

The AMERICAN ARCHITECT AND BUILDING NEWS

Regular Edition

Vol. XCII.

SEPTEMBER 7, 1907.

No. 1654.

EDITORIAL SUMMARY.

Pages 73-74

Collapse of the Unfinished Cantilever Railroad-bridge at Quebec—
L'Art Nouveau and Teutonic Influence in Architecture—The Last-
ing Influence of Successful Books—Progress on the Cathedral
of St. John the Divine—Alterations at St. Patrick's Cathedral, New
York—Death of Professor Hermann Ende, Architect—A Curious
Case under the Contract-Labor Law—Architecture, Doves and the
Divorce Courts.

ITALIAN TOMBS—I.....	75
HYDROGEN AND THE CORROSION OF IRON.....	76
FOUNDATIONS	77
PRESENT STATUS OF EXPLORATIONS IN GREECE.....	78
NOTES AND CLIPPINGS.....	80

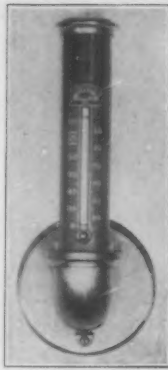
SOCIETIES, PERSONAL MENTION, BUILDING NEWS, ETC.

PLATES:

House of Mr. Frank E. Rutan, Architect, Sewickley, Pa.: Two
Plates—Italian Tombs: Three Plates—House of Mrs. Cotton,
Amory Street, Brookline, Mass.—The Grace Newberry Nurses'
Home, Detroit, Mich.—House of Mrs. Downer, Amory Street,
Brookline, Mass.—House of Mrs. Kassenburg, Brookline, Mass.—
House of G. A. Gray, Esq., Cincinnati, O.

FLATIRON BUILDING

NEW YORK



Simplicity Sensitiveness Efficiency

The Most Efficient

THERMOSTAT

for the automatic control of direct or indirect heat. Write for list of installations and new catalogue.

National Regulator Co.

334 Dearborn Street, CHICAGO, ILL.

Eastern Office:—National Regulator Co., 1135

Broadway, New York.

Pacific Coast:—Machinery & Electrical Co., Los

Angeles, California.

Established 1830

THE ROBERT C. FISHER COMPANY

Successors to FISHER & BIRD

MARBLE and GRANITE WORKS

139th-140th Sts.—Locust Ave. and East River, New York

ROMAN STONE

A manufactured but NOT an IMITATION STONE. Each stone being finished and tooled after casting gives the material the *exact* appearance of natural stone. See full page Ad. in this paper of July 20th.

THE STANDARD BUILDING CONSTRUCTION CO.,
828 Fulton Bldg., Pittsburgh, Pa.

The Fire Retarding "Star" Ventilator

THE Roof of this Ventilator is movable vertically, and is held in its highest open position by a lever movement, controlled by a fusible link. In case of a fire the Link parts and the top drops down by gravity, closing the opening. The top is also a Damper itself, as by regulating the chain length the opening is partially or wholly closable at any time, and still retaining its automatic closing feature in case of fire.

Therefore, we offer the

COMBINATION { 1st. The Automatic Fire Retarding "Star" Ventilator. { ALL IN
2nd. A Controllable Damper. { ONE

Hundreds of these Ventilators now in use. They are absolutely storm-proof, and our Ventilators have a proven speed of air exhaust in excess of any other made.

Can be supplied with Glass Top. Simpler and with fewest parts made. Also lightest in total weight, without sacrifice of proper gauge.

"Reg. in U. S.



Merchant & Evans Company

PHILADELPHIA

NEW YORK

BROOKLYN

Pat. Off. BALTIMORE

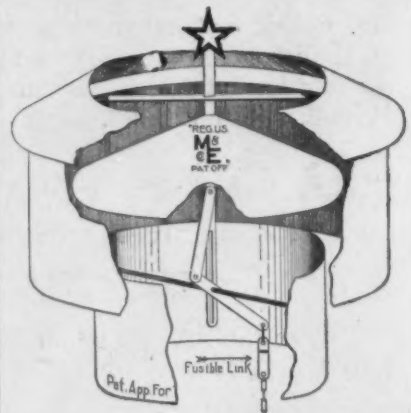
Successor to

Merchant & Co., Inc.

CHICAGO

KANSAS CITY

DENVER



OKONITE INSULATED Electric Light Wires

Are pronounced by leading Architects to be SAFE, DURABLE, and EASILY ADJUSTED for the inside wiring of PUBLIC and PRIVATE BUILDINGS.

Willard L. Candee, { Managers

H. Durant Cheever, }

Geo. T. Manson, Gen'l Supt. W. H. Hodgins, Sec'y

Sole Manufacturers

THE OKONITE CO., Ltd.

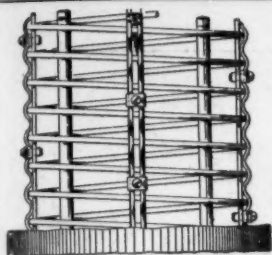
253 Broadway, New York



TRADE MARK
REG. U.S. PATENT OFFICE.

Alphabetical List of Advertisers

A Alsen Cement. xxiii American Concrete Steel Co. iii American School of Correspondence. xv and xix American Luxfer Prism Co. vi American Mason Safety Tread Co. xviii American Radiator Co. (e.o.w.) iii American Sheet & Tin Plate Co. (o.a.m.) xvii American System of Concrete Reinforcing. (e.o.w.) iii Art Metal Construction Co. ix Associated Expanded Metal Co. (o.a.m.) ix Atlas Engine Works. ii Atlas Portland Cement Co. xxiii B Barber Asphalt Paving Co. (e.o.w.) xvi Barney, John M. xviii Bedford Quarries Co. iv Berger Mfg. Co. xi Burt Mfg. Co. (e.o.w.) xxiii C Campbell, Walter M. xi Cardinal-Vincent Co. ix Chappell Furnace Co. (e.o.w.) vii Chicago Portland Cement Co. xxiv Clinton Wire Cloth Co. (o.a.m.) ix Corrugated Concrete Pipe Co. xviii Cutler Mfg. Co. xi D Deane, E. Elden. xi Detroit Show Case Co. xviii Dixon Crucible Co., Joe. xvi E Elevator Supply and Repair Co. xviii Emmel Charles (e.o.w.) xx Expanded Metal and Corrugated Bar Co. (e.o.w.) xii	F Fisher Co., Robert C. ii French & Co., Samuel H. xviii Frink, I. F. xviii G Genasco Roofing Co. (e.o.w.) xvi George Washington University xi Globe Ventilator Co. xxiii Gorham Co. (o.a.m.) xii Gurney Heater Mfg. Co. xxiv H Harvard University xi Hayes, Geo. xviii Higgins, Chas. M., & Co. (e.o.w.) ix I Information Bureau of Tile Industry. v J Jackson Co., Wm. H. xxiv Jenkins Bros. xviii Jones, T. W. (e.o.w.) xviii K Kellogg-Mackay-Cameron (e.o.w.) xvii Kewanee Water Supply Co. viii	L Lane, John. viii Lawrence Cement Co. xxiv Loomis-Manning Filter Co. xviii Lufkin Rule Co. ix M Merchant & Evans Co. ii Mittineague Paper Co. (e.o.w.) xv Mullins Co., The W. H. vii N National Fireproofing Co. (e.o.w.) viii National Lead Co. viii National Regulator Co. ii Neuchatel Asphalt Co. xvi New York Belting & Packing Co. (e.o.w.) xvii Northwestern Terra Cotta Co. (e.o.w.) xx Norwall Mfg. Co. (e.o.w.) xii O Okonite Co. (Ltd.) (e.o.w.) ii Otis Elevator Co. xx P Peerless Rubber Mfg. Co. (o.a.m.) xiii R Raymond Concrete Pipe Co. (e.o.w.) xi Rider Ericsson Engine Co. xxii S St. Louis Portland Cement Co. xxiv Samson Cordage Works (e.o.w.) xv Sandusky Portland Cement Co. v Smith Co., H. B. (e.o.w.) xxii	T Society of Beaux-Arts Architects. xi Standard Building Construction Co. ii Standard Plastic Relief Co. xxii Standard Sanitary Mfg. Co. xxii Stanley Works. xviii U Unit Concrete Steel Co. ix United States Graphite Co. (o.a.m.) ix U. S. Mail Chute Equipment Co. (e.o.w.) vii U. S. Mineral Wool Co. xviii Universal Portland Cement Co. xxiv University of Illinois. xi University of Michigan. xi University of Pennsylvania. xi V Vaile & Young. xxiv Voigtmann & Co. (o.a.m.) xx W Warren Brothers Company. xiv Washington University. xi Winslow Bros. Co., The. xxi Winslow Co., E. J. v Wirt, F. B. xi Wolff Mfg. Co. (o.a.m.) xi Y Yale & Towne Mfg. Co. xv
--	---	--	--



HIGHEST TENSILE VALUE AT LOWEST COST

American Concrete Reinforcing

MANUFACTURED BY CONCRETE ENGINEERS
FOR CONCRETE ENGINEERS

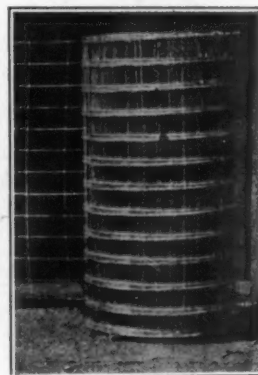
Column Spirals The most important reinforcing improvement made in the last twenty-five years. They obtain twice the amount of compressive strength from the concrete. Are shipped ready to go in the forms—and at low cost. We are the pioneer makers of these time and money savers.

Hard Drawn Woven Wire Fabric We make the only High Carbon Fabric on the market giving twice the amount of tensile strength; ideal distribution of the metal in the concrete, to fully counteract contraction stresses; absolute assurance of proper spacing; with Monolithic Bond at 20 per cent. less cost for installation.

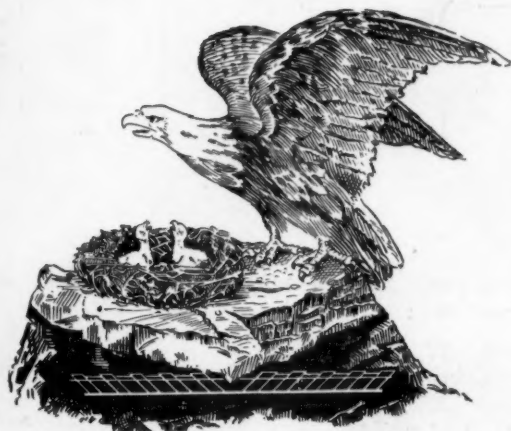
High Carbon Rods give twice the amount of tensile strength at same cost—saving dead load—consequently time and money. **Time Saving is our Specialty**

Our Engineering Department will co-operate with you on plans and send tables, samples and all Concrete data on request

AMERICAN SYSTEM OF CONCRETE REINFORCING
189 La Salle Street :: :: CHICAGO, ILL.



The Maxwell Trussed Bar



MAXWELL SYSTEM OF REINFORCEMENT

for reinforcing concrete structures is a FULLY TRUSSED BAR of any desired steel which can be applied to all kinds of Architectural or Engineering Concrete Construction without departing from the original design of the bar.

This is THE NEW BAR in the field of reinforcement which combines the two essential qualities,

Strength and Economy

For particulars address Dept. D

American Concrete Steel Company

Penobscot Building, Detroit, Mich.



OLD HOOSIER Stone is an Oolitic Limestone produced in Indiana and is especially adapted for building purposes for the following reasons:

First—It hardens with exposure and will stand any climate.

Second—It can be easily worked by machinery, bringing the cost down to a minimum, thereby enabling the Architect to produce results without exceeding his estimate.

Third—It can be secured in any quantity on short notice.

Fourth—The price is non-fluctuating and the architect can specify "OLD HOOSIER" without fear of being held up.

OLD HOOSIER Stone is produced only from the HOOSIER QUARRIES OF THE BEDFORD QUARRIES COMPANY, who respectfully solicit correspondence with architects.

**204 DEARBORN STREET
CHICAGO**

**1 MADISON AVENUE
NEW YORK**

**818 EUCLID AVENUE
CLEVELAND**

A Concrete Roof That Does Not Leak



Medusa Waterproof Compound

Makes all concrete impervious to water

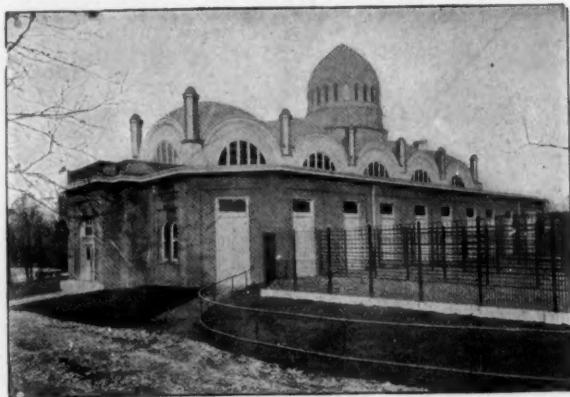
The concrete roof of the Herbivora Building, at the Cincinnati Zoo, shown in this illustration, was made absolutely dry by applying a cement mortar coat containing **Medusa Compound**.

It will not affect the color, strength or setting of cement.

Write for pamphlet containing tests and describing its use.

Sandusky Portland Cement Company
SANDUSKY, OHIO

Beware of imitations and adulterations that are sold for less than it costs us to manufacture **Medusa**



A RCHITECTS who are unfamiliar with the economical, durable, sanitary, artistic and fireproof qualities of Tiling as a covering for floors and walls in hospitals, railroad stations and all public buildings, and for the bath-rooms, kitchens, laundries, mantels, fireplaces, vestibules and porches of private residences, should write for

Tile in Economical Building

Durability of Tile

and other booklets, sent free to any architect by the

Information Bureau of Tile Industry

70 Corcoran Building
WASHINGTON, D. C.



The Great Variety of
Waterproofing
Problems
SOLVED by the

HYDROLITHIC SYSTEM

We have waterproofed many different types of buildings, our work having but one characteristic common to each job—that the waterproofing waterproofs.

The best evidence we have to offer as to our ability to waterproof any type of building is to point to the following list of a part of the work we have actually done, and add that in every instance our work has been eminently successful.

- BANKS—** First National Bank, Chicago, Ill.
Union National Bank, Pittsburg, Pa.
Chicago Safe Deposit Co., Chicago, Ill.
City Bank & Trust Co., Mobile, Ala.
Empire City Safe Deposit Co., New York.
First National Bank, St. Joseph, Mo.
Maryland Trust Co., Baltimore, Md.
Second National Bank, Wilkesbarre, Pa.
- RESIDENCES—** The Executive Mansion, Washington, D. C.
C. N. Bliss, New York.
Franklin Delano, Chicago, Ill.
A. P. Stokes, Callenders Pt., Conn.
A. C. Vanderbilt, Newport, R. I.
- HOTELS—** Gayoso Hotel, Memphis, Tenn.
Hotel Metropole, Chicago, Ill.
St. Charles Hotel, New Orleans, La.
Waldorf-Astoria, New York.
- FACTORIES—** Colgate & Co., Jersey City, N. J.
McClure Building, Long Island City, N. Y.
American Glue Co., Chicago, Ill.
Carnegie Steel Co., Waverly, N. J.
- OFFICE BUILDINGS—** Fort Dearborn Bldg., Chicago, Ill.
City Investing Co., New York.
Wells Fargo & Co., Portland, Oregon.
U. S. Express Bldg., New York.
Berkeley Galleries, Boston, Mass.
Calvert Building, Baltimore, Md.
- RAILWAY STATIONS—** Washington Terminal Station, Washington, D. C.
McAdoo Station, New York.
- STORES—** Marshall Field & Co., Chicago, Ill.
Mandel Bros., Chicago, Ill.
The Fair, Chicago, Ill.
Gimbel Bros., Milwaukee, Wis.
Montgomery Ward & Co., Chicago, Ill.
- HOSPITALS—** Passavant Hospital, Chicago, Ill.
St. Mary's Hospital, Chicago, Ill.
- GOVERNMENT WORK—** Dry Dock Navy Yard, Brooklyn, N. Y.
Dry Dock Navy Yard, Norfolk, Va.
- TUNNELS—** Joralemon St. Tunnel, Brooklyn, N. Y.
Sears, Roebuck & Co., Chicago, Ill.

E. J. Winslow Company

CONSULTING AND CONTRACTING
ENGINEERS FOR WATERPROOFING

138 Jackson Boulevard, Chicago

LICENSEES FOR THE EASTERN STATES:

The Waterproofing Company, Boston, New York, Pittsburg

DAYLIGHTING

Important to Architects

LUXFER Daylighting may be considered under three general heads:

1. Lighting from front or sides.
2. Lighting from the rear.
3. Basement lighting.

Then there is lighting (as one might say) from the top by means of LUXFER floor lights, which transmit light from roof skylights through one or more solid floors.

All These Are Described

in our special booklets and folders, with full records of results and instructions for specifying.

This literature should be on file in every architect's office.

In specifying LUXFER you make sure of results and guaranteed product and service.

All LUXFER Products are listed in Sweet's Index, pages 516-521 inclusive

We install our sidewalk at any point, or ship in ready-to-set slabs, as desired

AMERICAN LUXFER PRISM COMPANY
Heyworth Building, CHICAGO, ILL.

NEW YORK, 160 Fifth Avenue
BOSTON, 49 Federal Street
SAN FRANCISCO, 245 Oak Street
CLEVELAND, 1022 Garfield Building
BALTIMORE, 505 American Building

KANSAS CITY, 948 N.Y. Life Building
ST. PAUL, 435 Gilfillan Block
PHILADELPHIA, 608 Chestnut Street
PITTSBURG, 715 Fulton Building
CINCINNATI, 30-32 Thoms Building

NEW ORLEANS, 904 Hennen Building
MILWAUKEE, 1112 Herman Building
INDIANAPOLIS, 342 E. Washington St.
PORTLAND, Ore., 218 Front St.
SEATTLE, Wash., 313 Cordova Street



KEWANEE SYSTEM OF WATER SUPPLY

MR. ARCHITECT.

Dear Sir:-

You probably know more about architecture in a minute than we will ever know,- more about harmony, decoration and historical effects and such things.

But, we believe that we even up with you in this, that we know more about the technical and practical end of water supply.

In time, you could probably learn all that we know about it, but you would have to have all of our experience, before you would gain all of our knowledge.

We advise our customers to go to the architect when they want expert service in the designing of their buildings. For the same reason, we advise you to call on us, when you want expert service for the designing of a water supply system. Each of us is an expert in our line.

As we furnish the material and protect you and your client with our guarantee of satisfactory operation, our moral and business obligation makes it necessary for us to specify only such equipment as we know will be satisfactory.

Put that next water supply problem up to us and let us prove our title of "water supply experts".

Very truly yours,

KEWANEE WATER SUPPLY COMPANY.
KEWANEE, ILLINOIS.

32 Broadway, New York.
404 Equitable Building, Baltimore.
820 Marquette Building, Chicago.



SPECIAL TESTS AND EXPERIMENTS CONDUCTED FOR ARCHITECTS

When an architect meets with a puzzling problem he wants specific information, not a manufacturer's general claims of excellence for his product. The claims may all be true, but not always apropos.

If it is a problem connected with protective coatings for wood, metal, brick, concrete or other surfaces under abnormal or unusual conditions, we can help. We have a laboratory with competent paint chemists and practical painters who know how to attack knotty questions. They are there for that purpose.

These men are constantly working out problems for architects and engineers who have learned to make use of our facilities.

Consult us. We like technical queries in our line. If we do not know, we will do our best to find out.

Have you seen our suggestions for painting concrete? Free on request.



National Lead Company

MANUFACTURERS OF

WHITE LEAD, RED LEAD, Etc.

New York, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Philadelphia (John T. Lewis & Bros. Co.), Pittsburg (National Lead & Oil Co.)

PHOTOGRAPHY

We are prepared to execute high class photographic work at a moderate price.

- ☐ Outdoor and Indoor Views
- ☐ Copies of Drawings in line, Monochrome or Color
- ☐ Negatives up to 11x14 inches
- ☐ Prints of any kind

FOR PARTICULARS ADDRESS

THE AMERICAN ARCHITECT
Flatiron Building, New York

Special Extra Numbers to International Studio

Limited Editions

No Reprints

The publishers reserve the right to advance price after the date of publication

Paper Wrappers, \$2.50 net; Post, 25 cts. Cloth, \$3.00 net; post, 35 cts.

English Country Cottages 223 Illustrations 15 Color Plates

Studio Year Book of Decorative Art, 1907

A Guide to the Artistic Furnishing of the House.
Many Hundreds of Illustrations, including
Numerous Colored Plates

"Full of suggestions and admirable hints."—*The House Beautiful* on 1906 issue

The Art Revival in Austria

MODERN PAINTING ARCHITECTURAL REVIVAL
MODERN PLASTIC ART DECORATIVE ART
220 Illustrations, 18 Special Color and
Photogravure Plates

JOHN LANE COMPANY, NEW YORK

NEW ADDRESS:

110-114 WEST 32d STREET

The Backbone of Advanced Engineering

"Steelcrete" Expanded Metal exactly meets the prime requisites of the best engineering practice—speed of erection, reasonable cost, greatest strength and elasticity, and the rigidity to withstand vibration. It establishes a continuous bond of evenly divided resistance to stresses, the small unit mesh absolutely preventing weak spots. It gives maximum tensile strength with a minimum use of metal, economizing material and space, admitting of graceful lines instead of angles and cumbersome architecture.



EXPANDED METAL

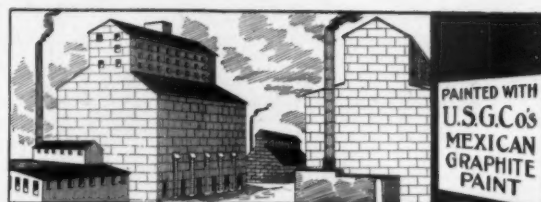
Competitors have copied "Steelcrete," openly "pirating" our patents, but have failed to obtain even a fair comparison of tensile strength and resistance for the same expenditure of metal.

Specify "Steelcrete." It is an established mark of superior engineering.

There's No "Just as Good as Steelcrete."

Send for free new catalogue containing valuable concrete construction data, engineering data and tables.

Associated Expanded Metal Companies
223 Fifth Ave., New York, N. Y.



Protected

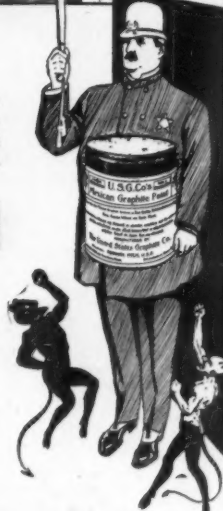
Steel and all metal surfaces remain unchanged for years under U. S. G. Co.'s Mexican Graphite Paint. Rust devils cannot pass or get through this unyielding

Graphite Guard

which is unaffected by smoke, steam, water, gas, acids, heat, cold, or any chemical or climatic conditions. For stacks, roofs, bridges, towers, tanks and all iron or steel construction specify and insist on having only

U. S. G. Co.'s Mexican Graphite Paint

Costs less, lasts longer, protects better than any other paint.



Ask for analysis and Booklet P 6.

THE UNITED STATES GRAPHITE CO.
SAGINAW, MICH., U. S. A.



See
"SWEET'S INDEX"
Pages 957-961

ART METAL CONSTRUCTION CO.

JAMESTOWN, N. Y.

Steel
Filing
Devices



Sanitary
Durable
Fireproofed

Our Specialty :
Steel Equipment of Public Buildings, Banks, Vaults, Commercial, and Professional Offices
Library Stacks and Furniture



HIGGINS'

DRAWING INKS
ETERNAL WRITING INK
ENGROSSING INK
TAURINE MUCILAGE
PHOTO-MOUNTER PASTE
DRAWING-BOARD PASTE
LIQUID PASTE
OFFICE PASTE
VEGETABLE GLUE, Etc.

ARE THE FINEST AND BEST GOODS OF THEIR KIND
Emancipate yourself from the use of corrosive and ill-smelling inks and adhesives and adopt the Higgins Inks and Adhesives. They will be a revelation to you, they are so sweet, clean and well put up, and withal so efficient. They are specially adapted for use in Architects' and Engineers' Offices, as well as for general home and office use.

AT DEALERS' GENERALLY
Chas. M. Higgins & Co., Manufacturers
Branches: Chicago, London 271 Ninth St., BROOKLYN, N. Y.



Vellum Tracing Paper

is Waterproof, Very Tough and Extremely Transparent, and is perfectly adapted on both sides to Ink, Pencil and Water Colors.

Guaranteed not to Deteriorate
Beware of Imitations (for several very good reasons). GENUINE VELLUM is encased in

Large Convenient Tubes
SOLD BY LEADING DEALERS EVERYWHERE
Favor, Ruhl & Co., New York and Chicago Distributors.
Eugene Dietzgen Co. Sterling Vellum is same product.

MADE BY
CARDINELL - VINCENT CO.,
OAKLAND, CAL.
SAMPLES CHEERFULLY SENT ON REQUEST

LUFKIN

Tapes and Rules

are indispensable for accurate work. Made in all styles and sizes, for all classes of work. Send for Catalog

THE LUFKIN RULE CO.

SAGINAW, MICHIGAN, U. S. A.

NEW YORK

LONDON, ENGLAND

WINDSOR, CANADA



Classified Illustrations

From Back Numbers of the American Architect

Can Now be Supplied. Those Available are Listed Below:

Classification	Number of Plates Available
City Houses - - - - -	135 to 150
Cottages - - - - -	100 " 150
Country Seats - - - - -	90 " 115
Suburban Houses - - - - -	40 " 80
English Country Houses - - - - -	50 " 130
English City Houses - - - - -	40 " 80
English Halls and Manor Houses - - - - -	50 " 100
Small Churches and Chapels - - - - -	30 " 100
Episcopal Churches - - - - -	40 " 130
Other Churches - - - - -	50 " 100
Hospitals, Asylums, Etc. - - - - -	50 " 120
Banks, Etc. - - - - -	50 " 140
French Buildings - - - - -	50 " 100
German Buildings - - - - -	30 " 100
Italian Buildings - - - - -	30 " 90
Stables - - - - -	30 " 80
Theatres, etc. - - - - -	40 " 130
City Hotels - - - - -	70 " 130
Libraries - - - - -	50 " 310
Work of McKim, Mead and White	30 " 140
Work of Cram, Goodhue and Ferguson	30 " 80

**The Price of these is 2 Cents a Page for
Zinc-etchings and Half-tones, and 5 Cents a Page
for Photogravure and Gelatine**

Sold Only in Sets

Address

THE AMERICAN ARCHITECT

THE CUTLER MAILING SYSTEM

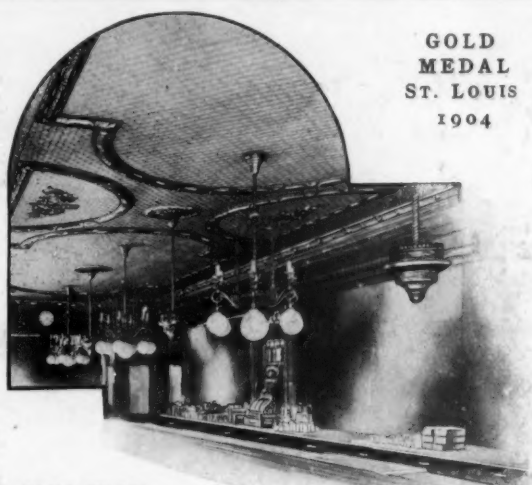


MODEL C, OPEN.

IS EXPLICITLY AUTHORIZED BY THE POST OFFICE DEPARTMENT UNDER PROVISION OF A SPECIAL ACT OF CONGRESS AND SHOULD BE SPECIFIED WHERE THE STANDARD AUTHORIZED MAIL CHUTE EQUIPMENT IS DESIRED.

DESIGNATE "MODEL C" IF THE VERY LATEST AND BEST FORM AS ILLUSTRATED HERewith IS REQUIRED. INTERIOR UNDER GOVERNMENT LOCK BUT INSTANTLY ACCESSIBLE TO AUTHORIZED PERSONS.

INSTALLED IN CONNECTION WITH THE U. S. FREE COLLECTION SERVICE UNDER THE CUTLER SERIES OF MAIL CHUTE PATENTS ONLY BY THE SOLE MAKERS,
THE CUTLER MANUFACTURING CO.
CUTLER BUILDINGS, ROCHESTER, NEW YORK.



GOLD
MEDAL
ST. LOUIS
1904

ACRES UPON
ACRES
OF

BERGER "CLASSIK"
STEEL CEILINGS are specified
by the leading architects

614 PATTERNS ELEVEN DISTINCT STYLES
SEND FOR CATALOGUE

THE BERGER MFG. CO.
CANTON, OHIO

New York Boston Philadelphia Chicago Minneapolis St. Louis
San Francisco

Vault Lights, Metal Window Frames, Steel Office Furniture

UNIVERSITY OF PENNSYLVANIA SCHOOL OF ARCHITECTURE

FOUR-YEAR COURSE. (*Degree B. S. in Arch.*) (Architectural engineering may be taken in lieu of advanced design, etc.)

GRADUATE YEAR. (*Degree M. S. in Arch.*) (Allowing specialization in design or in architectural engineering, etc.)

SPECIAL COURSE OF TWO YEARS. (*Certificate.*) (For qualified draughtsmen; affording option in architectural engineering.)

COMBINED COURSES IN ARTS AND ARCHITECTURE, by which A. B. and B. S. in Arch. may be taken in six years.

COLLEGE GRADUATES granted advanced standing.

SUMMER COURSES in elementary and general subjects through which advanced standing may be secured.

For full information address: DR. J. H. PENNIMAN, Dean, College Hall, University of Pennsylvania, Philadelphia, Pa.

HARVARD UNIVERSITY

The Graduate School of Applied Science and
The Lawrence Scientific School

offer graduate and undergraduate courses in Civil, Mechanical, Electrical, Mining and Metallurgical Engineering, Architecture, Landscape Architecture, Forestry, Physics, Chemistry, Biology, and Geology.

For further information, address W. C. SABINE,
15 University Hall, Cambridge, Mass.

THE SOCIETY OF BEAUX-ARTS ARCHITECTS

has established

A FREE COURSE OF STUDY

open to draughtsmen and students of any city, modeled on the general plan pursued at the Ecole des Beaux-Arts in Paris, and comprising frequent problems in Orders, Design, Archaeology, etc.

For information apply to the Secretary of the Committee on Education, 3 East 33d St., New York City.

UNIVERSITY OF MICHIGAN

ANN ARBOR, MICH.

DEPARTMENT OF ARCHITECTURE.

Four-year course in Architecture and in Architectural Engineering. Draftsmen and others adequately prepared are admitted as special students. For Bulletin describing work, address Dean of Department of Engineering.

THE GEORGE WASHINGTON UNIVERSITY Washington, D. C.

DIVISION OF ARCHITECTURE

offers a four-year technical course leading to the degree of Bachelor of Science in Architecture, and a three-year special course for architectural draughtsmen.

For catalogues, application blanks, and further information, address
THE REGISTRAR.

"Norman Monuments of Palermo"

BY ARNE DEHL.

Illustrated with 50 Plates, 13"x17".

Price, bound, \$10.00. Unbound, \$9.00.

The American Architect, Publishers.

UNIVERSITY OF ILLINOIS

Four-year professional courses in Architecture, in Architectural Engineering and in Architectural Decoration. Special courses for draughtsmen and constructors. Excellent library and equipment. University fees nominal.

Department of Architecture.

W. L. PILLSBURY, Registrar, URBAN, ILL.

WASHINGTON UNIVERSITY

St. Louis, Mo.

DEPARTMENT OF ARCHITECTURE

offers a professional four-year course in Architecture. Admission by examination or by certificate or diploma from other schools and colleges. Draughtsmen are admitted as special students.

E. ELDON DEANE

Architectural Colorist and Draughtsman

63 Seymour Building, Fifth Ave. Cor. 4th St.
NEW YORK CITY

FREDERICK B. WIRT PERSPECTIVES

84 Adams St., Care Chicago Arch'l Club, CHICAGO, ILL.

PERSPECTIVES RENDERED

In Pen-and-Ink and Water-Color

WALTER M. CAMPBELL,

8 Beacon Street, Boston, Mass.



AUGUST PATZIG, PHOTO.

Main Stair Railing, Residence of R. L. Beeckman, Esq., 854 Fifth Ave., New York. *Warren and Wetmore, Architects.*

MADE BY

THE GORHAM COMPANY

Architectural, Ornamental and Sculptural Bronze

PROVIDENCE

NEW YORK

PEERLESS RUBBER TILING

— CUSHION BACK —

The Most Durable and Economical
Floor Covering Made

BEAUTIFUL DESIGNS EFFECTIVE COLORINGS

Noiseless, Waterproof and Non-absorbent

¶ Peerless Rubber Tiling is made in large sheets, and consequently does not have innumerable crevices through which dirt and liquids can enter. It is therefore the only perfectly sanitary rubber floor covering on the market.

¶ Beware of hard, brick-like substances purporting to be rubber tiling.

¶ The Peerless Tiling is soft and elastic, and is made from pure rubber.

SEND FOR OUR CATALOGUE ILLUSTRATED IN COLORS.

PRICES ON APPLICATION.

MANUFACTURED EXCLUSIVELY BY

The Peerless Rubber Manufacturing Company

16 WARREN STREET, NEW YORK

Puritan Sanitary Flooring

An Absolutely Dependable Product.

THE Puritan Sanitary Flooring is a monolith, designed especially for hospitals, schools, lavatories, baths, kitchens, laundries, stair treads, corridors and, in fact, for any place in which a sanitary floor should be placed, as it contains all the essentials of the ideal.

See Sweet's Index, page 224, for more detailed description.

Our illustrated catalogue is yours for the asking. Write for it to-day and it will reach you by return mail.

WARREN BROTHERS COMPANY

93 Federal Street, BOSTON, MASS.



Ornamental Hardware is to a building what millinery is to a woman's costume

It is not enough that it be a thing of beauty in itself—it must also be in perfect harmony with its surroundings. There is no scheme of treatment or style of architecture beyond the scope of

**Yale & Towne
Ornamental Hardware**

The wide range of designs, the completeness of each set, the perfection of each piece and the variety of grades in which each school is offered, give the architect unusual freedom in his work.

A portfolio carrying twelve designs representing as many schools will be sent free to any architect or builder who will ask for it.

**The Yale & Towne
Mfg. Co**

General Offices, 9 Murray Street
Exhibit Rooms, 242 Fifth Avenue
New York

Material for Architects



If it be true, as some one—perhaps Solomon—has said, that a bad workman quarrels with his tools, it is also equally true that bad tools quarrel with their workman. Good draughtsmen should never be hampered with poor paper. If you will go into the draughting rooms of some of the most capable architects in America you will find that Strathmore Drawing Boards and especially Strathmore Detail Paper are as popular as they are plentiful. Why? Because they make good.

We will gladly send any architect sample sheets of any of our papers and boards, and a small sample book showing twenty-one different kinds. Your supply house carries them.

Mittineague Paper Company
Mittineague, Mass., U. S. A.

In Your Grasp



Lack of education is no longer an excuse for failure. You have the chance in your grasp to get a specialized training without losing time from your regular work. The study of drawing will fit you for a career in which the opportunities are unlimited.

CYCLOPEDIA OF DRAWING

Four massive volumes each nearly one foot high, handsomely bound in red morocco, 2,000 pages, marbled edges, and gold stamped.

Compiled from representative instruction papers of the American School of Correspondence. It is thoroughly practical for home study work—every chapter is complete in itself—every subject is thoroughly analyzed, dissected and discussed by well-known authorities. It is entirely free from purely technical descriptive matter so easily misunderstood by the layman. It is also a complete reference library for the Technical Man who wishes to use it for consulting purposes or to "brush up" on his weak points.

In order to advertise the superior methods of instruction of the American School of Correspondence, a limited number of sets will be sold at nearly one-third regular price. This is the first time the books have ever been sold at such a low price, and to take advantage of this bargain you must mention this advertisement when ordering.

A Reduction of \$14.²⁰

BARGAIN PRICE, \$9.⁰⁰ REGULAR PRICE, \$24

Sent express prepaid for one week's free examination. Send \$2.00 and \$2.00 a month thereafter until \$9.80 has been paid. If not adapted to your needs we will remove the books at our expense.

This is just the set of books for Architects, Draftsmen, Sheet Metal Workers, Designers and all other persons interested directly or indirectly in Architecture and Drawing.

A valuable and attractive addition to any library. Order at once before the price advances.

American School of Correspondence
CHICAGO, - - - ILLINOIS

COUPON

(Cut on dotted line)

Amer. Arch.
9-7-07

AMERICAN SCHOOL OF CORRESPONDENCE

Please send set Cyclopaedia of Drawing for week's free examination. I will send \$2 within a week and \$2 a month until \$9.80 is paid; otherwise I will notify you to send for the books.

Name.....

Address.....

JENKINS BROS. RADIATOR VALVES

are made from the same patterns as our regular steam Globe and Angle Valves, contain the same improvements, and are strong, heavy, and durable. Being made of a fine grade of new steam metal, the finished valves take a fine color when polished. Made in a variety of styles—with or without unions; with brass or wood wheels; with lock shields and keys; and either plain, polished, or nickel plated.

Write for a copy of our 1907 catalogue

JENKINS BROS.

New York Boston Philadelphia Chicago London

ASPHALT FLOORS, ROOFS, SIDEWALK and CARRIAGE WAYS

of Public Buildings, Hospitals, Warehouses, Stables, Cellars, etc., laid with

VAL de TRAVERS ROCK ASPHALT

Durable, Fireproof and Impervious. For estimates and list of works executed, apply to

The Neuchatel Asphalt Co., Limited, 265 Broadway, New York

Philosophy of Protective Paint

A practical treatise on the subject of protective paint by a practical paint man.

Write for free copy No. 14 B.

—Joseph Dixon Crucible Co., Jersey City, N. J.—

SOLID BRAIDED SASH CORD

COTTON, LINEN, HEMP, AND

**SAMSON SPOT CORD**

We make them all, and like to send samples

SAMSON CORDAGE WORKS, BOSTON, MASS.

The architect whose reputation hangs on his work, is bound to use Trinidad Lake Asphalt for roofs. It stands by him long after coal-tar has crumbled and gone to pieces.

And an asphalt roof costs little more than a coal-tar roof.

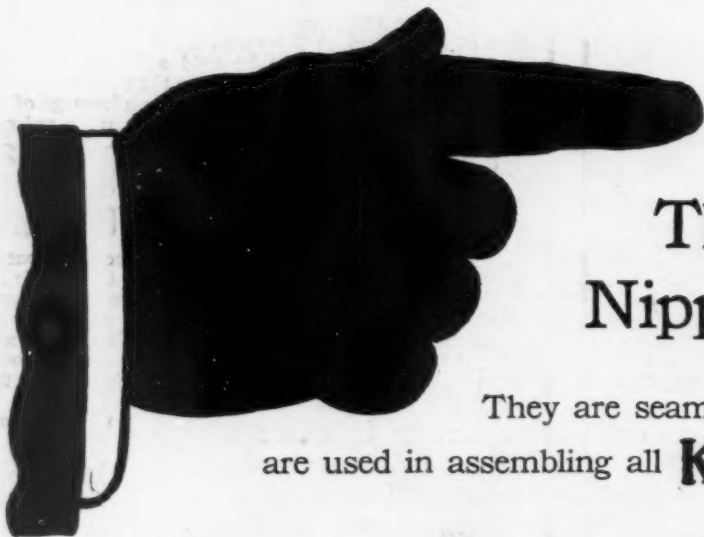
Write for information about the roofs we build

THE GENASCO ROOFING COMPANY

New York PHILADELPHIA Chicago

Branches in other large cities

For information about Genasco Ready Roofing and other Genasco Roofing Products write to the Barber Asphalt Paving Company, Philadelphia, New York, Chicago, or San Francisco



See
Those
Nipples?



They are seamless and
are used in assembling all **KEWANEE** Radiators

Kellogg-Mackay-Cameron Co.

K.-M.-C. Building, Twelfth Street and Michigan Boulevard
CHICAGO

MINNEAPOLIS
100-106 Second St. South

SEATTLE
639 New York Block

KANSAS CITY
N. W. Cor. 2nd and Main Sts.

The American Architect and Building News.

Vol. XCII.

SATURDAY, SEPTEMBER 7, 1907.

No. 1654.

A Journal of Constructive and Decorative Art

PUBLISHED EVERY SATURDAY BY THE

SWETLAND PUBLISHING COMPANY

Flatiron Building, New York

H. M. SWETLAND, *President.* F. P. BURT, *Secretary.* J. T. MORRIS, *Treasurer.*
G. E. SLY, *Advertising Manager.* M. C. ROBBINS, *Western Manager.*

SUBSCRIPTION RATES

Regular Edition, . . . \$ 6.00 a year; Single Copies 15c. to \$1.00
International Edition, \$16.00 a year; Single Copies 40c. to \$1.00
Foreign Postage, \$2.00 a year

Entered at the Post-office, New York, as Second-class Matter

CONTENTS

SUMMARY: 73-74

Collapse of the Unfinished Cantilever Bridge at Quebec.—L'Art Nouveau and Teutonic Influence in Architecture.—The Lasting Influence of Successful Books.—Progress on the Cathedral of St. John the Divine.—Alterations at St. Patrick's Cathedral, New York.—Death of Prof. Hermann Ende, Architect.—A Curious Case under the Contract-labor Law.—Architecture, Doves and the Divorce Courts.—Impending World's Fairs.

ITALIAN TOMBS.—I. 75

HYDROGEN AND THE CORROSION OF IRON. 76

FOUNDATIONS. 77

PRESENT STATUS OF EXPLORATIONS IN GREECE. 78

ILLUSTRATIONS: 80

House of Mr. Frank E. Rutan, Architect, Sewickley, Pa.: Two Plates.—Italian Tombs: Three Plates.—House of Mrs. Cotton, Amory Street, Brookline, Mass.—The Grace Newberry Nurses' Home, Detroit, Mich.—House of Mrs. Downer, Amory Street, Brookline, Mass.—House of Mrs. Kassenburg, Brookline, Mass.—House of G. A. Gray, Esq., Cincinnati, O.

NOTES AND CLIPPINGS. 80

IT seems to us that no untoward occurrence of late years has given so heavy a jolt to the science of engineering as the collapse last week of a portion of the great cantilever railroad bridge over the St. Lawrence, at Quebec. Doubtless, the patient and exhaustive examination of the ruins and inquiry into the observed phenomena that attended or preceded the collapse will result in arriving at a general agreement as to the probable cause or causes, but only a negative satisfaction can be derived from such a finding, as there must always remain a more or less well defined and active suspicion that, after all, the accident was really due to some other defect or error. If a similar accident had befallen the Firth of Forth Bridge, it might have been dismissed with an "I told you so, for no bridge-builder had a right to undertake so dubious an experiment." But with the success of the great Scottish bridge before the mind, even although the span of the Quebec bridge was to be somewhat greater, there will be a general disposition to demand that the designers and engineers of the latter structure shall clearly establish the adequacy of their design and the fullness and accuracy of their computations before it is decided that the blame must be placed, where probably it will finally rest, on the shoulders and consciences of the physical erectors of the structure.

IF there is anyone engaged just now in the search for "the American style of architecture," he must be conscious that there are in the field against its development two very active opponents. In the van, and so most

in evidence, will be noted the ever-increasing ranks of the adherents to and advocates of the tenets of the École des Beaux-Arts, but behind them, less observed, but possibly more potent because more pervasive, surges the inky output of the German publishers of architectural books and periodicals, who just now are devoting themselves with ardor to the exploitation of every and any manifestation of l'Art Nouveau, as conceived by the German mind, that their agents and photographers can bring within their reach. Now, when the German mind turns to toying with architectural forms, where grace of outline and balance of composition are important considerations, it is capable of producing results that shock the sensibilities because of that certain needless introduction of barbaric complication and bizarre eccentricity of line and form that it has manifested throughout the ages. Yet often, even generally, there is discernible a basic idea, of strength and masculinity, which deserves to have a better fate, which can be sorted out by a clear-viewed and sane designer, developed and brought to a real success, and it is only fair to acknowledge that in the matter of l'Art Nouveau some of the Teutonic experimenters are showing a greater aptitude for getting real architectural effects that will stand the test of time than those designers who are working along French or Belgian lines.

BUT it seems to us worth while to draw attention to the fact that the development of architectural design everywhere is exposed of late to a Teutonic influence that gains strength with each year, and this may be said without necessarily conveying the implication that we feel that such influence is unfortunate and undesirable. It proceeds very directly from, and is due to the fact that the output of architectural books and periodicals by German publishers is seemingly as great as, if not greater than the combined output of French and English publishers, and as the Germans, besides being, as it is quite proper the countrymen of Fust and Gutenberg should be, admirable printers, are also excellent salesmen, their wares are pushed with ardor; and as many of the most successful handlers of architectural publications in this country are Germans, it is not unfair to imagine that they have a greater sentimental if not commercial interest in selling books of German origin than those issued by the Paris or London press.

IF anyone should think this word of caution is quite unnecessary, we will ask him to take a stroll through the side streets of upper New York and Harlem, for there, if he knows the architectural books that in the last twenty years have been found "good sellers," he will find set before him in well-defined strata evidence of the vogue of Collings, of Liénard, of Revoil, of Viollet-le-Duc, and more besides. Particularly deplorable is it that the easily followed plates of the griffin-haunted Liénard ever reached this country, for, carved in all degrees of excellence and at all sorts of scales and sizes, on the sandstone fronts of Harlem houses there are enough griffins, dolphins, phoenixes, lions, bears, leopards, birds and squirrels, of impossible anatomical and zoological form and combined with all sorts of extraordinary scrollwork and

foliage, to furnish the good citizens of the neighborhood with perpetual nightmare and æsthetic indigestion. If, nowadays, the publications that are so actively exploiting the work of the German experimenters in l'Art Nouveau should have a similar vogue in this country, it is possible that the result might be equally to be deplored.

IT is agreeable to find it reported that Mr. J. P. Morgan and Mr. G. S. Bowdoin have contributed to the building-fund of the Cathedral of St. John the Divine nearly two hundred thousand dollars, in the expectation that the sum will be enough to build the other tower piers and complete the crossing within the next three years. As the work on the choir has made good progress this summer, those with strong imaginations can now begin to picture the effect of the building when seen near at hand from Morningside Avenue.

IT is agreeable, too, to learn that a good deal of work is being done within the walls of St. Patrick's Cathedral, New York, that will have the effect of bringing its rather barren interior into greater harmony and better keeping with the beautiful Lady Chapel now nearly finished, a step that will make unlikely the recalling hereafter of the old adage about new wine and old bottles. Among the important changes and additions are new seatings and pavement, a bronze choir screen and costly altars for the Chapels of St. Michael and St. Joseph, so that when, within a few months, the building is at length consecrated it will have a finish and completeness that befits the original design and the great congregation of a metropolitan city. It is a misfortune that a really fine interior must always be marred by the sham vaulting, but it can safely be predicted that before many years have passed the two shapeless clergy-houses that now spoil the east end of the building will be removed.

DURING the last month there died, in his seventyninth year, at Wannsee, Prussia, an architect of international reputation and of international execution as well, seeing that the work for which Professor Hermann Ende was best known, outside of Berlin, is the series of important buildings he designed and executed—in conjunction with his partner, Herr Boeckmann—for the Japanese Government; these consisted of the Imperial Palace, the Houses of Parliament and the Ministry of Justice, at Tokio. Besides carrying on a large and active private practice in Berlin for more than forty years, Herr Ende was also Professor of Architecture at the Berlin Technical High School, and had been President of the Royal Prussian Academy of Arts.

A VERY curious case was reported in the New York papers a short time ago which is worth while recording, although we do not know what the result is to be. Whether, or how, the provisions of the contract-labor law shall be enforced seems to be largely a matter of chance, or more probably of political favor. Architects know by this time that they should not give any definite pledge to any foreign artisan, possibly even any artist, assuring him employment at a price if he will agree to emigrate to this country. But we fancy that architects would feel that they may properly and safely publish in

the public press an announcement, addressed to the world at large, promising employment to any artisan unspecified by name who, possessing the desired training and skill, is willing to leave his foreign home and settle in this country. It appears, however, that this seemingly innocent and usual commercial procedure may be prohibited by the contract-labor law. Recently, the proprietors of a lace-making establishment at Newburgh, N. Y., found themselves in need of an expert weaver, and advertised their need in the proper English medium. Presently there tried to enter this country, via Ellis Island, the very man who was needed, attracted hither by the advertisement in question and seeing no reason why he should not confess to the immigration authorities how and why he came. Unfortunately, the Weavers' Union, possibly being a subscriber to the medium in question, had cognizance of the advertisement, and were on the watch for such fruit as it might bring forth, and, so, easily persuaded the authorities that the expert weaver must be kept out. The case was contested by his would-be employers, however, but we do not know how it has resulted.

IN these days when so much disputation is going on in this country over the habits and actions of beasts and birds, it might be well to overhaul the evidence and inquire whether, after all, the downfall of the Tower of St. Mark, at Venice, were not due to the pampered flocks of pigeons that frequent the Piazza di San Marco. We find a reason for the suggestion in the *New York Sun*, a newspaper that boasts of the accuracy of its statements, wherein we noted, the other day, a report from the town of Warsaw, Indiana, which declared that pigeons and sparrows had brought the Kosciusko County Court-house into parlous condition. It seems that these inconsiderate birds have been long in the habit of procuring the gravel they need in carrying on their digestive processes by picking geologic specimens of the right size from the limestone columns of the Court-house front, until now "many of the pillars on the second and third floors have been more than half eaten away"! Wood-wasps, squirrels and wood-peckers have long been known as foes of summer cottages, but on less impeccable authority than the *Sun* we could not have believed the gentle dove so destructive of masonry. Perhaps the explanation is that the court-house is wholly given over to divorce cases, and in such case the rage of Cythera's favorite steeds would be understandable.

THOSE who have an interest in expositions and like to arrange their outings and travels so as to enjoy as much of their assorted sights and charms as strength and time will allow, should keep in mind that the "Exposition de l'Entente Cordiale" is to be held in London in 1908, and that, though it is to be confined to French and English exhibits, it is to be the largest exhibition held in London since the great Exhibition of 1851. Besides this, Japan is holding a series of preliminary provincial expositions preparatory to opening a grand international affair in 1912. Between these two will occur, at Seattle, one of our own seemingly endless series of world's fairs. This one, the "Alaska-Yukon-Pacific Exhibition," whose special purpose is declared in its name, is to be held in June, 1909.

Italian Tombs—I

GOTHIC

FAR be it from me to attempt to place before the readers of *The American Architect* a study, however summary, of art as it is found expressed in Italian tombs. An entire issue—nay, much more than that—would have to be devoted to so long a task, for the funerary art of Italy is such that every epoch demands attention for the large number of its tombs of the highest artistic merit. If my intention were not altogether modest, I should have to begin with the Etruscan tombs, not to speak of those tombs of ancient Italy with their cone-shaped mounds to-day become almost formless and indiscernible.

In speaking of the Etruscan tombs—veritable houses of the dead—I should have to write of their decorative painting, that essential element of the funerary art of our people, so energetically developed before the all-powerful influence of Hellenism made itself felt. I should have to mention the tombs at Norchea, Vulci, Cervetri, Corneto, Veio, Chiusi, Orvieto and the mural frescos that decorate the tombs in these ancient cities, with their simplified drawing, the movement of the compositions and the life-like gestures of the figures. I must not attempt this evoking of a far-distant past, just as I also must renounce the idea of describing the monumental tombs of the Roman period, which followed chronologically the times of the Etruscans. Besides, the mausoleum of Cæcilia Metella on the Appian Way, and the sumptuous mausolea that Augustus and Hadrian caused to be erected for themselves and their families are very well known, and we can get along without telling twice-told tales. Perhaps it may be worth while to mention the pyramid of Caius Cestius, a tomb now unique in Rome, but which formerly had its fellows, the caprice of a rich man inspired by the monuments of Egypt, at that time a recently-conquered country; and amongst the sepulchral phantasies of Rome it may be well to recall the tomb of Eurysaces, near the Porta Maggiore. This is the tomb of a baker and his wife—a baker who had the contract for furnishing bread to the apparitors of the magistrates, and so became a person of consequence, and naturally wished to build a tomb worthy of himself and his fortune. The tomb was built and was ornamented with several baskets of bread and three rows of bas-reliefs that depicted the making and sale of bread.

Not to leave Roman art just yet, Pompeii, in its celebrated Street of Tombs, offers a complete collection of sepulchres of divers forms, chapels, altars, semi-circular stone seats, etc., to which modern art, embarrassed in its search for new sepulchral forms, has turned more than once. But if the principle of imitating past styles must be accepted and for awhile hold the upper hand—a principal which, as my friends very well know, I do not myself uphold—Italy has other sources of inspiration, richer and better, to which one can turn. I do not refer to the Paleo-Christian tombs, the subterranean cemeteries, the sarcophagi, where the arts of paganism still have play. I refer to epochs much less remote, which, after all is said, respond better to our æsthetic habits and our feelings. I mean the Middle Ages, the Renaissance and Modern Times, as far down as Canova. Here are to be found an undreamed of wealth, an undefinable variety of tombal forms, on which the taste of Italian artists, as they succeeded one another, has impressed an attractiveness, a grace, a *cachet*, that is altogether personal. All sorts of different materials have been used in this funerary art, from marble to stucco, from terra-cotta to stone, from mosaic to bronze. And, generally speaking, the art preferred has been architecture—a preference to-day reversed, when sculpture imposes its will on the "*ars regina*." That is to say, architecture almost always plays a preponderating part in Italian tombs, as compared with the carved work of the ornamentalist or the statuary. And yet the fusion of the work of the handlers of the compass and the chisel sometimes invites the cooperation of the brush, and, as I have said, the rôle in Italian funerary art played by painting is more remarkable than many people suspect. In two ways painters lent their aid—first, in the way of historical compositions, and, secondly, a more modest way, by coloring the materials of which the actual tombs are made, and from this coloration marble is not to be excluded, for during the Middle Ages and the Renais-

sance marble frequently was painted and gilded; and if this is true of marble it is still more true of terra-cotta, which was almost always painted. There are those, however, who disbelieve that color was used on the tombs, just as they are sure that polychromy was not practised in Greek architecture. The artificial coloring of marble, stone and terra-cotta had the result that, in a time not, alas, very far removed from the present, an attempt was made to remove the color from a famous Gothic altar-piece at Bologna, by the Venetian sculptor Delle Messegne, on the assumption that it was a superfetation of Baroco times. And yet the polychromatic sculpture of the Della Robbias owes its birth to the colored terra-cotta that was common before Luca made his experiments in clay enamels. The color laid on actually with the brush has little endurance, and so monumental decoration has benefited by the Robbias' discoveries. To the fact that paint is perishable is owing in a great degree the opposition of those who disbelieve in the practice of polychromatic decoration in Italian art, and it really is difficult now-a-days to discover a single monument that preserves its original coloring; all that we see to-day are a few traces of color here and there on the most protected portions of monuments that used to be resplendent with color. The effect was simple, but grand, for never did the architectural coloring of the tombs, altars, ciboria, etc., aim to fill the gaze with a tumult of color: in general, it was a matter of azure and gold; and, by the way, the church of the Eremitani, at Padua, contains tombs wherefrom the azure tint has not yet vanished under atmospheric action. And as for Venice! How many tombs are there there that do not preserve traces of their once beautiful polychromy? In a general way, one can feel assured that up to the time of Michael Angelo the brushes of Italian painters found work to do upon Italian tombs. After that the luxury and pomp of the seventeenth and eighteenth centuries replaced the modest efforts of the painters with the natural polychromy of colored marbles.

All this is said looking at the matter from the pictorial point of view, a point of view that is almost "*inédit*," for it is customary with us for writers to neglect the artificial coloring of our monuments, writers who, in general, merely repeat what some earlier writer has said, or, at best, consult the archives now and then, but rarely actually examine the painted or sculptured object itself.

The Gothic period was an age superb in artistic tombs, and Italy—although in the development of the style it cannot be compared with France—has some monuments of a perfect beauty.

You must go to Verona and to Venice, and you must descend the Peninsula from Bologna as far as Assisi and Naples, and as in the cities here named you will encounter such a collection of tombs as will fill you with surprise, I do not mention cities of secondary importance, such as Arezzo, neglecting even Milan, and such as Pistoja, where the Gothic masters left in the matter of tombs many that no one could dare to rank amongst the least deserving—the tomb of Cino Sinibuldi, in the Cathedral, for example.

But before entering on particulars, it is well to separate into two classes these artistic tombs, whether Gothic or Renaissance, the tabernacle tomb and the tombstone proper, the slab or ledger tomb, and to these can be added the simple mural tablet, more often used in Italy during the Renaissance and Baroco periods than during the Gothic period, as the most interesting tombstones have been conferred on us rather by the Renaissance and the Middle Ages than by more modern times.

Several Italian churches are decorated both with ledger and with tabernacle tombs (formerly intra-mural sepulture was allowed), and these tombstones are carved and incrustured, the full-length figure being shown on the bed of death in a relief that is ill fitted to its position in the pavement. Yet it must also be noted that these tombstones sometimes projected above the surface of the pavement, so that they might be protected from the wear and tear of the feet of the faithful as they irreverently tramped over them.

It was about 1566 that Pius V., turning his thought to this

arrangement, ordered that these tombstones should be moved so that they might be placed beyond the risk of further damage, and that circulation over the church floors might be freer. So some of these stones were lowered flush with the pavement, while others were placed vertically along the interior walls of the sacristies of churches and convents.

The sarcophagus is the fundamental concept of the tabernacle tomb, and the couchant figure is the direct consequence of the former general use of sarcophagi, and both during the Gothic period and during the Renaissance the sarcophagus is surmounted by a tabernacle or tent, the artist sometimes creating a composition that is borne upon consoles, as in the case of the tomb of Beato Pacifico Buon, in the Church of the Frari at Venice, a prodigiously sumptuous affair, or he arranges a design with a wealth of columns and pilasters, as in the case of the two most exquisite Gothic tombs in all Italy, namely, that of Can Signorio at Verona and that of Niccolò Specchi at Assisi.

The tomb of Beato Pacifico Buon (1437) recalls the ornamental treatment of the Porta della Carta¹—the noble exuberance of sculpture, the little angel-musicians which follow the



TOMB OF PAOLO SAVELLI, STA. MARIA DEI FRARI, VENICE.

lines of the pointed arch are superb in their execution, and the man who carved them is the same Bartolomeo Buon who endowed with beauty the magnificent entrance to the Ducal Palace at Venice.

More highly wrought, more complex and far otherwise celebrated, the tomb of Can Signorio is the most admired of the funeral monuments of Gothic Italy. It, though not the oldest, dating only from 1375, towers above the other tombs of the Scaligers in the little enclosure near Sta. Maria Antica. The chef d'œuvre of Bonino da Campione, it has a value as composition and as execution that cannot escape the reader. The horse that crowns it seems to prepare the way for those other tombs where the equestrian figure plays its part, being in fact far more in evidence than this figure of Can Signorio. Such a motif is rather indicated for the tombs built by the State in honor of its generals, and so Venice adopted the equestrian figure for the semi-Gothic tomb of General Paolo Savelli in the Church of the Frari, a name which, when it is a question of

funerary art, must always be associated with that of SS. Giovanni e Paolo, for these two Venetian churches contain the most imposing tombs in Venice, a city so rich in monuments of this class. In the Savelli tomb, to the grandeur of the equestrian figure is added the energetic liveliness of the smaller figures about the base of the statue which the Pisan statuary evoked in all their beauty. The Virgin and Child in the middle will at once call to mind the characteristic group in the Cathedral at Prato, so well known to amateurs of the Italian Trecento.

I must not leave northern Italy without remarking on the gilding that used to embellish the tombs of the Scaligers, including that of Can Signorio and the other tombs mentioned, including also a succession of Gothic tombs in various parts of Venetia which I have not named, such as that of Duccio degli Alberti (1336) in the Frari; that of Arnolfo Teutonico, a general whose armor is in blue and gold with azure enhancing the architecture; the tombs of Francesco Dandolo, of Jacopo Cavelli, of Tommaso Mocenigo, all ornaments of the above-mentioned churches wherein color played a magnificent rôle.

For the sake of brevity, I forebear to mention Verona and Padua, where in the Church of the Santo are two notable polychromatic sarcophagi in the Chapel of S. Felice, and in the Eremitani the tomb of Ubertino da Carrara is also largely gilded, recalling the school of Delle Messegne, the authors of the altar to S. Francesco de Bologna, which my readers know.

Now let us turn to Arezzo, and the terra-cotta tomb of Roiselli, in the Church of S. Francesco, the remarkable work of a votary of the Aretine Niccolò de' Lamberti's (middle of the sixteenth century). The prone figure of Roiselli ranks full high in the firmament of beauty, and this Niccolò, a little-known artist, is one of the earliest sculptors of the Quattrocento whose authority had influence with his successors. Here are to be noted certain Baroco tendencies in the *quattrocentesco* ornamentation, typical none the less of a transition to which Italy, and Venice in particular, owes superb examples.

Naples, which like Rome is not a Gothic city, must here have our attention because of a series of majestic tombs in the Gothic style. In the splendid atrium of the Church of Sta. Chiara there are the tombs of the Angerin kings, marble monuments with sculptured sarcophagi, and in the Church of S. Giovanni à Carbonara the tomb of King Ladislaus is of extraordinary architectural richness. The tabernacle motive is adopted both in Sta. Chiara and in S. Giovanni, but the monumentality of the tomb of King Ladislaus is quite exceptional. It cannot quite be said that the purest of taste is displayed in it, but it is at least a work that cannot be overlooked in such a study as this.

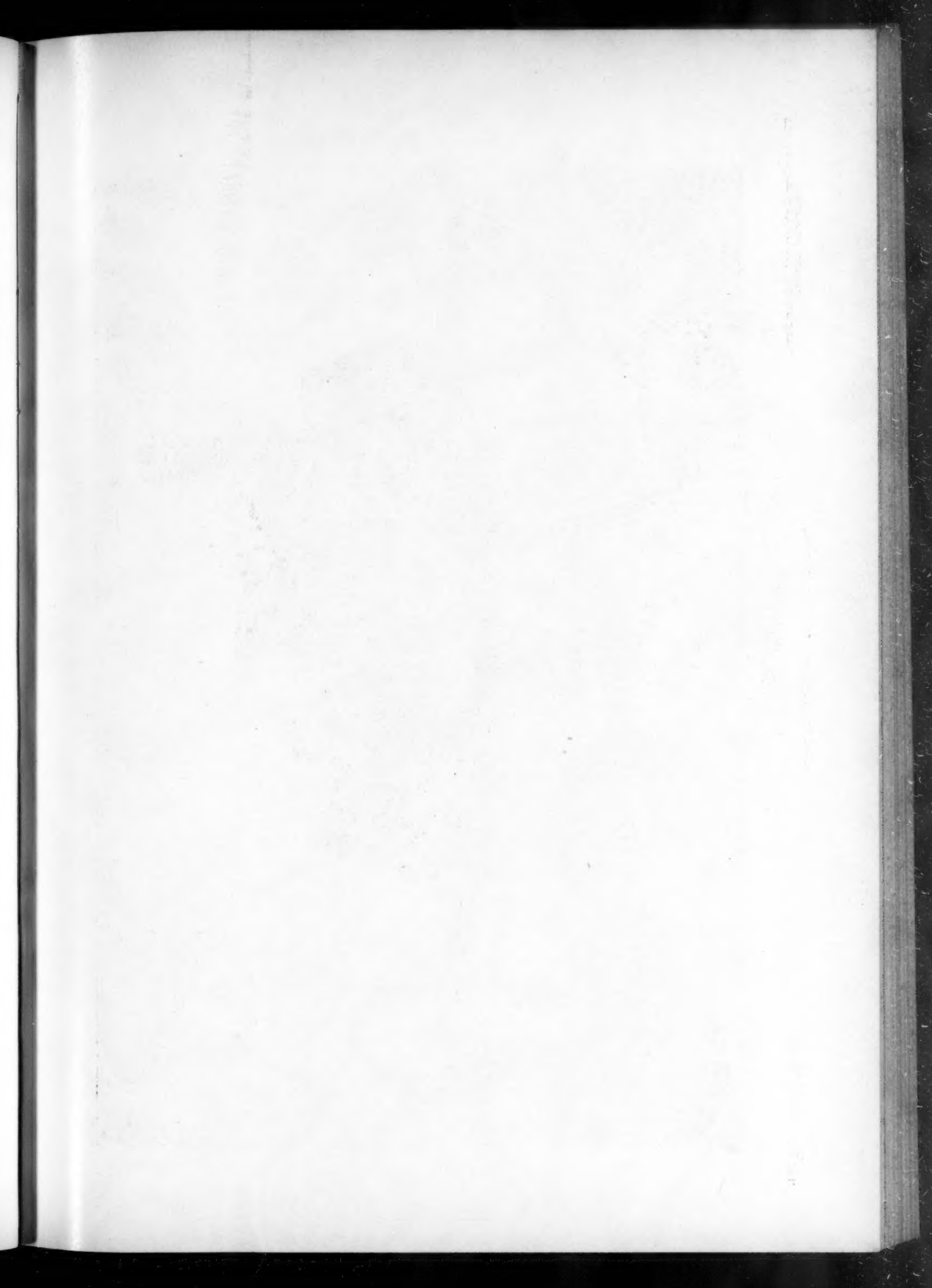
The study of these tombs serves to throw light on the art history of Naples, the accepted historian in this line being, down to our own time, a certain De Domenici, a guide than whom none could be worse. He has invented artists of whom documents and inscriptions make no mention, and among them a certain Masuccio II, or junior, to whom he ascribes the tomb of the Duke of Calabria, Carlo the Illustrious, a tomb that is really the work of the Sienese artist Tino di Camaino. To this same fantastic Masuccio is ascribed the tomb of Marie de Valois, Carlo's wife, a tomb of which the feeling is not far behind the earlier tomb executed between 1332 and 1333; there is the same Gothic tabernacle, the same sarcophagus with angels drawing back the curtains that we find in Carlo's tomb, a motive that, curiously enough, we shall find repeated in Renaissance tombs. I am sorry I cannot spend as much time as I would like amongst the tombs in Sta. Chiara. I must be satisfied to direct attention to the church, for we have here a veritable museum of fourteenth century art. Side by side with artists such as Tino di Camaino are found masters practically unknown, a certain Pacio and a Florentine, Giovanni; also Antonio Baboccio de' Piperno (1357-1435), a sufficiently prolific worker whose preferences do not materially diminish the Tuscan feeling that rules in these tombs in Sta. Chiara.

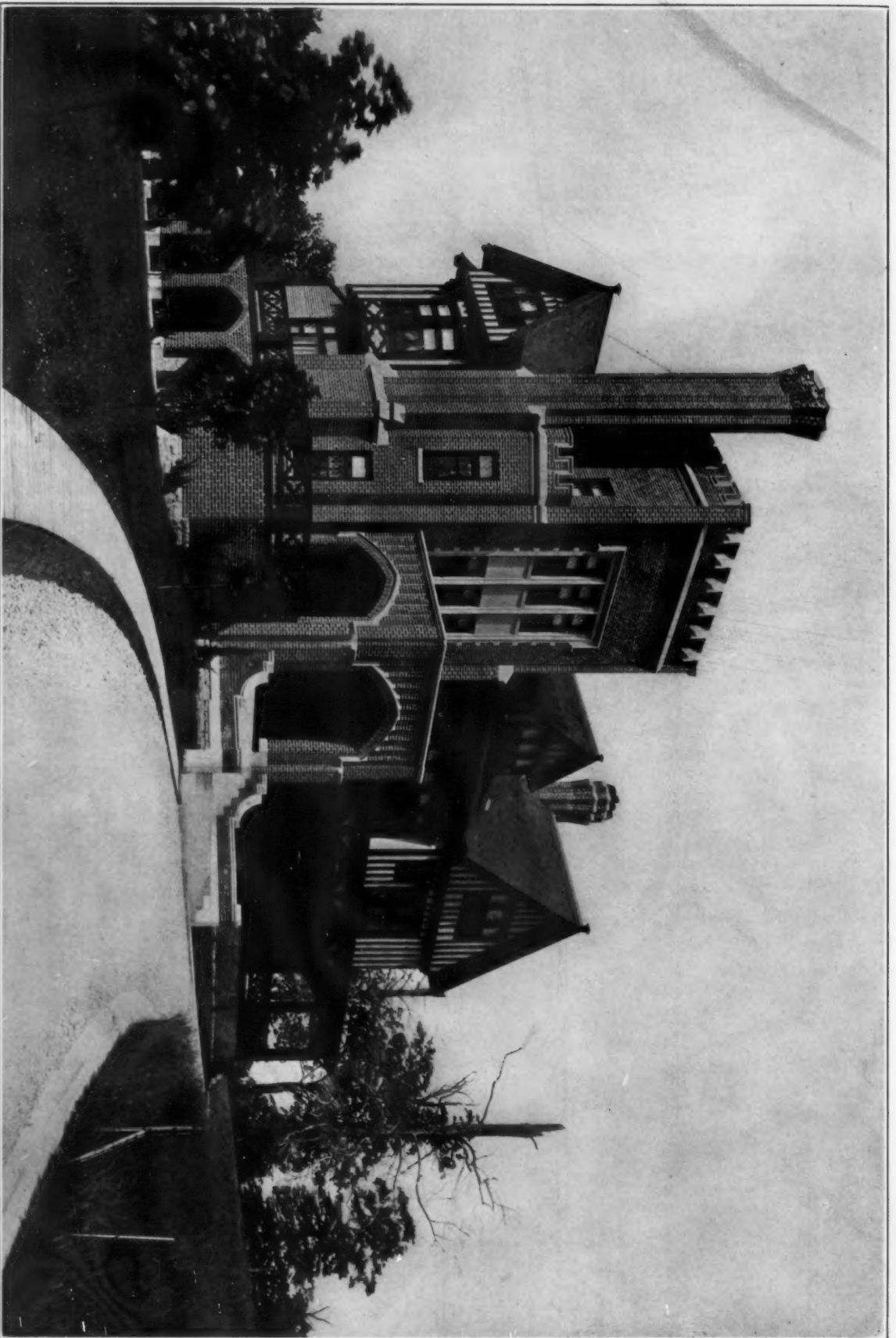
As to the tomb of King Ladislaus in S. Giovanni, it is attributed to Andrea Ciccione, another enigmatic personage, who had nothing at all to do with this monumental tomb, for it is really the work of a Florentine sculptor, Andrea di Nofri di Romolo (1388-1459). The transitional tendency is to be noted here in the combination of the Classic entablature with Gothic details, and yet the work is vital although somewhat surcharged with figures and other details which give it a feverish vivaciousness.

(To be continued.)

ALFREDO MELANI.

¹See "American Architect" for March 16, 1907.





The American Architect and Building News.
International Edition.

HOUSE OF G. A. GRAY, ESQ., MITCHELL AVENUE, CINCINNATI, O.
Elzner & Anderson, Architects.
Copyright, 1907, by the Swetland Publishing Co.

Volume XCII, Number 1651.
September 7, 1907.



TOMB OF BEATO PACIFICO BUON. STA. MARIA DE' FRARI, VENICE.

The American Architect and Building News.
Regular Edition.

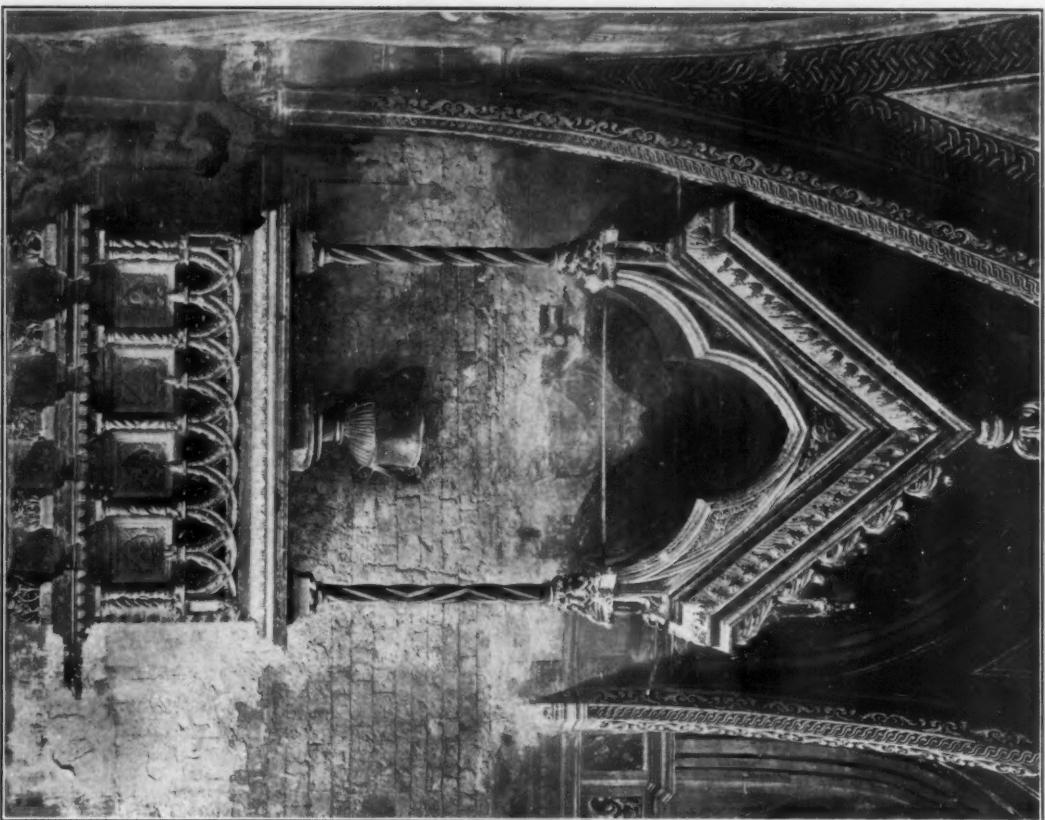


TOMB OF ANTONIO ROSELLI, S. FRANCESCO, AREZZO.

ITALIAN TOMES.

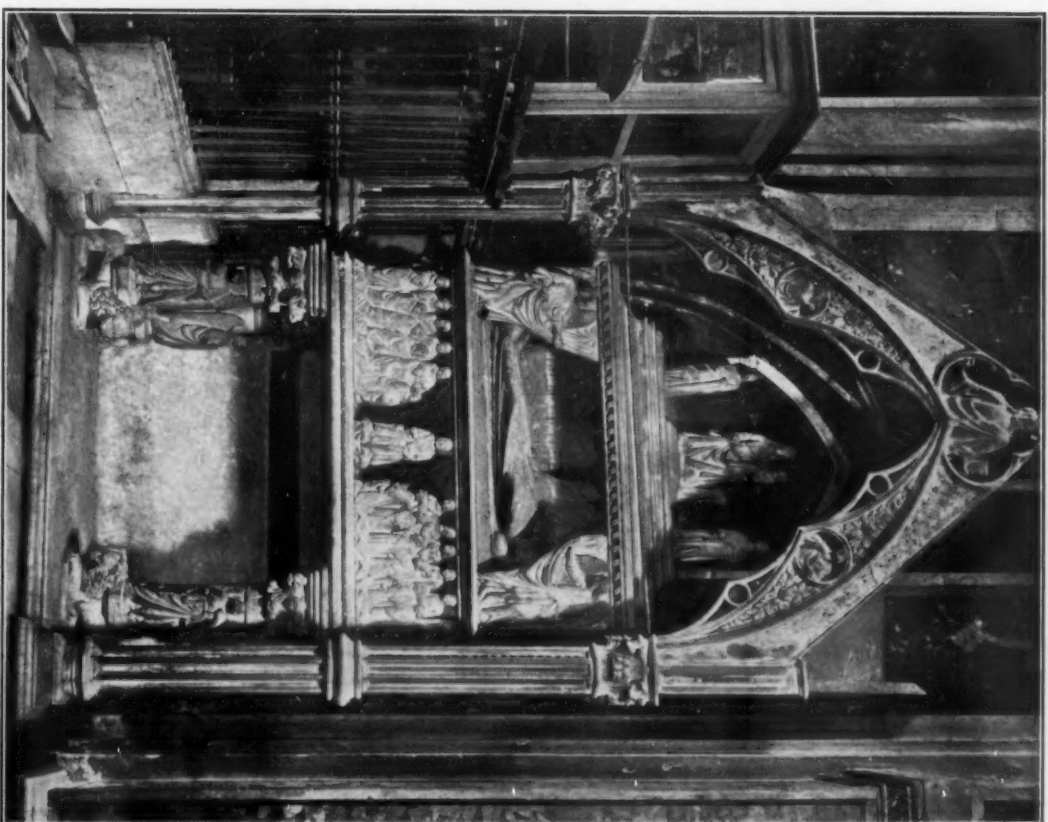
Copyright, 1907, by the Sweetland Publishing Co.

Volume XCII., Number 1664.
September 7, 1907.



TOMB OF NICCOLÒ SPECCHI, S. FRANCESCO [LOWER CHURCH], ASSISI.

The American Architect and Building News.
Reprint Edition.

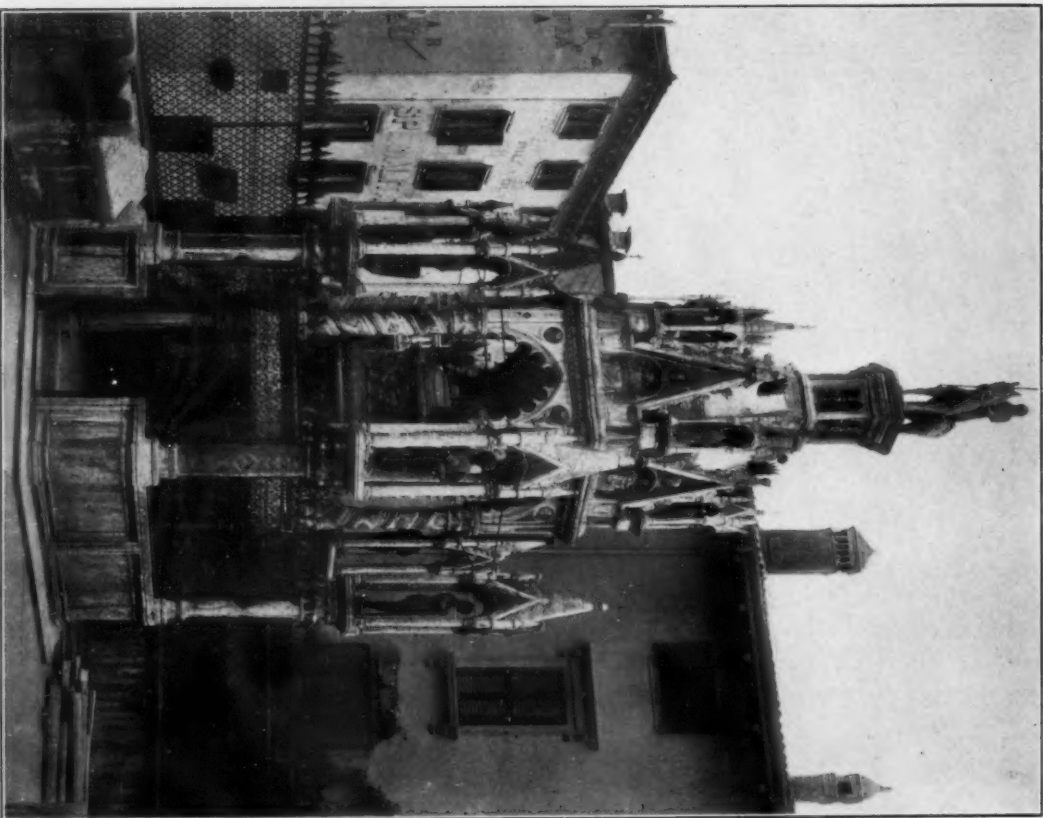


TOMB OF CARLO THE ILLUSTRIOUS, DUKE OF CALABRIA, STA. CHIARA, NAPLES.

ITALIAN TOMBS.

Copyright, 1907, by the Swetland Publishing Co.

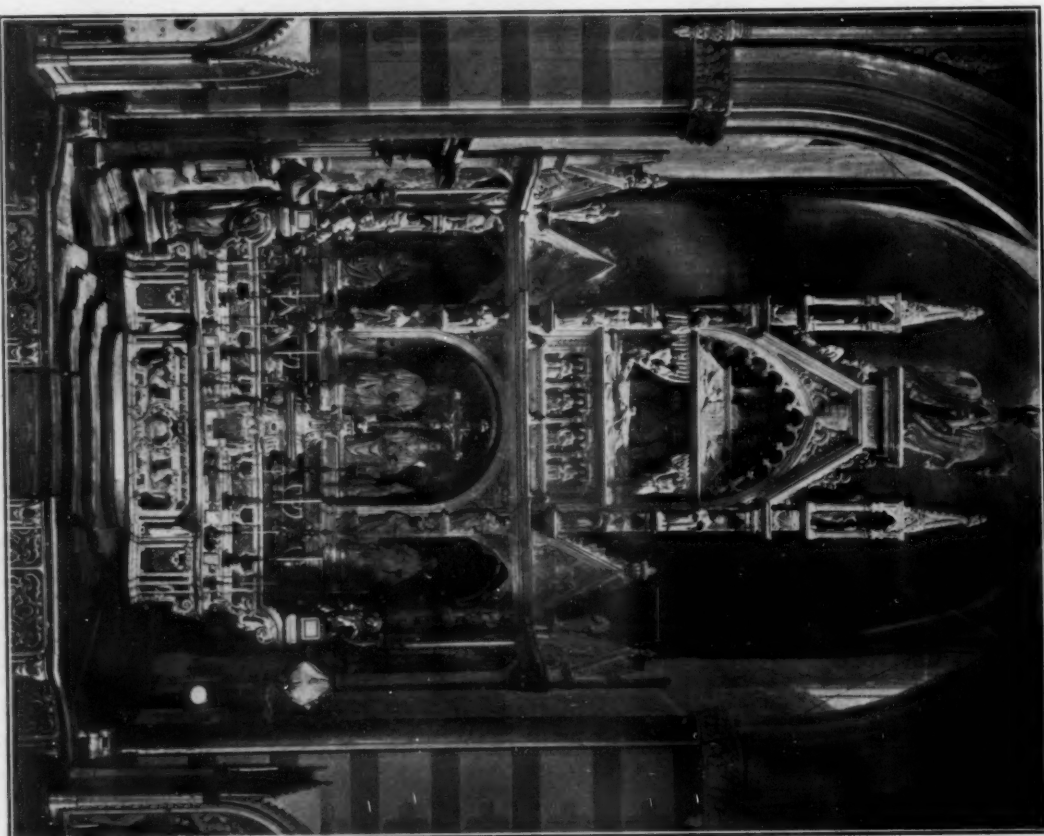
Volume XCII. Number 1654.
September 7, 1907.



TOMB OF CAN SIGNORIO, VERONA.

The American Architect and Building News.
Regular Edition.

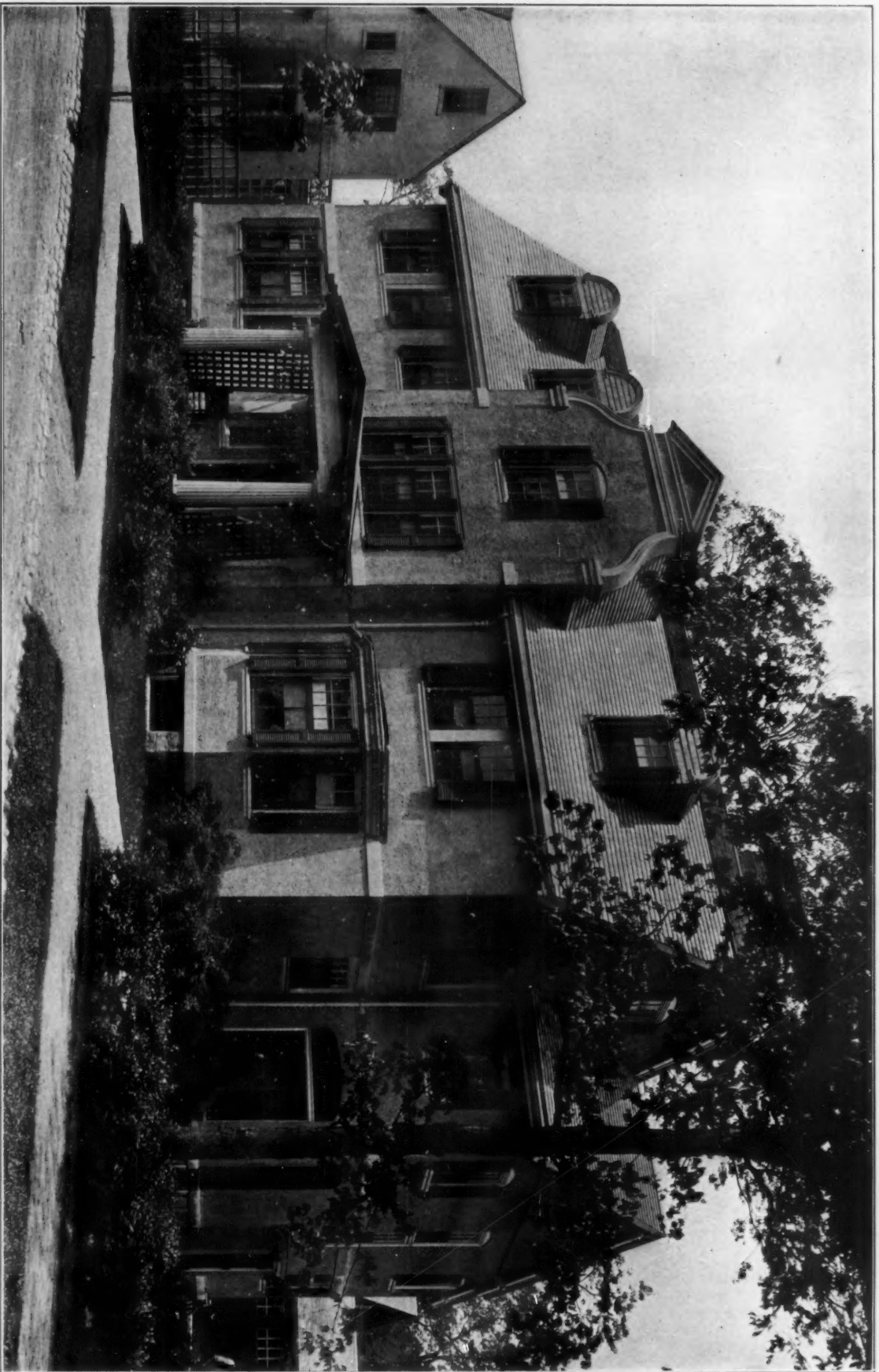
ITALIAN TOMBS.



TOMB OF KING LADISLAUS, S. GIOVANNI A CARBONARA, NAPLES.

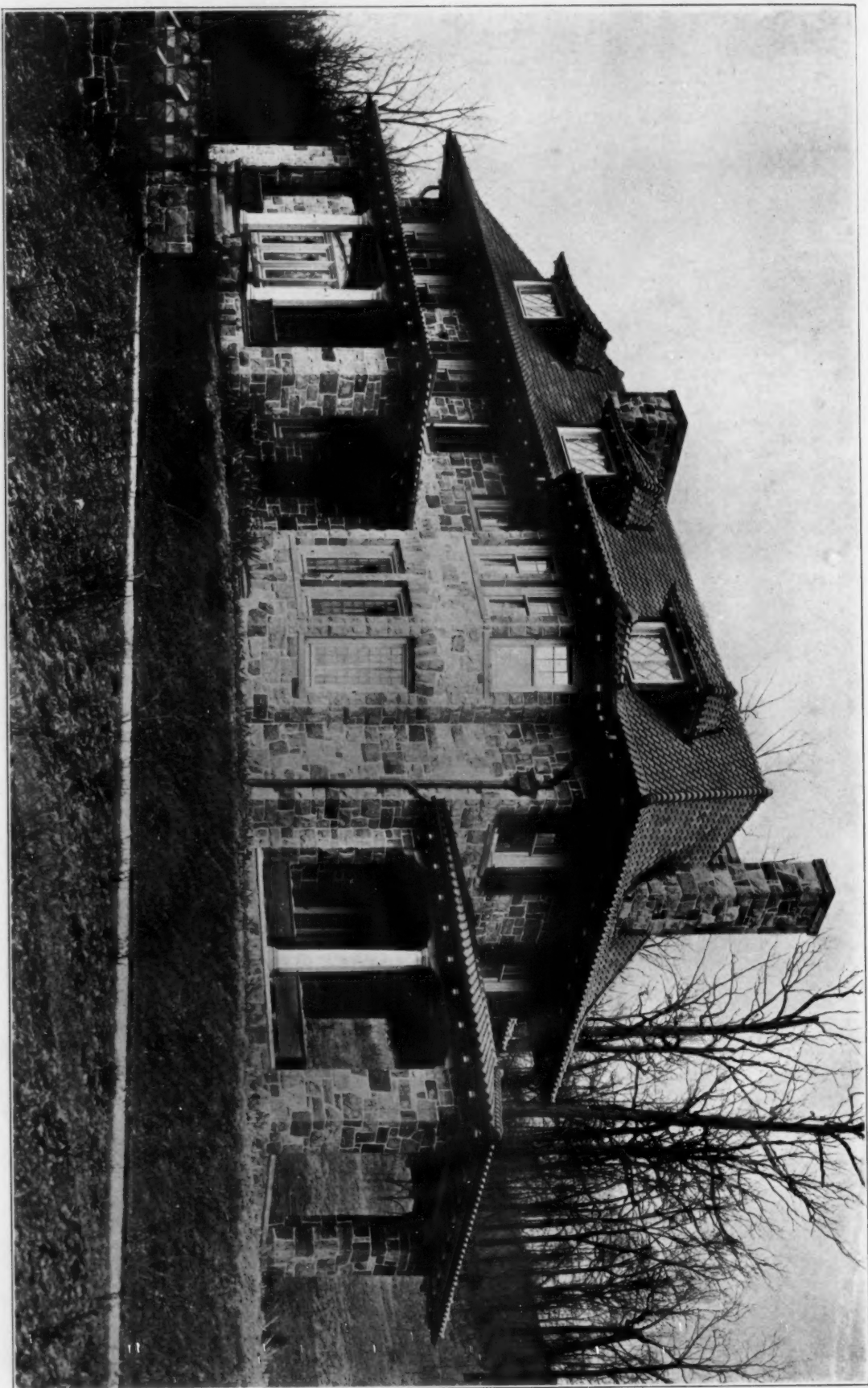
Copyright, 1907, by the Swetland Publishing Co.

Volume XCII. Number 1654.
September 1, 1907.



HOUSE OF MRS. COTTON, 44 AMORY STREET, BROOKLINE, MASS.

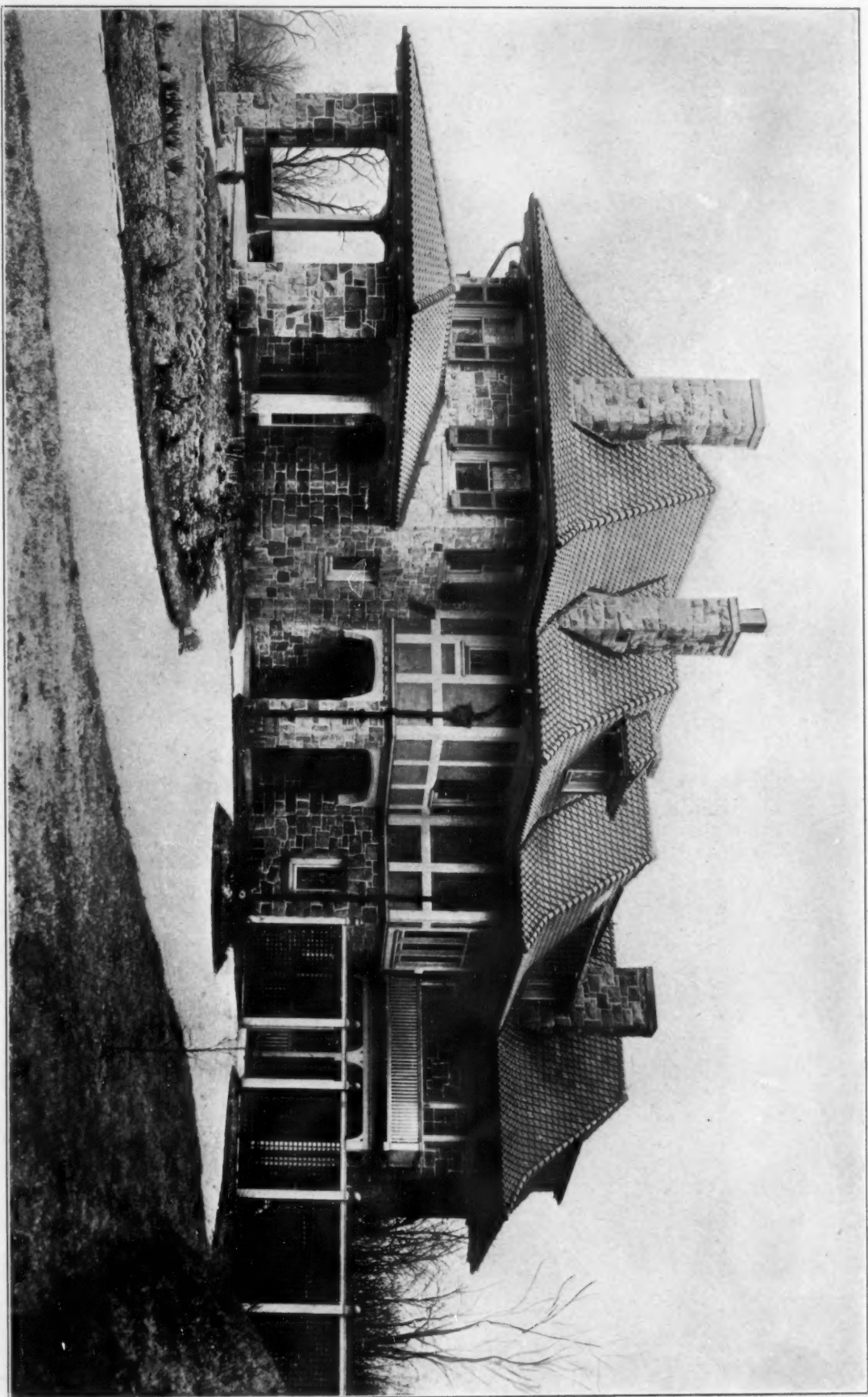
W. G. RANTOUL, ARCHITECT.



The American Architect and Building News.
Regular Edition.

HOUSE OF FRANK E. RUTAN, ESQ., SEWICKLEY, PA.
Rutan & Russell, Architects.
Copyright, 1907, by the Sweetland Publishing Co.

Volume XCII. Number 1654.
September 7, 1907.



REAR VIEW: HOUSE OF FRANK E. RITAN, ESQ., SEWICKLEY, PA.

Rutan & Russell, Architects.

The American Architect and Building News.
Regular Edition.

Copyright, 1907, by the Sweetland Publishing Co.

Volume XCII, Number 1654.
September 7, 1907.



HOUSE OF MRS. DOWNER, 68 AMORY STREET, BROOKLINE, MASS.

Robert Coll, Architect.

Copyright, 1907, by the Sweetland Publishing Co.

Volume XCII, Number 1664.
September 7, 1907.



THE GRACE NEWBERRY NURSES' HOME, DETROIT, MICH.

Albert Kahn, Architect.

The American Architect and Building News,
Regular Edition.

Copyright, 1907, by the Sweetland Publishing Co.

Volume XCII, Number 1654,
September 7, 1907.



The American Architect and Building News.
International Edition.

HOUSE OF MRS. KASSENBERG, BROOKLINE, MASS.

H. E. Davidson, Architect.

Copyright, 1907, by the Swetland Publishing Co.

Volume XCII, Number 1651.
September 7, 1907.

THE UNIVERSITY OF CHICAGO
LIBRARY

1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
1944
1945
1946
1947
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025

Hydrogen and the Corrosion of Iron

AT the recent meeting of the American Society for Testing Materials, Dr. Allerton S. Cushman, of the United States Department of Agriculture, made the first public announcement of the very interesting investigations he has been carrying on for several years on the causes which underlie the corrosion of iron. A number of new points were brought out, among which the most startling are that oxygen plays only a secondary rôle in the rusting of iron, and that the best preventatives of rust are to be found among the most effective oxidizing agents known, such as chromic acid and its salts. This view is so contrary to all previous conceptions, says the *Engineering Record*, that it is naturally received with some incredulity when first heard, yet those who are familiar with the investigations and conceptions upon which the new theory of corrosion is based are of the opinion that the evidence which has been brought forward is not only convincing, but conclusive.

The fact that chromic acid and its salts act as inhibitors of rusting has been known for some time, but no explanation of the curious phenomenon has ever been offered heretofore, nor has its application to practice ever been suggested. Dr. Cushman has made a special study of this problem, and although it remains to be seen what practical benefit may develop out of these new ideas, it is most gratifying to be able to state that if any patents are granted covering rust inhibitors they will be taken out in accordance with the practice of the Department of Agriculture so that they will be free for all American citizens.

If a text-book is consulted for an explanation of the rusting of iron it will be found that carbonic acid has heretofore been generally held responsible for the formation of rust. Iron is supposed to be attacked by carbonic acid, with the formation of carbonate, which is then acted on by water and the oxygen of the air to form the red hydroxide known as rust, the carbonic acid being again set free to take up its destructive work. According to this theory, in an atmosphere which did not, like that of this earth, contain about 4-100 of 1 per cent. of carbonic acid, the rusting of iron would be an unknown phenomenon. That this, as well as the peroxide hypothesis which has lately been developed in England, must be relegated to the dump pile of abandoned theories seems to be conclusively shown by these latest researches.

According to the electro-chemical or electrolytic theory which Dr. Cushman upholds, the first attack on iron is not made by oxygen, even in the presence of water, but by hydrogen in the form of the hydrogen ion. According to the modern theory of solutions, many substances when dissolved in water are dissociated into ions, which may be regarded as atoms carrying static electrical charges. Water itself, even when pure, contains a

certain proportion of hydrogen ions, and the presence of many impurities, especially those which are by nature acid, increases the hydrogen ions and thus the tendency to attack iron and carry on corrosion. The action is entirely electrolytic, being continually accompanied by an exchange of the electro-static relations between the iron and the attacking hydrogen. Such oxidizing agents as the chromate and bichromate of potash inhibit rusting by polarizing the iron to the condition of an oxygen electrode, thus preventing the approach or attack of the hydrogen ion. One of the most extraordinary points brought out is that this polarization effect is to some extent lasting. That is to say, if iron is immersed or "pickled" in a concentrated solution of bichromate acid and is then washed and wiped, it is rendered passive, so that it resists electro-chemical attack whether this take the form of rust formation or the well-known plating out of copper which takes place if the chromated specimen is immersed in a dilute solution of copper sulphate. In short, the action which goes on when iron rusts is in every respect analogous to that which takes place when iron is immersed in a solution of copper salt. In the latter case, copper ions carrying positive electro-static charges are present, iron passes into solution and assumes the electro-static charge, while copper plates out and becomes visible. When iron rusts, iron passes into solution while hydrogen "plates out." Once in solution the oxygen of the air oxidizes the iron to the insoluble form of the red hydroxide known as rust. This electrolytic action can be shown taking place by the use of a special solar indicator which has been called "ferroxyl." It follows from this that anything that will inhibit electrolytic action will act the part of a rust preventive.

To what extent the various salts of chromic acid will come into use for the treatment of boiler feed waters and for "pickling" structural materials will depend upon experiments carried out on a large scale. Dr. Cushman himself is emphatic in pointing out the necessity for care and conservativeness in approaching the practical application of these purely scientific investigations. One of the modern problems in boiler practice is the rapid corrosion of boiler tubes used in connection with turbine engines. The copper which is dissolved by the action of the steam jets impinging on the bronze blades of the turbine rapidly corrodes the iron in the boilers by the electrolytic action just described. Since it has been found that the presence of bichromates in feed water will prevent this action, it seems as though the solution of this important problem has been discovered. The engineering world will eagerly await the detailed publication of Dr. Cushman's researches, as well as the results of the practical tests which are sure to follow.

Foundations

AN informal discussion was had at the Annual Convention of the American Society of Civil Engineers, July 10, 1907, on the following subjects:

- "(a) What is the best system of construction for foundations of heavy structures on ground such as that of the City of Mexico, which is an alluvial deposit about 300 feet in depth, and similar in character to that at New Orleans?"
- "(b) Will iron or steel used in foundations, independently or in combination with other materials, last indefinitely when in direct or indirect contact with water?"
- "(c) Will the strength and durability of concrete in foundations be affected if before setting there is: (1) an excess of water; (2) lack of compression; (3) too rapid desiccation?"

JOHN F. O'ROURKE, M. Am. Soc. C. E.—In the three questions submitted in connection with "Foundations," the first calls for the design of systems of construction applicable to the foundation of heavy structural work in the City of Mexico, the ground being an alluvial deposit, about 300 feet in depth, similar in character to that at New Orleans, and taking into account the supporting power of the more or less unreliable material upon which the structure must be carried; while the other questions relate to the durability or strength of the materials in the foundation structure itself, and the manner in which they are placed, without reference to the character of the material upon which the structure is carried.

In regard to the first question, assuming that the material is as stated, namely, alluvial deposit having no very great bearing ability, one can approach it from a more general point of view than the question itself suggests. Every railroad engineer has had more or less to do with the carrying of structures or embankments upon swamps and other soft ground, and the ways by which this has been accomplished successfully are so numerous, and oftentimes so simple and well known, that its solution, with regard to carrying heavy structures in the City of Mexico, involves but another form of a very old problem.

It must be borne in mind that soft ground possesses varying powers of resistance to pressure, dependent very largely upon the degree with which it is confined. There are two ways in which the best results are obtained. One is to place the foundations at such a depth below the surface that the surrounding superimposed weight of the material itself prevents the ground from rising; and the other is by the use of one or another form of column to transfer the weight, through the friction on its sides, to the underlying material; enough surface to be brought into such contact to distribute the weight and reduce the stress to that which the material can bear without further movement.

It is not necessary to go into lengthy discussion of either system, since both are well known. The writer has built culverts, and even heavy bridge piers and abutments, upon material into which a man would sink if he attempted to stand upon it, by simply distributing the weight over an area which acted as a

whole, because the structure was sufficiently strong to act as a unit in applying the pressure. No formula or rule seems to be applicable by which this area can be fixed, nor can the united resistance which soft ground offers under such conditions be always accounted for, but it is known by experience that material little different from mud will sustain pressure up to 1 ton per square foot after the initial settlement has taken place, when the area involved is considerable and the loading has been uniformly applied over the whole surface. The same is true of the column system, of which the most familiar example is the ordinary wooden pile. It is a common experience in building trestles across swamps and marshes, to find that a pile which can hardly sustain its own weight when driving has ceased, will, in a few days, take such a "set" that several heavy blows of the pile-driver hammer are necessary to start it again, and when started it will drive about as easily as before, until the harder material is reached; the fact being, however, that, given a reasonable penetration in the soft material, the subsequent stability of the pile is not increased very much by its support upon solid bottom. The writer calls to mind, in particular, the case of the foundation piles in the falsework of the Poughkeepsie Bridge, where piles were driven 100 feet below the surface of the water into 60 feet of silt and were loaded with from 10 to 20 tons each during the erection of the fixed span, and in which no settlement was noticed during the erection of that span. When the first fixed span was completed, the falsework was taken down, and the piles were pulled out and used again in the erection of the second fixed span, the interesting fact developing that a dozen heavy blows of a 6,000-pound hammer were necessary before a pile could be started, after which it drove easily and was then readily pulled out.

It is clear that either of these methods may be used in providing heavy foundations in the City of Mexico, provided nothing in the ground itself would cause the decay of the material used. It is the writer's experience that wood, driven or placed in clay, is as completely preserved as though immersed in water, and, time and again in the construction of foundations in the lower part of New York City, he has removed timber—mud-sills and stringers—which had been placed above the water level, but in clay, more than 100 years before, and has always found them in good preservation, where such conditions existed.

As the question of materials enters largely into the choice of the system to be used, if suitable wooden piles are not available, concrete or steel could be used, the choice resting on economic rather than engineering considerations. This is true of the "distributed pressure" system, also, using the three materials separately, or in combination, as may be found most economical or substantial for each case.

Iron and steel used in foundations, apart from conditions where electrolysis may occur, last indefinitely when in direct or indirect contact with water, provided the water remains unchanged. The reason for this is obvious. Water attacks iron or steel on account of the oxygen it contains, and, if this is a proportionately small quantity, the amount of oxygen contained in wet concrete or ground is negligible, and, having once been exhausted, the metal remains unharmed and protected.

The writer has seen many cases where immersion in standing water has been a matter of years, and in every case the effect upon the metal has been no greater than if it had stood for the same length of time in linseed oil. In one case bolts on the inside of cast-iron cylinders, filled with concrete, were exposed to the salt water in the Harlem river for more than 30 years, and when removed were found to be without rust. In another case a pipe was immersed for ten years in an artesian-well, the water in

which had not been pumped for 10 or 15 years, and no corrosion of this inside pipe had taken place, the scale was still as fresh as when the pipe was new, and the tool marks of the pipe-coupling apparatus were still perfectly fresh.

Similar results came under the writer's observation in reference to the condition of rods and nails found in wooden foundations where the surrounding material was impervious to air, and in one case which came under his observation, at the time of the removal of the old elevated-railway columns in Greenwich Street, New York City, prior to making way for the new structure in 1878, the bottom part of these columns and the bolts in the masonry were found intact, the corrosion gradually increasing until near the surface, where the material was almost entirely destroyed by rust. This experience with both wood and iron, where the renewal of the oxygen in the surrounding water was prevented, has been uniformly that of finding the material perfectly preserved, so that, in the writer's practice, he does not hesitate to advise the use of either material under conditions where a fresh supply of oxygen is excluded. The casing of concrete, in his belief, is an absolute protection against any oxygen penetrating from the surrounding water, and the uniform practice in foundation work in New York City, where both materials are used in combination, is to pay no attention to water-proofing as a preservative, but depend on the concrete to preserve the iron, which it does in the manner stated. There are exceptions to this, of course, but, generally speaking, where the water-proofing is not underneath the steel, it is for reasons connected with the water-proofing itself, more than from any intention to protect the steel in that way. As a matter of fact, water in one form or another is always a possibility, but conditions can be insured which will prevent its being changed, which is the great desideratum.

In answering the third question, it is the writer's belief that concrete should always be made so wet that it will not permit of ramming, but that, after the concrete has been put in place, a certain amount of spading or "packing back," in the case of the form, so as to give a smooth finish, is all that is necessary in order to produce the most compact and durable concrete. As to rapid desiccation, there is no doubt that if concrete is dried out, or has not had sufficient water to permit the chemical action or "set" being a finished chemical action, the concrete will be poor, or even worthless. It is not likely to occur, however, under most conditions, even where fresh concrete is allowed to set in the sun, but it has come under the writer's observation many times, in placing concrete under compressed air, that the air which escapes through the concrete in passing out of the air-chamber of a caisson, is most likely to create veins through the concrete from which the water evaporates before the concrete has had an opportunity to set, leaving that part of the concrete in a condition which is changed very little from that of the dry materials before the concrete was mixed.

In specifications, the writer would advise the entire elimination of the requirement for ramming in beds, and that the concrete should have sufficient water to enable it to puddle itself, with such handling and manipulation as are always incidental to placing it, the only exception being arch-work and form-work, where ramming may be necessary in order to drive the concrete into places which otherwise it might not fill properly—the ramming in this case being for the purpose of filling the mould, not for compacting the material. As to conditions where the rapid desiccation might threaten it, this should be provided against wherever possible. There is no doubt that wherever this occurs the quality of the concrete is injured and sometimes destroyed.

Present Status of Explorations in Greece

IN a recent issue of the *Boston Transcript*, Mr. Arthur Stoddard Cooley, Ph.D., gave the following interesting résumé of the operations of the various archaeological exploration-under-takings in Greece, which, as it is for architects quite as useful as a longer and more particularized account, we reproduce at length:

The question so often asked by visitors to the excavations among the ruins of Greece and Italy, how the ancient sites ever came to be buried so deeply, has received one striking answer during the past year at our own excavations at Corinth, as well as at Olympia. As is true in other parts of Europe, the past winter has been unusually severe in Greece, causing great suffering and even loss of life and damage to the land, especially from floods and

rain. Even in the early autumn there were very heavy and long-continued rains, and at Corinth our excavation was flooded and much soil washed in from the surrounding fields, so that when the water subsided a deep stratum of mud and debris was left, in some places burying the marble pavements and ancient foundations to a depth of several feet. The famous underground fountain house in the market-place was filled up entirely.

The Greek Department of Education, under whose charge are the ancient remains, cleared away much of the debris, and most of what they may have left will probably be removed during our own excavation campaign, under Director Hill, which should now be in progress. The Greek Government also made some excava-

tions, in the course of which among other finds was a fine head of an ephebos. They set up some of the prostrate columns of the ancient Temple of Apollo on the hill, discovered by us in 1899, replaced and strengthened the broken architrave block between two of the standing columns on the south side of the temple, and, removing part of the unfinished Kapodistria school-house, which covered the east end of its foundations, they devoted the rest of the building to a museum, to replace the small and inadequate one just west of Plane Tree Square.

A similar occurrence took place at Olympia in January. The little river Kladeos, swollen by rains, overflowed its banks and buried again, somewhat as it did centuries ago, part of the ruins nearby excavated by the Germans in the seventies. But this time the stream excavated a little, and in the ancient gymnasium brought to light helmets and other objects. Fortunately no damage was done to the excavated portion of the gymnasium. The red wooden bridge across the river was carried away. According to the plans of the State Engineer of Elis, approved by the Minister of Education, the bridge will be rebuilt about 500 feet farther up the stream, and a new road will be constructed, starting from the railroad company's hotel and passing some 160 feet north of the Altis. This new road will fill a long-felt want, connecting the district of Gortynia with Pyrgos, and will obviate the passing of travellers through the excavations themselves by transferring the route to the other side of Kronion Hill. Measures will also be taken to keep the Kladeos in its bed and prevent further inundations of the ruins.

Dr. Kabbadias, Ephor-General of Antiquities, and Architect Balanos, who has been in charge of the restoration of the Erechtheum, also recently visited Delphi to take measures for necessary repairs to the museum there and for the care of the outside antiquities, which have suffered considerable damage from the winter rains.

Among the archaeological activities of the Greek Government projected for the coming year is the erection of museums at Larissa, Volo, Tyrnavo and Halmyros in Thessaly, and at Tegea. The sites will be provided by the towns, and Larissa has already given a large plat and appropriated money for the removal of the barracks occupying it. Land at Eleusis and the Boeotian Orchomenos has been expropriated for excavation. The Archaeological Society will devote their surplus of some 170,000 drachmas from last year to the beautifying of the different ancient monuments of Athens. During the past year the Society carried on excavations in the sanctuary of Amphiaraios, near Oropos, at Sounion, in Euboea, Thessaly, Lokris and Naxos, and at Thermos in Ætolia, Lykosoura in Arcadia, Epidauros and Corinth. Besides the work referred to above, at the last place the remains of the Fountain of Peirene were strengthened. The re-erection of the Temple of Apollo, near Phigaleia, with the old material which has been to so large an extent preserved, has continued, and the Society has tra, near Sparta, where the old church of St. John has already been repaired. Museums have been built or enlarged at Lykosoura, undertaken the preservation of the Byzantine monuments at Mis-Sparta and Corfu.

The French School at Athens is devoting its attention, as is well known, to Delos. At the first public meeting of the year at the school, attended by the king, the crown prince and other royalty and the archaeologists of the various schools, reports of the work there were given by the director, M. Holleaux, and M. Leroux, one of the fellows of the school. Among the more interesting discoveries at Delos are the stoa of the Macedonian King Antigonos II., the double stoa named after Philip, a curious circular monument raised in honor of some prince, and especially a truly magnificent house with a peristyle whose columns still stand upright, a paved vestibule and statues of the owner and his wife. This house seems to belong to the second century B. C. Fragments of a fresco discovered depict the myth of Ariadne, and among sculptural finds is a head of Bacchus of the Hellenistic period.

M. Leroux spoke especially of the marble lions found at Delos, works of the Naxian School, and adduced evidence that one of the four lions adorning the entrance of the arsenal at Venice had been carried away from Delos. The provenance of the other three was known, they having been brought from Peiræus.

At one of the open meetings of the German Archaeological Institute at Athens after a commemorative address by Professor Heberdey, director of the Austrian Institute, on the recently deceased archaeologist Benndorf, Dr. Doerpfeld spoke of his work at Leukas, the results of which have been chronicled in the *Transcript*, but erroneously referred to the island now called

Ithaca. He reminded his hearers that his excavations were not for the purpose of proving Leukas to be the Homeric Ithaca, for this he feels depends on geographical and historical arguments, which both in print and in speech he has often minutely and to many convincingly set forth. Among the most recent converts to his theory is the eminent geologist Philipson, convinced by geographical reasons on the suppositions that Homer described facts and places as they were and not creations of fancy, and that the change of the name of Ithaca to Leukas and the transfer of the name to the island so-called to-day are the result of an emigration. These suppositions Doerpfeld considers as unquestionable, for Homer's accuracy has been proved by the excavations at Troy and Mycenæ and in Crete, and we know from history that the Dorian migration brought about transfers of peoples and changes of names of places. Doerpfeld's excavations have been carried on in Leukas in the plain of Nydri, where he locates the city of Odysseus, and at other points, especially at the so-called Swine's Cave. The finds belong to prehistoric times and some large walls, which he regards as most probably remains of the city and palace of Odysseus.

An important work in this connection has just been published, "Maps of Leukas, Contributions to the Leukas-Ithaca Question," by a German, Walther von Marees, sent to Greece for the purpose by the German emperor. To quote from the New York *Atlantis*, to which I owe this information, as well as most of the matter of the present article: "Six maps accompany the text, in which is made every geological and geographical explanation and also all information useful to specialists is given regarding the manner in which the work was completed. The first map, on a scale of one to 100,000, refers to Leukas and the surrounding regions. Four other maps, on a scale of one to 25,000, relate to the channel between Leukas and the mainland and the Homeric localities in the island, according to the clear description of the poet in the *Odyssey*. The sixth map gives collectively all the places mentioned in the *Odyssey*. From the geological and geographical standpoint the question is completely settled by these maps in agreement with what not only Doerpfeld has previously maintained, but other geographers have recognized as correct," and the question must now be discussed from a philological or archaeological point of view.

Doerpfeld's excavations at Leukas are confined to the summer. In March he began further work at Tiryns, where many ancient objects have been unearthed already and where he expects to find a still older megaron than that revealed twenty-two years ago by Schliemann and himself. He is continuing his investigations also at Olympia, where finds have just been reported on the northeast side of the Pelopion consisting of clay and bronze figurines of the geometric period and a small bronze mule and figures of other animals.

The British School at Athens, under the direction of Mr. Dawkins, assisted by Messrs. Dickens, Wace and others, is now prosecuting its excavations at Sparta with gratifying success and numerous small finds on the site of the Temple of Artemis Orthia by the Eurotas discovered last year and in other spots. Word has just been received of the discovery of the famous Temple of Athena Chalkioikos (of the Bronze House), of great archaeological and also historical interest. Here the general Pausanias took refuge from the Spartans, was walled in and left to starve to death. Among the finds are three inscribed marble slabs, with the image of a sickle, one of which mentions the name of a victor in three contests; gold dust, a tiny double axe of gold, the symbol of the Cretan Zeus; a Corinthian vase, a headless archaic statuette, and many very small cases of different forms associated with heroes, of the sixth century B. C., and eleven gold coins of the shape, size and weight of a 20-franc piece. The direction of the south side of the late enclosing wall of Sparta has been determined, and the discovery of the location of Pitane, the largest of the villages composing the ancient city, is hoped for.

Meanwhile the Greeks are making notable finds in Thessaly. The Ephor Arvanitopoulos discovered by a mound near the railroad station of Velestino a quadrangular building composed wholly of beautiful white marble, and of the best workmanship. Since this is but a few paces distant from the artificial funeral mound, the Ephor believes we have here a magnificent tomb with portico, outer chamber and propylæa, like those discovered a half century ago among the royal tombs of Pydna and Pella in Macedonia, which belonged to the fourth century B. C. Judging by the architecture and by fragments of vases found in the

excavation, the Ephor dates this building between 420 and 450 before Christ. "It will be an event of great historic significance if under this funeral mound the spade of the workmen shall discover the graves of the kings of Phææ, and particularly of Jason, the great ruler of Thessaly, so pitifully assassinated, who had conceived the daring and enterprising plan carried out later by the great Macedonian conqueror."

The proposed erection of a museum at Volo, the seaport of Thessaly, has been referred to above. A rich collection of inscriptions, coins and other objects found in excavations in northern Greece is now in temporary quarters, and there are

promises of many gifts from private citizens as soon as the museum is done.

Excavations have been begun on the site of the ancient marketplace of Athens, just east of and below the hill where stands the "Theseion." A number of the houses here have been expropriated and will be removed. Near the Dipylon gate the old Church of the Holy Trinity (Hagia Trias) is to be removed and rebuilt elsewhere and further excavations will be made here at the beginning of the old Sacred Way to Eleusis.

The discovery of the Palace of Kadmos at Thebes in excavations, by the Greek Archæological Society is reported.

ILLUSTRATIONS

HOUSE OF FRANK E. RUTAN, ESQ., SEWICKLEY, PA. MESSRS. RUTAN & RUSSELL, ARCHITECTS, PITTSBURGH, PA.: TWO PLATES.

ITALIAN TOMBS: THREE PLATES.

For descriptions, see article elsewhere in this issue.

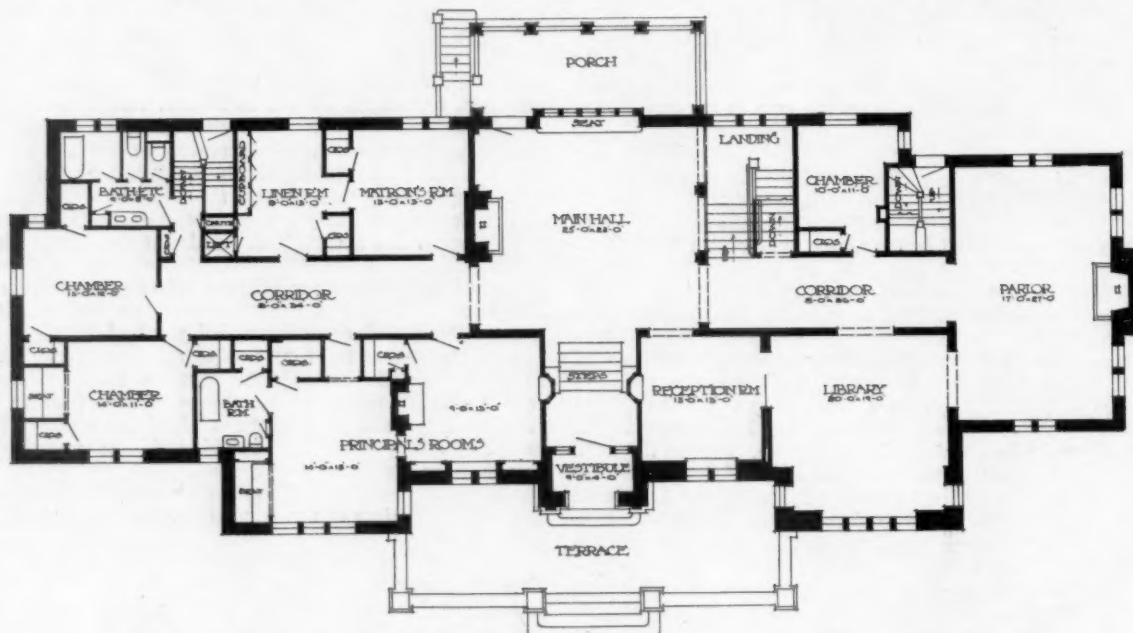
HOUSE OF MRS. COTTON, 44 AMORY STREET, BROOKLINE, MASS. MR. W. G. RANTOUL, ARCHITECT, BOSTON, MASS.

THE GRACE NEWBERRY NURSES' HOME, DETROIT, MICH. MR. ALBERT KAHN, ARCHITECT, DETROIT, MICH.

HOUSE OF MRS. DOWNER, 68 AMORY STREET, BROOKLINE, MASS. MR. ROBERT COIT, ARCHITECT, BOSTON, MASS.

HOUSE OF MRS. KASSENBERG, BROOKLINE, MASS. MR. H. E. DAVIDSON, ARCHITECT, BOSTON, MASS.

HOUSE OF G. A. GRAY, ESQ., MITCHELL AVE., CINCINNATI, O. MESSRS. ELZNER & ANDERSON, ARCHITECTS, CINCINNATI, O.



FIRST FLOOR PLAN: GRACE NEWBERRY NURSES' HOME, DETROIT, MICH. ALBERT KAHN, ARCHITECT.

NOTES AND CLIPPINGS

A LARGE TEAK LOG.—The largest teak log ever sent by rail, though not the largest received in Burma, was recently extracted from the Pyinmana forest by Messrs. Steel Brothers & Company. It was 53 feet in length and 12 1-2 feet in girth. There are still large teak trees in the forest, but in most inaccessible spots, miles away from navigable creeks. Most pieces in olden days 80 feet long were often seen in Moulmein. These are no longer wanted, as iron or steel work has long taken the place of wood.—*Indian Engineering*.

TERMINOLOGY IN DECORATIVE ART.—At the British Association, Professor Myres introduced a new subject in the Anthropological Section, under the title, "A Terminology of Decorative Art." The importance of this is perhaps more evident in connection with anthropological than artistic study. It amounts to this—that the special forms of decoration used by uncivilized and prehistoric peoples have a great deal of significance in regard to racial extraction and relation; and that while it is easy to give names to those decorations which are at all pictorial in character, there are no accepted names for the considerable number of combinations of lines in purely geometric ornament; and Pro-

fessor Myres urged (and we quite agree with him) that a recognized and scientifically based terminology for distinguishing these classes of ornament is desirable. It should take account of the nature of the process employed by the artist, as well as the result; since some forms of ornament which differ very little in ultimate appearance differ very much in their method and principle of construction. The vocabulary, he suggests, would be made up partly by the coinage of words, as in geology, from Greek or other universal vocabularies; but he thought much might be done to fix current idiom by detailed descriptive analysis of some of the commoner geometrical forms, such as the triangle, the wavy line, the spiral, or the plait. Although these suggestions have been made with special reference to historic study, they are not without interest in connection with art, where an analytical vocabulary of forms of abstract ornament seems certainly to be rather wanted. We have names (rather empirical) for certain ornaments—the "key-pattern," "bead-and-reel," "egg-and-tongue," etc.; but these are not very scientific in their character, and there are a good many minor varieties of geometrically derived ornament for which there is no recognized name.—*The Builder*.

CURRENT NEWS SECTION

NOTES AND CLIPPINGS.

THE SHILOH TUNNEL.—The *Scientific American* quotes the *Iron Age* to the effect that evidence exists that a work similar to the famous Simplon tunnel, but on a smaller scale, was executed some twenty-four centuries ago. Owing to the bad state of the water supply of Jerusalem the King ordered a reservoir to be made at the gates of the city, to which water was to be brought from various springs. The Shiloh tunnel, by means of which water was brought down from a source to the east of Jerusalem and poured into the pool of Siloam, was 1,080 feet long, and is in a straight line. It has been learned that work was commenced at both ends of the tunnel, and the direction altered a number of times. The floor of the tunnel is finished with great care. The width varies from 1.9 to 3 feet and the height from 3 to 9 feet. There is much speculation as to how these engineers gauged their direction so well as to be able to recognize and correct errors in alignment, as was certainly done.

HIGH PRESSURE HYDRAULIC LIFTS.—The mechanical equipment of the Metropolitan Life Insurance building at New York has been reconstructed, and includes fifty-three lifts. The building is twelve stories high, with a ground area of 120,000 square feet, exclusive of a wing 60 feet by 100 feet. Five of the lifts are in the wing and six in a forty-eight-story tower now being built. Of the forty-two in the main building thirty-four are for passengers—six being powerful enough to handle safes; the other six run from the footwalk to the basements, and one of these can handle safes. All the lifts are operated from a central high-pressure hydraulic plant, working at a pressure of 850 lbs. Duplicate delivery mains lead to the several machines, and a discharge system from the machines delivers to roof tanks. To maintain a constant pressure, and also a constant supply of water in case a number of lifts should start before the pumps have gained speed, there are a number of weighted accumulators connected to the delivery line. Slight fluctuations of pressure in the delivery mains, caused by stopping and starting, are provided for by air chambers. Most of the lifts are operated by horizontal machines, controlled by special operating valves with low-pressure pilot valves and motor cylinders to actuate the high-pressure valve mechanism.

There are three high-duty pumps of the three-cylinder crank and flywheel type. The passenger lifts have maximum capacities of 1,000 feet to 2,800 feet, with speeds of 500 feet per minute; the lifts to the basements have capacities of 2,000 pounds to 4,000 pounds, and speeds of 500 feet to 100 feet per minute. The passenger elevators are geared 12 to 1, and the goods elevators 4 to 1. The plunger diameters are from 4 inches to 12 inches. Ball-bearing anchors are used at all attachments of the cables to the frames of the cages or cars, thus allowing for the constant twisting and untwisting of the cables as the stresses vary.—*Builders' Journal*.

A PHASE OF THE MUNICIPAL OWNERSHIP IDEA.—Every one you know has at some time or other read and enjoyed Prescott's "Conquest," but it does not emerge that on the subject of Mexico they have ever read anything else. And for awhile you quietly revel in your mental alertness and superior intelligence. You are learning all about the country—the institutions and laws, its products and habits—while your listless friends still sit in the darkness. Then one fine morning something happens—something of no special importance, but something that nevertheless serves to insert the thin edge of suspicion's wedge between you and some of your learning.

You have, for instance, read that "in virtue of the constitution adopted on February 5, 1857, arrest is prohibited, save in the case of crimes meriting corporal punishment," and it has seemed to you a wise and just provision. You have also, let us say, employed two competent stone-masons to build a coffee tank, a fireplace, a pigpen or some such useful accessory of life in the tropics, and you become much disturbed when, after they have worked steadily and well for three or four days, they fail to appear. That afternoon as you stroll through the Plaza, lamenting their perfidy, you are astonished at receiving two friendly, sheepish greetings from two sheepish, friendly stone-masons who are engaged in laying municipal cobblestones, together with thirty or forty other prisoners, under the eyes of several heavily-armed policemen. Unmistakably they are your masons, and with much bewilderment you demand of Smith—who, no doubt, is strolling with you—just what it means.

"It merely means," Smith explains, "that the town is repairing part of the Plaza pavement and needs competent masons. So they arrested yours."

"But on what grounds?"

"Oh, drunkenness, probably."

"Do you suppose they were drunk? They seemed like very steady men."

"Why, they may have been a trifle elated," Smith laughs. "The assumption that they were isn't a particularly startling one in this part of the world. But that wasn't why they were arrested. They were arrested because they were good masons and the city happens to need them. If they hadn't been drunk, some one would have been sent out to make them so—never, unfortunately, a very arduous undertaking."

"Oh, indeed; how simple and efficacious! you murmur, and go home to read some more."—*C. M. Flandrau in the Bellman*.

HOW GLASS DECAYS.—Glass is not popularly regarded as subject to decay, but that is because the alterations in it take place very slowly. Old glass, such as that in windows that have stood for centuries, may show marked signs of disintegration. It has been shown by Noel Heaton, an English authority, in a paper on the decay of mediæval stained glass, read before the Society of Arts, that the manner of this disintegration may reveal the composition of the glass and the method by which it was

made. We quote from an abstract in *Nature*. Says this paper:

"There are reasons for thinking that the making of window-glass was not handed down from the Romans, but was rediscovered in the Middle Ages, and the author thinks it most probable (although evidence is too scanty to justify this as a statement of fact) that the glass of the earliest stained-glass windows, that is, those of the ninth and tenth centuries, was made in the same way as the cast window-glass most generally employed by the Romans, this being the method that would most naturally suggest itself in the first place.

"The composition of the glass described by Theophilus was quite different from that of the Romans, being produced, according to the treatise referred to, by heating a mixture of sand and the ashes of beechwood. It is probable, however, that the glass varied very considerably in composition at different times and in different places, owing to the impurity of the sand used and the varying nature of the wood ashes, which would in all probability be obtained by burning whatever species of timber came nearest to hand."

Mediæval glass, the author tells us, decays characteristically, commonly becoming covered with pits, like worm-holes in an old oak cabinet. The process seems to reproduce on a small scale the action of time and weather on geological formations, such as chalk and sandstone—a combination of corrosion and internal change. To quote again:

"Corrosion of the surface of glass is produced by the long-continued action of moisture, which gradually extracts the soluble silicates, leaving the insoluble silica in a thin film, the glass thereby becoming iridescent. Owing to the large proportion of lime it contains, however, mediæval glass does not become iridescent as the result of corrosion. On the extraction of the alkali by water this lime is left behind with the silica, and forms with it a hard, insoluble silicate of lime, which adheres to the corroded surface of the glass, forming an opaque scum or patina. In some cases this is so marked that the glass appears to be covered with a coat of cement.

"The peculiar pitting of old stained glass is not, however, in the author's opinion, due to corrosion at all, but to a change in the constitution of the glass. As is well known, glass changes its constitution and becomes crystalline if kept at a red heat for a length of time. What happens in a few hours when the glass is hot tends to take place on prolonged exposure to the atmosphere, with this difference, that when the glass is molten its molecules can freely move about, whereas when it is cold and rigid such freedom of movement is impossible; in consequence the definite formation of crystals cannot take place, and the result of the change is different. What happens is this: In the first place, molecules of the same kind tend to separate out from the homogeneous mixture and collect round a point forming a center of decomposition. Proceeding from this center the glass is found

decomposing into definite compounds in an ever-enlarging circle until it reaches a point at which the strain set up in the glass by this molecular movement results in a crack forming round the area of decomposition, and then the whole mass comes away, leaving behind it a little hole or pit in the surface of the glass."

A RECORD BLAST IN EUROPE.—The *Frankfurter Zeitung* publishes a dispatch from Carrara announcing that the largest blast ever known in Europe has been prepared at the Carrara marble quarries and will be exploded on July 14, Gabriele d'Annunzio, the playwright, pressing the electric button. The charge consists of 17,600 pounds of prometheus powder and 100 pounds of gun-cotton, occupying a chamber 38 feet long by 12 feet wide. The explosion is expected to loosen 6,700,000 cubic feet of marble, or 500,000 tons.

OCEAN TIMBER RAFTS.—The big seagoing tub "Underwriter" arrived August 5, after a twelve days' trip from Nova Scotia, towing the largest raft that has been brought here, says the *New York Times*, since the time of the great Leary raft which was brought here sixteen years ago from the north. The last big raft of 1891, like all of the rafts towed from Maritime Province ports to New York, was brought here from St. John, N. B., and was constructed under the direction of the late James Murray, American Consul at St. John, for the late James D. Leary, the well-known contractor, of this city.

The first Leary raft was launched at Joggins, N. S., in the Bay of Fundy, in September, 1888. It was the largest one constructed under Mr. Murray's supervision, and encountered a terrific equinoctial storm and was wrecked on the way to this city. From time to time for years since shipmasters have reported sighting units of the raft floating in various parts of the North Atlantic as far north as Greenland.

The second great raft, which was slightly smaller than the first, was constructed the following year, and was also wrecked in a similar September gale. The third was launched two years later, and safely reached New York in tow of two big ocean-going tugs. It was the only one of the Leary rafts to make New York, excepting the one which made port yesterday.

The raft formation was the invention of the late Mr. Murray, and at the time it was considered by lumbermen as the greatest thing of its kind ever attempted. When the third Leary raft, the one which reached this port safely, made its trip Mr. Murray accompanied it. He was up night and day for nearly a week, spending his time on the tugs and raft, in his anxiety that the venture should end successfully. It did, as it went into lumbering history, but Mr. Murray was taken sick and a week later was dead as the result of the intense strain to which he had been subjected.

The "Underwriter's" tow consisted of 6,000 spruce piles, and was 320 feet long, 40 feet wide amidships, and 25 feet at each end. It drew 12 feet of water. One man traveled in a shanty on the raft to keep the side lights burning at night and watch the towing lines through the day.

AN HISTORIC PENNSYLVANIA MILL.—To Mr. I. Layton Register of Ardmore belongs the credit for the preservation of the

historic flour mill, on the Old Gulph road, near Ardmore, and many of the ancient habitations in its vicinity. It is also due to Mr. Register's efforts that the picturesque Mill Creek, on whose banks stands the shell of the old mill, to this day retains its natural beauty.

The mill, known now as Ye Old Grist Mill, was in Revolutionary days the property of John Roberts. In addition to the accusation that Roberts guided the British soldiers through Merion, in 1777-78, to the Old Gulph mill, where, during the autumn of 1777, the bulk of the American ammunition was stored, it was charged that in the flour which he made in Ye Old Grist Mill for the Continental soldiers in winter quarters at Valley Forge he put finely ground glass. Hardly a more deadly dose than this could be given.

The mill which, could its ivy-colored walls only speak, would probably relate dark and awful secrets, is now on the estate of Mr. Register. He has done everything possible to keep it from falling into decay. During the spring and winter freshets, when the creek becomes turbulent and overflows its banks, it generally submerges a portion of the old mill. That the walls may as far as possible resist the advance of the water, and to insure them from crumbling, Mr. Register has had them covered with cement in every place to which the waters of the creek have access. In a prominent place on the wall of the mill, for the enlightenment of the passersby, Mr. Register has placed a placard reading, "Ye Old Grist Mill, 1746."

There is a beautiful little waterfall in Mill Creek, just a few yards from the "Old Mill." Whenever a stone is displaced in the dam Mr. Register has had it replaced. He wants to keep the waterfall as it is.

Mr. Register has traveled much during his lifetime. Once he was within 450 miles of the North Pole, but he declares that the scenery about Mill Creek, near the mill, is surpassed in its picturesqueness by little he has seen. He delights in photographs, and has taken many pictures of the old mill and its surroundings. Mr. Register says that the Old Gulph road, which winds its way past the mill, is the same highway upon which the American troops marched into Philadelphia after its evacuation by Howe.—*Philadelphia Bulletin*.

BUILDING NEWS.

(The editors greatly desire to receive information from the smaller and outlying towns as well as from the larger cities.)

ANDERSON, IND.—The School Board of Anderson is preparing to construct a large two-story addition to the present High School building to include a finished basement and a modern natatorium. Bids will be in order as soon as plans are approved.

ASHTABULA, O.—Architects Howard Incho and Merriam, Columbus, O., have completed plans for a three-story clubhouse for Lodge 208, Benevolent Protective Order of Elks, Ashtabula. Cost, \$40,000.

ASTORIA, L. I., N. Y.—The Trinity Congregation of Astoria has had plans prepared by Architect F. Y. Parsons, 1133 Broadway, for a new edifice to cost about \$50,000. It will be a one-story building, covering an area of 60x120 feet, and will be

built of stone, with slate roof. The interior will be finished in hardwood, and have steam heat, electric light, stained glass windows, etc. Cost, \$50,000.

ATHENS, O.—The Masonic Temple Company, of Athens, is taking bids for the erection of a four-story Masonic Temple to cost \$30,000. Address Architect E. L. Gerber, 21 Patterson Building, Dayton, O., or Secretary W. E. Peters, Athens, O.

ATLANTA, GA.—Plans and specifications are being completed for erection of proposed postoffice and courthouse, for which \$1,000,000 has been appropriated. Structure will be built either of granite or Georgia marble, with interior trimmings of marble. Bids will soon be received. James Knox Taylor, Treasury Department, Washington, D. C., Supervising Architect.

The Senate has passed the bill authorizing the City Council of Atlanta to issue \$500,000 bonds to erect a city hall.

ATLANTIC CITY, N. J.—Newlin Haines, proprietor of the St. Charles Hotel, may erect a hotel on Connecticut Avenue and the Boardwalk to cost about \$3,000,000.

AUBURN, N. Y.—H. Van Buren Magonigle, architect, 7 West Thirty-eighth Street, New York, is preparing plans for a three-story high and grammar school building for the Board of Education, Auburn. Estimated cost, \$125,000.

BALTIMORE, MD.—Treasury Department, James Knox Taylor, Supervising Architect, Washington, D. C., will open proposals October 7 for construction and mechanical equipment (except plumbing) of proposed extension to United States postoffice and courthouse building; plans at offices of architect and of custodian of building, Baltimore.

A permit has been issued to the Merchants' and Miners' Transportation Company for an office building to be erected at pier 3, on Pratt Street. The structure will cost \$100,000.

Revised plans have been prepared by Louis Levi, architect, American Building, for the proposed Frank Memorial Hospital to be erected at Monument Street and Hopkins Avenue, at a cost of about \$80,000.

BELOIT, WIS.—Plans and specifications have been completed by Architect J. C. Llewellyn, of this city, for a new high school to be erected at Beloit. The new building will be three stories high and cost about \$70,000. It will be built of brick and stone, with slate roof, hardwood finish, steam heating and ventilating system, sanitary plumbing, and all modern appliances.

BERKELEY SPRINGS, W. VA.—Morgan County Commissioners have engaged Holmboe & Lafferty, of Clarksburg, W. Va., to prepare plans and specifications for proposed courthouse.

BONESTEEL, S. D.—It is said that a petition is being signed by the business men for the construction of a new school building.

BROKEN BOW, NEB.—A building will be erected for the Normal and Business College at Broken Bow to cost about \$40,000.

BROOKLYN, N. Y.—Estimates are being taken by the Duplex Realty Company, 953

Fulton Street, on the various lines of work, material and equipment for the new apartment house which they will build at the southwest corner of Gates Avenue and St. James Place. Plans by Architect J. T. Tonner, 953 Fulton Street, provide for a six-story building measuring 100x80 feet. It will be built of brick, stone and iron, with composition roof, steam heat, electric light and all modern improvements. Cost, \$175,000.

BUFFALO, N. Y.—Sealed proposals will be received at the office of Supervising Architect James Knox Taylor until 3 o'clock P.M. on the 16th day of September, 1907, and then opened, for the construction (except elevators) of the United States Marine Hospital at Buffalo, in accordance with drawings and specifications, copies of which may be had at this office or at the office of the custodian of the site at Buffalo, N. Y., at the discretion of the supervising architect.

BURLINGTON, IA.—Temple, Burrows & McLane, architects, McManus Building, Davenport, Ia., have prepared plans for the new high school building at Burlington to cost about \$130,000.

H. I. Goddard, architect, has plans and will receive bids soon for the superstructure for a three-story press brick, stone and steel hospital, 40x20 and 40x80, for the Burlington Hospital. Cost, \$50,000.

CAPE GIRARDEAU, Mo.—Widmann & Walsh, architects, Wainwright Building, St. Louis, have prepared plans for a four-story addition to brewery building at Cape Girardeau for Max Koeck, manager. Brick, stone and reinforced concrete. Cost, \$100,000.

Barnett, Haynes & Barnett, Frisco Building, St. Louis, Mo., are preparing plans and specifications for the erection of a convent building; brick and stone; gas and electricity. Cost, \$175,000.

CEDAR RAPIDS, IA.—Sealed proposals will be received at the office of Supervising Architect James Knox Taylor until 3 o'clock P.M. on the 23d day of September, 1907, and then opened, for the construction (except elevator) of an extension, remodeling, etc., to the United States Postoffice and Courthouse at Cedar Rapids, Ia., in accordance with drawings and specifications, copies of which may be had at the office of the custodian at Cedar Rapids, Ia., or at this office, at the discretion of the supervising architect.

CHARLOTTE, N. C.—Charlotte Sanitarium, W. D. Witherbee, secretary, will have plans prepared by Frank P. Milburn & Co., Washington, D. C., for erection of hospital; three stories; gray pressed brick; fifty private and thirty public rooms; baths, operating rooms, electric elevators, etc. Cost, \$60,000.

CHICAGO, ILL.—Oscar Hammerstein, of New York, is reported to be contemplating the building of an \$800,000 home for grand opera in Chicago. It is said that he is now seeking a site upon which to locate a building, which will be 350x150 feet in area, and that he has selected M. Salomon & Co. to secure it for him. Mr. Hammerstein is reported to be desirous of getting a location

on Michigan Avenue, not far from twelfth street.

J. K. Seabee, owner of the Saratoga Hotel, 153 Dearborn Street, will carry out his plans mentioned some months ago to erect a large new hotel at 110 East Madison Street. Preliminary plans are now being prepared by Architects Postle & Mahler, 204 Dearborn Street, and Jenney, Mundie & Jensen, 171 La Salle Street. The new hotel will be sixteen stories high and cost about \$1,000,000. It will be constructed of brick, stone and iron, fireproof, and have the latest improvements and appliances in all lines. Mention will be made when plans are ready for estimates.

Architect Henry L. Ottenheimer, Fort Dearborn Building, 132 Monroe Street, will let the contracts shortly for a warehouse to be built on the southwest corner of Dearborn Avenue and North Water Street for the Steele-Wedeles Company, wholesale grocers, 179 South Water Street. It will be ten-story, 80x183 feet, of mill construction, have pressed brick front, composition roof, steam heat, structural iron, and cost \$220,000.

Architects Jenney, Mundie & Jensen, New York Life Building, 171 La Salle Street, are taking figures on a manufacturing building to be built on Ohio Street, near Orleans Street, for the Adams & Westlake Company, manufacturers of brass beds, 110 Ontario Street. It will be seven stories, 100x100 feet, of mill and brick construction, have gravel roof, maple floors, steam heat, structural iron, metal skylights, and cost \$125,000.

Architects Treat & Alschuler, Fisher Building, 279 Dearborn Street, are preparing plans for the reconstruction, after a fire last winter, of a seven-story store and manufacturing building, 84x150 feet, at the southeast corner of Canal and Washington Streets, for the Northern Trust Company, northwest corner of La Salle and Monroe Streets, who represents the owner. It will probably be of reinforced concrete construction, with brick and stone exterior, have composition roof, steam heat, structural iron work, the improvements being estimated to cost \$60,000 to \$70,000.

Architects Jenney, Mundie & Jensen, New York Life Building, 1401 La Salle Street, are preparing plans for a hotel to be built at the intersection of State and Nineteenth Streets for J. L. Kesner, general manager of "The Fair," private office in Majestic Theater Building, 75 Monroe Street. It will be six-story, triangular in shape, have pressed brick, iron and plate glass fronts, composition roof, hardwood finish, steam heat, wiring for electric light, marble and tile work, elevators, the latest improvements, and cost about \$75,000. Work is to be begun the coming fall.

F. A. & A. W. Anderson, real estate dealers, 1749 Kenmore Avenue, will receive bids for an apartment building to be built at the southwest corner of Indiana Avenue and Forty-fifth Street. It will be three-story, 131x67 feet, have pressed brick and stone front, composition roof, oak finish and floors, marble, tile and mosaic work, steam heat, wiring for electric light, mantels, consoles, contain eighteen apartments, and cost

\$75,000. Architect A. Sandegren, First National Bank Building, prepared the plans.

Reports state that plans have been completed for the Princess Theatre to be erected on Clark Street, at an estimated cost of \$150,000. For particulars address Mort H. Singer of the La Salle Theatre.

CLEVELAND, O.—J. Milton Dyer and F. G. Bates, architects, Cuyahoga Building, have let general contract to Andrew Dall & Son, 403 Lennon Building, for an eight-story bank building for the First National Bank. John Sherwin, president. Cost, \$300,000.

Albert E. Skeel, architect, Rose Building, City, has completed plans for a hospital building for contagious diseases for the Board of Public Service. W. J. Springborn, president. Cost, about \$400,000.

COLUMBIA CITY, IND.—It is reported that D. C. Dennison, of Chicago, is in this city and is presenting a proposition to local men to erect a \$300,000 automobile factory.

COLUMBUS, IND.—The Government, it is said, has purchased a site upon which to construct a new Government building in this city. Bids will be called for as soon as plans are completed.

COLUMBUS, O.—Richards, McCarty & Bulford, The Ruggery, have revised plans and will let contracts about October 1 for a five-story department store, 101x187 feet, at High and Town Streets, for F. & R. Lazarus Co., on premises. Press brick and concrete blocks will be used in construction, with galvanized iron cornice, plate and prism glass, marble, mosaic and tile work, metal lath, mineral wool, hard plaster, reinforced concrete, composition roof, structural iron work, terra cotta, coal chutes, fireproof windows, furnace heat, plumbing, rolling partitions and shutters, screens, vault doors and ventilators. Cost, \$250,000.

CORDELE, GA.—Dave Browder is having plans and specifications drawn preparatory for the erection of a \$50,000 hotel. The building will be four stories and will be constructed of pressed brick, marble and stone. It will have all modern improvements and telephones in all rooms.

CULLMAN, ALA.—Plans submitted by Fred. Gordon Shaw, of Meridian, Miss., have been accepted for the buildings which are to be erected near here by the Alabama Odd Fellows as a Home for Widows and Orphans. The buildings to be erected include a three-story administration building, school, chapel, infirmary and a number of cottages. The total estimated cost is \$200,000. The administration building is to be erected at once under the supervision of the architect.

DALLAS, TEX.—The Agricultural and Mechanical College is considering plans and specifications for its proposed new buildings, including \$50,000 boys' dormitory and \$60,000 veterinary hospital, natatorium and engineering hospital. H. H. Harrington is President.

DAVENPORT, IA.—Architects Temple, Burrows & McLane, McManus Building, of Davenport, have plans for the new high school building at Burlington to cost about \$130,000.

DAYTON, O.—The People's Ry. Co. will

have plans made for three buildings, to be erected on Bolender Avenue. They will consist of one power house, one repair car barn building and one office building, which are to be two and three stories high, built of brick and cut stone, with concrete foundations. Estimated cost, \$300,000. Geo. C. Towle is General Manager, Dayton.

S. I. Williams, architect, Callahan Building, will complete plans about October 15 for a manual training school building, on East Fifth Street, for the school board. Cost, \$125,000.

DENVER, COL.—It is reported that a three-story building is to be erected at North Twenty-ninth Street and Osceola Street for St. Clara's Orphanage, at a cost of about \$75,000. F. W. Paroth, 916 Champa, Denver, Col., architect.

The directors of the American Mining Congress propose erecting a \$1,000,000 mining temple.

DETROIT, MICH.—The Great Eastern Sanitarium Company has been organized with a capital of \$200,000 to erect a sanitarium near Jefferson Street. Dr. Scott B. Hambley, 203 Field Avenue, is the Secretary.

DUBUQUE, IA.—Architect Schlack, of Chicago, has plans for an infirmary addition to the Mt. Carmel Mother House at Dubuque to cost \$70,000.

DULUTH, MINN.—Architects Frank L. Young & Co., Palladio Building, have prepared plans for the Union M. E. church to be erected on Nineteenth Avenue and First Street, to cost about \$35,000.

The Empire Company, it is said, intends erecting a theater here to cost \$100,000.

DUNBAR, PA.—The Pittsburg Cement Corporation will erect an immense cement manufacturing plant near Dunbar, Pa., in the heart of the Connellsville coke country, at a cost of \$500,000. A site has been purchased and the company has established offices in the Fulton Building in Pittsburg, Pa.

EASTON, PA.—Plans are reported to have been approved by the County Commissioners for an addition to the Northampton County Prison to be erected at a cost of \$100,000.

EATON, O.—Wm. F. Stillwell, of Lafayette, Ind., has obtained a contract for the erection of a memorial building in Eaton to cost approximately \$200,000.

EAU CLAIRE, WIS.—Sealed proposals will be received at the office of Supervising Architect James Knox Taylor until 3 o'clock P. M. on the 1st day of October, 1907, and then opened, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. Court House and Post Office at Eau Claire, Wis., in accordance with drawings and specifications, copies of which may be had at this office or at the office of the custodian of site at Eau Claire, Wis., at the discretion of the supervising architect, Jas. Knox Taylor.

EDWARDSVILLE, ILL.—A movement is on foot in Madison County to erect a new

court house to replace the one now in use at Edwardsville.

ELIZABETH, N. J.—Plans are on foot looking towards the erection of a new high school building to cost \$68,000, to be located on Grant Avenue, between Filbert and Locust Streets.

ESCANABA, MICH.—It is reported that the government has selected a site for the \$50,000 federal building.

EUDOWOOD, MD.—Bids are being received for the erection of an addition to buildings here to be used for advanced tuberculosis patients. Plans by Wyatt & Nolting, Keyser Building, Baltimore, Md. Buildings will consist of a central structure, with several wings, dormitory being 23x79½ feet.

FAIRBURY, NEB.—The Fairbury Hospital Association has yet to select a plan for the proposed building. W. S. Hamilton has completed excavation for the proposed \$50,000 hotel for the Boone Hotel Co.

FARNHURST, DEL.—A building will be erected at Farnhurst for the Delaware State Insane Asylum, which will cost \$200,000. The building will be two stories high, with attic and improved basement, and will occupy a lot measuring 142x100 feet. It will be constructed of brick and stone. All partition walls will be of brick and will be sound-proof. The first floor will be divided into women's and men's living rooms, baths and cells. The second floor will be divided into four large dormitory wards, and the basement will have a gymnasium, smoking rooms and the power plant.

FLANDREAU, S. D.—The Father Quick Memorial Association has been formed to raise funds to erect a Catholic church here. Rev. Fr. Martyn, president.

FREMONT, NEB.—It is stated that a school will be erected by the Fremont Episcopalians, to cost \$50,000.

GARDEN CITY, KAN.—Father Bogner, it is said, has made all arrangements to erect a Catholic church in Syracuse.

GRANGEVILLE, IDA.—Press reports state that a new hotel is to be erected here immediately, on the site of the old Jersey House, which was destroyed by fire two years ago. The building will be a modern two-story structure, 94x120 feet, containing about fifty rooms. Ten suites with private baths. Each room will have hot and cold water, steam heat and electric light. It will be built by the Imperial Hotel Company for \$75,000 and will be called the Hotel Imperial.

GREENCASTLE, IND.—Plans will be prepared by D. A. Bohley & Son, 1017 Majestic Building, Indianapolis, for a library to be erected at De Pauw University, two stories high, 82x124 feet, and estimated to cost \$50,000.

GROSSE POINTE FARMS, MICH.—It is said that J. L. Hudson will erect a \$50,000 residence near the Country Club.

HADDON HEIGHTS, N. J.—A new school building will be erected at Haddon Heights from plans and specifications by Thomas Stevens, architect, of Camden, N. J. It will be a two-story building, measuring 50x56

feet. It will be built of brick and stone, with slate roof, hardwood finish, steam heat, etc.

HAMILTON, O.—Sealed proposals will be received at the office of Supervising Architect James Knox Taylor until 3 o'clock P. M. on the 24th day of September, 1907, and then opened, for the construction (including plumbing, gaspiping, heating apparatus, electric conduits and wiring), of the U. S. Post Office Building at Hamilton, O., in accordance with drawings and specifications, copies of which may be had at this office or at the office of the custodian of site at Hamilton, O., at the discretion of the supervising architect.

HARRISBURG, PA.—The Graupner Brewing Co. has had plans prepared and is ready for bids on an eight-story hotel, 55x125 feet, at Fifth and Market Streets. Brick and steel, fireproof. Estimated cost, \$100,000.

HELENA, MONT.—Plans have been prepared for the Catholic parochial school building, and bids will be taken soon. Address Bishop Carroll.

HODGENVILLE, KY.—John Russell Pope, New York City, is preparing plans for a one-story marble museum at Hodgenville for the Lincoln Memorial Association. Cost, \$150,000.

HOUSTON, TEX.—George Horton, County Engineer, has prepared preliminary plans for erection of proposed court house for Harris County, which call for a structure four stories high, with basement, the latter to be of cement, first story of granite and remainder of pressed brick at \$30 per 1,000; color and samples of brick to be submitted by architects. Two passenger and a freight elevator are to be installed. Architects are invited to submit plans; A. E. Amerman, County Judge.

INDIANAPOLIS, IND.—D. A. Bohlen & Son, Majestic Building, will prepare plans for the Sisters of St. Agnes for a three-story brick and stone academy to be erected at Meridian and Fourteenth Streets at an estimated cost of \$250,000.

JACKSONVILLE, FLA.—L. M. Weathers Company, architects, Cotton Exchange Building, Memphis, Tenn., have plans for furnishing material and erecting the seven-story Masonic Temple and office building. Cost of building, \$110,000. Geo. L. Drew, secretary building committee Masonic Association, 106 Main Street.

JACKSONVILLE, IND.—The trustees of the Woman's College in this city are preparing to ask for bids for the erection of a new college building estimated to cost \$100,000.

JAMAICA, L. I., N. Y.—Wm. A. Swasey, architect, 40 West Thirty-third Street, New York, will prepare plans for a six-story hotel and theater at Jamaica for the Jamaica & Long Island Realty Co. Probable cost, \$250,000.

JEANNETTE, PA.—Plans and detailed specifications have been about completed by Architect F. E. Gatterdam, of Chicago, Ill., for a brewery to be built at Jeannette, Pa., for the International Brewery Co. It will be of fireproof steel construction and con-

crete foundation, with reinforced concrete floors, and will cost \$400,000.

JELICO, TENN.—The Louisville & Nashville and Southern Railway Company will erect a passenger station at a cost of \$60,000. W. H. Courtney, Louisville, Ky., chief engineer.

JENKINTOWN, PA.—Horace Trumbauer, architect, Land Title Building, Philadelphia, will prepare plans for a three-story stone and steel fireproof residence, at Jenkintown, for John Wanamaker.

KANSAS CITY, KAN.—Architect W. W. Rose, Postal Telegraph Building, is preparing preliminary plans for a three-story Masonic Temple for the Masonic Order, Judge Holt, N. N. Rose and Henry McGrew. Cost, \$100,000.

KANSAS CITY, MO.—The Gloyd Lumber Co., it is said, will erect an office building; seven stories, 40x70 feet; steam heat; gas and electricity; cost, \$225,000. J. W. McKechnie, architect.

The Sisters of St. Joseph, care T. F. Houlehan, 306 New England Building, contemplate erecting a brick and stone convent and academy in the Rockhill District to cost about \$225,000.

Louis G. Curtis, architect, is receiving bids on a five-story office building, 90x100 feet, at 1022 McGee Street, for D. J. & A. J. Dean and H. R. Ennis. Cost, about \$200,000.

W. W. Candy, 5058 Washington Avenue, will erect a five-story mercantile building at cost of \$100,000. G. W. Hellmuth, Equitable Building, is architect.

Louis G. Curtis, architect, 1114 McGee Street, has prepared plans for a twelve-story brick, stone and reinforced concrete hotel, at Twelfth and Baltimore Streets, for the Baltimore Hotel Co. It will cost approximately \$1,000,000.

Brotha Adrian, architect, Easton Avenue and Kingshighway Boulevard, is preparing plans for a church, 151x225 feet, at Merrimac and Compton Avenue, for St. Anthony's congregation, Rev. T. Magnien, pastor, 3140 Merrimac Avenue, Cost, \$250,000.

The vestry of St. George's Episcopal congregation is proposing to build a new church at the northeast corner of Thirty-third Street and the ase. No plans for the structure have as yet been decided upon.

E. C. Janssen, architect, Chemical Building, is receiving figures on an eight-story mercantile building, 27x175 feet, on Twelfth Street, between Locust and St. Charles Streets, for Louis Friedman, 510 North Sixth Street. Cost, \$100,000.

Howe, Hoyt & Cutler, architects, 313 East Tenth Street, have prepared preliminary plans and will receive bids for a five-story brick and stone business and office building, 70x115 feet, at Tenth and McGee Streets, for Dr. W. E. Minor. It will be of reinforced concrete or steel construction.

Frank S. Rea, architect, it is said, is preparing plans for remodeling the county poor farm buildings. As soon as they are finished contracts for construction work will be let. The cost is to be about \$250,000.

LA CROSSE, WIS.—Van Ryn & De Gelke, architects, 211 Grand Avenue, Milwaukee, are preparing plans and will receive bids after October 1 for a three-story State Normal School Building at La Crosse for the State Board of Education, Madison. Estimated cost, \$200,000.

LA FAYETTE, IND.—The La Fayette Insurance Co. will erect an office building here to cost \$100,000.

LAWRENCE, ARK.—Dr. J. W. Clendon, Joe Longinotti, William McGuigan, Dr. E. C. Hays and others have purchased the Potash Sulphur Springs property and will erect hotel and sanitarium to contain about 150 rooms.

LAWRENCE, KAN.—Sealed proposals will be received by the Regents of the University of Kansas until 11 A. M. Tuesday, September 17, for the erection of an engineering building on the campus of the University at Lawrence, in accordance with plans and specifications prepared by John F. Stanton, State Architect.

LEESVILLE, LA.—C. H. Page, First National Bank Building, Austin, Tex., is reported to have been selected to prepare plans for the court house to be erected in Leesburg at a cost of \$100,000.

LINCOLN, NEB.—Steps are being taken to secure the erection of a court house in Howard County, Neb.

LITTLE ROCK, ARK.—George R. Brown, secretary of the Board of Trade, stated that the organization he represents will make an effort to secure the \$200,000 Methodist hospital for Little Rock. The hospital is to be located within the bounds of Arkansas, Mississippi, Tennessee or Alabama. The chairman of the Committee on Location is John H. Sherard, of Sherard, Miss.

George R. Mann, the architect, drew the plans of the new building for the High School, which is to be erected by the School Board at Pine Bluff, at a cost of \$90,000. The building is to be three stories, faced with rich, red brick, laid in white mortar, the stone trimmings are white, and the roof is covered with red shingle tile.

LORAIN, O.—The Church of the Nativity, Rev. Charles Ruszkowski, pastor, is having sketches submitted for a church. \$60,000.

LOS ANGELES, CAL.—Plans have been prepared by Dennis & Farwell, 414 Currier Building, for the erection of a seven-story building, to be erected on Fourth and Main Streets, for the Salvation Army. The estimated cost is about \$75,000.

MADISON, WIS.—Arthur Peabody, State Architect, is preparing plans for a four-story ladies' dormitory for the State University, which will cost about \$100,000.

Architect J. T. W. Jennings, University of Wisconsin, has prepared plans for an addition to the Glencoe, Ill., school.

MARQUETTE, MICH.—It is stated that Architects Charlton & Kuenzli, Nester Block, Marquette, are preparing plans for the library and museum building which is to be erected at the Michigan College of Mines.

MAXTON, N. C.—North Carolina Methodist Conference will erect an administration building and two dormitories at a cost of \$140,000; architects, Stout & Benton, Rocky Mount, N. C.; fireproof buildings;

brick, trimmed with stone; steam heat; electric lighting.

MAYSVILLE, KY.—A district school and a new high school building will be erected here at an estimated cost of \$75,000. Address the clerk of the School Board for information.

MENOMONIE, WIS.—It is said that plans will be made by the Stout training school for enlarging its facilities at a cost of about \$50,000.

MILWAUKEE, WIS.—It is stated that the Geuder & Paschke Mfg. Co., of this city, has under consideration the erection of a large addition to its present plant, the cost of which will be \$200,000.

Salem Lutheran Church, Cramer and Thomas Street, is trying to raise \$60,000 for a new church building. Rev. Otto H. W. Hagedorn, 404 Thomas Street, pastor.

Charlton & Kuenzli, 82 Wisconsin Street, have prepared plans for a \$50,000 building for the Upper Peninsula Hospital for Insane, at Newberry, Mich.

It is said that a building permit was issued this morning to Otto L. Kuehn for the erection of a \$75,000 warehouse on the southeast corner of Milwaukee and Detroit Streets. The structure is to be of the mushroom system of concrete construction.

Reports state that a permit was issued for a store and office building, to be erected on Lincoln, Howell and Kinnickinnic Avenues, at a cost of \$50,000, by the Merchants' Investment Company.

C. H. Doerflinger, 254 Ninth Street, president of the National New Educational League, will give information about plans to erect a large model school of the league in Milwaukee, the first of a system of such schools all over the United States.

MINERAL WELLS, TEX.—Messrs. Baker & O'Neil, it is stated, will erect a modern hotel, to cost about \$400,000.

MINNEAPOLIS, MINN.—Plans have been prepared for an eight-story addition to the twelve-story Metropolitan Life Building at Second Avenue south and Third Street. The cost of the addition will be nearly \$300,000.

MONTGOMERY, ALA.—The Wells Bros. Co., 160 Fifth Avenue, New York, has been given the contract for building twelve-story office building for N. J. Bell, of this city. Estimated cost, \$400,000. Ausfeld & Blount, Jackson Building, Montgomery, Ala., are architects.

MONTRON, PA.—An effort is now being made by several citizens and promoters to interest Binghamton business men in the erection of a large and modern summer hotel in that place. If the hotel is built the equipment will be first class in every particular.

MUSCATINE, IA.—Sealed proposals will be received at the office of Supervising Architect James Knox Taylor until 3 o'clock P. M. on the 19th day of September, 1907, and then opened, for the construction complete of the U. S. Post Office at Muscatine, in accordance with drawings and specifications, copies of which may be had at the office of the postmaster at Muscatine, Ia.,

at the discretion of the supervising architect.

Plans are completed for the court house at Muscatine; cost, \$150,000.

NEENAH, WIS.—The Equitable Fraternal Union, it is said, is planning to erect a headquarters building here, to cost \$80,000.

NEWARK, N. J.—Kitchell & O'Rourke, Scheurer Building, will prepare new plans for the Lincoln school, to be erected in Richelieu Terrace, at an estimated cost of \$90,000.

P. Charles, architect, 612 Union Building, City, is receiving estimates on a twelve-story office building, 108x119 feet, to be erected at Clinton and Beaver Streets, for the Union Building Co., Union Building. Estimated cost, \$400,000.

NEW ORLEANS, LA.—DeBuys, Churchill & Labouisse, architects, Hibernia Building, City, will prepare plans and specifications for erection of the Richardson Memorial Dormitory, to be constructed with a view of future enlargement. Total cost will be about \$200,000. Joseph A. Hincks is secretary.

Plans prepared by Emile Weil, Hibernia Building, have been accepted for erection of the Touro Synagogue; 85x160 feet; pressed brick; tiled roof on dome, with terra-cotta trimmings; floor of lobby to be tiled, with marble base around walls; hot-air heating, fan driven; cost about \$100,000.

NEW YORK, N. Y.—Press reports state that plans have been decided upon for a seven-story home for the Lotus Club, to be erected on the site of the Castleton apartment house, at 110 West Fifty-seventh Street. Estimated cost, \$500,000.

Bids are asked until 11 A. M., September 11, by Bird S. Coler, President Borough of Brooklyn, to prepare certain rooms on the first floor of the Municipal Building, Borough of Brooklyn, for occupancy by the Coroners and the Registrar of Water Rates, Borough of Brooklyn.

Wakeham & Miller, 1133 Broadway, are general contractors for the new church to be erected for St. Paul's Roman Catholic Parish, 116 East Eighteenth Street, to cost \$160,000. Neville & Bagge, 217 West 125th Street, are the architects.

The Hensle Construction Company, 302 West 120th Street, has had plans prepared by Architect L. A. Goldstone, 110 West Thirty-fourth Street, for an apartment house, to be built at the northeast corner of Riverside Drive and 138th Street at an estimated cost of \$200,000. It will be a three-story building of brick, stone and iron, fireproof, and will be finished in hardwood and have steam heat, electric light, elevator, tile and mosaic work, and the latest improvements and appliances in all lines.

It is said that separate contracts will be let for decorations, fixtures, etc., for the new residence which is about to be built at 47-49 West Sixty-fifth Street for Mrs. James Roosevelt, 200 Madison Avenue, from plans by Architect Charles C. Platt, 11 East Twenty-fourth Street, by James McWalters, 2434 Broadway, builder. It will be a seven-story structure, fireproof, to have the latest improvements and appliances and cost about \$125,000.

The Pacific Realty Company, 907 Broadway, are about to start work on the new business building which they will erect at 12-14 West Thirty-second Street from plans by Architect Rouse & Sloan, 11 Forty-third Street. It will be a twelve-story building, measuring 34x85 feet, of brick, stone and iron, fireproof, with composition roof, steam heat, electric light, elevators, etc. Cost, \$200,000.

Architects Schwartz & Gross, 35 West Twenty-first Street, it is said, have prepared plans for a six-story apartment house for T. J. McLaughlin's Sons at Broadway and 143d Street, to cost \$250,000.

The Van Nest Presbyterian congregation has had plans prepared by Architect James E. Ware & Son, 1170 Broadway, for a new church which they will build at the corner of Morris Park and Barnes Avenue. It will be a one-story building of brick and stone and will be finished in hardwood and have steam heat, electric light, etc.

Plans have been prepared by Architects Neville & Bagge, 217 West 125th Street, for a large new apartment house to be erected at the northwest corner of Morningside Avenue and 118th Street, by the West Side Construction Co., 321 West Ninety-second Street. It will be of fireproof construction, with steam heat, electric light, elevators, tile and marble work, etc. Cost, about \$250,000.

It is stated that Architects Schwartz & Gross, 35 West Twenty-first Street, have prepared plans for a twelve-story apartment building, 75x100 feet, on Sixteenth Street, west of Broadway, for Paterno Brothers, 616 West 116th Street. Cost, \$200,000.

NICHOLS, IA.—C. E. Duncan, member building committee, will receive bids until 12 M., September 9, for the erection of a town hall, on plans by H. W. Zeidler, architect, Muscatine, Ia. Check for \$100.

NORWICH, CONN.—It is reported that the House has passed favorably on a bill for new buildings at the Norwich Hospital for the Insane. Appropriation is \$300,000.

OLPE, KAN.—Architect Henry Brinkman, 619 Commercial Street, Emporia, Kan., it is said, is preparing plans for a church, 60 x 120 feet, for the Catholic congregation, Rev. Samuel Gelting, pastor, Olpe, Kan. \$40,000.

OMAHA, NEB.—Herman Cohn has taken out a permit for the erection of the Hotel Loyal at Sixteenth Street, from Capitol to Davenport, to be of steel, iron and tile construction, four-story, modern, fireproof. John Latenser, architect.

It is said that J. W. Thomas will erect an apartment house at Thirty-eighth Avenue and Farnham Street, to cost about \$50,000.

OTTAWA, CAN.—Another hotel project is on foot, involving a big venture at Ottawa by the Canadian Pacific Company. It is reported that the company is looking upon the block of land opposite the Supreme Court building, on Bank Street, as a site for a magnificent hotel, as commodious as its Place Viger, Montreal, or Chateau Frontenac, Quebec. Rumor has it that the railroad company intends to acquire all the property bounded by Bank, Wellington,

Kent Streets, and the Ottawa River, thus crossing Victoria Street. After erecting a hotel the Canadian Pacific would connect with the Central station by enough tracks to conveniently run all its passenger trains to the new hotel.

Plans for the new central station at Ottawa, to be built by the Grand Trunk, have been approved by the Federal Cabinet. They include an office building ten stories high. Work will be begun at once. The cost of the structures is estimated at \$1,500,000, or possibly \$2,000,000. The Grand Trunk is also prepared to build a hotel near the station, to cost \$1,000,000. Plans have been submitted to the government for a hotel building in Major Hill Park.

OTTUMWA, IA.—The Sisters of Humility, it is said, have bought a tract and will erect an academy, to cost \$70,000.

PARIS, MO.—It is reported that the Monroe County Commissioners are preparing to build a court house at a cost of \$75,000.

PENSACOLA, FLA.—The First Methodist Episcopal congregation has accepted plans and specifications by Badgley & Nicklas, architects, 6110 Euclid Avenue, Cleveland, O., for their proposed church. Bids will be taken in about thirty days.

PHILADELPHIA, PA.—Bids will be received this month for the erection of the ten-story office building which the Bell Telephone Company will erect on Broad and Spruce Streets.

P. J. Hurley, it is stated, has been granted a permit to make extensive alterations and additions to the building of the Philadelphia Museum at Thirty-third Street and Vintage Avenue for the City of Philadelphia. The cost will be \$50,000. Brockie & Hastings are the architects.

Reports state that Thomas M. Seeds was granted a permit to build a six-story addition, 42x62 feet, to the building of the Art Club on Broad and Chancellor Streets, at a cost of \$80,000. Newman & Harris are the architects.

Permit was granted, according to report, by the Bureau of Building Inspectors to Doyle & Co. for the erection of the large store and restaurant building at 1000 and 1002 Market Street for the Childs Dining Hall Company. The building, which will be erected at a cost of about \$100,000, will have a frontage on Market Street of forty-four feet and a depth on Tenth Street of 100.2 feet. The exterior will be of brick, with stone trimmings, and the construction will be fireproof.

Plans and specifications have been prepared by Stearns & Castor, architects and engineers, of this city, for an addition to the building of the Hebrew Education Society on Weikel Street, Richmond. The addition is to match the present structure. It will be built of brick and stone, with all modern appliances.

A large new apartment house will be built at the northeast corner of Forty-sixth and Walnut Streets for Berwind & Hoopes, owners, from plans and detailed specifications by J. E. Mooney, architect. Plans provide for a six-story building, measuring 100x100 feet, to contain twenty-four apartments. It will be built of brick, stone and iron, fireproof, with steam heat, electric

light, and the latest improvements and appliances in all lines. Cost of the building will be about \$200,000.

A large new residence will be built at Moore's station for Dr. J. Burton, owner. It will be a two-and-one-half-story building, measuring 34x38 feet, and will be built of brick and stone, with hardwood finish and floors, tile and mosaic work, electric wiring, and the latest improvements and appliances.

PITTSBURG, PA.—The Baltimore & Ohio Railroad Company (D. D. Carothers, chief engineer, Baltimore) is considering the erection of a warehouse on the three city blocks extending from Twenty-first to Twenty-fourth Streets and from Smallman Street to Mulberry Avenue. Estimated cost, \$3,500,000.

D. H. Burnham & Co., architects, 15 Jackson Boulevard, Chicago, will award contracts at once for a large office building to be erected at Pittsburgh for the Oliver Estate. It will be a twenty-four-story building covering an area 120x212 feet, of fireproof construction and provided with the latest improvements. Estimated cost, \$2,500,000.

The Jones & Laughlin Steel Co. will erect an eight-story brick and steel office building, covering a block on Ross Street, between Second and Third Avenues. Cost, \$375,000.

Sealed proposals will be received at the office of the supervising architect, James Knox Taylor, until 3 o'clock P. M. on the 16th day of September, 1907, and then opened, for the construction (except elevators), of the U. S. Marine Hospital, at Pittsburg, Pa., in accordance with drawings and specifications, copies of which may be had at this office or at the office of the custodian of the site, at Pittsburg, Pa., at the discretion of the supervising architect.

Walter A. and Samuel Feltyberger, Columbia Bank Building, Pittsburg, Pa., well-known builders of high-class houses, are planning an innovation in a \$35,000 residence which they will build shortly in the East End.

PITTSFIELD, MASS.—William Nugent, secretary School Committee, states that no plans have been prepared for the school to be erected at Finn and First Streets. It will cost about \$75,000.

PLEASANTVILLE, N. Y.—The Hebrew Sheltering Guardian Society are about to erect a large new institution at Pleasantville, N. Y. Plans are being prepared by Architects Jacobs & Heidleberg, 320 Fifth Avenue. The institution will consist of school buildings, work shops, hospital, administration building, and cottages. About \$500,000 will be expended on the project. Previously reported.

POUGHKEEPSIE, N. Y.—Bids are being taken by Percival M. Lloyd, architect, 39 Market Street, on an eight-story fireproof apartment house to be known as Scott's Chambers.

PULLMAN, WASH.—Bids are asked by State Board of Control, Olympia, until 2 P. M., September 16, for the construction of a library and assembly hall building and heating for same for the State College, at

Pullman. Plans, etc., at office of John K. Dow, architect, Spokane; and at office of E. A. Bryan, State College, Pullman.

RED FORK, I. T.—The Red Fork Power & Development Company will erect an electric light plant to cost about \$100,000. F. L. Smart, J. E. Dunn and J. Robert Burnham are interested.

REDONDO, CAL.—Plans have been prepared for the new plunge and bath house which will be constructed here by H. E. Huntington, at an estimated cost of \$200,000.

RIDGEFIELD, CONN.—A number of capitalists are planning to erect a modern hotel with 200 rooms, 100 with baths, and fitted up with all the latest, up to date conveniences for A. Stanley Stanford, who is operating the Hotel Majestic at Tarrytown.

ROCHESTER, MINN.—The Academy of Our Lady of Lourdes will receive bids until September 9 for the erection of a modern three-story building, E. Brielmaier Sons, architects, Milwaukee. Cost, \$100,000.

ROCHESTER, N. Y.—Plans have been prepared for the new building to be erected by the Genesee Amusement Company on St. Paul Street, to be used for a skating rink and for bowling alleys. Cost, \$75,000.

ROCKDALE, TEX.—An electric light plant will be erected here, to cost about \$3,000,000. Joseph J. Henry, of Denver, Col., is interested.

ROCKY MOUNT, N. C.—Bland, Tillery & Ricks are having plans prepared by Leitner & Wilkins, Wilmington, N. C., for the erection of a hotel; 80 rooms, all with bath. Cost, \$50,000.

SPOKANE, WASH.—F. A. Blackwell, president of the Washington & Idaho Northern Railway Company, has instructed his engineers to prepare plans for shops to cost \$60,000, work upon which will begin late this year. The company will also build a sawmill on its line.

Samuel Galland, of the Spokane Realty Company, announces that a three-story hotel building, 75x165 feet, costing \$75,000, will be erected by that concern at Bernard Street and Sprague and First Avenues in a short time. The first floor will be used for business purposes.

The Polson Implement Company has purchased the building at Railroad Avenue and Lincoln Street from Childs Bros. & Day as a site for a six-story warehouse to cost \$40,000. The property is 73x100 feet in size. The ground is owned by the Northern Pacific Railway Company. Child Bros. & Day had a lease on that property which expires next year, but the Polson Implement Company has secured a 10-year lease, with an option of renewal at the end of that time.

Our correspondent reports as follows: Scarcity of small houses for rental or purchase on instalments because of the large influx of homeseekers, and the inability of builders to keep up with the growth of the city, has become such a problem that the promotion committee of the Spokane Chamber of Commerce will begin negotiations at once with builders and contracting firms in the eastern and middle western cities to erect from 2,500 to 3,000 three, four and five-room cottages and at least 100 apart-

ment houses during the coming year. This involves an expenditure of approximately \$4,500,000, upon which from 8 to 10 per cent. interest will be guaranteed. People have been coming into Spokane at the rate of 10,000 a year in the last three years, and Frank H. McCune, secretary of the committee, estimates that this year 15,000 more will have become residents of the city before the end of December. He said: "Our builders are figuratively up to their eyes with work; for that reason we are inviting contractors from the outside to help us build the houses that will be required."

St. JOSEPH, MO.—The Selden-Breck Construction Company, of Memphis, has been awarded the contract for erecting the hotel which the Isele Bros. will operate. The structure will be nine stories in height. It will be of steel construction and fireproof. The original plans and specifications called for a building to cost \$365,000, but were altered, and under the new plans the cost will aggregate \$425,000.

St. LOUIS, MO.—Dr. F. T. Varney is heading a syndicate which proposes to erect a sixteen-story commercial building on Chestnut Street. The plans call for a steel and concrete building to cost \$300,000.

The Board of Public Improvements will build a three-story almshouse, 107 feet square, to cost about \$150,000. Architects Drischler & Elsner, Wainwright Building, prepared plans.

Architect William Gruen, Chemical Building, has prepared plans for a three-story turner hall for the Tower Grove Turnverein. E. A. Baum, secretary. Cost, \$100,000.

Press reports state that the project for the fifteen-story St. Charles Hotel, at the southwest corner of Eighth and St. Charles Streets, has been abandoned in favor of an office building on the same site. Inability to place a bond issue of \$300,000 on the hotel proposition is given as the reason for a change of plans. Members of the syndicate which has had the deal on for some time include: August Schlafly, C. L. Gray, M. M. Stevens and J. B. Legg.

St. PAUL, MINN.—Architect J. Walter Stevens, 705 New York Life Building, has prepared plans for a six-story cold storage warehouse, 82x125 feet, on Third Street, for Newton R. Frost, 216 German Life Building, city. Estimated cost, \$100,000.

SAN ANTONIO, TEX.—Henry T. Phelps, architect, Hicks Building, is preparing plans for a \$150,000 building to be erected by the Woods National Bank Co.

SAN FRANCISCO, CAL.—A six-story building will be erected on Grant Avenue and Geary Street by Meyerstein & Rothschild at an estimated cost of \$105,000.

The Holmes Investment Company will erect an eight-story class A building on Post Street, east of Kearny, to cost \$75,000, and D. O. Mills to erect a ten-story class A office building on Bush Street, to cost \$340,000.

Boardman & Tompkins will erect a five-story steel and brick store and loft building at California and Front Streets, to cost in the neighborhood of \$100,000.

Preliminary plans are being prepared at the quartermaster-general's office for improvements at Fort Mason to cost about \$1,500,000.

SEATTLE, WASH.—Architect W. D. Kimball, 313 New York Building, has plans for an eighteen-story building to be erected at Marion Street for the Puget Sound Realty Association Company. Cost, \$800,000.

Graham & Myers, architects, have plans for an addition to the Algonquin apartment house, to cost \$160,000.

SELMA, ALA.—Treasury Department, office of the Supervising Architect, will receive bids until September 30 for the construction (including gas piping, plumbing, heating apparatus, electric conduits and wiring) of the United States post office at Selma, Ala., according to plans and specifications at the office of the custodian of site at Selma, or at this office, at the discretion of the supervising architect. James Knox Taylor, Washington, D. C.

SHARON, PA.—The Sharon Masonic Temple Association has been formed to build a \$75,000 structure. Address president of the association.

SHREVEPORT, LA.—Bids are asked by H. G. Snyder until September 10 for furnishing all material and labor for the completion of the Elks' club building.

SPIELERVILLE, ARK.—It is thought that sufficient money will be raised soon to build the new \$300,000 addition to New Subiaco Abbey, the German Catholic College at this place. The total cost of the building will be \$1,000,000.

STAMFORD, CONN.—Plans and detailed specifications have been completed by Architects Tracy & Swartout, 244 Fifth Avenue, for a new clubhouse to be erected at Stamford, for the Y. M. C. A. It will be a two-story building, of brick, stone and iron, fireproof, to have steam heat, electric

light, tile and mosaic work, and the latest improvements and appliances in all lines.

SULPHUR, I. T.—Col. Reece, of Mineral Wells, Tex., has purchased lots on the corner of Eleventh Street and Davis Avenue, and will erect a modern four-story hotel, with private baths with every suite of rooms.

SYRACUSE, N. Y.—Syracuse University has borrowed \$400,000, it is reported, with which to complete work on the new gymnasium and other work that has been started. Bids on the gymnasium work will soon be asked for.

Russell & King, Snow Building, City, it is said, have been selected as architects for the new women's pavilion at the County Home, to accommodate 200 women. The plans will have to be approved by the Board of Supervisors of Onondaga County before they are accepted.

Architect Archimedes Russell, 321 the Bastable, is preparing plans to remodel the old court house for the city of Syracuse. Cost, \$200,000.

TACOMA, WASH.—A. P. Gilles has taken out a permit for a twenty-four-story building, brick and steel, fireproof construction. Cost, \$6,000,000. E. W. Houghton, architect, Seattle.

Plans have been prepared by the F. S. Harmon Company for an eight-story building, to be erected at Twenty-first Street and Pacific Avenue. It will be 120x150, costing \$100,000.

TULSA, I. T.—A modern, fireproof six-story hotel, to cost in the neighborhood of \$200,000, will be erected by a New York company at the corner of Second Street and Cincinnati Avenue, where the old south M. E. church is now located.

WASHINGTON, D. C.—Albert Kelsey and Paul P. Cret, architects, 1524 Chestnut Street, Philadelphia, Pa., are preparing

plans for the Peace Memorial Building, at Seventeenth Street and Virginia Avenue, for the Bureau of American Republics. It will cost over \$500,000.

WENATCHEE, WASH.—Plans have been prepared for the Great Northern Hotel, which will be built by G. W. Stetson. The structure will be of brick and concrete, 120 x70 feet, three stories, with full basement, modern in all its appointments, and will cost about \$50,000.

WICHITA, KAN.—It is reported that the Santa Fe will erect a passenger station in the near future at a cost of over \$100,000.

The building committee of the Baptist church is preparing to erect the new edifice. The new church will stand on the corner of Lawrence Avenue and Second Street, and will cost \$60,000.

WILKINSBURG, PA.—The Women's Association of the United Presbyterian Church are planning the erection of an addition to the Columbia Hospital and a new nurses' home, to cost \$125,000. Plans have been prepared by J. L. Beatty, of Pittsburg, Pa. For particulars address Mrs. H. C. Campbell, president.

Architects Mowbray & Uffinger, of New York, have plans for a fireproof banking structure for the Bank of Wilkesburg, Pa. The interior will be of polished granite with 20-foot ceilings. R. L. Finley is president of the bank.

WRENTHAM, MASS.—Bids will be received by the Wrentham State School for the erection of a colony for patients, consisting of three frame buildings and additions and alterations in a frame house. Plans and specifications may be seen at the office of the architects, Kendall, Taylor & Stevens, 93 Federal Street, Boston, Mass.

YOUNGSTOWN, O.—It is reported that John Todd will erect a residence here to cost \$50,000.

POSITION WANTED.

POSITION WANTED—By architectural draughtsman capable of making scale drawings from sketches; details, specifications and superintendence; could take charge of small office. Address C. W. Eldridge, 335 Park St., Sprague, N. Y. (1654)

POSITION WANTED—Draughtsman and high-grade architect's assistant of universal experience wants position with prominent architectural firm. Designer for first-class buildings; pen and ink, perspective in water colors; details of every size; thoroughly experienced constructor; graduate of European Polytechnical University. References. Address O. F., 24, care of American Architect. (1654)

PARTNERSHIPS

ARCHITECT of experience, architectural graduate, capable in design, water color and ink rendering and all kinds of office work, for family reasons wishes to change location; would form partnership with established architect, good business man and capable superintendent, where by joint effort along above lines practice could be increased and its character improved. Address "Office Work," care American Architect. (1652-1654)

AN F. A. I. A. architect having an established and extensive business of long standing, desires a partner who is a good business man and a hustler; one who has had Beaux-Arts training or is an architectural graduate and who is able to design, etc., is preferred; fine chance for a good man. Address "Business," care American Architect. (1652-1655)

Monumental Staircases

40 Gelatine Plates, on bond paper 9"x11". In envelope. Price, \$5.00
THE AMERICAN ARCHITECT
Publishers

PROPOSALS.

Treasury Department, Office of the Supervising Architect, Washington, D. C., August 29, 1907.—Sealed proposals will be received at this office until 3 o'clock p. m. on the 17th day of October, 1907, and then opened, for the construction of an extension, remodeling, etc., including mechanical equipment (except lift), to the U. S. Post Office and Court House at Peoria, Illinois, in accordance with drawings and specifications, copies of which may be had at the office of the Custodian at Peoria, Illinois, or at this office, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1654-1655)

Treasury Department, Office of the Supervising Architect, Washington, D. C., August 29, 1907.—Sealed proposals will be received at this office until 3 o'clock p. m. on the 21st day

of October, 1907, and then opened, for the construction (complete) of the U. S. Post Office at Des Moines, Iowa, in accordance with drawings and specifications, copies of which may be had at this office or at the office of the Postmaster at Des Moines, Ia., at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1654-1655)

Treasury Department, Office of the Supervising Architect, Washington, D. C., August 24, 1907.—Sealed proposals will be received at this office until 3 o'clock p. m., on the 7th day of October, 1907, and then opened, for the construction and mechanical equipment (except plumbing) of an extension to the U. S. Post Office, Court House, etc., at Baltimore, Maryland, in accordance with drawings and specifications, copies of which may be had at the office of the Custodian in Baltimore, Maryland, or at this office, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1653-1654)

Treasury Department, Office of the Supervising Architect, Washington, D. C., August 22, 1907.—Sealed proposals will be received at this office until 3 o'clock p. m., on the 1st day of October, 1907, and then opened, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. Court House and Post Office at Eau Claire, Wisconsin, in accordance with drawings and specifications, copies of which may be had at this office or at the office of the Custodian of site at Eau Claire, Wisconsin, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1653-1654)

INTERLOCKING RUBBER TILING



"Copyright 1907 by New York Belting & Packing Co., Ltd.

Particularly adapted for Court Houses, Banking Institutions, Church Aisles, Hospitals, Libraries, Business Offices, Restaurants, Vestibules, Elevators, Kitchens, Laundries, Pantries, Bathrooms, and for Steamships and floating property generally.

MANUFACTURED SOLELY BY

New York Belting & Packing Co., Ltd.
91 and 93 Chambers Street, New York

Chicago, 150 Lake St.; St. Louis, 218-220 Chestnut St.; Philadelphia, 118-120 N. 8th St.; San Francisco, East 11th St. & 3d Ave.; Oakland; Boston, 232 Summer St.; Indianapolis, 229 S. Meridian St.; Baltimore, 114 W. Baltimore St.; Buffalo, 600 Prudential Building; Pittsburgh, 913-915 Liberty Ave.; Spokane, Wash., 163 S. Lincoln St.; Sole European Depot—Anglo-American Rubber Co., Ltd., 58 Holborn Viaduct, London, E. C.

A Thorough Understanding

of how Terne Plates are made, has saved many a man many a dollar when specifying and laying a tin roof. That you may know exactly how



32 POUNDS COATING
ROOFING TIN

is made, and how carefully each branch of the Old Style process is adhered to, we want to send you our valuable booklet, "From Underfoot to Overhead," free of charge.

This follows the ore from the time it leaves the mine until it becomes a sheet of MF Tin; it also shows illustrations of the many processes through which the ore must pass before it is ready for the roofer's hands, and, taken all in all, is a book which every Architect, Roofer and Property-owner should read and keep for reference. Write to our Advertising Department to-day—and learn how "The Terne which turns the elements" is made.

AMERICAN
SHEET & TIN PLATE
COMPANY,

FRICK BUILDING,

PITTSBURGH, PA.

STANLEY'S BALL BEARING HINGES

In WROUGHT BRONZE and STEEL

Never Wear Down. Never Creak. Never Require Oiling.

The improved washer protects the balls against moisture and dust. For Sale by Leading Hardware Dealers.

Attractive Literature for the asking

THE STANLEY WORKS
NEW BRITAIN, CONN. NEW YORK CHICAGO

ESTABLISHED 1844 PEERLESS Mortar Colors

BLACK :: RED :: BROWN :: BUFF

NEW COLORS: Moss Green, Royal Purple, French Gray, Pompeian Buff, Colonial Drab—they are the original colors manufactured, and are the brightest and most durable

SAMUEL H. FRENCH & CO.
PHILADELPHIA

MASON SAFETY TREADS

For Stairs, Wood, Iron, Marble or Cement, new or old
HUNDREDS OF THOUSANDS IN USE

American Mason Safety Tread Co., Boston

LOOMIS FILTERS

Improved System Established 1880 Simple and Effective
LOOMIS-MANNING FILTER CO.

Main Office:
828 Land Title Bldg., Broad and Chestnut Sts., Philadelphia
Boston New York Baltimore Washington

Lightning Rods

Protection assured by our continuous copper conductors. Our booklet of valuable information, "Flashes of Lightning," illustrated, sent free.

THOMAS W. JONES, 180 Front Street,
New York

Corrugated Concrete Pile Co. of America

1170 Broadway, New York

LICENSEES

CHICAGO—Alling Construction Co. BOSTON—William L. Miller. BALTIMORE—The Engineering-Contracting Co.

ELECTRIC SIGNALS For Passenger Elevators

ELEVATOR SUPPLY & REPAIR CO.
136 Liberty St., NEW YORK 34 W. Monroe St., CHICAGO

MEMBER A. S. M. E.

ASSOCIATE MEMBER A. I. E. E.

John M. Barney
CONTRACTING ENGINEER

Structural work of all Classes and Mechanical and Electrical Equipments. Office Buildings. Apartment Houses. Manufacturing Plants. Theatres. Hotels, etc.

150 Nassau Street,
New York

Economy in Shades

lies in buying those that reflect the most light and last the longest. Frink's Reflecting Shades are the best made. All sizes and styles.

I. P. FRINK, 551 Pearl Street, New York

Mineral Wool

FIRE, SOUND and VERMIN PROOF **INSULATOR**
SAMPLES AND CIRCULARS FREE

U. S. MINERAL WOOL CO., 140 Cedar St., NEW YORK

ESTABLISHED 1868

THE "HAYES"

METALLIC GLAZED STRUCTURES

SKYLIGHTS FIRE PROOF WIRE GLASS WINDOWS

71-8TH AVE. NEW YORK

METAL LATHINGS ETC.

Patz Patent Store Front Construction

lets in every ray of light and gives every inch for display.

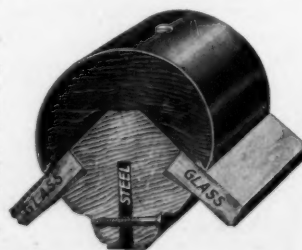
Saves time and money in glazing because it permits glass being set from the outside. Broken glass can be replaced without disturbing the window trim or removing enclosure.

Our new book

"METAL STORE FRONTS"

tells the complete story of the Patz Patent Store Front Construction in detail, shows full size cuts and illustrates some of the pleasing effects produced through its use. Sent free on request. In writing for it address Detroit Showcase Co., 482 West Fort St., Detroit, Mich.

For Sale by Pittsburg Plate Glass Co. at all branches.



Looking for Work



What a world of meaning is contained in that one little phrase. If you ever have been thrown absolutely on your own resources, with no prospect of immediate employment, nothing will stir you so deeply as the above photograph. If you have ever known what it means to haunt the offices of the big daily papers, awaiting the extra editions containing the daily "help wanted ads" in order that **you** might be the **first applicant** for a position, you can readily understand the hope and discouragement that animate the individuals in this picture. This is a scene that is enacted daily in front of The Chicago Daily News offices. From 200 to 500 men and women assemble there every day waiting for the papers to appear with their long columns of "help wanted ads."

How easily any one in this crowd could put himself forever above such a quest for insignificant, poorly-paid positions. The only reason that it is necessary to race with hundreds of others to apply for such a position is that almost any one is qualified to fill it and the first applicant will doubtless secure it.

It is only positions that require special training, special skill, special knowledge that must and do seek the man. Hundreds of such positions are advertised day after day and still cannot be satisfactorily filled. Why not put yourself above the **mediocre** and qualify yourself for a position of responsibility and trust, where your earnings are gauged **by what you know and not by the time you spend at your daily task.**

The American School of Correspondence is constantly fitting thousands of young men to start life in positions where there is an assured future for a man of ambition and brains. It is taking older men from poorly paid, uncongenial work and placing them where they can secure better pay, better future, better hours and better work for the rest of their working days.

WE EMPLOY NO AGENTS to annoy you with repeated calls at your home or place of business. We talk to you only by mail. The money you pay us is not used to maintain an expensive organization of high priced agents, but is used to give you better instruction at a lower cost.

**AMERICAN SCHOOL OF
CORRESPONDENCE**

CHICAGO, ILL.

Amer. Arch.
Sept. 7.-07
Send me 200-
page hand-book
describing over 60
courses. I am inter-
ested in the course
marked "X."

COUPON

..... Carpenter's Course
..... Contractors' & Builders' Course
..... Complete Architecture
..... Architectural Engineering
..... Architectural Drawing
..... Heating, Ventilating and Plumbing
..... Metal Roofing
..... Tinsmithing
..... Mechanical Engineering
..... Tool Maker's Course
..... Electrical Engineering
..... College Preparatory Course (fitting for entrance
to engineering schools)

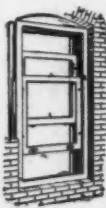
Name.....

Address.....

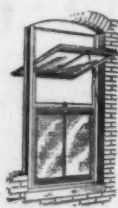
The Voightmann Fire Windows



The Voightmann Standard Automatic Closing and Locking Windows a Specialty.



The Voightmann Adjustable Weather Guide Window. Interior View. Showing Sash Weights.



The Voightmann System of Double Glazing, with Removable Ventilated Sash.

Made under the 1907 rulings of the CHICAGO FIRE UNDERWRITERS' LABORATORY, COMMAND earnest consideration from Underwriters, Engineers, Architects, Manufacturers, Builders and Owners.

VOIGHTMANN & COMPANY

MANUFACTURERS OF THEIR SPECIALTIES
UNDER PATENTS IN METALLIC
WINDOW FRAMES AND SASHES

427 West Thirteenth Street, NEW YORK
42-54 East Erie Street, CHICAGO



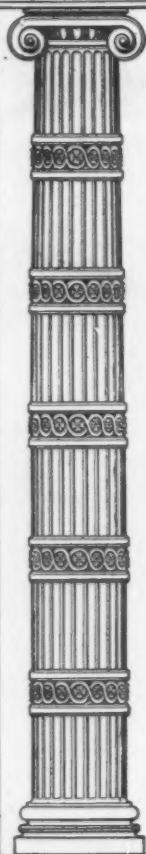
FROM the simplest hoist by hand to the most comprehensive elevator equipment, embracing in one instance over 40 elevators in a single building, we are prepared to successfully cope with any elevator problem. Besides ordinary passenger and freight elevators, we manufacture and install dumb waiters, escalators (moving stairways), hoists for mines, docks, warehouses, building operations, blast furnaces, etc. We also build incline railways, gravity conveyors, etc.

CORRESPONDENCE INVITED

OTIS ELEVATOR COMPANY

New York Office, 17 Battery Place

OFFICES IN PRINCIPAL CITIES OF THE WORLD



The
Northwestern
Terra Cotta Co.
CHICAGO
manufactures the
Highest Grades of
ARCHITECTURAL
TERRA COTTA
ENAMELED
WORK
A SPECIALTY

ARCHITECTURAL ORNAMENTS

OF THE HIGHEST ORDER
Papier-Mache, Compo, Staff and Plaster
also
Wood Carving and Modeling



CHARLES EMMEL

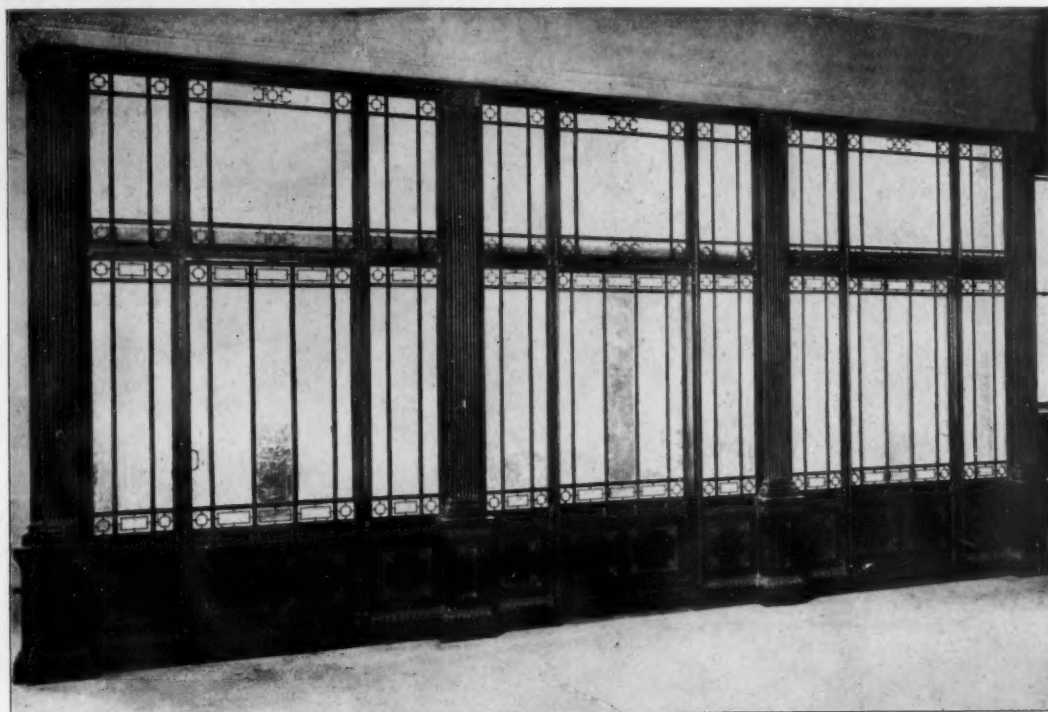
(ESTABLISHED 1884)

383 Albany St., Boston, Mass

Cornices, Modillions, Friezes,
Capitals, Consoles, etc.

Models made for Wood and Stone
Carving, Cement and Metal Castings

EXECUTING WORK FROM ARCHITECTS' DRAWINGS IS OUR
SPECIALTY



ELEVATOR ENCLOSURE, SECOND STORY AND ABOVE, UNITED ENGINEERING BLDG. NEW YORK
HALE & ROGERS, Architects

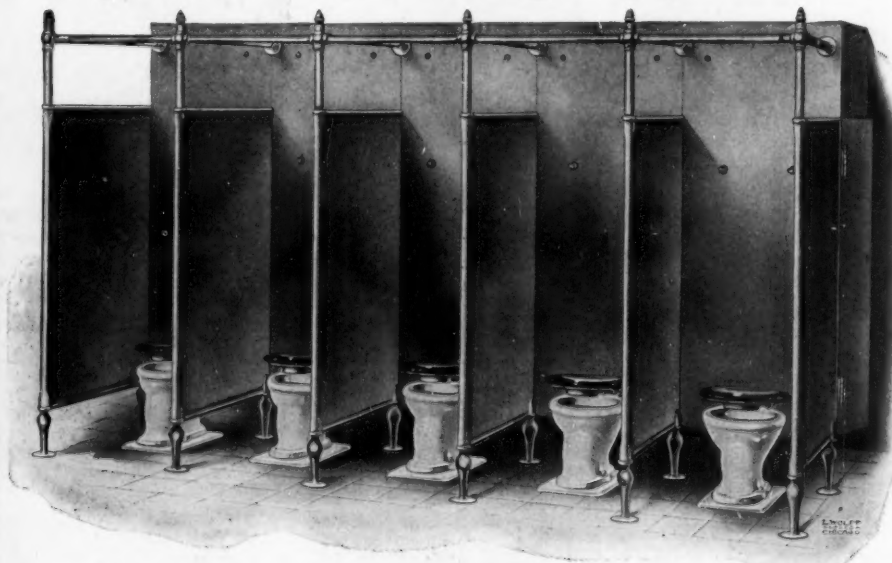
THE WINSLOW BROS. COMPANY

CHICAGO

Ornamental Iron and Bronze

NEW YORK

Improved Plumbing Appliances for Schools



IT IS necessary during school vacation that additional plumbing fixtures be installed.

UNSANITARY fixtures are replaced by others of modern construction.

OUR SCHOOL, HOSPITAL and FACTORY PAMPHLET illustrating a complete line of Plumbing Fixtures especially adapted for School, Hospital and Factory Work, will be a valuable aid in making selections for specifications.

We will be pleased to send same, if you will write us and address your inquiry to Department "S."

L. WOLFF MANUFACTURING COMPANY

ESTABLISHED 1855

Manufacturers of Plumbing Goods Exclusively

The Only Complete Line Made By Any One Firm

SHOWROOMS 91 DEARBORN STREET
CHICAGO

DENVER

TRENTON



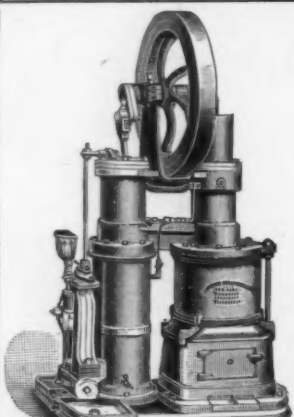
"Standard"

FIXTURES ALWAYS PREFERRED

Architects can make no mistake in specifying "Standard" Porcelain Enameled Ware for dwelling places of any kind, because houseowners in every section of the country know from actual experience that "Standard" fixtures are *in fact as well as in name* the standard sanitary equipment for their homes.

"Standard" Plate P-520 Porcelain Enameled "Anona" Design Lavatory, with Slab, Bowl, Apron and Back all in one piece, Nickel-plated "Hexagon" Pattern Legs and Concealed Wall Hanger, "Torrance" Pattern Fuller Faucets with China Handles and Indexes, Supply Pipes with Globe Air Chambers and Compression Stops with China Indexes, Imperial Waste with China Index, and Unique Trap with Waste and Vent to Wall.

Standard Sanitary Mfg. Co.
PITTSBURG, PA.



WATER

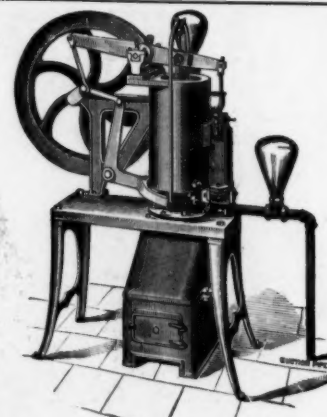
Rider & Ericsson Hot-Air Pumping Engines

If water is required for household use, lawn, flower beds or stable, no pump in the world will pump it so safely, cheaply and reliably. No danger, as from steam. No complication, as in gasoline engines. No uncertainty, as in wind-mills. Prices reduced. Catalogue "B" on application.

RIDER-ERICSSON ENGINE CO.

35 Warren Street, New York.
239 Franklin Street, Boston
234 Craig Street West, Montreal, P. Q.
22 Pitt Street, Sydney, N. S. W.

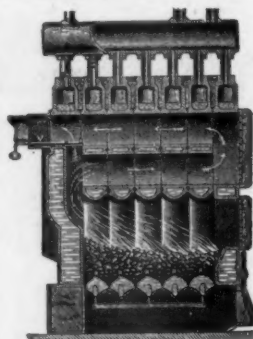
40 Dearborn Street, Chicago.
40 North 7th Street, Philadelphia
Amargura, 96, Havana, Cuba.



The Standard Plastic Relief Co.
G. M. KNOCHE, Pres. and Manager.
Manufacturers of
Plastic Relief Ornaments
— FOR —
Interior and Exterior Decorations




Write for Catalogue A
2101-2103 Reading Road
Cincinnati, O.



The H. B. Smith Co.
133-135 Centre St., New York
MANUFACTURERS
**STEAM and WATER
Heating
Apparatus**
Factory: Westfield, Mass.
NEW YORK, PROVIDENCE,
PHILADELPHIA.

ESTABLISHED 1853.
Send for Catalogue.



The "GLOBE" Ventilator

IN BRASS, COPPER, GALVANIZED IRON
AND WITH GLASS TOPS FOR SKYLIGHT PURPOSES

SIMPLE SYMMETRICAL STORM-PROOF EFFECTIVE

FOR PERFECTLY VENTILATING BUILDINGS OF EVERY CHARACTER

"The 'GLOBE'
is built on
honor and sold
on merit."

Smoky Chimneys Cured
MANUFACTURED BY

Globe Ventilated Ridging
SEND FOR MODEL AND PAMPHLET

GLOBE VENTILATOR COMPANY, - TROY, N. Y.

For nearly fifty years we have catered to the most important works of the leading architects of the world
THE STANDARD IN ALL COUNTRIES WHERE CEMENT IS KNOWN



YEARLY CAPACITY OVER TWO MILLION BARRELS

THE STANDARD AMERICAN BRAND

Atlas Portland Cement

ALWAYS UNIFORM

ATLAS Portland Cement is manufactured from the finest raw materials, under expert supervision in every department of the works, and is specified by leading engineers in the United States.

Output for 1907 over 13,500,000 bbls.

The Atlas Portland Cement Company

30 Broad Street, New York



ESTABLISHED 1827

WM H. JACKSON COMPANYUnion Sq. 29 East 17th St.

New York City

Also Pullman Bldg. Chicago Ill.

**WOOD & MARBLE MANTELS
FIREPLACES TILES
ANDIRONS**

ARTISANS IN ALL METALS

**A STANDARD PORTLAND
FOR UNIVERSAL USE****PRESENT DAILY OUTPUT 6,500 BARRELS
BEING INCREASED TO 17,000 BARRELS
PLANTS AT CHICAGO & PITTSBURG****UNIVERSAL PORTLAND CEMENT CO.**

CHICAGO

PITTSBURG

**WE MAKE ONE
BRAND ONLY**

The best that can be made

108 La Salle Street, CHICAGO

The Highest Grade of
Portland Cement Manufactured
LIGGETT BUILDING,
ST. LOUIS, MO.**Used 18 Years**

by Leading Architects and Builders in 1,600 cities and towns; by Engineers on 40 Railroad Systems and 25 Iron and Steel Companies.

**HIGHEST
GRADE
—
ALWAYS
UNIFORM****For Public
Edifices
and
Private
Dwellings**

Foundations of New Custom House in N.Y.; New East River Bridge Anchorages; N. Y. Stock Exchange, Chamber of Commerce, etc.

SALES OFFICES:

The Lawrence Cement Company, No. 1 Broadway, New York
The Lawrence Cement Co. of Penna.
Harrison Bldg., Philadelphia**TROY LAUNDRY MACHINERY CO.**

(Limited)

**FACTORIES**
Center St., Green Island
(Troy), N. Y.
23d and La Salle Sts.,
Chicago, Ill.**SALESROOMS**
State Bank Bldg., River
and Fulton Sts., Troy,
N. Y.
No. 33 Warren St., N.
Y. City.
No. 581-583 Mission St.,
San Francisco, Cal.
No. 116 Queen Victoria
St., London, E. C.,
England.
Berlin, Germany.
Amsterdam, Holland.
Paris, France.Send for Illustrated
Catalog.**VAILE & YOUNG'S
Patent Metallic Skylights
WITHOUT PUTTY**

Construction adapted to all forms and styles of Skylights.

Thousands of feet in use have proved its superiority. Particularly adapted for Depots, Mills, Factories, etc., where large and continuous lights are required.

Send for Illustrated Catalogue.

210 N. Calvert St., Baltimore, Md.

GURNEY HEATERS

For Heating ANY DESCRIPTION OF BUILDING BY STEAM OR HOT WATER

GURNEY HEATER MANUFACTURING CO.NEW YORK OFFICE 12 E 42ND ST. 188-200 FRANKLIN ST. BOSTON