WESTERN ARCHITECT

AUGUST 1904
SUBSCRIPTIONS ARE INVARIIABLY IN ADVANCE.

THE WESTERN
ARCHITECT

VOL. III. No. 8.
MINNEAPOLIS and ST. PAUL.
Subscription $5.00 a Year

Portland Cement
American Imported
Common Cement
Milwaukee
Louisville
Austin

Terra Cotta
White and Brown Lime
Fire Brick
Fire Clay Linings
Sewer Pipe
Hard Wall Plaster
Mineral Wool, Etc.

Union Railway Storage Co.
Office 201 Andrus Building,
MINNEAPOLIS, MINN.

“R. I. W.”
DAMP RESISTING PAINT

FOR...
Brick Walls
Stone Walls
Reservoirs

Lime Stone
Iron Work
Cellar Walls

Absolutely Prevents Dampness.

Monomnie Hydraulic Press Brick Co., Distributors.

GEO. H. LAWES & CO.

AGENTS FOR
Cabot’s “Shingle Stains” and “Quilt”
Celadon Coy’s Roofing Tiles
Flexifold Coy’s Rolling Partitions
Fireproof Steel Rolling Shutters
Higgin’s Metal Frame Window Screens
“Dehydratine” Damp Proofing for Walls
Rinaldo’s Porcelain Enamel Paint
Kimbali’s Passenger and Freight Elevators
Swezey Dumb Waiters
Expanded Metal Lath
Union Metal Corner Beads
Union Brick Bonds

We carry in stock Cabot’s Stains and Quilt, Metal Lath, Metal Corner Beads, Mineral Wood, Mortor Colors, Brick Bonds and Rinaldo’s Enamel Paint

MINNEAPOLIS OFFICE,
424 Boston Block,
Phone T. C. 60

ST. PAUL OFFICE,
Room 301, 11th and 2nd Ave. S.,
Phone T. C. 1237, N. W. 3337.1.

THE WINSLOW
ELEVATOR AND MACHINE CO.,
GENERAL OFFICE AND WORKS: 95-100 NORTH CLINTON ST., CHICAGO, ILL.
WE MAKE ELEVATORS
for every use and to run by every power.

Our 30 years experience in making good elevators enables us to make machines that are superior in every detail. Let us send you our illustrated catalog and fac-simile letters from users. They're free. Write to-day.

EATON & PRINCE COMPANY
CHICAGO

MANKATO CEMENT
USED IN PARTICULAR WORK FOR 20 YEARS.

In brick and stone masonry and for concrete foundations nothing can excel Mankato Cement, which makes a mortar and concrete harder than stone. Its excellence is commended by the Architect of the new Minnesota State Capitol, and by other prominent Architects who have used it in their most important work for years. Write to us for testimonials and prices.

MANKATO CEMENT WORKS,
MANKATO, MINN.

NORTHWESTERN FOUNDRY
SPECIALS:

- STEEL BEAMS
- GIRDER
- IRON STAIRS
- SIDEWALK LIGHTS
- ROOF TRUSSES
- FIRE ESCAPES
- IRON COLUMNS
- STORE FRONTS
- SEWER CASTINGS
- ORNAM'NTL VASES

312 Tenth Ave. S.
Minneapolis, Minnesota.

E. O. FELLOWS
126-128 North 4th St., MINNEAPOLIS

We handle Celebrated Lehigh Valley Hard Coal, all sizes.
Highest Grades of Domestic and Steam Coal.

WHOLESALE AND RETAIL
COAL

Architects will please remember advertisers in The Western Architect when writing their specifications.
Minneapolis Steel & Machinery Co.

- Bridges
- Trusses
- Girders
- Columns
- Towers
- Tanks
- Beams
- Engines
- Boilers
- Heaters
- Pumps
- Shafting
- Pulleys
- Castings

Office and works, Minnehaha Ave. & Twenty Ninth Street, Minneapolis, Minn. Branch offices at Denver-Seattle-Salt Lake City-San Francisco-Kansas City


Stahlberg, Andrews & Dates Co. (Incorporated)

Interior Decorators and Furnishers

Fine Furniture—Draperies Wall Fabrics—Upholstering Cabinet Work

1414 Hennepin Ave., Minneapolis, Minn.
Phones: N. W. 3313-L-1  T. C. 1725

Harry B. Cramer Co.
Fresco, Interior and Exterior
213 South 6th Street, Minneapolis. 1443—Both Phones 1443

Health and Happiness

Plumbing and Heating are the two most important features in your house, or buildings of any kind. If you have a poor job, the health and peace of yourself, family and employees are at stake. Let your work to

M. J. O'Neil
Minneapolis

J. G. Beattie, Manager

And you will be sure of getting the very best of Plumbing and Heating.

We carry a full assortment of Gas and Electric Fixtures both phones, 39

Architects will please remember advertisers in The Western Architect when writing their specifications.
Architects will please remember advertisers in The Western Architect when writing their specifications.
Carey's
Magnesia
Flexible
Cement
Roofing

Only Weighs About 90 Pounds
to the Square when finished

Not affected by acids, gases, fumes,
hot water, steam, smoke or cinders,
heat or cold. Will not buckle, crack,
warp, shrink or swell. A little care
will prolong its life forever. Adapted
for flat or steep roofs, and can be ap¬
plied all seasons.

W. S. NOTT COMPANY, 200-206 First Ave South, Minneapolis, Minn.,
Sole Northwestern Agents and Contractors. Dealers in Building Papers, Vulcanite and Rubber Vulcanite Roofings 1-2-3 ply; Pipe
Coverings, Roof Coatings, Stack Paint and K'Sene Coldwater Paint, a dry powder in white and colors. Catalogues and full infor-
mation cheerfully furnished.

MANUFACTURERS OF
Galvanized Iron Cornices, Window
Caps, etc., Corrugated Iron, Hayes'
Patent Skylights, Fire-proof Doors
and Shutters.

WM. RHODES, President.
GEO. H. RANNEY, Sec. & Treas

Scribner-LibbeyCo.

ST. PAUL, MINNESSOTA.

ST. PAUL ROOFING, CORNICE & ORNAMENT CO.
ST. PAUL, MINN.

The Best Thoughts of the Artist
Are exemplified in our
Steel Ceilings and Sidewalls
Specially Appropriate for Public Buildings
Write for Catalogues and Designs

Office and Works:
Fort, Cor. W. Fifth Street
ESTABLISHED IN 1850.
INCORPORATED IN 1883

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

Architects will please remember advertisers in The Western Architect when writing their specifications.
the largest and most complete mill ever constructed for view of certain distinct objects which should meet the pres-
the Des Moines Manufacturing & Supply Co. Fort Dodge, and the millwork and machinery is the work of plaster work.
the purpose of preparing gypsum for stucco and cement daily capacity of the mill is at least 300 tons of finished pro-
it is furnished by a Corliss engine of 325 horse power. The duct of the "Plymouth" mills used as directed, the plaster-
Finally, the equipment and machinery are furnished by the company.
The officers of the company are: L. E. Armstrong, presi-
dent and general manager; M. D. O'Connell, vice-president; J. T. Cheney, secretary and treasurer. More than 100 per
sons are employed, among them Messrs. D. E. Roberts and F. H. Van Osdall, who assist Mr. Armstrong in the general
management, and Messrs. C. L. Peterson and David Brown who are expert mill and stucco workers.

A WONDERFUL INVENTION.

One of the most exasperating and troublesome proposi-
tions confronting an architect or owner of buildings in the past has been the difficult matter of lighting a cellar with
natural light. All kinds of appliances containing glass in different forms have been experimented with in recent years,
with more or less success, starting in with the old-style bulb's-eye vault lights, which are, however, about 75 per cent
iron, and more recently bringing the newer heavy pendant prism to the front with a heavy cast-iron frame, etc. The diffi-
culties encountered in this construction are as numerous as bees in a hive, inasmuch as the cost is large and that they
usually leaked after installation. It is necessary to take measurements at the building question, make patterns for
the foundry, get out the castings, file and fit them in the shops, and bolt them at the building, sec the glass, and finally cement the glass in place. When all this is performed it is found that only a small percentage of light is actually refraction into the cellar, as one prism would diffuse 30 per cent of the light up against the next one in line. All this is now changed as if by magic by the invention of the new patented "Bar-Lock" galvanized wrought steel vault light construction with the wonderful patented "3-Point" Prisms. This simple, but very strong
construction, is composed of a series of heavy wrought-steel bars run through each other and so constructed as to form a
net work of squares to receive the prisms. It is then gal-
varized, which not only prevents corrosion, with subsequent weakening of the iron, but practically welds the construc-
tion together, forming a solid frame. As there is only the
width of the bars standing on their edge between the glass,
it is readily discernable that the same affords the largest
glass surface of any construction ever put on the market.

"Bar-Lock" galvanized wrought-steel construction is not
only beautiful to look upon from underneath, as well as the
top view, but there is a certain satisfaction derived from the absolute knowledge of its many great advantages in strength, durability and largest glass surface, as well as the very low price at which it is sold. "Three-Point" Prisms are a special feature deserving of great praise, as each lens comprises three separate and distinct prisms, whose functions are to refract the greatest amount of light in different directions, and which do not interfere one with the other.

The American Bar-Lock Co., of Philadelphia, which is the owner of all the patents on these products, stands back of its rigid guarantee that "Bar-Lock" galvanized wrought-steel construction is positively superior to any other construction now on the market, and that "3-Point" Prisms will gather, refract and diffuse from 50 to 100 per cent more light than any other prisms now known to science. All these patents have been heavily insured against infringement by the strongest patent insurance company in the United States. "Bar-Lock" construction, with "3-Point" Prisms, are now being specified by nearly every prominent architect and engineer in the country who has had the pleasure of viewing a sample, and the unsolicited testimonials which are constantly flowing in with the delivery of every mail are only another token of the unstinted appreciation and esteem bestowed upon the most meritorious invention of its kind put upon the market in late years.

That the Mason Safety Tread, as a non-slippery protection upon stairs, platforms and iron-framed walks or vault lights, is used and is to be used upon all of the two hundred or more stairways at stations of the New York Rapid Transit Subway, indicates that architects and engineers are satisfied beyond doubt with the advantages claimed for this method by its manufacturers. One of the chief objections which has been made to cement in staircase construction is because the edges of the cement are so liable to chip or break off. This disadvantage is entirely obviated by the use of the Mason Safety Tread and the fire-proof qualities are not impaired. Inexpensive cast iron anchors are attached to the safety tread by ordinary machine screws, and the treads with their anchors are bedded into the cement while it is yet plastic. The method is simple, effective and cheap, considering its undoubted advantages. Mr. A. G. Kelley, 421 Boston Block, Minneapolis, is the local Northwestern agent.

ideal American Reliance

When an Architect specifies IDEAL Boilers and AMERICAN Radiators for Steam and Water Warming, he may be assured of pleasing his client with time-tested merit,—with perfect circulation, full surface and permanently tight joints. And, the Radiators express the acme of modern art in iron work.

ideal Boilers
ideal Tank Heaters
American Radiators

American Radiator Company

General Offices, 282-4 Michigan Ave., Chicago

Sales Branches:

204 4th St., Minneapolis
292 Michigan Ave., Chicago
622 Arch St., Philadelphia
206 Mutual Life Bldg., Buffalo

126 Sydney St., Milwaukee
301 15th St., Denver
292 Arch St., Chicago
622 Arch St., Philadelphia
206 Mutual Life Bldg., Buffalo

417 S. 15th St., Omaha
301 15th St., Denver
4212 East 20th St., New York
44 Olive St., Boston
206 12th St. N. W., Washington
926 Farmers Bank Bldg., Pittsburgh
350 West Fourth St., Cincinnati

The Ives Window Ventilating Lock.

A Safeguard for Ventilating Rooms.
A Lock, quickly applied and operated.
Affording Sure Protection against Intruders.
Children kept in. Burglars kept out.

Write for Descriptive Circular.

The H. B. Ives Co., New Haven, Conn., U. S. A.
The Roofer

finds M F Ternes the most satisfactory of all roofing tins. The unusual pliancy and ease of working make M F Roofing Tin “Most favored” by skillful roofers. It helps the worker and gives permanency to the work.

The Roofing

M F Roofing Tin is the most durable roofing made. Extra heavy coated and free from the slightest defect. Made entirely by hand labor. Lasts a lifetime. It is fire-proof and rust-proof. The standard for over 60 years. Warranted to give satisfaction.

For sale by all first-class metal dealers. Sample, postpaid, on receipt of request.

AMERICAN SHEET & TIN PLATE CO., Frick Bldg, Pittsburg, Pa.

RELIABLE GOODS
IN ALL LINES
Fairbanks Scales

Fairbanks-Morse
Gas and Gasoline Engines

Fairbanks-Morse Steam Pumps

Hoisting Engines

Dynamos and Motors

Elevator Machinery and Supplies

Fairbanks, Morse & Co.
ST. PAUL
MINNEAPOLIS

John Nelson
Contractor and Builder
IN STONE AND BRICK

DIMENSION AND FOOTING STONE delivered to any PART OF CITY or on BOARD CARS.

OFFICE AND RESIDENCE, 2106 NINTH AVENUE S.
TELEPHONE, T. C 4627.
Twin City Stone Quarry at Lake St. & Marshall Ave, Bridge. Tel, T. C 4628. Also Quarry at Eighth Street and 20th Avenue South.

Write for Prices.

THE PITTSBURG
STEEL WALL TIE

For Bonding of Face Brick, Terra Cotta, Veneer, Hollow Walls, Etc.

INSURES A PERFECT BOND

This Tie does not depend on the mortar for a bond by reason of the projecting teeth, which becomes imbedded in the brick, forming a band of its own, and is the most practical, economical, efficient Tie for all purposes. Saves material and labor, making the strongest wall. Speckled by Architects.

Long Distance Telephone Grant 292.


Architects will please remember advertisers in The Western Architect when writing their specifications.
Coulson Patent Corner Posts
AND TRANSOM BARS
are being specified by the leading architects throughout the country. For New or Remodeled Store Fronts.

Greatest Strength for Holding Costly Glass Safely
We overcome the EXPANSION and contraction in the old style front.

WRITE FOR DESCRIPTIVE CATALOGUE

J. W. COULSON & CO.,
100 North Third St.
COLUMBUS, OHIO

TEMPERATURE CONTROL
FOR
Schools
Colleges
Universities
Libraries
Apartments
Residences
Office Buildings
Store Buildings
Factories
State Capitols
City Halls
Courthouses
Hotels
Hospitals
Sanitariums
Theatres
Club Houses
Churches

HEALTH PROTECTED
MONEY SAVED

SEND FOR CATALOGUE.

JOHNSON SERVICE COMPANY,
Milwaukee, Wisconsin

THE UNIVERSAL OIL BURNER CO.,
410 Third St. So., (Coro Exchange,) Minneapolis.

OIL FOR FUEL
"CHEAPER"
Than Coal or Wood and a prompt delivery system.
No smoke, soot or odor. Our Burner can be attached to any stove, range or furnace. More in use than all others. Write for recommendations or call and see them in operation at their offices and salesrooms.

THE UNIVERSAL OIL BURNER CO.,
410 Third St. So., (Coro Exchange,) Minneapolis.

Samsion SPOT CORD
is our Extra Quality SASH CORD
The colored spot is our trademark
Samson Cordage Works,
Boston, Mass.

Practical and Artistic
Interlocking Terra Cotta

ROOFING TILE
MANUFACTURED BY
LUDIWI¢I ROOFING TILE CO.,
508 Chamber of Commerce, CHICAGO.

A-G-KELLEY BUILDERS' SPECIALTIES
Mason Safety Tread—Grant Overhead Pulleys and Hardware—Porch Columns and Capitals—Mantels and Grates
Write for Mason Safety Tread Book, entitled "WHERE, WHY, HOW."

You Never Slip on the Mason Tread.

Architects will please remember advertisers in The Western Architect when writing their specifications.
THE MOSAIC TILE CO.
Zanesville, Ohio.
Brighton Ave.

Manufacturers of
FLOOR TILE
CERAMIC
VITREOUS and
ENCAUSTIC

We solicit correspondence with Architects
and parties interested in large building en-
terprises. Special designs and estimates
furnished.

AKRON ROOFING TILE

"Spanish", "Shingle" and other Patterns
Manufactured by
THE AKRON ROOFING TILE CO., WRITE FOR NEW
CATALOGUE.
Landers-Torrison-Christenson Co., Minneapolis Agents.

DOUBLE TRACK CONCRETE BRIDGE—ILLINOIS CENTRAL RY.
4000 bbls. Universal Portland Cement
used in this Construction.

GUARANTEE CEMENT & STONE CO.

704 New York Life Bldg.
MINNEAPOLIS

ELEVATOR CARS
AND ENCLOSURES

We manufacture everything in
the way of fine elevator cars and
enclosures. Also ornamental
bunk and office grill work in
brass, steel and oxidized. We
are always pleased to furnish
estimates or send catalogue.
Let Us Hear From You

THE FRED J. MEYERS MFG. CO.
HAMILTON, OHIO, U.S.A.

SOUND PROOF

Expresses the Efficiency of our
LITH BOARDS
for Deafening Floors, Walls and Ceilings

SEND FOR CATALOGUE AND SAMPLES OF
LITH AND LINOFELT

For SOUND DEAFENING and Sheathing, also substitute for Back Plaster. Made to Dimensions

The Architect who is not specifying our goods for the above purposes is not giving his client conscientious treatment, as nothing else will give equal results for the money. SELLING AGENTS IN ALL THE PRINCIPAL CITIES IN THE UNITED STATES.

UNION FIBRE CO.
WINONA, MINN.

Architects will please remember advertisers in The Western Architect when writing their specifications.
WHY?

Are Most of the Leading Architects of St. Paul, Minneapolis and the North-west Specifying

Twin City Varnish Co's Varnishes and Floorette

BECAUSE

They are assured of a first-class finish whenever the goods are used. Our Varnishes are all manufactured in St. Paul, therefore they are best adapted to the climatic conditions of the northwest. Drop us a line and we will be pleased to give you valuable information in regard to wood and floor finishing

Twin City Varnish Co.,
St. Paul, - - Minnesota.

THE LANE Joist Hanger
Imitated but not Equalled.
Wrought Steel, Bent Hot.
All Surfaces Fit Close.
Broasted Bearing on Wall or Girder.
The W. J. Clark Co.
16 O Street, Salem, Ohio.

Get our Catalogs
of the best CAMERAS, LENSES, MATERIAL and APPARATUS for Architects' and Travelers' use.
O. H. Peck Company
112-114-116 S. 5th Street, Minneapolis, Minn.
Largest Photographic Supply House in the N.W.

SIMONSON BROS. MFG. CO.
MANUFACTURERS OF
Sash, Doors and High Grade Interior Finish
Stairs, Office and Bank Fixtures
Office and Factory: 1715-1729 7th St. So.
All Kinds of Hard Wood Work A Specialty
N. W., Main 695-1
Telephone - Twin City, 391.
MINNEAPOLIS, MINN.

ARCHITECTS will please remember advertisers in The Western Architect when writing their specifications.
Prominent Houses of the Zenith City
With whom Architects and Contractors may deal in perfect assurance of honest treatment

NATIONAL IRON CO.
Manufacturers of
Architectural
Iron Work
Columns, Beams, &c; Furnished on
Short Notice
See us Before Letting Contract
DULUTH, MINN.

Burrell & Harmon
FURNACES
Automatic
Heat Regulators
Tin, Iron, Slate
Pitch and Gravel
Galvanized Iron Cornice and Skylights,
Steel Ceilings, Tin and Sheet Iron
Work of all kinds.
Send us your Plans and Specifications.
Both Phones No. 3 So. 1st Ave. E, DULUTH

DEETZ & CO.
Manufacturers of
Galvanized
Iron and Copper
CORNICE
Ornamental Zinc and Copper Work, Fire-Proof Doors
and Shutters, Galvanized Iron Skylights, etc.
Ventilating Pipes Smokestacks
ROOFING in Tin, Iron, Slate, Pitch and
GRAVEL and ASPHALT
404-6 East Superior St.,
DULUTH, MINN.

LOUIS R. HELBING
ROOFING and
CORNICE WORK
Tin and Sheet Metal Work
Zenith Phone 728—Bell Phone 1001
DULUTH, MINN.

SCOTT-GRAFF LUMBER CO.
MANUFACTURERS OF
LUMBER
SASH, DOORS and MOULDINGS
Estimates Cheerfully Furnished. Let us Figure Your Plans
for Mill Work
Office and Stair Work. DULUTH, MINN.

WM. PENN & CO.
Wholesale and Retail
Dealers in—
Lake Superior Stone
Portage Entry Redstone. Port Wing Brownstone. Kettle River Sandstone
Berea, Ohio, Sandstone, etc. Mill and Office Tower Bay
Slip.
SEND IN YOUR PLANS FOR ESTIMATES.
Our Specialty is Shipping Cut Stone by Rail. West Superior, Wis.

CELADON
Roofing
Tile Company
FACTORIES
ALFRED, N.Y. GEO. H. LAWES & COMPANY, Agents,
OTTAWA, ILL. ROOM 34, GILFILLAN BLOCK, ST. PAUL.
EASTERN OFFICE:
Room 1123-4 156 Fifth Ave.
NEW YORK,
WESTERN OFFICE:
Room 1001-2 204 Dearborn St.,
CHICAGO.

Architects will please remember advertisers in The Western Architect when writing their specifications.
CABOT'S EEL-GRASS "QUILT"
Sound-proof, Heat-proof, Decay-proof and Uninflammable

Look out for Imitations that will burn like tinder, rot and harbor vermin.

SAMUEL CABOT
Patentee and Sole Manufacturer
BOSTON, MASS.

The Sanitary and Scientific insulator and deadener. An indestructible cushion of dead-air spaces.

George H. Lawes & Co.
Agents
St. Paul and Minneapolis

Reliance Iron & Wire Works
Architectural Iron Work
Of All Kinds.
PLAIN and ORNAMENTAL IRON WORK

145-147 East 9th Street
St. Paul, Minn.

Northwestern Mantel Co.,
MANUFACTURERS OF
Wooden Mantels, Counters, Bank, Store and Office Fixtures, Marble, Slate and Mosaic Work, Plumbers’ and Butchers’ Marble.
Monuments and Headstones.

1419-421 Sixth St. So.,
MINNEAPOLIS, MINN.

The International System
Cables and Wire Fabric for Concrete Re-inforcement

WIDE SPAN FLAT ARCH

Practical, Economical and Strictly Fireproof

WRITE FOR CATALOG "D"

The International Fence & Fireproofing Co.
General Offices and Factory, COLUMBUS, OHIO

Architects will please remember advertisers in The Western Architect when writing their specifications.
Architects will please remember advertisers in The Western Architect when writing their specifications.
High Grade
INTERIOR FINISH
AND
GENERAL MILL WORK

The Largest of its Character in the World.
Over Six Acres Floor Space.

Farley & Loetscher Mfg. Co.
8th and Jackson St.
DUBUQUE, IOWA

The Pneumatic Pressure Tank System
THE MODERN WAY
For Water Supply and Fire Protection
TANKS FOR ALL PURPOSES
Write for Catalog

McDonnell Tank Co.,
DES MOINES, I.A., 101 East Court St.

The Johnston & Sharp Mfg. Co.'s
Ball Bearing Pulleys... Are Noiseless, Frictionless and Satisfactory
Light Weight
Low Price
Long Life
Investigate and Verify
Adopt and You will Satisfy
They will cost only two or three cents per frame over ordinary axle pulleys in quantities, and are easily set in any machine cutting a smooth % mortise.

OTTUMWA, IOWA

PASSENGER AND FREIGHT ELEVATORS
Send for Catalogue
Kimball Bros. Co.
1039 Ninth St., COUNCIL BLUEFS, I.A.

Send in Sizes and get Special Designs For your Windows

THE WESTERN ART GLASS CO.
Designers and Manufacturers
DAVENPORT, IOWA
Art Stained Glass for Churches, Residences and Public Buildings

Beveled Plate
Set in Lead,
Copper or Brass

Architects will please remember advertisers in The Western Architect when writing their specifications.
CAPITALS IN Compo

Architectural Decorations
In Composition of Every Description.

Capitals for Exterior. Also Oak
and Birch in Classic and Modern
Designs. Ceilings, Cornices,
Coves, Etc.

THE DECORATORS' SUPPLY CO.,
215 South Clinton St., Chicago, Ill.

NORTHWESTERN AGENT
216-217 Lumber Exchange
Minneapolis, Minn.

HAROLD JOHNSON,
Northwest Agent

THE YALE Locks, Builders
Hardware and Art Metal Work.

These are our specialties and we
have the largest variety and stock
in the North West to select from.

MODERN HARDWARE
for Office, Public,
Bank, Library,
Church, School,
Asylum, Hotel,
Warehouse,
and
Business Buildings,
also for
Residences and Cottages.

Write for information to
W. K. Morison & Co.
MINNEAPOLIS, MINN.

Triton Radiators

Are made in One, Two, Three, Four and Five
Columns, all bearing the same design.

Write for Catalogue and be con-
vinced we have the best

MANUFACTURED BY

United States Radiator Company.

DUNKIRK, N. Y.

Warehouses—Minneapolis, Jersey City.

Architects will please remember advertisers in The Western Architect when writing their specifications.
Builders of the Baltic, the latest leviathan of the White Star Line, claim to have exceeded the Great Eastern in length by 35 feet, in speed by 5 knots or more, and in capacity by 1500 tons. With engines of no greater weight, they developed twice the power of the older ship, using 250 tons of coal a day instead of 400. The new ship can carry 3000 passengers; her net tonnage is 24,000, her speed 17 knots, and her crew 350. If the greater mechanical efficiency of the Baltic fairly represents the progress made during this period, there is much cause for congratulation. Perhaps it is fair to note that the testimony of the builders of the Great Eastern does not appear in this statement.

One result of Baltimore's tests of fireproofing was the bringing out of some sturdy advocates for every system on trial there, whose labors are not abating to any great extent. All parties are confident that the evidence they have is sufficient to prove their own cases and to crush the other fellows. This evidence is much of it so biased as to lead close students of the reports to ignore it in the main and to lay the failure of leading systems to inferior details and workmanship. So seldom does the fireproofing of a large modern building have a real test, that little surprise is called for if many failures went on record at Baltimore. When one thinks of the many tests and failures recorded in bringing about any considerable change for the better in other departments, congratulations are due to the people who have devised so good fireproofing within so short a period. Down to the Baltimore tests, it is probably that designers of fireproofing had really obtained more of their knowledge from small tests purposely made, than from fires in real buildings. As a result, a good fireproof building was more the product of the good judgment of the individual designer, than an affair of proven good standard—a condition sure to let in many designers of not absolutely good judgment. All of this only argues for better fireproofing of whatever sort used, and the experiences at Baltimore will tend to compel it.

As to leading ways of fireproofing, architects are probably more influenced by "The Brick Builder," than by any other publication. While a strictly judicial position would scarcely be looked for from that journal, yet its advocacy of terra-cotta seems to be fair and temperate, as does the claim that terra-cotta took the brunt of the fire in nearly all cases.
One use to which the St. Louis show will be put will be an attempt to popularize the planting of the more Western variety of the catalpa tree (c. speciosa) as a source of supply for railroad ties, fence-posts and the like. The press is making the most of the stories about the rapid growth of the wood and its great power of endurance against decay when placed in the ground. This is not the first attempt of the kind by any means, one southwestern railway having done considerable planting of catalpas as long ago as 1879. Everybody has noticed the wonderfully rapid, if somewhat erratic growth of the tree, but the area over which it may be depended upon to flourish is considerably over-stated, unless our observation of individual trees is exceptional. Great elasticity and transverse strength are attributed to the wood—as much as shown by fair samples of ash or oak, and a coach finished inside with the wood in the natural grain will be one of the exhibits at St. Louis. One account has it that the wood is almost valueless for firewood, which, if true, greatly enhances its value for building purposes. We hope that half that is told about the wood is true, for the accounts of its wonderful growth, its straightness, strength, endurance and immunity from insect pests might be discounted a good deal and still leave the tree a degree of desirability that would make its cultivation valuable for some purposes.

Interviews with marine builders and others whose position gives weight to their opinions develops a very general leaning to a view of the excursion steamship question which may have been arrived at quite as much by reason of the Iroquois theater horror as by the General Slocum experience. While a minority think the substitution of steel for wood in the construction of such craft feasible, nearly all look to discipline of the crew and proper safeguards in the way of fire apparatus as the essentials after all. Reasoning will not apply, for here we have not only a disadvantage as giving a sense of security leading to complete abandonment of all discipline or observance of common precautions afterwards. When we come to the fire on the General Slocum, however, this reasoning will not apply, for here we have not only an extremely combustible boat, but the extreme of criminal negligence in its care and management. Taking both tragedies as a basis, the conclusions reached by the majority of those acquainted with the construction and management of the excursion boats is unavoidable. The management cannot shift the responsibility upon the builders of such craft as the General Slocum: first, because if any fatal defects existed in the boat itself, the management was under no compulsion to run the boat for its purpose; and second, because there is no evidence to show that the management was prepared in any real sense to meet an emergency of the sort. Meanwhile the government inspector who passed favorably upon the conditions existing on the ship would appear to be escaping with the mere loss of his official head. Such an inspector will without question look upon himself as next to a martyr until his "pull" provides him with another job "equally as good."

This department has before commented on the laxity and inefficiency of some forms of official inspection. We all know what glaring infractions of building laws are often to be seen in our cities, yet one may well look for better service from an inspector in the employ of a municipality, than from a government official. The ways of securing place and the infinitely greater number of hiding places open to the latter, render him practically immune from public comment. And public comment with the possible loss of place are the only punishments which lax officials have to fear. Division of or lack of definiteness in responsibility are also powerful pleas for the defense in case things go wrong. Where hundreds of lives are at stake, it might be well to secure from official inspectors something more than a pretense of service by placing them under heavy bonds, forfeitable when official laxity is disclosed.

Efforts to monopolize the steel business of the country continue by the great steel corporations, but meanwhile the balance sheets do not satisfy the owners, net earnings for the first quarter of the current year having dropped to thirteen millions, and of the second quarter to nineteen millions, being in each case just about one-half of what they were in the corresponding quarters of 1902. The purchase of new properties being made by bonds, has no effect upon this statement. There must be something about "business" curiously destructive of all sense of humor, for, when a few months since, it came to be noised abroad that this tender tariff infant of ours was selling steel to our neighbors to the North and South at about one-third off, Canadian statesmen began immediately to agitate for some "compensating" legislation which should add, at the border, as much to the cost to the Canadian consumer as our steel makers on this side of the border had proposed to favor him over home consumers. It is not learned, however, that the officials of a Mexican railway, having a few miles of road also in Texas, were so greatly vexed at the arrangement whereby they bought of American makers the steel rails for their main line at some eight dollars the ton less than they were obliged to pay for those used on the stub reaching over into Texas. One can imagine a Mexican so untaught in economics as to chuckle at the situation. And without Carnegie libraries it is possible that he will remain untaught for some time to come, while our more advanced neighbor to the north of the great lakes may evolve a state of enlightenment that will lead to a refusal to even let us give him steel. Meanwhile the price of steel beams in this country remains at a level highly encouraging to promoters of reinforced concrete and other would-be substitutes.
Just now, for obvious reasons, statisticians are very busy with comparisons of the present wages and cost of living with those of certain former times. This is a field in which judicious laborers may glean facts to suit any theory whatever, and in which an honest one would find it difficult not to lose his way. There is a quotation from Disraeli running something like "lies—blank lies, and statistics." Speaking of wages, a humorist has put it, "Ten dollars a week is salary, and four dollars a day is wages." If such salaried men in cities are bunched with such wage-earners, we might find a very different showing from that deduced from either class. This department not long since referred to some large increases in pay per hour secured by some of the unions connected with the building trades. It will be difficult to show that any other equally large body of men have secured so large an advance in wages per hour within the past five or six years as those belonging to the building trades. When, however, it is remembered that this increase has been generally attended by a reduction in hours, the conviction will come to one that unless employment has become more steady, the increased earnings can hardly have kept pace with expenses. If a painter, for instance, receives 50 per cent more wages per hour than formerly, but works only eight hours in place of ten, he really earns only 20 per cent more, unless he manages to work more days. Salaried men and those with "steady jobs" indoors have not as a rule in Western cities secured an advance of 20 per cent during the period. An Eastern insurance company having large buildings in several Western cities in which numbers of elevator men and janitors are employed continues to get young, faithful and active men at an advance of 12½ per cent over wages paid in '97. Mechanics employed by large railroads in the Northwest have secured no larger advance, while "salaries" in some of the offices of some of the roads are scandalously low. Civil engineers cover divisions of 500 miles or more on the Great Northern, doing all manner of work at all times of the day or week for eighty or ninety dollars per month, and are laid off for a good part of the winter. The pay of draughtsmen in these offices appears to be generally better, if more fluctuating, while they escape the hardships and responsibility of the division engineers. There is probably more shifting about among employees of this road than on others, but their pay does not appear to be notably less.

Living expenses, apart from rents, vary curiously in Western localities not far apart. It is probable that generally in the West they have not advanced as in the East. Dunn's estimate of an advance of more than 40 per cent would probably be excessive unless the comparison were made with the year '95, which was exceptional in many ways through the West. But the entire subject of both wages and cost of living has so much that is exceptional that inquiries for the purpose of really showing the prosperity of different localities or callings—inquiries made in an "off year" even—would be likely to lead to many errors of deduction.

The effect upon building interests of the exceptional advance in wages paid in building trades is variously interpreted according to the point of view. If one is looking only to the effect on the cost of building, two facts stand prominently in the foreground: first, that at a given wage per hour, the labor bill will generally be greater with an eight-hour than a ten-hour day—the ten-hour day in most building operations is not excessively exhausting, and there is less waste in starting and stopping than in the shorter day—and second, high cost of either work or materials is a constant inducement to designers to devise economies. Improvements in building within a decade or so in the direction of simplicity and economy have very noticeably reduced cost in the hands of skilled designers. Not to mention the possibilities of new constructive methods and new glazing, take house plumbing as an illustration. Here both workmen and material men are assumed to have things their own way as much as in any branch of building. For all that, one can get a much better job of plumbing for a given price than ten or twelve years ago.

Correspondence of the Building News from Copenhagen tells how Mr. Hansen, architect of the Church of Our Lady, so celebrated for its sculptures by Thorwaldsen, had prepared niches for the colossal statues of the twelve apostles, standing six on either side of the nave, "on massive square bases, immediately in front of the broad square piers that support the bays." How the sculptor escaped having his work partially hidden by being backed into these niches was told by himself:

"Architects are obstinate people," he wrote, "and one must know how to manage them. When the church of Our Lady was built Hansen left six niches on either side of the interior, and these were to contain my Twelve Apostles. In vain I represented to him that statues were meant to be looked at from all sides, and that nobody could see through a stone wall. I implored, I coaxed, but it was all in vain! Then I thought to myself, 'He is best served who serves himself'—and, thereupon, I made the statues a good half foot higher than the niches. You should have seen the length of that poor architect's face when he found this out! But he could not possibly help himself, so the infernal sentry-boxes had to be bricked up, and my Apostles stand out on their pedestals as they are now seen in the church."

The British Consul General at Berlin reports that the efforts to form a combination of the cement manufacturers throughout Germany for the purpose of improving the conditions of the cement manufacturing industry, have thus far not succeeded.

A large number of members of the Institute of Civil Engineers of Great Britain are to visit the United States and the St. Louis Exhibition in October as the guests of the American Society of Civil Engineers.
RECOLLECTIONS OF BOSTON.

By E. P. Overmire.

Commonwealth Avenue.

The streets in the business portion of Boston have a national reputation as a hopeless tangle, crossing and recrossing without rule or reason, and well deserving their reputed origin as cow-paths.

Beginning at the Public Garden, and extending about one and one-half miles in a southerly direction, is the famous Back Bay District, the fashionable West End of Boston. Here the streets are as prim and regular as the most sedate could wish for. The main axis of this district is Commonwealth avenue, an imposing thoroughfare, 200 feet wide, with a "mall," or park, running through its center, which is set out with trees and shrubbery, statuary, walks, and seats for the wayfarer when in need of rest during his sight-seeing, and forming a rendezvous for numerous nurse-maids and children in pleasant weather.

Commonwealth avenue is flanked on the south by Newbury street, on the north by Marlboro and Beacon streets, while running east and west are Arlington (which marks its beginning), Berkeley, Clarendon, Dartmouth, Exeter, Fairchild, Gloucester, Hereford and West Chester Park, where the Black Bay Park system commences, continuing out through Brookline. It will be noticed that these cross streets run alphabetically and alternate in two and three syllable names.

As in the case of Boston Common, the buildings which line this avenue form the largest item in its attraction to the tourist. On the north side one first encounters sombre, dignified old brownstone fronts, which were the "whole thing" thirty or forty years ago. A pleasing and growing variety is marked as one passes along the avenue, many of the best of which are illustrated herewith: the Nathaniel Thayer house at Fairfield street, the C. F. Adams house at Gloucester street, the Beebe house and the J. F. Andrew house at Hereford street, and the Governor Ames house at West Chester Park. The latter is a large, somewhat forbidding brownstone affair, impressive and dignified by its scale and treatment. It was the subject of one of the Boston Architectural Club's rambles, which the writer was unable to attend. With the genial architect, Carl Fehmer for a pilot, and the good governor for a host, the trip was one to be remembered, the interior of the house delightful.

At this point stands the bronze statue of Leif Erickson, by Miss Anne Whitney, which was unveiled during the writer's residence in Boston.

On the south side are fewer notable residences, but more of a tendency to "blocks," owing probably to its northerly frontage. There are more buildings of a mon-
umental character on this side, including Richardson’s Brattle Square Church, with its fine tower, a landmark and dominating feature of the skyline, as is Trinity, and the Vendome, one of Boston’s most exclusive hostleries.

The Algonquin Club is situated on the north side of this avenue (of which more anon). The St. Botolph Club is on Newbury near Arlington. The Boston Art Club is two blocks further out at Dartmouth street, with which the writer was closely associated during enlargement and alterations. The fine old fireplace in the reading room could never be used because of some defect in its construction, which proved to be due to the throat being clogged with bricks dropped carelessly by masons. This we remedied, and at the same time another fireplace was built “back to back” in the new building, more than doubling the size of the room. Spiritual Temple stands a block farther out at Exeter street, which also has some interesting history. At Marlboro and Exeter streets is an interesting house by W. Whitney Lewis, showing a pleasing use of roman brick. On Beacon street is an interesting pair of houses by Richardson and McKim, contrasting most effectively the styles of the two. On Westland avenue, near West Chester Park, is an interesting house by H. Langford Warren, for an artist named Page, which shows a unique handling of brickwork.

As already intimated hereinbefore, the Algonquin Club has some history very interesting to an architect. Those who recall the original design will remember the fact that it showed the lines of the entrance portico and the flanking bays carried straight up from the ground, the front wall of the building being in line with adjoining buildings. My illustration shows how the architect and owners built a wall straight across connecting the bays and portico, extending the rooms several feet and forming balconies above. Now, the deeds to all property in this avenue have a clause restricting the projection of
These are days in which things are done in a hurry. Big enterprises, while much thought may have been given to the details and a long time may have elapsed between the birth of the thought and its final development, conclusions are now reached in short order. A prominent architect stated a few days ago, with a remarkable degree of satisfaction, that when it came to open the bids and let a contract for a building, the cost of which was estimated at $500,000, not twenty minutes elapsed between opening the bids and the notifying of the lowest bidder to call and sign the contract. There was no overhauling of the plans and no cutting down, no beating down of the contractor. They were business men and meant business. Taking this as an indication it is safe to predict that the building will go ahead rapidly without needless extras and any friction on the part of anyone, with a result that when it is completed it will probably be as perfect as it is possible to make it.—Construction News.

In the much that is being said about technical education in Massachusetts, apropos the discussion over whether the Massachusetts institute of technology and Harvard university shall join hands in a large and wise promotion of it, it is worth remembering that the Worcester polytechnic institute long ago grew out of the localism which was its beginning. Its president, Dr. E. A. Engler, like President Pritchett of the Boston institution, was formerly connected with the faculty of Washington university in St. Louis. Of late years more and more students from the four western counties have been going to the Worcester institute, while the Massachusetts institute of technology has always drawn largely from this section. These technical schools have come to hold a larger place in their appeal to young men, than most graduates of the literary colleges have come to appreciate. At the recent commencement of the Worcester polytechnic institute the alumni decided to build a memorial hall. The purchase of a tract of land fronting on West street, 605 by 420 feet, was authorized, and money will be raised to put the proposed building on it.—Springfield (Mass.) Republican.

The Boston Board of Appeals, which is the body empowered to decide matters of controversy between owners or architects and the building department, has recently made an interesting decision as to what constitutes a building. The question was brought before the board by Spofford & Eastman, architects, on an appeal from the building commissioner's refusal to permit the erection of a block 228 feet long and 56 feet deep, divided into nine separate and individual sections, three stories high and covered with a flat roof. Each section had six separate apartments, two on each floor. The basement in length and width was entirely open, affording free communication to all parts of it. The architects claimed that this structure, with its four external walls, was a single house and not a block, and that, therefore, the section of the building law with regard to brick party walls did not apply. This contention was sustained by the board of appeals, who ordered the permit for the structure as a single building to be issued.
BROWN COUNTY COURT HOUSE, ABERDEEN, S. D.
Kinney & Detweiler, Architects, Minneapolis

ACCEPTED DESIGN FOR PUBLIC LIBRARY, GRAFTON, N. D.
Joseph Bell DeRemer, Architect, Grand Forks, N. D.
ECCLESIASTICAL AND MEMORIAL WINDOWS.

By E. B. Northrop.

The readers of The Western Architect will appreciate the illustrations here given of memorial and ecclesiastical windows which are the result of local artistic conception and constructive skill.

THE JUDD MEMORIAL WINDOW, GETHSEMANE CHURCH

MINNEAPOLIS, MINN.

Designed and Executed by R. T. Giles & Co., Minneapolis

The window recently placed in Gethsemane church, Minneapolis, by Mr. William G. Judd in memory of his father and mother, S. Corning Judd, LL. D., and Lavinia James Judd, was unveiled and blessed by Bishop Edsall, Thursday, July 21, last. The beautiful memorial is representative of the Annunciation, and is a fitting tribute to the life and work of two of the most prominent members of Gethsemane parish. The design presents the Virgin and St. John returning from Calvary, which is depicted by the three crosses in the distance. While the figures and faces represent the highest types of human purity, the artist has most forcibly presented the lesson taught that day upon the Mount by some of the accessories to the representations of the Virgin and St. John. Over the former is the crown of thorns to intensify the inscription upon the lower part of the panel, "In the world ye shall have tribulation," while above St. John is emblazoned the crown of gold accompanied by the declaration below, "Be of good cheer! I have overcome the world!" The window is made entirely of antique glass. The colors predominating in the garments of the Virgin are blue and amber; and in those of St. John, ruby and gold, with olive green effects to soften the pronounced colors. The landscape is beautiful and appropriate in delicate pinks, ambers and blues. The artistic and constructive work upon this window is of the highest order. Its beauty of coloring will certainly be appreciated by every lover of art who visits the Church of Gethsemane.

In the window recently placed in the First Christian Church, St. Paul, by Mr. Charles E. Dickerman in memory of his wife, who was long prominent in the work of that society, the subject of the Resurrection is treated in a manner which conveys the story in its most beautiful conception; and the correctness of detail and the richness of coloring entitles the work to take place amongst the best of its class in this country. The story of the Easter morn is exquisitely told. Christ appears to Mary Magdalene in a pastoral scene which, of itself, is elevating to every moral sense. The attitude of the Magdalene is not one of surprise at the appearance of the Lord, but rather of an expectancy born of an unquestioned faith in the great promise, together with confidence that the Divine blessing will be conferred. Far more than a mere proof of the resurrection of the body is given in this beautiful work. It is the beginning of the era of universal love and kindness and justice—the qualities idealized in the face and manner of the Christ. The lilies tell of purity restored to the pleading penitent. Over all are emblazoned the Star, the Cross, the Crown—the emblems of the great achievement of penitence, love and faith.

It is to be regretted that the illustration cannot present the beauty of coloring in this window. It is executed in opalescent and imported antique glasses. Rich amber greens prevail, while the general effect is relieved or intensified by the ruby-colored garment of the Magdalene.

The third illustration, "Elijah," is one of a series of six memorial windows in the Jewish Temple, at the corner of Holly avenue and Avon street, St. Paul, each representing one of the prophets. These windows were donated to the Temple by prominent members of the congregation, as follows:

- Elijah—By Mrs. J. Rittenberg.
- Jeremiah—By Mr. Ben Baer.
- Isaiah—By Mr. Charles Beckhoefer.
- Moses—By Mr. D. Bergman.
- Abraham—By Mrs. Rosa Rothschild.
- Deborah—By Mr. W. H. Elsinger.

As noteworthy, appropriate and beautiful decorations, these windows in the St. Paul Temple are unsurpassed in the West. They are executed in opalescent and imported antique glasses, and are especially rich in coloring, while the landscape effects are superb in their austere simplicity. Mr. R. T. Giles, of the firm of R. T. Giles & Co., of Minneapolis, St. Paul and Chicago, has in these windows, as in the other illustrations given, demonstrated
MEMORIAL WINDOW, FIRST CHRISTIAN CHURCH, ST. PAUL, MINN.
"THE RESURRECTION"

Presented by Mr. Charles E. Dickerman, St. Paul
Designed and Executed by R. T. Giles & Co., Minneapolis
Memorial Window, Jewish Temple, St. Paul, Minn.

Designed and Executed by R. I. Giles & Co., Minneapolis

an artistic conception and treatment of subjects and figures that is exceptional; and it compels recognition of a permanent place among the best designers in America. Young, devoted to his art, and possessed of required technical skill in construction, Mr. Giles is certain to add largely to the artistic development of interior decorations in the United States.

It is by no means most important, however, in the interests of architectural advancement that the work of the artist should be confined to churches and public buildings. It is in the homes where the best results of educational influences should obtain, and it is in the private residences where the designer has greatest opportunity for varied and original work. It is, indeed, a matter for serious regret that any palatial home should be constructed without appropriate use of the art-glass features which add so greatly to pleasing and harmonious interior effects. It is equally regrettable that costly business edifices, especially such as are designed for specific purposes—like bank or insurance buildings, for instance—should often present so little understanding of the general public benefit which is rendered by presentation of the artistic and beautiful, as well as that which is wholly utilitarian.

It is the duty of the American architect to advise, and even to insist upon when necessary, such advancement of imaginative art in this country as will eventually render less necessary the study of the beautiful in foreign lands. The present opportunity for the architect to influence and develop the future ideality of the American people is equal to that which was accepted by the supreme artists of early Rome.

So much was said in Massachusetts about the increase in intemperance as a result of the law requiring weekly payment of wages that the state bureau of labor statistics made inquiries covering some 40,000 employees in more than 400 establishments, and learned that only a trifle over one per cent of these employees failed to report on the Monday succeeding a Saturday pay day because of drunkenness. The percentage varied greatly in different places, being highest in Quincy, which is no compliment to the granite cutters. Inquiries of this character are apt to develop so much that is unusual that deductions from them are not safe. One might as well claim that less frequent payments, withholding money until large amounts were paid, placed too much temptation in the way of the earner—that more frequent payments and smaller amounts of money would bring the sums down to within the safety line, etc., etc. The fact is, that the drink habit among workmen and others, is more a question of the standard a community sets for itself than anything else. If excessive drinking is regarded as bad form among any class in any community, there will be little of it, and if abstinence should come to be regarded as the proper thing among the granite cutters of Quincy, they would speedily become as sober as any other class. Some credit is to be given to the rules obtaining in certain large employments where drunkenness is not tolerated, but apart from this, it is as much a question of public opinion in a given community as whether a man may have one wife or half a dozen. In Minnesota or Iowa, the farmer who should fail to provide food and shelter for his live stock in winter would fall shortly into the clutches of the law, but he might move a few hundred miles west and own thousands of cattle, allowing them to “rustle” in the worst of winters without raising the question of cruelty to animals, it would be only a question of profit or loss. If drinking to excess were to be regarded by the members of a social club as bad form, there would soon be as little of it among the members as among some communities of workmen. Depriving a man, by process of law, of both wages and liberty for long periods may prevent the drink habit for a time, but it does not cure it.
MINNESOTA AT THE WORLD'S FAIR.

By Emily Grant Hutchings.

In the entire World's Fair no state, with the exception of Missouri, has participated with greater variety and abundance of display than Minnesota. Five of the great exhibit palaces show the results of her industry and her manifold resources, and the Minnesota state house ranks among the most beautiful and artistic of the buildings on the Plateau.

This structure, that is Byzantine in character, is not of wood and staff, to be torn down at the expiration of the Exposition, like most of the fair buildings. It is composed of concrete blocks, with all its parts so adjusted that it can be taken back to its native state and erected as a permanent memento to the great Exposition. The ground floor is in one large reception hall, where all the daily papers of the state are kept on file. There is also a postoffice and a check room here. Opening from the reception room are two alcoves that serve as music rooms for ladies and gentlemen. The furniture is all hand-made and is the work of the manual training department of the Minneapolis and St. Paul public schools. The windows are enriched by very beautiful stained glass which bears the names of all the Minnesota counties.

Another exhibit of Minnesota manual training work is to be found in the Palace of Education. There are displays of carving, turned wood, furniture of artistic pattern, and forged metal, all done by the boys of the Mechanic Arts High School of St. Paul and the Manual High School of Minneapolis. The hand work of the girls is shown in sewing, painting and exquisite embroidery.

Minnesota is one of the few states represented in the Palace of Forestry, Fish and Game. The exhibit includes all that the name of the building suggests. There is a double row of glass tanks containing fresh water fish, and there is a realistic forest scene, composed of real trees that blend admirably with a painted background. Among the trees are taxidermized specimens of wolves and other northern animals.

The exhibit in the Palace of Agriculture is both extensive and interesting. It is a tangible presentation of Minnesota's time-honored nickname, "the bread and butter state." In the great glass-walled refrigerator, the most imposing piece of butter sculpture is the reproduction of the Falls of St. Anthony, with a canoe in which stands Father Hennepin. His companions are an Indian and a white man. The figures, about life size, the canoe and the water are all made of butter. Across the aisle from the refrigerator is the Bread and Butter pavilion of Minnesota. In the center is another cold-storage glass case containing a butter statue of a mother giving her two boys bread and butter. The pavilion is beautifully decorated with grains and grasses, most important among which is wheat, the leading product of the state. On the walls are two paintings, showing typical farm scenes. There are also exhibits of the great flouring mills for which Minnesota is famous.

The Minnesota display in the Palace of Mines and Metallurgy is so arranged as to attract universal attention. It is enclosed on two sides by a low halstade of cut and polished stone from the extensive quarries of the state. There is a splendid granite column, three feet in diameter and twenty feet high, from the state capitol. Pressed brick and marble are included in the stone display.

The part of the exhibit that attracts most attention is the two large models, by S. H. Stevens, of the Mesabi iron range and city of Duluth, from whose port twenty million tons of iron ore were shipped last year. The relief map or model of Duluth shows every house and every street, as well as a large area of the harbor with more than a hundred vessels all engaged in carrying the ore.

The other model shows the famous Fayal mine from which over seven million tons of ore already have been taken, with an abundance yet in sight. The model shows the homes of the miners, and even the stumps of the trees that were left by the lumbermen who were the first to derive a fortune from this wonderful tract of land. The finished product of the mine is shown in a high pressure engine, made by the pupils of the Mechanic Arts High School of St. Paul. There are also specimens of the pictograph stones and the famous pipe stone mantle, lent by the ladies of the state. The Minnesota commission consists of Conde Hamlin, president; J. M. Underwood, vice-president; T. L. Hays, secretary; and C. S. Mitchell, general superintendent.

While the various concessionaries at previous expositions have endeavored to reproduce, as a midway attraction, the wonderful mysteries of the Oriental, Eastern countries, it has remained for that typical ethnological artist, Mr. Gaston Akoun, to bring before the visitors at the Louisiana Purchase Exposition an aggregation of the magnificent splendors of Oriental life in the East, which for brilliance, magnitude and active natural portrayal by means of real life exhibits has, undoubtedly, eclipsed anything in this line ever before attempted.

Mr. Akoun, who is a Parisian by birth, has the advantage of former experiences at no less than twelve previous expositions, where his marvelous successes were continuously repeated, and as a successful caterer to an amusement loving public his fame spread far and wide.

The general plan embraces a most interesting representation of Asiatic countries, including faithful reproductions of the most historic and educational buildings of India, the Mahal Temple of Agra, the Rain Sipri of Ahmadabad, street reproductions from historical Delhi, Calcutta with its picturesque bungalows, and decorated buildings, grill workers, with their actual material, such as mosaic and ceramic panels, carved in inlaid wood.
MACHINERY WASTED.

The effect of the moist atmosphere on iron and steel is one of the marvels on the Isthmus of Panama. Rust appears on the unprotected metal within a few hours after exposure, and rapidly eats its way in. Scattered all about the canal at Colon and Emperador are huge quantities of machinery so badly corroded that a knife can be thrust into the metal as if it were cheese. Huge anchors, steel rails and dredging apparatus lie in the soil half buried, which, when unearthed, are as rotten as decaying vegetation. All along the line of the proposed canal, machinery is found in a more or less decayed condition. Its waste is a huge monument to the extravagant methods of the early company.

There has been little attempt to carry away or rescue any of this discarded apparatus. Probably $50,000,000 worth of old machinery was thus wasted, which might have been saved through proper care in storage and protection. Several years ago this machinery was piled in huge heaps. It is now over 25 years old and is practically worthless. It is doubtful if it could ever be used again on the work for which it was intended.

The equipment included miles of steel rails piled up in the open air; thousands of dump cars are likewise collected in different places awaiting the coming of the next canal company. Scores of locomotives are wasting away along the line of the work. Many of these engines never saw any kind of service, but were simply landed and left to go to ruin.

There are scores of machine shops along the route of the canal, buildings for laborers and contractors, storage houses, hospitals—houses for all conceivable purposes. They are built of wood, stone and metal. Some of them are sectional metal houses that were intended to be taken apart and moved from one part of the canal to another as occasion demanded. There are, all told, nearly 2,500 such houses. The hospitals, too, are expensive in numbers and size, and they represent an investment of a huge sum of money.

In the harbors and at the entrance to the canal steam craft of all kinds are also rotting in the warm, moist atmosphere. These include costly steam dredges, tugs, floats, mud scows, pontoons and many minor craft. Little attempt was made to preserve any of these vessels from decay. The steam dredges have their buckets in the mud of the canal; in many instances the cables have rusted and broken apart. Decay is apparent on all sides.—George E. Walsh in Cassier's Magazine.

The most notable masonry arch bridges of the world which excel in span and rise are: The Luxembourgh, in the Grand Duchy of Luxembourg, is 275 feet span and 54 feet rise; the Morbegno, in Italy, is 230 feet span and 33 feet rise; the Cabin John, United States, is 220 feet span and 57 feet rise; the Jaremee, Hungary, is 213 feet span and 59 feet rise, and the Grosvenor, England, 200 feet span and 42 feet rise.

CAUSES OF CRACKS IN THE WALL.

One of the most unsightly and annoying defects in house building are the fractures in plastered walls and ceilings; they are always in sight; paint and cover all you like, the crack still shows itself and defies your efforts to hide it. Is it possible to produce conditions under which this defect will disappear, surrounded as we are with the necessity for rushed construction which compels the use of timber before it has had time to become half seasoned? Then the extremes of temperature which prevail in this country, must affect the walls of the smaller structures. A temperature of some fifty or sixty degrees inside and that of forty below outside, together with the variations are conditions that are pretty sure to have some effect upon even a brick or stone wall, and is calculated to disturb the smooth, unpliant surface of the plaster, be it ever so thoroughly applied. Metal lath, it is claimed, is a great improvement over the wooden kind, which are subject to shrinking, swelling and warping, but of course the cost is greater.

In England, plaster walls are to be seen as sound to-day as when they were finished a hundred years ago, the plastering being applied on split lath. The writer in the "Northwest Contractor" does not remember ever having seen a sawn lath used in England.

No doubt some fault may be found with the foundations of heavy buildings, but it is a hard matter to improve the manner of foundations, especially in the North-west, without going to the enormous expense of reaching the bedrock; the mixing of materials for plastering admits of some improvement, it being found hard to spare time enough for the perfect slacking and setting of the lime particles—this being a necessary condition if thorough incorporation is to be obtained.

The dry atmosphere is another factor which tells considerably against the attainment of a perfect wall; so, that with all these adverse conditions, it is hard for the plasterer to finish a wall that will retain a perfect surface. In the smaller frame dwelling houses, too little attention is paid to interior support, the running beam under the lower floor in most cases being no larger than six by six, supported upon one or two posts. This is faulty construction and occurs principally where no regular architect is employed. To get the best results the interior support should be entirely rigid, for it must be remembered that it has to carry the heavy partitions, and floors with the contents, as well as the wind pressure on the roof and heavy chimneys. This weak point in construction tells its tale, not only in injured plaster, but in sprung doos and loosened woodwork.

The supreme court of New Jersey recently directed the State Board of that state to issue an architect's license to an applicant who had been rejected upon the grounds that he was not a practicing architect, but was merely a builder. It seems that the builder was able to present thirty-seven accepted plans and specifications for consideration by the court.
Porcelain Enameled Baths

surpass all others in quality, design and durability and the large number of exclusive patterns in which they are made permits the selection of a bath that will harmonize with the decorative treatment of the bathroom, no matter how modest or elaborate it may be.

The "Occident"

is the choice of many who desire a sanitary, modern equipment without expending more than is necessary to provide these most essential features. The "Occident" is made in five sizes, with trimmings as shown here, also with Imperial Waste and Overflow, or Bell Supply Fittings.

The exterior finish of the bath is a matter worthy of the consideration of every architect. The "Standard" Bath Decorations

as applied by skilled decorators, with special facilities for the purpose, makes the exterior as inviting as the interior. The reasonable cost at which we furnish exterior finishes should cause every bath to be specified with one of our factory finishes thus insuring satisfaction to the client, instead of the expense and annoyance resulting from the application of ordinary paint by unskilled hands.

Every piece of "Standard" Ware bears our "Green and Gold" guarantee label and name "Standard" or initials "S. S. M. Co." cast in relief on the the exterior. No others are genuine.


PITTSBURG, U. S. A.

Architects will please remember advertisers in The Western Architect when writing their specifications.
Sidewall and Wainscoting

Made in plates, panels and sections, standard full edge and with close fitting joints that tongue and groove together.

Apply over Joist or Old Plastering

Illustrated catalogue sent free to architects, contractors and builders upon request.

The Kinnear & Gager Co.

MANUFACTURERS

BOSTON: 125 Broad St. COLUMBUS, OHIO

THE ARTISTIC

"SOHMER"

PIANO

1904

NEW STYLES

NEW CASES

NEW DESIGNS

Write for latest art catalogue and price list.

N. S. HOOGNER,

NORTHWESTERN REPRESENTATIVE

Dayton Building. - - - Minneapolis, Minn.

THE "STAR" VENTILATOR

AND

Combination Skylight Star Ventilator STORM PROOF EFFECTIVE

FOR VENTILATING

Churches, Schools, Colleges, Hospitals and Public Halls; also Foundries, Machine Shops, Power Houses, Etc. Send for illustrated booklet with full information.

MERCHANT & CO., INCORPORATED

MANUFACTURERS

High Grade Roofing Plates

Metal Spanish Tiles and Gothic Shingles

Philadelphia New York

Chicago Brooklyn

DAVIS HEATING & PLUMBING CO.,

Steam and Hot Water Heating Apparatus

PLUMBING AND LIGHTING

187-189 E. Sixth St. St. Paul, Minn.

GUST LAGERQUIST,

MANUFACTURER OF

DIRECT AND BELTED ELECTRIC

ELEVATORS

Passenger, Freight, Power and Hand Power

18 to 25 First Avenue North,

MINNEAPOLIS. - - - MINNESOTA.

Architects will please remember advertisers in The Western Architect when writing their specifications.
A few years ago Plate Glass was a great luxury and used only in the store fronts and houses of the wealthy. Most of this Plate Glass was imported. To-day the United States has about fifteen great factories, which turn out quantities of the highest grade of glass every day, and the price is low enough for all. Below are a few of its uses:

**Plate Store Windows**
They make you store windows modern and attractive; will quickly repay for their cost.

**Plate Door Panels**
Look rich in any form, whether beveled, plain or leaded.

**Polished Wire Plate**
The greatest protection against fire.

**Plate Showcase Tops**
Are much stronger, more beautiful, and more easily kept clean.

**Plate Residence Windows**
Add beauty and refinement to a home, and give it additional value.

**Plate Glass Floors**
Made strong, and throw light into dark basements.

**Plate Glass Shelves**
Are both beautiful and clean for china closets, etc.

**Plate Furniture Tops**
Keep the beauty of grain and finish from all damage.

**Plate Glass Mirrors**
Either plain or beveled; beautiful to ornament store or home.

**Plate Desk Tops**
Protect the desk; enable you to keep maps or prices always before you.

**Plate Glass Signs**
Are attractive, durable and not costly.

WE ARE SOLE DISTRIBUTORS OF PATTON'S SUN PROOF PAINTS
Send inquiries to any of the following warehouses of

THE PITTSBURGH PLATE GLASS COMPANY

NEW YORK, Hudson and Vandam Sts.
BOSTON, 44-46 South St.
CHICAGO, 452 Wabash Ave.
CINCINNATI, Broadway and Court Sts.
ST. LOUIS, 12th and St. Charles Sts.
MINNEAPOLIS, 300 30th and Third Sts.
DETROIT, 35-37 Larned St. E.
KANSAS CITY, Fifth and Wyandott Sts.

The Canton Clothes Dryer & Mfg. Co.
CANTON, OHIO

Anchor Stone Laundry Trays

Are the Most Perfect, Durable and Sanitary
LAUNDRY TRAY
On the Market.

MANUFACTURED BY THE
Anchor Stone Laundry Trays Company.
507 Phoenix Building.
Write for Prices.

G. M. Voltz, PATENTEE AND MANUFACTURER
ST. JOSEPH, MO.

“UNIVERSAL” SASH BAR

Works Straight or as Transom Bar and at any or all Angles.
Provides for Setting of Building and Expansion of Glass without Crushing.
Is strong enough to require no braces, stay bolts or supports.
Water proof, dust proof, most easily applied, takes up but 2 inches of space, the nearest outside and inside finish of any bar on earth.

It Meets Every Condition of the Ideal Bar.

BUTCHER’S Boston Polish
Is the best finish made for FLOORS, INTERIOR WOODWORK and FURNITURE
Not brittle: will neither scratch nor deface, like shellac or varnish.
Is not soft and sticky like Beeswax.
Perfectly transparent, pre-erects the natural color and beauty of the wood. Without doubt the most economical and satisfactory Polish known for Hardwood Floors.

For Sale by Dealers in Paints, Hardware and House-Furnishings.
Send for our Free Booklet telling of the many advantages of BUTCHER’S BOSTON POLISH.

THE BUTCHER POLISH CO.,
Our No. 3 Reviver
is a superior finish for kitchen and piazza floors

Architects will please remember advertisers in The Western Architect when writing their specifications.
IMPORTANT NOTICE.

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

While we expect to enforce our rights to the extreme limit of the law, we have made arrangements to protect the public and give builders and others an opportunity to procure the end-matched flooring without danger of litigation. This may be done through our licensees who, in order to identify the licensed flooring, will invariably mark it Wilce Patent Jan 1st 1895, together with their own name or trademark.

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

First. That the United States Circuit Court has fully sustained our Patent.
Second. That we not only consented but joined in the request to reopen the case to permit further evidence to be submitted.
Third. That this action does not indicate any change in the opinion of the Court, as it was by consent of both parties.
Fourth. That end-matched flooring has not been advanced in price at all, and that is not warranted by the usual conditions prevailing in the lumber trade.
Fifth. That there is not an inch of waste in laying end-matched flooring, and besides this there is a great reduction in the cost of laying it.
Sixth. That it makes a better floor.
Seventh. That end-matched flooring will always be sold at a price that insures the builder a substantial financial saving over any other flooring in use of equal quality.
Eighth. That in using end-matched flooring an under or sub-floor is unnecessary, thereby saving the cost of material and of laying such under floor.

Use No Other, Buy No Other.

E. HARVEY WILCE, Geo. C. WILCE, THOS. E. WILCE

Respectfully yours.

Willer's Inside Sliding Blinds.

They have always been the best.
They are today better than ever.
In continual use for over 20 years.

We make them both Spring Balanced and Weight Balanced.
Write for Catalogue.

Willer Manufacturing Co., Milwaukee, Wis.
**The Western Architect.**

**The American Sanitary Stall System**

The only perfect sanitary stall made

This Stable is
Perfectly Sweet
and Oderless.

Note
the Drainage
System
in Each Stall.

Private Stable of C. M. Harrington, Minneapolis. Kees & Colburn, Architects.

S. F. Lindstam
Inventor and Builder
2615 Aldrich Ave. No.
MINNEAPOLIS, MINN.

**For Architectural Photography**

The Carl Zeiss Anastigmat Photo-Lenses are incomparably the best. Used by THE WESTERN ARCHITECT. Write for price list and detailed information to

E. B. MEYROWITZ, Optician.

104 East 23rd Street.
604 Nicollet Ave.
300 St. Peter Street.
New York.
Minneapolis.
St. Paul.

Catalogue de luxe for 15c to cover postage.

**R.T. Giles & Co.**

Stained and
Leaded Glass

Ecclesiastical and
Memorial Windows

St. Paul, K. F. Lott, Manager, 402 Drake Block
N. W. Phone Main 2433-J. T. C. Phone 68.

MINNEAPOLIS, MINN.

St. Paul Parquet Floor Co.

Manufacturers of
Parquet Floors
Wood Carpets
Wainscoting

St. Paul, Minn.
84 Iglehart St.
N.W. Phone 2554-J

Architects will please remember advertisers in The Western Architect when writing their specifications.
# Directory of Prominent Contractors and Material Men of the Northwest

Architects will please remember advertisers in The Western Architect when writing their specifications and in asking for estimates.

## Stone Quarries

<table>
<thead>
<tr>
<th>Company</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. W. Babcock &amp; Co.</td>
<td>Kasota Stone Quarries, Rough, Sawed, Planed and Cut Stone, Crushed Stone, Footing and Building Stone, Kasota, Minn.</td>
</tr>
</tbody>
</table>

## Roofing and Sheet Metal Works

<table>
<thead>
<tr>
<th>Company</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. W. 278</td>
<td>T. C. 178</td>
</tr>
<tr>
<td>Minnesota Roofing and Cornice Works</td>
<td>Manufacturers of Cornices in Copper and Galvanized Iron, Roofers in Pitch and Gravel, Iron, Tin, Slate and Tile</td>
</tr>
</tbody>
</table>

## Lefebvres, Deslauriers Roofing & Cornice Co.


26 East Eighth Street, St. Paul, Minn.

## Heating Concerns

<table>
<thead>
<tr>
<th>Company</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>T. A. Krenzke</td>
<td>Furnace, Steam, Hot Water Heating and Ventilating</td>
</tr>
</tbody>
</table>

28 West Lake St., Minneapolis, Minn.

## Stone Contractors

<table>
<thead>
<tr>
<th>Company</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wm. H. Ulmer</td>
<td>Contractor in Cut Stone and Mason Work</td>
</tr>
</tbody>
</table>

Mill and Works, Tel. Main 711, Foot of Chestnut St., Upper Levee, St. Paul, Minn.

## Roofing and Building Papers

<table>
<thead>
<tr>
<th>Company</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minneapolis Paper Co.</td>
<td>Manufacturers of Galvanized Iron and Copper Cornices</td>
</tr>
</tbody>
</table>

76-78 Western Ave., Minneapolis Minn.

## Acetylene Gas Machines


<table>
<thead>
<tr>
<th>Name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. E. Burt, Manager</td>
<td>238 Hennepin Ave., Minneapolis, Minn.</td>
</tr>
</tbody>
</table>

## Acetylene Gas Apparatus


<table>
<thead>
<tr>
<th>Name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. H. Mullins</td>
<td>Steel Duck Boat</td>
</tr>
</tbody>
</table>

Price $20—Crated on cars Salem. Endorsed by Thousands of Sportsmen. Air Chamber each end, always ready. No repairs required. Send for handsome free book.

W. H. Mullins, 533 Depot Street, Salem, Ohio.
"BAR-LOCK"

The Modern Vault Light Construction

Meets with a still greater improvement by substituting a heavy channel in place of the flat cross bar, affording:

1st—The effectual binding of the cement around and under the bearing on each glass, making same absolutely water-tight.

2nd—A deeper body or rib of cement between each glass.

3rd—The reinforcement of the cement around and through the holes in the heavy bearing bars.

4th—Additional strength to the whole construction.

Maximum Glass Area

Greater Strength

Durability

ABOUT ONE-HALF ACTUAL SIZE

Patented "Bar Lock" Galvanized Wrought Steel Construction, with either patented "3-Point" Prisms or "Arch" Plain Lights eclipses everything now on the market at any price, for Pavements, Floors, Skylights, Court Areas, Balconies, Domes, Porches, etc.

ENDORSED AND SPECIFIED BY THE LEADING ARCHITECTS, ENGINEERS AND RAILROADS IN THE UNITED STATES.

Showing underground Barber Shop of Hotel Wolcott, New York city where no artificial light is ever burned during the day, same is thoroughly illuminated with natural light through the medium of "Bar-Lock construction and "3-Point" Prisms.

AMERICAN BAR-LOCK CO.  PHILADELPHIA, PA.

Architects will please remember advertisers in The Western Architect when writing their specifications.
Popular Lines of Travel

TO THE GATES OF THE WORLD'S FAIR

MINNEAPOLIS & ST. LOUIS R.R.
TRAINS STOP AT THE MAIN ENTRANCE AND THE ST. LOUIS UNION DEPOT.
TO ST. LOUIS AND THE SOUTH TAKE THE "WORLD'S FAIR SPECIAL" PLENTY OF ROOM AT THE HOTELS JUST OUTSIDE THE FAIR GROUNDS
A. B. CUTTS, GENL. PASSENGER AND TICKET AGENT.

How are YOU going to St. Louis?

If your ticket reads via the CHICAGO GREAT WESTERN RAILWAY

You can go by way of either Chicago, Waterloo, Marshalltown, Des Moines, St. Joseph or Kansas City, without extra charge. Four daily trains making connections with the best trains to St. Louis.

For information as to special rates and routes, apply to any agent or
J. P. ELMER,
General Passenger Agent,
113 Adams St., Chicago.

Opportunity

For the man who is seeking a new location. The chances are in your favor if you are looking for a

Business Opening

In the Great Northwest are sites for the manufacturer where raw material is at his commands. Every line of industry needs representation in some one of the cities or towns along the line of the

Great Northern Railway

Accept the opportunity and seek one of these business openings. Send two cents in stamps for "BUSINESS OPENINGS along the line of the GREAT NORTHERN RAILWAY" a booklet giving a comprehensive directory of the many business chances offered in the Northwest.

For further information address

F. I. WHITNEY,
GENERAL PASSENGER AND TICKET AGENT,
ST. PAUL, MINN.

Rainbow Falls, at Great Falls, Montana
One of the greatest water powers in the world

Architects will please remember advertisers in The Western Architect when writing their specifications.
What is the Fare to St. Louis

A fifteen-day ticket is now sold for $19.20 from St. Paul; sixty day, $21.35; season (limit December 15), $25.60. Via Chicago without extra expense if you use the Chicago, Milwaukee & St. Paul Railway.

Short-limit tickets may be extended at St. Louis on payment sufficient to make the higher rate. Five daily trains to Chicago, ten from Chicago to St. Louis. For information about rates, etc., address

W. B. DIXON
Northwestern Passenger Agent
365 Robert St., ST. PAUL.

STRIKE for health. A few days and a few dollars will pay wonderful get-rich-quick interest if spent NOW at

French Lick West Baden Springs

where the health comes from. If you are repeatedly made aware of the fact that you have a stomach, liver, kidneys and bowels, it is time you put yourself into a normal state where they will cease to go. The waters at these are natural healers going to and from cheap; the hotels perfect; climate fine, sports and pleasures plenty. GO!

through parlor and dining cars on day trains. Through sleepers on night. Booklet telling all about the waters and giving list of hotels and boarding houses, with their rates, sent free.

City Ticket Office: 232 Clark Street, Chicago.

The McCray Refrigerators

Are made in wood lined, tile lined and opal glass lined, for Hotels, Club Rooms and Private Houses, and are strictly FIRST-CLASS Refrigerators. Plans and estimates for special work cheerfully furnished. Write for Catalogue and discounts on stock, size Refrigerators, etc.

ORNES, ESSWEIN & CO.
NORTHWESTERN AGENTS
422-424 South 3rd St. MINNEAPOLIS, MINN.

Architects will please remember advertisers in The Western Architect when writing their specifications.
THE WESTERN ARCHITECT

ARCHITECTS! ATTENTION!

We desire to call your notice to our stock of

**Hardwood Veneered Doors and Trim**

At the same cost as a No. 1 Pine Door.

Call on us or write us and we can convince you of the

**MERITS OF THESE VENEERED DOORS**

Every Door Guaranteed as Regards Material and Workmanship.

**THE MINNEAPOLIS SASH & DOOR CO.**

1018 Central Ave.
MINNEAPOLIS, MINN.

---------------------------------------------

**H. G. NEAL**

Successor to Tent and Awning Business of
Houser Duck & Shade Cloth Co., and C. T. Leonard & Co.

**Tents and Awnings**

Flags and Window Shades
Horse and Wagon Covers
Also Rent Tents, Flags, Bunting, Decorations, Etc.

Phone Main 1121

131 E. 3rd St., ST. PAUL.
243-245 Henn. Ave., MINNEAPOLIS

---------------------------------------------

**STEVENS CAST STONE CO.**

100 Washington St. Room 503 Chicago, Ill.

Stevens Cast Stone is recognized by the highest authorities in the world to be the most perfect manufactured stone yet attained. It may be cast into plain or ornamental forms or chiseled. The demand is so great that any city of few thousand inhabitants will support a yard. We are prepared to sell territories and furnish machines to equip a plant with, on sixty day's trial; if not satisfactory will refund the money.

Architects will please remember advertisers in The Western Architect when writing their specifications.
"A man may guy,
And a man may lie,
And a man may puff and blow;
But he can't get trade
By sitting in the shade
And waiting for business to grow."

Wilcox Door Hangers

HAVE GROWN UNTIL THEY ARE
THE STANDARD
WE ALL SPECIFY
THE WILCOX MAKE

Wilcox Mfg. Co.
AURORA, ILLINOIS.

Crown Iron Works Co.
Bridge and Jail Work.
MACHINE WORK OF ALL DESCRIPTIONS.

Iron Columns
Steel Beams.
Sidewalk Lights, Heavy Forgings, Roof Trusses
Fire Escapes, Iron Fences, Iron Stairs,
Graffiti, Lintels.

113-115 Second Ave. So. E., MINNEAPOLIS, MINN.

Minneapolis Roofing & Cornice Works
Successors to Wishart & Hansen,
STEEL CEILINGS
H. A. HANSON, Proprietor

Roofing
and
Cornice
Work

403 Sixth Avenue South,
MINNEAPOLIS, MINN.

Do You Know

The Economy and
Benefits of Using
The Paul Heating System
of Circulating Steam
without Back Pressure
If Not Address or Call on
The Automatic Heating Co.,
ENDICOTT BUILDING,
St. Paul, Minn.

For Priming or First Coating.

S. O. N.
STANDARD

For priming coat on all classes of natural wood, dries sufficiently hard
Over Night to admit of being sandpapered. Forms a hard non-porous
coating, which effectively prevents suction of the varnishes applied over
it and holds them up to a remarkable degree.

Standard Varnish Works,
30 BROADWAY, NEW YORK.

Architects will please remember advertisers in The Western Architect when writing their specifications.
St. Paul Foundry Company.

Manufacturers of

Architectural Structural Engineers
Iron Iron
Work Work

Steel Trusses, Girders, Columns and Buildings.

Large Stock on hand of Beams, Channels, Angles and Plates.

General Foundry, Blacksmith and Machine Work.

Offices, Como Ave. and MacKubin Street.
Works, G. N. Ry., near Como Ave.

ST. PAUL.

This magnificent building, the Kansas City Post Office and Custom House, erected at a cost of two millions, is PLASTERED WITH

Kallolite Cement Plaster.

The government builds well and uses only the best material after carefully testing the different kinds.

Cardiff Gypsum Plaster Co. MANUFACTURERS.

Not Connected with any Trust or Combine. FT. DODGE, IOWA.

Adamant

THE PERFECTION OF

Wall Plaster

—Manufactured by—

United States Gypsum Co., MINNEAPOLIS, MINN.,

ALSO—

Chicago, Ill. Milwaukee, Wis. W. Superior, Wis.

Landers-Morrison-Christenson Company REPRESENTING

Columbus Brick and Terra Cotta Co. and Iron Clay Brick Co.
Columbus, O.

International Fire Proofing Co.
Columbus, O.

Tiffany Enamelled Brick
Chicago

Winkle Terra Cotta Co.
St. Louis

Herringbone Expanded Steel Lath

Phila. and Boston Brick Fire Places.

Akron Roofing Tile Co.

Send for prices etc.

PORTLAND CEMENT

LANDERS-MORRISON-CHRISTENSON CO.,
818 Lumber Exchange Bldg,
Minneapolis, Minn.

Architects will please remember advertisers in The Western Architect when writing their specifications.
LIBRARY—"GREY COURT," LOWRY HILL, MINNEAPOLIS, MINN.
EDMUND G. WALTON, OWNER
Lowell A. Lamoreaux, Architect, Minneapolis
RESIDENCE OF MR. JULIUS ROSHOLT, KENWOOD, MINNEAPOLIS, MINN.

Bertrand & Chamberlin, Architects, Minneapolis
COUNCIL CHAMBER—MINNEAPOLIS CITY HALL
Long & Kees, Architects, Minneapolis

Supplement to
The Western Architect
August, 1904
RESIDENCE OF MR. W. H. ELLE, AVONDALE, CINCINNATI, OHIO.

Harry Hakes, Architect, Cincinnati.
View of Rockery and Cloisters

"GREY COURT," LOWRY HILL, MINNEAPOLIS, MINN.
EDMUND G. WALTON, OWNER
Orff & Joralemon, Architects

Supplement to
The Western Architect

August, 1904