MENOMONIE HYDRAULIC PRESS BRICK CO.

Exclusive agents for

"Alpha" Portland Cement
The Leader of them all for any kind of Concrete Construction.

S. J. HEWSON, Sales Agt.
MINNEAPOLIS, MINN.

UNION RAILWAY STORAGE COMPANY

Portland Cement & Common Cement
American Imported
Milwaukee, Louisville, Austin

TERRA COTTA
Hard Wall Plaster Fire Brick Sewer Pipe Fire Clay Linings
White and Brown Lime Mineral Wool, Etc.
Office 201 Andrus Bldg.
MINNEAPOLIS, MINN.

Push Button Automatic Electric

RESIDENCE ELEVATORS and DUMB WAITERS
Are among the specialties manufactured by

THE WINSLOW ELEVATOR AND MACHINE CO.
General Office and Works, 96 100 No. Clinton St.
CHICAGO, ILL.

GEO. H. LAWES & CO. AGENTS
FOR
Cabot's "Shingle Stains" and "Quilt"
Celadon Coy's Roofing Tiles
Fireproof Steel Rolling Shutters
Higgin's Metal Frame Window Screens
"Dehydrating Damp Proofing for Walls"
Kimball's Passenger and Freight Elevators

WE CARRY IN STOCK CABOT'S STAINS AND QUILT, METAL LATH, METAL CORNER BEADS, MINERAL WOOD, MORTAR COLORS BRICK BONDS AND RINALD'S ENAMEL PAINT.

Phone T. C. 60 MINNEAPOLIS OFFICE, 424 Boston Block
ST. PAUL OFFICE, 156 East Third Street, Near Jackson
Residence Phone T. C. 1636 Park

Phone T. C. 1267 N. W. Main 250

T. A. C. 1905
ARCHITECTS

We are now Handling a
Coal Chute

That is Burglar Proof and not too Expensive

Saves windows and woodwork. It will soon save the price of a door and many a window. Will be pleased to answer any inquiries, and as we have a sample set up in our store, you can see how it fills the bill.

GARDNER HARDWARE CO.
304-306 Hennepin Ave.
MINNEAPOLIS, MINN.

CAPITALS IN COMPO AND CEMENT

Architectural Decorations
OF EVERY DESCRIPTION
Capitals for Exterior. Also Oak and Birch in Classic and Modern Designs. Ceilings, Cornices, Coves, Friezes, Etc.

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

HAROLD JOHNSON, N. W. Agent
216-217 Lumber Exchange, MINNEAPOLIS

DEERE & WEBBER BUILDING
Finest Office and Warehouse in the Northwest
21,300 Square Feet Roofing Used

WE ALSO CARRY
Special Vulcanite Pure Asphalt Roofing Turtle Back Rubber Roofing

W. S. NOTT COMPANY
200-206 FIRST AVE. S.
SOLE NORTHWESTERN AGENTS.
MINNEAPOLIS, MINN.

You Have Tried the Rest
Now Use the Best

CAREY’S MAGNESIA CEMENT ROOFING

Architects will please remember advertisers in The Western Architect when writing their specifications.
MOTT'S SOLID IMPERIAL PORCELAIN DOUBLE LAVATORY

THE "GRANVILLE"

No matter what the point of view, the imperial porcelain lavatory stands out boldly and strongly as superior to anything of the kind yet produced. From a sanitary point it is simply perfection. The slab and basin in one solid piece does away with all joints, while the heavily glazed surface is absolutely non-absorbent and un stainable. No description can do justice to the soft china color and brilliant glaze of these lavatories, while in shape and design they are unequalled. A notable example is the "Granville," which is adapted for residence work or barber shop.

CATALOGUE ON APPLICATION

The J. L. Mott Iron Works
135 Adams St., CHICAGO
90 Beekman St., NEW YORK

Architects will please remember advertisers in The Western Architect when writing their specifications.
Normandin Concrete Building Block Machines

are universally recognised by the leading architects, contractors, builders, engineers and cement workers as the standard.

Normandin Block Machine and its Product.

CEMENT MACHINERY CO., Jackson, Mich.

KEYSTONE

Hair Insulator

KEEPS HOUSES COOL in summer, warm in winter, protects the plumbing and saves its cost every winter in coal bills.

DEADENS SOUND in Hotels, Hospitals, Lecture Rooms, Theatres and all Public Buildings.

PREVENTS ESCAPE OF COLD in Cold Storage Compartments and all Buildings when uniform temperature is desired.

Don't fail to write us before deciding your insulation problems. Our long experience enables us to meet any conditions and guarantee results.

H. W. JOHNS-MANVILLE CO.,

San Francisco
Seattle
Kansas City
Minneapolis
Little Rock
New Orleans
London

H. W. JOHNS-MANVILLE CO., 100 William Street, New York

GOSSETT'S

Detachable Suspension

HINGES

are easily put up or removed — no tools or ladder necessary. Write for free sample pair. PRICE, per dozen pairs, $1.20, express paid.

Sold by Hardware and Lumber Dealers

Manufactured by F. D. KEES, BEATRICE, NEB.
WOLFF'S ENAMELED LAVATORIES

Purchasers will obtain best results by buying our Lavatories fitted up complete with Faucets, Waste, Trap and Supply Pipes. We exercise particular care in assembling, fitting and adjusting all of the above mentioned brass parts. They are also subjected to a severe hydraulic test and carefully inspected as to finish and workmanship. Other styles of Faucets, Traps and Supply Pipes than those shown can be furnished.—See our General Catalogue “F.”

Wolff's Enamed Lavatories—Highest Grade—Guaranteed—Our Guarantee Label is put on all our Lavatories.

L. WOLFF MANUFACTURING CO.

MANUFACTURERS OF PLUMBING GOODS EXCLUSIVELY

TRENTON  CHICAGO  DENVER

ARCHITECTS WILL PLEASE REMEMBER ADVERTISERS IN THE WESTERN ARCHITECT WHEN WRITING THEIR SPECIFICATIONS.
CONTENTS.

DEATH OF T. HENRY RANDALL AND SAMUEL C. FALKENBERG


AMERICAN STYLE

By Titus de Bobula.

PHOTOGRAPHIC PICTURE MAKING

By Park Boards a Stop to Commercial Advancement—The Control of City Streets by Park Boards a Stop to Commercial Advancement—Parsimony in a School Board Builds an Important Structure Without Fireproofing Materials—Obsolete Methods a Probable Cause of a Railway Wreck—The Ready-Plan Evil Spread by the Daily Press.

THE "SOO" CANAL SEMI-CENTENNIAL

By Robert Craik McLean.

THE CHICAGO ARCHITECTURAL CLUB'S FOURTH OF JULY

By Robert Craik McLean.

ILLUSTRATIONS

By Titus de Bobula.

INDEX TO ADVERTISEMENTS

xxiii

BASEMENT SPACE IS AS VALUABLE AS THE SECOND STORY OF A BUILDING IF IT CAN HAVE ADEQUATE LIGHTING. THIS IS MORE THAN ACCOMPLISHED BY THE POWERFUL SKYLIGHTS MADE OF THE THREE PRISM PLAN OF THE BAR-LOCK SYSTEM. IN THIS CONSTRUCTION IS OF WROUGHT STEEL, AND THE FRAME OF WROUGHT STEEL BAR A SCIENTIFICALLY ARRANGED AND SET ON EDGE WITH CHANNEL BARS, WHICH RUN THROUGH ON RIGHT ANGLES, FORMING A NETWORK WHICH RECEIVES THE THREE PRISM GLASS. THE THREE POINT PRISMS CONTAIN THREE SEPARATE PARALLEL PRISMS OF DIFFERENT SIZES AND ANGLES, AND ARE ADJUSTED SO THAT THEY RECEIVE AND DISTRIBUTE LIGHT IN THREE DIRECTIONS, AND ARE SO ARRANGED THAT NO LIGHT IS LOST BY BEING PROJECTED FROM ONE PRISM AGAINST THE OTHER. IT IS CLAIMED BY THIS FORM OF PRISMATIC LIGHTING THAT ONE HUNDRED PER CENT ADDITIONAL LIGHT IS ATTAINED, THE ANGULAR AND SETTING OF THE GLASS ALSO BEING IN A FORM CALCULATED TO AVOID ALL OBSTRUCTION OF THE PASSAGE OF RAYS OF LIGHT. BY CHANGING DARK CELLARS INTO HABITABLE ROOMS, OR "MAKING TWO BLADES OF GRASS WHERE ONE GREW BEFORE" THE BAR-LOCK PRINCIPLE OF PRISMATIC LIGHTING IS PROVING ONE OF THOSE AIDS TO SANITARY PROGRESS AND COMMERCIAL DEVELOPMENT THAT MARKS THE PROGRESS OF THIS NEW CENTURY.


CLOTHES, WHICH ARE SAID TO BE "A SOCIAL CONVENIENCE AND A CLIMATIC Necessity," BECOME A SOCIAL MISUSE WHEN MONDAY WASH DAY COMES, AND AFTER THEY ARE WASHED IT IS NECESSARY THAT THEY SHOULD BE DRIED, AND A SANITARY Necessity THAT THEY BE DRIED IN THE OPEN AIR. So that the term "sun dryer" not only indicates the source of heat and light which dries and purifies, being also the greatest bleaching agent and germ exterminator in the world, but designates that apparatus which is like the only "pebble on the beach" when a practical, all around clothes dryer is mentioned. The "sun clothes dryer" manufactured by the Chicago Clothes Dryer Co., Chicago, Ill., is so convenient in operation in its different forms on the lawn, the back porch, or the roof that no country dwelling or city flat is complete without one or more for the proper airing or drying of clothes. In all cases it can be operated from one initial point and whether in the yard with the snow a foot deep, or on the elevated roof, or on the elevated back porch, or on the flat roof, or on the roof itself, the clothes dryer can be hung and then swung outward, and the next arm of this endless circle of receiving arms is ready for its complement of garments, and when not in use the whole apparatus can be quickly and conveniently removed until again required.
ROCK ISLAND BUILDS HOTEL FOR ITS EMPLOYEES.

Contract has been awarded by the Rock Island system for the erection of a hotel building at East Moline, Ill., near Rock Island, for the accommodation of its employees. The hotel will be two stories in height and will take care of about 150 men. It will be thoroughly equipped with steam heat, electric light and shower baths, together with a reading room and several other attractive features. It is hoped to have it ready for occupancy by the middle of September, 1905.

This is another evidence of the commendable policy of the Rock Island system to make the day's work of its employees agreeable, and to surround them in their tasks with provisions for their comfort and entertainment.

THE NORTHWESTERN LIMITED.

All roads lead to Rome, and there are an even half a dozen (rail) roads that lead from Minneapolis to Chicago and the East. Of these, the "Northwestern Line" is a favorite with many travelers who require rapidity of transit and comfort during the trip. The "Northwestern Limited" is taken by these because of the smoothness of roadbed, a solidity of construction, an elegance of appointment and a businesslike arrangement of the buffet car, where the lights seem to be situated just right and chairs with just the proper angle of back to rest the traveler after a hustling day in the city. And when the hour for retirement comes, a well ventilated car with individual lights by which he can read himself to sleep, if he wishes, awaits him. Ladies appreciate this latter feature of seat lights especially, for it makes reading during the evening, or arranging the berth for the night, as agreeable as in the daytime. The attention paid the cuisine on the dining cars of the "Northwestern Limited" is a feature that any road that, with the safety of double tracks and the solidity of roadbed makes travel a perfect luxury for everyone who journeys by the Northwestern Lines.

THE CANADIAN NORTHERN RAILWAY.

A recent trip over a part of the Canadian Northern railway showed an enormous increase in mileage during the past five years. With a conservative management and a foreseeing conception of future needs this railway which formerly occupied a portion of the territory lying east of Winnipeg now has a terminus at Port Arthur and a center at Winnipeg, and midway traverses the Rainy lake region and skirts the Lake of the Woods, the future center of Western Canada's commercial activities.

Paralleling the United States boundary westward to Hartley, the line is already projected to Virden. Another route to the Northwest of Winnipeg reaches through the territory of Assiniboia and is projected into Alberta to Edmonton, while still another more northern spur, skirting Canada's Great Lake country from the Winnipeg lake, ends at Prince Albert in the Saskatchewan. There are numerous shorter spurs that give in total an immense area of usefulness to the Canadian Northern Railway and its traffic manager, George H. Shaw at Winnipeg.

The resources of the country thus traversed have been lying dormant through the centuries, the trackless forests, sea-like prairies and great lakes only known to the fur trader, trapper and Indian, but now, from pulp mills to wheat, developing through the aid of this railroad all of the industries that make for civilization, and the enriching of a nation already great in possibilities, and growing in actualities through the energies developed, and the opportunities of transportation made possible, by those later gentlemen adventurers, the railroad builders, of which those such as manage the development of the Canadian Northern are the highest type.

WIRELESS TELEGRAMS TO MOVING TRAINS.

The Chicago & Alton R'y has been experimenting with the American De Forest Wireless Telegraph system upon its Alton Limited trains running between Chicago and St. Louis, and the tests have proved absolutely satisfactory. Wireless messages were received, at a distance of over thirty miles from the sending station, while trains were running fifty miles an hour.

The Alton has been experimenting with the wireless system for some time, realizing its importance, not only from the commercial standpoint to passengers upon its trains, but more particularly in the matter of a safeguard against accidents.

With the completion of the "wireless" the "Alton" will have four protective systems in the operation of its trains: First the usual telegraphic train orders; second, the station block system (the block signals being operated by hand by a corps of operators); third, the automatic electric block signal; and fourth, the wireless telegraph.

The Chicago & Alton was the first railway on which the wireless system has ever been successfully applied to the operation of a railway train, and it is a source of much gratification to the company that its record as pioneer in all improvements of passenger service is maintained.

IMPORTANT TO ARCHITECTS.

The architects of America can be congratulated upon the increasing appreciation which they are manifesting for the practical features of residence equipment which in many other countries are neglected and overlooked.

It is undeniable true that the members of the profession in this country exhibit a more close regard for the inner equipment of a building, affecting its comfort and sanitation, than do their professional brothers in other countries. While the appreciation of the American architect for the art of architecture in its application to external ornamentation today rivals, and is destined to outstrip, the work of architects practicing in close contact with the models erected by ancient schools, it is very noticeable that the work of our architects exhibits a particular regard for everything in the way of inner equipment which assists to make the building more satisfactory to its owner or those who occupy it. The American architect is generally very alert to recognize the fact that the appreciation of the owner for the features of design and ornamentation in no small measure depends on the conditions which attend his occupancy of a new building.

So it seems apparent that those architects whose advice, interest and judgment lead their clients into the adoption of the very best appliances for warming, ventilating and plumbing the residence are demonstrating that measure of success which is only obtained by a broad view and recognition of all the inter-related features of residence equipment, and by conforming closely thereto.

It is therefore indisputable that the interests of the client and the architect are identical and that what is best for the client in the long run always proves to be best for the architect.

The owner of a new residence is rarely attuned to enjoy the pleasing architecture of a domicile for which he has expended a goodly sum of money, with painstaking care and from the enjoyment of which he has long anticipated pleasure, if the first winter's occupancy is attended by the use of faulty or a scant
The finishing of rooms cannot be enjoyed in an atmosphere of chill and discomfort. Experiences with clients whose houses are entirely satisfactory excepting the warming apparatus have a strong influence toward leading the architect, when making up his estimates for the complete cost of new residences, to avoid recommending too much expenditure for external ornamentation, and to devote more money to the inner equipment which go to make the residence a home in a larger sense—making it a place of comfort to its occupants and of delight to its guests.

So the trend has been increasing toward the adoption of the best methods of steam and water warming for residence work. The result of the use of these methods go so far towards making the home more acceptable when complete and occupied that the architects who recommend these reliable methods build their practice on the surest and best foundation. To those who can afford these systems it should be especially apparent that from an investment point of view the steam and hot water methods are worthy of most careful consideration, because the money so invested makes the property just so much more valuable to sell or to rent.

Architects who desire to serve their clients best and place themselves into positions which prove their judgment are very much assisted by specifying and recommending the use of Ideal Boilers and American Radiators. The radiators are widely known and appreciated throughout America, Europe and other countries for the richness of their design, fine superficial finish, reliable mechanical features and the wide variety of ornamental and plain patterns in which they are made. The assortment embraces many odd forms and shapes to fit any architectural requirements. They are made in a wide variety of forms and designs for direct, indirect and direct-indirect heating.

To meet the needs of warming and ventilation combined, the makers of these radiators turn out eighteen patterns of indirect radiators for installation in "stacks" located in cellar or basement rooms and enclosed in properly constructed wood, sheet iron or copper boxes.

Figure "A" herewith illustrates a popular type of the American indirect radiation, known as the "Excelsior" pattern, and the model shows its application for the purpose of heating a staircase hall. A fresh air supply is taken from the outside, passed through and around the sections, and is then passed up into the apartment through a side wall register as shown.

Figure "B" shows the Perfection Pin pattern in a "stack" surrounded by a galvanized iron box and with a duct through which a fresh air supply can be brought to the "stack" box through a grating placed in the outside wall. A damper in this duct from the outside can be regulated to entirely shut off the outside supply and then the air current to the "stack" is drawn down through a grating placed in the floor (at the side of the chair in the engraving). This means a rotary circulation of air is set up within the apartment itself and the radiator works substantially the same as a direct radiator, excepting that it is out of sight.

This is a very economical method of applying indirect radiation and affords a controllable method of ventilation when the condition of the weather outside permits taking the air from that source, without using the usual amount of indirect surface.

The Ideal Boilers are made in about thirty-six different patterns for steam and water, embracing about two hundred and fifty different sizes. These boilers are made for all classes of buildings, from the small cottage up to large public and commercial buildings. They are made especially for hard coal, soft coal, coke or wood and are highly perfected in detail and general features.

So the trend has been increasing toward the adoption of the best methods of steam and water warming for residence work. The result of the use of these methods go so far towards making the home more acceptable when complete and occupied that the architects who recommend these reliable methods build their practice on the surest and best foundation. To those who can afford these systems it should be especially apparent that from an investment point of view the steam and hot water methods are worthy of most careful consideration, because the money so invested makes the property just so much more valuable to sell or to rent.

Architects who desire to serve their clients best and place themselves into positions which prove their judgment are very much assisted by specifying and recommending the use of Ideal Boilers and American Radiators. The radiators are widely known and appreciated throughout America, Europe and other countries for the richness of their design, fine superficial finish, reliable mechanical features and the wide variety of ornamental and plain patterns in which they are made. The assortment embraces many odd forms and shapes to fit any architectural requirements. They are made in a wide variety of forms and designs for direct, indirect and direct-indirect heating.

To meet the needs of warming and ventilation combined, the makers of these radiators turn out eighteen patterns of indirect radiators for installation in "stacks" located in cellar or basement rooms and enclosed in properly constructed wood, sheet iron or copper boxes.

Figure "A" herewith illustrates a popular type of the American indirect radiation, known as the "Excelsior" pattern, and the model shows its application for the purpose of heating a staircase hall. A fresh air supply is taken from the outside, passed through and around the sections, and is then passed up into the apartment through a side wall register as shown.

Figure "B" shows the Perfection Pin pattern in a "stack" surrounded by a galvanized iron box and with a duct through which a fresh air supply can be brought to the "stack" box through a grating placed in the outside wall. A damper in this duct from the outside can be regulated to entirely shut off the outside supply and then the air current to the "stack" is drawn down through a grating placed in the floor (at the side of the chair in the engraving). This means a rotary circulation of air is set up within the apartment itself and the radiator works substantially the same as a direct radiator, excepting that it is out of sight.

This is a very economical method of applying indirect radiation and affords a controllable method of ventilation when the condition of the weather outside permits taking the air from that source, without using the usual amount of indirect surface.

The Ideal Boilers are made in about thirty-six different patterns for steam and water, embracing about two hundred and fifty different sizes. These boilers are made for all classes of buildings, from the small cottage up to large public and commercial buildings. They are made especially for hard coal, soft coal, coke or wood and are highly perfected in detail and general features.

They are very conservatively rated and have an excellent reputation for fully justifying the architect in his specifications and recommendations.

The sale of these goods is not confined to special agencies at any point. They are sold to all responsible heating contractors, plumbers, steamfitters, etc. The American Radiator Company, general offices, Chicago, is at all times pleased to co-operate with architects in this important matter of equipping American homes with the best of appliances by sending them upon request catalogues and other information concerning these goods.

This company is just issuing an elaborate catalogue of American Radiators, entitled "Radiation and Decoration," which is specially designed to assist architects and their clients in matters of selection and decoration.

INDISPENSABLE TO DECORATORS.

One of the latest agreeable commissions that comes the way of the decorator is the hanging of a burlap or a paper on a painted or varnished wall. It cannot be done right away, and as work of this kind comes mostly at the busy seasons the time wasted in preliminary operations can ill be spared.

We have passed through a period when it was the correct thing to have a painted or varnished wall surface, and up and down the country these are to be found in almost every house. Fashion changes with time, however, and today the popular wall decoration is a plain treatment, a woven fabric being recommend-
ed by the first artists and architects and used by all the best decorators.

The spirit of change, and of being up-to-date is strong in most men, but in the matter of interior decoration this may be ungratifying when time, potash, vinegar, expense, and the danger of injuring woodwork by the potash, stand in the way of the new idea.

This is exactly where Kling-Ko-Na comes in; by one simple operation it makes a painted or varnished wall as holding for a burlap or a paper as virgin plaster. It may be thus claimed for it, that it is one of the greatest labor and time savers introduced to the decorator within a generation. It is eminently suited to the American method of doing business, which is to clear off today's work quickly to make way for that which tomorrow will bring. Kling-Ko-Na will become indispensable to the decorator as paint; for the growing, hustling spirit of today makes it impossible to continue to do business by the method of yesterday.

Last year, says John Taylor in his "short chats on decoration," I called on a friend living in a pretty house at Mt. Vernon. His rooms were nicely decorated in approved modern style, but the ball was calling loudly for attention. He observed my critical look. "Ah," said he, "I would have decorated here this year, but I put it off because of the trouble in neutralizing the confounded varnish."

This happens in many cases, and it was because of this that Kling-Ko-Na was introduced, as it does not injure woodwork if splashed upon it. As a medium of union between an unsympathetic wall and a burlap, paper or other wall covering, it is without a rival whether the wall be painted or varnished, greasy or smoky, whether it be old or new, be sand-finished or left in the rough brick.

Enough has been said to show that Kling-Ko-Na possesses remarkable properties; that it is well suited to the requirements of the case; that it greatly facilitates the work of re-decoration, and the changing from the old style to the new, and that it is the interest of every decorator to use it.

**HOT WATER HEATING BY THE ANDREWS' SYSTEM.**

The first hot water heated building of which there is any authentic record seems to have been the monastery of the Dominican Monks in Greenland, erected about 1500. While these worthy gentlemen probably did not have all the modern improvements in the hot water heating line, their system possessed one important feature, lacking in most of the plants in use at present. This was a natural hot spring, which served not only for

---

![Residence of J. R. McClenahan, Port Deposit, MD.](image_url)

**PLANS OF RESIDENCE R. E. McClenahan—HEATED BY THE ANDREW'S SYSTEM**
warming the building, but also for cooking. For this reason the question of fuel consumption, generally of such vital interest did not disturb their meditations. Nature has provided in a similar manner for one or two of our western cities, but as most of us do not have an unfailing hot spring available, we are more or less interested in the manufactured article that takes its place.

For the majority of cases, hot water has been universally selected as the best method of heating, and its advantages are so well-known that they need not here be considered. The open tank system has, however, some serious disadvantages, curtailing its use to a considerable extent. Among these are slowness of heating, difficulty of control, excessive size of radiators and piping due to low temperature, resultant high first cost and danger of boiling over.

The object of the Andrews system is the production of a heating plant which shall overcome these objections, combining the highest economy with great durability, extreme simplicity and lowest first cost, consistent with materials best adapted for their respective uses. In attaining its object, the Andrews System uses steel boilers (vertical and locomotive types): reams all the pipe, which is run on the two pipe or group system, and has a low pressure system of circulation, produced by the regurgitating safety valve.

The fact that a steel boiler is much more economical and efficient than a cast iron boiler is unquestioned. Experience with power plants has shown that a steel boiler with proper care and good water will often give good service as long as 25 years. As the water in a heating plant is used over and over again with comparatively few changes, the steel heating boiler will not be affected from that source and with reasonable care may be expected to last considerably longer than a power boiler. During such a period of time, the amount of fuel consumed will equal the first cost of any boiler many times over, and it can be readily seen that it is the better practice to install the more economical steel boiler and replace it with a new one if it has worn out than to use a cast iron boiler, which consumes more fuel annually, although possibly lasting a little longer. Further, as is well known, the life of a cast iron boiler is very uncertain, due to the brittleness of the material and to the flaws and blow-holes whose presence it is impossible to prevent. As a result, the cast iron boiler often cracks, necessitating either new sections or a new boiler. Such an occurrence is, of course, impossible with a steel boiler on account of the homogeneity and mellability of the material, making it reliable in the extreme. Andrews Steel Boilers are made from 1/2" and 3/4" flange steel of 60,000 lbs. tensile strength, and tested to a hydrostatic pressure of 80 lbs. per square inch. While these boilers would safely stand a pressure of 150 lbs., that to which they are tested is much more than they are required to stand in service. The boilers have big fire pots and very effective secondary surfaces, so placed as to divide the water into thin sheets close to the fire. They heat quickly, maintaining a rapid and uniform circulation. One of the best features is the ease with which the soot can be removed. This is especially important, since soot is an almost perfect insulator from heat and good results cannot be obtained with a dirty boiler, whatever the style.

Andrews Steel Boilers are made in a number of sizes. The vertical type is made in six, carrying from 250 to 1,800 square feet of direct radiation, in addition to the surface in the mains; and the locomotive in five, carrying from 450 to 3,000 square feet. They are frequently arranged in batteries where larger units are necessary.

With the Andrews System, the water is circulated more rapidly and at a higher temperature than with the open tank system the usual difference of temperature between the supply and return with the Andrews System being 30 to 40 degrees, where with the open tank system, it is rarely half that amount. During extremely cold winter weather, the water leaves the boiler at as high as 250 degrees, maintaining an average temperature of the radiator at 230 to 235 degrees, or as high as steam. During the ordinary winter weather, the radiators will be about 170 to 180 degrees, but little higher than with the open tank system. The temperature of the radiator depends upon the amount of fire carried and is controlled by the Andrews Regurgitating Safety Valve which is placed inside the expansion tank upon the pipe connecting with the system. By increasing the temperature of the system, as is possible with this valve, during the few very cold days of winter one-third less radiation can be used than otherwise required. This greatly reduces the space occupied by the radiation, gives a heating plant which is more easily regulated, and heats quicker than the open tank system, besides reducing the first cost. The Regurgitating Safety Valve maintains a pressure varying from nothing to 10 or 15 lbs., depending upon the amount of fire carried.

The rapidity and uniformity of the circulation are assisted by the arrangement of the piping. Each group of two or three radiators is connected with a separate set of supply and return mains, and the groups are so subdivided that each radiator receives hot water direct from the boiler. The burr, which is produced by the cutting tool in the end of the pipe, and which greatly reduces the area, especially in the smaller sizes, is removed by reaming before the threads are cut. This reduces friction, allowing the water to flow with the least possible resistance. Since the entire nominal area of the pipe is thus available and a more rapid circulation is maintained by the Regurgi-
Radiators for the By-ways

When the Architect’s client prefers to warm by Steam or Water and place the heating surface in indirect stacks in the cellar the demands can be fully supplied from our extensive perfected lines of indirects.

AMERICAN Indirect Radiators are exact in inner areas, in intersectional air passage, in plane and extended heating surfaces. Very reliable for engineering work.

AMERICAN Radiator Company

GENERAL OFFICES, 282 MICHIGAN AVE., CHICAGO

204-206 4th St., Minneapolis
415-417 S. 10th St., Omaha
1215 Alaska Building, Seattle
325 Jefferson Ave., Detroit
1912 Arch St., Philadelphia
Cor. Court and Franklin Sts., Buffalo
290 Farmers Bank Bldg., Pittsburgh
TO SAVE
Time, Toil, Trouble
ACQUIRE
Business, Wealth, Influence
INSURE
Comfort, Convenience, Protection

USE THE LOCAL AND
LONG DISTANCE LINES OF

The Northwestern Telephone
Exchange Company

(Look for the sign of the
Blue Bell.)

The Rhinelander Cleanable Enamelled
REFRIGERATORS

POINTS OF EXCELLENCE
1. Handsome in appearance.
2. Our patent paper insulation and mineral wool filler gives a mini¬
mum temperature with a very small amount of ice.
3. Our patent enamel process gives a beautiful and lasting inside
white coating.
4. All parts are movable and therefore the refrigerator is so easily
cleaned—it always remains germ proof.

We make Special Refrigerators of all kinds
and guarantee all our work. Send for Catalogue.

RHINELANDER MANUFACTURING CO., RHINELANDER,
WIS.

Northwestern Dist. Manager
NORTHERN ELECTRICAL MFG. CO.
MADISON, W.S.
Engineers Manufacturers
ELECTRICAL MACHINERY

T. C. Tel. 204

N. W. Main 797

CHAS. L. PILLSBURY
ELECTRICAL ENGINEER
345 MINNESOTA ST.
ST. PAUL, MINN.

Manager
NORTHWEST ENGINEERING CO.
Designers, Constructors
ELECTRICAL CONSTRUCTION

PASSENGER
AND FREIGHT
ELEVATORS

Send for Catalogue

Kimball Bros. Co. 1039 Ninth St., COUNCIL BLUFFS, IA.

Established 1882  Incorporated 1892

MASON CITY BRICK
AND TILE CO.
MANUFACTURERS OF
Hollow Building Blocks
The Standard for Quality
Mason City, Iowa

Mason City
Sewer Pipe Co.
MASON CITY, IOWA
O. T. DENISON, Pres.

MASON CITY
CLAY WORKS
MANUFACTURERS OF
Hollow Building Blocks
WRITE FOR QUOTATIONS
Mason City, Iowa

Architects will please remember advertisers in The Western Architect when writing their specifications.
THE LENNOX FURNACE COMPANY
Marshalltown, Iowa
Manufacturers of the
Torid Zone
FURNACES

The Torid Zone Furnaces are made in nine regular sizes, and four special sizes for low cellars. We also make three especially large furnaces for school houses, churches and large buildings. These furnaces are brick set. We are having a big demand for our Room Heaters which are furnished in six sizes.

Write for Catalogues and Prices
THE LENNOX FURNACE COMPANY
Marshalltown, Iowa

ST. PAUL, MINN.
N.W. Distributors.

FARWELL, OZMUN, KIRK & CO.,
8-37, PAUL, ST. PAUL.

THOMAS A. CRESSWELL
649 Endicott Bldg., ST. PAUL
Specialist in Rendering in
MODERN
COMPETITION
DRAWINGS

Wm. Penn.
J. F. Tostevin, Jr.

Lake Superior Stone
Portage Entry Redstone. Port Wing Brownstone. Kettle River Sandstone. Bedford Limestone. Berea, Ohio, Sandstone, etc. Mill and Office Tower Bay Slips. SEND IN YOUR PLANS FOR ESTIMATES.

CUTLER MAILING SYSTEM
PATENTED—U. S. MAIL CHUTE—AUTHORIZED
AFFORDS THE ONLY MEANS OF MAILING LETTERS IN THE UPPER STORIES OF BUILDINGS, AND IS INSTALLED IN CONNECTION WITH THE U. S. FREE COLLECTION SERVICE ONLY BY THE SOLE MAKERS,
The CUTLER MFG. CO., ROCHESTER, N. Y.

The Garden City Sand Co.
Manufacturers "White Swan" and "All Stone" Wall Plaster and Dealers in Sand, Gravel, Fire Brick and General Building Supplies
Phones 4827-MAIN 2827 AUTO 188 MADISON ST. CHICAGO.

For all Fishing
From Trout to Tuna

B. F. MEEK & SONS
LOUISVILLE, KY., U. S. A.
Sole Mfrs. of Meek and Blue Grass Kentucky Reels

Architects will please remember advertisers in The Western Architect when writing their specifications.
HOT WATER HEATING
BY THE ANDREWS SYSTEM

WHY SHOULD YOU BE INTERESTED IN OUR PROPOSITION?
HOW DOES OUR SYSTEM DIFFER FROM OTHERS?
WHY DO YOU WANT AN ANDREWS HOT WATER SYSTEM?

We build a steel boiler that is the simplest, most durable, economical, and practical on the market. There are no iron cast sections to crack and not one cent need be spent on repairs.

We use our Reguritating Safety Valve and Group System of Piping, producing very rapid circulation, heating all the radiation quickly and uniformly. 100 square feet of radiation with the Andrews System do the work of 150 square feet with other systems.

Our plants are giving perfect satisfaction in 44 states, Canada and Alaska.

We are the only manufacturers who design, sell and guarantee the whole plant complete, others make boilers alone or radiators alone or have a system of circulation, but we furnish the whole plant, guarantee the whole plant and sell direct from "factory to consumer."

Fully Guaranteed and Sent Free on 365 Days Trial.

Send for our book "Home Heating" which explains in detail how the above results are obtained. Book sent free upon request if accompanied by the names of two parties in the market for heating plants.

Free Estimate of Cost for Either New or Old Houses.

"The Andrews System pays over 10 per cent on investment in saving of fuel" is what a banker writes us. Let us send you fac-similes and addresses of our customers in your vicinity.

ANDREWS HEATING CO.
MINNEAPOLIS: CHICAGO: KANSAS CITY.

Kling-Ko-Na solves the problem of hanging wall coverings on Sandfinished, Brick, Kalsomined, Hot, Soft, or Stained walls. It is the best Size for general use.

Let us send you full information.

H. B. WIGGIN'S SONS CO.
No. 37 Arch Street BLOOMFIELD, N. J.

ANDREWS HEATING CO.

Keasbey & Mattison Co.'s 85 Per Cent MAGNESIA

Keasbey & Mattison Co. 307-309 South 6th Street MINNEAPOLIS W. H. NORRIS, Mgr.

—DO IT NOW—

Pollock's Clipping Bureau
510 SYKES BLOCK, MINNEAPOLIS, MINN.
COMPETITION
$85.00 in Prizes
THE SEPTEMBER NUMBER
OF THE
WESTERN ARCHITECT

Will be a special number devoted to the illustration and description of the new
CAPITOL BUILDING OF MINNESOTA.
Cass Gilbert, Architect.

In order to obtain a special cover design of exceptional artistic merit

THE PUBLISHERS OF THE WESTERN ARCHITECT OFFER THE FOLLOWING
PRIZES TO THE DRAFTSMEN OF THE
U. S. AND CANADA.

For Accepted Design - - - - $40.00
For Second Place - - - - $25.00
For Third Place - - - - $20.00

The outside measurement of the cover page of the Western Architect is 9\frac{1}{2}x12\frac{1}{2} inches. Drawings may be one-third larger, but must be in this proportion.

The design should include the words: "THE WESTERN ARCHITECT", "MINNESOTA STATE CAPITOL NUMBER," "CHICAGO, MINNEAPOLIS, ST. PAUL AND NEW YORK."

The designs will be judged upon their artistic merits, their availability for the purpose intended, and their practical reproductive qualities. No restrictions in regard to medium is made, except that not more than three colors can be included in the production.

The three prize drawings will become the property of the Western Architect Co., who reserve the right to purchase any of the other submitted designs at the price of $25.00. Other drawings will be returned if the envelopes contain sufficient postage to cover cost of transportation.

Designs should be addressed to the WESTERN ARCHITECT PUBLISHING COMPANY, MINNEAPOLIS, MINN., and arrive not later than noon of September 1st.

Designs will be marked by a nom de plume only, and this together with the authors name and address in a sealed envelope must accompany the drawings. A competent jury of two architects and one illustrator will adjudicate the competition.

The cash awards will be paid upon the adjudication of the competition, but the right is reserved to reject any and all designs.

Architects will please remember advertisers in The Western Architect when writing their specifications.
In specifying Interior Telephones for Residences, Hotels, Hospitals and Office Buildings remember the Metaphone. It affords all the possibilities of the ordinary telephone for communication, and besides can be Attached Directly to Electric Bell Systems in the home or office without change of wires or batteries.

**CHEAPNESS** **DURABILITY** **EFFICIENCY** **ECONOMY**

Commend it to present users and prospective purchasers. Each instrument can be specially finished to match cabinet hardware and Every Instrument is Guaranteed Our office and business systems are unequalled. Send for descriptive catalogue.

AMERICAN METAPHONE CO.
Andrus Building, MINNEAPOLIS, MINN.

This Design of the JAPANESE SCHOOL illustrates the wide range and exquisite taste of Yale Hardware for those who admire beautiful bric-a-brac or furnish their homes with dainty hangings or fine furniture, Yale Hardware is the only hardware. But we have Yale designs at prices to fit every purse.

W.K. MORISON & CO.
MINNEAPOLIS, MINN.

In specifying radiation on heating plants, remember that the Triton Radiators are adaptable to all conditions, and all patterns are of the same design.

A POSTAL CARD WILL BRING A CATALOG TO YOUR OFFICE.

United States Radiator Company.
DUNKIRK, N. Y.

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

THE WESTERN ARCHITECT is published on the 15th of each month by THE WESTERN ARCHITECT PUBLISHING CO.

AMERICAN INSTITUTE OF ARCHITECTS

OFFICERS FOR 1905:

President: W. S. Paine, St. Louis, Mo.
First Vice-President: Alfred Stone, Providence, R. I.
Second Vice-President: Cass Gilbert, New York.
Secretary and Treasurer: George B. Post, New York.
Auditor for Two Years: Robert S. Peabody, Boston, Mass.
Auditor for One Year: James G. Hill, Washington, D. C.

BOARD OF DIRECTORS FOR 1905:

For Three Years—W. A. Boring, New York; J. M. Donaldson, Detroit; Frank Miles Day, Philadelphia.
For One Year—Robert S. Peabody, Boston, Mass.; W. B. Muddle, Chicago; Isaac E. Pitman, New York.

EXECUTIVE COMMITTEE:

President: Alfred Stone, Providence, R. I.; Robert Steed, Washington, D. C.; Robert M. Hamilton, Secretary.

THE ARCHITECTURAL LEAGUE OF AMERICA

(ORGANIZED 1890.)

The Architectural League of New York.
The T. Square Club, Philadelphia.
The Cleveland Architectural Club.
The Toronto Architectural Club.
The Pittsburgh Architectural Club.
The Cincinnati Chapter A. I. A.
The Milwaukee Architect's Club.
The Chicago Architectural Club.
The Twin City Architect's Club.
The Detroit Architectural Club.
The St. Louis Architectural Club.
The Washington Architectural Club.
The Architect's Club, U. of Ill.
The Toledo Architectural Club.
The National Society of Mural Painters.
The Milwaukee Architect's Club.
The American Institute of Architects.
The National Sculpture Society.
The Society of S. Artists.
The American Art Association.
The Architectural League of New York.
The St. Louis Architectural Club.
The Washington Architectural Club.
The Architect's Club, U. of Ill.
The Toledo Architectural Club.
The National Society of Mural Painters.
The Milwaukee Architect's Club.

EXECUTIVE COMMITTEE, S1 Adams St., Chicago.

N. Max Dunning, President.
Richard E. Schmidt, Vice-President.
Herman Von Holst, Treasurer.

THE ARCHITECTURAL LEAGUE OF AMERICA

Next Convention at New York, N. Y., 1906.

STANDING COMMITTEES.

Publicity and Pronouncements—Herbert C. Wise, Philadelphia, Pa., Chairman.
Current Club Work—Charles S. Schneider, Cleveland, O., Chairman.
Education—Newton A. Wells, Champaign, Ill., Chairman.
Cooperation With the A. I. A.—Ernest J. Russell, St. Louis, Mo., Chairman.
Municipal Improvements—Frederick S. Lamb, New York, Chairman.

The death of T. Henry Randall is announced from Annapolis, Md., where he was born July 15th, 1869, and where his death occurred on July 7th last. Many of the architects who were draftsmen in the office of H. H. Richardson in Boston in the early days will remember him. He was educated in St. Johns College, John Hopkins University, and at the Massachusetts Institute of Technology, and after a course at the Beaux Arts in Paris, he entered the offices of McKim, Mead & White, from which employment he entered practice in 1891. The death of a well known Detroit architect is also announced that of Samuel C. Falkenberg, which occurred in Ypsilanti, on July 3. Mr. Falkenberg was born at Yaric, N. Y., on January 9, 1849, and in 1872 removed to the state of Michigan, settled in Adrian, subsequently removing to Jackson and later to Ypsilanti with an office in Detroit, where in later years the firm was Falkenberg & Miller.

The members of the American Society of Landscape Architects held an important meeting at Boston on July 7, 8 and 10, one of the most interesting features of which was the inspection of a number of private grounds and public parks adjacent to the city. Boston has spent upwards of $18,000,000 on her public parks, and they are probably among the best arranged in the country. Most of them are on made ground, and literally carved out of swamp and hillside, with the ever-present problem of railway lines and turnpikes to combat in their design. Public spirit is there as elsewhere often a minus quantity, to an extent that not only has limited the endeavors of the landscape architect, but actually added to the cost of the improvement, without benefiting the private owner or the public. It is also found that the admittance of a golf course in one of her best parks has destroyed its rural and quiet aspect, as well as giving an artificial form to natural attractiveness. Now that the attention of private owners, as well as those who have city parks in charge, is becoming more engaged in providing natural surroundings to the houses and blocks of the city habitations, it is well to point out the defects that have crept into even so thoroughly guarded a system as that in vogue in Boston, so that each new move in the direction of beautifying our surroundings will be considered, and the air and sunshine, the grass, flowers and trees, landscape and waterscape, will each be conserved to their fullest in making for the future health and happiness of both the individual and the people that come after us. No house is so small but
that its surroundings may be given a natural beauty, and no city so barren in its setting that parks may not be evolved from the waste places, and these surround-
ings as much as the domestic hearth and the public school, are the hope of the moral and intellectual and physical growth of the people.

The ready-plan artist, who finds a lucrative business in furnishing designs to those who have the bargain hunters’ idea that something can be gotten for nothing, has evidently spread to the newspapers, one journal in Minneapolis giving a large amount of space each Saturday to freak cottages and plans. The almost uniform experience of those who take this fragment for the whole, is disappointment, and would work its own cure if it were not that most people build but once and the damage is done. There is one of another class that uses the ready-made plan and he is called the “jerry builder,” and he sells to the unsuspecting who do not look beyond the paint and frills until too late. With the best architect, aided by the most honest of contractors the modern residence is none too well planned or too stable in construction, but any architect, worth the name, will save his commission in the building, while the stability and comfort of the house in the years to come will more than compensate for the initial outlay. The public press is not in the reforming business very largely, but it might at least refrain from leading the unsuspecting public backward in the work of building attractive and comfortable homes.

Park board versus city control of streets, is becoming a much discussed question in Minneapolis, where the temptations to create boulevards around small lakes within the city limits, and drives through the adjacent streets, has been greater than in other less fortunate and picturesque places. This, at first, was welcomed by residents, as it gave a certain exclusiveness to a neighborhood, and barred the early milk and ice wagon, but as residences accumulated, and villages grew around centers, the funds of the park board grew inadequate to properly care for all its streets, particularly as many of these boulevards being main thoroughfares, the increased population demanded their use for commercial rather than pleasure purposes, and the truck and the farm wagon usurped the exclusive privileges of the “auto” and “bike.” While we wish for natural beauty and quiet surroundings, the city that, like Minneapolis, expects to become a great metropolis must yield to the encroachments of commerce, and expect to pay for its commercial greatness in a greater or lesser degree, by social discomforts and incongruous surroundings. This time has come in Minneapolis, and the streets that have hertofore been given to the control of the park boards, must now pass into the hands of the city, and the use of the people. Those who object to the paving block must move to the country beyond if they wish to retain a boulevard environment. It is senseless to attempt to stem this tide of advancement, though it may be wisely regulated in some degree. The Fifth Avenue residences of the “four hundred” in New York, have long been turned into furniture stores, or their sites occupied by office buildings, and their former occupants live above Central Park. The north side residences in Chicago are now used as boarding houses and surrounded by flats, and their owners live on the Lake Shore drive. The finest residence in that city thirty-five years ago has been a boarding house for years. This progressive change in our cities must be recognized, and in Minneapolis thoroughfares like Hennepin and Lyndale must first be in charge of the city, then paved, and finally, the flat and store, even the beer saloon, are among the “pro-

gressive” possibilities, and only those streets that are naturally beyond use commercially can be expected to retain their boulevard characteristics when the growth of the city demands their use.

It is not often that one can obtain a plain statement in regard to why modern school buildings are not fireproofed, but in calling for a competition for a $140,000 normal school building at Milwaukee the report says: “The building is not to be absolutely fireproof because the appropriation made by the legislature is not sufficient to provide the additional expense, and at the same time to provide all the other features which are made necessary. Therefore the slow-burning construction has been chosen.” The state of Wisconsin is one of the greatest in population and wealth in the west, and still it cannot afford to build an adequately safe structure, not only to preserve the lives of its students, but the many appliances and books that give facility to their education, which in case of fire, entails a direct pecuniary loss, far in excess of any extra cost that might be involved in steel and hollow tile construction. It is probable that this wasteful policy of building so expensive a structure of combustible materials did not originate with the legislature but with the regent in control of the competition, and if this is true, the people should see that one so careless of public moneys, and the safety of the normal students of the state be removed, and the work placed in the hands of an intelligent and truly economical board. The question of the advisability of fireproofing such buildings has long been settled among architects, and while men may continue to build combustible residences to house not only their families, but books and works of art that cannot be replaced, the state should be guided by public interest alone, and this certainly demands that every schoolhouse of any considerable size should be fireproofed.

Investigation of the recent railroad wreck, attended with a large loss of life, which occurred to a train seeking to establish an eighteen-hour schedule between Chicago and New York on the Lake Shore road, shows that it was probably not due to the excessive speed, but to the facing switch, an obsolete form which is still in use on that particular road, though abandoned by progressive railways such as the Pennsylvania, Grand Trunk, The Alton and all other western lines, for the past ten years. It is understood that now the facing switch will be taken out and replaced by that now generally used. But why did it need so terrible an accident to call the road’s attention to this defect? Certainly the loss of patronage which this road will sustain and which will go to those of known safety, would have more than compensated for the expense of correcting this constructive defect.
The book of Genesis opens with the creation of the world by Elohim-Alhein. In the sacred book of the Quiches, Aloni is the engenderer, he who gives being. In the Book of Revelations we read of him who is Alpha and Omega. These are coincidences of a sort which must not be neglected if any considerable portion of the history of the past is ever to be recovered. Coincidences of the same order as the long separated parts of a piece of mechanism, which, when firmly put together again, constitutes a compass to guide our footsteps aright through the bewildernent produced by seeing the Sun of Catholic Christianity turn back ten degrees, or thousands of years, upon the dial of history.

The land of Meru, the same as the Island of Mero (identified by Bryant with Atlantis) of the ancient Egyptians, from which Egypt was first colonized, the Meron of the Greeks, on which the Meropes, the first men, dwelt (Adam means red clay, as from the pipestone quarry), was the scene where was fought the great battle between the fiends of the air, the heavenly bodies, and the earth, which is the central event of Hindu (Indian) mythology. It has been pertinently suggested that the famed Meru of the Hindus, corresponding to the classic isles of the blest in the western hemisphere, may be derived from America.

"It has long been known that America was once inhabited by a mighty population who operated copper mines, were skilled engineers, and left evidence of their arts and their commercial and political greatness in various other parts of the globe. In making excavations on Long Island, coins have been found whose inscriptions are in characters unknown in history. What became of the great multitude of the ancient Americans? Did they slowly retire from the continent on account of severe climatic changes, or were they blotted out of existence by a colossal catastrophe? The answer of the drift-covered forests and the animal remains found buried beneath from fifty to one hundred feet of non-fossiliferous clay and gravel is unequivocal. They were basking in the sunshine and were at the height of political and military greatness, dreaded by all Europe and Africa; when, lo, in the evening, terror! and before morning they were not! "This," sang the people who dwelt under the sign of Aries, "is the portion of our spoilers. The spoilers of Aiel vanished like a dream!"

The investigations of Dayson, Geikie, Winchell, and others "place it beyond question that the drift came suddenly upon the world, slaughtering the animals, and smashing, pounding, and contorting the surface of the earth. The deposit of these continental masses of clay, sand and gravel was but one of the features of the appalling event. The Drift marks probably the most awful convulsion and catastrophe that has ever fallen upon our globe. It was sudden and overwhelming. It fell upon lands much like our own in geographical conformation; forests covered, inhabited; glorious lands, basking in perpetual summer, in the midst of a golden age."

This little side step into ancient speculative history will show us that besides the supposed positive statements of some historians, an open field remains for the imagination to trace the ancient origin of mankind, and therefore, their civilization before the great catastrophe—as mentioned in all the sacred books of all nations—to America. With this supposition, which will justify our faith in the future fate and growth of our nation, we will deal later. For the present it ought to suffice that no matter how far we go into archeological researches of the last centuries, we cannot find the original birthplace of mankind, but have to deal in the field of art history with only those fragmentary remains which present excavations gave us as types of ancient styles. These tribes who wandered from Asia to Europe all traveled with reminiscences of an earlier civilization. This remembrance shows itself as the least extinguished with those Indo-German tribes, which settled in southern Europe, Japygiers, Etruscs, and Greeco-Italians. In the north and west the Finns are on the boundary of history. The rich idiom of the Finns and the still existing remnants of a very perfect poetry give us proofs that their condition could have been mutilated, but by no means could it have been originally wild. The Celts came after them pressing themselves to the outside portions of Europe, where they degenerated from an agricultural life to that of fishing and hunting. They were, too, the peerless exiles of a social body. They were followed by the Germans who knew and used iron. These German hordes, too, without national connections, but with a mutual language connected with each other, were from society exiled homeless wanderers. Finns, Celts, Germans, Slavs, Scandinavians, they all have been brought with them to the west reminiscences, education and appropriate traditions of architecture, which mightily co-operated in the transformation of society after the fall of Rome, as active elements of the new social order and necessarily of the new born art.

The archeological excavations in Asia will bring us as the oldest civilization, that of the Hindus. They were followed by the Assyrians, and later on by the Egyptians, which Egyptian civilization, however, must have received an impulse from the west too. Very probably from those wanderers, who were frightened by the mighty catastrophe, which dissected America from Europe and caused the downfall and annihilation of the original civilization of Merod. It is only one step to deduct from the Egyptian and Assyrian style, that of the Greeks, which style, up to the present day, approached nearest to the aesthetically ideal. The remains of temples in Paesthum will show us the Greeco-Italian art from which the Romans derived their style. The difference between the two styles confronts us, that while the Greeks succeeded to clothe their constructive elements to such an extent that in the contemplation of their buildings, we are not disturbed with the knowledge of any construction at all, but construction and decorative elements work as a harmon-
ious unit, giving us a form which interprets the nation's impulse after the ideally perfect, from the other and in the Roman style the military empire creating impulse of the nation brings the constructive element to the surface and disturb the quiet joy of the spectator.

As an instance, I will only relate that the Greeks knew the construction and application of arches and walls and threw them away as a too much constructive element in their style, which consisted of horizontal lines, and the lack of the upright direction of an arch gives the appearance of monumentalism to all of their buildings. They were not working with such colossal dimensions as the Romans and, for their eyes, only the horizontal lines which were parallel with the ground surface were the most appropriate expressions of monumentality. How far advanced they were even above the later centuries is shown in the fact that even today their buildings will impress us as more monumental than the best and most completed creations of the Roman and Gothic styles.

While the seed of civilization was spreading from the east to the west—the decaying Roman empire, giving its mental treasure to the Franks, Spain and England—"from the north came the destruction." The wandering tribes who were hardened by the hardships of exile, destroyed with their hordes the over-civilized empire, but in exchange for the healthy and natural blood with which they inoculated the decaying civilization, they received some of the same higher ideals and took them back into their own country and from here we can date the Romanesque and Gothic styles. From the ruins of the Roman Empire after a stagnation which lasted for centuries, in the era where the Christian empire of the venerable Church of Rome became the mistress of all the civilized nations, we see bloom the rejuvenated antique arts of the cinquecentos. The German Renaissance, Holland Renaissance, English Renaissance, Polish, Austrian, Hungarian Renaissance, and all kinds of Renaissance. From the other hand there is the French, Italian, Spanish, English, Scandinavian and even Russian and Hungarian Gothic. What was the result of this so-called development? In 1870 we find a man, Gottfried Semper, whose genius recognizes the futility of copying, and he is the first who with prophetic foresight tells us that this chaos is the sign of decaying and confused circumstances and the necessarily healthier and more creative spirit must prevail in the formation of new styles. At that time the new Gothic direction which first was inspired by Goethe and the romantic poets tried to find footing. Its best examples are the two Gothic towers tendency, although not universally recognized must naturally have drifted from the national to the cosmopolitan. The best example for this is the question of wearing apparel.

Today all civilized nations will follow the same style in their clothing; essentially an Englishman will wear the same clothes as a Frenchman, German, or American, and the difference among them is not in the essence but only in the geographical conditions.

All Europe today, with the exception of the wise bag-bearers of a new era, among whom Otto Wagner, can be mentioned, tries to form a national style, not knowing that all their mental energy is only the foundation to the cosmopolitan style, in which style there will be only different directions with geographical characteristics. Van de Velde in Belgium, although supporting the Belgian arts in his works, is purely cosmopolitan. His works, however, will show a purely Belgian trait. His buildings are at home in Belgium and would be nowhere else. The Parisian Renaissance—because all France is united in Paris, and the French style is best characterized by the word "Parisiann"—reached its highest specimen in the Grand Opera and from there it became the example for many and many copies which all have a cosmopolitan trait. Those Parisian buildings, sorry to observe, find their copies in Holland, Scandinavia, Russia, Hungary, Switzerland, Italy, Spain, South America, and, walking along Fifth Avenue and the upper goth streets of New York, we will think ourselves in Paris if other, they say, insignificant, but nevertheless intensive and important American circumstances would not shock the thinking observer that we as a mighty nation shall sink to that step of deprivation where our artists cannot find an impulsive idea in our own land, but must copy the creations of strange nations.

(To be continued.)
THE LAIRD LIBRARY BUILDING, WINONA, MINN.
PLANS OF RESIDENCE OF E. W. DEMAREST, BAYONNE, NEW JERSEY

Arthur C. Longyear, Architect, New York

PLANS OF RESIDENCE OF E. H. HOLMAN, BAYONNE, NEW JERSEY

Arthur C. Longyear, Architect, New York

August, 1905
RESIDENCE OF J. E. H. HOLMAN, BAYONNE, NEW JERSEY
Arthur C. Longyear, Architect, New York

RESIDENCE OF E. W. DEMAREST, BAYONNE, NEW JERSEY
Arthur C. Longyear, Architect, New York
PHOTOGRAPHIC PICTURE MAKING.

Were it not for the photographic salons which are held each year in two or three of the larger cities the people in general would not realize the advance made in the use of photography as a medium for producing pictures, for when reproduced by mechanical process the medium is largely lost in the reproduction. Photography of course is but a medium, the last in the long list from the rock pictures of the Egyptians or those who lived centuries before, the bone carving of the cave dweller or other aboriginal, the carved block and the graved or etched metal, through the many forms of limning with color put on with brush or pencil. The object of each was the same, to express first a fact, and then, as the imagination grew, to idealize, to interpret, and record emotions.

It is not then strange, that those most successful in salons are those who have received an art education in the former mediums, and have turned to photography for pleasure rather than to acquire an alternative method of expression. But it is not these alone who have made, and are making—pictures. Many have risen high in the art who could not draw a line or figure correctly, but with the art instinct undeveloped, have found in the camera that which education had denied them, an outlet for their artistic imagination. Among architects especially has this art of photographic picture making become developed to a remarkable degree; some having attained a prominence in it that would be equal to that of their designs, were it not that the design is seen by the passerby, the photographic picture only by other like artists in an exhibition, or when shown to a sympathetic friend.

It is true that most of those who, for want of a better term, are styled “amateurs,” first acquired the mechanical and chemical knowledge requisite to make a photographic plate through no more laudable impulse than to preserve the impression of a baby’s smile or a family group, and most never get beyond this mechanical stage. But others have found that in them the feeling of proportion, color, sentiment, and the creative desire that impels all artists to produce art works, reaches out for expression, and the camera is used as the most accessible medium.

No art has suffered so much through the commercialism of the age as the photographic, for while in painting, the same form of brush and colors are used by the modern painter as those which placed on canvas the work of a Raphael or a Rubens, the complication of the photographic machine and the use of the lens has given to the makers of these mechanical adjuncts an opportunity for development and perfecting, which increased the mechanical intricacy of the camera. Without intent on their part, the costliness of the apparatus has at first impressed the user, and led him to depend on his medium rather than his own artistic sense, so that while none can have too good an outfit, the most simple of cameras will produce pictures, if the manipulation is in the hands of one who knows or rather feels.

The prints shown from the Chicago Salon of 1902 (one by a well known New York architect) represent in its perfection the artist’s conception of the sentiment he wished to record and the medium is entirely lost in the effect. As the painter destroys canvas after canvas, so these artists labored first to master the manipulation of the medium in its mechanical aspect, and in light, shade, tone, and form and then at last produced a picture which satisfied each artistic impulse.

The possibilities of the future are great if each camera artist will patiently strive to forget the paintings he has seen, so that he will not imitate and have enthusiasm enough to laugh at failures. When we think of the English photographic artists of fifty years ago spending months on one picture with the crude apparatus they then possessed, we can at least emulate their perseverance if we cannot equal their finished work.

“I like to read advertisements. They are in themselves literature, and I can guage the prosperity of the country by their very appearance.”—William E. Gladstone.
THE “SOO” CANAL SEMI-CENTENNIAL.

The half century that has passed since the opening of the canal at Sault Ste. Marie, which made possible through navigation between Lake Superior and the lower lakes, has just been celebrated by the state of Michigan, assisted by the war, treasury, and navy departments of the United States.

The construction of this canal was of immense importance, not only to the Lake Superior region, which had previously been little more than a wilderness, but to the whole country. The opening up of copper mines on the south shore of Lake Superior, upon and west of the Keweenaw peninsula and subsequently of iron mines in the Marquette district, drew attention to those districts and created a traffic, both passenger and freight, which must be carried on mainly by water. Steamboat lines were run to the Sault, where the rapids prevented further progress. First bateaux were hauled up the rapids by oxen, then a portage railroad across the neck of land to a point above the rapids was built and some small steamers, nearly worn out in the service on the lower lakes, were hauled across the portage and floated on Lake Superior, where they plied between the Sault and Marquette, the Keweenaw peninsula mining landing places and Ontonagon.

The necessity of better communication between the lower lake ports and the mining colonies on Lake Superior became so urgent that the state of Michigan decided on making a canal around the Sault. Congress aided the project by giving the state 750,000 acres of public lands in Michigan to be applied to the purpose. In turn the state offered the lands to the St. Mary’s Falls Ship Company, for the construction of the canal, provided the work should be completed in two years. It was a good bargain for the company, which received 30,000 acres in the Lake Superior iron region, 140,000 acres in the copper region and 564,000 acres in the lower peninsula, largely in the lumber region. Work on the canal was begun in the spring of 1853 and completed in 1855. Stone for the structure was cut in the quarries of Aberdeen, near Malden, in Canada, and at Marblehead, near Sandusky, and taken to the Sault in twenty-five sailing vessels. After the completion of the work and the opening of the canal to traffic a formal inspection was made by the Michigan state government, the work accepted and the canal-grant lands turned over to the contracting company.

The completed work was regarded as a triumph of engineering skill. The canal was a little over a mile in length, ten feet deep. There were two locks, each three hundred and fifty feet long and seventy feet wide, the upper lock with a lift of eight feet and the lower of ten feet.

The rapid development of the traffic and the increase in the size of the lake steamers made it evident that an enlargement of the locks was necessary. There was a general sentiment that the work should be undertaken by the general government and that the canal should be free of tolls. Michigan offered to turn over the canal and locks to the United States on these conditions and the offer was accepted. A new lock by the side of the old one was constructed and opened in 1884, the canal being lengthened, widened and deepened to a channel of sixteen feet. The lock was made five hundred and fifteen feet long and eighty feet wide, with a lift of eighteen feet. But a few years after its opening the enormous development of the iron ore traffic with a steadily increasing size of the ore and grain carriers called for additional facilities, and in 1896 another new lock was opened on the site of the two old locks of 1855, with a length of eight hundred feet, a width of one hundred feet and a depth of over forty three feet, and providing for the passage of vessels drawing twenty-one feet of water. These two great locks are supplemented by the canal opened a few years since on the Canadian side of the rapids, both canals being free to the use of vessels of either country.

Half a century has seen the development of the Sault canal traffic to proportions beyond the most extravagant dreams of the projectors of the work. Its annual tonnage is greater than that of any artificial waterway in the world. Its influence on the industrial activity and material prosperity of the United States has been beyond possible calculation. The enormous development of the iron and steel manufacture of this country was made possible by the opening and continual broadening and deepening of the “Soo” gateway between the Lake Superior ore beds of vast extent and richness and the furnaces and mills of the states on the lower lakes.

At present the only bridge between the northwest and the east on the great lakes is located at the “Soo” and is the junction point of the Minneapolis St. Paul and Sault Ste Marie Railway, commonly called the “Soo Line” which ramifies the states of Minnesota, the Dakotas and the Michigan peninsular.

The celebration which occurred August 3 could not have been the phenomenal success it was in the way of thousands of visitors, had it not been for the energy displayed by this line in collecting visitors from all parts of the country and by low rates inducing them to attend.

Another lock is about to be commenced that will eclipse those formerly built for it will be longer in every respect and cost approximately $10,000,000.

THE CHICAGO ARCHITECTURAL CLUB’S
FOURTH.

By Robert Clark McLean.

There was once a boy who sat under a bank by the lakeside and made mud balls and images from the outcropping clay. He also dreamed dreams of creations in his favorite material. He saw vases that evolved into forms conventionalized from the flag, the bullrush and
the water plants that grew in the mill pond. His imagination, fired by Arabian tales, saw the tall oil jars of the forty thieves grow from the plastic clay in his hands, and reaching out, his dream took in wonderful landscapes, rivers, and the sea all to be limned in the material that stratified the face of the cliff; and still broadening, his imagination saw the shapes of other peoples viewing these art treasures in Hesperidian gardens by golden rivers and mid umbrageous groves. One day he awoke and found that all his dream to its smallest detail had become true.

Such a boy might have been W. D. Gates, whose architectural terra-cotta works are known to architects everywhere, but whose name is as famed as Wedgewood's for his pottery known as "Tecco" ware. More than that it has, through its originality and fine artistic quality, become synominous with all that is artistic in pottery ware on two continents.

Many friends has this enthusiast in plastic art, but among the closest are the bright spirits that make up the membership of the Chicago Architectural Club, and it is his greatest pleasure to invite the club members and their wives, sisters and brothers to his magnificent place on the Fox River, about fifty miles from Chicago, for a day's outing. Such an invitation led recently to the reception by each club member of the following poster; printed in gorgeous colors on yellow paper, issued by the club entertainment committee:

---

**PROGRAM OF EVENTS**

**GRAND ATHLETIC TOURNAMENT**

At Terra Cotta, Illinois

**July 4th, 1905**

Honor, W. D. Gates, Mayor of Terra Cotta, Illinois, has extended an invitation to the members and ladies of the Chicago Architectural Club, to be his guests, July 4th, 1905.

July 4th is hereby declared a holiday and all members are enjoined from pushing graphite on that day. Anyone so attached to their plans can bring them along.

By order of the High Moguls, all you have to do is to be present at the C. & N.-W. Depot, Wells and Kinzie Streets, at 8:30 A.M., everything else being arranged for.

Train Leaves Chicago 8:15 A.M.
Train Leaves Terra Cotta 5:30 P.M.

---

Light and facetious as the poster read, it had a most substantial basis, for when the draughtsmen reached the depot (and counting wives, sisters and babies—the next generation of draftsmen in embryo), there was one hundred and fifty of him assembled on a special train enroute for the Fox River valley fifty miles away. Mr. and Mrs. Gates were there to welcome the visitors, a bunch of long stems was presented to the lady host and a bouquet of wild roses to the "Mayor," and the procession "up the track" began according to program. Grape trellises and gardens, a newsboy in terra cotta ("trying to sell Western Architects" Fritz Wagner said), half hid by the vines, was passed; when entering the grounds the heralded "orange grove" was reached. For here hanging from trees were the fruits of southern climes. Oranges, plums, lemons had been wired upon oak and hickories, a "nut tree" bore doughnuts in profusion, and a pineapple tree even was in evidence, while the tall jars, seemingly forty in number, in chaste "Tecco," suggested that it was in a beautiful grove that the forty thieves were hidden and trapped. A splendid dinner was provided under the trees, each plate decorated with a souvenir vase of exquisite design, the river and meadows stretching away towards distant hills, under a sky of alternate sunshine and shower. Thus commenced a most enjoyable day.

Afterwards, in a long meadow flanked by streams with willowed banks, lush grasses and the strong west wind carrying winged clouds through the sunshine overhead, all the athletics known to an inventive entertainment committee occupied the afternoon. There were many funny incidents: for did not the fat men and the fat ladies, the "old" men and the thin men race for prizes, did not the "single" and "double" baseball ninees contend and finish with an even score, and the hosts everywhere contributing to the general and individual enjoyment of the guests?

But when the train again was filled, the autographs of those who had attended, presented to the host by the members of the club, and the last "good-bye" sent from the car windows, all details were forgotten; but there remained a consciousness of a perfect day, a perfect entertainment, with hosts that have long been in the affections of the boys of the C. A. C.

One thing that will long remain in the minds of the more thoughtful will be the glimpse obtained of the great work which is being done by Mr. Gates in the development of American pottery. Skilled artists and chemists are continually working out the problems of form and material which will give new or restore old methods of coloring and burning, with a surprising absence of the marked commercialism that seems sometimes to pervade the best in art. Many of the designs worked out here have been drawn by members of the club, and it is found that these are among the most praised of all when exhibited. But whether successful or not in a commercial sense, the work that Mr. Gates has followed interestingly for years is distinct and in a sense unique in the art history of the United States. The benefit may not be experienced by him, but the impetus which his work has given to the pot-
tters' art will not fail with the generations. It is a lasting heritage to American art, and in no small degree contributes to the future art wealth of the nation.

Thoughts such as these did not trouble the forty odd pilgrims who supped at one long table at a restaurant on returning to town, and with hilarity ended a day which even to the most tired had been perfect. It is only to the host who again resumes his work, and perhaps to the scribe whose lot it is to put the universal thought on record, thus gladly paying for his pleasure, that the "day after", after so joyous an entertainment, brings any excess of labor.

ILLUSTRATIONS.

RESIDENCE
OF F. H. PALEN, KINGSTON, N. Y. ARTHUR C. LONGYEAR, ARCHITECT, NEW YORK.

RESIDENCE
OF E. H. BENNETT, BAYONNE, N. J. ARTHUR C. LONGYEAR, ARCHITECT, NEW YORK.

RESIDENCE
OF E. H. HOLMAN, BAYONNE, N. J. ARTHUR C. LONGYEAR, ARCHITECT, NEW YORK.

RESIDENCE
OF E. W. DEMEREST, BAYONNE, N. J. ARTHUR C. LONGYEAR, ARCHITECT, NEW YORK.

RESIDENCE
OF M. H. COOK, BAYONNE, NEW JERSEY. ARTHUR C. LONGYEAR, ARCHITECT, NEW YORK.

PLANS
OF RESIDENCE OF E. W. DEMEREST, E. H. HOLMAN, ARTHUR C. LONGYEAR, ARCHITECTS, NEW YORK.

HALL
IN RESIDENCE OF DR. A. H. LINNAWEAVER, FINDLAY, OHIO. HENRY PREIBISIUS, ARCHITECT, DR. A. H. LINNAWEAVER, DESIGNER.

RESIDENCE
OF WILLIAM WHYTE, ESQ., VICE-PRESIDENT OF THE CANADIAN PACIFIC RAILWAY, ON RIVER AVENUE, WINNIPEG. JOHN WOODMAN, ARCHITECT.

RESIDENCE
OF DR. A. H. LINNAWEAVER, FINDLAY, OHIO. HENRY PREIBISIUS, ARCHITECT, DR. A. H. LINNAWEAVER, DESIGNER. (TWO EXTERIOR AND ONE INTERIOR VIEW IS SHOWN.)

LAIRD LIBRARY BUILDING
AT WINONA, MINN. WARREN P. LAIRD AND EDGAR V. SEELER, ARCHITECTS, PHILADELPHIA, PA.

The Laird Library building was presented on January 21, 1899 to the Winona free public library by Mr. William Harris Laird, a resident of Winona since 1854. The architects were Warren Powers Laird, dean of the school of architecture of the University of Pennsylvania, and Edgar V. Seeler, an eminent architect of Pennsylvania. The arrangement of the building and the size and use of its various rooms are indicated on the floor plans; its outside dimensions are eighty-five feet front and sixty-four feet at the side, with thirty feet additional depth in the three story stack wing. The top of the outer dome is fifty-six feet above street grade, the ceiling of the principal rooms is fifteen feet six inches from the floor, and the basement ceiling eleven feet. The exchange room ceiling rises thirty feet into an inner dome, and is pierced by a large rose window of leaded glass, by Otto Heinigke. The construction of the building is fire-proof; the walls are of brick, faced with Bedford stone; the entrance steps, curbs and walks are of hard Winona limestone. The columns at the entrance are Georgia Creole marble. The cost of the building exclusive of the site was about fifty thousand dollars. This sum does not include the cost of furniture and fixtures, of the steel shelving or of the heating apparatus.

The illustrations of this building are given to show what an architecturally educated mind without architectural training will accomplish in applying classic forms to modern domestic uses. The designer makes the following explanation:

"The style of the house, the arrangement of the plan, and the application of the Roman orders and classic ornament, whatever credit there is, belongs to myself; the constructive details were ably looked after by a local architect, Mr. Henry Preibisius, who was also superintendent of the building.

It might be interesting to know the motive that influenced me to build such a home. Before becoming a physician I was a designer and illustrator; also painted occasionally in oil and water-color—the basis of my studies in these lines were the Greek and Roman orders and their ornamentation. A love of the classics and a veneration for the ancient masters led me to adopt their ideas. My aim was to preserve purity of design from the lowest portion of pedestal to the acrotia crowning, the pediment. I wanted a house that was "thoroughbred and had a pedigree." Plinth, base, shaft, capital, architrave, frieze and cornice must be true to the order and measured by the module; if there was to be any variation I would allow it to occur in the shaft or intercolumnation. Ten inches was the module and the house was governed by this measurement.

I accepted the five orders of Roman architecture—Corinthian for the larger portion of the building, composite for the kitchen and large side windows lighting diningroom and studio, doric for colonnade separating reception hall from reception room, Ionic mantel and Ionic pilasters for the window divisions and support, in the diningroom, Tuscan mantel and Tuscan pilasters for the window divisions and support in the studio, the only deviation noted is in the diningroom, using Erechtheum columns and capitals instead of Roman Ionic."
Bronze Doors of Northwestern National Bank, Minneapolis, Minn.

Flour City
Ornamental Iron Works

Fairbanks-Morse
Steam and Power Pumping Machinery
All sizes and styles for any duty.
SEND for CATALOG R446

Fairbanks-Morse DYNAMOS AND MOTORS
and Special Electrical Machinery
Fairbanks-Morse Direct Connected Engines and Dynamos.

Hour City
Ornamental Iron Works

Send for CATALOG 447

Fairbanks-Morse & Co.

“Standard”
Porcelain Enameled Ware

is supreme in
DESIGN, QUALITY AND DURABILITY

In recognition of its superiority the HONORABLE JURY OF AWARDS of the

Louisiana Purchase Exposition
ST. LOUIS, 1904

has conferred upon “Standard” Ware which was exhibited in competition with all other sanitary goods of domestic and foreign manufacture, the highest awards and honors, namely

THE GRAND PRIZE

Since 1893 “Standard” Ware has been honored with the highest awards at every exposition, nine in all. Of these awards, three have been obtained in foreign lands, and six in the United States. Each award constitutes the highest official honor of the period.

PITTSBURGH, U. S. A.

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

THE PITTSBURGH PLATE GLASS COMPANY

MANUFACTURERS AND JOBBERS OF

POLISHED PLATE GLASS, PLAIN AND BEVELED MIRRORS

Bent Plate Glass, Heavy Glass for Floors and Skylights, Art Glass.

CARRARA GLASS

a new product like perfect polished white marble; beautiful as a mirror and impervious to all stains. Used for Bath Rooms, Lavatories, Hospitals, Wainscoting and Walls.

LARGEST JOBBERS OF WINDOW GLASS IN THE WORLD

New York, Hudson and Vandam Sts.
Boston, 41-49 Sniffly St., 1-9 Bowker St.
Chicago, 442-452 Wabash Ave.
Cincinnati, Broadway and Court Sts.
St. Louis, 15th and St. Charles St.
Minneapolis, 560-560 S. Third St.
Detroit, 53-55 Larned St. E.
Pittsburgh, 101-103 Wood St.
Milwaukee, 463-464 Market St.
Kansas City, 4th and Wyandotte Sts.
Baltimore, 2122 W. Pratt St.
Buffalo, N. Y., 372-4-4-4 Pearl St.
Brooklyn, 625-605 Fulton St.
Davenport, 404-406 Scott St.

Our twenty warehouses where heaviestock in all these lines are kept are

New York, Hudson and Vandam Sts.
Boston, 41-49 Sniffly St., 1-9 Bowker St.
Chicago, 442-452 Wabash Ave.
Cincinnati, Broadway and Court Sts.
St. Louis, 15th and St. Charles St.
Minneapolis, 560-560 S. Third St.
Detroit, 53-55 Larned St. E.
Pittsburgh, 101-103 Wood St.
Milwaukee, 463-464 Market St.
Kansas City, 4th and Wyandotte Sts.
Baltimore, 2122 W. Pratt St.
Buffalo, N. Y., 372-4-4-4 Pearl St.
Brooklyn, 625-605 Fulton St.
Davenport, 404-406 Scott St.

CHAMBERLIN METAL WEATHER STRIP CO.
The only perfect WEATHER STRIP

Invisible Indestructable
No Rubber No Felt No Wood

D. H. ROBINSON, Agent
837 Guaranty Building, MINNEAPOLIS, MINN.

BUTCHER’S Boston Polish

Is the best finish made for FLOORS, INTERIOR WOODWORK and FURNITURE

Not brittle; will neither scratch nor deface, like shellac or varnish. Is not soft and sticky like Beeswax. Perfectly transparent, preserving the natural color and beauty of the wood. Without doubt the most economical and satisfactory Polish known for Hardwood Floors.

For Sale by Dealers in Paints, Hardware and House-Furnishings.

Send for our Free Booklet, telling of the many advantages of BUTCHER’S BOSTON POLISH.

THE BUTCHER POLISH CO.,
356 Atlantic Ave., BOSTON, MASS.
Our No. 3 Reviver is a superior finish for kitchen and piazza floors

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

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

### Stone Quarries

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. W. Babcock &amp; Co.</td>
<td>Minnesota</td>
</tr>
<tr>
<td>Kasota Stone Quarries</td>
<td>Lefebres, Deslauriers Roofing &amp; Cornice Co.</td>
</tr>
</tbody>
</table>

### Roofing and Sheet Metal Works

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. W. 278</td>
<td>T. C. 179</td>
</tr>
<tr>
<td>Minnesota Roofing and Cornice Works</td>
<td></td>
</tr>
<tr>
<td>Manufacturers of</td>
<td></td>
</tr>
<tr>
<td>Cornices in Copper and Galvanized Iron</td>
<td></td>
</tr>
<tr>
<td>Roofers in Pitch and Gravel, Iron, Tin, Slate and Tile</td>
<td></td>
</tr>
<tr>
<td>135-137 12th St.</td>
<td>ST. PAUL, MINN.</td>
</tr>
</tbody>
</table>

### Stone Contractors

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Griffin &amp; Boehme</td>
<td>Minneapolis</td>
</tr>
<tr>
<td>Roofers and Cornice Workers</td>
<td></td>
</tr>
<tr>
<td>Manufacturers of</td>
<td></td>
</tr>
<tr>
<td>Copper Galvanized Cornice, Skylights, Finsals, Tin, Slate, Pitch and Gravel Roofing</td>
<td></td>
</tr>
<tr>
<td>Steel Ceilings</td>
<td>ST. PAUL, MINN.</td>
</tr>
</tbody>
</table>

### Plumbing

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. H. Ulmer</td>
<td>ST. PAUL, MINN.</td>
</tr>
<tr>
<td>Contractor in Cut Stone and Mason Work</td>
<td></td>
</tr>
<tr>
<td>Mill and Works</td>
<td>Tel. Main 713</td>
</tr>
<tr>
<td>Foot of Chestnut St.</td>
<td>ST. PAUL, MINN.</td>
</tr>
<tr>
<td>Upper Levee</td>
<td></td>
</tr>
</tbody>
</table>

### Heating Concerns

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. W. Tel So. 135 J</td>
<td>T. C. Tel. 4071</td>
</tr>
<tr>
<td>T. A. Krenzke</td>
<td></td>
</tr>
<tr>
<td>Furnace, Steam, Hot Water</td>
<td></td>
</tr>
<tr>
<td>Heating and Ventilating</td>
<td></td>
</tr>
<tr>
<td>25 West Lake St.</td>
<td></td>
</tr>
</tbody>
</table>

### Blue Printing

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rogers &amp; Co.</td>
<td>Minneapolis</td>
</tr>
<tr>
<td>Blue Printing</td>
<td></td>
</tr>
<tr>
<td>Specifications and Tracing Work</td>
<td>1039-1040 Lumber Ex. - - Minneapolis</td>
</tr>
<tr>
<td>N. N. Phone, Main 220-J</td>
<td></td>
</tr>
</tbody>
</table>

---

Architects will please remember advertisers in The Western Architect when writing their specifications.
The Turner System of
CONCRETE
STEEL CONSTRUCTION
WAREHOUSES from 600 to 2000 lbs. capacity per foot of floor as cheap as wood.
Flats and Office Buildings fireproof at cost of tile construction with steel left out.

This is no Experiment. Address:
C. A. P. TURNER, M. Am. Soc. C. E.
816 Phoenix Bldg., MINNEAPOLIS, MINN.

IF EVERY ARCHITECT

Only knew the merits of Lith and Linofelt, and how at small cost, their client’s buildings could be made Heat, Cold and Sound Proof all in one, they wouldn’t hesitate a minute about specifying these materials in all their plans.

LITH AND LINOFELT

Are the greatest heat, cold and sound insulators known to science and 123% more efficient than all other materials of equal thickness. Write for samples and full particulars today and give your client’s the benefit.

UNION FIBRE CO., MAIN OFFICE AND FACTORY WINONA, MINN.


This is accomplished by the use of the

CHICAGO COMBINED DRYER AND LAUNDRY STOVE

One Fire Heats Water, Heats Flat Irons, Boils Clothes, and Dries the Clothes by what would ordinarily be waste heat.

Substantially constructed of metal throughout and absolutely fire-proof. Made in all sizes. No residence or other institution is complete without this apparatus.

SEND FOR CATALOG.

We also make Dryers heated by GAS, STEAM and HOT WATER, suitable for Residences, Flat Buildings and Public Institutions.

CHICAGO CLOTHES DRYER WORKS
350-352 Wabash Ave., CHICAGO
126-128 W. 24th St., NEW YORK CITY
C. Herbert Smith, Agt., Minneapolis
424 Hennepin Ave., MINNEAPOLIS

CABOT’S EEL-GRASS “QUILT”

Sound-proof, Heat-proof, Decay-proof and Uninflammable

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

SAMUEL CABOT
Patentee and Sole Manufacturer
BOSTON, MASS.

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

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

Architects will please remember advertisers in The Western Architect when writing their specifications.
JOHN. S. BRADSTREET & CO.,
Interior Fitments    Mural Decorations
Special Furniture, Draperies and
Decorations to order.
327 South Seventh Street,
MINNEAPOLIS.

Electric Lighting — Latest and most approved methods.
Special attention to wiring old residences or buildings, without
injury to walls or ceilings.

HARTIG & HELLIER
ELECTRIC CONTRACTORS
404 FIRST AVENUE SOUTH (Century Bldg. Basement)
Twin City 4439
Phones: N. W. (Main 3271) L-1

W. O. Hartig  L. A. Hellier

Perfect Workmanship in placing Speaking Tubes, Tele-
phones and Wires, and in Wiring for Private Tele-
phones.

A Sportsman's MULLINS “Get There” Steel Duck Boat
Boat

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

W. H. MULLINS
533 Depot Street
Salem, Ohio

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

Twin City Varnish Co’s
Varnishes and Floorette

BECAUSE
They are assured of a first-class finish whenever the goods
are used. Our Varnishes are all manufactured in St.
Paul, therefore they are best adapted to the climate condi-
tions 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 Company
St. Paul, Minn.

CONTINUOUS HOLLOW CONCRETE
WALLS
Monolithic Construction
Adapted to all classes of buildings, including
Dwellings, Factories, Power Plants, Round
Houses, Retaining Walls, Cemetery Vaults, Green
Houses, Wine Cellars, Barns, Ice Houses, Poul-
try Houses, Cold Storage Ware Houses, Silos,
Water Troughs, Creamery Cooling Vats and
Storage Tanks.

CONTRACTS FOR CONSTRUCTION
SOLICITED.

Wall Building Machines For Sale.

Concrete Hollow Wall Construction Co.
1520 Ashland Block
CHICAGO

Architects will please remember advertisers in The Western Architect when writing their specifications.
Don't plan your building without considering the effect of Cortright Shingles. General appearance, lasting satisfaction and economy demand it.

VARIETY MANUFACTURING CO.
77 West Lake Street, CHICAGO, ILL.

MANUFACTURERS OF
Cross Counterbalance Freight Elvator Doors
Iron Doors of every description
Machine Made Joist Hangers
Cross Horizontal Freight and Warehouse Doors
Tin Clad Firewall Doors
Rolling Steel Shutters

EVERY KIND OF IRON WORK FOR BUILDINGS
WRITE FOR CATALOG

WM. McGILLICUDDY, Representative

Architects will please remember advertisers in The Western Architect when writing their specifications.
1,500 Schools

Are now equipped with a system of automatic temperature regulation with the

Johnson System

These schools are located throughout the United States and the Boards of Education and teachers in charge of them would not be without the temperature regulation.

It protects the school treasury against excessive fuel consumption.

It promotes the comfort of pupils and teachers.

Temperature Regulation

has become a necessary equipment of a modern school or college building.

Architects should write for Estimates

JOHNSON SERVICE COMPANY

MILWAUKEE, WIS.

MANKATO CEMENT

USED IN PARTICULAR WORK FOR TWENTY YEARS

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

MANKATO CEMENT WORKS

MANKATO, MINN.

ST. JOHN & BARQUIST CO.

Architectural Sheet Metal Workers

All Kinds of Roofing and Steel Ceilings

Let us Estimate for You

418 West Eighth St.

DES MOINES, IA.

USE THE OLIVER TYPEWRITER

THIS TYPEWRITER SAVES IT OWN COST IN A YEAR

SAVING TIME IN YOUR OFFICE
SAVE MONEY IN YOUR TYPEWRITING DEPARTMENT.

Get More Work From Your Operators in Less Time and at Less Labor to Them.

Ask for Handsomely Illustrated Art Catalog, mailed free for the asking.

THE OLIVER TYPEWRITER CO.

330 Hennepin Ave. :: :: MINNEAPOLIS, MINN.

ST. JOHN & BARQUIST CO.

Architectural Sheet Metal Workers

All Kinds of Roofing and Steel Ceilings

Let us Estimate for You

418 West Eighth St.

DES MOINES, IA.

Architects will please remember advertisers in The Western Architect when writing their specifications.
Designers and Mfrs. of High Grade

Bank and Office

FIXTURES and FURNITURE

In Fine Cabinet Woods, Brass, Bronze, Iron and Marble. Designs and Estimates furnished on application.

Largest Variety of

Office Desks, Chairs, Tables

Steel Framed Typewriter Chairs a specialty

The A. H. Andrews Co.

174 and 176 Wabash Avenue, CHICAGO

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. S. E., MINNEAPOLIS, MINN.

LUXFER SIDEWALK LIGHTS

IN

Re-Inforced Concrete Setting

BEST FOR BASEMENT LIGHTING

“Luxfer Prism Tile”

No Iron Frames. No Rusting.

Great strength and durability.

“Luxfer Blank Tile”

All Steel embedded in Concrete.

Waterproof and free from condensation.

Note the twisted Tension Rods shown in illustration.

LUXFER PRISMS IN RE-INFORCED CONCRETE SETTING HAVE NO EQUAL

Architects and Engineers are agreed upon excellence of this work.

American Luxfer Prism Company

HOME OFFICE

160 Fifth Ave., NEW YORK

346 Wabash Ave., CHICAGO

627 Ryan Building, ST. PAUL

Architects will please remember advertisers in The Western Architect when writing their specifications.
Anchor Stone Laundry Trays

Are the most Perfect, Durable and Sanitary

LAUNDRY TRAY

on the market.

Manufactured by the

Anchor Stone Laundry Tray Company

507 Phoenix Bldg., MINNEAPOLIS, MINN.

Write for Prices.

THE SODERLUND TWIN FAUCET FIXTURES (Operated by One Handle)

For Lavatories, Bath Tubs and Shower Baths

Complete Catalog upon request

UNION BRASS WORKS COMPANY

9 Sherman St., Charlestown District

BOSTON, MASS.
Popular Lines of Travel

To Lewis and Clark Exposition
June 1st - Oct. 15th.

from St. Paul, Minneapolis and Duluth in connection with Yellowstone Park and Alaskan tours offers the greatest inducements for 1905 to tourists.

Send Six Cents for Wonderland 1905
Four Cents for Lewis and Clark booklet.
Thirty-five Cents for Panoramic Yellowstone Park Picture.

A. M. Cleland, Gen'l Pass'g Ag't, N.P.Ry., St. Paul, Minn.

Architects will please remember advertisers in The Western Architect when writing their specifications.
The Pioneer Limited

There is no train in service on any railway in the world that equals in equipment the Pioneer Limited train from St. Paul to Chicago via the Chicago, Milwaukee & St. Paul Railway.

The railway company owns and operates the sleeping and dining cars on its trains, and gives to its patrons an excellence of service not obtainable elsewhere. The buffet cars, compartment cars, standard sleeping cars and dining cars of the Pioneer are the handsomest ever built.

W. B. Dixon
Northwestern Passenger Agent
365 Robert St., St. Paul

And for rates and detailed information address as above or any representative of the Great Northern Railway.

Chicago, Milwaukee & St. Paul
Railway

The Western Architect

Architects will please remember advertisers in The Western Architect when writing their specifications.
A Land of Lakes and Rivers

A Peerless Region for the Tourist, Camper, Canoeist, Angler and Sportsman.

A new territory now accessible by rail and offering the best fishing and shooting in America. Scenery unexcelled, fish-fer unknown, magnificent canoe trips. Black bass, speckled trout, lake trout, walleyed pike in abundance. Moose, deer, bear, partridge and other game during hunting season.


The Chicago & Alton runs the largest passenger engines in the world. They keep the trains on time. GEO. J. CHARLTON, General Passenger Agent Chicago, Ill.

Samson Spot Cord is our Extra Quality Sash Cord. The colored spot is our trademark. Samson Cordage Works, Boston, Mass.


Architects will please remember advertisers in The Western Architect when writing their specifications.
Perfected Vault Lighting

TESTED POINTS OF SUPERIORITY

BAR=LOCK Galvanized Wrought Steel Construction and 3-POINT PRISMS

Indorsed Wherever Installed as the Most Satisfactory of all Overhead Systems of Illumination for Pavements, Floor or Skylights.

Contraction Gives 77 Per Cent. Glass Area, Refraction 100 Per Cent. Wrought Steel Insures Greatest Strength. Cement Reinforcement Makes Perfectly Watertight. No Rust.

Showing 'BAR-LOCK' galvanized wrought steel construction and '3 POINT' Prisms, over an area, partly cemented, and finishing flush with the pavement.

For Further Particulars or Name of Representative in Your Section, Address

American Bar=Lock Co.

OFFICES and WORKS:

26th Street and Pennsylvania Ave., PHILADELPHIA, PA.

CAUTION:—Any person using or selling any infringement of this Company's patents will be promptly prosecuted.

Architects will please remember advertisers in The Western Architect when writing their specifications.
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.
Fort Dodge, Iowa.

FURNITURE
IN
ODD DESIGNS
Our Specialty
CORRESPONDENCE SOLICITED
J. A. Clow & Co.
710 Nicollet Ave.
MINNEAPOLIS

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