

THE WESTERN ARCHITECT

VOL. II. No. 7.

MINNEAPOLIS and ST. PAUL, July, 1903.

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
✠



✠
...FOR...
Lime Stone
Iron Work
Cellar Walls
✠

Absolutely Prevents Dampness.

Menomonie Hydraulic Press Brick Co. Distributors,
MINNEAPOLIS.

**THE WINSLOW
ELEVATOR AND MACHINE CO.,**

MANUFACTURERS OF HIGH GRADE

Hydraulic and Electric

ELEVATORS

Passenger and Freight

GENERAL OFFICE AND WORKS:
96-100 NORTH CLINTON ST., CHICAGO, ILL.

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 DOORS
HIGGIN'S METAL FRAME WINDOW SCREENS
RINALD'S PORCELAIN ENAMEL PAINT
SWEETZ DUMB WAITERS and ELEVATORS
KING'S WEATHER STRIP, WINDOW and DOOR STOP
EXPANDED METAL LATH
UNION METAL CORNER BEADS
UNION BRICK BONDS

We carry in Stock Cabots Stains and Quilt, Metal Lath, Metal Corner Beads,
Mineral Wood, Mortor Colors, Brick Bonds and Rinalds Enamel Paint

MINNEAPOLIS OFFICE,

419 BOSTON BLOCK,
Phone T. C. 60

ST. PAUL OFFICE,

Room 34 Gillfillan Block,
Cor. 4th and Jackson Sts.
Phones T. C. 1027, N. W. 2537L-1.
Residence Phone, T. C. 6036 Park.

**WE
CAN
PROVE
TO
YOUR
ENTIRE
SATIS-
FAC-
TION**

That
"Lith
Boards"
Patented

Are a better and cheaper medium of insulation and deadening than Cork, Hair Felt, Pumice or any other material on earth. Made from **ROCK FIBRE WOOL**, formed into sections 4 ft. by 18 inches, and any thickness desired. These boards are almost as rigid as though made from wood. Let us send you tests made by expert engineers, among whom are the Starr Engineering Company, of New York City.

We can also prove that

"Kelly's Flexible Car Linings"

Furnish 30 per cent. better insulation and deadening than Hair Felt, besides being entirely antiseptic and odorless. The same material, only thicker, is called

"Kelly's Flax Fibre Building Felt"

Used for building warm houses. It is cheaper than heating cold ones. The extra cost will be saved many times over in coal and doctor bills. Avoid the danger, discomfort and expense of a cold, draughty house by lining yours with this material, as it is absolutely the warmest sheathing made, ten times warmer than building papers.

For Samples, Prices, Circulars and Catalogues, address,

Union Fibre Co., Winona, Minn., or J. W. COOPER, 615 Lumber Exchange, Minneapolis, Minn.
S. C. WELCH, 918-112 Clark Street, Chicago, Ill. A. C. PLACE, 143 Reed Street, Milwaukee, Wis.

**Kettle River
Quarries Company.**



Quarries at SANDSTONE, MINN.

Paving,
Curbing,
Crosswalks,
Building Stone.

Send
Plans
for
Estimate
We Pay Express.

GENERAL OFFICES:

Oneida Block, Minneapolis.

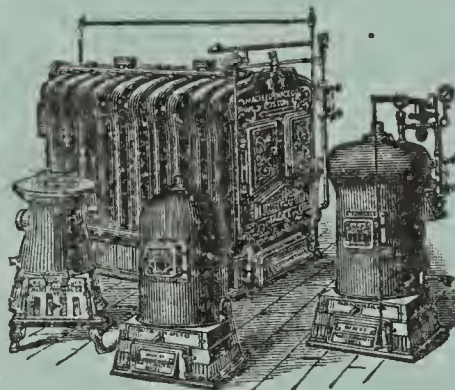
THE POND & HASEY CO.

Successors to A. A. POND.

Contractors for
High and Low Pressure
Steam, Hot Water
and
Hot Blast Heating

Mechanical and Natural
Ventilation Hot Air
Furnaces and Combi-
nation Heaters.

Tin, Sheet Iron and
Copper Work.



231 Fifth Ave. S. Minneapolis.

NORTHWESTERN FOUNDRY

SPECIALS:

- STEEL BEAMS
- GIRDERS
- IRON STAIRS
- SIDEWALK LIGHTS
- ROOF TRUSSES
- FIRE ESCAPES
- IRON COLUMNS
- STORE FRONTS
- SEWER CASTINGS
- STABLE FIXTURES
- ORNAM'NTL VASES
- STATION STOVES

S. T. FERGUSON, President.
J. F. FERGUSON, Vice President.
E. S. COFFIN, Secretary and Treasurer
Successors to S. T. FERGUSON, Proprietor.

**STRUCTURAL IRON AND
FOUNDRY WORK.**

**WATER PIPE SPECIALS
LIGHT AND HEAVY CASTINGS.**

**312 Tenth Ave. S.
Minneapolis, Minnesota.**

NOTICE
To ARCHITECTS
and CONTRACTORS

Monarch Brand TRINIDAD ASPHALT ROOFING

Recognized as the material which is rapidly replacing the old time substances for roofing purposes. Recently adopted as the standard by the Great Northern R'y and being used exclusively on the Dale Street Shops, the largest buildings erected in the West in 1902.
Guaranteed Pure Trinidad Asphalt.

Iron Brand 2-PLY 3-PLY PREPARED ROOFING

Made from long fibre wool felt, saturated with Coke-oven Tar and the plies cemented together with Coke-oven Pitch. The only Coal Tar Roofing possessing absolute merit.

We Carry a Complete Line of Building Papers

Write us for for Samples and Prices,

Minneapolis Paper Company,
MINNEAPOLIS, MINNESOTA.

Minneapolis Steel & Machinery Co.,

MINNEAPOLIS, MINN.,

Manufacturers of

Architectural Castings

STEEL STRUCTURES

Large Stock

Beams, Channels, Angles, Plates, Etc.

For Immediate Shipment.

Northern Hydraulic Cement

(SEMI-PORTLAND)

—Manufactured by—

Pembina Portland Cement Co.

GRAND FORKS, N. D.

Harry B. Cramer Co.

FRESCO, INTERIOR
and EXTERIOR

PAINTING

213 South 6th Street, Minneapolis.

1443—Both 'Phones—1443



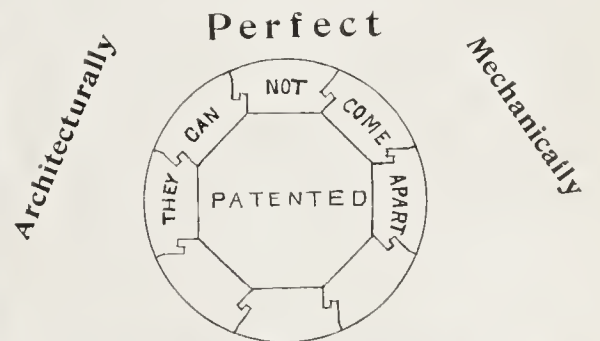
H. KELLY & CO.

Established
1877

Plumbers and Gas Fitters
Steam and Hot Water Heating
Complete Line of Engineers' Supplies

Estimates made on work any
where in the Northwest.

Office and Showrooms 225-29
THIRD Street S.
Minneapolis, Minn.



HENRY SANDERS CO.,

WESTERN MANUFACTURERS

KOLL'S PATENT LOCK JOINT COLUMNS

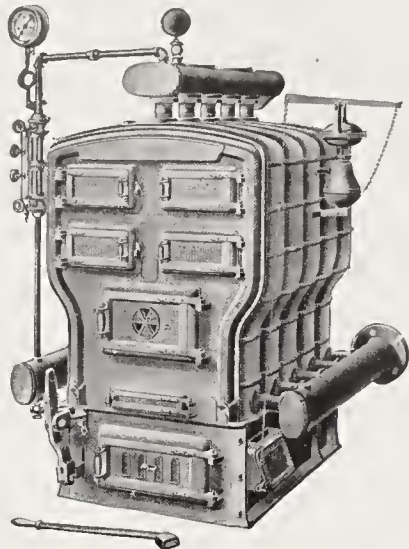
77-85 Weed Street, Chicago

K. F. LOTT, Agt. 557 Drake Block, ST. PAUL,
505 Kasota Block, MINNEAPOLIS.

EASTERN MANUFACTURERS.

Hartmann Bros., Manufacturing Co., Mt. Vernon, N. Y.

SEND FOR
"The Boiler Magazine"



"AMERICAN" BOILER FOR STEAM HEATING

Successful Boilers and Radiators

Heating Supplies of Every Description

Manufactured and for Sale by **Kellogg-Mackay-Cameron Co.,**

CHICAGO

MINNEAPOLIS, MINN., 100-106 So. Second Street.
 KANSAS CITY, MO., 447-449 W. Fifth Street.
 SEATTLE, WASH., 1106 Third Avenue.

H. N. LEIGHTON, Pres. and Treas. EBEN E. LEIGHTON, Sec'y
 W. H. LYON, Vice-Pres.

H. N. Leighton Company,

GENERAL..... **Contractors and Builders.**

216 Sixth Street South,

MINNEAPOLIS, - - MINNESOTA,

Northwestern Tel. 1063. Twin City Tel. 2084.

S. A. BERKEMEYER & CO.

SUCCESSOR TO NORTHWESTERN SLATE CO.
 DEALERS IN

**Roofing Slates, Urinals,
 Slate Treads, Slabs and
 Slate Black Boards.** We make a specialty of

Black Board Setting for School Buildings.

1012 NEW YORK LIFE BUILDING.,
 MINNEAPOLIS.



"Spence" Hot Water Heater

J. N. SMITH & CO.
Steam and Hot Water Heating

PLUMBING

Gas Fixtures, Gas Fitting, Repair Work

613 1st AVE. SO. MINNEAPOLIS, MINN.

TELEPHONES: N. W. Main 2591. T. C. 704

Remodeling Carefully Executed
 By Skilled Workers.

FREE INSPECTION SERVICE.

We will provide the services of a competent inspector for your electric light wiring FREE of COST and guarantee satisfactory wiring. May we send a representative to explain our REDUCED RATES. Electric light is the CLEANEST, SAFEST and BEST artificial light known.

Minneapolis General Electric Co.,

15 and 17 SOUTH FIFTH STREET.

Telephone N. W. Main 189.

Twin City 1320.

KELLY & LAMB,

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

313 Third Avenue South,

MINNEAPOLIS, MINN.

Telephones: N. W. 900 2.
 T. C. 802.

W. I. GRAY
 GEO. K. BELDEN

W. I. GRAY & CO.

Contracting Engineers.

Electric Light, Heating, Ventilating and Water
 Works Plant.

804 Sykes Block,

Minneapolis, Minn.

Mackolite
Fireproofing Company

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

Manufacturers and Contractors for

Light Fireproofing Material

For all classes of fireproof and semi-fireproof buildings.

Floors, Roofs, Partitions, Furring Tile, Etc.

Fireproof Plaster Boards

For wood construction.

Write for prices and estimates.

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



Carey's 85 per cent Pure Magnesia Pipe Covering

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

Carey's Magnesia Cement Roofing

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

KEES & COLBURN, Architects of both Buildings.



W.S. NOTT COMPANY

SOLE NORTHWESTERN AGENTS AND CONTRACTORS,

200-206 First Ave, South,

MINNEAPOLIS,

MINN.



WM. RHODES, President.

GEO. H. RANNEY, Sec. & Treas.



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

Scribner-Libbey Co.



ST. PAUL, MINNESOTA.

OFFICE AND WORKS
FORT, COR. W. Fifth Street.

ESTABLISHED IN 1870.
INCORPORATED IN 1883.

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



ST. PAUL, MINN.



Established
1878.

Selden Roofing & Manufacturing Company.

— MANUFACTURERS OF —

GALVANIZED IRON and COPPER CORNICE,

Architectural Sheet Metal Work, Iron Doors and Shutters, Skylights, Ventilators, Corrugated Iron. ****

ASPHALT, PITCH, GRAVEL ROOFING IRON, TIN AND SLATE.

41 South Eleventh Street,

Minneapolis, Minn.

PUBLISHER'S DEPARTMENT.

THE WESTERN ARCHITECT

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

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

J. WALTER STEVENS, St. Paul, Secretary.

F. A. GREENLAW, General Manager.

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

THE VALUE OF AIR MOISTURE.

The scientific world was startled when Tyndall made the announcement that "the removal for a single night of the aqueous vapor from the atmosphere which covers England would be attended by the destruction of every plant which a freezing point could kill."

But many scientists have since verified the truth of the statement by calculation. The importance of aqueous vapor, or moisture, as a constituent in our atmosphere, was not exaggerated. Careful investigation has demonstrated the fact that plant and animal life are largely dependent upon air moisture.

The average percentage of moisture is 70 per cent. The average house atmosphere during the months of the year when artificial heat is employed contains only from 10 to 20 per cent of air moisture. This means a dryness which is greater than that of the deserts at their driest period, during which the moisture is reduced to from 12 to 25 per cent.

Medical authorities tell us that the "physiological symptoms of an atmosphere too dry are parched lips and tongue, a dry, feverish condition of the skin, and, in those children predestined to lung diseases, a hacking cough, resulting from the desiccating effect of excessively dry air on the lungs and bronchial tubes."

A mummified and shriveled appearance of the human skin is caused by a dry atmosphere.

Baldness and the breaking and splitting of the hair are frequently due to the same cause.

The ruddy complexion and red cheeks of English men and women are due to air moisture.

It is a remarkable fact that while it may require a temperature in your home of 70 degrees to ensure physical comfort—with a relative humidity of 50 per cent you will be comfortable at 65 degrees of warmth. In other words, if the air moisture is adequate, you will be comfortable in a temperature of 5 degrees less. This, it has been estimated, will make a fuel saving of from 12½ to 15 per cent.

After recognizing the importance of humidity to the physical well being of man, the question naturally arises: Can humidity be brought under mechanical control?

Or, rather, can atmospheric moisture be supplied artificially to the extent that it may be required or desired? The need of a larger quantity of moisture in the average home, during the months of the year when artificial heat is resorted to, has been questioned. The difficulties, however, in controlling air moisture automatically, seemed insurmountable.

But here the triumph of the scientist must again be recorded. The inventive mind has brought atmospheric moisture within automatic control and regulation.

The Humidostat is a device which regulates the air moisture in a room and holds it at any desired degree.

It is made of metal, neat in design (see illustration), and equipped with dial and index, which can be adjusted to the amount of humidity desired. The Humidostat is connected by tubing with the heating apparatus. Its mechanism is so simple that it cannot get out of order, and yet it is so sensitive that it responds to the slightest variation from the desired degree of the moisture in the room.

The Humidostat is in use in private residences and public buildings. Also in factories where the process of manufacture requires a fixed air moisture. The Humidostat is the invention of Prof. Warren S. Johnson of the Johnson Service Company of Milwaukee, Wis.

HEATING AND VENTILATING TELEPHONE EXCHANGES.

The New England Telephone and Telegraph Co., of Boston, Mass., possesses one of the most completely equipped exchanges in the country. Not only are the electrical and telephone appliances the products of the best engineering skill and attention, but the building itself has been especially designed with a view to both successful operation and the comfort and convenience of the employees.

One of the first requisites of a telephone exchange building, because of the large number of employees and their constant and sedentary labor, is a proper system of heating and ventilating. The ventilation is especially important, and arrangements should be provided by which it can be maintained constant in volume independently of the amount of heat required or the state of the weather. Any natural means of ventilation is impracticable, since it is very difficult to maintain a proper circulation of air when the densities of the inside and outside air are nearly equal. With the fan system, however, all these points are easily taken care of.

In the present plan the fan, which is direct-connected to a vertical engine, forces the air through a steam-heater composed of pipe-coils, enclosed within a steel plate housing. The heater, however, is by-passed, so that a greater or less proportion of the air may be forced into the distributing pipes without passing through it, and this by-pass is fitted with a special hot-and-cold damper arrangement which is automatically controlled by Johnson thermostats located in the several rooms of the building. The B. F. Sturtevant Co., by whom the fan and heater were installed, also applied the galvanized iron piping, elbows, fittings, registers and screens, together with the direct steam-heating work, automatic control and the boiler and boiler setting. The steam is delivered to the engine at 25 lbs. pressure, and the exhaust passes into the heater.

A somewhat similar equipment was furnished by the above company to the Twin City Telephone Co. of St. Paul, Minn., some time ago. In this case special precaution was taken to purify the air supply. It has been demonstrated that about 90 per cent of the trouble caused by imperfect contact in the switch-board connections can be prevented by thoroughly cleansing the air as it enters the building. Many experiments have been tried in the way of dry-cleaning by filtering through screens of wire and cheese-cloth or cotton-batting, but all such devices require frequent renewal, sometimes at considerable trouble and expense. By continued use any filter of this character must deteriorate and eventually become clogged, and in order to avoid the results of neglect it ought to be practically automatic. This point is essential in an air-cleaning system.

The action of the air purifying and cooling apparatus adopted by the Twin City Telephone Co. consists in thoroughly saturating the air with water by passing it through a fine spray and afterwards precipitating the moisture with the collected impurities and discharging it into the sewer. The water which is taken up at high velocity and held in mechanical suspension is extracted by centrifugal force by

passing it through a series of tubes in which spirals are so placed as to give the air a whirling motion, causing the suspended particles, which are heavier than the air, to be thrown outward and brought in contact with the tubes, from which they flow through perforations to a drip-pan below.

The washing process imparts about 70 per cent humidity at a temperature of 70 degrees Fahr. in the operating room. This is considered the most desirable for health and comfort, and avoids the excessive dryness resulting with other systems of heating and ventilating which often require a humidostat to correct the defect. Moreover, in the summer time, with the temperature outside of 80 degrees Fahr. and with the normal temperature of the city water, the air delivered to the rooms can be readily reduced to 70 degrees.

The air after being tempered, washed and dried is blown by the fan through the reheating coils into the tempered air chamber. A mixing damper is placed with connections to both, so arranged that the hot or tempered air, under the control of the Power's thermostat in the operating room, is mixed automatically to the proper degree, maintaining throughout the year a constant temperature in the room with uniform air delivery and humidity.

While such a system is practically a necessity in a modern telephone building, especially in cities where soft coal is burned, it is equally applicable to all public buildings, particularly in large cities where the air is laden with impurities and where the summer heat is almost unbearable. The time is probably not far distant when the marked advantages of such a system will be fully recognized and people will insist that they should be kept cool in summer as well as warm in winter.

The S. Wilks Manufacturing Company, of 53-55 South Clinton St., Chicago, have recently gotten out a handsome new catalogue showing the Wilks Water Heaters. Some important changes have been made in this catalogue over those previously issued, especially as to the increased large number of sizes of their heaters, as well as in their steel storage tanks. It is said by many sanitary and heating experts that the special economical and sanitary benefits that can be secured from the Wilks Water Heaters can hardly be equaled by any other heaters on the market, and for these important reasons both architects and owners are looking with special favors on them.

A copy of the catalogue above referred may be had upon application to the Wilks Heater Company at the above address.

Mr. I. E. Burt, so well and favorably known in Minneapolis, has taken the agency for the Northwest, of the Colt Acetylene Gas Generators, and his advertisement of same may be found on another page in this issue of the WESTERN ARCHITECT.

STILL THEY COME.

The growth and development in the building line of the Northwest can be gauged to some extent at least by the number of new concerns that are organized from month to month. The last one in the heating line to be established in Minneapolis, is known as the Excelsior Heating Co., with headquarters at No. 955 Eighteenth Ave. N. E., with E. E. Deschane as manager.

Mr. Deschane is a man well up in matters pertaining to heating, having been with W. F. Porter & Co. for more than eight years, supervising all the work on the largest contracts executed by that Company. Later, Mr. Deschane was with the Archanbo Heating & Plumbing Co. as general solicitor and outside man, and in that capacity made many acquaintances among the architects and builders of the twin cities.

Mr. Deschane reports business very good at present, and among the recent orders secured by this concern is the heating and ventilating of a residence for Mr. Henry Lawrence, near Lake Calhoun.

PERFECTION IN INSIDE BLINDS.

We have before us the new section "B" catalogue of the Willer Manufacturing Co. of Milwaukee, Wis., descriptive of their well-known Inside Sliding Blinds, which is certainly a work of art with its many beautiful half-tone cuts showing the blinds in various positions, as well as illustrating some magnificent residences and municipal buildings throughout the country, furnished with the Willer Inside Sliding Blinds; it also contains strong testimonials from owners of the residences as to the perfection of the workings, and the general satisfaction given from the use of these staple products which have many desirable features to commend them to the architect, owner and builder.

SOMETHING ABOUT HARD PLASTER.

The gypsum obtained by the Cardiff Gypsum Plaster Co., of Ft. Dodge, Iowa, comes from a mine sixty feet below the surface from the center of a stratum twenty-two feet in thickness.

The material manufactured from this pure rock will carry one-fourth more sand, cover one-fourth more surface, and is, therefore, one-fourth cheaper at the same price than material manufactured from surface rock, or clay containing some traces of gypsum, but mixed with a variety of other materials.

The United States Government is now using this plaster on its buildings, after having thoroughly tested the different kinds, and this fact speaks volumes as to the quality of the same, in view of the facilities which the government has for testing material of this character, and the high order of construction required.

One of the government buildings upon which the above product was used is the custom house and post-office at Kansas City, Mo., recently completed at a cost of \$2,000,000.

R. I. W. PAINT.

Among the large specifications calling for use of "R. I. W." Damp-Resisting Paint is the large store of John Wanamaker, which he is now erecting in New York City, the back of the limestone of which is to be coated with this material. There is hardly a large operation in the United States at present on which R. I. W. paint, konkerit coating, the new tockolith are not specified.

Tockolith is the greatest protection for iron or steel as a first-coater, it being a chemically-treated cement and is fast becoming very popular. S. J. Hewson & Co., No. 10 Third St. No., Minneapolis, are the general Northwestern agents for "R. I. W." Damp-Resisting Paint.

THEN AND NOW.

The Twin City Varnish Co., the most prominent manufacturers of varnishes in the Northwest, have issued a handsome booklet, pocket size, which they are sending out to their customers and friends.

The booklet contains 64 pages and cover. The cover is a bright turkey red and bears the title, "Then and Now."

Besides giving the important information that the company is not a new concern, it having been established in 1889, over fourteen years ago, a length of time sufficient to prove the merits and qualifications of their goods, the booklet also gives endorsements from hundreds of leading manufacturing concerns throughout the Northwest, as well as from the leading painters and decorators, all testifying to the uniform standard, quality and general high excellence and satisfaction in the use of their varnishes. For interior finish, etc., no better varnishes have ever been manufactured, and it must be a source of great satisfaction to the company making these reliable goods, to know that the trade prefers home-made to foreign goods, when they can be absolutely relied upon, like the Twin City Varnish Co.'s Varnishes.

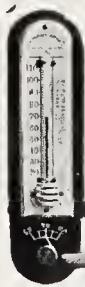
Uniform Temperature Always

It makes no difference whether you have furnace, steam or hot water apparatus; or whether it is new or old. All you need is the

Minneapolis Heat Regulator.

On market twenty years. As simple and no more expensive than a good clock.

Sent on 30 days FREE TRIAL; if not satisfactory, return at our expense.



Adjust here.



It's automatic

Free Booklet

WRITE TO-DAY

ELECTRIC HEAT REGULATOR CO. 4th and Phoenix Streets MINNEAPOLIS, MINN.

Control Your Temperature

The Johnson System

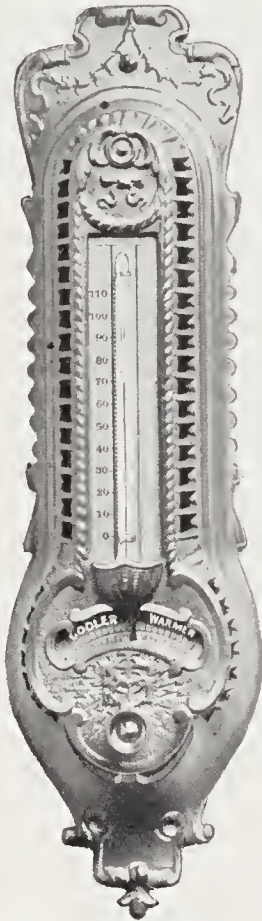
of Temperature Regulation is an absolute necessity in a well equipped, modern building.

It saves its own cost in a short time.

Promotes the physical well-being of the occupants.

Thousands of buildings equipped with our system.

Write for Catalogue.



The **JOHNSON SERVICE COMPANY**, Milwaukee, Wis.

F. O. Streed, Pres. and Treas. A. Peterson, Vice-Pres. C. M. A. Carlson, Sec.



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.

Dealers in Grates, Tile and Tile Flooring. Factory, Salesroom and Office,
419-421 Sixth St. So.,
MINNEAPOLIS, MINN.

Wm. Penn.

J. F. Tostevin, Jr

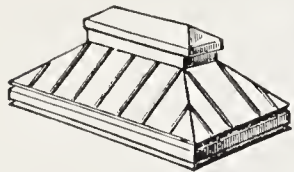
WM. PENN & CO.,

Wholesale and Retail
Dealers in—

Lake Superior Stone

Portage Entry Redstone. Port Wing Brownstone. Kettle River Sandstone. Bedford Limestone. 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.



George F. Boehme Cornice Roofing & Sheet Metal Works

7 East Third Street,

ST. PAUL, MINNESOTA.

Sky Lights, Metallic Fronts, Steel
Ceilings, Sidings and Roofing.

TELEPHONE MAIN 2287.

Northwest Engineering Co.

CHAS. L. PILLSBURY SUCCESSOR TO W. J. BONWELL.

ELECTRICAL ENGINEERING
and CONSTRUCTION
HIGH CLASS INTERIOR LIGHTING
FOR ALL PURPOSES

Mining Work, Factory and Power Installation

No. 131 East Fifth Street,

Write us Your Wants.

ST. PAUL, MINN.

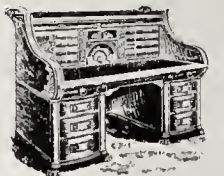
THE A. H. ANDREWS CO.

(Established 1865)

174-176 Wabash Ave.,
CHICAGO, ILL.

Designers and Manufacturer of

**Fine Bank Fixtures
Court House, Library and
Office Furniture**



Largest Manufacturers
in the World of
Opera Chairs
Church Pews
Pulpit Furniture
Lodge Furniture
Railroad Settees, etc.

For 36 Years
Manufacturers of
Everything for Schools
School Furniture
School Apparatus
Maps, Globes
Blackboards, etc., etc.

ANDREWS (Patent) METAL FURNITURE

Typewriter Chairs
Piano Chairs



Easy Working Ternes

U. S. Eagle N M, and M F, are the perfect ternes for easy and satisfactory work. Bearing a very heavy coating of pure tin and new lead—hand dipped—they are very pliable and flexible; and for the same reason are impervious to water and weather. For more than 60 years M F was the world's standard for roofing, but U. S. Eagle (New Method) is an improvement on this excellent product that makes it near copper in its rust-resisting properties. The

U. S. Eagle N M, and M F

ternes being so much superior to any other brand ever produced, we would like to place a sample in the hands of every architect, contractor, builder and roofer who is not acquainted with this great advance in roofing. Free, prepaid, on request. Our products are for sale by all first-class wholesale metal houses.

"A Fifty-Year Roof"—a manual of terne manufacture and roof making—an art booklet—free, if you will write to

W. C. CRONMEYER, Agent, Carnegie Building, Pittsburg, Pa.

American Tinplate Company, Battery Park Building, New York.

THE MOST PROMINENT
ARCHITECTS OF NEW YORK
Such as POST, GILBERT, WHEELER, GIFFORD, TEALE, RENWICH,
ASFENWALL & OWENS, LORD & HEWLETT, etc, know of and highly
Recommend the

"COLT" Acetylene Gas Generator (CARBINE FEED.)



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

A Perfect Working Machine.

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

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

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

I. E. BURT, Manager

238 Hennepin Ave., MINNEAPOLIS, MINN.

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

IMPORTANT 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.

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

While we expect to enforce our rights to the extreme limit of the law, we have made arrangements to **protect the public** and give builders and others an opportunity to procure the end-matched flooring **without danger of litigation**. This may be done through our licensees who, in 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 and will not** be at any time, any more than is warranted by the usual conditions governing the lumber trade.

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

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

DRAKE MANTEL & TILE Co.

MANTELS - MARBLE - MOSAICS.

MANUFACTURERS
WHOLESALEERS
CONTRACTORS



ST. PAUL, MINN., 66 E. THIRD ST.
MINNEAPOLIS, MINN., 510 SECOND AVE. S.
FACTORY, PLATO AVE. AND C. G. W. RY.

Cabot's Shingle Stains

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

Samples and full particulars will be sent upon application.

AGENTS AT ALL CENTRAL POINTS.



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

Cabot's Sheathing Quilt

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

ASBESTOS QUILT,

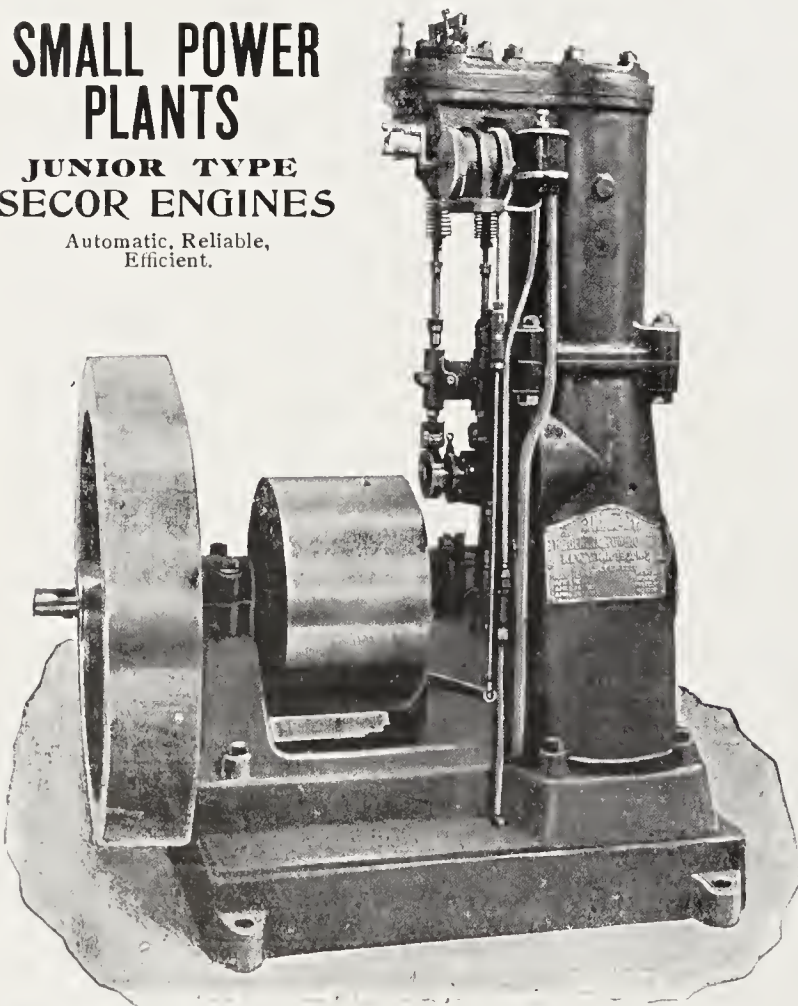
the only sheathing made that is heat, sound and fire proof.

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

SMALL POWER PLANTS

JUNIOR TYPE
SECOR ENGINES

Automatic, Reliable,
Efficient.



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

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. V. W.
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 effectually prevents suction of the varnishes applied over it and holds them up to a remarkable degree.

2620 Armour Ave.,
CHICAGO.
23 Billiter St.,
London.

Standard Varnish Works,
29 BROADWAY, NEW YORK.

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.

HAROLD JOHNSON, NORTHWESTERN AGENT
216-217 Lumber Exchange
Minneapolis, Minn.

YALE & TOWNE

Locks and Trimmings

FINEST QUALITY OF MATERIAL.

HANDSOMEST IN APPEARANCE.

GREATEST VARIETY OF DESIGNS.

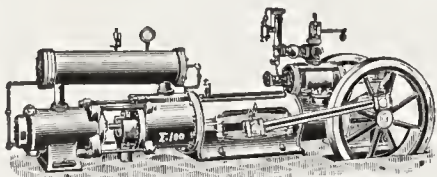
These points secured us the contract to furnish the new Chamber of Commerce Building with the accompanying design throughout.

Architects are invited to make use of our handsome sample room. Large display of sample Locks, Knobs, Escutcheons, etc., in all designs and finishes.

W. K. MORISON & CO.

Hardware, Cutlery, Mechanics' Tools, Stoves, Kitchenware, Etc.

Agents
Sherwin-Williams Paints
247-249 Nicollet Ave.



Chapman's Double Compressed Air Pump

THE AMERICAN WELL WORKS "LIGHTNING WELL MACHINERY"

MANUFACTURERS Chapman's Compressed Air Pumping System also Vertical Single and Two-Stroke Deep Well Pumping Machinery.

A solution of your pumping problems. Your specifications solicited.

We wish the name and address of every Architect in the Northwest.

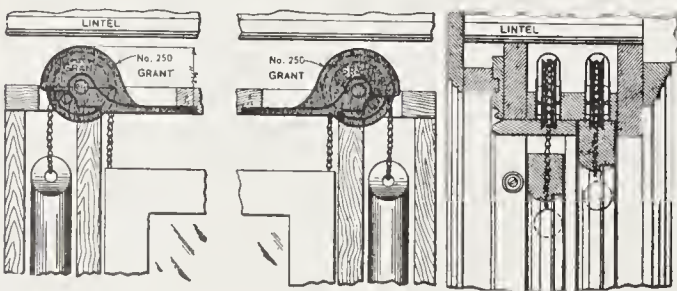
CHICAGO ILL. AURORA ILL. U.S.A. WRITE FOR CATALOGUE



Fig. 884 Vertical Deep Well Pump.

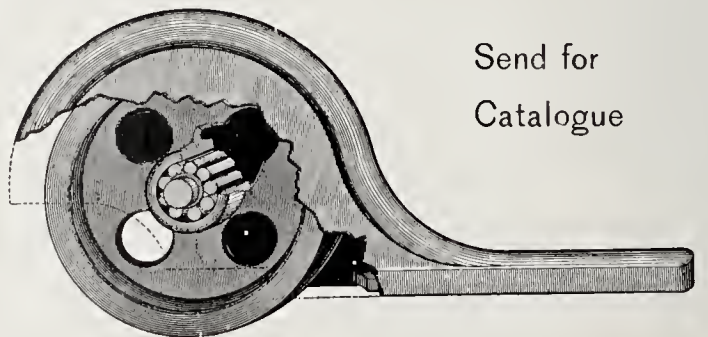
Grant Overhead Window Pulley

McQUEEN'S PATENTS



Specified by the Leading Architects of United States and Canada.

A. G. KELLEY,
419 Boston Block, Mpls.
Agent:
Minneapolis and St. Paul



Send for Catalogue

Grant Pulley & Hardware Co. 33 Warren Street, NEW YORK.

Grant Anti-Friction Pulley.

THE Western Architect

AN ILLUSTRATED MONTHLY JOURNAL
DEVOTED TO ARCHITECTURE AND ALLIED ARTS

Entered November 24th, 1902, at Minneapolis, Minn., as second-class matter, under act of Congress, March 3, 1879.

VOL. 2.

JULY 1903

No. 7.

THE WESTERN ARCHITECT

IS PUBLISHED ON THE 15TH OF EACH MONTH

BY

THE WESTERN ARCHITECT PUBLISHING CO.
(Incorporated.)

FRED'CK KEES, Minneapolis, Minn., President
J. WALTER STEVENS, St. Paul, Minn., Secretary.

F. A. GREENLAW, General Manager.
Insurance Exchange Building, MINNEAPOLIS, MINN.

J. L. SWINDELLE,
Manager Advertising Department.

CHICAGO OFFICE, 115 Dearborn St.,
C. F. ZILCH, Manager.

ST. PAUL OFFICE, Commercial Building.

DULUTH OFFICE, 618 Manhattan Building.
(Builders' Exchange.)
E. POWERS, Manager.

DES MOINES OFFICE, 418 Eighth Street,
H. L. BARQUIST, Manager.

NEW YORK OFFICE, 280 Broadway, Suite 289.
C. T. WAUGH, Manager.

EDITOR.

F. G. Corser, N. Y. Life Building.....Minneapolis

BOARD OF ASSOCIATE EDITORS:

GEO. E. BERTRANDMinneapolis
CHARLES L. PILLSBURY.....Minneapolis
J. WALTER STEVENS.....St. Paul
S. M. COLBURN.....Minneapolis
L. A. LAMOREAUX.....Minneapolis
MARK FITZPATRICK.....St. Paul
HARRY W. JONES.....Minneapolis
C. A. REEDSt. Paul
CHAS. S. SEDGWICKMinneapolis
E. P. OVERMIREMinneapolis
LOUIS LOCKWOODSt. Paul
CHAS. R. ALDRICH.....Minneapolis
FRANK H. NUTTERMinneapolis
EDWARD S. STEBBINS.....Minneapolis

CONSULTING BOARD OF ARCHITECTS ON SUBJECTS
FOR ILLUSTRATIONS.

THOMAS G. HOLYOKESt. Paul
A. B. CHAMBERLINMinneapolis
WM. CHANNING WHITNEYMinneapolis
A. H. STEMSt. Paul
L. LONGMinneapolis

Subscriptions in United States and Canada, mailed flat,
\$5.00 a year, strictly in advance.

Advertising Rates made known on application.

Remittance for Subscription and Advertising may be made by
check, bank draft, express or post office order, always payable to
The Western Architect Publishing Co., Insurance Exchange
Building, Minneapolis, Minnesota.

THE flooring in one of the N. Y. Life Insurance Company's buildings in the West is of Southern pine, dressed and matched, laid on a lining floor of white pine, all being supported by hollow tile fireproofing. In a large room immediately over the boiler and machinery room, which has been used little except for storage for a term of years and the temperature of which was usually somewhat above normal, it was found that considerable sections of the Southern pine flooring had decayed badly, while the white pine under floor was much more sound. Parts thus affected had been flooded on one or more occasions by a leaking pipe, and the top floor had been oiled. It used to be said that builders of live-stock cars found the white pine more durable than the Southern for floors, and the above experience certainly confirms the notion that white pine will resist decay the longer.



CONCRETE constructions have not earned the very bad record, which they have been making for the past year or more, altogether by reason of unfitness of the material for the uses to which it has been put. When buildings collapse they often so effectually cover the causes in the debris, but enough is told of some of these concrete failures to show that the building in which they occurred were in many cases in charge of a class of experts who in another calling would be rated as quacks. Here is a case—in one of the collapsed buildings having concrete columns molded in place, it had been noted that the wood casing or mold of one column was bulging as the material of upper stories was added, whereupon they took the precaution to **hoop the bulging mold**.

So much of this sort of work has been in evidence that Portland cement makers might well furnish experts to go with their goods if they propose to make headway in the building of large superstructures.

But after all is said about the material for use in superstructures—about the folly of most of the systems that have been tried and about the virtues of a few—it remains true that concrete construction is trying to displace the steel skeleton and hollow terra cotta filling, a system which has made a much better record than concrete is likely to make. The French seem to have devised the most scientific systems of concrete constructions, but a careful study of that of Hennebique even, raises doubts about the practicability of getting the work done well enough to carry out the theory.

ALTHO the schoolmasters and mistresses have relaxed a trifle and now let us use a simpler spelling for some dozen or so common words, some have thot that they ot not to hav brot their labors to a close until they had profrd us a rule or two that could be used to make the reform worth while. Suppose they wr to allow us to omit silent letrs when the spelling would not be so changed thereby as to conflict with that of othr wrds with the same sound and anothr meaning. Then if, for exampl, one wr to speify sewr brix for the celr botm, he might effect a neat saving of letrs and giv ingenuity some play as wel. In fact it is no great credit to a profession whose chief mission in life is designing, that they submit to the schoolmasters at all in a field which invites so large a display of taste and ingenuity as does orthography. Come to think of it, this early-taught servility in the matter of spelling, this orthographical livery that the school teachers make us wear in our tenderer years, may be the long-sought psychological reason for the inability of American architecture to free itself from tradition and to bring out something distinctively its own. How can we look for any true outburst of genius in our line until we can as truly free ourselves from the thralldom of the spelling book as Shakespeare did.



A SORT of pang comes to every architect who has the welfare of the youngsters at heart as he reads the announcement of Prof. Ware's retirement from the Department of Architecture of Columbia University. So many of the architects of today have been under his training or felt its influence that it seems altogether unnatural to think it possible that those who come after may be taught by any one else. At any rate no one who has ever shared the advantages of Prof. Ware's classes has the least notion that any one will ever be found who will inspire the personal regard which he has earned in his time. Tirelessly devoted to his work, decidedly academic in his notions of teaching—in Ruskin's day we have heard him say of him in his good humored way, "Yes—a—a rare blaekguard"—he was broad enough to be hospitable to everything that was worth while. We have even known him to set a student of somewhat investigating temper to checking up one of Viollet le Duc's empirial statements. While there is so little in Greek architecture that can be formulated and made into stoek in trade for the pedagogue, and while the Professor used to teach Roman architecture for all it was worth, he never was so really interested in one of the fellows as when that fellow was making an incursion into Greek. Greek sculpture was to him a class by itself—unapproachable. No other students had such privileges as did his in early times; when "The Tech" went en masse on an excursion to Philadelphia in '76 he not only set the fellows working systematically at the great show, arranging a system of reports for the common benefit, but planned for them little excursions to such buildings as Girard College and the new City Hall, then far from built, where they were introduced to the venerable Thomas U. Walter, who gave them his notions of how to go about work.

ON THE 23d of June last the Supreme Court of Illinois made one of those decisions which every now and then surprise the layman by their simple and fundamental nature, a decision which may, if generally carried into effect with any degree of vigor, materially affect street building faades. As stated by The Public, the decision is to the effect "that city council privileges for the erection of structures over streets beyond the lot lines are illegal, on the ground that a city can have no authority to accept public streets on any other condition than that they shall be for public use."

This brief report does not, it will be noticed, make any prohibitions as to the rights of city councils to say what may or may not be done below grade; but the question may not have been in issue. The decision, however, would seem to be construable into a denial of the right of councils to prescribe the limits of sidewalk openings and their railings as well as all bays, balconies, cornices or other ornaments above, and naturally to prohibit owners from constructing anything above grade that shall in any way stand in the way of the "public use" of streets.

Even should this decision be followed by other states, however, it is doubtful if the present state of public opinion will foree any very rigid adherence to its logical conclusions as far as building is concerned. Councils have for years enacted rules limiting projections over street lines, both of building features and signs, but owners have paid such scant attention to these that it is no uncommon sight to meet flagrant violations of these ordinances that have never raised a protest from near neighbors, or from others adversely interested, to say nothing about building inspectors or other officials.

One might suppose that the principle underlying this Illinois decision might prove to be of very great significance to corporations whose business depends upon the use of the space above streets for electric wiring and might easily lead to the removal of one of the most unsightly features of modern American cities if only there were enough people to insist upon the enforcement of the principle.

As to street faades, enforcement of the principle underlying this decision might at least have the effect of showing owners and designers of street faades that there is some limit to the offense they may give; although while no limitations are set to the height of the skyscraper, it is perhaps not worth while to raise objections to any encroachments in the way of projections over sidewalks that may be attempted. In fact, while American communities remain so under the spell of wealth in large bunches it is perhaps as well that the skyscraper be permitted unhampered expression of that peculiar domination. The skyscraper riot was hardly well under way before it began to indulge in some of those gratuitous offenses for which we look in riots, as when in Boston, notorious for its narrow streets, with need of air and light, the Ames building, not content with its fourteen stories, must run its wall up ever so much more and then shoot out six or eight feet of cornice over the street;

or in smoke-darkened Chicago, the Monadnock, not content with throwing its sixteen stories of shadow over the street, must select a wall material which would absorb more and reflect less light than any other known. True, not all the designers of skyscrapers have laid themselves out to take all the air and light they could from the neighborhood. Here and there some modesty has been shown in the selection of the materials of the facade, those absorbing little light being favored. To find a skyscraper topped out with any regard for time-honored usage in preserving the light and air of streets is more rare. Let any one cross-section a typical American street facade of, say, twelve stories, then let him draw another cross-section of a typical Parisian or Berlin facade, assuming any such height admissible in either of those cities, and he will find that the American type takes as much light from the street as would a building of the foreign type two stories higher.



GOVERNMENT by injunction does not appear at this writing to be the worst thing encountered by Local Union No. 292, International Brotherhood Electrical Workers of America. The injunction in this case looks to the layman to be of the sweeping sort and to be leveled at the "sympathetic strike," and to be a display of nerve by Judge Cray, who must look to the people for another term in office. But Judge Cray's decision is liable to review by a higher court, the members of which are also elective, and while the decision doubtless helped the employers to make a successful stand against the electrical workers, they appear to have been able to do so without it. We do not learn that the issue is carried to the Supreme Court—in fact, the workers would appear to be too busy holding themselves together to want to have it out with the court. The whole trouble seems to have come from premature strenuousness. Two electrical workers were wiring a building in which a non-union paper-hanger was working. Failure to deprive this man of his job or drive him into an appropriate union led to the abandonment of the work by the workers mentioned, and as their employers refused them other work their men struck. These contractors then sub-let some of their work, which made trouble generally. The firm who undertook to finish the little job upon which the first trouble occurred are also contractors for all, or nearly all, of the mechanical plant of the State Capitol at St. Paul. Their electrical workers on that building quit work in a body, leaving their tools scattered about the building and failing to turn in the keys to their chests—disappearing, in fact, till next pay day. This firm showed no lack of firmness, and argued besides that having carried these men on their pay rolls during the winter, they were under no further obligations to them, and proceeded as best they could without them. What effect the injunction may have had in heading off sympathetic strikes cannot, of course, be told, but the feeling is that nothing of the sort was "due" any way.

In the course of the unpleasantness the "business agents" served copies of the union rules upon contractors.

These are businesslike in their way, as when they prohibit members from working on Labor Day at any price, or when they declare that fines "cannot be remitted or in any way donated back to the member," but they did not impress the contractors as any concern of theirs. Some fifteen of the contractors, however, joined in subscribing to a list of rules applying to inside wiremen, which rules are shown to every man as employed and declared to be the conditions of employment. In these rules the wage scale is not uniform nor as high as that mentioned in the rules of the workers. Other rules are as follows:

DISCRIMINATION AND LIMITATION.

3rd. There shall be no discrimination by employer or employe against any person because he is or is not a member of any society or organization. Every workman who elects to do electric work will be required to work peaceably and harmoniously with all his fellow employes.

There shall be no limitations as to the amount of work a man shall perform during his working day.

APPRENTICES.

4th. No limitations shall be placed upon the opportunities of any person to learn the trade. The number of apprentices or helpers to be employed shall be determined solely by the employer.

DISCRETION.

5th. All workmen shall be at liberty to work for whomsoever they see fit, and all employers are at liberty to employ or discharge whomsoever they see fit, with due regards to all existing contracts.

INTERFERENCE.

6th. There shall be no interference on the part of the representative of any organization or any person or persons whatsoever, with the workmen during working hours. The workmen shall take their instructions only from the employer or his representative in charge of the work, and they shall not at any time interfere with any other tradesmen at work on the same job.

FOREMEN.

7th. The foreman in charge of the work shall only act as the agent of the employer.

STRIKES AND LOCKOUTS.

8th. We disapprove absolutely of strikes and lockouts, and favor an equitable adjustment of all differences between employers and employes. Any and all workmen going out on a "sympathetic strike" shall consider themselves permanently discharged.

EMPLOYERS' ATTITUDE.

9th. We consider the foregoing principles as absolutely essential to the successful conduct of our business, and they are therefore not subject to arbitration.

The strike did not shut off the work of electrical contractors to an alarming extent, and now contractors inform us that getting workmen is the least of their troubles.

It is evident that the "business agent" in this case cracked his whip before he had the reins well in hand.

The work of the Public Industrial Art School of Philadelphia, in which drawing, modelling, and carving were taught to 1,100 pupils during the last winter, has met with such commendation that the Board of Education has decided to increase the faculty and the rooms so that 500 more pupils may be admitted next season. The instruction is based on the methods devised by J. Liberty Tadd.

HOUSEHOLD DECORATION.

The Electrolier in the Home.

In the artistic furnishing of the home today no point receives more careful consideration than does its effective lighting. The designing of beautiful electroliers has now grown to such proportions that it is recognized as a distinct branch of art. In some of its forms, notably in the bronze statues and groups used as electroliers in drawing rooms, ateliers and in the archways between rooms, the electrolier has reached a high degree of beauty.

Unlike the gas fixture, the electrolier is almost always designed to suit the apartment for which it is intended. Certain styles, moreover, have come to be recognized as belonging to certain rooms, and to no others. The electrolier artist makes a special study of this side of the subject, from the great Louis XV. chandelier, which is appropriate only for the drawing-room or salon, furnished in that style, to the thousands of dainty conceits fitted for nothing but a lady's boudoir or a small reception room.

For the front hall the lantern form of electrolier is the most popular. These may be had in any number of styles, from the most ornate to the severely plain, Colonial, old English, Dutch, Louis XIV., etc., to suit the character of the house.

Families having homes at the seashore sometimes obtain something odd and appropriate by simply taking fishermen's lanterns for this purpose, hanging them in the hall just as they are, except that an electric candle is introduced instead of the usual one of tallow. The antlers of a stag often are used to form the electrolier in the hall of a country or a mountain home. The electric cord runs invisibly through the antlers and the lights are made to spring out here and there among the short horns. Antlers are also used in dining rooms and libraries, for which, however, they afford hardly sufficient lighting.

For long corridors, bracket lights are better than hanging lamps, and bronze statues stand in the archways leading into rooms. These statues are of endless variety, both American and French artists having produced many of rare grace and beauty. The subjects are limited only by the necessity of introducing the lights appropriately and in ways which will carry out the idea of the design. In all cases the electric cords are perfectly concealed, passing up the interior of the statue. A god shaking the lightning in his hands is a favorite theme with electrolier artists, each shaft of lightning being tipped with a little bulb. Sometimes it is a woman who holds the lightning in her hands. Women reaching up to pick flowers from trees, bulbs being concealed in the center of the blossoms, and the lights shining forth from petals of colored glass or of silk, is another theme found in a variety of forms.

One of the oddest of these bronze statues represents a nymph with butterfly wings tripping over a field of flowers. The eyes in the wings are formed of bits of colored glass. The lights, hidden in the wings, shine forth in real butterfly tints amid the bronze.

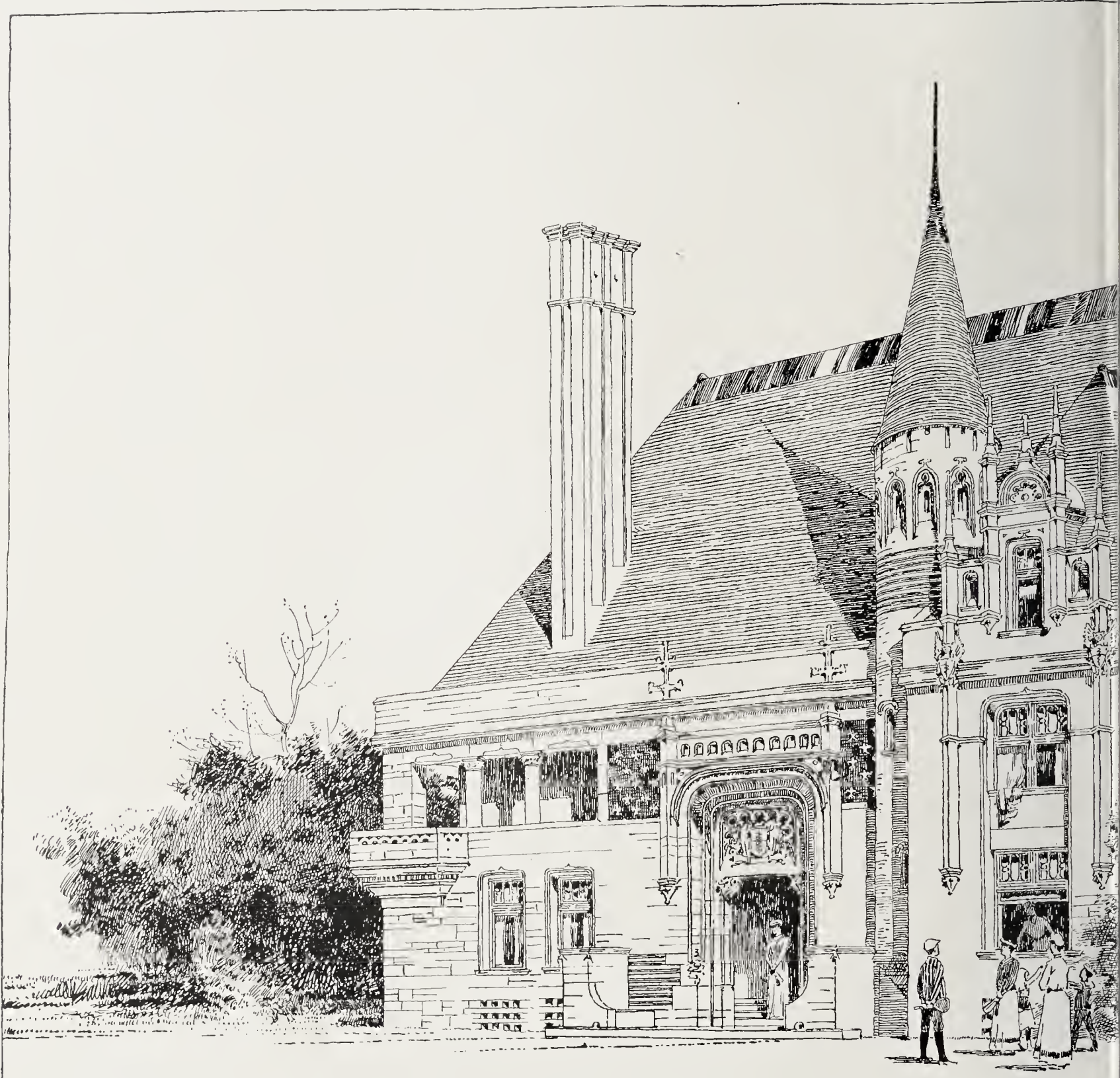
In drawing-rooms antique chandeliers of all periods have been converted into electroliers, and hundreds of designs after these ancient patterns are made every year for rooms which are furnished in antique style and demand them. Besides these each season produces a great number of novelties for what is generally the handsomest room in the house. In hanging fixtures for the drawing-room the latest thing is a great bunch of flowers and foliage, with the blossoms drooping downward, each flower holding a light. These electroliers are all of metal, the leaves being colored green and the petals tinted to represent the shades of the natural flower. All the large flowers have been utilized in the different examples of this novelty, producing great variety of form and coloring.

Lamps for corner tables are also designed in elaborate forms for the drawing-room. A beautiful one represents a portico of bronze, covered with a dome of glass, rich in opal tints. The back of the lamp, which stands against the wall, is closed and carved to represent the door and front of a temple, but the front and sides of the portico are open, the dome being supported by pillars. The bulb is hidden beneath the dome, where it lights up the opal tinted glass and sends a flood of radiance downward through the archways.

The hanging fixtures for the dining-room and library are much the same and are larger than those of modern design for the hall and drawing-room. They are made to cast a strong light down upon the table, leaving the upper part and sides of the room in shadows. A favorite is the umbrella or octagon shape, the framework being of iron, brass or bronze and the sides of plates of colored glass, meeting almost in a point above. In the more expensive form the glass is covered with a lacework of the metal, often intricate and delicate in design. From the bottom of these fixtures a long fringe generally hangs downward, softening the glare below. Flemish chandeliers, the framework of iron, finished in Egyptian or Pompeian verde, giving it a dull green hue, and the glass of dark green tints, are odd and have become popular in dining-rooms furnished in unusual or artistic effects.

Standing electroliers are not placed upon the dining table because of the impossibility of concealing the electric cord upon the white cloth. For the mantel or side tables of the dining-room electroliers in the form of candelabra are appropriate, the artificial candle being one of the prettiest illusions in electric lighting. The tiny bulb at the top of the candle is just the size, color and shape of a real candle flame, and when lighted could almost be mistaken for the genuine article.

When wax candles are burned upon the dining table electric brackets are generally placed about the walls to light the rest of the room. Sconces of all periods and nations, conventional designs and novelties almost numberless, have been made for dining-rooms of all styles and sizes. A sconce designed this season for a dining-room with artistic furnishings represented a Grecian lamp standing upon a shelf. Another set placed in a Dutch dining-room had no ornamental piece behind the lights, this place being filled in each sconce with a large delft plate from the mistress' collection of favorite china.



Supplement to
The Western Architect

SKETCH FOR
L. S. Buffington



VILLA RESIDENCE.
Architect, Minneapolis.

LIBRARY
OF THE
UNIVERSITY OF ALABAMA

LIBRARY
OF THE
UNIVERSITY OF ALABAMA



DESIGN FOR AN APARTMENT HOUSE.
L. S. Buffington, Architect, Minneapolis.



"HARROSE HALL," COUNTRY SEAT OF MR. HARVEY E. SELFRIE, LAKE GENEVA, WIS.

(West Front Facing Lake.)

Henry Lord Gay, Architect Chicago.

LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA



Supplement to
The Western Architect.

TERRACE AT WEST FRONT, "HARROSE HALL," LAKE GENEVA, WIS.
Henry Lord Gay, Architect, Chicago.

July, 1903

LIBRARY
OF THE
UNIVERSITY OF MANITOBA



"HARROSE HALL," VIEW IN PARLOR LOOKING WEST.

Henry Lord Gay, Architect, Chicago.

Supplement to
The Western Architect.

July, 1903

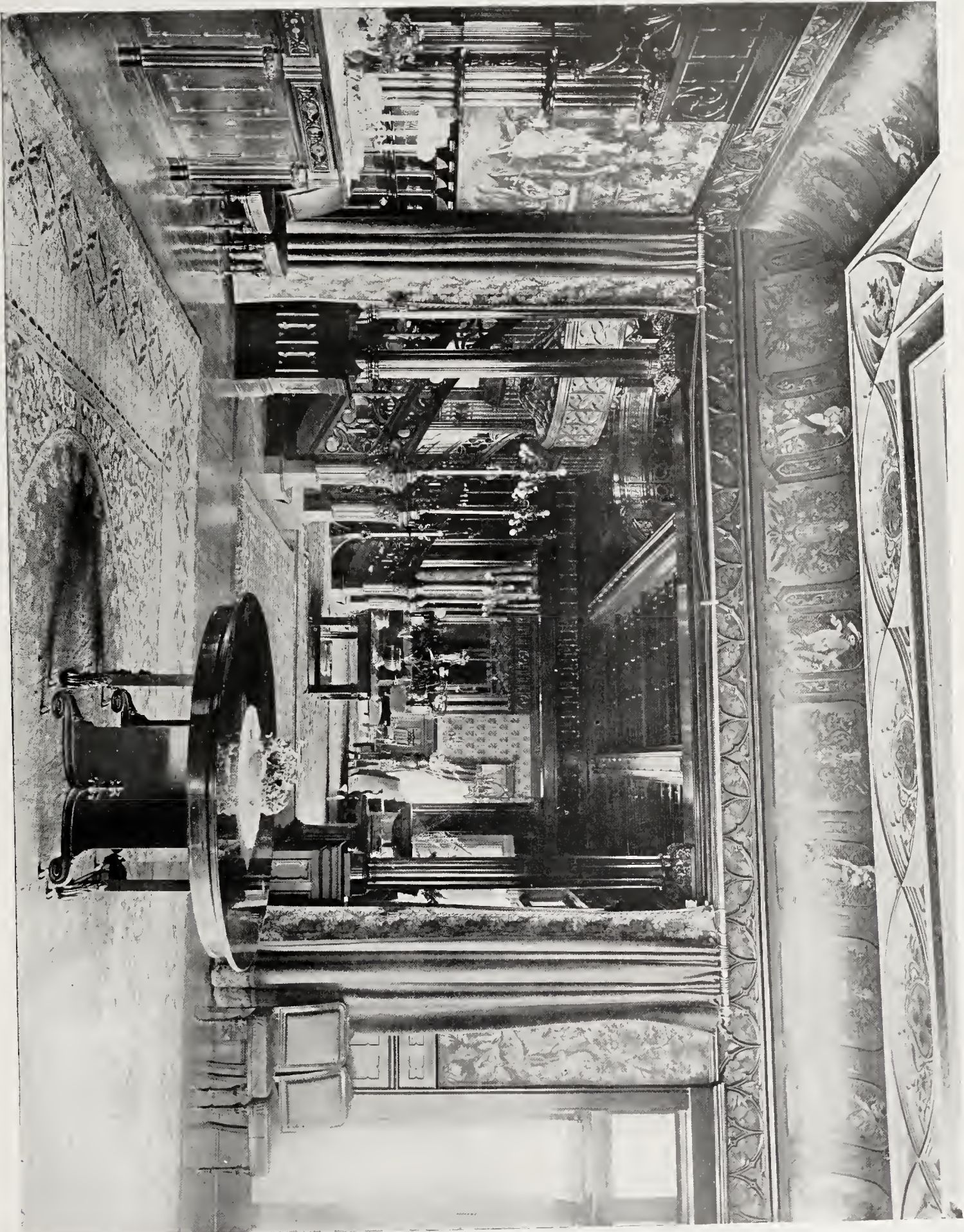
LIBRARY
OF THE
UNIVERSITY OF ALABAMA



"HARROSE HALL," DINING ROOM AND ANTE ROOM, Showing Doors Opening into Tea Arbor.

Henry Lord Gay, Architect, Chicago.

LIBRARY
OF THE
UNIVERSITY OF MANNING



"HARROSE HALL," VIEW IN DINING ROOM LOOKING SOUTH.

Henry Lord Gay, Architect, Chicago.

Supplement to
The Western Architect.

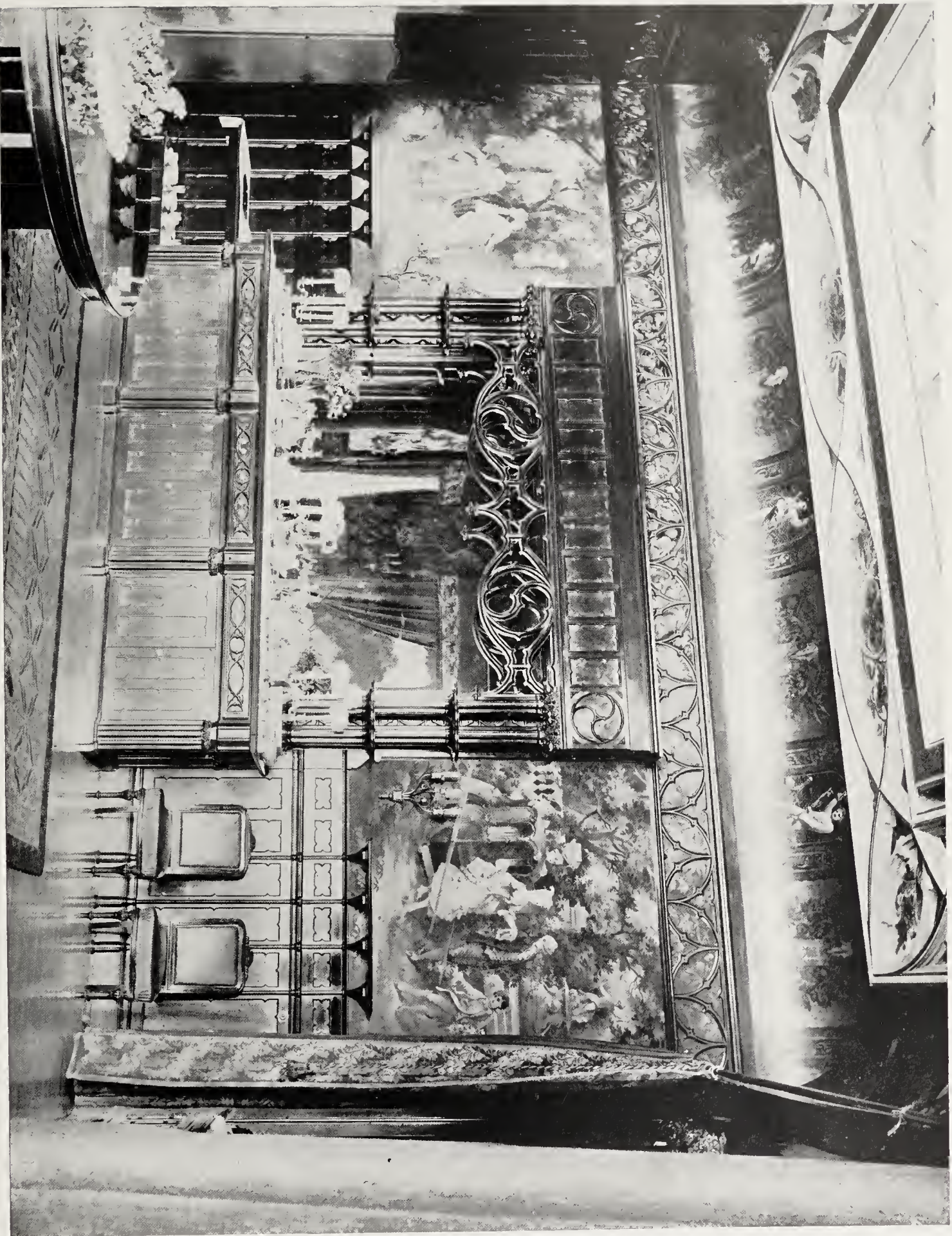
July, 1903

LIBRARY
OF THE
UNIVERSITY OF ALABAMA



PARLOR MANTEL, "HARROSE HALL."
Henry Lord Gay, Architect, Chicago.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



Supplement to
The Western Architect

DINING ROOM SIDEBOARD, "HARROSE HALL,"
Henry Lord Gay, Architect, Chicago.

July, 1903

LIBRARY
OF THE
UNIVERSITY OF ALIND'S



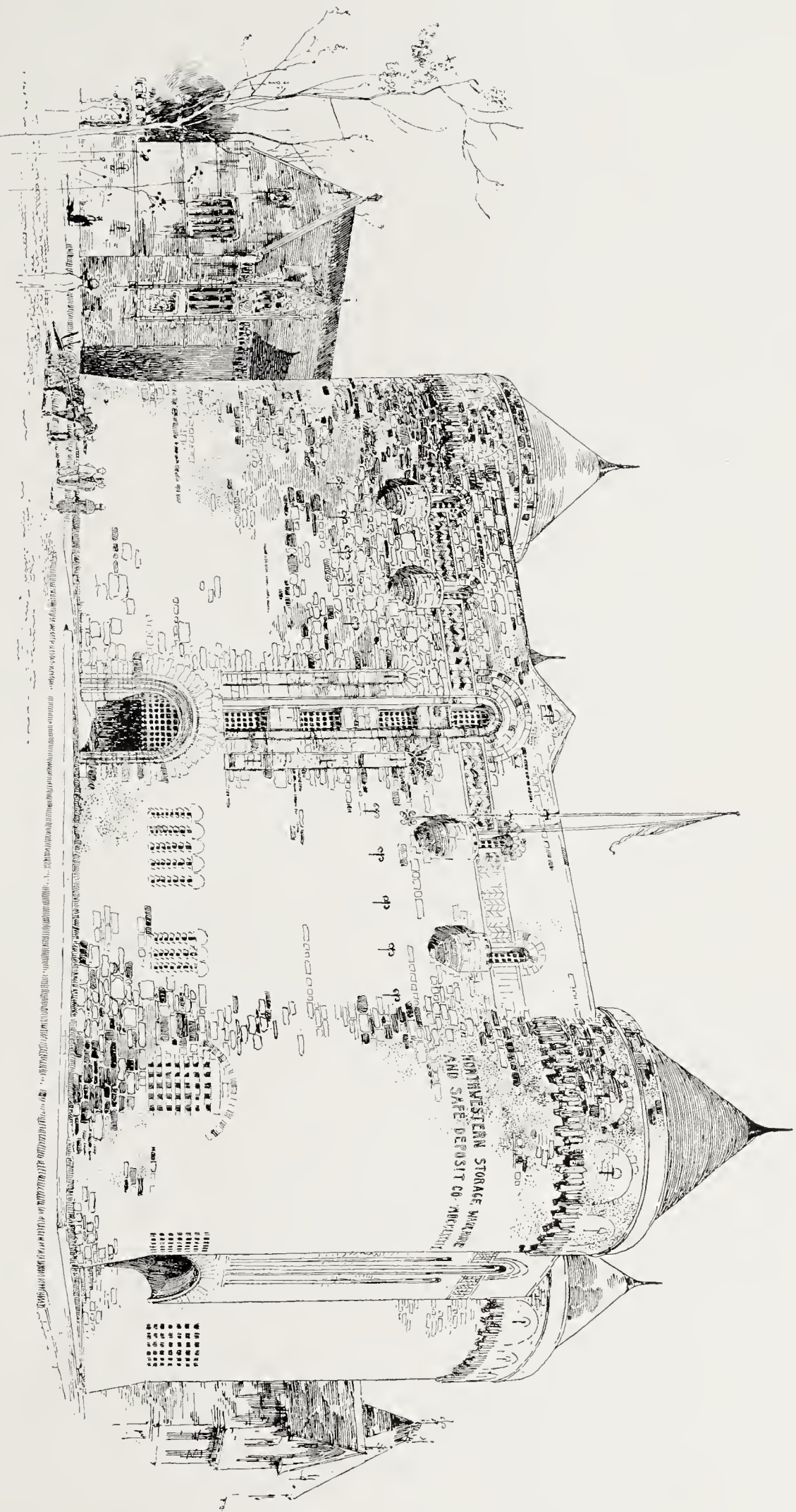
"HARROSE HALL," VIEW IN DINING ROOM LOOKING WEST.

Supplement to
The Western Architect.

Henry Lord Gay, Architect, Chicago.

July, 1903

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



NORTHWESTERN STORAGE WAREHOUSE
AND SAFE DEPOSIT CO. MINNEAPOLIS

Supplement to
The Western Architect.

DESIGN FOR A STORAGE WAREHOUSE.
L. S. Buffington, Architect, Minneapolis.

JULY, 1903

LIBRARY
OF THE
UNIVERSITY OF OREGON

For the library or sitting-room table the standing lamp is often preferred to the hanging fixture. In designing these the artist is too apt to forget usefulness in his desire for beauty. A reading lamp, in which both these points have been considered, is about eighteen inches high and represents a simple, graceful plant and flower. The plant is of bronze and the petals are of white glass.

For the boudoir and reception-room sconces and brackets are favorites. The designs of these are lighter and more fanciful than those used in the corridor and dining-room, and the effect of candelabra is often preferred. Many of these electroliers are made so that they may hold either the artificial or wax candle, as occasion demands. In many homes also provision is made for gas as well as electric lighting, and the electroliers are designed with the idea of being used for both.

This season a number of tiny electroliers have come into vogue for the bureau and the desk. One for the bureau is an imitation in bronze of the old fashioned candle-stick, with a deep rimmed plate for the base. A brass shade holder is clasped around the artificial candle, and holds a shade formed of a large, flat shell, rich in opal coloring, before the light.

A trumpet shell forms an important part in one of the oddest of the desk electroliers. A maiden in bronze, about nine inches high, holds the shell aloft, the wide end slanting downward. The light is within the shell, sending a soft glow through its pearly substance and falling with full strength through the open end down upon the table.

ART IN THE WEST.

The West has been credited with being utilitarian to the last degree. It has been considered that it had no higher aim than the acquisition of dollars—and to a certain extent this has been true. The dwellers on the plains had but little else to inspire their Western journey than the search for a better livelihood. They turned the sod in order to make money; they kept up the struggle to pay the debts that had been acquired in the effort to conquer the new conditions. Now, the conditions being better understood, and the soil being subjugated to the needs of the people, there has come the aspiration for a higher life and more refined surroundings. So there are reports of a return to nature and the adornment of the new municipalities to a degree that is worthy of emulation in the East as well as throughout the West.

In Kansas City, for instance, that bustling Western metropolis, with its population of 170,000, there is being expended the last of a park fund of \$5,500,000, transforming some of the unsightly thoroughfares into most beautiful and artistic paseos and boulevards. The park system projected will give the city one of the most delightful series of breathing places in the nation, and the best skill of architects is being used in completing the structures that are to give the artistic touches to the surroundings.

But, more than that, the younger generation is being educated in the art of municipal decoration. The Civic Improvement Society of the city is offering prizes for the best kept flower-beds at private residences, and it has distributed free of charge at the public schools over 60,000 packages of flower seeds, nearly every one of which will be utilized in the coming season for the adornment of homes, most of them the humbler sort, where, but for this effort, there would be no decoration for the bare ground save a fringe of tomato cans and sardine boxes. The movement is something worth encouragement, and should enhance the beauty of the city materially.

As compared with the inciting of a lively interest in the complexities of broncho-busting, for many years a favorite pastime of the West, or even of elaborate preparation for grotesque carnival extravagance, this new method of expenditure of effort deserves praise. The settlement of the West was upon such a basis of business-seeking as to preclude for many years the higher life indispensable in the true development of a commonwealth or a municipality. The eagerness for financial independence seemingly blinded the populace, made up largely of those who had left the East because of limited means, to the advantages of upbuilding the æsthetic and the ornamental. In the architecture even this sentiment became manifest.

It is also noticeable that the public-park spirit has taken hold of the West. Many states gave no attention to this feature in their inception. Now they are



CARVED TABLE, LOTUS DESIGN.
Japanese Jin-di-Sugi Finish.
Designed and Executed by John S. Bradstreet & Co.
Minneapolis.

remedying it so far as possible by adding statutes allowing special taxes for the purpose of sustaining such additions to cities of the middle and upper classes. In Oklahoma, for instance, a territory that is yet far from statehood, the county-seat towns make contracts with reputable citizens for the planting of trees around the public buildings and school houses. The men and women who have acquired means through the enhanced wealth of the West in the past half decade have put it to good use in encouraging the artistic and the beautiful in home surroundings and in city possessions. They have at least made a start toward better things.

The sentiment has extended into the interior Western cities, and reports tell of several small towns of Minnesota, Iowa, Kansas and Nebraska where prizes have been offered by public-spirited citizens for the handsomest lawns and the prettiest park areas.—*Architect and Builders' Journal*, Baltimore, Md.

PARQUET FLOORS.

The finish and care of hardwood or parquet floors has been and is now a source of great trouble and annoyance to housekeepers. Except in cases where the owners have taken the trouble themselves to look the matter up, or have instructed their architects to be particular about that item, it is too bad, that where beautiful floors have been laid, in so many cases they have been left to be finished by persons who have not troubled themselves with finding out the best method of finishing. The usual way for such persons to do is to treat them with shellac or varnish—which is all wrong, as a moment's thought will convince any one, that a surface that is constantly walked over, needs something different to the coating of gum, that is left on the surface, after the spirit used in dissolving (the shellac or varnish) is evaporated. This coating becomes then brittle, and is ground up into minute particles by the nails in the boots and swept away, leaving the wood bare, right where it is most exposed to view.

As a matter of course, the beauty of the floor is soon gone, and instead of being an attractive part of the furnishing, the sanitary consideration very often is about all that keeps one from nailing a carpet over the whole floor.

Others use linseed oil, and everybody knows that an oil finish is one of the best methods of finishing wood, but the objection to that method is, that each time the oil is applied it darkens the wood, and in a short time the different kinds of wood are of the same color. Now the question arises, which is the true and only way of finishing floors properly, and the answer is, by the use of hard wax, which, however, must be so prepared that the trouble of applying it and the stickiness attending ordinary beeswax and turpentine is entirely obviated. The wax is treated with special liquids and made into a preparation.

Among the many different things tried, hard wax was found to be the most satisfactory in its results. It is so simple, that when once the floor has been properly filled and finished with it, any servant can renew and keep the floors fresh and bright as long as the wood lasts, and as it does not materially change the color, the wood always retains its beauty. An application about once a year is all that is necessary, if the floors are rubbed over, when a little dull, with a weighted brush or cloth.

In repolishing old floors that have been in use for a length of time and become dull looking, it is only necessary after they have been cleaned, to rub on a thin coat of the hard wax finish with the brush or cloth, as stated before. If the floors have been varnished and the varnish is worn off in places, as mentioned above, the best way is to have the varnish scraped off, and then a thin coat of the hard wax should be applied and treated as the new wood after it is filled. But if it is inconvenient to have the floor scraped, or the expense too much, the main object being to restore the color in those places, which are worn and defaced, the following mixture is recommended: one part linseed oil, one part liquid drier and two parts turpentine; a cloth should be dampened with this and applied to the worn and defaced places which will have the desired effect. After being wiped off clean, it ought to dry twenty-four hours, and then polished with the hard wax finish.

It is very important never to use the wax over oil that is not thoroughly dry, as the floor would invariably be sticky.

Finally it would be well to mention that hard wood or parquet floors should never be washed with soap and water, as it raises the grain and discolors the wood. After the floors have been properly filled and finished with the hard wax, dirt will not get into the pores, but stays on the surface and consequently can be removed with a brush or cloth, or if necessary, dampen cloth with a little turpentine. This will take off any stain from the finish.

VENEERED CONSTRUCTION.

An architect was submitting plans of a building to a committee not long ago, and one of the committee-men, an idealist, who had led a sheltered life and whose motive was truth, said: "Mr. Architect, there is one thing I want to insist upon, and that is that there must be nothing veneered about this building." "My dear sir," said the architect, "it will all be veneered. The outside will be veneered with brick, the inside will be veneered with plaster, the woodwork will be veneered with paint and varnish, the roof will be veneered with copper, and the yard will be veneered with grass. All buildings are veneered with something. The building may be of stone or terra cotta and brick, or concrete and wood, but if it is architecture it is veneered." The plans were accepted.

CHANGE IN ARCHITECTURAL TASTE.

BY HERBERT CROLY.

Whereas, however, all the conditions combined formerly to bring about a gloomy monotony of material and design, now, on the contrary, all the conditions conspire to bring about the most extraordinary contrasts of design and material. The houses that are reconstructed are, of course, no longer built in rows. Even when they are erected by speculative builders three or four at a time, each house has the distinction of an individual design. Moreover, it is not too much to say that architecturally, at least, there is a persistent and a deliberate striving after individuality. Whatever such a house be, it must at any rate be different. It is as if New York domestic architecture after submitting tamely for a generation and a half to the most distressing and lugubrious uniformity, had at length decided to practice and enjoy its freedom to the very limit. All conventions in the matter have been cast aside. It seems settled that for a while New York shall symbolize in the design of its private dwellings the incoherent multiplicity of its origins—in race, place of birth, and æsthetic traditions.—Architectural Record.

The first installment of Emperor William's gift of casts to the Germanic Museum of Harvard University has arrived from Germany, and consists of 118 cases of casts and parts of casts, including many of the largest and most valuable pieces in the emperor's gift. The casts are being transferred to the museum, and the work of mounting them will begin shortly. There are some eighty cases to come, and they are expected to arrive in two shipments in the near future. During the mounting of the casts the museum will be closed, and will not be open to the public until October.



A HAND CARVED MUSIC CABINET, LOUIS XVI STYLE,
For Mrs. A. Guthrie, St. Paul, Minn.
Designed and Executed by Wm. Yungbaurer, St. Paul.

WHY PAINT PEELS.

A fruitful cause of the peeling of paint is when the several coats are successively applied before the foundation or preceding coat has thoroughly dried, the result being that the liquid in the outer or last applied coats softens the pigment in those previously applied. The resulting mass, containing a notable amount of the more volatile elements of the liquid beginning to dry from the outside surface, forms a thin but hard or vitreous surface that retards the further evaporation of the volatiles, and prevents the access of oxygen from the air, which is necessary in the process of drying.

If the surface thus covered has been painted while at a low temperature or during damp or foggy atmospheric conditions and soon after there happens to be a marked rise in the temperature or a fall in the hygroscopic condition of the atmosphere, then the paint is liable to peel at once, or soon after the change. This effect is hastened in the case where the coating is a heavy one, or one hard to spread by reason of the earthy or inert substances in the pigment, or if benzine has been used as a drier.

As a general rule, the more substances that enter into a coat of paint, either as pure pigments, inert substances or in the composition of the liquid, the more liable is it to peel. A small amount of fish or animal or non-drying vegetable oils, though oxidised by the addition of metallic salts and used in connection with linseed or other siccative oils, also hastens and provides for the certainty of the peeling.

A pigment composed of a number of substances the different materials of which by themselves would form the basis of a good paint, when combined together with the liquid, necessarily must undergo a different chemical action than the several members of the pigment would have done had they been used alone.



A HAND CARVED TABLE, LOUIS XVI STYLE,
For Mrs. A. Guthrie St. Paul, Minn.
Designed and Executed by Wm. Yungbaurer, St. Paul.

This chemical action is furthermore complicated by the combinations going on in the liquid, which, formed of a number of different elements that act and re-act upon one another, and mixed with the heterogeneous pigment, develops a series of chemical actions in the mass, the weaker element of which, either the mineral or the organic, is the first to break down or change, the decay of which hastens the decomposition of the others and releases the bond between the paint and the surface over which it is spread, and the peeling process is effected.

That the chemical changes exist in the above stated case cannot be denied, but have not been well accounted for. The fact remains, however, that certain paints peel, and though analysis of the peeled portion may reveal nothing to indicate the reason for the peeling, it is seldom possible to get a sample of the original paint as applied, to compare its constituents with the peeled sample, and the cause is relegated to the hidden drawer of the paint shop, near which some scapegoat can be found to bear the burden of failure.—Exchange.

THE DUTY OF ARCHITECTS.

Mr. Geo. B. Post, the well-known New York architect, in an address before the Nineteenth Century Club, of that city, on the dangers surrounding the modern skyscraper, said:

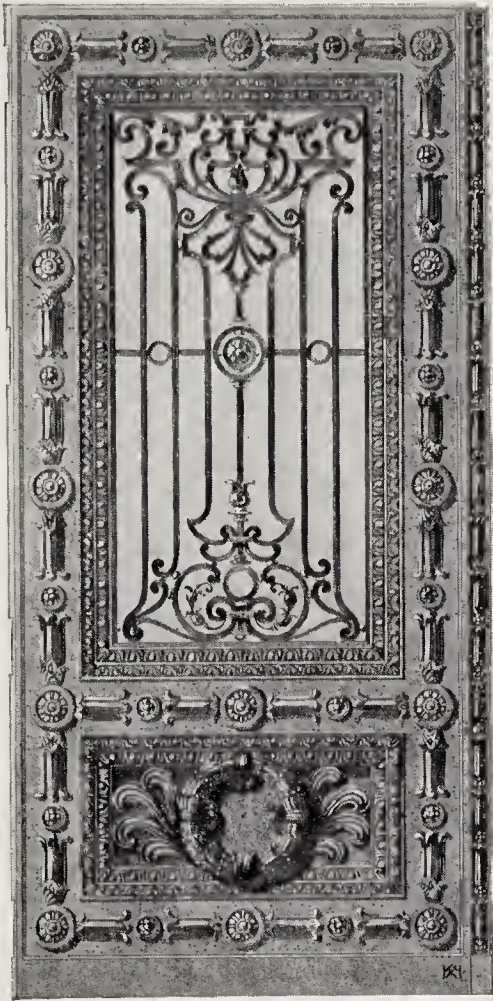
"As skyscrapers are daily increasing in numbers it develops upon the architect designing the same to avail himself of every safeguard which the experience gained in previous fires and the tests made by different bodies, chemists, etc., show to be efficient, and thereby stave off the evil day predicted by Mr. Post. Take two instances of recent occurrence—the Park Avenue Hotel fire and that in the Roosevelt building. Both these structures were presumed to be fireproof; both had segmental terra cotta floors, solidly constructed, almost indestructible by fire, which came through the ordeal unscathed; yet in each building were found defects of construction to which the subsequent loss of both life and property is clearly traceable; and those defects could have been easily and cheaply prevented by the use of proper fireproof material. In the Park Avenue case the wooden lath partitions in the hall and rooms, the wooden trimming of the elevator, etc., when reached by the flames, giving out dense smoke, suffocated the victims; in the Roosevelt fire the iron columns supporting the roofs, being unprotected by any fireproof material, speedily collapsed, bringing down the arch and crushing the firemen.

"The cry again is that corrosion of the steel members of our skyscrapers will eventually eat out the life of the metal, General Sooy-Smith allowing twenty-five years and Mr. Toch but fifteen years, in the particular cases coming under their respective observation, for the total destruction by corrosion of such members, and necessarily the collapse of the building.

"Experiments designed to secure some preventive of corrosion clearly show that liquid Portland cement, or, as Mr. Toch calls it, an aqueous mixture of cement, prevents corrosion of steel; so will concrete when properly and closely applied to the metal while the concrete is quite wet. Edison also indorses the claim. Having thus safeguarded the metal members from corrosion and protected the iron columns by some fireproof material (either porous terra cotta or a proper mixture of concrete), it remains to provide that the partitions dividing off the spaces be so constructed as to confine a fire within such bounds. Partitions of lath, either wood or metal, and plaster have too often proved unreliable; so will those of terra cotta or any other fireproof material if constructed as we often see them—but part way up to the ceiling and continued by wooden sashes with thin glass panes. The fireproof portion stands, but the other soon gives way to the flames, and the object designed by the fireproof partition is lost. A fireproof partition should start from the floor arch itself and be continuous to the ceiling. Openings for light should be provided by metal sashes with wireglass panes.

"Our present building code and the underwriters are doing their share toward preventing, as you say, the erection of abnormal, unsafe structures, but it rests primarily upon the architect himself; it is not alone incumbent upon him to design with all necessary fireproof features, but also closely to supervise the construction itself and to see that the material specified by him is used. Take concrete, for example. That word denotes to the architect a compound of one part Portland cement, two parts sharp sand, and three parts to five parts of slag, broken stone or good cinders. To the ordinary observer, basing his definition upon what he sees called concrete, the word connotes all sorts of mixtures—some of them undreamed of by the architect. When collapsing concrete floors result from the use of such material; when entire sections of segmental hollow-tile arches, unharmed by the fire, collapse through the falling of unprotected iron columns, on whom should the blame rest?"

A report from Binalhaven, Me., says that the eight monoliths for the Cathedral of St. John the Divine are ready to be shipped to this city. They will be loaded on specially constructed barges and towed four sections at a time. The sections are forty and twenty feet long, and the eight columns cost \$250,000. The contractors will just about square themselves on the deal, as over a year was wasted in a vain attempt to turn out the columns whole, and a special \$50,000 lathe was built for the purpose, which, after three monoliths had been broken, proved useless. The rough shafts measure 64x8½x7 feet, and weigh 310 tons each. Only one other structure, St. Isaac's Cathedral, at St. Petersburg, has columns approaching these in size.



FLOUR CITY ORNAMENTAL IRON WORKS.
Makers and Designers of Ornamental Iron and Bronze.
27th Ave. and 27th St. and 28th Ave., - MINNEAPOLIS, MINN.



**IVES PATENT
WINDOW STOP
ADJUSTERS**

Prevents Drafts, Dust, Binding and Rattling. The only stop adjuster made from one piece of metal with a thick bed that will not cup or bend in tightening the screw. Working model with catalogue mailed free.

MANUFACTURED ONLY BY
THE H. B. IVES CO., New Haven, Conn., U. S. A.

McINERNEY & BURKE

SANITARY PLUMBING AND HEATING

215 So. 7th St. Minneapolis, Minn.



JOHN. S. BRADSTREET & CO.,

Interior Fitments Mural Decorations
Special Furniture, Draperies and
Decorations to order.

208 South Seventh Street,

MINNEAPOLIS.

MORGAN BROOKS, President.

ELECTRICAL ENGINEERING

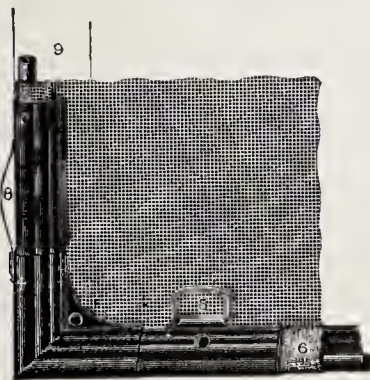
PHONES: N. W. Main 1722
Twin City 170

GEO. W. HAYFORD, Sec.-Treas. Wholesale and Retail Dealers in EVERYTHING ELECTRICAL.

SPECIALTIES: ELECTRIC LIGHT, POWER SUPPLIES, ELECTRIC HOUSE GOODS, TELEPHONES, ETC.

ELECTRICAL ENGINEERING COMPANY, - - - 248-250 Hennepin Ave, Minneapolis, Minn.

The "Higgin" Metal Frame Window Screen



Corner Section of Screen

Does not shrink, swell, warp or come to pieces in the corners. Is neat, light, ornamental and durable. Is easily removed from window and replaced. Allows for either top or bottom ventilation. Just the thing for your new home. Send for Catalogue. Estimates Free.

The HIGGIN Manufacturing Co., - - - Newport, Ky.
GEO. H. LAWES & CO., AGENTS, ST. PAUL AND MINNEAPOLIS.



F. E. HERTHUM

D. E. BRANHAM

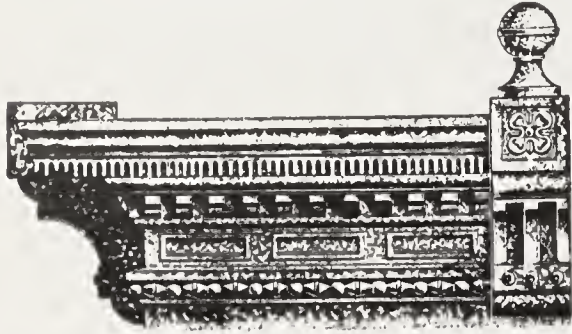
Minneapolis Gas Fixture Co.

Headquarters for Gas, Electric and Combination Fixtures

802 Nicollet Avenue, Minneapolis.

Jos. M. LEFEBVRE, President,
P. A. DESLAURIERS, VICE-PRES.

L. T. LEFEBVRE, TREAS
GUSTAV A. CARIVEAU, Sec



Lefebvre Roofing and Cornice Company,
—MANUFACTURERS OF—
Architectual Sheet Metal Work
ROOFING in Asphalt, Pitch and Gravel, Iron, Tin and Slate

26 East Eighth Street, ST. PAUL, MINN.
TELEPHONE CALL, 1147.

THE BREEN STONE CO.,

418 Germania Life Insurance Bldg.,
St. Paul, = Minnesota

QUARRIES: St. Cloud
Kasota

Dressed and Undressed Stone

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

ST. PAUL,
312 313 Germania Life Building.

CHICAGO:
99 Randolph Street,
Borden Block.

R. T. GILES & CO.,

STAINED AND LEADED GLASS

ECCLESIASTICAL AND MEMORIAL WINDOWS

221-225 SECOND AVE. S., MINNEAPOLIS MINN.
WINDOM BUILDING.

N. W. PHONE—MAIN 4336-J1

Practical and Artistic
Interlocking Terra Cotta

ROOFING TILE

MANUFACTURED BY

LUDIWICI ROOFING TILE CO.,

508 Chamber of Commerce, CHICAGO.

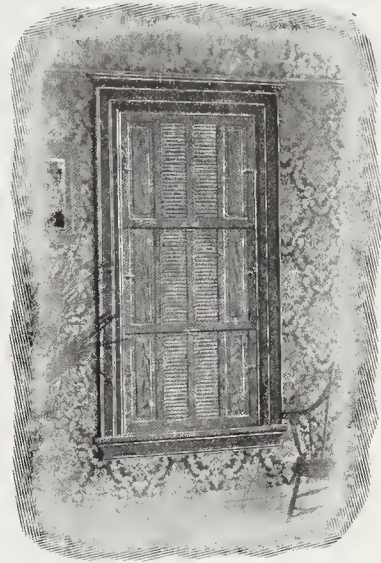
WE MANUFACTURE
 And Carry in Stock a Fine Line of Plumbing Goods
 And Solicit Your Patronage In This Line.



Our Show Room and our Services are at your disposal. We will help you to draw up your specifications and select your Plumbing Fixtures. This is our Business. Will you not call on us?

THE NATIONAL BRASS AND METAL CO.,
 SHOWROOM:
 3rd St. and 3rd Ave. So. MINNEAPOLIS, MINN.

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.

EDWARD C. LEWIS,

JOHN H. KITCHEN

Lewis & Kitchen,

(American Warming and Ventilating Co.)

Heating and Ventilating Engineers and Contractors.
 Sanitary Apparatus.

Public Buildings a Specialty

9th and Broadway,
 KANSAS CITY, MO.

433 Wabash Ave.,
 CHICAGO, ILL.

MORE
J. W. REEDY
ELEVATORS

used in the Leading industries and Business Houses throughout the WORLD than any other make.

The J. W. Reedy Elevator Mfg. Co.

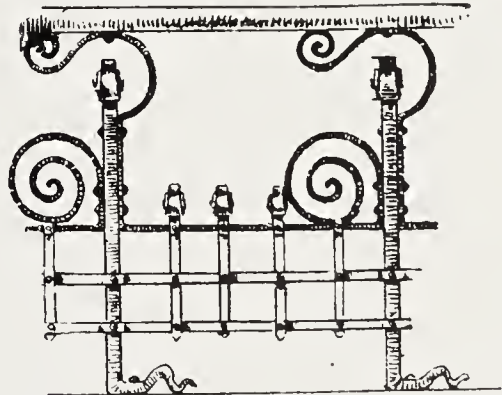
83-85-87-89-91 Illinois Street,
 122-124-126-128 Indiana Street.
CHICAGO, ILLINOIS.

Reliance Iron & Wire Works

Architectural Iron Work

Of All Kinds. * * * *

PLAIN and ORNAMENTAL IRON WORK



— SPECIALTIES —

Fire Escapes
 Iron and Wire Fencing
 Elevator Enclosures
 Automatic Elevator Locks
 Bank and Office Railings.

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

Tel. T. C. 644.
 N. W 2417-J2

OTIS ELEVATOR COMPANY,
NEW YORK-CHICAGO.

Passenger and Freight

ELEVATORS.

"The Standard of the World."

PORTAGE RED STONE

In Blocks or
Sawed from
the Quarries
of

**TRAVERSE BAY
REDSTONE CO.,**

**CALUMET,
MICH.**
(LAKE SUPERIOR)

Send Plans for
Estimates. We
Pay Express

W. C. WYCKOFF, AGENT.
Suite 302, Kasota Block,
MINNEAPOLIS, - MINN.

Samples Sent
When Requested.

TILE AND MOSAIC FLOORS

TILE WAINSCOTING AND CEILINGS

WOOD MANTELS



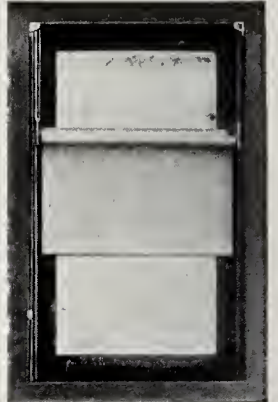
GEORGE H. REESE,
91 Dearborn St., CHICAGO, ILL.

Many PROMINENT ARCHITECTS are now specifying
**Johnson's Window Shade
Adjuster** For upper LIGHT and VENTILATION

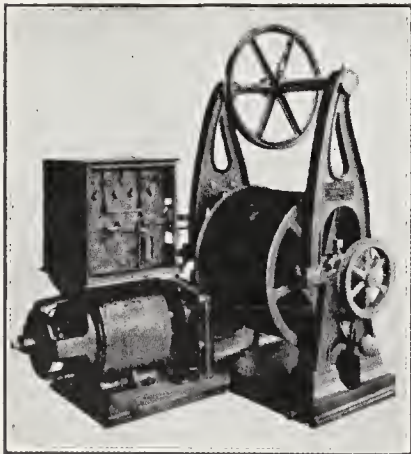
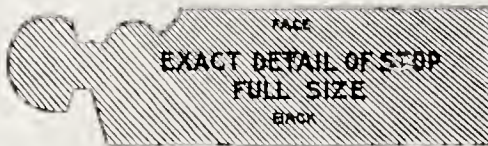
It works perfectly on a special detail of window stop. See cut. Costs no more than any good stop. Send for free sample of stop and sliding shade Bracket with Booklet.

Furnished by leading Shade Houses.

R. R. JOHNSON,
167 Dearborn St., CHICAGO, ILL.



The Shade Roller is Easily and Perfectly Adjusted to any position in Window.



Lee & Hoff Mfg Co.

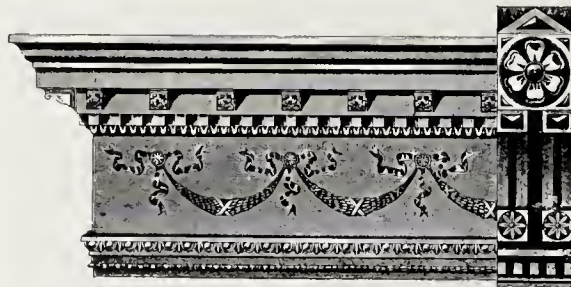
Manufacturers of

Elevators

Passenger, Freight, Electric
Steam, and Hand Power.

Dumb Waiters, Automatic
Doors and Gates.

Nos. 81 to 91 Fillmore Ave.,
St. Paul, = Minn.



**Northwestern
Roofing and
Cornice W'ks**

Phones T. C. 976.
N. W. 1692-J-2

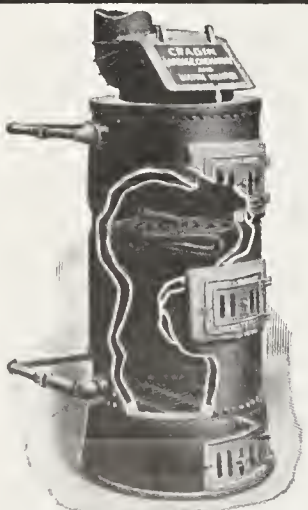
**Copper, Galvanized Iron, Slate, Tin, Pitch and Gravel
Roofing, Skylights, Finials, Conductors, Etc.**

STEEL CEILINGS.

1111-13 SOUTH FIFTH STREET,

JOSEPH TYRA, Manager.

Minneapolis, Minn.



Showing Cross Section of Portable Crematory and Water Heater For Residences and up to 12 Flats

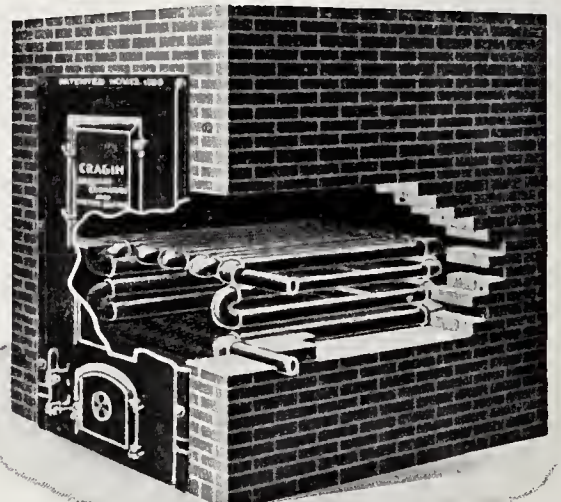
**CRAGIN COMBINED
GARBAGE CREMATORY
...AND...
WATER HEATER**

**...FOR...
HOTELS, HOSPITALS,
APARTMENT BUILDINGS,
RESIDENCES, ETC.**

WRITE FOR CATALOGUE

An Economy in Any Building. A Necessity in Most Buildings.

Cragin Garbage Crematory Co.
285 Forty-Third St., Chicago.



Brick Set Crematory and Water Heater. Showing Garbage and Fuel Grates.

Sole Agents
Richardson & Boynton Co.'s
Furnaces.

Steam, Hot Water and
Combination
Heating.



Tunstead Heating Co.

Heating and Ventilating
Contractors.

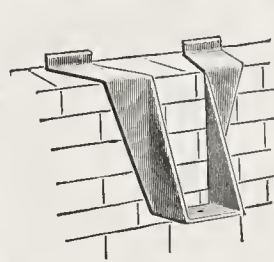
220 Sixth Street South,
Minneapolis, Minn

N. W. Main, 484

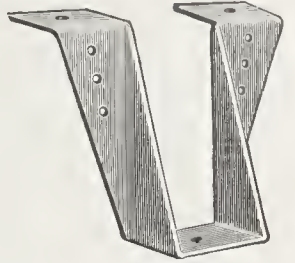
— TELEPHONES —

Twin City, 484

DO YOU KNOW IT?



Lane's
Patent
JOIST
HANGERS
are the
SAFEST



Send for Descriptive Circular No. 8, which Gives Tested
Strength and Safe Load of Each Size.

THE W. J. CLARK COMPANY,
SALEM, OHIO.

JNO. A. SCHLENER & CO.

Commercial
Stationers

Draughting Instruments and Supplies

Mail Orders Receive Prompt
and Careful Attention

Address
Department B

516 Nicollet Ave., Minneapolis, Minn.

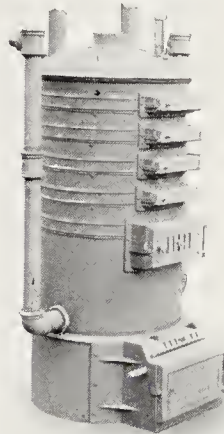
Heaters That Give Satisfaction

Bon Ton and
Rising Sun
Radiators

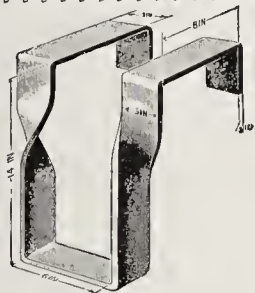
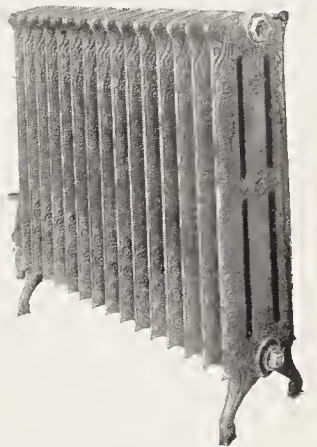
South Park
Foundry and
Machine Co.

11 Gilfillan
Building,

ST. PAUL,
Minn.



New Columbia Boilers.



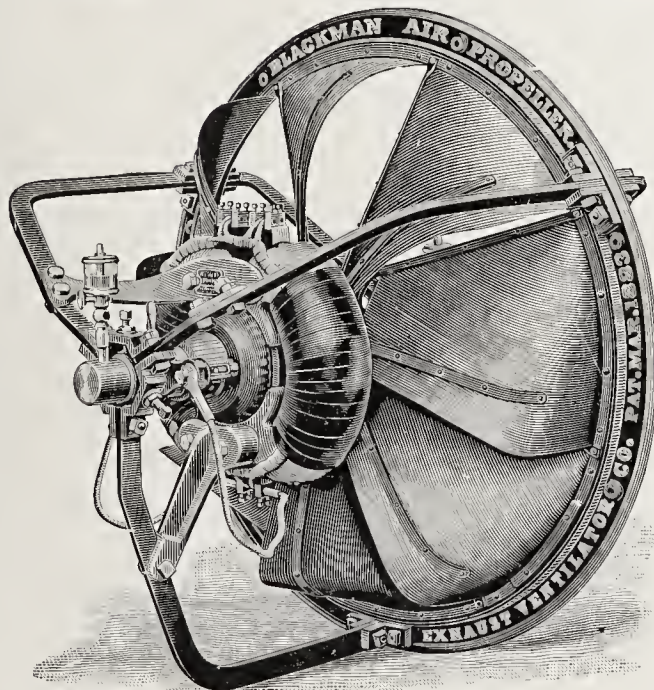
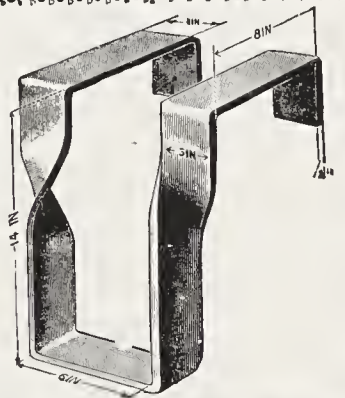
Variety Manufacturing Co.

77-79-81-83 West Lake Street,
CHICAGO, = = ILLINOIS,

— MANUFACTURERS OF —

Cross Patent Horizontal Folding Door,
Cross Patent Elevator Door,
Blackman and Cross Exhaust Fans,
Machine Made Stirrups.

Write for Catalogue.



In the Lake Shore & Michigan Southern Freight House there are
129 door openings, 9 ft. wide by 10 ft. high.



Farrell & Turnbull, Plumbing,

Steam and Hot Water Heating
and Gas Fitting.

125 EAST SUPERIOR STREET,
Duluth, - - Minn.

LOW PRICES
ESTIMATES FURNISHED

STEAM AND
HOT WATER BOILERS

D. R. Black,

Plumbing, Steam and Hot Water Heating.

20 THIRD AVE. WEST,

TELEPHONE 450.

DULUTH, MINN.

Excelsior Heating Co. Steam and Hot Water

*Plans and Specification
Made upon request.*

955 18 $\frac{1}{2}$ Avenue, N. E., MINNEAPOLIS,
E. E. DESCHANE, Manager.

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,
Graftings, Lintels.

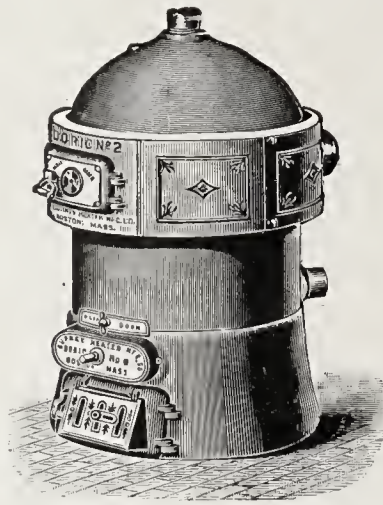
113-115 Second Ave. So. E., MINNEAPOLIS, MINN.

MONOLITH The Sanitary
Jointless Flooring
Trade Mark Manufactured by

The American Monolith Co.,

An elastic, jointless surface that can be laid continuously in connection with a coved cornered base board.

Milwaukee,
Wis.



Archambo Heating and Plumbing Co.

221 So. Third St., Minneapolis, Minn

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

Telephone 248.

DRAWING INSTRUMENTS
If you are a **DRAUGHTSMAN**, **ARCHITECT**, **ENGINEER** or **STUDENT** of MECHANICAL DRAWING, **OUR ILLUSTRATED CATALOGUE** WILL BE SENT FREE FOR THE ASKING
INDIANAPOLIS BLUE PRINT CO.
INDIANAPOLIS, IND.
ADDRESS DEPARTMENT **F** AND ASK FOR DISCOUNTS.

DRAWING MATERIALS
BIG DISCOUNTS

FOWLER & PAY

STONE BRICK
LIME
AUSTIN-CEMENT
JASPER PLASTER
TILE
SIDEWALKS.

MANKATO MINN.



Mission Clock \$13.

Special Summer Prices

On all goods ordered before Aug. 1. We manufacture high grade goods, sell direct and ship on approval. **Hall Clocks \$70 up; Wood Mantels \$10 up;** Grates, Fireplace Goods and Tile; **Mission Clocks, Hall and Den Furniture.** Also Prepared Furniture **Finishing Material** for interior trim. Richest effects at no extra cost. Catalogs free. Mention magazine.

G. R. Clock & Mantel Co.,
Grand Rapids, Mich.



Craigo, Baker & Co.

Steam, Hot Water Heating

— AND —

VENTILATION

Estimates and Plans

Furnished.

212 So. 4th St.,
Minneapolis, Minn.

Tel. N. W. M. 578 T C. 1500

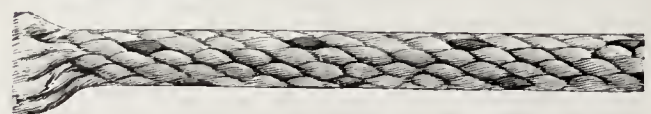


SAMSON SPOT CORD

is our Extra Quality SASH CORD

The colored spot is our trademark

Samson Cordage Works,



Boston,
Mass.

LEADING IOWA HOUSES
IN THE
BUILDING TRADES LINE

J. B. MCGORRISK, PREST. J. C. MARDIS, SECY.

**Capital City
...Brick and Pipe...
Company**

General Contractors

MANUFACTURERS OF BUILDING, PAVING AND SEWER BRICK

518 EQUITABLE BLDG., Des Moines, Iowa

O. T. Denison, Prest. and Mgr. L. W. Denison, Secretary. F. E. Keeler, Treasurer

Mason City Brick and Tile Co.

Manufacturers of HOLLOW BUILDING BLOCKS

MASON CITY, IOWA.

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 3/8 mortise.

Johnston & Sharp Mfg. Co., - OTTUMWA, IOWA

Mica Insulating Co

Warehouse, 611 to 617 Iowa Street
Office, Corner 5th and Michigan.

MASON CITY, IA. Contracting Gravel Roofers

Building Papers
Pipe Covering

Art Mosaic Tile Floors
Interior Marble Work.
Ornamental Terra Cotta. Tile Floors.
Wainscoting. Vestibules, Etc.

Long Distance 'Phone 1010

HOLBROOK MANTLE & TILE CO.

Estimates MANTELS, GRATES & TILING
Cheerfully
Furnished.

806 LOCUST STREET, DES MOINES, IA.

**King's Automatic Weather Strip,
Window and Door Stop**




The only perfectly satisfactory weather strip and window and door stop on the market. Keeps out cold and dust. Makes a perfectly tight joint. Windows can be raised and lowered to any desired position without the aid of fasteners or weights. Do not build a house until you have investigated the merits of these stops

Manufactured by
KING MFG. CO., Newton, Ia.

GEO. H. LAWES & CO. Agents, Minneapolis and St. Paul.

The attention of the Public and Trade is called to the

Anchor Stone Laundry Tray.



This tray is made of crushed Granite and the best Imported German Portland Cement with siamese brass plug and coupling—all made in one piece with round corners and without joint. It is easy to keep clean and superior to all other Stone Trays. They have given entire satisfaction when others have failed. For information, prices, etc.

Write the Anchor Stone Laundry Tray Co.
510 10 1/2 Avenue North,
Tel. Main 3339 L-1. ADOLPH JOHN SON, Mgr.
MINNEAPOLIS, MINN.

Automatic and Half Automatic Gates and Dumb Waiters. Electric Motors and Dynamos.

GUST LAGERQUIST,
MANUFACTURER OF
DIRECT AND BELTED ELECTRIC
Passenger, Freight, Power and Hand Power **ELEVATORS**

18 to 28 First Avenue North,
Minneapolis. Minnesota.

K & T Steam Specialties



PRESSURE REGULATOR

Sensitive and positive in its action; durable and simple in construction; nothing to get out of order. No springs, no diaphragm or packing.

Back Pressure Valves,
Steam Trap, Relief Valves,
Balance Valves,
Vacuum Air Valves.

SEND FOR CATALOG.

Manufactured by
Klepfer & Thomas Co. 70 West Lake Street, CHICAGO

Eastern Agents: J. R. Vandyck Co., 95-97 Liberty St., New York.

EVIDENCE OF SUPERIORITY



THE JOHN SCOTT LEGACY PREMIUM AND MEDAL
ISSUED BY THE
FRANKLIN INSTITUTE
HAS BEEN AWARDED TO THE

"STAR" VENTILATOR

A Valuable and Unique Prize for Superior Merit.

MERCHANT & CO., Inc. Sole Manufacturers.

PHILADELPHIA-NEW YORK

CHICAGO-BROOKLYN



L. B. WAUGH, President.

L. E. WAUGH, Vice President.

W. E. RAYMOND, Secretary.

J. B. EUSTIS, Treasurer.

L. B. WAUGH COMPANY

SAFES=DESKS

AND GENERAL OFFICE SUPPLIES

FIRE AND BURGLAR-PROOF
SAFES,
VAULT FRONTS AND
LININGS,
TIME AND AUTOMATIC
LOCKS,
SAFE AND LOCK REPAIRING,
OFFICE DESKS, CHAIRS
AND TABLES,
WOOD AND METAL
CABINETS,
CHECK AND DOCUMENT
FILES,



ST. PAUL: 360 Jackson Street.

MINNEAPOLIS: 318 Second Ave. South.

CELADON Roofing Tile Company

EASTERN OFFICE:
Room 1123-4 156 Fifth Ave.
NEW YORK,

WESTERN OFFICE:
Room 1001-2 204 Dearborn St.,
CHICAGO.

FACTORIES { ALFRED, N. Y. GEO. H. LAWES & COMPANY, Agents,
 { OTTAWA, ILL. 49 EAST FIFTH ST., ST. PAUL. 419 BOSTON BLOCK., MINNEAPOLIS.



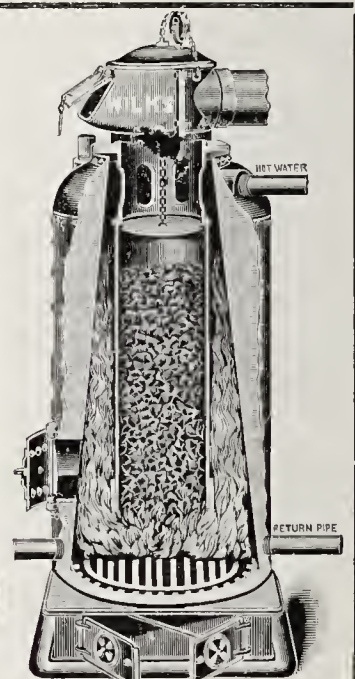
THE WILKS WATER HEATERS

For Heating Water For
Private Houses, Apartment Bldgs.,
Hospitals, Etc.

Hard or Soft Coal
Self Feeders.

Send for Catalogue.

S. WILKS MANUFACTURING CO.
CHICAGO, ILL., 35th St. and Shields Ave.



THE PITTSBURG PLATE GLASS CO.

Through Its Twenty Warehouses

Possesses Unrivalled Jobbing Facilities in all its Lines.

Large and complete stocks of POLISHED PLATE GLASS and SILVERING PLATE in ALL THICKNESSES are always on hand and can be shipped from each or any of the Warehouses with promptness.

MIRRORS There are plants at the various Warehouses for the manufacture of Plain and Bevelled Mirrors; and where Silvering and Beveling are done on a larger scale than at any establishments in the country.

WINDOW GLASS In large stocks and of all sizes, together with fullest lists of

Paints, Oils, Leads, Varnishes and Brushes

We are also Sole Distributors of **PATTON'S FAMOUS SUN-PROOF PAINTS.** Also Jobbers of Mirrors, Bevelled Plate Art Glass, Skylight and Floor Glass and Bent Glass

Our Warehouses, where complete stocks of Sun-Proof Paint, and Glass in all lines are kept constantly on hand, are as follows:

New York, Hudson and Vandam Sts.
Chicago, 441-452 Wabash Ave.
St. Louis, Cor 12th and St. Charles Sts.
Pittsburg, 101-103 Wood St.
Detroit, 55-58 Larned St. E.
Milwaukee, 492-4 Market St.
Davenport, 410-416 Scott St.

Brooklyn, 635-37 Fulton St.
Baltimore, Daily Record Building.
St. Paul, 310-51 Minnesota St.
Kansas City, Mo., 5th and Wyandott Sts.
Omaha, 1608-10-12 Harney St.
Boston, 41-49 Sudbury St.
Greensboro, N. C., Greensb'ro Loan & Trust Co. Bldg

Cincinnati, Broadway and Court Sts.
Minneapolis, 500-510 South Third St.
Buffalo, 372 4-6-8 Pearl St.
Philadelphia, Pitcairn Bldg., Arch and Eleventh Sts.
Cleveland, 149-51 Seneca St.
Atlanta, Ga., 32 and 34 S. Prior St.
Savannah, Ga., 602-618 River St.

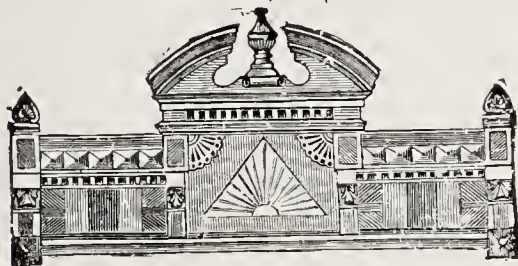
Minneapolis Roofing and Cornice Works

Successors to Wishart & Hansen.

STEEL CEILINGS

H. A. HANSON, Proprietor.

Roofing
and
Cornice
Work



Sky-
lights
Etc.

Phone
T. C. 933

403 Sixth Avenue South,
MINNEAPOLIS, MINN.

Davis Heating & Plumbing Co.

ESTABLISHED 1872.

Heating
Engineers.



And
Contractors.

187-189 East Sixth Street,

St. Paul, - - - Minn.

J. P. COURTNEY & CO.

Plumbing and Gas Fitting

STEAM AND HOT WATER HEATING
SEWER AND WATER CONNECTIONS
JOBGING PROMPTLY ATTENDED TO

515 Second Avenue South, MINNEAPOLIS, MINN.

Phones—N. W. M. 3146-L1. T. C. 667.

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 29th Avenue South.

Minneapolis, Minn.

Write for Prices.

HARDWARE...

A Few Good Things in Hardware.

Corbin Locks, Stanley Butts, Bommer,
Chicago and Matchless Spring Hinges.
Wilcox Door Hangers, Fitch Sash Lock.

GIVE US A CHANCE TO FIGURE WITH YOU.

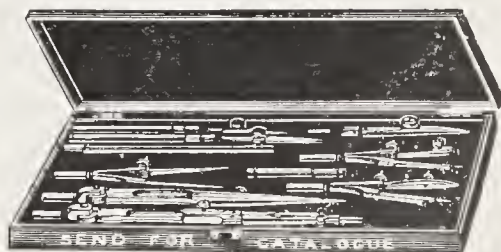
J. F. McGUIRE,

56 East 6th Street, - - - ST. PAUL.

ARNOLD KUHLO,

—MANUFACTURER OF—

Architectural,
Draughting and
Engineering
Instruments.



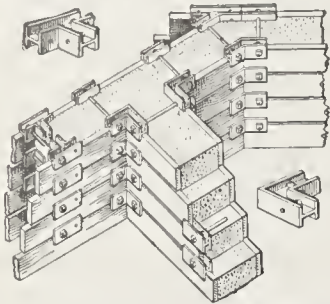
Instruments Carefully Repaired and Adjusted.

320 Roberts Street, - St. Paul.

Farrell's Patent Plank Holders and Builder's Mold

Concrete Building Apparatus

The Only Practical Method for Building
CONCRETE HOUSES

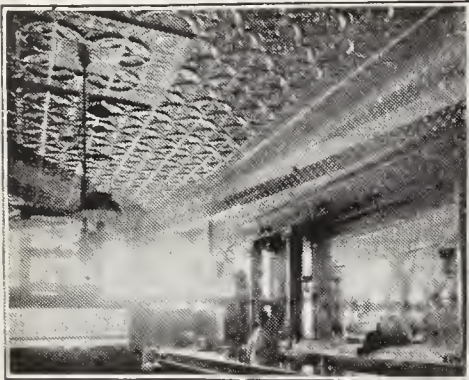


Patent Builders' Mold.

Substantial, dry, durable, well ventilated, fire and vermin-proof buildings of all descriptions (from the cottage to the mansion, the shop to the warehouse) are erected in concrete to any height or design, with greater rapidity, facility, accuracy and economy than by any other system of building, and without skilled labor, and reducing cost of building fifty per cent.

For Pamphlet, Prices, Foreign Patents and Estimates given in all kinds of work in concrete, address:

THOMAS C. FARRELL, Washington, N. J.
Builder of Concrete Houses, Schools, Churches, Etc.



Steel Ceilings are very beautiful, durable and not expensive.

SPECIALY VALUABLE IN

SCHOOLS, CHURCHES AND STORES.

WE MANUFACTURE MANY HANDSOME PATTERNS

St. Paul Roofing, Cornice & Ornament Co.,

Send for Catalogue.

Cor. Wabasha and Water St., ST. PAUL, MINN.



LOVE BROTHERS

INCORPORATED.

Aurora, Ill., U. S. A.

Manufacturers of Archi-
tectural and Structural
Iron and Steel Materials.
Sole Manufacturers of
The Love Brother's Im-
proved Patented Steel
Construction for Modern
Store Fronts.

Engineers
Contractors
Foundrymen
Machinists
Builders

THE LOVELL WINDOW AND SHUTTER DEVICE

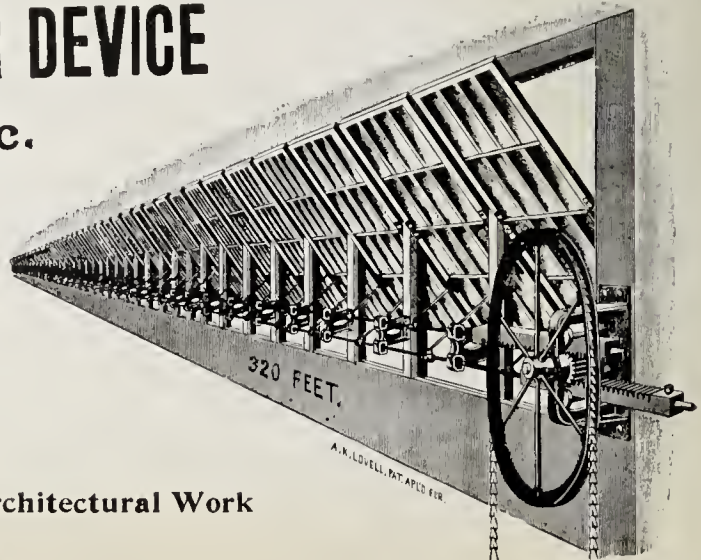
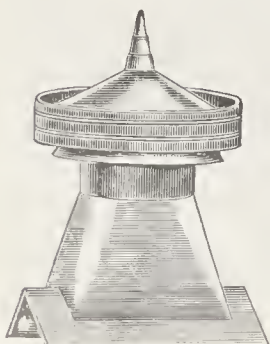
For Factories, Mills, Foundries, Etc.

A line of sash 500 feet in length can be operated from one station if desired. Adapted to any kind of sash, hinged or pivoted. *Manufactured only by*

**THE G. DROUVE
COMPANY,**
BRIDGEPORT, CONN.

Manufacturers and Erectors of
Cornices, Ventilators and Sheet Metal Architectural Work
of every description.

We invite your correspondence and guarantee satisfaction.





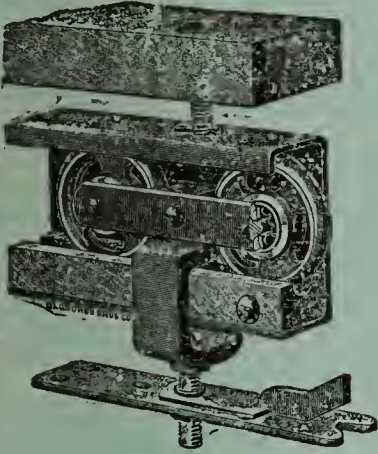
*"He who knows not, and knows not he knows not,
He is a fool; shun him.
He who knows not, and knows he knows not,
He is simple; teach him.
He who knows, and knows not he knows,
He is asleep; waken him.
He who knows, and knows he knows,
He is wise; follow him.*



WE KNOW

That's why we all specify

Wilcox Door Hangers

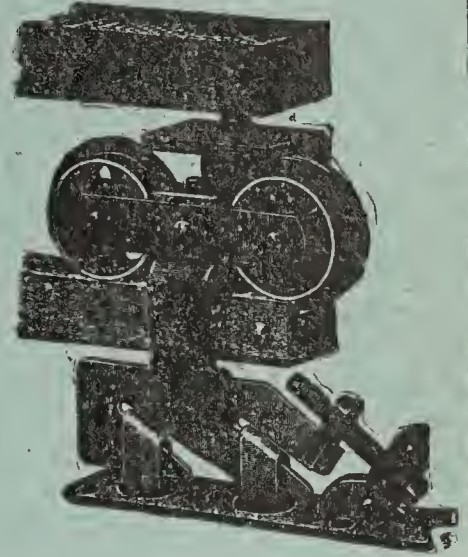


There is but one Genuine,

"WILCOX."

— MADE BY —

Wilcox Mfg. Co.
AURORA, ILLINOIS.



W H Y ?

Are Most of the Leading Architects of St. Paul, Minneapolis and the Northwest Specifying

Twin City Varnish Co's
Varnishes and Floorette

B E C A U S E

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.

Adamant

THE PERFECTION OF

Wall Plaster

—Manufactured by—

United States Gypsum Co.,

MINNEAPOLIS, MINN.,

—ALSO—

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

St. Paul Foundry Company.

Manufacturers of

Architectural

Iron   

Work  



Structural

Engineers

Steel Trusses, Girders,
Columns and Buildings.

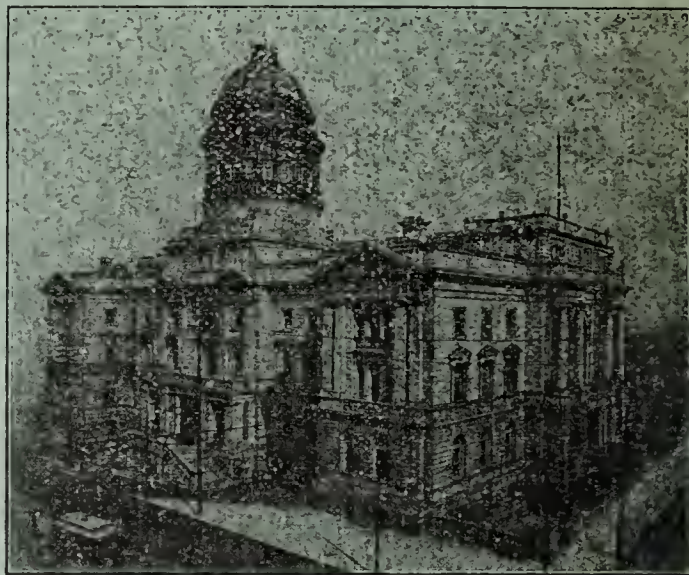
Large Stock on hand of Beams,
Channels, Angles and Plates.

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.

D. L. BELL

Wholesale and Retail Dealer
in all Kinds of 

LIME, CEMENT, PLASTER PARIS,

Hair and Fire Brick.

Northwestern Agents for the Celebrated Utica Cement.

Office: 274 Jackson St.,
Telephone Call 259-3.

St. Paul, Minn.

J. C. LANDERS & CO.

REPRESENTING

Columbus Brick and Terra Cotta Co.
and

Iron Clay Brick Co.
Columbus, O.

International Fire Proofing Co.
Columbus, O.

Tiffany Enameled Brick
Chicago

Winkle Terra Cotta Co.
St. Louis

*Herringbone Expanded
Steel Lath*

*Phila. and Boston Brick
Fire Places.*

Send for prices etc.

LIME AND CEMENT

PORTLAND CEMENT

J. C. LANDERS & CO.,

818 Lumber Exchange Bldg,
Minneapolis, Minn.

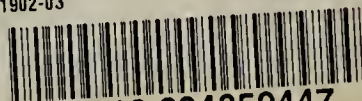
UNIVERSITY OF ILLINOIS-URBANA

Q. 720.5WE

C001

WESTERN ARCHITECT

1-2 1902-03



3 0112 024359447