a medium of tint that acts as a halo around the fine work the ceiling displays, while, on the other hand, the upward glance to it being less frequent, admits of lively coloring, fanciful sketches, and effective modeling. The substitutes, paper hangings, carton-pierre, etc., and imitative work, require a careful consideration, and give unquestionably good effects if the simple principles of true treatment are strictly adhered to and the architectural development followed, as has been always done in all periods when sound art prevailed.

The constructive ceilings, and the intersecting or groined vaulting, which, with their projecting ribs have prevailed before and are revived continually, form within themselves the simplest and most typical decoration; in some periods the added decoration of color and form have been made to ignore these constructive features, while in other periods and now, the paneling formed is caused to harmonize and appear to be the principal decorative features, and the contrast has enhanced the effect. The structural parts have been decorated profusely at times, as in the

decorated Gothic styles, but now the preference is for the marks of age and stains of rust, which cause the blended gray effects which charm so many to repeat the construction in hope of obtaining them as an added boon, which cannot be added by imitative art, and the principal cause of distaste has been the failure of results in trying to obtain them by other means.

In the Italian styles, ceiling decoration, with its lightly marked ribbing and broad paneling, reached the highest artistic point in the rich displays of color and the enhancement of gold, which modern art effects to despise in the combination of somber grays, which in themselves are appropriate where the surroundings require it; but two often neither the one nor the other is followed truly, and the effects of the lower tone of grade is enhanced by the borrowed plumage of the other, either consciously or unconsciously, and we find upon examination and comparison the best productions in our theaters, saloons, halls, etc., make free use of the motives of the Italian renaissance simply because it is the most natural and appropriate form for our modern wants and customs. Though claimed that the Indian and Oriental styles are quite sufficient for themselves, and are the best substitute to follow in with our modern ideas of decoration, pictures are injured in their effects when hung; and where these kinds of decoration are used the pictures are consigned to the easels, showing us too conclusively, that while appropriate for rooms having *bric-a-brac* and furniture only, or having large surfaces to be decorated, that in them we have not found a substitute that will let us have our valued pictures placed just as we have been accustomed to have them.

We do not, from our standpoint, intend to disparage the modern art theories, but the rather to encourage the growth, and show by our criticism there is a fitness of things to be followed if we wish to accomplish our wishes, and the suggestions leave the arguments open to the exponents of both styles to draw their conclusion in favour of their preferences; but we do object to the random use of one with the other without due consideration being taken as to final results when the rooms are furnished and occupied. Decoration in relief work the beautiful embodiment of glancing lights and shadows, appropriate in all of the present styles of architecture, will hold its own with us for time to come; but the spirit of the later design is so rapidly adding the combinations of the Italian, that I feel in it we should avoid the servile imitation growing into art, and work out the originality inherent to us, and show it in our work of design—adapting our purposes and material as a first principle, giving liberal applications of ideal views, and set forth our individuality. The rich sources of new combinations are not yet exhausted; the rythmical play of forms and lines shows still the same infinite variety as of old; the eternal laws of beauty will lead us to success if we but throw away the traditional forms of dead styles; take the good wherever we find it, and assimilate it with our ideas, and will make us original and successful in pleasing all critics.

Architectural Journals.

THE report of architects O. P. Hatfield and Henry M. Congdon, the special committee of the American Institute of Architects on architectural journals, appointed March 18, ult., has been received. They "congratulate the Institute and the profession on the number of of excellent serials published in the interest of architecture and its kindred arts." The publications the committee found particularly worthy of mention are *Building*, *Carpentry and Building*, the *Builder and Wood-Worker*, the *Decorator and Furnisher*, the *Sanitary Engineer*, the *Plumbers' Trade Journal*, the *Hydraulic and Sanitary Plumber*, of New York; the *Journal of the Franklin Institute*, of Philadelphia; the *Cincinnati Building Review*, of Cincinnati; the *INLAND ARCHITECT AND BUILDER*, the *Sanitary News*, and *Building Budget*, of Chicago; the *California Architect and Building News*, of San Francisco; the *Builder*, of Holyoke; and the *American Architect and Building News*, of Boston.

In regard to the *INLAND ARCHITECT AND BUILDER*, the committee report as follows:—"At Chicago is issued the *INLAND ARCHITECT AND BUILDER*, a publication of very high character, well illustrated, ably edited, and the organ of the Western Association of Architects. Its full-page illustrations are published upon separate sheets, and are generally artistically drawn and printed; they consist of perspectives and plans of local buildings—of which there are many very fine examples—and of various proposed and completed structures in the very extended area of the great West. The noted prominence of Chicago as a commercial center has made it one of the wealthiest cities of the western states; and naturally the result has been an unexampled activity in building enterprises of all kinds, but more especially in those relating to business requirements. Immense office buildings, exchanges, club houses, railroad stations, grain storage buildings, etc., have been erected and are now in process of erection, and afford valuable opportunities for the exercise of the local architectural skill. By these the resident architects have not failed to profit, and altogether a very prosperous condition of affairs has resulted for most of the local offices. This enlarged activity has created a demand for a home medium for the discussion of contemporary designs, and the advertisement of the most improved devices in house building appliances, and in the various materials of construction. This demand has been fully met by the Journal above referred to, which now lacks little of satisfactory acceptance.

Association Notes.

MEETINGS.

WESTERN ASSOCIATION OF ARCHITECTS.—Convention will be held November 11, 1885, at St. Louis, Mo. Regular meeting of directors at Chicago, April 17, at 4 P.M.; August 7, at 4 P.M., and at the Southern Hotel, St. Louis, Mo., November 9 and 10, at 2 P.M.

ILLINOIS STATE ASSOCIATION OF ARCHITECTS meets the first Saturday of every month, at 15 East Washington street, Chicago.

MISSOURI STATE ASSOCIATION OF ARCHITECTS meets at Kansas City on the second Tuesday in January, 1886.

KANSAS CITY SOCIETY OF ARCHITECTS meets Saturday afternoons of each week. Annual meeting second Saturday in April, 1886.

The ARCHITECTURAL ASSOCIATION OF IOWA meets second Wednesday of August next—place decided by the Board of Management.

The ARCHITECTURAL ASSOCIATION OF MINNESOTA meets first Tuesday of the month, at Minneapolis.

The ARCHITECTURAL SKETCH CLUB, of Chicago, meets every alternate Monday; temporary quarters, Builders & Traders' Exchange.

The WESTERN SOCIETY OF ENGINEERS meets the first and third Tuesday of each month at 4 o'clock P.M., at 15 East Washington street, Chicago.

The MASTER PLUMBERS SOCIETY, of Chicago, meets first and third Wednesdays of the month, 7.30 P.M., at 15 East Washington street.

ILLINOIS ASSOCIATION.

At the meeting of the Illinois Association of Architects, May, 2, in the absence of President Boyington, First Vice-President Adler occupied the chair. After the usual lunch (which, by the way, is unanimously praised by the entire association because of its exceptional success, from a catering standpoint), Mr. Root, chairman of the executive committee reported the lease of temporary quarters at 15 Washington street at a small rental, and that the arrangement was such as to allow the association to better themselves at any time they felt so disposed. That the association had been incorporated under the law of the state, and received its charter. That the next meeting will be given to the discussion of professional practice with prominent owners; the following monthly meeting to be occupied in a similar way by contractors; and the third by the architects themselves in discussing the different points brought before the architects in the two previous meetings.

The members then proceeded to discuss, in a general way, the custom of posting bids, different views being held on the question whether to post at once after the contract is let, or not at all; but this subject was abandoned, it being thought best to leave the question until after the meeting with the contractors; and a general talk upon the validity of an architects decision was indulged in for the remainder of the sitting. Upon the question, Should an architect's decision always be final? or, Should an appeal be taken before a committee of arbitrators, or before the courts? and the general opinion evidenced was, that a standing committee would tend to influence an appeal from the architects decision upon the slightest occasion, and that for this and other reasons an architects decision should be final, and the only appeal from it should be direct to the courts. It was brought out in the discussion, in which architects Adler, Ketcham, of Indianapolis, Ind., Clay, Burnham, Sullivan, Root, and others took part, that the arbitration of committees would not be taken in many cases; that the courts of Indiana held that the architect bears the same relation to his client as the lawyer does to his, and can determine the value of work; that if the question be left to a committee that it is an evidence that the architect is not firm in his position; that in a majority of cases the architect can still dispute without trouble; that it would injure the younger men to have their business interfered with by a committee of older architects, and would give them a disagreeable duty to perform and make enemies, and in a case cited the architect was held for damages for poor work. This led to considerable discussion upon skin building, of which several instances were given, and it was shown that however honest the contractor was, he was obliged to use the utmost vigilance, or his workmen would fill the piers with bats, or run uneven courses of mortar, or project studding into the chimneys, etc.

The meeting was attended by about forty architects; the visitors being Architect W. L. Ross, of La Harpe, Ill., and W. H. Ketcham, of Indianapolis, Ind.

CHICAGO ARCHITECTURAL SKETCH CLUB.

At the meeting of the Chicago Architectural Sketch Club, held April 27, the names of twelve new members were announced; a few sketches of entrance-ways were presented. The sketch by Mr. Williamson was voted the best. A humorous burlesque, entitled "An Entrance in German Renaissance," by J. H. Carpenter, created some amusement, and received the second place. Remarks were made by the president on the character of entrance-ways, their relation to the design of the building, and the use of symbolism as a decoration appropriate to the character of the building, followed by interesting remarks by Mr. Beaumont and several others on the subject of the evening. The next competition was announced as a sketch for a hall mantel for May 24. The invitation presented to members of the club to compete for three prizes to be given for the best three designs for a mantel by Henry Lord Gay, of the Permanent Exhibit and Exchange, was accepted by the members individually, and further time was given until May 18. The mantel is to be constructed of brick with a fireplace opening five feet wide. The sketches are to remain the property of the club.

At the meeting on May 11, an interesting paper was read by Edward Dewson upon "Stained Glass," which will be produced in this journal next month. It should be understood by members that the sketch club is thoroughly cosmopolitan and its membership is open to anyone who can fill the requirements of the constitution and by-laws, and that each drawing presented in competitions must be under a nom de plume. At the close of this as well as other meetings, a unanimous vote of thanks was

passed to the Builders and Traders' Exchange for their courtesy in giving the club the use of their rooms.

MINNESOTA ASSOCIATION.

At the monthly meeting of the Minnesota State Architectural Association, May 5, a communication was read from the Boston Chapter of the American Institute of Architects in regard to the Stockslager bill, now pending in congress, relative to the duties of the supervising architect. The communication was referred to a committee, consisting of Messrs. Goodwin, Whitney, and Treherne. J. W. Kelly and W. A. Hunt, of Minneapolis, were proposed for membership as fellows. A communication was read from G. D. Marble, of the bricklayers' union, asking architects to separate contracts for brickwork. No action was taken. There was a general discussion concerning professional charges and competitions, followed by a paper by Mr. Treherne on "Architect's Certificates," and another on "Primary Elements of Use and Construction in Architecture."

KANSAS CITY ASSOCIATION.

The Kansas City Society of Architects has been organized during the past month. The objects of said society are "to promote the artistic, scientific and practical efficiency of the profession, to encourage the study of kindred arts, and to correct unprofessional practices. Its officers are as follows: President, A. B. Cross; Vice-President, S. E. Chamberlain; Secretary, F. B. Hamilton; Treasurer, Geo. Carman; Trustees, Jas. Bannon, H. Probst, L. L. Levering. The society meets every Saturday afternoon, the annual meeting to be held the second Saturday in April. The initiation fee is fixed at \$5.00 and dues at \$1.00 per month. The society now has twenty-one members. It is proposed at each meeting to discuss questions of interest to the profession, the president to appoint some particular member to open the debate, such appointment to be made two weeks prior to the meeting at which the proposed question is to be discussed. It is hoped that by this means the interest in the meetings will be maintained and a large attendance secured at each meeting.

CHICAGO CHAPTER A. I. A.

The Chicago chapter of the American Institute of Architects held their first meeting in several years at the Grand Pacific Hotel last month. It was in the form of a banquet, about a dozen architects being present, L. D. Cleveland presiding. The officers elected at the last meeting of the chapter, August Bauer, president; L. D. Cleveland, vice-president; Jas. R. Willett, treasurer; Samuel A. Treat, secretary, were reelected for the coming year.

CINCINNATI CHAPTER A. I. A.

At a meeting held April 28, the Cincinnati Chapter American Institute of Architects, resolved to indorse the action of the Boston Chapter, A. I. A., in reference to the Stockslager bill, in the House of Representatives, reorganizing the office of the Supervising Architect. A communication from the Master Plumbers Association, of Cincinnati, mainly in regard to the abolition of subletting plumbing work, was received, the letter showing in considerable detail the many evils of the system. The architects professed themselves in full accord with the plumbers in the matter, and stated their desire to coöperate with them in bringing about the desired result.

WESTERN SOCIETY OF ENGINEERS.

The regular meeting of the Western Society of Engineers was held May 5, at No. 15 Washington street. In the absence of president Williams, Mr. S. G. Artingstall was chosen to preside. An application for membership was received from Julius Merriam Howells, assistant engineer, of Richmond, Indiana. A letter from H. G. Prout, secretary of the general association, stated that members could select any books they desired from the list of John Wiley & Son, at a discount of twenty-five per cent, in return for advertising in the association journal. It was decided that the report of the committee on topics for papers, which was presented to the society at its last meeting, should be printed in the *Journal*. Mr. A. W. Wright read a paper, entitled, "What is the best Material for Rails for Street Railways?" in which he gave technical and scientific reasons, based upon experiments made with steel and iron rails, why he should hesitate to recommend steel rails as being best for street railways.

CHICAGO PLUMBERS' ASSOCIATION.

The regular meeting of the Chicago Association of Master Plumbers was held on Wednesday evening, the 6th inst., at the new quarters, No. 15 Washington street, president Baggot in the chair. Mr. McCarthy, of Kansas City, a visiting member, made some remarks upon his former association with Chicago plumbers. It was decided that Thomas O'Malley, and not Joseph E. O'Malley, was elected a delegate to the St. Louis convention.

The sanitary committee, Mr. Robert Griffith, chairman, made a report, in which they called the attention of plumbers and the public in general to the neglect of house cleaners in the matter of sewer traps, water-closets, etc., and the habit of throwing old rags, bottles, etc., into the recess under the washbowls, all tending to make houses unhealthful. In addition to this report Mr. Young moved that it be recommended to place as little wood as possible around water-closets, which was accepted.

On motion of Mr. Young, the representatives of the press were invited to be present at all sessions, and all parts of sessions of the associations.

President Baggot asked that all who intended to prepare essays, to be submitted to the association, to be read at the St. Louis convention, have them ready at the next meeting. The subject assigned is "The Manufacturer and the Plumber; Are Their Interests Mutual?"

Mr. Young read a communication from Mr. J. A. McDonald, of New York, concerning the relations of the New York plumbers to the Baltimore resolutions, in which he also stated that he would be in Chicago next month.

On motion of Mr. Young, a committee was appointed to receive visiting delegates while on their way to St. Louis, next month, the opinion being expressed that the Chicago plumbers would do all that lay in their power to return the compliments of hearty receptions which had been tendered them in their eastern trips. The following gentlemen were placed on the

reception committee: President E. Baggot, chairman; T. C. Boyd, A. C. Hickey, P. Nacey, S. J. McGraw, M. J. Reilly, P. Harvey, J. J. Clark, J. S. Bassett, Wm. Bowden, Jacob Webber, and Frank E. Ruh. The extent and character of the reception was left to the discretion of the committee.

The dues of members of the association will be twelve dollars after June 1, 1885.

Our Illustrations.

Designs for ceiling decoration, by J. H. Carpenter.

Kemper Hall for Griswold College at Davenport, Iowa, by Edward S. Hammatt, architect.

Two houses for J. K. Barry on Washington boulevard, Chicago, by J. J. Flanders, architect. They are of pressed brick and terra-cotta. Cost, \$18,000.

Sketch of entrance-way, by W. G. Williamson. This sketch received the first place in the late entrance-way competition of the Chicago Architectural Sketch Club.

Residence for C. F. Mullins, San Francisco, California, by W. W. Boyington, architect, Chicago. This residence was originally designed to be built at Highland Park, Illinois, for the same party, but finally erected in San Francisco. It is frame, inside finished in white pine, in the natural wood, and cost \$8,000.

Remodeling of McVicker's Theater, Chicago, Adler & Sullivan, architects. The changes now being made in this property are of a most thorough and comprehensive nature, involving radical alterations in both office building and theater; and the erection of an entirely new four story building, completely separated from the theater, to receive boilers, pumps, engines, dynamos, fans, etc.; and to provide space for storage of scenery, and accommodation for stage carpenter. The office building will receive two additional stories, and will be subdivided into well lighted offices, supplied with modern conveniences. The elevator entrance will be on a level with sidewalk. The main entrance vestibule of the theater is to be widened; there will be two ticket offices, to provide at the same time for current and advance sales. A brick proscenium wall will separate the stage and auditorium. There will be twelve proscenium boxes, and a large sounding board. That part of the main ceiling immediately over the gallery will be raised, and the gallery extended. To provide for the additional seats thus gained, five new exits will be cut through the outer walls, and the outside iron stairways extended. Retiring rooms will be provided for all parts of the house. The seating of the house will be so arranged that every aisle leads directly to an exit. The incandescent electric light will be used for purposes of illumination; there will be no fixtures, the lamps everywhere appearing as part of the general scheme of decoration, which will be rich and elaborate. Both office building and theater will be heated by steam, the auditorium by indirect radiation. The ventilating apparatus comprises pressure and exhaust fans, filter, steam coil chamber for winter, and ice chamber for summer use. All of this apparatus, except the exhaust fans, will be located in the fourth story of the new building above referred to. The fresh air, taken in at a height of 60 feet above the ground, is drawn through the filter and the steam coil or the ice chamber as the case may be, and is forced into the auditorium through pipes opening at various points in the ceiling. The exhaust is through openings in risers of floors, suitable collecting chambers, and large ducts, from these to the fans located in the space between ceiling and roof, whence the vitiated air is blown through a duct leading out through the roof. The fans will be large, slow running, and noiseless. It is intended to completely change the air in the auditorium every 15 minutes. The parquet, dress circle, and balcony will be rescaled with opera chairs of novel design and fine finish. The first five rows of gallery will also be scaled with opera chairs, some of the old chairs being used for this purpose. Work was begun at the building, April 1, 1885, and the house will be opened to the public, June 22, 1885. The estimated outlay is \$115,000.

New Publications.

CATALOGUE OF CHICAGO MASTER PLUMBERS ASSOCIATION, LIBRARY. 1885.

This catalogue is gotten up in excellent shape, well printed on a heavy tinted paper, etc. It gives the by-laws and rules governing the library, and contains a list of over 500 valuable books of reference adapted to the wants of the plumber and sanitary engineer. It has been carefully compiled and the selection of works represents the almost uninterrupted labor of one of the societies most active and intelligent officers for several months, and in its results form a well laid foundation for a great and valuable library.

CATALOGUE OF CHAMBERS BROS. & CO'S LATEST BRICKMAKING MACHINERY. Philadelphia. Ninth edition. February, 1885.

In time for the commencement of the brickmaking season, these manufacturers of machinery place before the workers of clay a most complete description of their product, giving sizes, styles and prices with much additional information upon the proper methods for making clay for the different kinds of material manufactured. The best common brick made in Chicago, commanding a higher price than any other make, are from the Chambers machine; the machine being capable of an output of from 40,000 to 50,000 per day of ten hours. The value of this catalogue is indicated by the number of editions already published.

CATALOGUE D. The Bathroom Illustrated, also Fixtures for Laundry, Kitchen and Butler's Pantry. By the J. L. MOTT IRON WORKS, New York, 1885.

Although we have in the past been called upon to congratulate manufacturers upon the success with which they have produced catalogues for trade purposes, illustrative and descriptive of their wares, it is not often that so complete and handsome a catalogue as this comes up for notice in these columns. It is a large octavo bound in a heavy cloth cover, and contains over 80 pages of cuts. All of these are in the highest degree perfect, the larger portion being fine woodcuts, but not a few delicately colored lithograph are interspersed showing the tiling and colored porcelain work they represent to a perfection that can only be equaled by the object itself.

The catalogue is evidently designed for the use of architects to aid them in the selection of reliable plumbing goods, and as such should find a place in every architect's library. It gives the special points of superiority possessed by the "Imperial" porcelain baths which are of English importation, and are made for the J. L. Mott Company from special designs. They are glazed and are thoroughly non-absorbent. As several fine colored plates show they are made in various tints with ornamental tile borders. The celebrated valve closet "Demarest" is also illustrated and described, its merits being especially known, as it has been a favorite in the market for the past six years. The "Premier" is also a valve closet of wide repute. In other closets of more or less familiarity to the majority of architects, are the "Hygeia" the "Inodoro" and the "Triplex" all shown to good advantage by cuts and descriptive matter. In preparing so large a work as this the public, as a rule, forms but a small idea of the labor and enormous expense involved, and the exceptional amount of both expended in the one under consideration is extremely creditable to the widely known house, and fully represents their work, as well as the perfect reliability of their product.

Mosaics.

At the Directors meeting, of the National Association of Lumber Dealers, which took place at the Leland Hotel, May 14, Walter C. Wright of Chicago, was elected Secretary of the Association for the ensuing year.

CHARCOAL tin shingles, to be used where a durable fireproof or ornamental roof is desired, the pitch being equal to that necessary for the use of the ordinary shingles, are manufactured by the National Sheet Metal Roofing Company, of New York, with a western agency at Chicago. The seams of these shingles are locked and lapped in such a manner as to make the roof absolutely secure from the most severe storms.

CHAS. L. PAGE has again added to and beautified his Wabash avenue office and showroom. As the Chicago importer of Minton tile and the designer and manufacturer of mantels and grates, Mr. Page has long enjoyed the patronage of architects and citizens, as his work is conscientious and reliable; the addition of many artistic and convenient features to his showrooms being a part of his enterprise and desire to give to his patrons an intelligent idea of his mantel and grate goods before they are purchased. An attractive mantel for \$25 is Mr. Page's latest specialty, this being used to accommodate those who will not purchase more expensive mantels.

THE consolidation of the Open Stove Ventilating Company with the Raymond Furnace and Manufacturing Co., under the name of the latter, has recently been accomplished. Dr. A. R. Morgan organized the Open Stove Ventilating Co. in 1874, and the success which attended the enterprise was almost phenomenal. His long and practical experience on the subject of *ventilation* enabled him to apply the principle in a most effective manner to the stove as a *ventilator*, and as a result "Fire on the Hearth," the name under which the manufacture of this company was best known, sprang into universal favor, and is now in use in every part of the world, even in distant China and Australia.

THERE are enormous quantities of tin roofing plates used among the builders of the country, the D. T. roofing plates made by the Anglo-American Roofing Company enjoying a large share of the trade. These plates "dovetail" into each other by a center rib on each plate and are perfectly watertight and present an even and attractive appearance. They are made from the best charcoal iron and are coated with pure tin, especially for roofing purposes, and cut 15 by 15, laying 12 by 12 to the weather. The company manufacture several kinds of tin shingles, and the fact that they can be laid by any carpenter as readily as wooden shingles and are of reliable material gives them a wide demand.

SOME of the finest ornamental iron work in panels, grills, finials, railings, etc., as well as other architectural forms produced in this country is from the Hecla Architectural Bronze and Iron Works of Poulson & Eger of Brooklyn. Their artistic metal mantels are works of the highest value from an artistic standpoint, and their panels of oxidized iron are simply marvelous in their fidelity to the outlines of the objects represented. In this latter department they stand preëminent, and have given to the architect possibilities in ornamentation before impossible to attain. In Chicago a beautiful exhibit of this line of their work is found at the Permanent Exhibit and Exchange where it never fails to attract the attention of visiting architects.

THE Pyrographic Glass Company have just imported from Munich, Bavaria, a large plant of machinery and hands, and have located at 216 and 218 East Monroe street, for the manufacture of every class of ornamental glass, and also embossing on glass in different colors and shades by an entirely new process. Their headquarters remain in Munich, where they have been established for over three-quarters of a century, executing some of the finest work for the King of Bavaria's palace, and repeatedly taken medals at the London, Paris, Rome, Vienna, Munich, Philadelphia, Brussels, Melbourne and Chili expositions. R. W. Maxton, lately connected with Healy & Millet, has the superintendence of the Chicago branch.

THAT the world moves from an art standpoint as well as others is enforced upon the visitor to the elegant showrooms of Dibblee & Co. upon inspecting some new designs in Low art tiles arranged for grate and mantel use. These latest productions of those great American artists in tile are in the line of flowers so naturally reproduced as to astonish the most experienced connoisseur in ceramics. An attractive design representing a delicate vine of narcissus with flowers and leaves is produced with a perfect relief and undercutting not attained in any other tile. A snowball tree is noticeable for the fullblown natural appearance of the flowers, and a blackberry vine exquisitely molded is another of their latest accessions in the Low tiling. Henry Dibblee & Co. have earned the credit for largely introducing grate tiling in the West, the desire for this style of ornamentation having been started by them, and encouraged through the handsome and varied styles of these goods they have for several years been placing in the new structures erected throughout the West and South. That the use of tile is increasing is evident from the patronage this house enjoys.

Synopsis of Building News.

Alverno, Wis.—For Franciscan Sisters Society, four-story addition to convent school building, cost \$20,000; architect A. Druiding, of Chicago.

Bear Creek, Wis.—The Catholics of Outagamie county are building a church here at a cost of \$10,000.

Belleville, Ill.—St. Louis, Belleville, and Pittsburgh parties will build a \$100,000 mill for the manufacture of Bessemer steel, in connection with the nail mill at Belleville.

Billings, Mont.—The First National Bank building was destroyed by fire Saturday, May 2; loss \$40,000.

Bloomington, Ind.—Outlook fair.

Architect J. L. Nichols reports: For Richard Stevens, two-story ten-room frame dwelling, 48 by 52 feet, cost \$4,000. For Indiana University, chapel, 50 by 70 feet, for temporary use only, cost \$6,000; also brick boiler-house, 30 by 30 feet, fireproof, cost \$2,000. One-story frame dwellings, for E. Fuller and James Gilmore, to cost \$1,700 and \$1,900 respectively.

Bradford, Ill.—Outlook poor, very little being done.

Architect I. F. Hayden reports small work amounting to \$3,300 projected.

Chicago, Ill.—The building situation is improving slightly, though the continuance of the strike at the stone quarries not only makes foundation material scarce, but prevents contractors from figuring on new work. While the strikers have committed excesses such as to deprive them of a large measure of public sympathy, still the owners were, in the first place, to blame for allowing a strike to occur. Although the stone market was low, the demand of the men for \$1.50 until May 1, and \$1.75 afterward was not excessive, and the men were right in objecting to work for \$1.25 per day, especially as the quarries were out of the line of competition with the Joliet prison labor.

The plasterers have a strong trade organization, and are now working nine hours, with wages from \$2.50 to \$3.50. The carpenters are, as they always are, the poorest paid of all building workmen, considering the skill necessary. The general feeling among contractors is to employ good men, irrespective of their connection with trades unions, though these are so strong as to dictate and prevent non-union men from working in the majority of the trades.

The facts in regard to the leasing of the ground upon which the old city hall or "rookery" stands, are briefly, that Mr. E. C. Waller, a prominent real estate dealer, representing a number of capitalists, has leased the lot for ninety-nine years, at an annual rental of \$35,000 with no re-valuation. The contract with the city stipulates the erection of a building to cost \$1,000,000, and though the architect has not been definitely appointed, sketches have been drawn, and the statement may be made, that the structure will be ten stories in height, and the first floor on a level with the street.

New brick is being made, and will find market about June 1. This material has ranged from \$8 to \$9 during the spring, but will drop to about \$7 for the summer months.

In pressed brick the latest change is that of the Chicago Anderson pressed, which is now quoted at from \$22 to \$29.

Architect W. L. Carroll reports: For Mr. Gertsie, two-story and attic residence, brick and stone, 30 by 38 feet, cost \$7,000.

Architect Henry F. Starbuck reports: Five brick dwellings in course of erection, cost \$5,000 each. A large apartment house on the north side, brick, with cutstone trimmings, cost \$25,000. Also brick factory building, 100 by 100 feet, cost \$25,000.

Architect E. Bauman reports: For Thomas Biddle, five-story store and flats, Indiana pressed brick, with stone and terra-cotta trimmings, 47 by 110 feet, corner North Clark and Huron streets, cost \$28,000. For Gustav Fusch, two-story and basement dwelling, 20 by 43 feet, corner of Dearborn and North avenues, rock-faced Blue Bedford stone front, cost \$10,000; Smith and Goble, masons; Harrison & Pyne, carpenters.

Architect J. N. Tilton reports: For D. J. Cooke, two-story and high attic dwelling, 22 by 65 feet, pressed brick, with sandstone trimmings, cost \$5,500. For T. H. Hill, pressed brick dwelling, 18 by 65 feet, sandstone trimmings, cost \$6,000.

Architect F. B. Townsend reports: For C. T. Nash, two-story and high roof brick and stone dwelling, 30 by 72 feet, on Ashland avenue, corner of Harrison street, cost \$15,000. For A. B. Farrell, on Lake avenue, two-story frame dwelling, 26 by 45 feet, cost \$4,000. For H. T. Thompson, three-story brick and stone buildings, 32 by 45 feet each, cost \$20,000. For A. Lehman, two-story brick and terra-cotta dwelling, 23 by 65 feet, cost \$10,000.

Architects Wheelock & Clay report: For D. Harry Hammer, two-story and attic brick dwelling, 42 by 70 feet, cost \$18,000; contracts let: A. Biemelt, builder. For Sidney Frayer, two-story brick dwelling, 22 by 70 feet, cost \$5,000; contracts let: A. J. Hageman, builder. For A. J. Galloway, two-story frame dwelling, 20 by 50 feet, cost \$3,000; contract let: P. Roberts, builder. For O. B. Taft, two-story and attic brick dwelling, 30 by 60 feet, cost \$6,000; contract let: P. Mahoney, builder.

Architect L. B. Dixon reports: For W. A. Stevens, three-story building, 30 by 70 feet, Wabash avenue and 27th street, cost \$12,000; commenced: Fox & Hines, builders. For Gerhard Freeman, two-story residence, 51 by 30 feet, slate mansard roof; also barn, 30 by 52 feet, pressed brick, total cost of improvement, \$15,000; commenced: Michigan avenue and 20th street; Conrad Kies & Son, builders. For F. N. Mills, block of three houses, 50 by 67 feet, brick, with stone trimmings, cost \$9,500; commenced: on Vernon avenue, near 31st street; Fox & Hines, builders.

Architects Treat & Foitz report: For E. J. Lehman, two-story and basement dwelling, 32 by 50 feet, on Dunning street, brick and terra-cotta, cost \$5,000. For H. C. Parmlly, three two-story and basement frame cottages, 25 by 50 feet. For R. A. Keyes, three-story and basement residence, 27 by 86 feet, on Michigan avenue, near 12th street, cost \$15,000; John A. Wolf, carpenter; Falkeman Bros., masons. For Mrs. H. G. Stiles, three three-story and basement dwellings, 83 by 40 feet, brick and stone, cost \$14,000; E. Eamshaw, mason; W. F. Hall, carpenter. For Judge F. P. Redfield, two-story and basement brick and stone residence, 25 by 71 feet, cost \$6,000; John McGinnis, mason; Paul Bail, carpenter. For Oscar Smith, three-story and basement residence, 26 by 75 feet, to be built of artesian well stone, cost \$13,000; John Rancke, carpenter; J. M. Dumphy & Co., masons.

Architects Burgeois & Ostling report: For J. Lichtewthal, three-story and basement and attic dwelling, 25 by 50 feet, cost \$8,000. For Mr. Doerthy, two-story and basement dwelling, 22 by 50 feet, pressed brick with stone trimmings, cost \$4,000. For H. Sweet, double dwelling, 44 by 68 feet, three-stories, pressed brick with stone trimmings, cost \$15,000. For Mrs. Mahoney, three-story and basement and attic dwelling, 24 by 62 feet, pressed brick, with brownstone and terra-cotta trimmings, cost \$5,500. For J. M. Carlson, double three-story and basement store and flats, 41 by 100 feet, brick, stone and terra-cotta trimmings, cost \$20,000. For Mrs. Gailles, double three-story and basement dwelling, 42 by 50 feet, pressed brick front, with stone trimming, cost \$15,000.

Architect G. Isaacson reports: For F. A. Fletcher, at Evanston, frame residence, cost \$2,500. Contracts let for the Congregational Church building to be erected at Evanston. For D. H. Hayes, house at Normal Park, 22 by 42 feet, cost \$3,000. For S. H. Matheson, three-story and cellar and attic flats, 22 by 80 feet, cost \$7,500.

Architects Addison and Fiedler report plans completed for Mandel Bros. and Geo. Hovey Estate contemplating an additional story to store building on State street, cost \$23,000.

Architect W. L. Carroll reports: For J. M. Gartside, at Groveland Park, two-story and attic brick and stone residence, 32 by 50 feet, cost about \$7,000.

Architect Henry F. Starbuck reports: Five brick dwellings in course of erection, cost about \$5,000 each. A large apartment house on the North Side, brick and cutstone, cost \$25,000. Brick factory building, 100 by 100 feet, cost about \$25,000.

Architect Oscar Cobb reports: Five cottages at Grand Crossing, 105 feet frontage, cost \$5,000.

Architect R. Rae, Jr., for Wm. Wolf, block of fifteen two-story brick and stone buildings, 300 by 50 feet, cost \$6,500. For Mr. Follensbee, at Kenwood, two-story and basement brick and frame house, 30 by 54 feet, cost \$8,000. For Mrs. B. Titus, six three-story stores and flats, 125 by 50 feet, brick and stone. For A. M. Guthers, two-story brick and frame residence, 26 by 45 feet, at Hyde Park, cost \$4,000. For T. H. Carver, at Ravenswood, two-story and basement brick and frame dwelling, 32 by 50 feet, cost \$4,000. Also, houses same as above for J. H. Reed and S. C. Palmer.

Architect Fred. Kellenich reports: For A. Lichtenberger, two-story brick store and flats, 50 by 38 feet, cost \$6,000. For Frank Schneider, three-story brick store building, 24 by 62 feet, cost \$7,500; projected. For Philip Johnies, three-story brick store building, 24 by 76 feet, cost \$8,400; projected. For Mr. Cohn, brick building 24 by 80 feet, cost \$9,250; projected. For F. Robinson, brick store building, 25 by 75 feet, cost \$6,000; under way. For Daniel Horr, three-story brick store building 32 by 50 feet, cost \$8,500. For Jacob Cahn, three-story, basement and attic, brick building, 30 by 80 feet, cost \$12,500; projected. For C. A. Wathier, three-story and basement flats, 20 by 75

feet, cost \$6,800; contract not let. For J. C. Griffith, four houses, each 22 by 46 feet, three-stories, Indiana pressed brick, cost \$26,000; Fox & Hinds, masons. For Chas. Roby, three-story brick flats, 25 by 100 feet, cost \$8,500. For P. Perch, three-story brick, brownstone front, 24 by 66 feet, cost \$10,800; projected. For A. Peck, three-story brick, 22 by 72 feet, cost \$6,400; projected; contract not let.

Clinton, Mo.—Outlook good for late trade.

Architect Harry Kemp reports: For Cruer Banking Co., at Colorado Springs, Mo., two-story bank, store and flats, 50 by 60 feet, brick, with iron and glass fronts, cost \$5,500; contract not let. For Grace Episcopal Church, brick and stone building, 36 by 60 feet, with tower and chancel, cost \$5,000; projected.

Baird Female College, to be built in Clinton, brick, cost \$25,000. Plans have been prepared by Architect Isaac Taylor, of St. Louis; now ready for bids.

Architect J. J. Douglass, formerly of Wellsville, Mo., reports: Brick school building at Montgomery City, Mo., cost \$12,000; projected. Brick school building at Almy, Mo., cost \$3,000; projected. Female College, at Clinton, brick building, cost \$50,000; projected. Contracts were let April 30 for the erection of two iron bridges for Montgomery county, cost \$4,000 each.

Coldwater, Mich.—Outlook favorable. All mechanics are busy, at prices which range about the same as last year.

Architect M. H. Parker reports work ranging from \$800 to \$2,500, and aggregating \$7,100.

Columbus, Miss.—Architect M. S. Smith reports: For M. L. Howard and Miss Love, frame dwellings, 42 by 50 feet, cost \$1,800 each. For Wm. H. Sims, brick veneered dwelling, 52 by 56 feet, cost \$6,000; under way; M. A. Smith & Co., builders. For Walker county, Ala., court house, brick, 54 by 90 feet, cost \$17,000; under way; T. Wood, builder.

Architect B. J. Bartlett: For State Female Industrial School, three-story building, 82 by 92 feet, cost \$35,000; under way. For J. D. Morgan, remodeling brick residence, cost \$5,000; projected. For Dr. Hutchinson, Queen Anne dwelling, 44 by 52 feet, cost \$2,200; under way.

Columbus, O.—Among the building permits recently issued are the following: A. L. Ralston, two-story brick dwelling, 60 by 40, southwest corner Sixteenth avenue and Indiana avenue, Thirteenth ward, \$4,000. Michael Hunter, two-story brick dwelling, 53 by 32, southeast corner of Twentieth street and Leonard avenue, Eleventh ward, \$2,000. Margaret A. Scofield, two-story brick dwelling, 30 by 16, Lincoln street, Fourteenth ward, \$1,000. Joseph Say, two-story, 50 by 22, brick dwelling on East Third avenue, Fourteenth ward, \$1,900. Lewis and Peter Sells, two-story, 80 by 21, brick addition to business block on the southwest corner of High and University streets, Thirteenth ward, \$2,000. Peter Sells, two-story, 64 by 39, brick dwelling on North High street, Fourteenth ward, \$3,500. Ephraim Sells, two-story, 25 by 40, brick stable, at 677 North High street, Thirteenth ward, \$1,000; also two-story, 60 by 46, brick dwelling, at 677 North High street, Thirteenth ward, \$8,000. Joshua Gregg, two-story, 40 by 30, brick dwelling on West Fourth avenue, Thirteenth ward, \$2,000.

Dallas, Texas.—Present outlook fair, but not equal to last year at this time.

Architect J. E. Flanders reports: For J. C. O'Connor, two-story pressed brick front building, 50 by 100 feet, cost \$8,000; nearly completed: N. K. Wright, builder. For Thomas Field, two-story brick and stone residence, 62 by 62 feet, cost \$10,000; under way; Figh & Sanderson, builders. For Wm. M. C. Hill, two-story frame residence, cost \$4,000; under way; Coleman & Lane, builders. For W. H. Prather, two-story brick and stone residence, cost \$9,000; under way; Wright, Figh & Sanderson, builders. For J. B. Hereford, two-story frame dwelling, cost \$4,000; under way; Smith & Co., builders. For Geo. Cassell, two-story frame dwelling, cost \$2,500; not contracted. For W. H. Howell, two-story dwelling, cost \$2,000; not contracted. For Murphy & Bolanz, three-story business block, 25 by 80 feet, pressed brick and cutstone, cost \$10,000; under way. Figh & Sanderson, masons; O'Reilly & Sullivan, carpenters.

Denver, Col.—The general impression among architects seems to be that a new era in city building has begun, and that the demand for substantial, well designed and appointed buildings of every class is on the increase. A great deal of remodeling is being prepared for, the old buildings erected in the early times are being replaced by better structures, the property owners generally recognizing the poor economy of cheap work, and the general tendency being toward investments in building, the city will probably enjoy an exceptionally prosperous building year. It has been stated by one of our large dailies that "without enlarging our population at all we will have to do \$10,000,000 worth of reconstruction before our business and our families are as comfortably housed as they ought to be." The price of labor is low, as well as material, a slight temporary increase in the price of brick being the only rise noticeable.

Des Moines, Ia.—Work on the south front of the new capitol building is under way. It is probable that the steps will not be erected until next year, but the woodwork and marble will be completed as soon as possible. The necessary brickwork is nearly finished and when completed the other will be immediately put under way.

It is said that Mr. S. A. Robertson has been asked by supervising architect Bell to make a formal application for the position of superintendent of the government building in this city.

Detroit, Mich.—Architects Scott & Co. report: For Hon. G. V. N. Lathrop, three three-story dwellings, 80 by 85 feet, pressed brick, brownstone and terra-cotta, gravel roof, cost \$20,000; projected. For Hiram Walker, two three-story dwellings, 60 by 75 feet and 60 by 50 feet, pressed brick, Ohio stone and terra-cotta, slate and gravel roof, cost \$23,000; projected. For Geo. H. Barbour, three-story dwelling, 45 by 73 feet, pressed brick, Lake Superior stone and terra-cotta, slate roof, cost \$13,500; projected. For Samuel Ferguson, two-story dwelling, 20 by 65 feet, pressed brick, Lake Superior stone and galvanized iron trimmings, cost \$4,000; projected. For Col. W. Moore, two-story dwelling, 40 by 70 feet, pressed brick, stone trimmings, slate roof, cost \$8,400; Geo. W. Uridge, builder. For Mrs. T. Burnhardt, three-story dwelling, 20 by 65 feet, pressed brick, stone trimmings, slate and galvanized iron roof, cost \$8,000; Nuppenan & Clark, carpenters; Henry Carew, mason.

Architect Mortimer L. Smith reports: For J. V. Wilson, block of two two-story stores, 40 by 8 feet, pressed brick, galvanized iron, cost \$5,700; Schall & Sons, builders. For Wm. Beal, five-story block of stores, 40 by 100 feet, pressed brick, Amhurst buff and Lake Superior stone trimmings, galvanized iron. This is a very fine building and was contracted at remarkably low figures. There will be considerable cast-iron work in the shape of well designed columns, which will extend up through the several stories. A symmetrical arrangement of beautifully carved stonework adds much to the building. It will be prominently located on Woodward avenue, cost \$22,000; W. G. Vinton, carpenter; A. Chapaton, Jr., mason. For Cath. Hodge, two-story dwelling, 40 by 70 feet, pressed brick, stone trimmings, slate roof, cost \$3,000; H. George & Sons, carpenter; Tapping & Fisher, masons. For F. Kuhn, block of three-story stores and dwellings, 86 by 64 feet, pressed brick, stone trimmings, gravel roof, cost \$10,300; Mr. Schick, mason, Mr. Heck, carpenter. For S. W. Hood, two-story double dwellings, 42 by 64 feet, pressed brick, stone trimmings, gravel roof, cost \$5,300; Henry George & Sons, carpenters; Graham & Lafferty, masons.

T. H. Hinchman, block of five two-story dwellings, 100 by 64 feet, pressed brick, stone trimmings, cost \$12,000; W. H. McCausland & Son, builders.

Andrew McEhull, two two-story frame dwellings, 26 by 60 feet, cost \$5,000; the owner is the builder.

Mr. John Kendall, two-story double brick store, 43 by 65 feet, cost \$4,000.

Architect A. E. French reports: For J. B. Baker, two-story double dwelling, 40 by 55 feet, brick, with stone trimmings, tin and gravel roof, cost \$4,100; Robert Simpson, builder. For Mr. Turner, two two-story dwellings, 24 by 60 feet, frame, shingle roof, cost \$5,000; projected.

Architects Donaldson & Meier report: For C. H. Haberkorn, three-story furniture factory, 35 by 115 feet, pressed brick, gravel roof, cost \$6,000; Mr. Gibbons, carpenter; Mr. Halland, mason.

Architects J. V. Smith & Son report: For John Harvey, two-story dwelling, 40 by 80 feet, brick, stone trimmings, slate and tin roof. A special feature of the interior will be a large staircase hall, with perhaps the most elaborate staircase ever built in this city. There will be considerable Tennessee, Italian and other marble used in panels, wainscoting, columns and newels, some of it richly carved. The building will cost \$14,000. Thos. Pinney, carpenter; Holland & Son, masons. For Cornelius Crowley, two-story dwelling, 30 by 60 feet, brick, stone trimmings, slate and tin roof, cost \$4,500; projected. For F. J. Mahan, two two-story dwellings, each 30 by 60 feet, frame, shingle roof, cost \$6,000; Andrew McEhull, builder. For S. B. Coyle, three-story dwelling, 30 by 60 feet, brick, tin roof, cost \$12,000; Candler Bros., builders. For S. R. Culp, at Athens, Mich., two-story block, 44 by 60 feet, for bank and stores, brick, with stone trimmings, gravel roof, cost \$6,000.

Messrs. Graham & Lafferty are building a two-story double dwelling, 38 by 56 feet, cost \$5,000. Also two-story double dwelling, 40 by 50 feet, brick, cost \$5,000.

The total amount of permits granted for April is \$337,400.
Architects Carl Schmid & Brydges report: For John Strickner, three dwellings, 42 by 82 feet, brick, stone trimmings, cost \$6,500. For Mr. Watkins, two-story double frame dwelling, 28 by 62 feet, Queen Anne style, cost \$3,500; under way. For A. J. Sweichler, M. D., dwelling on Lincoln avenue, brick and stone, cost \$3,000; under way. Also other work amounting to about \$5,000.

Dubuque, Ia.—Building outlook is not good.

Architect Frid Heer reports: Catholic church at Sherrill's Mound, Ia., stone and brick building, 52 by 116 feet, cost \$18,000; under way. For Gabriel Baumgartner, three-story brick and stone building, 23 by 70 feet, cost \$4,500; under way. For Peter Klein, double brick residence, 24 by 46 feet, cost \$3,000; under way. For Nicholas Paln, double brick residence, 44 by 48 feet, cost \$4,600; under way. For Peter Klauer, three-story brick store building, 22 by 80 feet, cost \$4,800; under way. For John Lauer, two-story brick store building, 20 by 36 feet, cost \$2,000; projected. For Rev. Fr. Probst, at North Washington, Ia., alterations in Catholic church building, cost \$4,000; projected. For John Kaep, double brick residence, 44 by 56 feet, cost \$3,500; projected. For John Scholz, brick and stone residence, 25 by 46 feet, cost \$3,500; projected. Also several jobs ranging from \$2,500 to \$3,500, and aggregating \$18,000.

Architect F. D. Hyde reports: For W. L. Bradley, four-story brick warehouse, 32 by 113 feet, cost \$8,000; under way. For Wm. Hintrager, two double brick tenements each 32 by 43 feet, cost \$5,000; under way; also, block of three brick tenements 48 by 60 feet, cost \$4,500; under way. For J. H. Ellsworth, at McGregor, Ia., two-story frame cottage, cost \$3,000; preparing plans; and stone residence, cost \$5,000. For A. E. Clement, frame residence, cost \$5,500. For O. Tierney, brick and stone store building, cost \$4,500. For James Speer, remodeling frame building, cost \$2,000. For Samuel Gatoos, brick and stone store building, cost \$4,000. For J. M. Masso, brick and stone store building, cost \$6,000. For J. Shaw, brick residence, cost \$3,500; also three.

Eau Claire, Wis.—Plans have been prepared for the new passenger depot, to be built by the Chicago, Milwaukee & St. Paul R. R. Co. It is the intention to have the building completed by June 1.

The stone foundation is already laid for the church edifice which is to replace St. Patrick's church, the one destroyed by fire last fall. The building will be semi-Gothic style, brick with stone trimmings and stained glass windows. The interior will be handsomely finished in light and dark woods, and crimson upholsteries and carpetings. The cost of the whole, including the interior fitting, will be between \$35,000 and \$40,000. Work on the brick walls will be commenced in about two weeks. It is expected the building will be completed sometime during the coming winter.

Elkhart, Ind.—Outlook not very flattering. Few new buildings of importance projected as yet. Many small improvements are being made. Wages fair.

Architects H. Weaver & Son report: For H. C. Dodge, two-story brick residence, slate roof, cost \$7,000. For H. M. Miles, one-and-one-half-story dwelling, cost \$2,000; projected. For O. T. Chamberlain, two-story double store building, cost \$8,000; projected. For T. F. Garvin, two-story frame Gothic dwelling, cost \$3,500; projected.

Emporia, Kan.—Building operations rather quiet at present.

Architect C. W. Squires reports: For H. Harrison, residence 42 by 39 feet, cost \$5,000. Addition and alterations to St. Mary's Hospital, cost \$5,000. Additions and repairs for D. W. Haines, cost \$3,000. For N. R. Collins, residence, 41 by 70 feet, at Eureka, Kan., cost \$5,000.

Fort Wayne, Ind.—The building season in this locality has fairly opened, and numerous contracts are under way, but the present indications are that the amount of large work will not equal that of last year.

Architects Wing & Mahurin report: For The Tigar Estate, three frame dwellings, semi-detached, two stories and basement, 60 by 30 feet, cost \$5,000; under way. Fred Boester, builder. For Chas. Aldrich, frame barn, 24 by 40 feet, cost \$800; projected. At Huntington, Ind.: For Mrs. B. Lewis, Jacob Bose, E. M. Taylor and E. T. Brown, block of two-story store buildings, brick with buff Amherst stone trimmings, iron columns, cornice and roof, 91 feet front, cost \$15,000; contracts being figured. For E. T. Taylor, frame barn, 24 by 28 feet, cost \$1,000. First Baptist church at Van Wert, O., brick, shingle roof, brick trimmings, 50 by 38 feet, cost \$1,000; projected. The decoration, finishing one stained glasswork of the First Presbyterian Church, Gregory Vigrant, architect, has been begun.

Glenn, Mich.—There is a great deal of building to be done here of a small and inexpensive character.

Architect A. H. Tracy reports: For S. Shumway, brick dwelling, 24 by 42 feet, cost \$1,500; projected. For D. D. Tourtellott, residence, 44 by 55 feet, cost \$2,500; to be built immediately; Tracy & Compton, builders. For B. Williamson, dwelling, 36 by 46 feet, cost \$1,500; projected; also, other work aggregating \$3,100.

Hastings, Neb.—Present condition and outlook good.

Architect C. C. Rittenhouse reports: For a stock company, four two-story store buildings, 82 by 50 feet, cost \$10,000; projected. For C. A. Alexander, frame dwelling, 40 by 40 feet, cost \$3,200; projected. For Y. M. C. A., two-story brick building, 22 by 65 feet, cost \$4,000; projected. For I. O. O. F. Lodge, two-story brick building, 22 by 65 feet, cost \$3,500; projected. For Sam. Hirsch, frame dwelling, 34 by 50 feet, cost \$3,000; projected. For E. Fish, frame dwelling, 34 by 48 feet; cost \$3,000; plans drawn. At Central City, Neb., M. E. College, two stories and basement, brick, 70 by 71 feet, cost \$15,000; plans drawn, contract not let.

Indianapolis, Ind.—Architects Hodgson, Wallingford & Stem report: For Mr. Wm. Kidd, at Marion, Ind., large store building, cost \$25,000.

Ionia, Mich.—Architect O. Waterbury reports: For German Evangelical Society church building, 38 by 78 feet, cost \$7,000; projected.

A two-story and basement extension to the Criminal Insane Asylum, 40 by 70 feet; also, boiler house, 40 by 40 feet, are projected, to cost \$12,750; this will make the building 400 feet in length; architect, Gordon W. Lloyd, of Detroit.

Jamestown, D. T.—Half a block of buildings were destroyed by fire, May 6. Loss, \$25,000.

Jefferson City, Mo.—J. M. Rice, of Austin, Ill., has been awarded the contract for the stone and brick work of the superstructure of the Jefferson City public building, at \$44,000.

Joliet, Ill.—Present condition good; outlook very flattering; prospects are, that a large amount of building will be done this season.

Architect G. Julian Barnes reports: For Alexander Armstrong, at Glidden, Iowa, two-story Gothic house, frame, limestone foundations, 38 by 60 feet, cost \$6,500; foundations in. For Mrs. Katherine Pasold, two-story Queen Anne frame dwelling, 33 by 52 feet, cost \$3,000. John Sheerer and Henry Gloss, contractors for masonry, contract for rest of building not yet let. For George W. Fouser, two-story Queen Anne dwelling, 30 by 50 feet, cost about \$2,500; under way; H. R. Burlingame, builder. Also other work amounting to \$6,100; besides remodeling two-story frame residence for C. Dillman, cost not estimated.

Architect H. Boehme reports: For St. Mary's Parish, frame schoolhouse, cost \$5,000. For M. F. Loughnan, brick smaller buildings, aggregating \$3,200. For J. T. Elly, at Lemont, Store front and addition, cost \$1,000. For D. C. Havens, at New Lenox, remodeling frame building, cost \$2,000.

Kansas City, Mo.—An architect who neglects to give his name reports: For W. C. Loebenstein, six-story store building, 47 by 137 feet, brick and terra-cotta, cost \$25,000; taking estimates. Also four-story addition to adjoining building, 48 by 100 feet, cost \$3,000; taking estimates. For Milton Welsh, brick residence, cost \$6,500; under way. For North Orrison & Co., three-story warehouse, 48 by 115 feet, cost \$9,000; under way. For H. H. Shepard, brick residence, cost \$6,500; under way. For K. B. Armon, two brick dwellings, cost \$8,000; under way. For S. M. Ford, block of four brick dwellings, cost \$10,000; plans under way. For Stumpf & Peltzer, block of six brick dwellings, cost \$15,000.

Laramie, Wyo. Ter.—Condition fair; outlook good. It is expected that the Union Pacific Soda Works will begin operations here soon, and the building business will be stimulated somewhat.

W. A. McKenzie, builder, reports: For Ora Haley, frame dwelling, 60 by 60 feet, cost \$8,000; under way; Gittings & Lemarteis builders. For Lutheran Church Society, frame church building, 30 by 40 feet, cost \$2,000; under way; George Bernet, builder. Also several small buildings, aggregating about \$5,000.

Lexington, Ky.—Architect P. L. Lundin reports: For Wm. Campbell, two-and-one-half-story brick and stone store building, 31 by 65 feet, cost \$7,500; under contract. For Dr. J. W. Scott, two-story brick residence, 34 by 50 feet, cost \$4,000. For Mrs. H. P. Bedinger, two-and-one-half story residence, 41 by 54 feet, cost \$7,000. For J. D. Simpson, three-story brick and stone residence, 60 by 80 feet, at Winchester, Ky., slate roof, cost \$24,000. Also small work amounting to \$4,750.

Lima, O.—Architect Willis A. Ritchie reports: For A. Lewis Fisher, two-story and attic frame cottage, 34 by 48 feet, slate roof, cost \$2,500; under way. For Lew Hunter, two-story frame cottage, 26 by 32 feet, slate roof, cost \$1,600. For Joseph Askins, two-story and attic frame dwelling, 38 by 56 feet, slate roof, cost \$3,000. For August Fipp and L. L. Parker, at Ottawa, O., two-story brick business block, 45 by 90 feet, cost \$6,500. For Henry J. Oslendorf, at Delphos, O., two-story double store block, 43 by 75 feet, brick, with stone trimmings.

Macon, Ill.—J. B. Martin's pork house was destroyed by fire, May 6, loss estimated at \$50,000.

Mandan, Dak.—A new court house is to be erected here at a cost of \$26,000.

Manitowoc, Wis.—The St. Boniface Roman Catholic Society, brick and stone church building, cost \$25,000; architect, A. Druiding, of Chicago; Frank Curtler, builder.

Marselles, Ill.—The outlook is not encouraging; a number of mechanics are out of employment.

Architect A. W. Allen reports: For Universalist Church Society, two-story parsonage, 26 by 32 feet, cost \$2,000; projected. For John Johnson, two-story dwelling, 28 by 30 feet, cost \$3,000; under way. Also small work amounting to \$900.

Minneapolis, Minn.—Thus far the building season has shown marked activity, and although the continuance of last year's "boom" can scarcely be expected, the record shows a healthy condition, and a good, steady season is assured. A larger number of permits for large and important buildings were issued in April, than during the preceding months of the year, and it is expected a goodly number of permits for equally important and costly structures will be issued during this month.

Architect J. W. Kelly has prepared plans for a three-story business block, 42 by 75 feet, to be erected by Messrs. Beyers & Augir, corner of Washington and Eighth avenues, brownstone front, cost \$10,000.

Contracts have been let, and work will be commenced at once, on the four-story brick block, which is to be erected for John H. Thompson, J. Geiershofer, and Turnquist Bros., at 113 to 117 Washington avenue south. The building will be known as the "Commercial Block." It is to be 66 by 100 feet, cost about \$50,000.

The contract for the Russell block has been let; the building is to be five stories and basement in height. A feature of the structure will be a copper-faced bay, 16 feet wide, running through the third and fourth stories; the cost will be about \$20,000.

The city is having a decided boom in church building, of which the *Pioneer Press* says: "In no department of the life of the city has the building boom raged more fiercely than among the religious societies. For several years past the outlay on new church buildings has ranged between \$150,000 and \$200,000. The present season promises to furnish a repetition of the record. The largest item on this year's list is the First Baptist. This society began last fall the erection of a \$100,000 edifice. Probably about one-fourth of that amount was expended last year, so that an outlay of \$75,000 for 1885 is a fair figure. The Unitarian society is just starting a \$75,000 church and club-house, on the corner of Mary place and Eighth street. The Immanuel Baptist society will build at once a main church building adjoining their present chapel, at a cost of \$25,000. The Fourth Baptists have just completed a \$15,000 church in North Minneapolis, of which about one-third was on this year's work. The Olivet Baptist society, in East Minneapolis, is hastening to completion a \$25,000 brick church, which was well under way before January 1. The Swedish Mission church is to build this year a large tabernacle, at the corner of Eighth avenue south and Third street, at a cost of about \$20,000. The Scandinavian Unitarians have in immediate prospect a \$15,000 house of worship, in South Minneapolis. In addition to these, which have taken final shape, is the Andrew Presbyterian church, with plans for a \$50,000 church; the Church of Christ, talking of a \$40,000 one, and Grace and All Saints planning for less expensive buildings. In addition to all these the Young Men's Christian association has plans drawn for an association building, which comes properly, under the same head. The summarized statement is as follows: First Baptist (to complete), \$75,000; Unitarian, \$35,000; Immanuel Baptist, \$25,000; Swedish Mission, \$20,000; Scandinavian Unitarian, \$15,000; Olivet Baptist (to complete), \$10,000; Fourth Baptist (to complete), \$5,000. Total, \$185,000. Contemplated: Andrew Presbyterian, \$50,000; Church of Christ, \$40,000; Y. M. C. A. building, \$50,000. Total, \$140,000. Grand total, \$325,000.

The board of regents of the state university have decided to locate the new building to be devoted to the mechanical arts just south of the main building, and contiguous to it. The idea of a group of attached buildings has been abandoned, but the structures will be so near together, that communication can be readily made. J. F. Byers will build a three-story block, on Washington avenue, near Seventh avenue north, with a front of forty-two feet on Washington. The building is to have brownstone front, will be three stories high, and cost \$15,000. Work has been commenced on the handsome six-story block, to be erected by W. H. Eustis, opposite the chamber of commerce building. Mr. Gale is to build a two-story brick block, 44 by 70, on Plymouth avenue, between Fifth and Sixth streets, at a cost of \$8,000. Hon. E. M. Wilson has in contemplation the erection of a block of tenements, on Hawthorne avenue, cost \$30,000.

The building record, according to the permits issued since January 1, is as follows: During January, 83 permits for buildings, to cost \$136,835. During February, 176 permits for buildings, to cost \$273,751. During March, 355 permits for buildings, to cost \$491,410. During April, 412 permits for buildings, to cost \$1,169,062. Total, 1,026 permits. Total cost of buildings, \$2,071,058. Among the permits recently issued are the following: Donald Kennedy, two-story, eighteen-room, brick dwelling, Park avenue, between Twenty-second and Twenty-fourth streets, cost \$28,000. Ole Oleson, two-story double brick store, Plymouth avenue, between Fifth and Sixth streets north, cost \$8,000. Judge M. B. Koon, two-story brick store, corner Franklin avenue and Twelfth avenue south, cost \$4,500. Campbell Bros., two-story, ten-room, wooden dwelling and barn, corner Aldrich avenue and west Twenty-fifth street, cost \$4,000. Alice M. Spink, five two-story brick stores and flats, corner Fifth street and Cedar avenue, cost \$10,000. J. H. and J. W. Paul, two-story, fourteen-room, brick store building, west corner Twentieth street and Eighth avenue north, cost \$4,000. Mrs. G. E. Foster, two-story wooden dwelling and barn, Talmage avenue and Thirteenth streets, cost \$6,000. M. V. Kinney, two-story, eight-room, wooden dwelling and barn, Stevens avenue, between east Thirty-first and east Thirty-second streets, cost \$4,800. Chester Simonds, two-story, wooden dwelling, twelve-room, southwest side Seventh avenue south, between Nineteenth and Twentieth avenues, cost \$7,000. Edward Hanson, addition to hotel, 253 and 255 Fourth avenue north, cost \$4,000. Cook Bros., brick store and office building, corner Fifth street and Hennepin avenue, cost \$100,000. C. J. Grindale, double two-story, twenty-four-room, wooden dwelling and barn, corner Fourth avenue and Sixth street south, cost \$7,000. J. S. Sinnott, two-story, nine-room dwelling, corner Sixth avenue and Eighteenth street, cost \$4,000. Henry Balch, two-story, eleven-room, wooden dwelling, corner Second and Franklin avenues south, cost \$10,000. Irving A. Dunsmoor, two-story, ten-room, frame dwelling and barn, Third avenue, between Sixteenth and Seventeenth streets south, cost \$4,500. Silver Lake Congregational Church Society, church, brick veneer, corner Thirty-fourth avenue and North Fremont avenue, cost \$10,000.

Minto, Dak.—Two new elevators are to be erected here this summer, to be completed in time for this year's crops.

Mitchell, Dak.—Prospects are much better now than last month, and a number of small houses, costing from \$600 to \$800, are being built. Several store buildings are projected, but nothing definite is known as yet.

Architect H. J. Bingham reports: For Henry Koch, two-story brick store building, 41 by 100 feet, cost \$15,000; under way; Hutchins & La Barre, builders. Also three frame cottages, ranging from \$1,200 to \$2,400; under way.

Mo. Minnville, Oregon.—Present condition and outlook for building was never better.

Architect J. C. Cooper reports: For Luther Shobe, two-story brick, 25 by 72 feet, tin roof, cost \$3,500; under way; the architect is the builder. For Hon. J. C. Bradley & Son, two-story brick, 31 by 100 feet, tin roof, cost \$5,500; projected.

Monticello, Ill.—Outlook is good, but building is somewhat delayed for want of brick.

Architect R. R. Meredith reports three frame dwellings, aggregating \$2,750; all under way.

Muir, Mich.—Outlook poor, and plenty of mechanics at low wages. Architect Thomas Campbell reports: For E. Culbertson, two-story brick veneer building, 18 by 26 and 16 by 26 feet, cost \$3,000; under way; S. Wilber, builder. For Webber & Trask, two-story brick store building, 24 by 70 feet, asbestos roof, cost \$3,000; under way; Thomas Campbell, builder. Also two-story brick store building, 31 by 60 feet, cost \$2,500; Thomas Campbell, builder. For Taft & Son, at Pewamo, Mich., two two-story brick store buildings, 24 by 60 feet, cost \$4,000; under way. Also other work amounting to \$3,400.

New Corporations.—The following companies have recently been incorporated: The Chicago and Tennessee Manufacturing Company at Chicago, capital stock \$50,000; incorporators, William A. Schonfeld, Charles A. Deane and William Plummer. Young's Patent Time Lock Company at Chicago, capital stock \$250,000; incorporators, Theron T. DeGarmo, Frank M. Smith and Samuel W. Adams. The Wolf River Lumber Company, at Merrill, Wis., capital stock \$80,000. Incorporators, C. H. Upham, of Shawano, Leander Choate, J. M. Bray, H. B. Harshaw and E. W. Viall, of Oshkosh. The Simpson Brick Press Company at Minneapolis; capital stock, \$20,000; P. L. Simpson, Franklin Cook and Wayland B. Auger incorporators and directors. The Jefferson Manufacturing Company at Chicago to manufacture and sell bolts and nuts, safety valves and other metal articles; capital, \$75,000; incorporators, Herman G. Powers, Fred. H. Powers, Fred. T. Powers and Clinton Furish. The Edison Electric Illuminating Co., of Carondelet, St. Louis; capital, \$20,000, half paid up; incorporators, Herman Wetter, R. J. Kilpatrick, George La Rue and Patrick Cummings. Lhotka Manufacturing Company, of Chicago, to manufacture and sell picture frames and moldings; capital, \$10,000; incorporators, Alexander Purer, John Lhotka and John Lhotka, Jr. The Texas Lumber Company, of Springfield; for the purchase, manufacture and sale of lumber; capital, \$200,000; incorporators, Jonathan Merriam, Andrew T. Anderson, Frank W. Tracy, David T. Littler and John R. Tanner. National Mutual Home Club, of Chicago; to manufacture doors, sash, moldings and other building material, and to do a general commission business; capital, \$5,000; incorporators, George T. Dalton, W. H. Shirland and M. S. Denslow. "The Hawkeye Lumber Company," of Chicago; to do a wholesale and retail business in lumber, coal and other kindred articles; capital, \$40,000; incorporators, Augustus F. Beidler, William H. Beidler and Francis Beidler.

New Ulm, Minn.—Present condition and outlook not at all gratifying. Architect T. Berndt reports: For Judge Weber, two-story frame dwelling, 22 by 30, and 22 by 16 feet, cost \$2,200; under way. For E. Schumacher, two-story brick store and tenement, 22 by 50 feet, cost \$3,000; contract not let. For Mrs. H. Bergmann, two-story brick, 25 by 50 feet, cost \$3,200; contract not let.

Omaha, Neb.—Business is somewhat dull; very little work commenced; no brick in the market. Prospects, however, are promising. Architect Sidney Smith reports: For John Ledwich, three-story and basement building, 22 by 75 feet, brick and terra-cotta, cost \$4,800; contracts let; Griffith & Co., builders. For Mike Lee, three-story and basement building, 22 by 75 feet, brick and terra-cotta, cost \$4,000; contracts let; Griffith & Co., builders. For Herald Publishing Co., four-story brick, 20 by 40 feet, cost \$4,200; under way; Stevenson, builder. For Alvin Sanders, one-story and basement, brick, 22 by 50 feet, cost \$3,000; under way; A. Ecke, builder. For John A. Wakefield, frame residence, 45 by 55 feet, cost \$6,000; under way; Griffith & Co., builders. For Milton T. Barlow, six three-story tenement, 32 by 26 feet, brick and stone, cost \$18,000; two under way; Griffith & Co., builders. For the West Side Building Association, eleven frame dwellings, cost from \$1,500 to \$2,000 each; all under way. For the Walnut Hill Building Association, ten frame dwellings, cost from \$1,100 to \$1,800 each; under way.

Ottumwa, Ia.—Architect Edmund Clark reports: For Grand River College, at Trenton, Mo., three-story brick building, 33 by 66 feet, cutstone, black brick and galvanized iron trimmings, the third story is to be mansard, cost \$7,500; not contracted yet. For J. P. Wright, at Trenton, frame cottage, 20 by 36 feet and 14 by 18 feet, cost \$1,200; projected.

Peoria, Ill.—Present condition and outlook good. Architect S. G. Whitford reports: For E. S. Easton, six two-story and basement brick buildings, 18 by 60 feet, cost \$30,000; under way. For Will R. Thompson, frame cottage, 26 by 40 feet, cost \$3,000; under way. For Mrs. McAlister, frame cottage, 25 by 36 feet, cost \$1,500; under way. For R. A. Shunpff, two two-story frame dwellings, 20 by 40 feet, cost \$3,000.

Contract has been let for double brick residence for Dr. D. D. Ross, to be erected on Jefferson street, cost \$7,000.

Pontiac, Ill.—Architects Johnson & Buell: For M. E. Church Society, brick church building, cost \$15,000.

Racine, Wis.—The new church to be erected by St. Mary's Society will cost \$30,000. St. Joseph's Society, church and pastoral residence, cost \$5,500; architect, A. Druiding, of Chicago.

Richmond, Va.—Architect M. J. Dimmock: For John P. Branch, brick and stone building, cost \$20,000. For Alfred T. Harris, stone and granite dwelling, cost \$30,000.

Messrs. Kinney Bros., tobacco factory, to be built of granite, cost \$80,000. Architect B. J. Black, for colored Catholic Society, brick church building, cost \$10,000; Joseph Heppert, builder.

S. C. Tardy, brick and brownstone residence, cost \$25,000.

South Bend, Ind.—The Oliver Opera House, of which Waite, of Buffalo, is the architect, and the building of which has been at a standstill for several months, has been resumed and the decorations will begin immediately. This opera house is to cost over \$100,000, and is one of the many benefits that Mr. James Oliver, of the Oliver Chilled Plow Works, has conferred upon that city. The discontinuance last fall was owing to a strike in the plow works, in which the senseless action of the strikers was encouraged by the citizens, the latter by a large majority trying in every way to defeat the purposes of an enterprising citizen that has done more than any other ten men to make it a center of industry. If Mr. Oliver had been less magnanimous and had removed his works to another city as he at first felt compelled to do, their city would have fallen into the unenviable position of a deserted manufacturing town. The opera house is very creditable in design and will give to the city a much needed, first-class place of amusement.

St. Louis, Mo.—The plans for the new opera house have been completed by Architect Oscar Cobb, of Chicago, and though the original design has been modified to meet with the requirements of the owner to erect a cheaper building than was at first intended, and the original conception in a large measure spoiled, the modification will give an opera house that will compare favorably with any other in the city. The style is Morresque, and had it been carried out as originally designed in pressed brick and terra-cotta ornamentation, with stained glass profusely illuminating the front, the effect would have been exquisite in the extreme. As it is, the interior will be its chief merit, as this will be after the architect's plans, which are superior in many particulars. J. B. McElfalk is the superintendent in charge of the construction.

At a meeting of the building committee, architect Wilhelm submitted plans for a one-story school house, 30 by 60 feet, to be built of brick, cost, \$7,500; the plans were approved.

Commissioner of Public Buildings, Kledus, is engaged on the plans of a new court house to be erected in Washington park and to take the place of the present one in case it is converted into a city hall. The building is to be of classic design, with a very handsome stone front, and is to cost between \$700,000 and \$800,000. It will have a frontage of 360 feet, a depth of 170 feet and will be 100 feet to the top of the figure of Justice which will surmount the central building. It will consist of two stories, the lower of which will be occupied by the Recorder of Deeds, Court of Appeals, Probate Court, Sheriff's office and Historical Society, and the upper one by the five Circuit Court rooms and the Law Library.

Among the permits issued recently are the following: T. L. Waldecker, two adjacent two-story brick dwellings, cost \$4,200; H. R. Becker, contractor. A. Brothas, two-story brick addition to dwelling, cost \$5,000; A. Druiding, architect. J. H. Frye, contractor. O. Blank, store and dwelling, north side of Franklin avenue, between Sixteenth and Seventeenth streets, cost \$3,470. Mary Wittler, four dwellings, west side of Compton avenue, between Manchester road and Laclede avenue, cost \$16,000. John E. Smith, dwelling, north side of Arsenal street, between Thirteenth and Fourteenth streets, cost \$3,700. C. F. Heidemann, dwelling, west side of Eighteenth street, between Hebert and Davis streets, cost \$5,100. Gustav Sessinghaus, distillery, south-east corner of John avenue and Broadway, cost \$14,000. B. F. Hammett, three dwellings, north side of Hammett place, between Marcus and Lay avenues, cost \$9,900. A. Alt, two-story brick dwelling, cost \$8,000; Kirchner, architect; Mulcahey & Milburn, contractors. W. & S. Padberg, two-story double brick dwelling, cost \$5,000; Paulus &

Weidemüller, contractors. J. Burdeau, two-story brick dwelling, cost \$4,000; John H. Dunlap, contractor. J. M. Carpenter, two-story brick store and dwelling, cost \$6,000; A. Beinke & Co., architects. M. Lane, two-story brick dwelling, cost \$4,000; M. Lane, contractor. G. B. Morgan, three-story brick dwelling, cost \$6,000. C. C. Murphy, two-story brick dwelling, cost \$5,000; J. Johnston, architect. C. C. Murphy, two-story brick dwelling, cost \$5,000; J. Johnston, architect. P. J. Pauly, two-story brick dwelling, cost \$15,000; F. Mayer, architect; N. Risse, contractor. Schaeffer Bros. & Powell, two-story brick warehouse, cost \$2,500; N. Risse, contractor. N. Risse, two-story brick dwelling, cost \$4,000; N. Risse, contractor. Charles F. Holthaus, dwelling, south side of Evans avenue, between Grand and Spring avenues, cost \$3,000. Charles Kuhlmann, tenements, south side of Sullivan avenue, between Twenty-second and Twenty-third streets, cost \$4,350. John Schlopp, tenements, east side of Broadway, between Montgomery street and St. Louis avenue, cost \$6,000. Fred Hagedorn, three dwellings, west side of Broadway, between St. Louis avenue and Montgomery street, cost \$3,000. St. Louis Mutual House Building Company, dwelling, south side of Page avenue, between Vandeventer avenue and Sarah street, cost \$3,000. George Heunch, dwelling, south side of Wash street, between Seventeenth and Eighteenth streets, cost \$5,000. Joseph Dormetzer, three stores, south side of Pine street, between Eleventh and Twelfth streets, cost \$3,000. John Doyle, dwelling, north side of Page avenue, between Vandeventer and Whittier avenues, cost \$3,300. Nelson C. Chapman, three dwellings, south side of Lucas place, between Twenty-first and Twenty-second streets, cost \$18,000. Union Depot Railway Company, car shed, east side of Texas avenue, between Gravois avenue and Lynch street, cost \$4,800. Francis T. Bryan, store and dwelling, south side of Franklin avenue, between Fourteenth and Fifteenth streets, cost \$5,800. John J. Schwartz, dwelling, north side of Russell avenue, between Oregon and Nebraska avenues, cost \$3,475. Minnie Smith, warehouse, south side of Franklin avenue, between Jefferson avenue and Beaumont street, cost \$3,500. Fritz Hood, dwelling, west side of Goode avenue, between Cote Brillante and Garfield avenues, cost \$3,000. Henry Schroeder, dwelling, north-west corner of Seventh and Geyer avenue, cost \$4,000. St. Louis Mutual House Building Company, No. 3, dwelling, west side of Armstrong avenue, between Park avenue and Hickory street, cost \$4,500. William Thueuer, store and dwelling, south side of Easton avenue, between Cardinal and Compton avenues, cost \$4,400. Hermann Stuewe, dwelling, south side of Palm street, between Knapp and Nineteenth streets, cost \$6,000. Patrick Tremey, dwelling, east side of Prairie avenue, between Page and Cook avenues, cost \$3,000. Kate Cruikshank, two dwellings, south side of Howard street, between Twenty-fifth street and Jefferson avenue, cost \$3,200.

St. Paul, Minn.—The building season has thus far shown unusual activity, and in every part of the city the work of excavating and construction is being rapidly pushed.

The county commissioners have examined the plans for the new county almshouse. Architects Ife, Bassford, George Wirth, Laurent and Radcliffe submitted plans for an almshouse, ranging in cost from \$18,000 to \$25,000. While Mr. Wirth's plans were not wholly accepted, he was chosen as the architect of the board for this work, with the understanding that the board may make such alterations in his plans as they see fit. The building will be three stories high, of brick, hollow walls, with a frontage south of 140 feet by a height of 36 feet to the cornice. The main building has a depth of 40 feet, and the back wing is 78 feet by 40 feet, with a boiler-room addition 20 by 25 feet. The building intended to be erected this year will accommodate, beside the superintendent's family, 148 persons, and will cost \$25,000. It will be heated by steam or furnace. It is hardly expected that the building can be completed by January, 1886.

Work on the Ryan hotel is being rapidly done, the soft woodwork in the sixth, fifth, fourth and third floors being almost completed. The woodwork in the dining-room and parlors on the third floor is pretty well under way, and the carpenters are about through with the building. The improvements contemplated in regard to the Grand Opera House, fronting on Wabasha street, are about to be commenced, and will consist of a new building, 85 feet wide and six stories high, and extending back to the Opera House proper. The work will be pushed as rapidly as possible. Messrs. Brown, Treacy, & Howard purchased 30 by 120 feet on Fourth street, next west of the National German-American Bank block, for \$15,000. They will commence immediately to erect a five or six-story building of brick, with a handsome front, cost about \$40,000. The trustees of Macalester College are about to erect, near Merriam Park, a residence for the college principal, and three others for professors, at a total cost of \$16,000. Plans for the new Harmon block, on the corner of Chicago and Dakota avenues, in West St. Paul, have been drawn. It will be built of brick, 100 by 100 feet, three stories high, and will cost \$30,000. The walls of the Minnesota Club House building, at the corner of Fourth and Cedar streets, are above the first story, and rapidly rising. T. F. McCormick is to build a three-story brick building on the corner of Iglehart and Rice streets, to cost \$10,000. Adam Finck will erect an \$8,000 dwelling on Pleasant avenue, near Walnut. James Jordan is erecting a three-story brick and stone building, to be used for store purposes, near Dakota and Fairfield avenues, to cost \$7,000. John C. McCarthy is soon to build, on the corner of Dakota and Fairfield avenues, a three-story brick structure, with a frontage of 100 feet. Judge Hale's building, at the corner of Third and Jackson streets, is being demolished preparatory to erecting a fine brick block. The brick work of the Berisford block, near the corner of Fifth and Minnesota, and Torme & Higbee's block, on Fifth, between Minnesota and Robert, has reached above the first story. Excavating has been begun for the Capehart block, on Fifth street, back of the Germania Bank, and the Michaud block, on Wabasha, between Sixth and Seventh streets.

The following building permits have been issued recently: Immanuel Baptist Church, two-story red brick church, cost \$25,000. Peter Pfeifer, four-story double brick store, 35 by 84 feet, East Eighth, between Wabasha and Cedar, cost \$12,000. Mrs. Sarah Hall, two-story brick barn, cost \$4,235. Dr. George E. Routh, two-story frame dwelling, cost \$6,850. Paul Martin, three-story frame factory, cost \$4,000. Adam Finck, two-story frame double dwelling, cost \$8,000. Charles A. Moore, three-story brick block of dwellings, cost \$35,000. Charles Weide, two-story brick veneer double dwelling, cost \$8,000. C. Friend, three-story brick block of dwellings, cost \$15,000. Rogers & King, four-story brick block of stores and dwellings, cost \$30,000. James King, two-story frame dwelling, cost \$8,000. A. L. Martin, two-story frame dwelling, cost \$4,000. W. K. Mulikin, two-story frame double dwelling, cost \$5,280. C. L. Horst, three-story brick store and warehouse, cost \$7,500. J. E. Voak & Co., eight frame dwellings, cost \$10,000.

Vincennes, Ind.—Fire recently destroyed Green's Opera House and other buildings, entailing a loss of \$53,000; insurance \$27,000.

Waukesha, Wis.—A meeting of the Board of Trustees of Carroll College was held May 8 to take immediate measures to rebuild the college, which was destroyed by fire January 29. The following building committee was appointed to erect the new building, and were directed to consult with the architect respecting changes: J. K. Anderson, Waukesha, chairman; C. P. Chapman, Madison; L. A. Proctor, Milwaukee; W. L. Rankin, Waukesha; Joseph Kirkpatrick, Neenah, Mich.

An adjourned meeting of the board will be held at Waukesha on May 21 to hear further reports of the committee, and to decide upon the plan for the building. The opinion prevails that the plan of a Chicago architect will be adopted. This imposing edifice will be located about 100 yards nearer the town than the old structure, and on the highest part of the extensive campus, from which point there is a beautiful outlook over the town, and a good college building will be a great addition to the appearance of the place.

Wellington, Ohio.—Brick and stone town hall, four stories high, 80 by 140 feet, cost \$50,000; architect, Oscar Cobb, of Chicago.

Whitewater, Wis.—Architect Robert Rae, Jr., of Chicago, reports: For H. B. Clark, two-story and basement stone and frame dwelling, 30 by 47 feet, cost \$4,000.

York, Neb.—Considerable building going on at present. Outlook only fair. Architect W. A. Bell reports: For M. E. Sayers, two-story Queen Anne villa, 46 by 52 feet, brick veneer, stone trimmings, cost \$5,000; under way. M. E. Church building, 70 by 76 feet, style Gothic, brick and stone basement, superstructure brick veneer with stone trimmings, cost \$15,000; plans under way. Also other work, aggregating \$5,500.

Youngstown, O.—Present condition and outlook only fair. Architect Chas. H. Owsley reports: For W. R. Merrick, two-story frame dwelling, 30 by 32 feet, slate roof, cost \$2,500; John Lorney, builder. For M. C. McNabb, two-story frame dwelling, 30 by 42 feet, cost \$3,000; Hengist Bros., builders. For Mrs. Mark Coehn, at Sharon, Pa., two-story brick store building, 25 by 100 feet, cost \$5,500; Wallis & Carley, builders. For F. M. Simon two-story frame dwelling, 32 by 44 feet, cost \$3,500; Wallis & Carley, builders. For G. C. Ledyard, two-story frame dwelling, 36 by 47 feet, cost \$2,500; Arthur Young, builder. For J. Sackville, two-story frame dwelling, 27 by 50 feet, cost about \$3,000; contract not let. For Jas. Parmelee, two-story brick block, 46 by 80 feet, cost not estimated; contract not let. For B. J. Taylor, at Warren, O., two-story frame dwelling, 34 by 53 feet, slate roof, cost about \$4,000; contract not let. For Dr. J. Harmon, at Warren, two-story brick residence, 45 by 65 feet, slate roof, cost about \$10,000; contract not let. Addition to residence of Chas. Gilman, cost \$2,500; Arthur Young, builder.

PRICES OF LABOR.

	Akron, O.	Austin, Tex.	Bloomington, Ind.	Chicago, Ill.	Cheyenne, W. T.	Cincinnati, O.	Dubuque, Ia.	Des Moines, Ia.	Detroit, Mich.	Evansville, Ind.	Fargo, D. T.	Hastings, Neb.	Joliet, Ill.	Kansas City, Mo.	Minneapolis, Minn.	Omaha, Neb.	Sioux City, Ia.	St. Louis, Mo.	Toledo, O.
Bricklayer	\$3.00	\$4.00	\$4.00	3.50@4.00	\$6.00	\$4.50	\$4.00	\$4.00	\$3.50	\$3.75	\$3.50	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$3.50	\$4.50	\$4.50
Brickmason (Front)	5.00	5.00	5.00	4.50@5.00	10.00	4.50	5.00	4.50	4.00	4.50	4.00	4.50	4.00	4.00	4.00	4.00	3.75	5.00	5.00
Carpenter	2.50	2.50	2.50	2.50@2.75	3.50	2.50	2.75	2.50	2.00	2.50	3.00	2.25	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Cabinetmaker					3.00			3.00	2.00						3.50	3.50	2.50	3.00	3.00
Finisher		3.00		3.00		3.00	3.00		2.00						3.50	3.50	2.50	3.00	3.00
Gasfitter				2.50@3.00	2.50	3.25	2.50	2.00	2.75	3.50	3.00	2.50	2.50	3.00	3.50	3.50	4.00	3.50	3.50
Laborer	1.75	1.50	1.50	1.25@1.75	3.50	1.50	1.75	1.75	1.25	2.00	1.75	2.00	1.50	2.00	2.50	2.50	1.50	2.00	2.00
Painter	2.00@2.25	2.50		2.25@2.50	3.00	2.50	2.50	2.25	2.50	2.50	2.50	2.50	2.00	2.00	3.00	3.00	2.50	2.50	2.50
Plasterer		2.50			4.50	3.50	3.00	3.50	2.50	3.00	3.00	3.00	3.00	3.00	3.50	3.50	4.00	3.50	3.50
Plumber		3.50@4.00	3.50	3.50@4.00	4.50	3.50	3.00	3.50	2.75	3.00	3.00	3.00	3.00	3.00	3.50	3.50	4.00	3.50	3.50
Stonemason	3.00	3.50	2.50	4.00	5.00	3.50	3.50	3.50	3.25	3.50	3.00	3.00	3.00	3.00	3.50	3.50	3.00	4.00	4.00
Carver	5.00	5.00	4.00	4.50@5.00	4.50	5.00	5.00	5.00	5.00	5.00					4.00	5.00	3.00	4.00	4.00
Stonemason	3.50	4.00	4.00	3.75@4.00	5.00	3.50	3.50	4.00	3.00	3.00				4.00	3.50	4.00	4.00	4.00	4.00
Stonesetter	3.50	3.50	3.50	4.00	4.00	4.00	4.00	4.50	3.50	3.50	3.00	3.00	3.00	3.50	4.00	4.00	4.00	4.00	4.00
Roofer (Tin)			2.75	2.75	3.25	2.75	2.50	3.00	2.50	3.00	3.00	3.00	2.50	2.75	4.00	4.00	3.00	2.50	2.50
Slater			2.75	3.00	3.25	3.25	3.50	3.00	2.25	3.00				2.50	3.00	3.00	3.00	3.00	3.00
Stairbuilder		3.50	3.00	3.25@3.75	4.50	2.75		3.25	2.50	3.00	5.00		4.00	3.00	3.50	5.00	3.00	3.00	3.00
Steamfitter				3.50	3.50	2.50	3.50	3.25	2.75	3.00	3.00	3.00	3.00	3.50	3.50	4.00	3.50	3.50	3.50

PRICES OF BUILDING MATERIALS.

CHICAGO, May 10, 1885.		
BRICK.		
Common	Per M.	
Chicago pressed (Anderson)	22.00@25.00	
St. Louis pressed	27.00	
Purinton Kimbell "Standard"	26.00	
Indiana pressed	16.00@28.00	
Philadelphia pressed	42.00@45.00	
Milwaukee pressed	25.00	
Trenton	38.00	
Zanesville (Harris Bros.)	33.00	
Perth Amboy Buff	50.00	
" " Mottled	50.00	
Moulded:		
Chicago (Anderson)	\$65.00@300.00	
St. Louis	50.00@125.00	
Indiana	25.00@50.00	
Zanesville (Harris Bros.)	75.00	
Enamelled:		
Enamelled edge	90.00	
Enamelled edge and end	105.00	
Enamelled (Harris Bros.)	90.00	
CEMENT, LIME, ETC.		
	Per Cask.	
Chicago Lime	\$0.65@.75	
Wisconsin "	96@1.00	
Milwaukee, Utica, Louisville, Akron	1.00@1.25	
Portland	3.25@3.50	
Keene's coarse	7.50@9.00	
Keene's fine	11.00@12.50	
Plaster of Paris	1.75@2.00	
Hair (cattle), per bu.	20@25	
Hair (goat), per bu.	40	
Sand (lake shore), per yard	1.00@1.25	
STONE.		
(Quotations furnished by J. S. F. Batchen.)		
Limestone:	Per cubic foot.	
Buff Bedford	50	
Blue Bedford	65	
Hoosier blue Bedford	65	
" buff	50	
Joliet	35@50	
Lemont	40@50	
New York bluestone	1.35@1.40	
Foundation:		
Dimension	20@25	
Rubble, per cord	8.00	
Sidewalk	40@1.00	
Planned	40@1.00	
Sandstone:		
Hummelstown Brown Stone	1.50	
Brown Connecticut	1.50	
Amherst	60@75	
Berea	55@65	
Brown Potomac	1.25	
Carbondell	1.10	
Moline Blue	55@65	
Marble:		
Italian, veined	4.00	
Tennessee, red	2.50@5.00	
Tennessee, Knoxville	3.00	

Marble, continued:

Vermont, white	3.50@8.00
Ophite	4.50@5.00
Armodite	1.50
State:	
Roofing, Vermont, per square:	
Green	6.50
Purple	6.50
Red	13.50
Black, Lehigh	5.75@6.75
Black, Chapman's	7.50@8.00
Black, Bangor	5.50@5.80

LUMBER.

(Lumbermen's Exchange, 250 So. Water St.)	
(Ordinary Dimensions.)	
Boards:	
Pine, 1st quality, clear	\$44.00@48.00
Pine, 2d quality	44.00@46.00
Pine, 3d quality	40.00
Common	12.00

Siding:

Pine	9.00@21.00
Framing Timber:	
Pine	10.00@14.00

Laths:

Pine	1.90
Shingles:	
Pine (sawed)	2.00@2.60

Miscellaneous:

Pickets, pine	8@21
Posts, cedar	9.00@21.00
Pine, yellow southern	30.00@35.00

HARDWOODS.

(Quotations furnished by The Holbrook Co.)	
Walnut, 1st & 2d, 1 in.	\$75.00@80.00
1 1/4 & up	80.00@100.00
Walnut, counter top	15@20
Ash, 1st & 2d, 1 in.	32.00@35.00
1 1/4 & up	35.00@40.00
Maple, 1st & 2d, 1 in.	25.00@35.00
1 1/4 & up	35.00@40.00
Oak, white, 1st & 2d, 1 in.	30.00@35.00
1 1/4 & up	35.00@40.00
Oak, red, 1st & 2d, 1 in.	30.00@35.00
1 1/4 & up	35.00@40.00
Oak, quarter sawed	40.00@50.00
Cherry, 1st & 2d, 1 in.	75.00
1 1/4 & up	80.00@85.00
2 1/2, 3 & 4 in.	95.00@100.00
Beech, red, 1st & 2d	25.00@30.00
Whitewood, 1st & 2d, 1, 1 1/4, 1 1/2 & 2 in	28.00@32.00
2 1/2, 3 & 4 in.	35.00@40.00
Birch, red, 1st & 2d	35.00@40.00
Butternut, 1st & 2d, 1 in.	50.00@55.00
1 1/4 & up	55.00@60.00
Sycamore, 1st & 2d	20.00@25.00
Gum, red, 1st & 2d, 1 in.	25.00@30.00
1 1/4 & up	35.00@40.00

FINISHING WOODS.

Mahogany, Mexican, per lb.	15@20
Mahogany, St. Domingo, per lb.	20@25
Mahogany, Cuba, per lb.	12@20
Rosewood, per lb.	5@15

CALIFORNIA WOODS, ETC.

(Quotations furnished by Charles B. Crombie & Co.)

Redwood lumber	\$60.00@65.00
Redwood shingles—square, sexagon, round, diamond and octagon, small quantities	6.50@7.25
Mexican Spanish cedar	150.00@300.00
California pine	65.00@75.00

Georgia Yellow Pine:

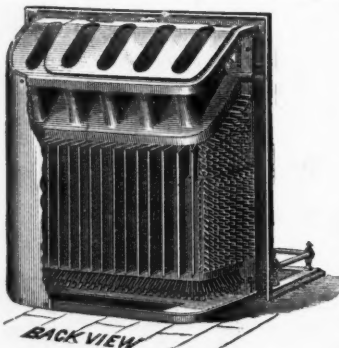
Flooring:	
1st & 2d clear, 4 in.	35.00
1st & 2d clear, 6 in.	35.00
Boards, D 1 s.	33.00@35.00
Beaded Ceiling:	
1st & 2d clear, 1/2 in.	18.00@21.00
3/4 in.	26.00@30.00
1 in.	33.00@36.00
Step plank:	
1st & 2d clear 1 1/4, 1 1/2 & 2 in.	33.00@35.00
Georgia Cypress:	
Lumber, 1st & 2d clear	35.00@40.00
Shingles	3.75@4.25
Frame Oak Lumber and Timber:	
Plank	23.00@25.00
Timber	24.00@30.00

PAINT, ETC.

	Per lb.
	Dry.
	In Oil
White lead (American)	5 1/2
Zinc, white (American)	8@10 10@12
Red, Venetian	2@6 12
Red, Vermilion	20@50 40@100
Red, Indian (English)	12@22
Yellow, Chrome	2@15
Green, Chrome	18@25
Green, Paris	20@30
Black, lamp	8@35
Blue, ultramarine	16@30
Putty	35
Whiting (dry)	1@2
Paris white (English)	2@3
Litharge (American)	6@10
Sienna, burnt	9@16
Umber, burnt	7@16
Oil, linseed (raw), per gal.	51
Oil, linseed (boiled)	54
Turpentine	37
Varnish, coach	1.25@2.00
Varnish, shellac	3.25@4.00

HARDWARE.

	Per Keg.
Nails:	
Spikes, wrought	\$3.50
Tenpenny, common	2.30
Shingle, 4's	3.05
Lath, 3's fine	5.30
Steel nails, 10's to 60's	2.35
For finishing-nails add \$1.65 per keg.	
For casing-nails add 75 c. per keg.	



BACK VIEW

I heat a room on the first floor, also a room on the floor above. Both for heating and ventilating, it is a perfect success.—WM. BOARDMAN, SR., Blackberry, Kane Co.

I use four of your grates in my house, and am satisfied the four grates kept running will warm the whole house in the coldest weather, and give all the ventilation anyone could desire.—WM. HILL (Pres. First National Bank), Warsaw.

My grate is working very satisfactorily, and the ventilation is all that I could desire.—ANDREW MARTIN, Decatur, Ill.

EDWIN A. JACKSON & BRO.,

77 BEEKMAN ST., NEW YORK.

Heat-Saving and Ventilating GRATE.

Some Illinois Reports. Michigan Reports next issue.

Not only do the grates heat the rooms very comfortably, but they keep them supplied with fresh air—one room is 14 x 20 ft., the other 15 x 21 ft.—E. S. DREYER (Banker), Chicago.

The grate has thoroughly heated a large dining-room and perfectly ventilated it. Have taken out furnace register.—HAROLD M. HANSEN, Architect, Chicago.

The grates give me the utmost satisfaction both as heaters and ventilators, and I would most unhesitatingly repeat the purchase.—CHAS. F. GREY (Pres. Hide and Leather Bank), Chicago.

My room is 14 x 18 ft., with two windows on the west, and a large bay window on the north. Connected with this room is another small room. In the coldest weather we can sit in any part of the room with comfort.—J. M. THOMAS, Wyoming, Ill.

The smaller room (an office 16 x 16 ft.) has heat and ventilation enough, by means of one of the grates, but we have had a terribly cold winter, very often 30° below zero, and for a long time 25° below, and during such weather the grate in the larger room (an office 26 x 16 ft., which opens by an arch into another office 12 x 16 ft.), was hardly equal to the work, but it is good for any weather not colder than 20° below zero. In zero temperatures nothing could more agreeably heat and ventilate those large rooms than the grate did.—DR. ROMAIN J. CURTIS, Joliet, Ill.

SEND FOR DESCRIPTIVE CIRCULARS, CATALOGUES AND REPORTS.

ÆTNA IRON WORKS

Cor. Kingsbury and Ohio Sts.,
CHICAGO, ILL.

CLARK, RAFFEN & CO., Proprietors.

COLUMNS, WROUGHT IRON BEAMS,
LINTELS, GIRDERS,
SILLS, SHUTTERS,
RAILINGS, GRATINGS,
VAULT, SIDEWALK AND PLATFORM LIGHTS,

And Every Description of

Iron Work for Buildings.

Correspondence Solicited.

BOYNTON FURNACE CO.

94 Beekman Street, NEW YORK.



SOLE MANUFACTURERS OF
**BOYNTON'S
CELEBRATED
FURNACES.**

With 1883-84 Patent Improvements. Ranges, Baltimore Heaters, Etc.

N. A. BOYNTON, Pres.
C. B. BOYNTON, Sec. & Treas.

Inventors of all Boynton Furnaces which have been on the market for over 33 years.

Over 50,000 BOYNTON FURNACES in use.

To secure "Boynton's" latest Improvements, Architects are requested to specify Boynton Furnace Co's Manufacture.

THE
England Sash Lock

Locks and holds either sash at any desired point, with or without cords, weights, or pulleys.

Locks are not put on the sash cumbersome and easily tampered with, but are placed in the frame,—not seen—and working a powerful catch against the edge of the sash.

Locks are operated with a key passing through a small perforation in the casing. The window is locked as securely as a door can be locked. The sash cannot be moved without the key. The Lock defies the burglar.

Correspondence is invited and Agents are Wanted.

Address,

A. KALSTROM, - - WASHINGTON, D. C.



C. J. Meyer & Sons Co.

Fine Wood Mantels,

Foreign and Domestic Tile,

Grates, Brass Goods etc.

Office and Salesrooms

20, 22, 24 and 26 Market St.

Chicago, Ill.

UNION FOUNDRY AND PULLMAN CAR WHEEL WORKS, N. S. BOUTON, PRESIDENT.

Architectural Iron Work, CAST OR WROUGHT.

ESTIMATES MADE AND CONTRACTS TAKEN IN ANY PART OF THE COUNTRY.

Architects furnished with our Manual, gratis.

LOWEST PRICES ON BEAMS AND CHANNELS.

WORKS: Pullman, Ill.

OFFICE: 408 First National Bank Building.



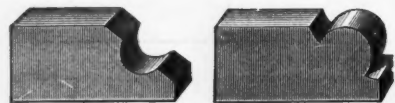
*Easily the Best and Handsomest
Interior Door Handle.*

Will be promptly supplied by any dealer in
Builders' Hardware.

We solicit your inquiries and orders.

ADDRESS,

DIBBLE MFG. CO., - Trenton, N. J.
100 Chambers Street, N. Y.
625 Market Street, Phila.
86 Pearl Street, Boston.
148 Lake Street, Chicago.



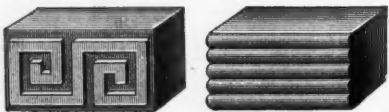
BRICKS!

THE HYDRAULIC
PRESS BRICK CO.
ST LOUIS, MO.

Make a Specialty of Ornamental & Plain
Red Front Pressed Brick,

Manufacturing Annually over
TEN MILLIONS.

They guarantee that the quality, finish and Color, are unsurpassed, if not unequalled by any other bricks made in the United States.



Samples of all brick manufactured by
this well known Company are shown at
the office of their Chicago Agent,

LOCKWOOD & KIMBELL,
Polk and Fifth Ave.

READERS will please mention INLAND ARCHITECT AND BUILDER when corresponding with Advertisers.

PEERLESS BRICKS.

The Peerless Brick Co.

OF PHILADELPHIA,

MANUFACTURES AND KEEPS IN STOCK

ARCHITECTURAL SHAPES,

300 KINDS, ALSO

RED Pressed Fronts. Extra fine in color and quality.

BUFF, Solid rich color—Beautiful. One of the finest bricks made.

DRAB, Handsomer and more durable than stone.

BROWN, Very strong and superior to brownstone.

GRAY, A very desirable shade.

BLACK, Velvety jet face. The only black brick fit for a fine building, producing a beautiful effect, and free from the glossy and greasy look of other black or dipped bricks.

DIAPERING AND ORNAMENTAL BRICKS
MADE IN THE ABOVE COLORS.

ARCHES OF ALL KINDS.

OFFICE:

1003 Walnut St., Philadelphia.

SAMUEL HART, JOSEPH WOOD, Jr.,

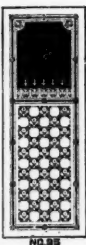
PRESIDENT.

TREASURER.

The Peerless Brick Company

Wish to inform Architects and Dealers that no one is
authorized to act as Agent for the sale of
our manufactures.

Illustrated catalogue and Price List sent free
on application.



EDWIN LEE BROWN, Pres't.
The Western Sand Blast Co.,
Ornameters of Glass for
VESTIBULE DOORS,
TRANSOMS,
BANK & OFFICE COUNTERS,
—AND—
Manufacturers of Advertising
Glass Signs.
Sand Blast & Embossed Rail-
road Glass a specialty.
N.W. Cor. Clinton & Jackson Sts.,
CHICAGO, ILL.
Telephone 4085.



BALL BEARING DOOR MANGERS

For House Doors, Car Doors, Elevator Doors.

Frictionless. Indestructible. Perfect. Send for Circular.

COHOES IRON FOUNDRY & MACHINE CO., COHOES, N. Y.

WANTED:

By an experienced draughtsman (good designer) a position in the office of an architect or prominent builder, with a view to partnership. Good references. Address,

"A. B. No. 28,"

INLAND ARCHITECT.

PROPOSALS.

NOTICE TO CONTRACTORS.

FOR

Steam Heating, Plumbing, Water-Works and Tunnels.

Sealed proposals will be received at the office of the Governor of Indiana, between the hours of 10 and 11 o'clock A.M., *Saturday, May 30, 1885*, for the following classes of equipments for the Northern, Southern and Eastern Indiana Hospitals for Insane, located respectively at Logansport, Evansville and Richmond.

Class 1. For each hospital, 4 steam generators, 100 horsepower each.

Class 2. For each hospital, steam-heating apparatus, 15,000 to 22,000 square feet of radiating surface.

Class 3. For each hospital, sanitary fixtures and plumbing.

Class 4. For each hospital, pumping engines.

Class 5. For each hospital, water supply system.

Class 6. For the Northern Hospital, system of pipe tunnels.

Specifications (and drawings, where required,) of the above work may be seen at the office of E. H. Ketcham, architect, at Indianapolis, and additional information may be had of Dr. Jos. G. Rogers, Medical Engineer, at Logansport, on and after April 24, 1885. Separate bids will be required for each class of work, for each hospital, and each bid must be accompanied by a guaranty bond, with two or more resident freeholder sureties, in five per cent of the amount of the bid. The Board of Commissioners for the additional hospitals for insane reserves the right to reject any or all bids. Bidders on Class 1 will be required to furnish, with bids, complete and full specifications and drawings. All bids on any class of work must be accompanied by a full and complete itemized schedule of quantities and prices, the sum of which must equal the amount of the bid.

ISAAC P. GRAY,

Governor and Pres't Board of Commissioners.

LATHING AND PLASTERING.

[At Frankfort, Ky.]

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., April 24, 1885.]

Sealed proposals will be received at this office until 2 P.M., on the 22d day of May, 1885, for all lathing and plastering required in the court house, postoffice, etc., building at Frankfort, Ky., in accordance with drawings and specification, copies of which and any additional information may be obtained on application at this office or the office of the superintendent.

Bids must be accompanied by a certified check for \$300.00, drawn to the order of the Secretary of the Treasury, as a guarantee that the bidder will enter into a contract, if his bid is accepted, and furnish a bond equal to the amount of contract.

Bids received after the time of opening will not be considered.

M. E. BELL,

Supervising Architect.

GRAVING-DOCK.

[At Esquimault, B. C.]

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, March 20, 1885.

Sealed tenders, addressed to the undersigned, and indorsed, "Tender for Caisson, Graving Dock, B. C.," will be received at this office until Monday, the 1st day of June, 1885, inclusively, for the construction, erection, and placing in position of a caisson for the graving-dock at Esquimault, B. C., according to plans and specifications, to be seen at the department of public works, Ottawa, and on application to the Hon. J. W. Trutch, Victoria, B. C.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied, the blanks properly filled in, and signed with their actual signatures.

Each tender must be accompanied by an accepted bank check for the sum of \$2,000, made payable to the order of the Honorable the Minister of Public Works, which will be forfeited if the party decline to enter into a contract when called on to do so, or if he fail to complete the work contracted for. If the tender be not accepted, the check will be returned.

The Department will not be bound to accept the lowest or any tender.

By order,

A. GOBEIL, Secretary.



RAYMOND'S COMPRESSED LEAD SASH WEIGHTS

With Wrought and Malleable Iron Fastenings.



(Twice the heft of Iron.—Occupy only Half the Space.)

Solid, Compact, Noiseless.

These weights are made under Hydraulic Pressure, securing a greater *solidity* and *density* of metal, and a smoothness of finish not found in the old style of cast weights. Each weight is centered, making it hang perfectly true and plumb.

The LINKED WEIGHTS are very convenient for placing in and removing from pockets with small openings, and will be readily appreciated by the trade.

Any Size or Shape made to order on a few hours' notice.

Prices no higher than the cast lead weights.

Special figures will be given on large quantities.

For plate glass windows no other weight should be used.

Manufactured exclusively by

J. N. RAYMOND,

Lead Pipe and Sheet Lead Works, 55 & 57 West Lake St., Chicago, Ill.

Send for Circular and Table of Weights.

LARGE ASSORTMENT OF

TRENT AND LOW TILES

AND OTHER FINE GOODS

At Reduced Prices.

I furnish the above mantel in cherry, oak, or walnut, with tile facing and hearth. Grate, frame and fire-place set complete in Chicago for \$25. These mantels are as well made and as fully guaranteed as the highest priced. I have a large line of wood mantels in new designs, made in the best manner and excellently finished, which I am now offering at from \$8 to \$15. If you want wood mantels, tiles, or grates it will be to your interest to call and learn my prices for such goods.

CHAS. L. PAGE,

337 WABASH AVENUE.

COFFIN, DEVOE & CO.,

MANUFACTURERS OF

READY MIXED PAINTS,

Colors, Varnishes and Japans,

Wood Fillers, Finishers and Stains,

Brushes, Artists' Materials and Architects' Supplies.

Architects and Builders will find it to their advantage to recommend F. W. DEVOE & CO'S READY MIXED PAINTS in their Specifications, as they are the most reliable and satisfactory Paints in the market.

SEND FOR SAMPLE LIST OF COLORS OF FIFTY DESIRABLE SHADES.

F. W. DEVOE & CO.,
Cor. Fulton and William Sts., NEW YORK.

COFFIN, DEVOE & CO.
176 Randolph St., CHICAGO.

READERS will please mention the INLAND ARCHITECT AND BUILDER when corresponding with Advertisers.

SUPERIOR COPPER WEATHER VANES

Church Crosses, Tower Ornaments, Finials, Etc.
Gilded with Pure Gold.

THOS. W. JONES, 179 and 177 Front St.
(Near Maiden Lane, New York.)
Successor to Thos. W. Jones,
V. W. Haldwin.



Vanes made from any drawing or design on short notice.
Illustrated Catalogue of over 200 designs mailed
to any address. Mention this paper.

The W. E. FROST M'FG CO.

Manufacturers of

SASH, DOORS, BLINDS,

Stair Building and General Planing Business.

Specialty, Hardwood Flooring of all kinds.

CANAL & 12th Streets, - CHICAGO.

E. D. HODGE.

MASON, BUILDER AND PLASTERER,

CEMENT SIDEWALKS, BASEMENT FLOORS, Etc., a Specialty.

Estimates furnished at short notice.

ADDRESS, 151 TWENTY-SECOND STREET.

ARCHITECTS ought to recommend and OWNERS
should use

GROSS' IMPROVED
"DUSTLESS"

ASH RECEIVER AND DUMPER.

ADDRESS

GEO. M. GROSS,
2117 State Street, CHICAGO, ILL.

HASKIN'S
Window Shades,
CENTRAL MUSIC HALL.

Please call and examine "Wade's New System of House
Drainage."

J. J. WADE,
PLUMBING

— AND —

HOUSE DRAINAGE.

Adams Express Bldg., 187 DEARBORN ST.,

— 537 W. MADISON ST. —

CHICAGO, - - ILL.

LEAD BURNING AND CHEMICAL WORKS
FITTED UP.

Licensed to lay Iron and Tile Drainage, and Ventilate the
Sewer and Plumbing System of Public and
Private Buildings.

Telephone No. 7077. Box 361 Builders' Exchange.

Architects and Builders are invited to submit plans for
estimates.

HENRY DIBBLEE.

TILES

For Halls, Vestibules, Offices, Floors,
Conservatories, Bath Rooms, Etc.

ALSO FOR

Hearths, Wainscotings,
Mantel Splays, &c.

GRATES

Gold, Brass and Iron Grates of every
description.

Fenders, Andirons, Fire Sets,
Coal Hods, Screens, Gas Logs, &c.

Ornamental Metal Work,

Fountains, Vases, Drinking Fountains,
Statuary and Animals,

Stable Fittings, Weather Vanes,
Cresting and Finials,

Railing and Fencing,
Window Guards, &c. &c.

ANSON S. HOPKINS.

HENRY DIBBLEE & CO.

* WOOD & SLATE MANTELS,
* TILE FIREPLACES,

LOW'S ART TILES,

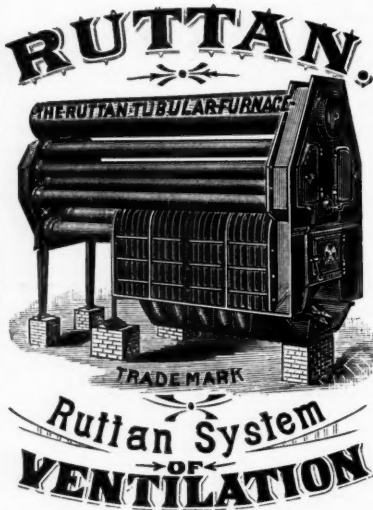
Floor and Ornamental Tiles,

FINE GRATES and BRASS GOODS,

ORNAMENTAL METAL WORK,

266 & 268 WABASH AVENUE,

CHICAGO.



Ruttan Manufacturing Co.,

HEATING

AND

Ventilating Engineers,

68 Lake St., Chicago.

We make a specialty of Heating and
Ventilation of Public Buildings, School
Buildings, Churches, Etc. Seventy page
illustrated circular free on application.

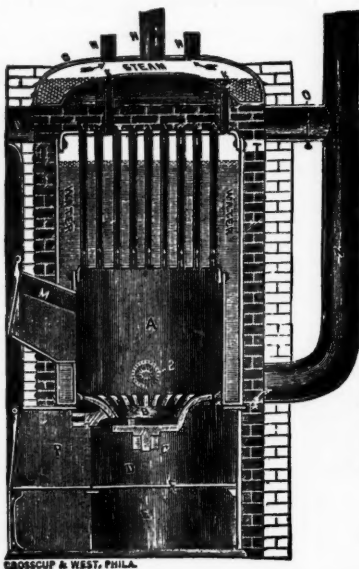
Correspondence Solicited.

ARCHITECTS are usually gentlemen of taste, with an eye to beauty and effec-
tiveness. Those desiring to avail themselves of these advantages should give a trial
order to

* SHEPARD & JOHNSTON, General Printers,

140 to 146 MONROE ST., CHICAGO.

CARDS, LETTER, NOTE and BILL HEADS and BLANK FORMS A SPECIALTY.
Observe typography of THIS JOURNAL as a fair specimen of their grade of work.



PERFECT STEAM HEATING

COMBINING

Elegance, Effectiveness, Durability, Perfect
Ventilation.

—THE—

CINCINNATI STEAM HEATING CO.,
CINCINNATI, OHIO.

Contractors for the heating and ventilation of Public Buildings
and Fine Residences. 24 Sizes Low-Pressure Steam Generators.
Eureka Indirect Radiators. Ornamental Direct Radiators.

CLEVELAND REFERENCES:

S. T. Everett's residence, Euclid Avenue. Geo. W. Stockly's
residence, Euclid Avenue. East Cleveland Baptist Chapel, Euclid
Avenue. Herman Junge's residence, Detroit Street. Herman
Muller's residence, Detroit Street. C. S. Session's residence,
Jennings Avenue. W. R. Munroe's Incubator and Poultry
Establishment, Unionville. None but skilled mechanics employed.
None but strictly first-class work solicited. For Circulars and
information address

The Cincinnati Steam Heating Co.
CINCINNATI, OHIO.

H. E. LIGHT Pres't.

GEO. E. LIGHT, Treas.

GEO. E. DIXON, Con. Engineer.

Vertical Sectional View of our Eureka Steam Generator—over 3,000 in use.

READERS will please mention the INLAND ARCHITECT AND BUILDER when
corresponding with Advertisers.

Home Office & Manufactory:
273 TO 281 STATE ST.,
BROOKLYN, N. Y.



W. C. VOSBURGH MFG. CO.,

MANUFACTURERS OF AND DEALERS IN

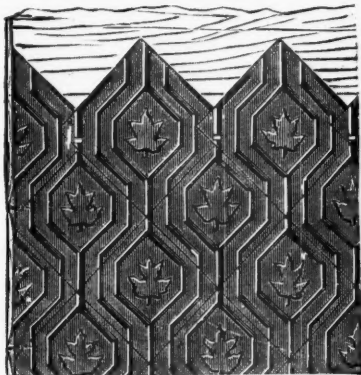
Artistic Gas-Fixtures.

A full stock of fine and desirable goods in the latest and most improved designs, and finished in all the popular colors.

SPECIAL DESIGNS TO ORDER,

WESTERN BRANCH WAREROOMS:

184 AND 186 WABASH AVE., CHICAGO.



BEST ROOF In the World is the Montross Patent METAL SHINGLES

Cheap, Durable, Handsome, and Fireproof. Warranted Absolutely Water-tight, and Proof against Storms, Snow, and Ice. Can be put on by anybody. Adapted for all Houses and Farm Buildings. Send for Circulars and Price Lists, free.

E. VAN NOORDEN & CO.
BOSTON, MASS.

E. P. Wilce & Co.

MANUFACTURERS OF

Doors, Sash and Blinds,

MOULDINGS, FRAMES,
TURNINGS, Etc.,

Every description (in Hardwood or Pine) of

STAIR WORK and INTERIOR FINISH, HARDWOOD FLOORING,

KILN DRIED, of which we keep a large assortment constantly on hand, such as MAPLE, RED OAK, WHITE OAK (plain or quarter sawed), RED and BLACK BIRCH, YELLOW PINE, ASH, WALNUT, etc., etc.

Estimates Furnished on Application.

OFFICE AND FACTORY:

COR. 22nd AND THROOP STREETS.

TRADE MARK.

The "Star" Portland Cement Works,

Toeffer, Grawitz & Co., Stettin, Germany,

ESTABLISHED 1860,

Guarantee their entire production (about 240,000 barrels a year) to have the following *Minimum Tensile Strength*, if tested according to the official German regulations, on non-absorptive beds:

	Days' test.	Per sq. centimetre	Per Eng. sq. in.
Neat "Star" Cement,	7	40 kilos.	568.9 lbs
do do	28	50 "	711.1 "
1 Cement and 3 Standard Sand	7	15 "	213.3 "
do do	28	20 "	284.4 "
1 Cement and 6 Standard Sand	7	6 "	85.3 "
do do	28	10 "	142.2 "

Send for Testimonials, Pamphlet, Directions for Testing, etc.

GUSTAV GRAWITZ, 165 Broadway, N. Y.,
Sole Agent in the U. S.



Murdock Curtain Grate.

New and artistic: the best working Grate ever offered to the public: easily regulated by damper and draft slide below the bars. Fire can be kept indefinitely. The cut represents the curtain (or blower) partially drawn. Finished in Berlin black, cast brass and bronze metal. Circular sent on application.

MANUFACTURERS:

MURDOCK PARLOR GRATE CO.,

18 BEACON ST., BOSTON, MASS.

Exclusive Agents for the beautiful TRENT TILE for New England, Colorado, Illinois, Kansas, Missouri, Minnesota, Wisconsin and Michigan. Gold Medal awarded 1884 by "The Mass. Charitable Mechanics Association."

W. E. WYATT & CO.,

Successors to J. S. WHEELER & CO.,

GRAVEL ROOFERS

AND DEALERS IN ROOFING MATERIALS,

4531 STATE ST. & 157 LA SALLE ST., CHICAGO.

TELEPHONE NO. 438 & 9925. Prices as low as any responsible house. Country as well as city work promptly done.

WM. F. KELLETT,

MANUFACTURER OF

PLASTER DECORATIONS.



CENTERS,
CORNICE ENRICHMENTS, ETC.

BRACKETS,
DESIGNING AND MODELING TO ORDER.

Catalogues and Price Lists sent on application.

49 EAST VAN BUREN STREET,
BET. STATE ST. AND WABASH AVE.

GARY'S CHAMPION ROOFING,

IN USE HERE 27 YEARS.

Old worn out Gravel, Tin or Iron Roofs coated so as to last TEN YEARS.

Chicago, November, 1883.

We, the undersigned, have used J. M. Cary's Champion Roofing Composition many years, and find it so much superior to the common gravel roof in durability and fire-proof qualities, that we believe we are doing Building Owners, Architects and Insurance men a favor in calling their attention to it, knowing as we do, that it is the best roofing composition for new felt roofs, or recoating, or repairing old roofs, now in use in Chicago.

L. C. PAINE FREER,
MATTHEW LAFIN,
CARTER H. HARRISON,
J. M. WILLIAMS,
GEO. W. NEWCOMB,
DR. J. W. BROOKS,
P. W. GATES,
GEO. H. LAFIN,
DR. E. INGALLS,
E. L. BRAND,
DR. Z. P. HANSON,
E. BLACKMAN.

PHILO CARPENTER,
DR. JOHN NUTT,
GEO. F. HARDING,
JOHN J. BROWN,
H. C. MIDDAUGH,
J. M. ADSIT,
ISAAC MARKS,
J. GUNZENHAUSER,
E. FRANKENTHAL,
J. M. HILL,
J. K. BOTSFORD,
C. E. BROWN.

JOHN M. CARY,

171 La Salle St. CHICAGO.

FIRE ON THE HEARTH.



Stoves, 5 Sizes,
No. 18, New and Elegant
Design.

Air Warming Grates,
Two Sizes.

Fire Place Heaters,
Two Sizes.

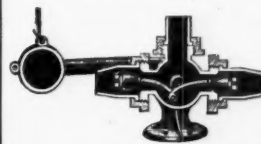
Each one combining the Radiation and Ventilation of an open fire with the power and economy of a warm air furnace; also full line of PARLOR and COOK STOVES, RANGES etc.

Send for Price List.

THE RAYMOND FURNACE & MFG. CO.,

76 Beekman Street, NEW YORK.

The Kelly Stop and Waste Cock.



To prevent Water-pipes from freezing and control the water supply from any point in a building, or as a Self-Closing Hopper Cock, or Self-Acting Flushing Apparatus for Water Closets or Urinals.

Send for Catalogue
Thos. Kelly & Bro.
PLUMBERS,
75 Jackson Street, CHICAGO, ILL.

THE POST OFFICE DEP'T

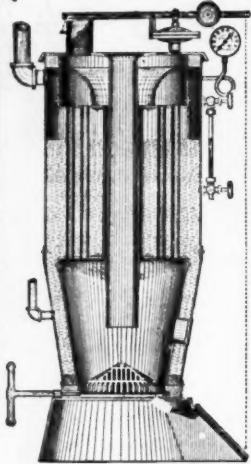
HAS AUTHORIZED THE USE OF THE

CUTLER PAT. MAILING SYSTEM,

As supplied to the New York Produce Exchange, And the Best Office Buildings in all parts of the United States. Each story connected with the Mail Box. Silver Medal, Cincinnati, 1884. In use in U. S. Government Building, New Orleans Exposition.

CUTLER MFG. CO., Sole Makers,
ROCHESTER, N. Y.

Unparalleled Success The New **AMERICAN Automatic**



Steam Heater.

FOR DWELLINGS, PUBLIC BUILDINGS, RAILWAY STATIONS, OFFICES, &c.

Low Pressure, Self Regulating, Economical, Cheap, Durable.

*UNIFORM HEAT *NO GAS *DUST, *OR SMOKE *NO OBJECTIONS*

MANUFACTURED BY

10 BARCLAY ST. NEW YORK

Newell Universal Mill Co.

Send for Illustrated Catalogue

THE BEST FINISH FOR WOODWORK

BUTCHER'S BOSTON POLISH

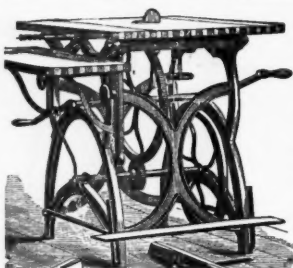


BUTCHER POLISH CO.
171 TREMONT ST.
BOSTON, MASS.

We Gladly furnish information on request.

AGENTS IN LARGE CITIES, AND FOR SALE BY DEALERS IN PAINTERS' SUPPLIES.

Marston's Hand & Foot Circular Saw.



A simple, strong and durable machine for actual use.

Weight, 300 lbs.
Top measures 28x38 inches.

Iron grooves in top for gauges to slide in. Steel shafts and arbor. Cut gears.

Machines on trial.

Send for reduced price list.

J. M. MARSTON, & CO.,
4 APPLETON ST., BOSTON, MASS.

CORRUGATED WIRE LATHING,

An improvement upon flat wire. No stretching and no rurring of any kind required. Can be put up by anyone. Gives a continuous key to the plaster. A Perfect Fireproofing for walls, ceilings, partitions, columns and girders. Best support for deafening in use. Manufactured by

The Stanley Corrugated Fireproof Lathing Co.,
Room 14, 239 BROADWAY, COR. PARK PLACE, N. Y.
Illustrated Circular sent on application.

THE MAGEE FURNACES AND RANGES.



We desire to call the attention of ARCHITECTS, BUILDERS and those contemplating building, to our extensive line of **Furnaces and Ranges**, by far the largest in the country. Estimates furnished and work done in the best manner at any point desired.

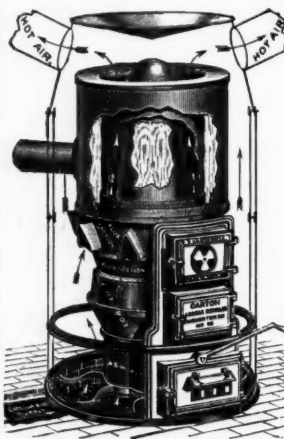
Illustrated and descriptive circulars sent free on application. All goods of our manufacture warranted to give perfect satisfaction when we superintend erection. None but the choicest materials and most skilled workmen are employed.

The **MAGEE PATENT SINK** is "the greatest sanitary blessing of the age."

MAGEE FURNACE COMPANY,

BOSTON.

WESTERN BRANCH: 86 Lake Street, CHICAGO.



THE "CARTON"

New Double Cylinder Wrought-Iron Furnace.

The increasing demand for a FIRST-CLASS WROUGHT-IRON FURNACE being so great, we have been compelled to introduce A NEW AND COMPLETE LINE. We have taken into consideration the weak points in those now in the market, which in our NEW DOUBLE CYLINDER we have fully overcome. It contains the DUPLEX GRATE: the Fire-Pots are made of two pieces, which obviates all liability of cracking or breaking from expansion or contraction of heat; the Flue section having covered air catchers makes it a wonderfully STRONG RADIATOR OF HEAT. Most Wrought-Iron Furnaces are made with one Wrought-Iron Cylinder, whereas in the "CARTON" THE CYLINDER IS DOUBLE, with a space between the inner and outer cylinder from two to three inches; besides, there is a Wrought-Iron Cone directly over the fire, MAKING AN EXTRAORDINARY SHARP RADIATING SURFACE, in all giving the "CARTON" about three times the amount of radiating surface of any other Wrought-Iron Furnace in the market. For good, sharp, strong radiating surface the "CARTON" Double Cylinder cannot be surpassed. Our 56-page Illustrated Catalogue sent free on application, which contains exceptionally good instructions on setting a furnace, giving the size of hot-air pipes and registers to be used in different sized rooms, and an excellent Essay on heat and ventilation well worth reading. We solicit applications for our catalogue. Agents wanted in every city.

THE CARTON FURNACE CO., Mfrs.,

Office, 32 Fayette Street,

UTICA, N. Y.

HEMMOOR PORTLAND CEMENT



GERMAN CROWN BRAND

BELLONI & CO.

41 SOUTH STREET NEW YORK CITY

Selected for use in the Pedestal of the Bartholdi Statue, Cable Roads and other prominent works.

HUGH McMILLAN, Pres.
W. A. JACKSON, Vice-Pres't and Treas.

W. H. McKINLOCK, Secretary.
FRANK E. FISHER, Manager.

The Detroit Electrical Works.

ELECTRIC BELLS.

Burglar Alarms, Mercurial Fire Alarms, Watchman's Time Detectors, Front Door Bells, Cash Calls, Hotel Annunciators, Push Buttons, Batteries, Insulated Wire.

ELECTRIC GAS LIGHTING

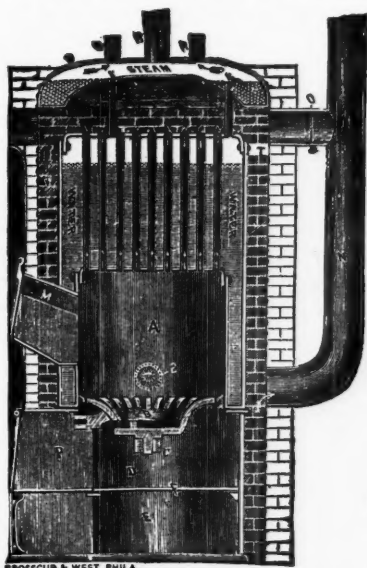
For Residences and Public Buildings, and a general supply of Electric Apparatus constantly on hand. Send for prices and estimates on work. All work guaranteed.

DETROIT ELECTRICAL WORKS,

COR. SEVENTH AND WOODBRIDGE STS., DETROIT, MICH.

Please mention this paper.

WARMING AND VENTILATION



A PERFECT SUCCESS BY OUR APPARATUS.

24 Sizes Low Pressure Generators.

PRETTIEST DIRECT RADIATION.

Largest Manufacturers of Indirect and Window Radiation.

LIGHT'S PATENTS,

The Most Popular with the Trade.

Descriptive and Trade Circulars on Application.

Plans and Estimates by a Skilled Engineer.

EUREKA STEAM HEATING CO.

202 STATE ST., ROCHESTER, N. Y.

Our Sales from year to year have doubled with good satisfaction everywhere.

SEND FOR CIRCULARS.

PRIZE MEDALLISTS.

Exhibitions of 1862, 1865, 1867, 1872, 1873, and only Award and Medal for Noiseless, Self-Coiling Steel Shutters at Philadelphia, 1876; Paris, 1878; and Melbourne, 1881.

CLARK, BUNNETT & CO. (LIMITED),

LATE CLARK & COMPANY,
Original Inventors and Sole Patentees of

Noiseless, Self-Coiling, Revolving Steel Shutters,
Fire and Burglar Proof. Also, Improved ROLLING WOOD SHUTTERS, and CLARK'S PATENT
METALLIC VENETIAN BLINDS.

THE BEST IN THE MARKET. SEND FOR CATALOGUES, Etc., TO
162 and 164 West 27th Street, New York.

ROYAL MACHINE. No Smoke, No Smell!!!	Hotels.	Street Lamps
	Churches.	All Designs.
	Factories.	Posts.
	Colleges.	Gasoline.
	Asylums.	Naphtha.
	Private Residences.	Crude Oil.
	all use it. ADDRESS PENNA GLOBE GAS LIGHT CO. Nos. 47 & 49 N. Second St., Phila.	

READERS, in corresponding with advertisers, will confer a particular favor upon both the advertisers and publishers by mentioning this Journal.

Evanston, Ill., Building,

J. R. McLEAN, SR.,

Builder and Superintendent,

EVANSTON, ILL.

ALL DESCRIPTIONS OF SPECIAL MILL WORK
TO ORDER.

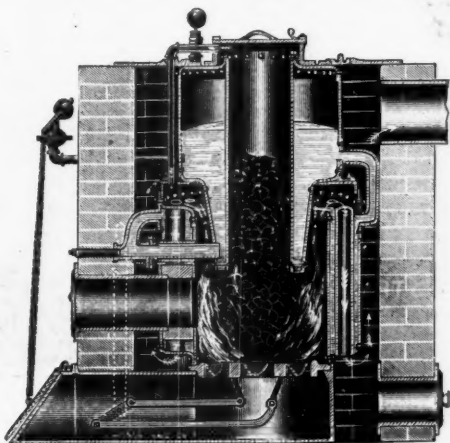
STEAM WARMING

AND

VENTILATING APPARATUS.

SIMPLIFIED AND ADAPTED TO WARMING RESIDENCES, PUBLIC
AND PRIVATE BUILDINGS, CHURCHES, ETC.

Descriptive Pamphlets on Application.



References in all parts of the Country.

CHAMPION SELF-FEEDING BOILER,

ALSO

HOT WATER APPARATUS

FOR WARMING GREENHOUSES, CONSERVATORIES, ETC.

BAKER, SMITH & CO.,

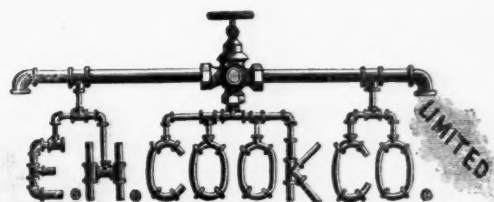
81 & 88 Jackson St.

CHICAGO, ILL.

J. H. STEDMAN,
President.

H. P. BLAIR,
Chief Engineer.

H. C. COVELL,
Secy. and Treas.



STEAM AND HOT WATER.

WARMING AND VENTILATING.

ENGINEERS AND CONTRACTORS.

31 to 35 Mill Street, ROCHESTER, N. Y.

24 Erie Street, BUFFALO, N. Y.

35 and 37 So. Canal Street, Cor. Washington,

CHICAGO, ILL.

TOMLINSON & REED*QUARRYMEN*

And Dealers in

OOLITIC LIMESTONE

QUARRIES AT AVOCA,

Near Bedford, Ind.

Branch Office, *POLK & ELLSWORTH STS.*

— CHICAGO. —

THE IRWIN & REBER

PATENT

EXPANDING WATER CONDUCTOR.

MANUFACTURED BY THE

S. S. S. Conductor Co.

LIMITED,

163 Lacock Street,
ALLEGHENY, PA.

THE STANDING SEAM allows of an easy and secure fastening, keeping the pipe far enough from the wall to make any overflow from the eave pipe or head, run down the spout, and not the wall; and will open, in case of freezing, so as to prevent bursting, and still remain double-locked and water-tight.



MADE IN

SIX FOOT LENGTHS

of a Single Sheet of

SOFT STEEL,

Either Galvanized, Kalameined or Leaded.

PRINCIPAL AGENTS:

E. B. Badger & Son, Boston, Mass.; Noyes & Wines, New York; J. S. Thorn, Philadelphia; John G. Hetzell, Baltimore, Md.; R. P. Gormully, Chicago; F. Schmidt & Sons, Milwaukee; Shackleton Bros., Cleveland; A. K. Sweet, Kansas City, Mo.; G. H. Peters & Son, Buffalo, N. Y.; James Ackroyd, Albany, N. Y.; Witt & Brown, Cincinnati; Hull & Cozzens Manufacturing Co., St. Louis, Mo., and many others.

MEACHAM & WRIGHT,

MANUFACTURERS' AGENTS FOR

*UTICA AND LOUISVILLE.***HYDRAULIC CEMENTS**

AND DEALERS IN

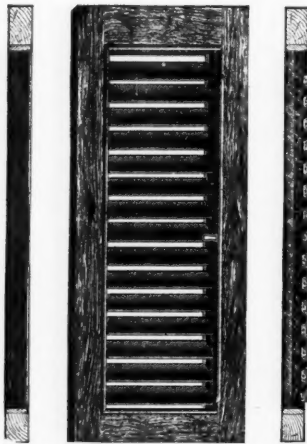
*Lime, Michigan and New York Stucco
and Portland Cement,*

98 MARKET ST., CHICAGO.

TELEPHONE 424.

**ACME WINDOW BLIND.**

UNDER GEO. WM. MORSTATT'S PATENTS.



The attention is called to the advantages possessed by the ACME WINDOW BLIND over the old style of shutters, the construction of which is fully illustrated in the engraving. The slats are operated by a knob attached to a movable bead at one end, thus doing away with the unsightly center rod. The pins supporting and operating the slats are of metal, which do not shrink or swell by atmospheric changes, thus permitting a better fit and avoid all rattling. The slats can be rolled in either direction, and closed so tightly that no light will be admitted. They will also remain in any position. Broken slats are easily replaced, only the screws securing the bead having to be removed. These Blinds are endorsed by the leading architects as the best and most complete Inside Blind manufactured, and adopted in the lately furnished dwellings of the Vanderbilts, Goetts, Stuart, Bishop, Morgan, Ruppert, Hoffman House, Progress Club, Knickerbocker Apartment building, and many other modern and first-class buildings. We invite their examination by those intending to furnish.

For orders for Blinds, applications for rights to manufacture, and all information, address

MORSTATT & KLATZL,

SOLE MANUFACTURERS,

227 & 229 WEST TWENTY-NINTH ST.

NEAR SEVENTH AVENUE. NEW YORK.

Send for new descriptive Circular.

FROST & ADAMS,

37 CORNHILL, BOSTON,

Draughting Instruments,

AND

Supplies for Architects,

Engineers and Draughtsmen.

—AGENTS FOR—

*Abbott's Practical Ellipsograph and
Levy's Blue-Process Paper.*

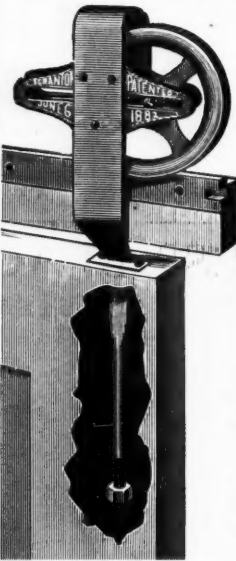
COPIES TAKEN BY THE LEVY BLUE COPYING PROCESS.

AN EXAMINATION OF OUR CATALOGUES IS SOLICITED.

F. S. FROST.

H. A. LAWRENCE.

Mention this Paper.



THE
**SCRANTON
ANTI-FRICTION
STEEL
PARLOR DOOR
HANGERS**

are the simplest, cheapest to hang, easiest to adjust, and lowest in price. Sold by principal dealers.

Catalogue on application. SCRANTON M'FG Co., 68 to 74 W. Monroe St., Chicago.

On exhibition at rooms of Permanent Exhibit and Exchange of Building Materials.

Clover Leaf Ventilators

AND

CHIMNEY CAPS!

For ventilating PUBLIC AND PRIVATE BUILDINGS, RAILROAD CARS, SOIL PIPES, WATER-CLOSETS, etc.

SURE CURE

FOR

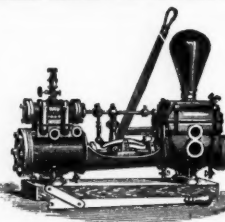
Smoky Chimneys

MADE AND SOLD BY

E. Van Noorden & Co.,387 Harrison Avenue,
BOSTON, MASS.

Working Models mailed to any address in the U. S. on receipt of 20 cents.

AGENCIES:—M. M. MURPHY & Co., Cleveland, Ohio; JAS. B. SCOTT & Co., Pittsburgh, Pa.; DETROIT LEAD PIPE AND SHEET LEAD WORKS, Detroit, Mich.; A. MOLLO, 87 Royal St., New Orleans, La.; REUTER & MALLORY, Baltimore, Md.; PIERCE, BUTLER & PIERCE, Syracuse, N. Y.; STAMBAUGH & LOVE, Philadelphia.

**KNOWLES' STEAM PUMP WORKS**

44 WASHINGTON ST.,

BOSTON.

93 LIBERTY ST.,

NEW YORK.

*Make a Specialty of Pumping Machinery for Public and
Private Buildings, for use in connection with
Elevators, Water Tanks, Etc.*

Correspondence Solicited.

READERS will please mention the INLAND ARCHITECT AND BUILDER when
corresponding with Advertisers.

GERSTENDORFER
BROS.

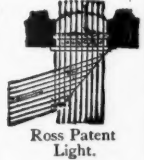
Manufacturers and Importers of

BRONZE POWDER,**GOLD, SILVER,**and **METAL LEAF,**

Artists and Varnish Brushes,

Also the Celebrated

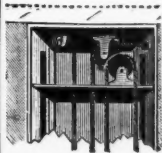
: : "Our Favorite" : :

Fluid Gold & Gold Paint.14 Dey St.,
NEW YORK.231 Dearborn St.,
CHICAGO, ILL.**FACTORIES:***Fuerth, Velden, Simmelsdorf and
Rauhenstein in Bavaria, Germ.***SIDEWALK**
-AND-
VaultSole Manufacturers
of the**FLOOR and ROOF**
LIGHTS.**DAUCHY & CO.**
125 and 127 Indiana St. (near Wells),
CHICAGO, ILL.Ross Patent
Light.**J. C. MCFARLAND,**
GALVANIZED**IRON CORNICES,**

Etc. Etc.

Slate, Tin & Corrugated Iron Roofer.Skylights, Conservatories and other Glazed Work, using
Ventilating Galvanized Iron Gutter Bars.**JOBGING IN SHEET METAL.**Contracts taken in any part of the United States. Slate fur-
nished to trade in any quantity at the lowest market price.

AGENT FOR

*Austin's Patent Expanding Conductor.*219 AND 221 WEST LAKE STREET,
CHICAGO.**SWEZEY'S**

IMPROVED

DUMB-WAITER,

FOR DWELLINGS,

With Automatic Catch.

For Any Size of Shaft.

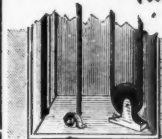
GUARANTEED

FOR ONE YEAR.

M. B. SWEZEY,

No. 120 20th Street,

CHICAGO, ILL.

REFERENCES:**ARCHITECTS.**John Addison. Treat & Foltz.
L. B. Dixon. C. P. Thomas.
H. S. Jaffray. T. V. Wadskier.
C. A. Alexander. Silsby & Kent.
Wheelock & Clay. J. J. Flanders.
Cobb & Frost. Aug. Feidler.
H. T. Kley. Adler & Sullivan.
Baur & Hill. S. S. Beemen.
W. L. B. Jenney. P. W. Anderson.
A. M. F. Colton. W. A. Furber.
John N. Tilton. Otto Matz.
Holabird & Roche. C. C. Miller.
Francis Charnley.
Edbrook & Burnham.
Cass Chapman.
H. L. Gay.**R. B. APPLEBY,**

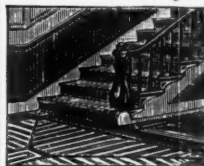
DEALER IN ALL KINDS OF

HARDWOOD LUMBER.*Also Hardwood Flooring, Dressed and Matched.*

10 to 24 Morgan, bet. Lake & Randolph Sts. Chicago.

E. B. MOORE & CO.,

SOLE AGENTS FOR

Patent PARQUETRY Flooring,Wainscoting, etc., and Agents
for Wood Carpet, Fancy Bor-
ders, and Inlaid Hardwood
Floors, Butchers' Boston Pol-
ish. Rooms Measured, Dia-
grams made and Estimates
given. Send stamp for book
of Designs.
48 Randolph Street,
CHICAGO.

The Largest of the kind in the world.

THE HOOSIER STONE CO.,

WHOLESALE DEALERS IN

Buff and Blue Bedford Limestone,
BEDFORD, - INDIANA.

JOHN S. F. BATCHEN, AGENT, 454 Fifth Ave., Chicago.

SEWER**FIRE BRICK**
AND
FIRE CLAY.**RHOADS & RAMSEY,**107 LA SALLE ST.
(Chamber of Commerce.)
Yards—89 N. Elizabeth Street.
15th Street & L. S. & M. S. R. R.**PIPE**

ESTABLISHED 1816

WM. STRUTHERS & SONS,

CONTRACTORS OF THE

Marble Work for the New
City Hall, Philadelphia.

Office, No. 2 So. Merrick St. Works, 24th and Walnut Sts.

AGENTS FOR THE
CAEN & AUBIGNY STONE QUARRIES, FRANCE.**PHILADELPHIA.****PEERLESS BLACK FOR MORTAR.**Red, White, Brown and Buff are Specialties. All Colors
Permanent and Superior to any article now in use.

PREPARED ONLY BY

SAMUEL H. FRENCH & CO.,**PAINT MANUFACTURERS,**

IMPORTERS, DEALERS AND MANUFACTURERS OF

PAINTERS' AND BUILDERS' SUPPLIES.

YORK AVE., FOURTH & CALLOWHILL STS.,

Send for Circulars and Catalogue.

PHILADELPHIA**THE GREAT CHURCH LIGHT.**FRINK'S PATENT REFLECTORS give the Most Powerful, the Softest,
Cheapest, and the Best Light known for Churches, Stores, Show Windows,
Parlors, Banks, Offices, Picture Galleries, Theaters, Depots, etc. New and
elegant designs. Send size of room. Get circular and estimate. A liberal dis-
count to churches and the trade. I. P. FRINK, 551 Pearl St., New York.

FOR

INSIDE

FINISH.

USE

DE GOLYER'S HARD OIL FINISH.

WHITE,

LIGHT,

MEDIUM.



FRED. N. ATWOOD,
DECORATIVE ARTIST.

58
Major Stk
Chicago

Theatrical
Decorations
Specialty.

Apartments in Private Houses Decorated to suit all tastes.

We make a Special Study of the true harmony of Colors, and produce fine Contrasts and Combinations to match any manner of Furnishing.

Churches and Public Buildings Painted and Frescoed in the most approved styles.

J. K. RUSSELL.

ROBT. W. WEGG.

J. K. RUSSELL & CO.

Manufacturers and Wholesale Dealers in

SASH, DOORS, BLINDS,*Moldings, Stair Work, Etc.*

80 to 92 Fulton Street, CHICAGO.

TELEPHONE No. 4327.

*Ornamental Hardwood Work a Specialty.***Roofs.****CHAS. H. CONNER,**
LOUISVILLE, KY.*Large Facilities — for —*
Slating Contracts

WILL BID ANYWHERE.

READERS, in corresponding with advertisers, will confer a particular favor upon both the advertisers and publishers by mentioning this Journal.

INDEX TO ADVERTISEMENTS.

Air Belts. Zimdar's.....	Page XXV	Elevators. Crane Bros. Mfg. Co.....	Page XXVIII	Mason Material Elevator. Stinson, H. P.....	Page XXVI	Sanitary Appliances. Adee, Fred., & Co.....	Page XIII
Architectural Artists. Edward Dewson..... Carpenter, J. H.....	I V	Fire Escapes. Benner & Co.....	XIV	Masonry. Hodge, E. D.....	XVIII	Scenic Artists. Sossman & Landis.....	I
Architectural Books. Comstock, W. T.....	XI	Fireproofing. Fireproof Building Co..... Haydenville Mining & Mfg. Co..... Pioneer Fireproof Construction Co..... Wight Fireproofing Co.....	VIII VI VII I VI	Mathematical Instruments. Frost & Adams..... Wadsworth, Howland & Co.....	XXII XI	Sewer Pipe. Rhodes & Ramsey..... Haydenville Mining & Mfg. Co.....	XXIII VI
Architectural Ironworks. Etna Iron Works..... Benner & Co., Ironworks..... Globe Iron Works..... Union Foundry and Pullman Car Wheel Works.....	XXV XIV VII XVI	Furniture. Andrews, A. H. & Co.....	XXVI	Metallic Centerpieces. Warren Bros.....	XII	Sidewalk and Vault Lights. Brown Bros..... Dauchy & Co.....	XIV XXIII
Architectural Views. Lovejoy, E.....	XXV	Furnaces, Ranges, Etc. Boynton Furnace Co..... Gaston Furnace Co..... Magee Furnace Co..... Richardson & Boynton Co.....	XV XX XX V	Metal Shingles and Roofing. National Sheet Metal Roofing Co..... Cincinnati Corrugating Co..... Merchant & Co..... Van Noorden, E.....	VII XXIII XXII XIX	Skylights, Conservatories, Etc. Knisely & Miller.....	XII
Ash Dumps. Page, Chas. L..... Gross, Geo. M.....	XXVII XVIII	Grates. Jackson, Edw. A. & Bro..... Page, C. L..... Perkins, Wm. L. & Co.....	72 XVII X	Ornamental Centers. Bartolomei, J. & Co..... Kelley, W. F..... Poli, Peter E..... Warren Bros.....	XII XIX XII XII	Slate and Metal Roofing. Hughes, R.....	XXVI
Asbestos. Asbestos Packing Co.....	VI	Gas Fixtures. Archer & Pancoast Mfg. Co..... Beaver, Hughes & Wetmore Co..... W. C. Vosburg Mfg. Co.....	XXVIII VIII XIX	Painters and Decorators. Barry, S. S. & Son..... French, S. H. & Co.....	I XXIII	Steam Pump Works. Davis, John & Co..... Knowles Steam Pump Works..... Geo. F. Blake Mfg. Co..... Wheeler & Tappan.....	IX XXI XXI IX
Asphalt. Seyssel Rock Asphalt.....	I	Gas Machines. Penna Globe Gas Light Co.....	XXVI	Paints, Oils and Varnishes. Coffin, Devoe & Co..... Gerstendorfer Bros.....	XVII XXIII	Stone. Hoosier Stone Co..... Yeung & Farrell Co..... Tomlinson & Reed.....	XXIII IX XXII
Black for Mortar. French, S. H. & Co.....	XXIII	Galvanized Iron Works. McFarland, J. C..... Knisely & Miller..... Rothage, Geo. & Co..... Mesker & Co.....	VII XII XXV XII	Parquet Floors. Moore, E. B. & Co.....	XXIII	Stained Glass. Decorative Glass Mfg. Co..... French Silvering and Ornamental Glass Co..... Healy & Millet..... Kinsella, F. D. & Co..... Lamb, J. & R..... McCully & Miles..... Misch, G. A..... Seib, L. C..... Wells, W. H. & Bro. Co.....	X X X X X X X X X
Brass Work. Andrews, A. H.....	XXVI	Glass (Plate). Chrystal Plate Glass Co..... Kimball, Geo. F.....	X X	Picture Framing. Lovejoy, E.....	XXV	Steam Heating. A. A. Griffing Ironworks..... Baker, Smith & Co..... Cincinnati Steam Heat Co..... Cook, E. H. & Co..... Eureka Steam Heat Co..... John Davis & Co..... Le Bosquet Bros..... Newell Universal Mill Co.....	XXVIII XXI XXIII XXI XXI IX XI XX
Brick Preserving Process. Hunt, Theo.....	XXVI	Granites. St. John, M. H..... Hallowell & Bodwell Co's.....	XI XIV	Pipe and Boiler Covering. Kelly Scroll Section Mfg. Co.....	XXVIII	Terra-Cotta. Northwestern Terra-Cotta Wks. Perth Amboy Terra-Cotta Co. Boston Architectural Terra-Cotta Works..... Boston Terra-Cotta Co.....	I VI XII XII
Bricks (Pressed). Chicago Anderson Pressed Brick Co..... Harris Bros. (Abbot & Wright, agents)..... Wm. E. Hinchcliff & Co..... Hydraulic Press Brick Co..... Lockwood & Kimball..... Peerless Pressed Brick Co..... Tiffany Pressed Brick Co.....	XIV V XXVIII XVI II XVI V	Heating and Ventilating Apparatus. Smith & Anthony Stove Co..... Raymond Furnace & Mfg. Co..... Ruttan Mfg. Co.....	XXI XIX XVIII	Planing Mill. Russell, J. K.....	XXV	Tiling. Abbot & Wright (agents)..... Dibbee, Henry & Co..... Innes & Co..... Page, Chas. L..... Producers' Marble Co..... The United States Encaustic Tile Co.....	V XVIII XII XV X III
Bids. Building, etc.....	XVII	Insurance (Life). The Mutual Benefit, of Newark	XXVII	Plumbers. Beaver, Hughes & Wetmore Co..... Wade, J. J.....	VIII XVIII	Varnishes. DeGolyer's.....	XXIII
Builders' Hardware. Kellogg, Johnson & Bliss..... Orr & Lockett..... Sargent, Greenleaf & Brooks.....	IV XXVIII IV	Interior Decorators and Furnishers. Haskins.....	XVIII	Plumbing Supplies. Bower Sewer Gas Trap..... Cadell, F. E..... Kelly, Thos. & Bro..... Maddock, Thos. & Sons..... Meyer-Sniffen Co..... Powell, Wm. & Co..... The E. Stebbins Mfg. Co.....	VII VII XIX XXV I XI XI	Ventilators, Etc. American Ventilator Co..... Van Noorden, E. & Co.....	IX XXII
Builders' Sundries. Clark, Bunnett & Co..... Dibble Mfg. Co..... Mendenhall, L..... Novelty Lock Co..... Scranton Mfg. Co.....	XXI XXI XII XXVI XXII	Interior Finish. Meyer, C. J. L. & Son..... Tomlinson & Carsley.....	XV VIII	Prices. Labor..... Material.....	72 72	Water Conductor. S. S. S. Conductor Co.....	XXII
Building Contractors. Hodge, E. D. & Co..... McLean, J. R., Sr.....	XVIII XXI	Iron Railing. Hollingshead, C. F.....	X	Proposals. Building, etc.....	XVII	Weather Vanes. Jones, Thomas W.....	XVIII
Cements. Belloni & Co..... Fleming, Howard..... Meacham & Wright..... "Star" Portland Cement Wks. Thiele, E.....	XX III XXII XIX XII	Iron and Stone Setters. McBeath & Rowe.....	VIII	Printers. Shepard & Johnston.....	XVIII	Window Blind. Morstatt & Klatzl.....	XVIII
Decorations. Atwood, F. N..... Kluge, A.....	XXIV I	Laundry Machinery. Gordon, G. W..... Troy Laundry Machine Co.....	XI XI	Radiators. The A. A. Griffing Ironworks..... The H. B. Smith Co.....	XXVIII XXVII	Window Decoration. Seib, C. L.....	XIV
Decorative Artists. Almini, P. M..... Atwood, F. N..... Sullivan, J. B. & Bro..... Kluge, Alex.....	II XXIV II I	Leveling Instruments. Comstock, Wm. T.....	XXIV	Real Estate. Baird & Bradley..... Mead & Coe.....	III III	Wire and Iron Works. Dibbee, Henry & Co..... The F. J. Myers Mfg. Co.....	XVIII XI
Door Hangers. Cohoes Iron Foundry & Machine Co..... Scranton Mfg. Co.....	XVI XXII	Locks. Novelty Lock Co..... Yale & Towne Mfg. Co.....	XXVI XIV	Roofers and Roofing Material. American Asphalt, Concrete and Roofing Works..... Cincinnati Corrugating Co..... Conner, Chas. H..... Cary, John M..... Gormully, R. Philip..... Hawkes, Thos..... Knisely & Miller..... Merchant & Co..... National Sheet Metal Roofing Co..... Wyatt, W. E. & Co.....	VII XXV XXIV XIX XXV VIII XII XXV VII XIX	Wire Lathing. The Stanley Corrugated Fireproof Lath Co.....	XX
Dumb Waiters. Swezey, M. B.....	XXIII	Lumber. Appleby, R. B..... Hayden Bros..... Crombie, Chas. B. & Co.....	XXIII XXV III	Sash Chains. Morton, Thos.....	IX	Wood Mantels. Andrews, A. H. & Co..... Dibbee, Henry & Co..... Meyer, C. J. L. & Co..... Page, Chas. L.....	XII XVIII XV XVII
Drawing Material and Implements. Abbot, A. H. & Co..... Frost & Adams..... Hinstorff, Gustav..... Wadsworth, Howland & Co.....	XI XXII I XI	Mailing System. Cutler Mfg. Co.....	XIX	Sash Doors, and Blinds. Russell, J. K. & Co..... W. E. Frost Mfg. Co..... Wilce, E. P. & Co.....	XXIV XVIII XIX	Wrought-Iron Fences. The Fred J. Meyers Mfg. Co..... Hollingshead, C. F.....	XI XI
Electric Lights. Western Edison Light Co.....	III	Mantels, Grates, Etc. Andrews, A. H. & Co..... Innes & Co..... Meyer, C. J. L. & Co..... Murdoch Parlor Grate Co..... Perkins, Wm. L. & Co..... Riley, A. A.....	XXVI XVIII XV XIX IX I	Manufacturers' Agents. Mendenhall, Laurence.....	XII		
Electric Supplies. Detroit Electrical Works..... Western Electric Co.....	XX XXV	Marble Tiles, Etc. Producers Marble Co.....	X	Marble Work. Struthers, Wm. & Co.....	XXIII		

WESTERN ELECTRIC Co.

CHICAGO,

NEW YORK,

BOSTON,

ELECTRIC CALL BELLS; HOTEL ANNUNCIATORS;
HOTEL FIRE ALARMS.*Electric Gas Lighting for Private Residences a
Specialty.*

BURGLAR ALARMS,

ELECTRIC LIGHTS.

SEND FOR CATALOGUE.

J. K. RUSSELL,

82 to 96 Fulton Street,

PLANING MILL.Hardwood Flooring, Wide Re-Sawing, Mold-
ings, Kiln Drying, Specialty.*SIZING JOIST WITH PLANER AND PLANING
TIMBER.***FRAMING TO ORDER.**ARCHITECTS' DRAWINGS Etc., in any style,
Also, CHICAGO PHOTOGRAPHS, VIEWS, Etc.
NEW SERIES. CATALOGUE FREE.

E. LOVEJOY,

Opp. M. Field's,

88 STATE ST.

ELEVATOR.

CHICAGO.

THOS. MADDOCK & SONS,

MANUFACTURERS OF

SANITARY EARTHENWARE,

273 PEARL STREET, - NEW YORK.

W. W. PERRINE, Manager. Please mention this paper.



No. 11.—Maddock's Short Flush-Rim Hopper and Trap.

GEO. ROTHAGE & CO.,

SUCCESSORS TO

R. PHILIP GORMULLY,

MANUFACTURERS OF

GALVANIZED IRON CORNICES,

WINDOW CAPS,

VENTILATORS,

FINIALS, ETC.

TIN, SLATE, AND CORRUGATED-IRON

ROOFING,

PATENT FIRE AND WATER-PROOF

METALLIC SKYLIGHTS,

228 & 230 MICHIGAN STREET,

CHICAGO.

Guaranteed Roofing Plates.**GILBERTSON'S OLD METHOD.**We guarantee *Gilbertson's Old Method* to be an extra coated plate, and to contain **36 lbs.** of metal to a box of IC 20 x 28 and **18 lbs.** to IC 14 x 20.

To be a heavier coated plate than M. F., or Old Style, and if not found so, all boxes to be held subject to our order.

That the quality of material is equal to any plate ever made.

That our prices are lower than the fancy prices heretofore demanded for extra coated plates.

CAMARET ROOFING.

Guaranteed to stand any test in bending. Can be hammered down and flat again without breaking.

Every sheet in a box to be well coated, well selected, and great attention given to squaring sheets.

To be coated with Palm Oil that will keep it from rusting longer, if not painted, than ordinary plates.

Our prices are very low for this splendid plate, so any one desiring can use a first class plate at a moderate price.

Write for Prices. Order a Sample Box.

MERCHANT & CO.,

525 Arch St., PHILADELPHIA.

90 Beekman St., NEW YORK.

**ZIMDAR'S PATENT
AIR BELLS**FOR HOTELS, RESIDENCES, OFFICES, ELEVATORS,
STEAMSHIPS, ETC.

NO WIRES TO STRETCH!

NO BATTERIES TO MAINTAIN!

9 Laight St., NEW YORK, and 75 E. Madison St., CHICAGO.

WESTERN AGENCIES:—Baldwin Mfg. Co., 75 E. Madison St., Chicago, Ill.; J. B. Schroder & Co.,
3d and Elm St., Cincinnati, O.; M. N. Rowley, 17 Woodbridge St., Detroit, Mich.; Vajen & New,
Indianapolis, Ind.
Send for Catalogue.

CORRUGATED

✱ IRON ✱

ROOFING

SIDING, CEILING,
ARCHES AND LATH.

© CINCINNATI ©

CORRUGATING CO.

÷ CINCINNATI, O. ÷

SEND FOR ILLUSTRATED CATALOGUE.

CRIMPED

READERS will please mention the INLAND ARCHITECT AND BUILDER when
corresponding with Advertisers.

NOVELTY LOCK CO.

CHICAGO, ILL., U. S. A.

Manufacture the practical, improved and perfected

DOOR KNOB,

"Bolted on Solid," secured to the door by long screws entering above and below lock mortise.

Permanent display at Exhibit of Building Materials, Chicago.

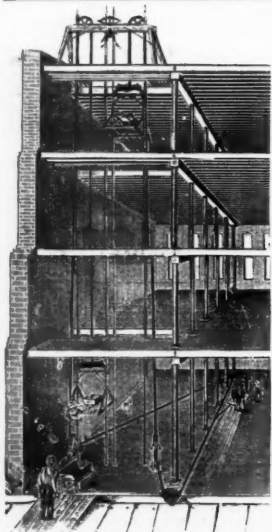
ANNOUNCEMENT.

Property Owners planning to build, Architects, Contractors, Carpenters and enterprising hardware dealers, write for new Illustrated Price List. A Sample Knob and Lock on hand-block, or a pair of knobs and lock for use on office or shop door, will be sent complimentary, when a trial is desired.

Address,

NOVELTY LOCK CO.,
CHICAGO, ILL., U. S. A.

OFFICE: 15 N. Clinton St.



THE JAMES BOYD MASON MATERIAL ELEVATOR,

CAPACITY:

50,000 to 60,000 per day.

SATISFACTION GUARANTEED.

Send for Circular and Prices.

H. P. STIMSON, Manager,
159 & 161 La Salle Street,
B. & T. Exchange, Room 13,

CHICAGO.

READERS, in
corresponding
with advertisers,
will confer a particular favor upon
the publishers by
mentioning the
name of this Journal.

R. HUGHES,

SLATE AND METAL ROOFING,
Galvanized Iron Cornices, Skylights, etc.
Contracts taken in any part of the country.

95 WEST WASHINGTON ST., CHICAGO, ILL.

CLARK'S ISLAND GRANITE— —QUARRIES and WORKS of

CLARK'S ISLAND, MAINE,

Dealer in MONUMENTAL, VAULT and BUILDING WORK.

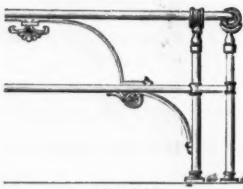
Every facility for finest work in Granite, Perfection in Polish, Statuary and Designs. Also Dealer in Dimension Granite, unequalled in Quality and Beauty. Estimates promptly given.

M. H. ST. JOHN, Proprietor

Offices, 83 & 84 ASTOR HOUSE, - NEW YORK.



BRASS WICKET.



BRASS RAIL.

A. H. ANDREWS & CO.

CHICAGO and NEW YORK.

MANUFACTURERS OF

Fine Brass Work

AND

Hard Wood Fittings

FOR

Public Buildings, Offices
and Banks.

Special Designs in Brass Gates, Railings,
Wire Screens, etc., in Bronze, Gold or
Nickel-Plate Iron Screens.

PROCESS FOR

Preserving Brick and Stone Walls.

This Process, a success in New York, St. Louis and wherever else used, makes

BRICK AND STONE WORK

PERMANENTLY NON-ABSORBENT

Without changing its appearance; prevents weather staining, disintegrating of stone and mortar joints, collection of white efflorescence, fungoid growth, and all other injurious effects and frost; prevents damp walls.

Covered by Four Patents, under which rights in unsold territory are to be had by applying to

THEODORE HUNT,
ST. LOUIS, MO.

THE MUTUAL BENEFIT LIFE INSURANCE CO., NEWARK, N. J.

AMZI DODD, - - President.

ASSETS, (Market Value), - \$38,615,319.32

SURPLUS, (New York Standard), 5,411,241.50

Paid Policy-Holders since organization in
1843, \$83,672,036.53.

Economical, Liberal, Conservative.
NO FINE-PRINT CONDITIONS IN POLICY FORM.

AFTER THIRD YEAR

Policies Incontestable Except for Intentional Fraud.

NO RESTRICTIONS AS TO TRAVEL OR OCCUPATION.

CASH LOANS MADE AT ANY TIME UP TO HALF THE
VALUE OF ASSIGNABLE POLICIES.

LOSSES PAID IMMEDIATELY ON COMPLETION AND APPROVAL OF PROOFS.

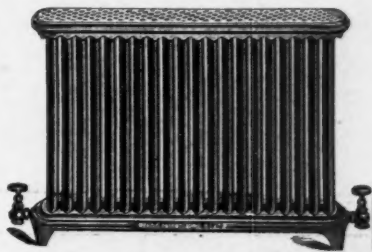
All Policies Non-Forfeitable after Second Year.

CHARLES LEYENBERGER,
State Agent,

No. 3 Tribune Building, CHICAGO.

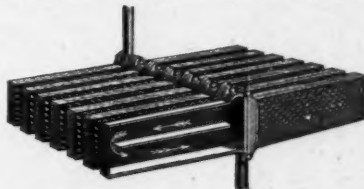
ESTABLISHED 1853.

Reed's Direct Radiator!



OVER 1,600,000 FEET IN USE.

GOLD'S INDIRECT "PIN" RADIATORS,
STANDARD MEASURE AND PATTERN.



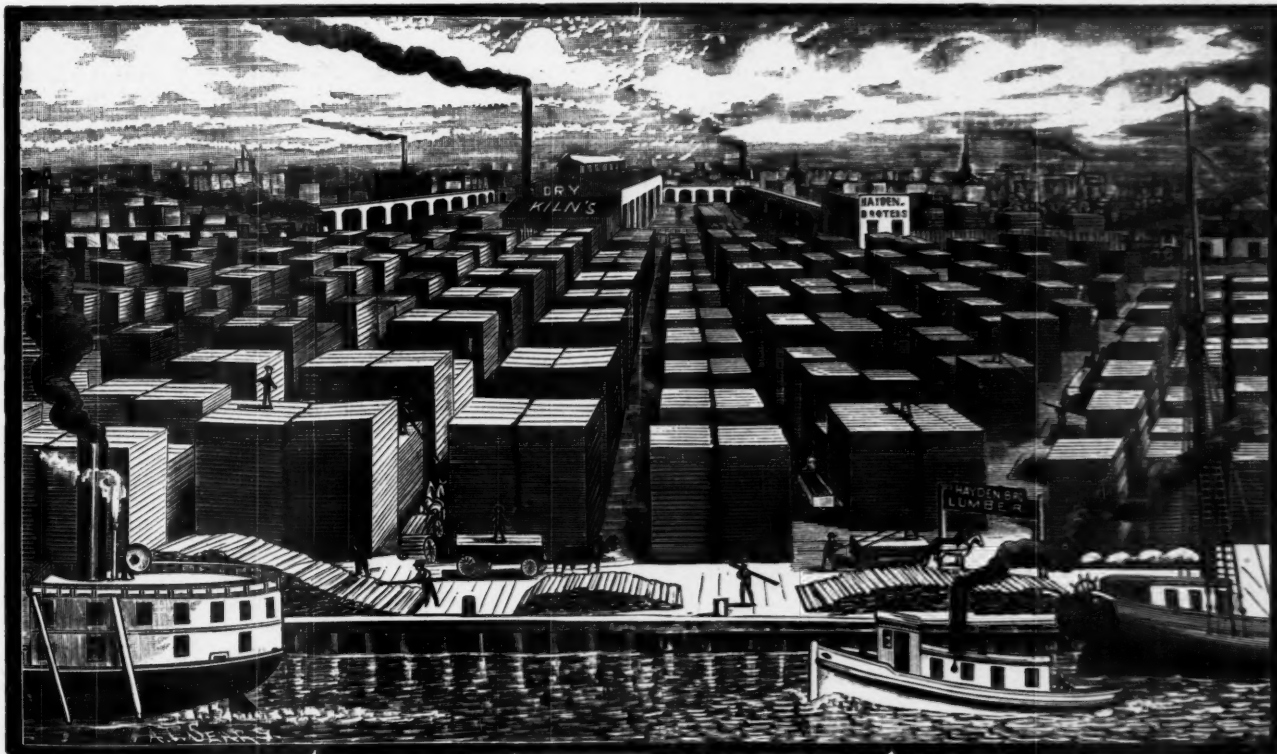
GOLD'S IMPROVED X. L. SECTIONAL BOILER,
TWELVE SIZES.

MILLS' SAFETY STEAM GENERATOR,
SIX STYLES, ADAPTED TO ALL BUILDINGS.

Builders of the latest improved apparatus for warming and ventilating
*Public Buildings and Private Residences by Steam
or Hot Water.*

Descriptive circulars and references sent on application. Please men-
tion this paper.

THE H. B. SMITH CO.,
WESTFIELD, MASS.



HAYDEN BROTHERS,
IMPORTERS AND DEALERS IN
FOREIGN AND DOMESTIC
HARDWOOD LUMBER, MAHOGANY
AND VENEERS.

ARCHITECTS, CONTRACTORS & BUILDERS

Are invited to obtain our estimates for FINE HARDWOODS, of every description
when figuring on INTERIOR FITTINGS or any Hardwood work.

Office, 316 Pullman Bldg.
TELEPHONE No. 5547.

Yard, 400 Lumber St.
TELEPHONE No. 9818.

CHICAGO.



DEALERS IN

BUILDERS' HARDWARE

—OF—

Every Description.

WE MAKE A SPECIALTY OF

FINE BRONZE TRIMMINGS,

And carry a Large Stock of all the Leading Makes.

All the latest inventions of merit can be found with us. We are Chicago Agents for
Geer's Spring Hinge, Norton Door Check and Spring,
 "Architect" Sliding Door Hangers and several other specialties.

CORRESPONDENCE SOLICITED.

ORR & LOCKETT,

184 & 186 CLARK STREET and 138 MONROE STREET,
 CHICAGO.



THE "BUNDY" RADIATOR

For direct and indirect steam heating.

MANUFACTURED BY THE

A. A. GRIFFING IRON CO.

500 Communipaw Ave.,

JERSEY CITY, N. J.

Over 2,000,000 feet now in use in New York City. One loop of the "Bundy" Radiator is equivalent to three pipes of the Wrought Iron Radiators.

COMPARATIVE TESTS PROVE

The 1 row "Bundy" Radiator superior to a 3 row Wrought Iron Radiator
 " 2 " " " " 6 " " "
 " 3 " " " " 9 " " "

A fact known to steam heating engineers who have used this Radiator.

Also manufacturers of the "Bundy" Hot Water Radiator of any size for house heating purposes, and manufacturers as well of Gold's Pin Indirect Radiator of standard size.

S. W. ADAMS MANUFACTURING CO., Agents,
 161 to 167 S. Canal Street, CHICAGO.

Opposite Great Union Depot.

Telephone 4040.

SEND FOR DESCRIPTIVE CATALOGUE.

ARCHER & PANCOAST

MANUFACTURING CO.

—DESIGNERS AND MANUFACTURERS OF—

Gas Fixtures,

Nos. 250 & 252 WABASH AVE.

H. G. WILLARD, Resident Manager, CHICAGO.

67 Green Street, and 68 & 74 Wooster Street, NEW YORK.

No. 12 West Street, BOSTON.

WM. E. HINCHLIFF & CO.

SUCCESSORS TO

HINCHLIFF & OWEN.

MANUFACTURERS OF

INDIANA
 PRESSED
 BRICK,

PLAIN AND ORNAMENTAL.

No. 159 LA SALLE STREET,

Room 10.

CHICAGO.

*Exhibit of Materials to be seen at our Office and at Permanent
 Exhibit and Exchange of Building Materials and Improve-
 ments, No. 15 Washington St., Chicago.*

HYDRAULIC AND STEAM

PASSENGER and FREIGHT

ELEVATORS

CRANE BROS. MFG. CO.

Chicago Offices & Works, 10 N. Jefferson St.

NEW YORK, 92 Liberty Street.

BOSTON, Mason Building.

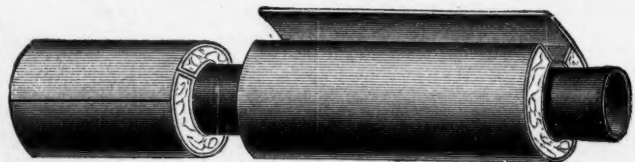
PITTSBURGH, 111 Water Street.

ST. LOUIS, 620 Chestnut Street.

CLEVELAND, Blackstone Building.

MINNEAPOLIS, Hennepin Block.

Mineral Wool



PIPE AND BOILER COVERING.

Made in sections three feet long to fit every size pipe. Also, in suitable sheets to fit any Boiler, Dome, Drum, or Tank. The best non-conductor, ABSOLUTELY FIRE-PROOF, will not char, crack, or powder. The cheapest and the best. Easily applied or removed by anyone.

Also, MINERAL WOOL in bulk for deafening and packing constantly on hand. Send for Circulars and Price List.

THE KELLY SCROLL SECTION MFG. CO.,

231 Fifth Avenue, CHICAGO.