

PRICE 15 CENTS

Public Library

FEBRUARY 20, 1904

THE
AMERICAN ARCHITECT
AND BUILDING NEWS

VOL. LXXXIII

* REGULAR EDITION *

NO. 1469

ARCHITECTURE

ENGINEERING

DECORATION

238 TREMONT ST.

CONSTRUCTION

BOSTON MASS.

CONTENTS.

TEXT: pp. 57—64.

EDITORIAL SUMMARY.
THE DELLA ROBBIAS.
COMMUNICATIONS.
NOTES AND CLIPPINGS.

ILLUSTRATIONS.

THE WOMAN'S HOSPITAL IN THE STATE OF NEW YORK, NEW YORK, N. Y.
PLANS OF THE SAME.
DORMER DETAILS OF THE SAME.

[Additional Illustrations in the International Edition.]

SCHEME FOR MIAMI UNIVERSITY, OXFORD, O.
DELLA ROBBIA WORK: FOUR PLATES.

Morse Elevators

Combine artistic beauty with absolute reliability, economical running and long life. These results are secured by using only the best materials and accurate workmanship.

Write for our descriptive booklet and ask us about your elevator problem.

MORSE, WILLIAMS & CO.

Philadelphia, New York, Boston, Atlanta

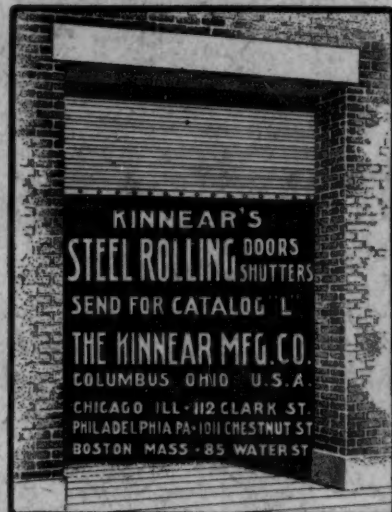
"RENAISSANCE FIREPLACES"

Forty Gelatine Prints on bond-paper in envelope

Price - \$5.00

AMERICAN ARCHITECT COMPANY

238 TREMONT STREET, BOSTON



SHOW WINDOWS

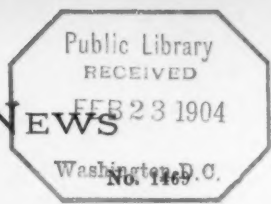
ought to be well lighted, if at all. Not a single objection can be raised against the Frink system of show window lighting. The Best Stores use it.

I. P. FRINK, 551 PEARL ST., NEW YORK

[For Classified List see Cover 3.]

Alphabetical List of Advertisers.

A	F	M	S
American Mason Safety Tread Co.....I American Tin Plate Co.....E Architect and Contract Reporter, The.....II Associated Expanded Metal Co.....XII Atlas Portland Cement Co.....M	Fisher & Co., Robert C.....I Flynt Building & Construction Co.....I Folsom Snow Guard Co.....M Fowle, Herbert.....XV French & Co., Samuel H.....VII Frink, I. P.....M, (Cov.) 3	Marble Co., W. P.....I Mass. Institute of Technology.....I McKay & Woolner.....XV Means & Thacher.....XV Merchant & Co., Inc.....XII Merritt & Co.....XII Morrill & Whiton Construction Co.....XV Morris-Ireland Safe Co.....XII Morse, Williams & Co.....(Cov.) 2 Morse & Whyte.....XV Moss, Chas. E.....XV Motoroff Exhauster Co.....(Cov.) 4 Mott, J. L.....XII Mullins, W. H.....XII	Samson Cordage Works.....E Sargent & Co.....E Shultz Belting Co.....XV Silver Lake Co.....XV Simpson Bros. Corporation.....XV Sleep, Elliot & King Co.....XV Smith & Co., Edward.....I Smith Co., H. B.....E Society of Beaux-Arts Architects, The.....I Spanning Print Paper Co.....XV Standard Fire-escape & Mfg. Co.....XV Standard Sanitary Mfg. Co.....II Stebbins, N. L.....XV Sturtevant Co., B. F.....XII
B	G	N	T
Batchelder & Co., C. H.....XV Benedict & Burnham Mfg. Co.....M Benger Mfg. Co.....II Blodgett Clock Co.....II Broad Gauge Iron Stall & Vane Works.....XV Building News, The.....XIII Burditt & Williams Co.....VIII Butcher Polish Co.....E	Gallagher & Munro.....XV Gilbreth, Frank B.....XV Gilbreth Seam-face Granite Co.....XV Globe Ventilator Co.....(Cov.) 3 Goodhue, Harry Eldredge.....XV Gurney Heater Mfg. Co.....(Cov.) 4	National Fireproofing Co.....III Nelson Co., The C. T.....VIII Nenchatel Asphalt Co.....VIII New Jersey Zinc Co.....M New York Belting & Packing Co.....E New York Metal Ceiling Co.....VIII Northern Engineering Works.....III Northwestern Terra-Cotta Co.....XVI	Taylor Co., N. & G.....E Taylor, J. W.....E Thorn, J. S., Co.....XII Troy Laundry Machine Co.....(Cov.) 4 Truss Metal Lath Co.....VII Tufts College.....I Tyler Co., The W. S.....M
C	H	O	U
Cabot, Samuel.....VIII Cairns, Hugh.....XV Campbell, Walter M.....X Chicago & Alton Railway.....XI Chicago Clothes Dryer Works.....XV Columbian Marble Quarrying Co.....XV Cornell University.....I Couch Co., S. H.....XV Craig, David.....E Crane Co.....VIII, X Crawley & Son, George E.....XV Cudell, F. E.....X Custer Mfg. Co.....XII	Hartmann Bros. Mfg. Co.....IX Harvard University.....I Hayes, Geo.....VII Hecla Iron Works.....IX Helotype Printing Co.....XIV, XVI Herzog Telephone Co.....I	Ohio State University.....I Okonite Co. (Ld.).....E Olive, E. Percy.....XV Ostrander, W. M.....X	University of Pennsylvania.....I U. S. Mineral Wool Co.....II
D	J	P	V
Dadmun, Leon E.....XV Deane, E. Eldon.....VIII Dusen Crucible Co., Jos.....VII	Jackson & Co., Wm. H.....(Cov.) 4 Jager Co., Charles J.....XI Jenkins Bros.....VIII Johnson & Co., H. A.....XV Jones, T. W.....E Jorath.....XIII	Parks & Jeeves.....XV Passaic Steel Co.....XII Patonson Co., J. C.....XV Perry, W. J.....IX Perth Amboy Terra-Cotta Co.....XVI Pitt, W. R.....M	Valle & Young.....(Cov.) 4 Van Noorden Co., E.....VII
E	K	Q	W
Edison Light.....V Edison Portland Cement Co., The The.....(Cov.) 4 Elevator Supply and Repair Co.....I Elston, A. A.....XV Erickson Electric Equipment Co.....XV	Kearbey & Mattison Company.....IX Kimball Bros. Co.....V Kinnear-Hood Steel Co.....V Kinnear Mfg. Co., The.....(Cov.) 2	Quimby, William E. (Inc.).....X	Warren Chemical Mfg. Co.....VIII Washington University School of Engineering and Architecture.....I Whittier Machine Co.....I Williams, John.....X Winslow Bros. Co., The.....I
L	L	R	Y
Lafayette Mill and Lumber Co., The.....VII Lawrence Scientific School.....I Ledder, G. G.....XV Loonis-Manning Filter Co.....I Lord & Burnham Co.....VIII		Bedding, Baird & Co.....XV Richey, Browne & Donald.....VIII Richter Mfg. Co.....M Rider-Ericson Engine Co.....VII Robey-French Co.....XV Rockland-Buckport Lime Co.....E Rutan, W. L.....XV Ryan, William Curtis.....M	Yale & Towne Mfg. Co.....XIII



SATURDAY, FEBRUARY 20, 1904

CONTENTS

SUMMARY: —
The Soundness of American Fire Insurance Companies. — Steel-frame Buildings in the Baltimore Fire. — The Salt-water Fire Mains of Philadelphia. — The Possibility of an Oil Conflagration on the North and East Rivers. — An Injunction issued against the Payment of "Strike Benefits." — Wives as Opponents of Labor Unions. — "Scabs" and their Rights. — The "Open Shop." — Death of David W. Wilson, Jr., Architect. — Amherst College Grounds. — Something about Radium. 57
THE DELLA ROBBIAS. 59
ILLUSTRATIONS: —
The Woman's Hospital in the State of New York, 110th Street, New York, N. Y. — Plans of the Same. — Dormer Details of the Same.
Additional: Scheme for Miami University, Oxford, O. — Della Robbia Work: Four Plates. 63
COMMUNICATION: —
Books on Ecclesiastical Architecture. 63
NOTES AND CLIPPINGS. 63

THE Baltimore fire has had at least one gratifying result, in the demonstration of the financial soundness of American insurance companies. The losses to the underwriters will, it is said, aggregate about thirty million dollars. This, as a prominent insurance-man asserts, is a little over one-half the amount that the companies interested could, at any time, pay by check against their bank deposits; and is just about one month's income from premiums. As the losses are payable in from thirty to ninety days, the total sum required will be far more than made up from regular income, without calling upon present bank deposits at all. Moreover, the Baltimore losses are so widely scattered among the companies that they will not, in themselves, much exceed the average monthly loss, although, of course, there are other fires, besides that in Baltimore, to be paid for. It is rather startling to learn that this community pays a million dollars a day for fire-insurance alone, or more than the cost of a great war; but, costly as it is, insurance against fire is one of the greatest blessings of modern civilization.

EXPERT examinations have been made of the steel-frame buildings in the burned district in Baltimore, with very satisfactory results. In several of these buildings stone was used for casing the frame, and the stone has crumbled badly, as stone always will in a conflagration, but the steel frames appear, in all cases, to be substantially intact. Mr. D. H. Burnham, the architect of the Continental Trust Building, the highest structure in Baltimore, reports, after examination, that the steel frame is uninjured, except a few aprons under the windows on the upper floor, which can easily be replaced; and he advises the re-casing of the old frame. In another building, some of the floor arches are said to have fallen out, exposing the beams, which are, in these places, bent. By replacing the bent beams the frame will be ready for renewing the casing, and repairing the floors. It is probable that the Baltimore masons have not yet learned the proper way of setting terra-cotta floors, for, where this is understood, the burning of holes in the flooring is practically impossible. On the whole, the showing is a gratifying one. No architect now recommends stone for casing a steel frame, brick or terra-cotta having shown itself, in many fires, to be far superior; and, in rebuilding, the Baltimore people may be reasonably sure that a good steel frame, cased everywhere with brick or terra-cotta, properly tied on, will resist any fire that it is likely to be exposed to. The glass in the windows will, undoubtedly, break in a conflagration, and the wood finish is likely to burn; but the structure itself can be made fire-resisting, and, with wire-glass, in metal frames, in the windows, and incombustible finish, even the interior work will be tolerably secure.

THE city of Philadelphia is equipping a novel fire-extinguishing system, which seems likely to be widely imitated in seaport and river cities. It has long been evident that the supply of water from the ordinary mains was inadequate

for fire purposes. In New York, several years ago, it was demonstrated that all the water that the street mains could furnish in any given district would not supply the number of engines which could, and should, be brought together in case of a serious conflagration; and steps were taken to bring a large supply of salt water from the North and East Rivers to the warehouse district. The same thing has been done in Boston, on a rather small scale; but, in both cases, dependence must be placed on fire-engines, or, where the burning building is near the shore line, on powerful fire-boats, to produce pressure enough to drive the water through the hose. In Philadelphia a much more complete system has been adopted. Not only is water brought from the adjoining rivers through large mains in the principal business streets, but a pumping-plant has been installed, consisting of eight gas-engines, each of two hundred and eighty horse-power, which can easily produce a pressure in these salt-water mains of two hundred pounds to the square inch. With such a pressure as this, equivalent to that of a column of water about seven hundred feet high, in the mains, it is only necessary to attach a hose to a hydrant to be able to throw water, without assistance from fire-engines or fire-boats, over the highest building in Philadelphia; or, if necessary, to tear off iron shutters by the force of the stream, or break down partitions.

THE method of controlling the pumping-engines is ingenious. The supply of gas is obtained from the street mains, and is, of course, always ready and inexhaustible; but it is not desirable to have the engines at work when the power is not required, and the problem of keeping them ready for instant service is very cleverly solved. As every one who has managed an automobile knows, a gas or gasoline engine must be artificially started, and will then continue to run automatically. An automobile engine is started by pulling a lever, but hand levers are out of the question with an engine of two hundred and eighty horse-power, and their place is supplied by a starting device impelled by compressed air. The air is compressed by the engines themselves, and is stored in cylinders, at a pressure of two hundred pounds to the square inch, until wanted. An attendant stands always ready in a gallery, from which he can command all the engines. On receiving a signal, he opens a valve, which admits air to the first gas-engine. In forty-five seconds this engine is pumping salt water into the mains. If a larger supply is desired, or a higher pressure, the succeeding engines are started in the same way, until the full capacity is reached. Although an actual trial, on the ground, of the system has not yet been made, on account of the annoyance which would be caused by the freezing of the water in the streets, insurance rates in the district supplied by it have already been reduced fifteen cents on each one hundred dollars insured, and a further reduction of ten cents is promised if actual trials show the working to be satisfactory.

MR. GEORGE RICE, in the New York *Tribune*, calls attention to the fact that the Standard Oil Company pumps six hundred thousand gallons of oil every day across the Hudson and the East Rivers, and across Manhattan Island, in pipes laid from two to four feet below the surface of the ground, which have been in place for twenty years; and he asks what would happen if the pipes, which are, presumably, old and corroded, should break, and allow a flood of oil to escape into the streets, and the neighboring cellars. In all probability it would at once take fire from some stove or furnace, and would spread destruction wherever it might flow. As such a catastrophe is by no means impossible, or even improbable, it might be interesting to inquire what the responsibility of the Standard Oil Company would be in this case. The English statute, relieving subjects of neighborhood responsibility in case of fire, is not, we believe, considered to be a part of the common-law of this country, the doctrine of our courts on the subject being, apparently, founded on rather vague general principles. The starting of a great conflagration by the leaking of Standard Oil pipes would bring up the question in a new form. The common-law has said, ever since the time of the Romans, "Sic utere tuo, ut non alienum lædas"; that is, "Use your own property in such a way as not

to injure other people." To run oil pipes in proximity to other people's houses, to let them get leaky through age and neglect, and, in consequence of their bad condition, to occasion the destruction of the houses in the neighborhood, would certainly not be a proceeding in accordance with the spirit of the law; yet, if oil companies cannot use leaky pipes at their pleasure, and scatter incendiary fluids through a city, it is difficult to see why any one should be permitted to maintain a dangerous building without being held to accountability for the damage done, when it burns up, by communicating fire to the good and well-kept buildings around it. As we have before observed, some of the most thoughtful insurance men now advocate the reinstatement of the principle of neighborhood responsibility as the best of all safeguards against conflagrations; and perhaps an oil fire, in which the question would be presented without confusing complications, and where the defendant could pay judgments to any extent, would do more than anything else to secure a clear definition of the law.

A NEW subject for thought has presented itself to the "champions of labor" in Boston. The union compositors in that city are on strike, and an effort has been made, seconded by the usual inducements, to persuade the pressmen to come to their assistance by striking in sympathy. Of course, one of the allurements held out to the pressmen was the promise of "strike pay" during the time that their sympathetic exertions lasted; and it was with grief and disgust that the Pressmen's Union found itself served with an injunction, forbidding it to pay, or to promise to pay, any money, in the form of "strike benefits," to any of its members, as an inducement to them to strike in behalf of the compositors. It is hardly necessary to say that one of the sweetest experiences of the "toiler" is to spend his time in promenading on the sunny side of the fashionable streets, dressed in his most stylish clothes, at the expense of his fellow-workmen; and the prospect of having to go without their "strike pay," and to meet, from their own resources, their bills for board and washing, has singularly cooled the sympathetic ardor of the pressmen. Whether the injunction issued by Judge Loring will be sustained by the full bench of the Supreme Court, before which it is to be carried, remains to be seen; but if it is, a new and formidable obstruction will be placed in the way of strike organizers and agitators.

ANOTHER enemy, too, has turned up for the champions of labor to deal with, in the shape of the wives of union workmen, who, in Omaha, in solemn convention, have denounced strikes and lockouts as equally barbarous, and as tending only "to punish the innocent, and to cripple and demoralize the ranks of the labor organizations." This seems like the voice of common-sense, and as common-sense is, apparently, strictly excluded from the deliberations of organized labor, to make room for swaggering and blarney, we shall expect to see some sort of discipline administered to these unruly ladies. It is quite common now for men to strike against the employment of women in the useful trades, and a strike of organized labor against its wives, accompanied by picketing and "expostulation," would be an interesting sight.

THE day of the scab seems to be dawning, feebly, it is true, but with promise for the future. The Supreme Court of New York, a few days ago, ordered the continuance of an injunction, restraining Stereotypers' Union Number One, and Electrotypers' Union Number One, from ordering a strike against the United States Printing Company, or otherwise interfering with the business of the Company, in case of the refusal of the Company to discharge the plaintiffs for not joining a union. It appeared that the Company had been forced to make an agreement with the unions to employ only union men after the first of January, and the unions undertook to compel the discharge of the two plaintiffs, non-union men, in fulfillment of the agreement. The Court, in sustaining the injunction, said that any agreement with employers to coerce men to join a certain organization, under penalty of loss of employment, was unlawful and void. On the other hand, an injunction which the two non-union men had obtained in the lower court, restraining the Printing Company from discharging them in pursuance of the agreement with the unions, was not upheld, the Supreme Court declaring that courts could not compel a company to give employment to a man, even for an hour, and that men might be discharged by their employers, with or without cause, at any time.

THIS decision will cause some perplexity in union circles. As was impressively said at a recent labor convention, "the open shop means death to organized labor," and, if establishments cannot be "unionized" by compelling the discharge of non-union men, by means of strikes or boycotts, all shops will soon be open, and the "scab," the "enemy of mankind," who does as much work as he can, instead of as little as he can, who saves up money for his children, looks out for his employers' interests, and acts according to his own judgment, instead of according to the orders of a walking-delegate, will have a chance to earn a living; and if such men are allowed to earn a living, the beer-soaked bunglers who do the shouting at labor meetings will have to work or starve.

MR. DAVID W. WILSON, Jr., of Brooklyn, N. Y., died in that city last week. Mr. Wilson was one of the best known of the young architects in Greater New York. He was a graduate of Lehigh University, but studied architecture, as a post-graduate, at Columbia University. After completing his course in architecture, he was employed in several of the principal offices in New York, and, in 1902, formed a partnership with Mr. Vischer, under the name of Wilson & Vischer. Although he was only thirty-one years old at the time of his death, he had gained a considerable reputation, and would, undoubtedly, have attained eminence in his profession.

AMHERST College has appointed Messrs. W. R. Mead, of McKim, Mead & White; D. H. Burnham; and Augustus St. Gaudens, as a Commission to devise a plan for the systematic improvement of the college grounds. The class of 1893 is entitled to the credit of having done most to bring about this result, and has raised a large fund, with the promise of more, not only to have plans made, but to do something at once towards carrying them out. Amherst College has a beautiful situation, and, under the direction of artists so competent, it should soon be put in the way of presenting an architectural effect worthy both of its situation and its reputation.

M. DANNE, assistant to M. Curie in the Paris School of Industrial Chemistry and Physics, writes to *Le Génie Civil* an interesting account of the preparation and properties of radium, the discovery of which has made M. Curie and his wife famous. The discovery is really due to Madame Curie, who, finding that some of the compounds of uranium, which has long been known as radiant, were more actively radiant than the pure substance, inferred that they must contain some new matter, of greater radiating activity than pure uranium; and, by persevering experiment, aided by the authorities of the School of Industrial Chemistry, succeeded in separating an element one million times more actively radiant than uranium. As a ton of the mineral from which radium is derived furnishes, on an average, only about three grains of bromide of radium, and that only after long and costly treatment, it may be imagined that the new substance is expensive; but, fortunately, it makes up in energy what it lacks in abundance. A particle of bromide of radium of the size of a grain of sand will cause a screen covered with various fluorescent substances to glow with light, even though the body of a man may be interposed between; it will detect diamonds at a considerable distance, causing them to shine brightly in the dark, while pastes and crystals remain dark; it will produce a sensation of light in the eyes if held at the side of the head, and will blister the skin if kept near it, even though sealed in a glass tube. The physiological action is very peculiar. M. Curie experimented on himself, by placing on his arm a capsule, containing a rather feeble compound of radium, and leaving it there for ten hours. The result was a sore which did not heal for four months. In another experiment, a bit of radium compound, enclosed in a tube, was placed next the skin for half an hour. There was no evidence of any effect for some time, but, fifteen days later, a blister formed, which took two weeks to heal. The effect of the radiations seems to be to disintegrate and destroy the skin, and, for this purpose, the radium salts are now coming into use in hospitals, where, in cases of cancer, and other affections of the tissues, they are employed, in place of caustics, to destroy the diseased tissue and give an opportunity for Nature to repair the injury with new and healthy growth. Whether the radium compounds have any other healing properties is uncertain, and, as it is found that the rays from them destroy the brain and spinal marrow, as well as the skin, they should be used with care; but as furnishing a caustic of peculiarly advantageous properties, they promise to be of great use in medicine.

THE DELLA ROBBIAS.

THE Della Robbias have been studied by a great quantity of writers, of whom it would not be possible to prepare a list. From Vasari, in Italy, in the sixteenth century, down to Mr. Allan Marquand, who has recently published in an American review

our master-sculptors only in so far as relates to their figures and bas-reliefs, while we would like to study them as sculptor-decorators in the service of architecture.

Everybody knows that this is a question of a glorious dynasty of figure and ornamental sculptors whose activity in Italy and France was prodigious, and, so far from taking account only of works whose



Loggia of the Ospedale del Ceppo, Pistoja.

a study of the frieze of the Ospedale del Ceppo, at Pistoja, the road is very long for whoever would know those who have written about the Della Robbias. Nevertheless, the larger number have studied

Robbian paternity is proved, we shall also consider the works of their imitators and votaries, although the production to be examined is so exceptionally large that no author, perhaps, could ever boast

that he had reached the end of it. We shall limit ourselves to Italy, the place of origin of the Della Robbias. Those among my readers who have made the tour of Tuscany know perfectly well that I do not exaggerate. It is not enough to visit Florence, Pistoja, Prato, Siena, that is to say, the most remarkable, more or less, of the cities of this region; we must direct our studies to the Campagna, penetrating the valleys and visiting the little parochial churches of small townships, and only then shall we have any real knowledge of the activities of the Della Robbias and their imitators.

Without contradiction, the most monumental work of our master-sculptors is that which decorates the loggia of the Ospedale del Ceppo, at Pistoja, a wide and long frieze representing the works of mercy. Embellished with its reliefs and brilliant colors, this loggia does the greatest honor to Giovanni della Robbia, sumptuous decorator, although quite incapable of producing works as beautiful and pure in character as those of his father, Andrea.

Quite near the Ospedale del Ceppo at Pistoja (I am going to glean among things unedited and in less well-known territory,) exists the court of the Tribunal, a courtyard picturesque to the highest degree, so rich is it in ornamental work of the Robbian kind. Writers have not taken any interest in the Robbian decorations of the Tribunal at Pistoja. The reason is that they are wholly works of decoration, and that the Della Robbias, particularly Luca, the founder of the dynasty, and Andrea, the most exquisite representative of it, were figure-sculptors of exceptional merit. The critics have devoted themselves to this portion of their work with marked preference, yet the most modern writers, not sharing, in the matter

exuberance and marvellous decoration of plant, fruit, leaf and flower, has with unequalled prodigality furnished to artists the best-chosen models and the most remarkable elements for embellishing with joyous and fresh ornamentation the monumental conceptions of art and elegance,—a language elegant, easily understood, even symbolic,



Fig. 1. Arms of the Healers' Craft: Or San Michele, Florence, by Luca della Robbia.

of decorative art, the prejudices of the critics of former times, have devoted their observation sometimes to the so-called accessory forms of Robbian work; but it is quite disagreeable to find a certain portion of the critics, when they undertake to examine the decorative side of the Robbian work, still discharging their function in a general and superficial way. And these artists, Luca, Andrea, Giovanni, especially the first and third, gave proof of a real talent in decorative art as applied to architecture, for like their glorious ancestors of the Middle Ages, our artists of the Renaissance did not limit themselves in general to the study of a single form of art expression, but practised themselves in the exercise of every artistic branch; so, although the Della Robbias did not, as did Giotto, Orcagna and Michael Angelo, exercise all three of the arts of design, in whatever concerned sculpture they knew every branch of their art, and we may add that, superior in this to Ghiberti, their influence on decorative art has been profound and extended.

Just as the Della Robbias, as sculptors, adhered closely to nature, so, as ornamentists, they gave themselves up to a direct study of plants and flowers, and from the time when the adoption of painting and enamelled-work on clay formed a glorious portion of their artistic life they gave to their decorative productions not only a seductive beauty of form, but, also, grace and the richness of color. And this fact drew upon them, all the more, the attention of their contemporaries, and also attracts us in our search for æsthetic enjoyment. In every time, as has been well remarked, nature, with its



Fig. 2. Arms of the Silk Workers: Or San Michele, Florence, by Luca della Robbia.

perfectly translated by such men as our artists, who had their predecessors and even their extraordinary successors in this city of Florence, where the Della Robbias worked during the most glorious century of Italian art.

I mentioned just now Ghiberti, and it is upon this great master of the fifteenth century that my eyes are now fixed. Everybody knows Lorenzo di Cione Ghiberti, in so far as he was author of the gates of the Baptistery at Florence; but it is only of the figure panels that we speak when study and discourse turns upon the beauty of the doors of the Baptistery, and surely the scenes, whether in the small panels of the first door or the large panels of the second door—called the "Door of Paradise," because of the richness and fantasy of invention and the beauty of the figures—make an unforgettable impression; but alongside these doors, and even beside that celebrated one by Andrea da Pontedera, called "Pisano," there



Fig. 3. Escutcheon from the Palazzo Quaratesi, Florence, by Luca della Robbia.

extend, with exquisite charm, the reliefs of a frieze, or rather, a wide border, modelled in plastic ornamentation, and full of freshness and grace.

Ghiberti and his co-workers—among the latter, Vittorio, his son—far from stylizing the natural elements—flowers, plants and animals

—of which he made use, adhered closely to nature and out of it made his *chefs d'œuvre*. And if I wished to cite another example, a very remarkable one, I should have the celebrated vault painted by Giotto at Assisi, in the Church of St. Francis. Writers and tourists by hundreds will speak to you of the beauty of the scenes painted on the canvasses, yet no one will mention the beauty of the borders round about the panels. For this reason, I mean to show you some samples of the decorative art of the Della Robbias and their school; and you will see that the Della Robbias composed their ornaments after nature, and if in their entirety their repertory of motives is modest, that which is lost for this reason is regained by the energy and depth of modelling and the employment of color.

Decoration in painted clay, that is Della Robbia work, then took on a great development, and from Tuscany it spread into Umbria and the Marches, which, from a Madonna at Urbino (1449) down to the works of Fra Mattia da Firenze, or Fra Mattia della Robbia, who worked at Montecassiano, at Ripatransone, at Arcevia until 1554, and, perhaps, beyond, preserve the most diverse of artistic manifestations of Robbian sculpture, magnificent in their polychromatic richness, which was reached only after the first experiments had been made with white clay and blue; that is to say the bas-reliefs where the figures are white and the backgrounds blue, such as is seen, for example, in the Madonna and Child at the entrance of the Cathedral at Pistoja.

It is, nevertheless, an error to believe that all the earliest of Della Robbian works are white and blue, as among the first works

tiveness, who must have been the author of several works attributed either to the former or to some other of his family.

And since, in the series of my illustrations, there are certain subjects of which the author is unknown, it is well that I should give a glance over the field of imitators. It is unnecessary to say that in Italy people have the habit of attributing either to Luca, or to Andrea, or to Giovanni all sculptural products which, in kind, seem



Fig. 4. Arms of the Wool Workers, by Luca della Robbia.

of Luca there are some very richly colored. All the same, Luca did not abuse color, and the Della Robbian palette is in general composed of four colors, blue, violet, yellow and gold.

These general reflections on the art of the Della Robbias cause me to point out that there is a sufficiently real difference, even from the point-of-view of decoration, between the three masters, Luca, Andrea and Giovanni, of that glorious dynasty. The ornamental system of motives based on nature which makes the joy of the art of Luca was not adopted in general by Andrea, who, rather, followed the system of candelabra, a kind of decoration common during the Renaissance, one which was also adopted by Giovanni. Andrea, who did not show himself much inclined to the gracefulness of flowers and fruits (and fruits still more than flowers occupy a remarkable position in the repertory of the ornamental motives in the Robbian manner), created a special decoration, wholly his own, which expresses in some sort the purity of soul which is the sweetness of his art. He created a decoration of cherub heads, a poem of grace and youthfulness, such as the celebrated infants' heads on the loggia of the Innocents at Florence; but the master was wrong to repeat this motive too often, which thus almost becomes a *leit motif* in his retables and Madonnas, and so he fell into monotony. This is very deplorable for a master so exquisite and charming, and it is also rather curious, for Andrea, like Luca and Giovanni, was attached to decoration, though holding himself rather aloof from polychromatic effects, to which, perhaps, he did not feel himself drawn, his soul being rather possessed with tenderness and mysticism. The one who pushed his work to the farthest degree of polychromatic richness was Giovanni, a younger and, from the point-of-view of art, a more remarkable man than Andrea, an artist of prodigious produc-



Fig. 5. Angle Decoration: Ospedale del Ceppo, Pistoja, by Giovanni della Robbia.

to belong to their class. This is mere local vanity, a habit of the public, and this brings it about that at Pistoja, for example, everybody will tell you that the frieze of the Ospedale del Ceppo is by Luca, and not at all by Giovanni, although the style of the bas-reliefs and the documents found in the archives of the hospital prove definitely that the author of the frieze is Giovanni — except the historic subject at the right of the monument, which belongs to Filippo Paladini.

The imitators of the Della Robbias are legion, and the legion always grows, just as a genealogical tree often derives richness from one of its branches. So, that Fra Mattia da Firenze, that I have mentioned above, was not known by the most authoritative writers on our masters, such as my friends MM. Milanese, Caval-

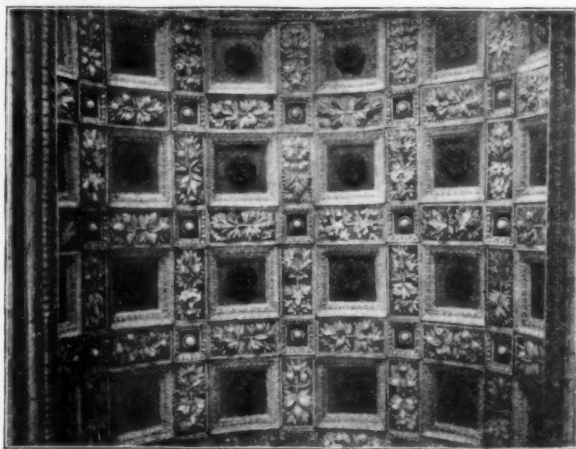


Fig. 6. Ceiling over the Great Doorway of the Cathedral, Pistoja, by Andrea della Robbia.

lucci and Molinier,¹ and remained unknown even to M. Bode,

¹ M. Cavallucci published a work, "*Les Della Robbia*," with M. Molinier, the most complete monograph which has been written about our artists. Particularly noteworthy in it is the catalogue of their works, consisting of 481 pages; but since that catalogue was prepared discoveries have developed new ideas as to Robbian work and augmented it. So, M. Carocci, in "*Arte e Storia*," Florence, 1898-99, mentioned several Robbian sculptures very little known and less considered. Compare my "*Manuale di Scultura Italiana*," 2d edition, page 139.

author of several articles and a volume on the Della Robbias, "*Die Kunster Familie della Robbia*."

The latest writer to deal with these masters, M. Raymond, who, nevertheless, considered the decorative side of the work of the Della Robbias, pointed out this Fra Mattia. Yet, at the side of this artist there is another—discovered by a writer, the late Adamo Rossi, mentioned by me in my "*Ornamenti nell' Architettura*,"—a certain Battista di Domenico della Robbia, who worked, as it appears, at Citta di Castello, and had two sons, named Florido and Benedetto, 1516-18, and this Domenico may have been a brother of Luca's, as well as a Marco, whose life to this day is completely ignored. Our Battista di Domenico is a personage known from the year 1889, but Benedetto and Florido were unknown until within the last few years.

The imitators of the Della Robbias are found in Tuscany, in Umbria and in the Marches especially, and among the least known they speak of a Mastro Jacopo da Benevento, who, in 1522, executed a retable for the Collegiata at Acquapendente, inspired, perhaps, by Giovanni's altar of S. Stefano at Pane, in the suburbs of Florence.

Besides, tradition points out as votaries of the Della Robbias the celebrated Mastro Giorgio Andreoli (died about 1553), called de Gubbio, but born at Intra and deceased at Pavia, whose biography, by Ranghiasci, although often quoted, is quite without any authority. And I will mention among the imitators a certain Antonio Novelli, a Florentine sculptor, who cannot eclipse the fame of Benedetto Buglioni (1475-1554), the most distinguished imitator of the Robbian school; and I will also mention a certain Viviani, the ancestor of the celebrated disciple of Galileo, and a certain Michele, a Florentine, who dwelt at Seville, who was very little known and who thus demonstrates that a branch of the art spread even into Spain. Nor do I speak of the famous Pietro Paolo Agabite de Sassoferrato, an excellent imitator of Della Robbian work in the Marches, nor will I extend the list, although it could be done. And, seeing in Tuscany a quantity of decorative things which speak to us of the Della Robbias, especially garlands and coats-of-arms, one thinks immediately of a quantity of artists working after a common inspiration and repeating themselves in one place after another; and, surely, things were done in this way. The single reservation which inspires all this productiveness is the one which has been mentioned in the case of the cherubs, by Andrea. The frequent repetition of these flowers, fruits and armorial bearings, common on all sides in Tuscany, does not attract the sympathy of artists; it is too uniform and stagnant, and conducts us towards ennui: "*L'ennui naquit un jour de l'uniformité*," says a French poet. So it is very likely that a certain quantity of works of decorative art, garlands and armorial bearings, which in public estimation are supposed to have been executed by the Della Robbias themselves in reality are only works executed in the workrooms of Luca, Andrea and Giovanni. At a given time, Tuscany was invaded by these garlands, or "*tondi*" as they are called,—whether they bear armorial bearings, a Madonna or a Holy Family—to such a degree that even painters produced some, and there are celebrated *tondi* by Botticelli, by Lippi, etc., which, from the point-of-view of geometrical form (round), are sufficiently similar to the "*tondo Robbiano*," and the word "*tondi*" has become universal in the world of art.

At Florence, during the Renaissance, our masters had *ateliers* where they received apprentices who themselves sometimes became cele-

brated masters, and the *patron*, who was often a painter or a distinguished sculptor, used to make the sketch of a work, while, following the sketch, the apprentices executed the work which, after having received a few brush strokes, or pencil touches, passed as being the product of the *patron* himself. It is these glorious *ateliers* which have made the renown of the Florentine *quattrocentisti*, and the Della Robbias, as Ghiberti, Donatello, Verrocchio, had their own *ateliers*, which fostered imitations and tended to produce a quantity of works, especially in the decorative class of which we have been speaking. But, in these examples which I give, though not excluding some imitations, I have chosen true models, and as to some of them I am going to give you certain facts.

Among the garlands and escutcheons of which I have procured reproductions,—a thing not always easy to accomplish where decorative work is concerned,—four are still shown on the exterior of the Palace and the Church of Or San Michele in Florence, at the side of the superb works due to the most celebrated Florentine sculptors of the Renaissance, such as Ghiberti, Donatello and Verrocchio; so the founder of the Robbian dynasty executed for Or San

Michele the armorial symbols of the healer's art, of the silk-maker's craft, of the stone-cutters and of the Merchants' Council. It appears that the first in date of these armorial bearings is that exhibiting the healer's art, representing a Madonna, a subject well calculated, as it has been very well remarked, to seduce a sculptor such as Luca, who found here a new occasion to reproduce one of the motives which was so dear to him (Fig. 1). The second must have been the coat-of-arms of the silk-weavers (Fig. 2), of a taste and finish of great excellence. This particular piece has been by certain authors assigned to Andrea, but it must be claimed for Luca, since it bears the *cachet* of his art. Perhaps the analogy of *putti* and the tender sentiments which these inspire, the analogy, I mean to say, with the famous *putti* with which Andrea decorated the famous façade of the Hospital of the Innocents, has brought about this error, from which modern writers are now separating themselves. The third of the armorial bearings on Or San Michele is that of the Merchants' Council; and here the master surpassed himself. The garland which surrounds the arms, with its little bouquets of fruit, is a very model of grace. Here are pineapples, sufficiently common in

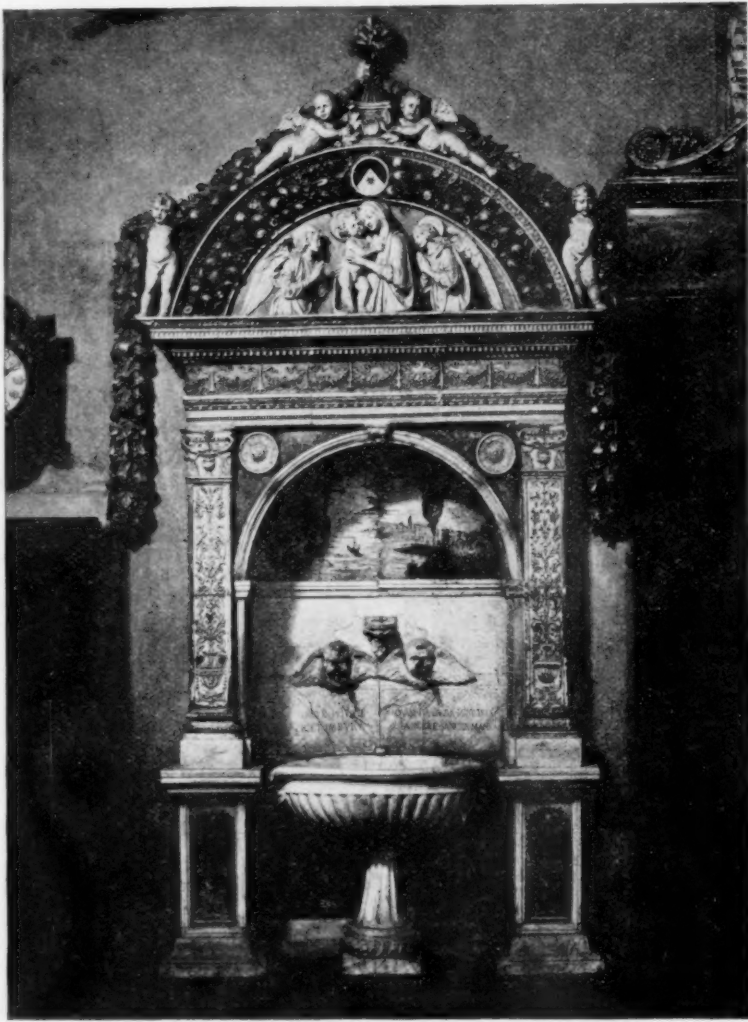


Fig. 7. Lavabo in the Sacristy of Sta. Maria Novella, Florence, by Andrea della Robbia.

Luca's work, grapes and oranges, and we see that all these proceed from the famous borders of Ghiberti which, in their turn, have their origin in the naturalistic tradition of the Middle Ages.

But one cannot secure a good idea of these examples of Della Robbia work in the absence of the energetic coloration which gives them an individual character, a sumptuousness of decorative effect quite unusual.

Another escutcheon which, from the point-of-view of its beauty, I cannot place far from that of the Council of the Merchants, which it resembles, is the one that Luca modelled for the Pazzi family (Fig. 3) on the Palazzo Quaratesi at Florence, a bearing which recalls those of the Serristori, whose garland is richer and more sumptuous than that which accompanies the above-named subjects. Luca, from the time when he modelled the garlands with symmetrical bouquets about the armorial bearings on Or San Michele, in 1460, went on, little by little, to richer compositions in which the bouquets are not more clearly separated, and the borders respond to a feeling for more natural effects. The examples which I show here, whether of one kind or the other, are most perfect specimens

of Luca's work; I would add that they are, in the class of decorative work which we are now considering, the finest that the glorious master ever produced.

I have not yet drawn your attention to the arms of the stone-cutters, the fourth which Luca executed for Or San Michele. The fact is that this bearing is out of the traditional habit of the master, and, setting aside the matter of coloration, has not the grandeur and decorative attractiveness of the armorial bearings that we know.

In the same series, Luca must have executed the coat-of-arms of the wool-workers (Fig. 4); I mean, of course, the basic theme, for I believe that this is actually a mere piece of atelier workmanship. Luca was prolific not only in coats-of-arms such as these, but in smiling borderings, Madonnas, bas-reliefs for the decoration of tympanums, retables; and that Virgin and Child, once in the Church of S. Pierino at Florence, and to-day in the National Museum of that same city, a capital piece which, while the angels are admirable, expresses in what fashion the master inserted decoration in those works where figure sculpture necessarily has the upper hand. Side by side with these exquisite works, there are three pieces of the same kind, which adorn the façade of the Ospedale del Ceppo at Pistoja, which, being the work of Giovanni, naturally have not as much merit as the works of Luca. I have already pointed out the importance of this hospital at Pistoja, and there would be no need to return to it, if it were not for the sake of reaffirming that

say were copied from those with which Verrocchio decorated the Forteguerrri Monument, at Pistoja, a work belonging to the school of the Della Robbia artists, who, as I said to begin with, were indefatigable and incomparable sowers. ALFREDO MELANI.

ILLUSTRATIONS

[Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.]

THE WOMAN'S HOSPITAL IN THE STATE OF NEW YORK, 110TH STREET, NEW YORK, N. Y. MESSRS. FRANCIS R. ALLEN & CHARLES COLLINS, ARCHITECTS, BOSTON, MASS.

THIS building will shortly be added to the noted group of buildings of a semi-public character that make Bloomingdale Heights one of the architectural Meccas of this country.

PLANS OF THE SAME.

DORMER DETAILS OF THE SAME.

Additional Illustrations in the International Edition.

SCHEME FOR MIAMI UNIVERSITY, OXFORD, O. MESSRS. PATTON & MILLER, ARCHITECTS, CHICAGO, ILL.

DELLA ROBBIAS WORK: FOUR PLATES.

SEE article elsewhere in this issue.

[NOTE.—Although the "House at Bedford, Mass." published with our last issue, was properly titled upon the plate itself, temporary aberration allowed us to record it in the text as situated at Oxford in the same State.—Eds.]

COMMUNICATIONS

[The editors cannot pay attention to demands of correspondents who forget to give their names and addresses as guaranty of good faith; nor do they hold themselves responsible for opinions expressed by their correspondents.]

BOOKS ON ECCLESIASTICAL ARCHITECTURE.

ORANGEBURG, S. C.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—Would you kindly give me a list of the best books, with authors and price, on Ecclesiastical Architecture; giving history, designing and construction with relation to the different sects and denominations? Thanking you in advance, I am

Yours truly, A. WILSON COOKE.

[Should any reader be minded to furnish us with a list of books on church architecture that he has found of use to himself, it would give us a very real pleasure to publish it in answer to the above request and for the information of other subscribers.—Eds. AMERICAN ARCHITECT.]

NOTES & CLIPPINGS

STATUE OF JOLIET.—A statue of Louis Joliet, the French explorer, will be placed in the little park in front of the Public Library Building at Joliet, Ill., to commemorate the memory of the man for whom the town is named. Sigvald Asbjornsen, who made the statue of Lief Erickson in Humboldt Park, Chicago, is the sculptor.—N. Y. Evening Post.

BROAD FLANGE BEAMS AS COLUMNS.—The relative value of different designs of steel beams for use as girders or columns is shown by comparing their carrying power in proportion to their weight. For use as columns rolled steel beams with broad flanges are found to be economical. For example, a broad flange beam 8½" x 8½", weighing 44 pounds per foot, used as a column 15 feet high, will weigh 654 pounds and carry a safe load of 42 tons. Similarly, although a broad flange beam 11" x 11" weighs 69½ pounds per foot, the safe-load on a 15-foot column is 107 tons. The extraordinary advantages shown by the broad flange beams are due to the fact that the metal is distributed in the most economical fashion, viz, in the flanges.—The Architect.

MOVING A GREAT OIL-TANK.—Perhaps one of the greatest engineering feats ever accomplished on the water by any house-mover has just been successfully performed in Pittsburgh, Pa. The subject in question



Fig. 8. Escutcheon in the Courtyard of the Castello Poppi, Casentino. School of the Della Robbias.

never did the Della Robbias do a more considerable piece of painted sculpture in connection with an architectural monument, and to add that the loggia of the Ceppo, as well as the frieze of which I speak, received a certain number of garlands associated with curious images (Fig. 5) at the angles, unique pieces which I must signalize to my readers.

Pistoja, besides the Della Robbian sculptures at the Ospedale and those on the Tribunal, is of importance to amateurs of Della Robbian work because of a pretty ceiling, with leaf-work and caissons, upon the outside of the Cathedral, an exquisite bit by Andrea della Robbia (Fig. 6), which calls to memory another piece, of unique interest because of its decorative beauty, the lavabo (Fig. 7) in S. Maria Novella, Florence, a *chef d'œuvre* which may be the work of Giovanni, or, perhaps, Andrea.

The other pieces of decorative sculpture which I am going to introduce have not the same interest, particularly the arms of the Poppi family (Fig 8) in the court of the celebrated Castello, which, nevertheless, has a decorative tone quite its own, with its interlaced branches which form the border of the arms. The characteristic of an angel supporting a cartouche is not unique in heraldic art; on the contrary, it is often used, and in the courtyard of the Tribunal at Pistoja, mentioned above, you will find more than one example of it. A variation of this motive occurs in the Salviati arms on the Palazzo Pretorio at S. Giovanni Valdarno; and here it is probably a piece of atelier work.

I bid my readers farewell to-day in presenting a garland with the pontifical arms supported by two angels, which one would

is the removal of a $\frac{3}{4}$ " inch steel oil-tank, 80 feet in diameter, 26 feet high, weighing 150 tons, a quarter of a mile down a thirty-degree hill to the river, placed upon five sand barges, towed a mile down the river, and moved 200 feet up the steep bank. All the more marvellous is it when we consider that five tracks of the Pennsylvania Railroad had to be crossed within forty minutes, in order not to interfere with traffic, and that the members of the Kress-Hanlon firm, who engineered the work, were but twenty-three years of age. This monster tank was sunk 7 feet in the ground; and in order to raise it, a trench 4 feet wide and 7 feet deep was dug around it, and thirty-two holes, 4 feet square, 2 feet deep, and 8 feet apart, were then tunneled under it, and wooden blocks inserted. By the aid of sixty-four five-ton jacks, two under each block, the tank was raised 4 feet, when it was underpinned with 12-inch timbers; and the necessary running timbers being securely fastened with $\frac{3}{4}$ -inch chains, the tank was gradually moved under the steady power furnished by two horses and the necessary block and tackles, crabs and ropes. When the railroad was reached, it was 38 feet above the ground. After being lowered 32 feet, chalk lines were stretched across the railroad tracks and the cribbing built on the opposite side of the same. After a battle with the numerous electric light and telephone wires, the tank was rolled over the tracks to within 10 feet of the bank of the Allegheny River. Being lowered within 24 feet of the water, it was moved on five sand-flats, 16 feet wide and 90 feet long. These were made stationary by ratchets and steel-cable $\frac{3}{4}$ inch thick, which were placed from the first to the fifth flat, thus making the five flats act as one. The boats being thus made fast, the tank was slowly rolled into position. It was then carried one mile down the river, and transferred to its new location. The work only required twenty-four men six weeks to accomplish the task. — *Scientific American*.

PLANNING A COLLEGE BUILDING. — Such a building as this to be satisfactory should be beautiful, that is, pleasing to the eye; and practical, that is, adapted to daily use. To help us determine whether it is beautiful or not let us ask ourselves some definite questions. Is the building appropriate to its location? Does it fill the proper amount of space in the campus composition? Does it harmonize with nearby buildings in style, color, material, cornice line, etc? Will it contribute to the effect of the university buildings as a whole or will it attract attention to conspicuous features of its own? Does it by its exterior make plain the purpose for which it was erected and the use to which it is put? Do its outer walls correspond with its inner anatomy? Are its proportions good, that is, the relative dimensions of its various members? Finally, is it economical? Economy in art is a quality to which many of us are apt to give slight consideration. That unnecessary expenditure of effort or material is not only wasteful but inartistic is true of every art. In literature superfluous adjectives and verbal pyrotechnics which do not advance the current of the thought are positive detriments, and a straightforward, simple speech like that of President Lincoln's at Gettysburg is a masterpiece. So, in painting, the suppression of trivial detail and the rendering of only the essential appearances helps to create a great work of art like Rembrandt's "Lesson in Anatomy." The grandeur of Beethoven's "Funeral March" would be lost if it was overlaid with elaborate variations and a complicated score. And this truth applies especially to architecture and the industrial arts because economy of material counts as well as economy of effort. The questions as to this building, which I have put, relate to aesthetics, and, therefore, will be answered differently by different individuals, but this (building) committee believes that the discerning will be justified in answering them favorably. This hall, however, was built primarily not to look at, but to use, so that an even more important question is whether its arrangements are convenient and its provisions adequate. This can be determined definitely only by actual experiment, but careful thought has been given to the most minute details so far as they could be foreseen. — *Theodore Francis Green at the dedication of Rockefeller Hall, Brown University.*

THE METRIC SYSTEM. — *Engineering News* speaks of "the lack of definite purpose and clear thought which characterizes much of the 'metric system' propaganda," and refers to the discussion and vote on the subject by the American Society of Heating and Ventilating Engineers, at its annual meeting. The vote was 45 to 34 against making the metric system the legal standard in the United States, thus repeating the action taken by other larger and more important organizations of engineers. "The character," says *Engineering News*, "of the respective remarks of advocates and opponents of 'metricizing' the United States did not bear out the oft-repeated charge that the opposition is born of crass conservatism. The anti-metric speakers at the meeting in question based their opposition on a knowledge of both systems. Most of the pro-metric argument, on the contrary, was made by men who know the metric system only in the abstract, and their advocacy of the system was confessedly academic." Practical men seem to be generally opposed to the French units, which in themselves are no better than our own and in being introduced would cause for the next fifty years no end of trouble and expense.

ARTIFICIAL PUMICE-STONE. — While emery is used for sharpening tools, sand for polishing stone and glass, oxide of iron for fine glass, and chalk and felt for metalware, pumice is most frequently used for sharpening soft materials. Pumice-stone is said to be unreliable both in grain and hardness. Variations have been noted even in the same piece, and this has suggested the idea of replacing it with artificial means. There is a factory at Bietigheim in Germany, in the valley of the Enz, which according to Consul General Hugues of Coburg, has for some time been manufacturing an artificial pumice-stone out of ground sandstone and clay, and it is interesting to note to what extent the manufacturers have tried to adapt their products to the various pur-

poses for which they are required. There are several kinds, differing from each other in regard to hardness and grain. For example there is (1) a hard and a soft kind with coarse grain, particularly useful in the leather, waxcloth, felt and wood industries; (2) a hard and a soft kind with medium coarse grain, suited to stucco workers and sculptors, and particularly useful for polishing wood before it is painted; (3) a soft, fine grained stone for the white and dry polish of wood and for tin goods; (4) one of medium hardness with fine grain for giving the wood a surface for an oil polish; (5) a hard fine grained one for working metals and stones, especially lithographic stones, and finally pumice-stones with a very fine grain. These artificial stones are used in pretty much the same way as those of volcanic origin. For giving a smooth surface to wood a dry stone is applied, but to give it a fine polish the stone is dipped in oil. For fine work no coarse grained, and for coarse work no fine grained stones are used. — *Journal of the Society of Arts.*

TRAVELLERS IN ITALY. — Montaigne was not too much the humanist to have a good word for Gothic. He greatly admired Siena, whose cathedral church our Mr. Lassels declared to be "neat" — the oddest adjective in the world to apply to it. Evelyn, too, admired, though he certainly preferred Vicenza. It was Addison who sounded the first trumpet of revolting taste. Of that very cathedral he says: "When a man sees the prodigious Pains and Expense that our Fore-Fathers have been at in these Barbarous Buildings, one cannot but fancy to himself what Miracles of Architecture they would have left us had they only been instructed in the right way." That approaches the sublime: but it is reserved to Monsieur de Brossette to go, as we say nowadays, "the whole hog" — to Monsieur de Brossette, fresh from Trianon and the *Œuil de Boeuf*, with Tom Paine and the "Rights of Man" buzzing in his ears. That the President had vivacity and wit there is no doubt. His travellers' tales have a sting. When, for instance, he says of the rainfall which afflicted his sojourn in Lucca that he thinks it very extraordinary that such a small republic should have such quantities of rain, he is pleasant; but his judgment of San Marco in Florence is too pert: "C'est de cette maison," he writes, "qu' étoit le bonhomme Savonarolle, que l'on fit cuire en feu clair et vermeil, dont il mourut faute d'appareil." Too much has been made of that particular enthusiasm, in my humble judgment; but this is to make too little. I may also remind the reader of his verdict upon the Pisan Campo Santo: "The walls are painted in fresco by the hands of Giotto, Orcagna, Benozzo, etc., who have represented the stories of the Bible in a manner very quaint, very absurd, extraordinarily bad, and most curious." So says M. de Brossette, and settles it; so did the *Œuil de Boeuf* view foreign masterpieces; but not so old Montaigne: "I was immensely pleased with the cemetery, which they call the Campo Santo. It is of extraordinary size, and rectangular, three hundred paces long and one hundred wide, and surrounded by a corridor forty paces wide, covered with lead and paved with marble. The walls are covered with old paintings, and among them is a portrait of the Florentine Gondi, by whom the family of that name was founded." — *Maurice Hewlett in the Speaker.*

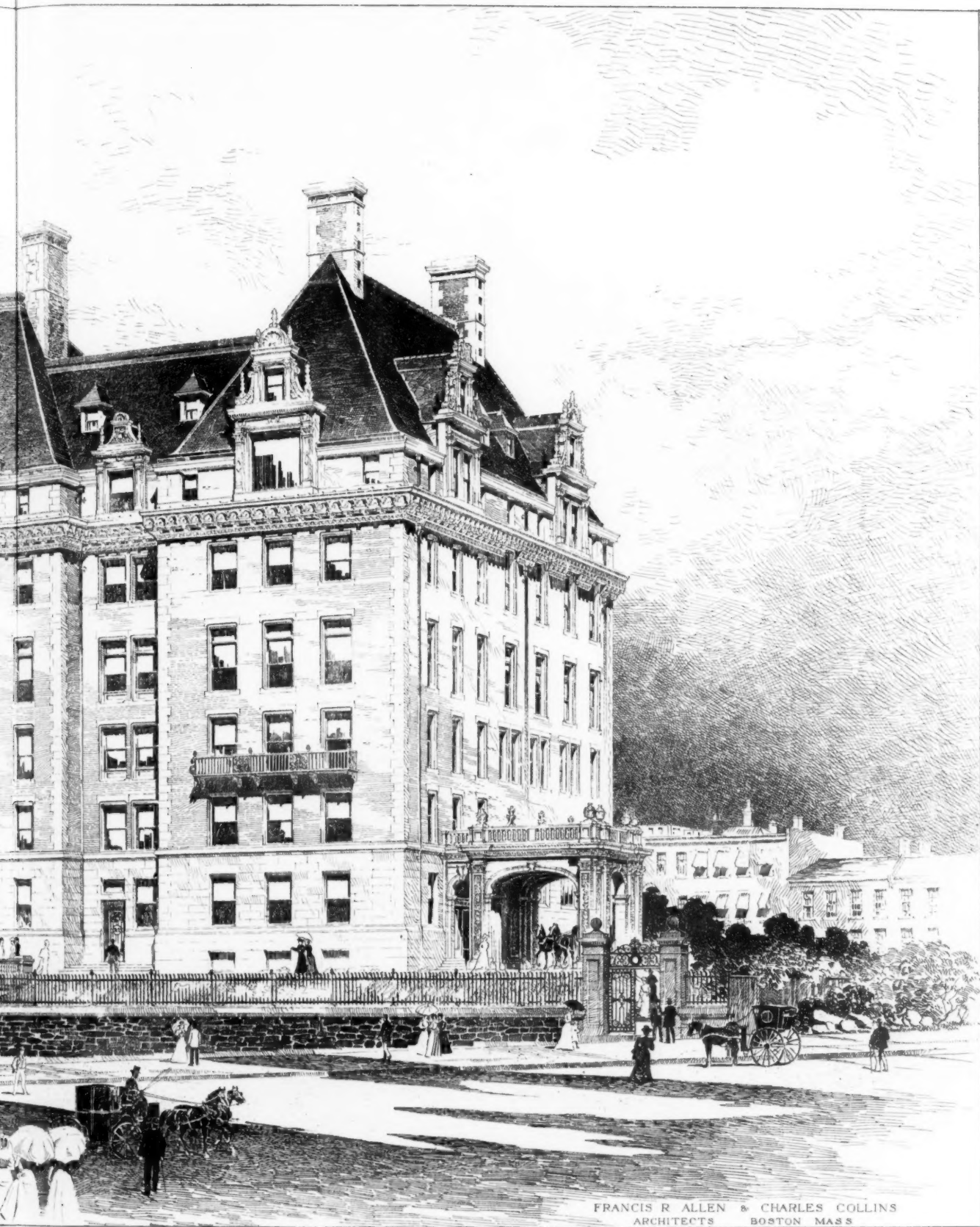
STRANGE SINKING OF A PUMP-HOUSE. — The pumping-station and coal-shed at Galien, on the Burlington Road, a short distance east of Sterling, which began to disappear into the earth recently, is entirely out of sight now with the exception of the top of a piece of stovepipe, which is still visible in the large circular hole in which the buildings disappear. A late *Republican* contained a photograph of the hole taken after the pumping-station had disappeared, but before the coal-house followed it. E. A. Schloss, of St. Joseph, Mo., who came through Galien, says that there is nothing in sight in the way of a building now. This peculiar happening has caused a great deal of comment in that vicinity and scores of people have visited the place to gaze into the depths of the hole. "I gathered from what was said while I was there," said Mr. Schloss, at the Albany Hotel, "that the pumping-station building was over a well 325 feet deep. The theory is that the casing of the well broke and that water escaped into the sandy formation through which it was drilled, creating a quicksand. The first building dropped out of sight almost instantly. The coal-house was right on the edge of the hole and followed the other building the next day." As was stated in the *Republican*, in a dispatch from Holyoke telling about the strange affair, John Hradecky and Miss Mary Swedenski, who were in the building a few moments before it disappeared, ran out because Hradecky had a sudden premonition that something was about to happen. — *Denver Republican.*

TENEMENT-HOUSE COMMISSIONER'S ORDER NOT AN INCUMBRANCE. — Justice Fallon of the Municipal Court has rendered a decision holding that an order of the Tenement-house Commissioner, requiring the landlord of a tenement-house to make repairs, is not a lien or incumbrance within the meaning of a subsequent conveyance of the property by a short form full-covenant warranty deed, free and clear of all incumbrances. The definition of an incumbrance as contained in the American and English Encyclopædia of Law (Vol. 16, page 168) is as follows: "A burden upon land depreciative of its value, such as a lien, easement and servitude which, though adverse to the interest of the landowner, does not conflict with the conveyance of the land in fee." "Adopting this definition as correct," said Justice Fallon, "I cannot find that the orders of the Tenement-house Commissioner were a burden on the premises depreciative of the value; on the contrary, it may be the reverse thereof, and may, and naturally, tend to enhance the value instead of depreciating it, and such enhancement may inure to the plaintiff's benefit, as above stated. The orders of such Commissioner are nowhere made a lien by statute, and it cannot be said that they produce an easement or servitude, so that the definition above given can in nowise benefit the plaintiff in his contention." — *N. Y. Times.*

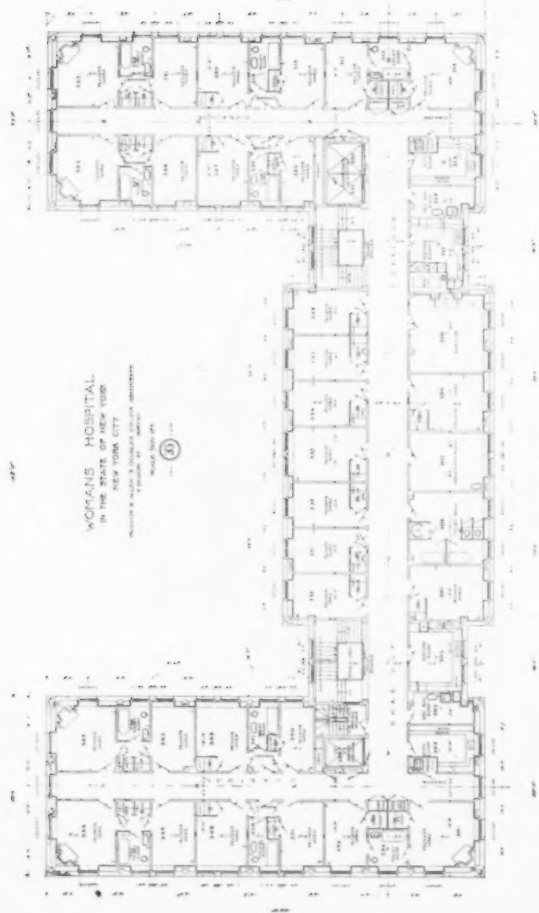


COPYRIGHT, 1904, BY AM. ARCHITECT CO.

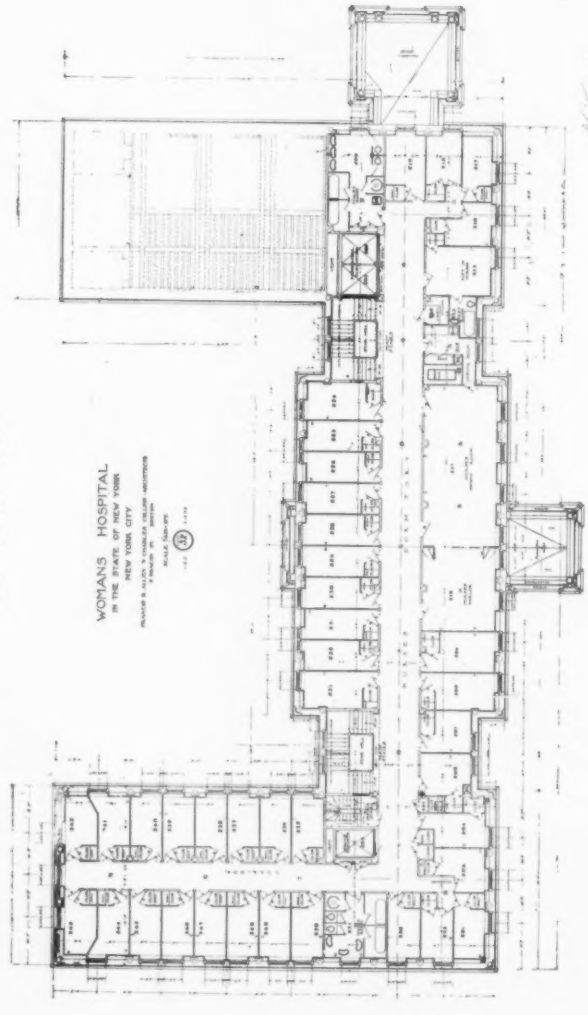
WOMAN'S HOSPITAL IN THE STATE OF NEW YORK
FRANCIS R. ALLEN & CHARLES CO.



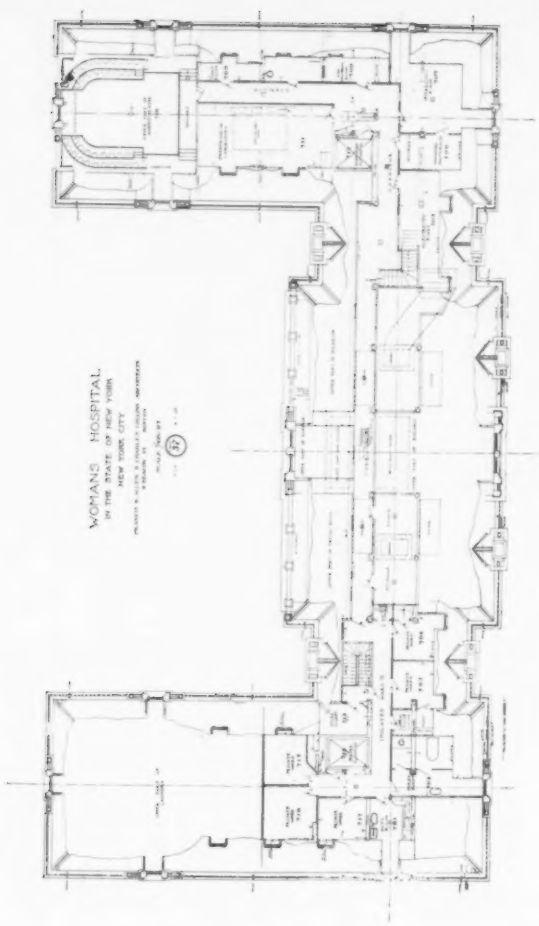
NEW YORK. 110TH STREET, NEW YORK. N. Y.
 CHARLES COLLINS, ARCHITECTS.



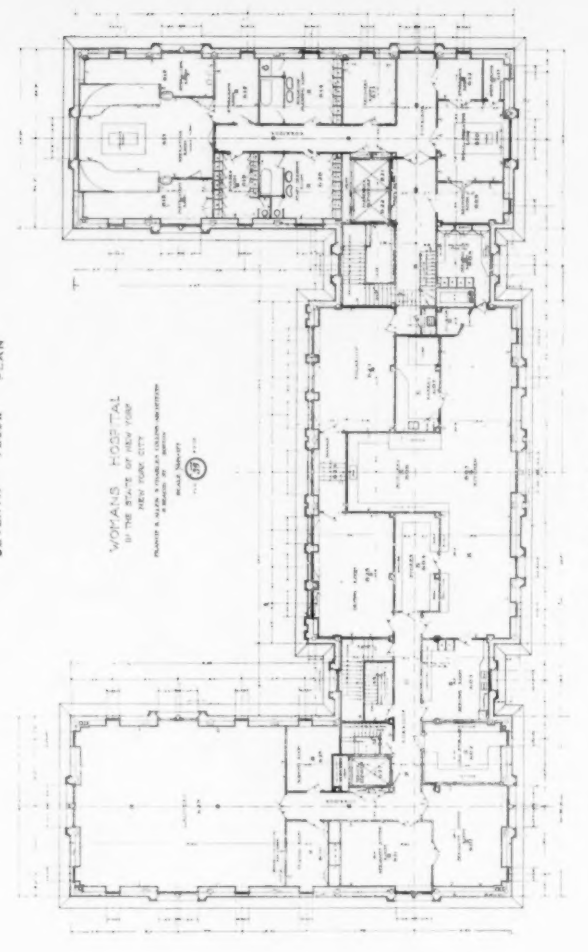
THIRD FLOOR PLAN



SECOND FLOOR PLAN



SEVENTH FLOOR PLAN



SIXTH FLOOR PLAN



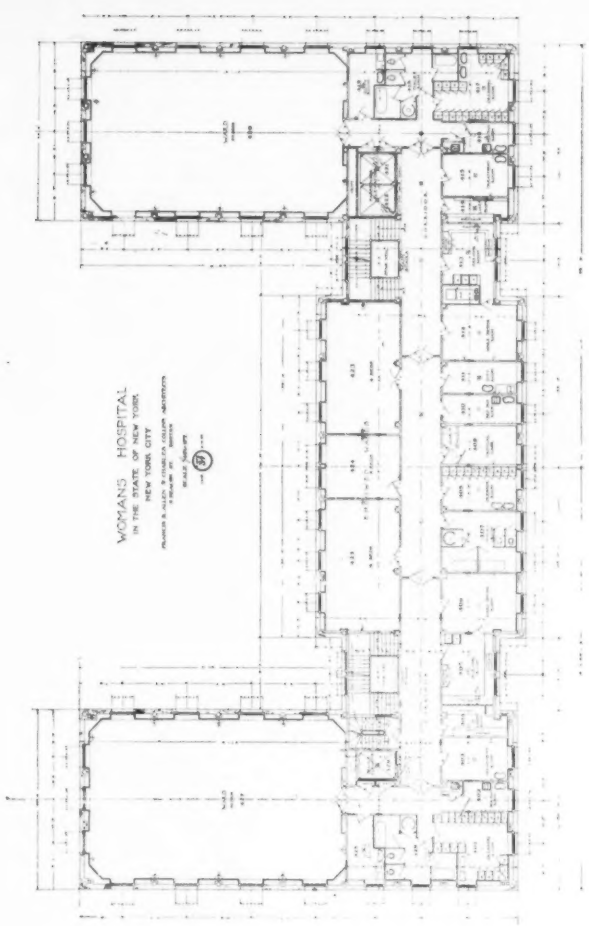
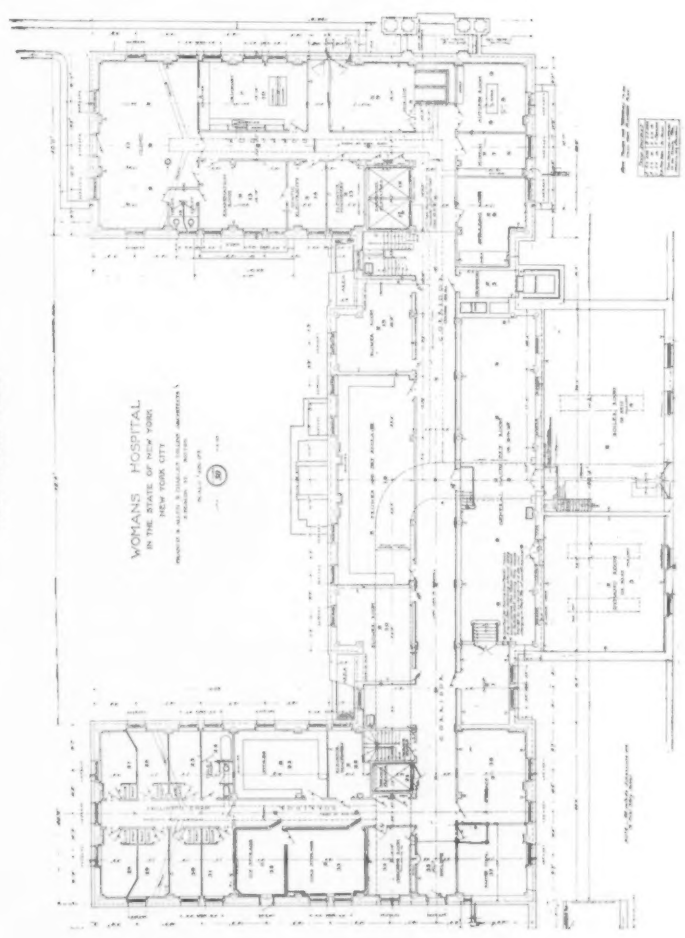
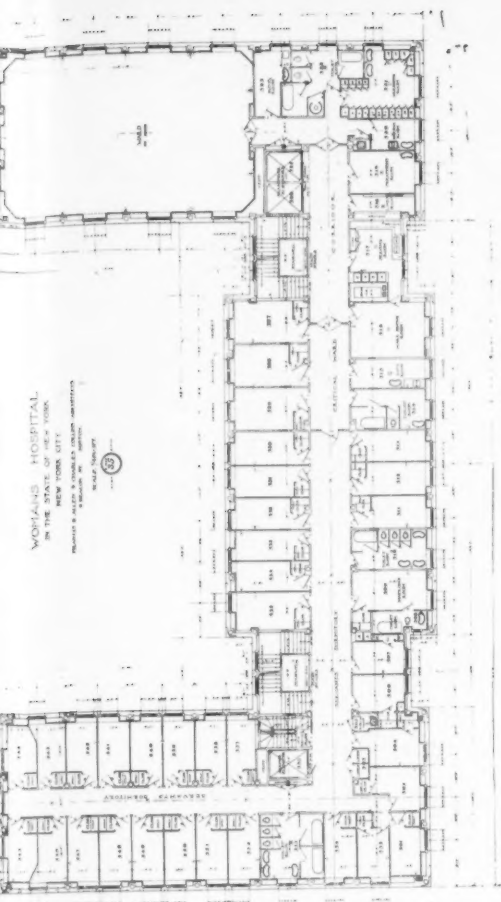
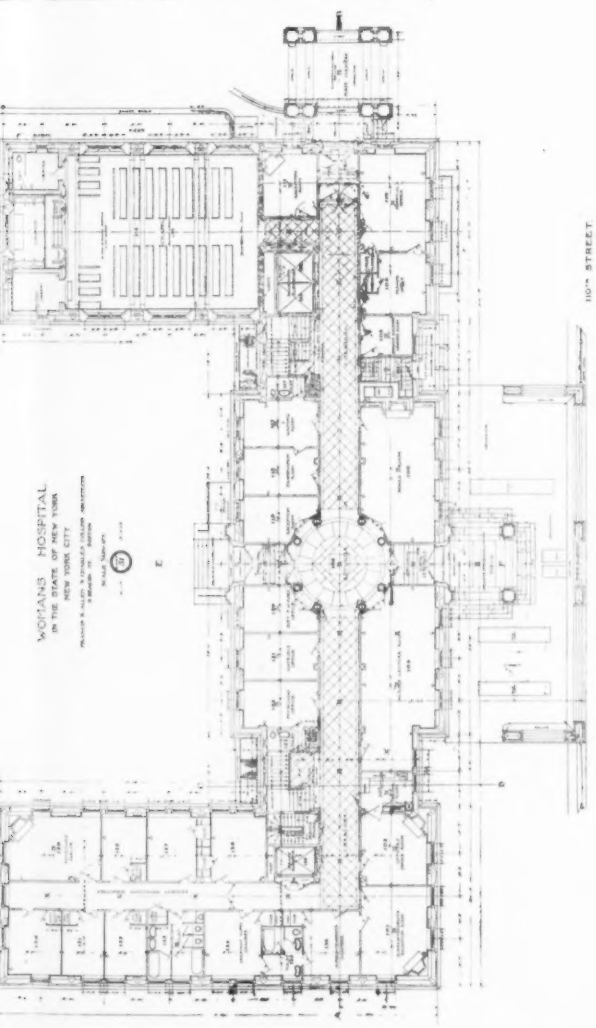
FIFTH FLOOR PLAN



FOURTH FLOOR PLAN



FIRST FLOOR PLAN



Copyright, 1904, by the American Architect Co.

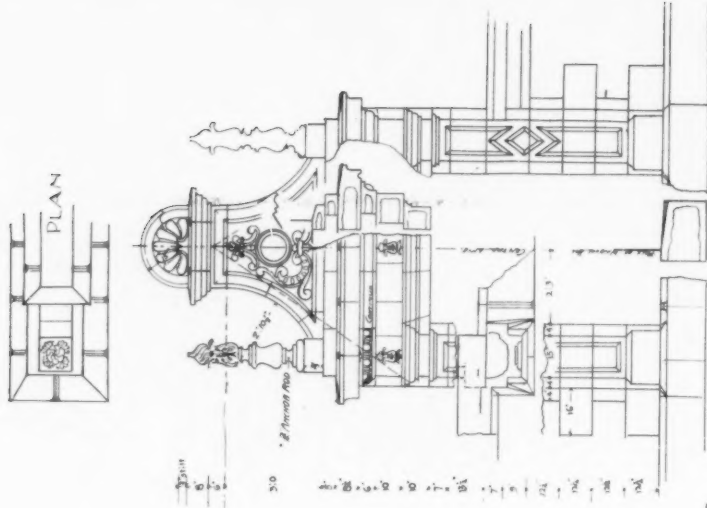
The American Architect
Feb. 20, 1904
No. 1469

WOMANS HOSPITAL IN THE STATE OF NEW YORK NEW YORK CITY

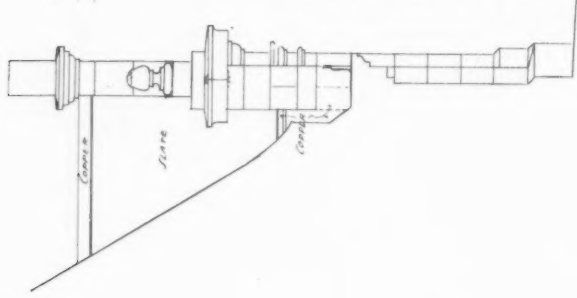
FRANCIS R. ALLEN & CHARLES COLLINS ARCHTTS
6 BEACON ST. BOSTON

SCALE 1/4" = 1'-0"

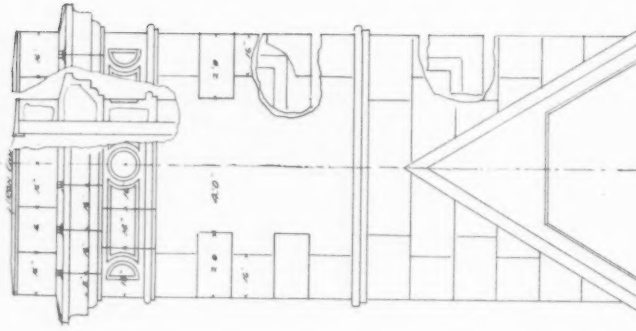
46



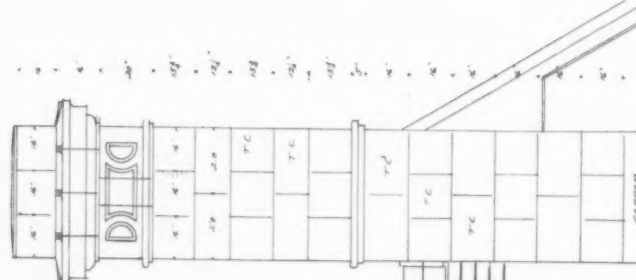
FRONT
SMALL DORMER



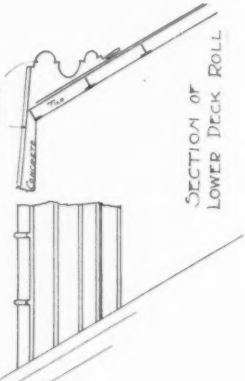
SIDE



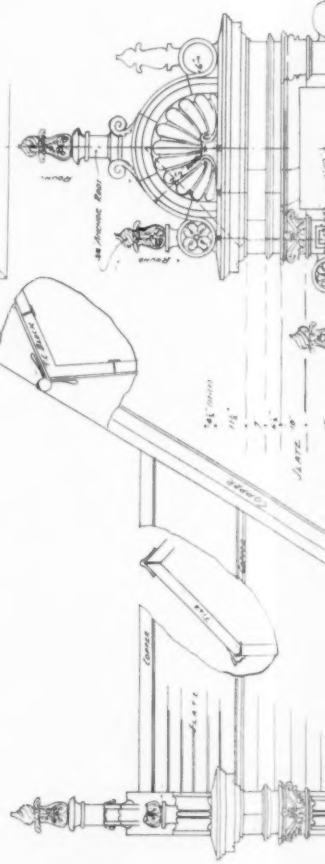
PLAN



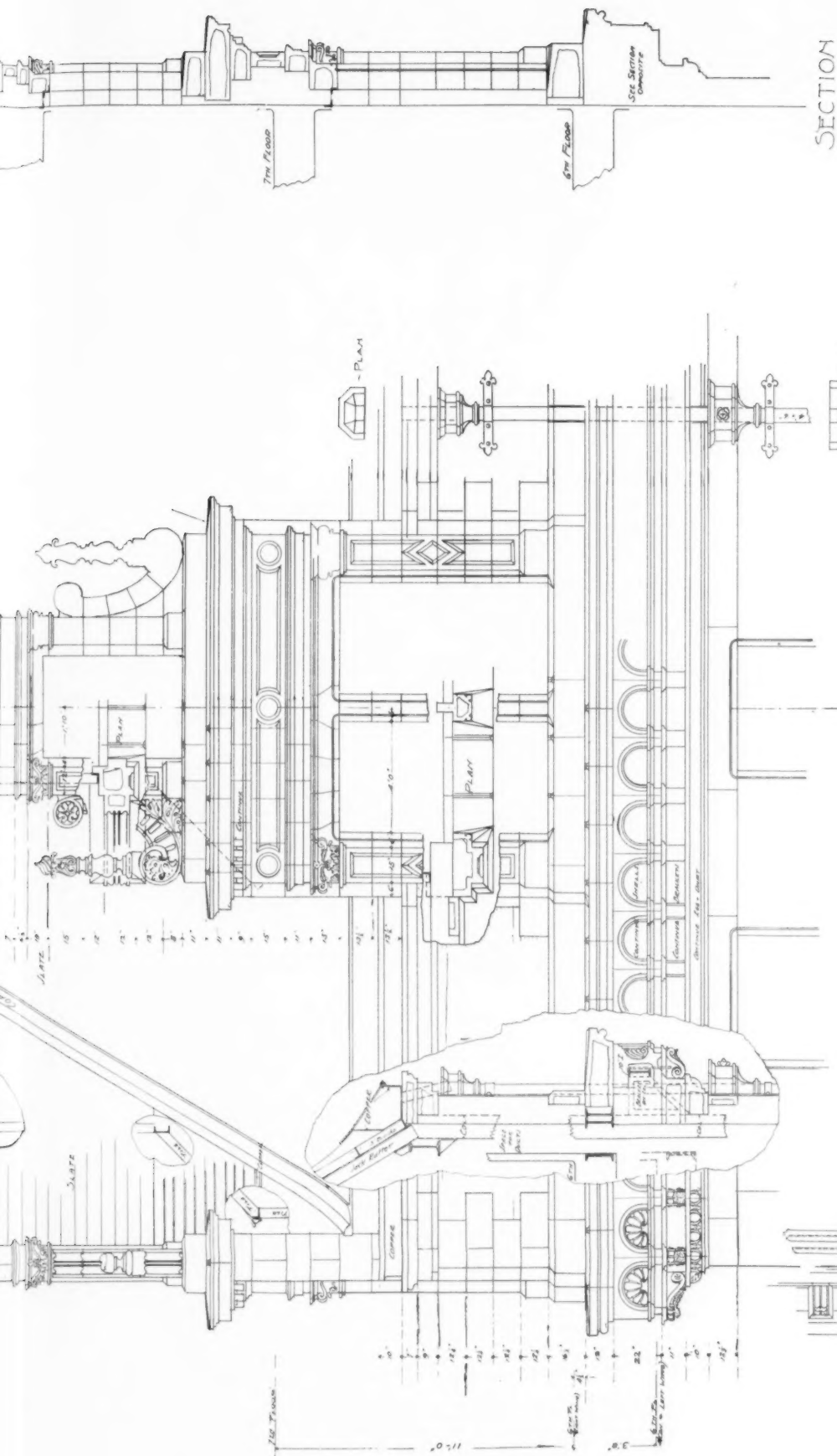
RIDGE ROLL



SECTION OF
LOWER DECK ROLL



PLAN



SECTION

ELEVATION

PLAN OF CORNICE, LOOKING UP.

SCALE DETAILS OF MAIN CORNICE, WING DORMERS,
SMALL DORMERS & COPPERWORK.
SCALE 3/4 IN. = 1 FT.

John F. McClellan
Woman's Hospital
E. C. McClellan
Architect

V
A

5.
A

A
M

La
as

sig
th
str
wo

A
T

of
in
sc
ex
or
wi
me
J.

E

THE AMERICAN ARCHITECT

AND BUILDING NEWS

A WEEKLY JOURNAL OF CONSTRUCTIVE AND DECORATIVE ART

VOL. LXXXIII.—No. 1469.] SATURDAY, FEBRUARY 20, 1904. PRICE, {INTERNATIONAL ISSUE, 50 CTS
REGULAR " 15 "

WHITTIER MACHINE CO.,

PASSENGER AND FREIGHT
ELEVATORS.

53 STATE STREET - - - BOSTON.

ELEVATOR SIGNALS

OF ALL KINDS

HERZOG TELESEME CO.

51 WEST 24TH ST., NEW YORK



ARCHITECTURAL INSTRUCTION.

BOSTON, MASS.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

DEPARTMENT OF ARCHITECTURE.

Options in Architectural Engineering and Landscape Architecture.
College graduates and draughtsmen admitted as special students.

SUMMER COURSES in Elementary Design and Shades and Shadows. Proficiency in these subjects will enable draughtsmen and students from other colleges to enter third year work

For catalogues and information apply to

H. W. TYLER, Secretary,
Mass. Institute of Technology, Boston, Mass.

CAMBRIDGE, MASS.

HARVARD UNIVERSITY.

THE LAWRENCE SCIENTIFIC SCHOOL

offers professional courses in Forestry, Engineering, Mining and Metallurgy, Architecture, Landscape Architecture, etc. Students admitted by examination and by transfer from other School or Colleges. Approved Special Students admitted without examinations. New and enlarged equipment. For Catalogue apply to the Secretary.
J. L. LOVE, 16 University Hall, Cambridge, Mass.
N. S. SHALER, Dean.

LOOMIS FILTERS.

ESTABLISHED 1880.

Improved System. Simple and Effective.

LOOMIS-MANNING FILTER CO.,

Main Office: 402 CHESTNUT ST., PHILADELPHIA.
Boston. New York. Baltimore. Washington.

COLUMBUS, OHIO.

OHIO STATE UNIVERSITY

COLLEGE OF ENGINEERING

Offers four-year courses in Architecture, Civil, Electrical, Mechanical and Mining Engineering, and in Ceramics. Tuition free. For information address,
President W. O. THOMPSON, Columbus, Ohio.

ITHACA, N. Y.

CORNELL UNIVERSITY

COLLEGE OF ARCHITECTURE

Offers a four-year course in Architecture leading to the degree of B. Arch.; also a two-year special course with certificate.

MEDFORD, MASS.

TUFTS COLLEGE

ELMER H. CAPEN, LL.D., President.

The college is on a hilltop four miles from Boston, combining the advantages of country and city. It offers to the student in all departments the best methods of instruction, and the various facilities requisite for a thorough education at a moderate cost.

Departments

The College of Letters The Engineering Dept.
The Medical School The Graduate Dept.
The Dental School The Bromfield Pearson
The Divinity School School
The Summer School

The Engineering Department

There are four courses leading to the degree of Bachelor of Science:—
Civil Engineering Mechanical Engineering
Electrical Engineering Chemical Engineering
Descriptive circulars giving requirements for admission, details of courses, description of buildings, and laboratory equipment, together with appointments secured by graduates, mailed free on application. Address
HARRY G. CHASE, Secretary
Tufts College P. O., Mass.

NEW YORK.

THE SOCIETY OF BEAUX-ARTS ARCHITECTS

has established

A FREE COURSE OF STUDY

open to draughtsmen and students of any city modelled on the general plan pursued at the Ecole des Beaux-Arts in Paris, and comprising frequent problems in Orders, Design, Archeology, etc.
For information apply to the Secretary of the Committee on Education, 3 East 83d St., New York City.

FLYNT

BUILDING AND CONSTRUCTION CO.

GENERAL OFFICE, PALMER, MASS.

We contract to perform all labor and furnish all material of the different classes required to build complete

CHURCHES, HOTELS, MILLS, PUBLIC

BUILDINGS AND RESIDENCES.

Also for the construction of

RAILROADS, DAMS AND BRIDGES.

We solicit correspondence with those wishing to place the construction of any proposed new work under ONE CONTRACT, which shall include all branches connected with the work. To such parties we will furnish satisfactory references from those for whom we have performed similar work.

The WINSLOW BROS. COMPANY,

CHICAGO,

Ornamental Iron and Bronze.

PHILADELPHIA, PA.

UNIVERSITY OF PENNSYLVANIA

SCHOOL OF ARCHITECTURE

FOUR-YEAR COURSE (Degree B. S. in Arch.).

GRADUATE YEAR (Degree M. S. in Arch.).

TWO-YEAR SPECIAL COURSE (Certificate).

College Graduates are granted advanced standing and qualified draughtsmen admitted to the Special Course.

The University offers also four-year courses in CIVIL, MECHANICAL, ELECTRICAL AND CHEMICAL ENGINEERING, leading to the Degrees of B. S. in their respective subjects.

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

ST. LOUIS, MO.

WASHINGTON UNIVERSITY

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.

"THE AMERICAN VIGNOLA"

THE FIVE ORDERS OF ARCHITECTURE

BY

WILLIAM R. WARE

Professor of Architecture, Columbia University
Text and Plates, 86 pp., 9"x12" Price, \$3.00
AMERICAN ARCHITECT COMPANY,
PUBLISHERS

ROBERT C. FISHER & CO.

Successors to Fisher & Bird,

MARBLE AND GRANITE WORKS

East 139th to 140th St. and Locust Ave.

Established 1830.

NEW YORK

Rain, Hail and Storm



beating against a front door will soon cause it to become white and weather-beaten unless the woodwork is protected by

Spar Coating

A perfect finish for exterior woodwork. For booklet write

EDWARD SMITH & COMPANY

Varnish Makers and Color Grinders

45 Broadway, New York

59 Market St., Chicago



CAPTAINS OF INDUSTRY
Surround Themselves With
"The Armor Plate Of Modern Business"

BERGER STEEL FURNITURE

It means perfect system—absolute protection. What avails a fireproof building with combustible furniture? Berger Steel Furniture is **Fireproof, Waterproof, Dustproof, Rot, Mice and Vermin Proof**—not affected by extremes of cold, heat, dryness or moisture—it is extremely light for its strength; economizes space. In finish and beauty it is simply superb.

BOOK FREE.—Ask for our new book No. 22. It is bound to interest you.
THE BERGER MFG. CO., Canton, O.
Steel Specialties—Ceilings, Roofing, Siding, Fireproofing, Etc.

**FOR INFORMATION ABOUT
U. S. MAIL CHUTES**

WHICH ARE
A necessity in Office Buildings and Hotels,
write to the sole makers.
THE CUTLER MFG. CO., ROCHESTER, N. Y.
PATENTED. AUTHORIZED.

"La Construction Moderne,"

A journal of whose merits our readers have had opportunity to judge because of our frequent reference to it and our occasional republication of designs that are published in it, is the most complete and most interesting of the French architectural journals.

The seventeenth annual volume is now in course of publication.

Subscription, including postage, 35 francs.

Each weekly issue contains, besides the illustrations included in the text, two full-page plates, which by themselves are worth double the amount of the annual subscription.

PRICE OF BACK ANNUAL VOLUMES,

11 40 Francs. 11

Address for subscriptions and catalogues,

LIBRAIRIE DE LA CONSTRUCTION MODERNE,

18 Rue Bonaparte, Paris, France.

Established nearly 40 Years

.. THE ..

ARCHITECT

AND

Contract Reporter

Published Every Friday by P. A. Gilbert Wood

**6 TO 11 IMPERIAL BUILDINGS
LUDGATE CIRCUS. LONDON, E. C.**

PRICE, FOURPENCE

The "ARCHITECT AND CONTRACT REPORTER" has been established nearly 40 years; has a large and influential circulation; has been proved to be the best medium for advertising to Architects, Builders and Contractors; has the finest illustrations, and has been specially noted for its Art reproductions.

Send us six English 1d. stamps and we will mail you sample copy.

Send us post-office money order for 50 cents and we will send you the last six weeks' issues.

On receipt of \$6.25 we will forward for 12 months.

MINERAL WOOL

FIRE, SOUND and VERMIN PROOF INSULATOR.

Samples and Circulars Free.

**U. S. Mineral Wool Co., 143 Liberty Street,
NEW YORK.**

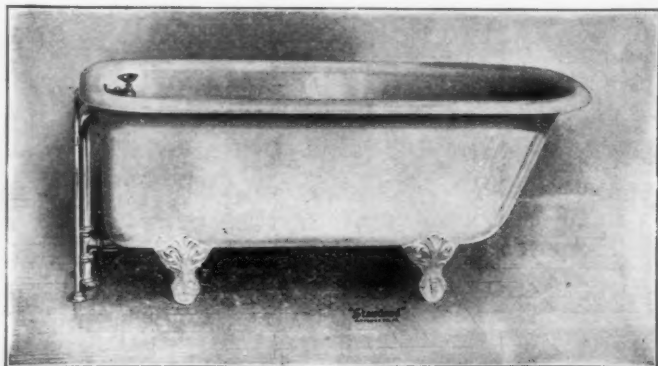


"Standard"



PORCELAIN ENAMELED BATHS

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



The "Occident." Plate 101 G.

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

The "Occident"

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

The exterior finish of the bath is a matter worthy of the consideration of every architect. The

"Standard" Bath Decorations

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

Standard Sanitary Mfg. Co.

PITTSBURG, U. S. A.

NATIONAL FIRE-PROOFING CO.

PITTSBURGH

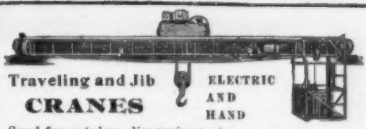
NEW YORK

BOSTON

PHILADELPHIA

CHICAGO

We own patents for the Johnson System of Fire-proofing. Residences and other buildings can be made fire-proof without the use of steel. Let us give you estimates.



Traveling and Jib
CRANES
ELECTRIC
AND
HAND
Send for catalog, dimensions, etc.
NORTHERN ENGINEERING WORKS
24 Chene St., Detroit, Mich.

BARGAINS

We have a few incomplete sets of the |

Imperial Edition of the American Architect

for the years 1893, 1894 and 1895 which we will sell at a bargain.

These are not second-hand copies, but fresh and perfect copies from our own stock-room.

Each copy contains, besides the black-and-white illustrations, a single gelatine print.

Each copy was published at twenty-five cents, but we will sell each lot as it stands for **\$5.00.**

Supplying each customer with the fullest of these incomplete lots in stock at the time of receiving his order.

The shortage runs from one to six or eight issues: for instance

One lot A.	1894.	Short one print.	E. & O. E.
Four lots B.	"	" two "	"
One lot C.	"	" two issues.	"
Four lots D.	"	" six	"

AMERICAN ARCHITECT COMPANY

238 Tremont Street, Boston

Topographical Index of Advertisers.

[For pagination, see Alphabetical Index on Cover 2.]

CONNECTICUT.	MASSACHUSETTS.	NEW JERSEY.	NEW YORK.
Stamford. Yale & Towne Mfg. Co. Locks Waterbury. Benedict & Burnham Mfg. Co. "Benedict-Nickel" Seamless Tubing for Exposed Plumbing. London. ENGLAND. Architect and Contract Reporter, The. . . Magazine. Building News, The. Periodical	Boston. Elston & Co., A. A. Buildings Torn Down Erickson Electric Equipment Co. Electrical Contractors. Folsom Snow Guard Co. Snow Guards Fowle, Herbert. Ornamental Plastering Gallagher & Munro Co. Plasterers Gurney Heater Mfg. Co. Hot water, etc. Heliotype Printing Co. Art Printing Jager Co., Charles J. Engineers Johnson & Co., H. A. Portable Ovens Ledder, G. G. Drawing Instruments Marble Co., W. P. Brass Finishers Massachusetts Institute of Technology. School. Means & Thacher. Paints McKay & Woolner. Contractors and Builders. Morrill & Whiton Construction Co. Masons and Builders. Morris-Ireland Safe Co. Safes Morse & Whyte. Artistic Wire & Metal Works. Olive, E. Percy. Photography Parks & Jeeves. Blue Printing Pearson Co., J. C. Wire Nails Perry, W. J. Dumb-waiter Redding, Baird & Co. Stained Glass Robey-French Co. Photographic Supplies Ryan, William Curtis. Insurance Samson Cordage Works. Sash-Cord Shultz Belting Co. Leather Belting Simpson Bros. Corporation. Asbestos-tile Sleep, Elliot & King Co. Modelling and Ornamental Plaster. Spaulding Print Paper Co. Blue Prints Standard Fire-escape & Mfg. Co. Fire-escapes. Stebbins, N. L. Photography (Architectural and Commercial). Sturtevant Co., B. F. Fan System Van Noorden Co., E. Skylights, Metal Whittier Machine Co. Elevators	Jersey City. Dixon Crucible Co., Jos. Graphite Paterson. Passaic Steel Co. Structural Iron Perth Amboy. Perth Amboy Terra-Cotta Co. Terra-Cotta. NEW YORK. Irvington-on-Hudson. Lord & Burnham Co. Conservatories Ithaca. Cornell University. School Long Island City. Richey, Browne & Donald. Ornamental Iron and Bronze. Mount Vernon. Hartmann Bros. Mfg. Co. Staved Columns N. Y. City. American Tin Plate Co. Roofing Tin Associated Expanded Metal Co. Expanded Metal. Atlas Cement Co. Cement Chicago Clothes Dryer Works. Laundry Drying Machinery. Deane, E. Eldon. Colorist Elevator Supply and Repair Co. Electric Signals. Fisher & Co., Robert C. Marble Frink, I. P. Reflectors Hayes, George. Metallic Lathing Hecla Iron Works. Ornamental Iron and Bronze. Herzog Telesme Co. Elevator Signals Jackson & Co., Wm. H. Grates Jenkins Bros. Valves Jones, T. W. Vases Kinneer-Hood Steel Co. Radiators Motoroff Exhauster Co. Ventilation Mott Iron Works, The. Iron Work Neuchatel Asphalt Co. Asphalt New Jersey Zinc Co. Zinc White New York Belting and Packing Co., Ltd. Interlocking Rubber Tiling. N. Y. Metal Ceiling Co. Metal Ceilings Okonite Co. Ltd. Insulated Wire Pitt, W. R. Folding-Gates Quimby, W. E. Inc. Electric Pumps Rider-Ericson Engine Co. Hot-Air Engines. Sargent & Co. Builders' Hardware	N. Y. City. Smith Co., H. B. Steam Heat Smith & Co., Edward. Varnishes Society of Beaux-Arts Architects, The. . . School. Truss Metal Lath Co. Metal Lathing U. S. Mineral Wool Co. Mineral Wool Warren Chemical & Mfg. Co. Asphalt Williams, John. Wrought Metal Yale & Towne. Hardware (Art) Rochester. Cutler Mfg. Co. Mail Chutes Tenafly. Richter Mfg. Co. Tapestryloca Troy. Globe Ventilator Co. Ventilators Troy Laundry Machinery Co. Washing-Machines. OHIO. Canton. Berger Mfg. Co., The. Metal Ceilings Cleveland. Tyler Co., The W. S. Ornamental Iron and Bronze. Columbus. Kinnear Mfg. Co., The. Steel Rolling Doors. Nelson Co., The C. T. Capitals (Carved) Ohio State University. School Salem. Mullins, W. H. Architectural Metalwork West Cleveland. Cudell, F. E. Traps PENNSYLVANIA. Ambler. Kenaby & Mattison Co. Magnesia Covering Philadelphia. French & Co., Samuel H. Mortar Colors Loomis Filters Improved System. Filters Merritt & Co. Lockers (Expanded Metal) Merchant & Co., Inc. Roofing Plates Morse, Williams & Co. Elevators Taylor Co., N. & G. Roofing Tin The Edison Portland Cement Co. Portland Cement. Thorn, J. S. Sheet Metal University of Pennsylvania. School Pittsburgh. National Fireproofing Co. Fireproofing Standard Sanitary Mfg. Co. Porcelain Enamelled Ware.

“Topical Architecture”

¶ People—both architects and publishers—smiled incredulously, some years ago, at our belief that we could find such demand for a new architectural publication as would make it profitable.

¶ We have found such demand, and “Topical Architecture,” instead of succumbing early, as prophesied, enters on its fifth year of publication with the November issue.

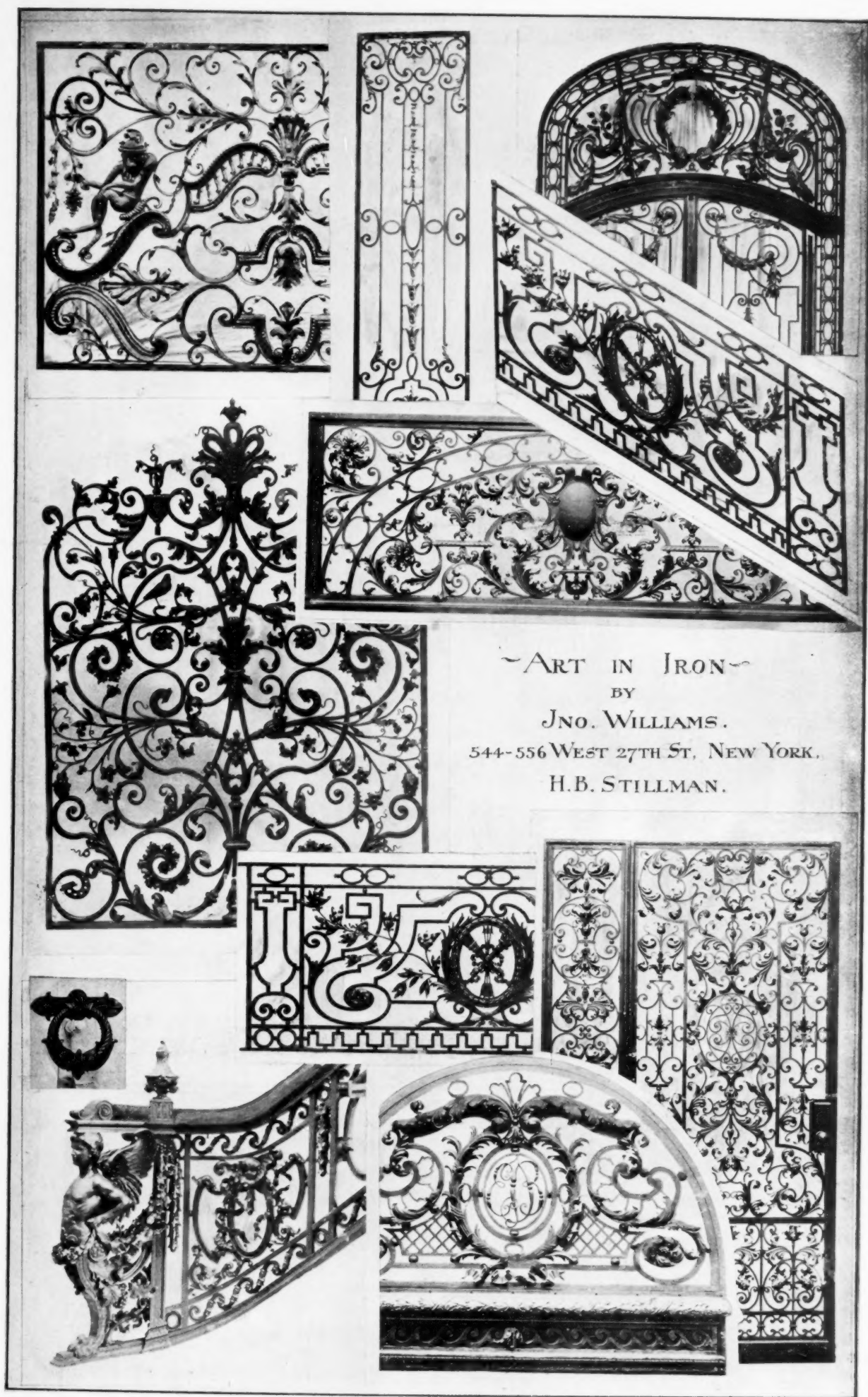
¶ As the periodical is useful, well worth the money, and proceeds on lines different from any other publication, we urge you to acquire it under one or the other of the following offers, as we will give for:—

- | | |
|--------|---|
| \$3.00 | One year's subscription —Nov. '03-Oct. '04. |
| 5.00 | Two years' subscription—Nov. '02-Oct. '04. |
| 10.00 | Complete from beginning to Nov. '03 [46 issues]. |
| 12.00 | Complete from beginning to Nov. '04 [58 issues]. |
| 15.00 | { Complete from beginning to Nov. '03 and either
“ <i>Italian Renaissance Doorways</i> ” or “ <i>Door
and Window Grilles</i> ,” in portfolio. |
| 25.00 | { Complete from beginning to Nov. '04 and both
“ <i>Italian Renaissance Doorways</i> ” and “ <i>Door and
Window Grilles</i> ,” bound in cloth. |

NOTE:—“*Italian Renaissance Doorways*” and “*Door and Window Grilles*” are the first two volumes of the Topical Architecture Library and in character, make-up and quality conform with the monthly issues of “Topical Architecture” itself, but no plate contained in either book has been or will ever be published in the periodical: their contents can be had only in book form.

AMERICAN ARCHITECT COMPANY, Publishers

238 Tremont Street, Boston





ESTABLISHED 1855



THE SOUTH STATION, BOSTON

Largest in the World.

The Train-shed, 268,000 sq. ft., is covered with

Warren's Anchor Brand Natural Asphalt Roofing

THE STANDARD ASPHALT ROOFING FOR TWENTY-FIVE YEARS

Write for Illustrated Booklet
Containing Testimonials and Specifications

Warren Chemical & Mfg. Co.

17 Battery Place
NEW YORK

12 Pearl Street
BOSTON



What is Mineral Wool?

"IT is quite as important to build a house so as to keep out the heat in summer as to keep it in in winter. Few architects seem to think of this point, and it is quite common to hear one say that a poorly built house is a cool house. This is not so, but the contrary is true. It is the rule that the attics of our houses are veritable ovens, and so long as nothing but a thin coat of mortar and occasionally a poor board floor separate the sleeping room from the attic, the former will approach, in temperature, very nearly to the latter. This difficulty can be overcome very easily and quite inexpensively. Mineral wool placed between the rafters is an absolute preventive of such a condition of affairs, but one who is building a house should not stop here with the use of this material, for its low cost and its many desirable qualities should commend it for use throughout the house, wherever cold and dampness are to be kept out, and heat is to be kept in in cold weather and out in warm weather. The fire-resisting qualities of mineral wool have long commended it to architects for this specific purpose, but, in our opinion, this is the least of its qualities, although it is an absolute resistant of fire."

No doubt this article has had some influence with architects and builders, but still there must be many skeptics, or the use of this material would be much more general. It is a matter of fact that the extensive brewers and packers in the West use mineral wool at all times and in all places where they can in lining their cold storage, packing and ice houses, some to the extent of millions of pounds. In steam pipe and boiler covering it is also very advantageous. The New York Steam Heating Company have covered all their pipes with this material, thereby reducing the consumption of fuel and expenses so much and after that large dividends. It is also used as boiler and pipe covering in the S. navy. The Pennsylvania Railroad Company line their passenger and refrigerator deadener of sound in floors and walls of also that it is fire-proof, when considering

New uses to which it is applied come a prominent architect experimented with cement, then a layer of mineral wool and done to test its frost-proof qualities and previously used, but mineral wool will give

tion. In Southwest Virginia mineral wool of keeping out rats, mice and vermin, and worth all it cost. No doubt many who read running up the walls and between floors nuisance by the discovery of a dead rat. coarsest grade of slag wool is the best, be-penetrating qualities that they give it a

It is manufactured from the slag of Analysis of the slag shows a mixture of various quantities, with further addition and as it runs from it, is caught by a very trolling medium. It is known commercially silicate cotton.

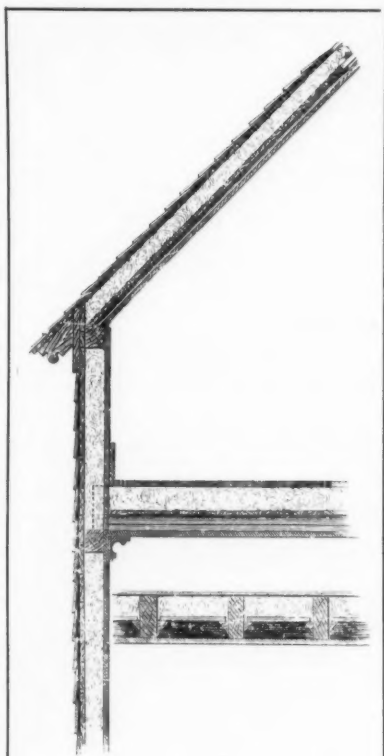
Its uses are for insulation of heat and of sound, vermin proofing, prevention of it is indestructible and odorless.

With these incontrovertible merits, neglected by architects and builders? By some builders as an unnecessary expense, an unprofitable outlay, stating that if it was therefor when selling their property. This have learned to know and appreciate the and create a demand for them. Why floors in flats, or sleep in upper rooms, cold in winter? when lining the roof keep the upper rooms in summer as cool keep in winter the heat that ascends from through the roof and upper rooms.

The cost is insignificant, when compared of this material—2 or 3 inches thickness first outlay is the only one. Again, its use rapid spread of fire, which is so general in spaces between the studs are the same as so many chimney flues, which draw the fire from the bottom to the top of the house in very short order. If these spaces were filled with mineral wool only 2 or 3 three feet above the floors, these open draughts would be effectually stopped.

It is a wonder that insurance companies have not considered this matter as they should; if they looked into the merits of mineral wool, no doubt they would become easier in their rates and their losses would be greatly diminished.

Much more may be said about this material, but what has already been herein stated should be sufficient to excite inquiry into its merits, which when done, will necessarily lead to a largely increased demand.



House lined with Mineral Wool as shown in these sections, is warm in winter, cool in summer, and is thoroughly deafened.

The lining is vermin-proof; neither rats, mice nor insects can make their way through or live in it. Mineral Wool checks the spread of fire, and keeps out dampness.

this material, thereby reducing the cost that the mineral wool was soon paid for. used as boiler and pipe covering in the S. navy. The Pennsylvania Railroad Company cars with it. It is also invaluable as a theatres, lodge rooms, etc.—do not forget its deafening properties.

to light constantly, as for instance, recently mineral wool in a cement floor* by laying covering that again with cement. This was proved very satisfactory. Cinders had been and take better in expansion and contrac-

came into great demand for the purpose for this reason, alone, they thought it this have been disturbed at night by rats, and ceilings, and sometimes even a greater For the prevention of these pests the cause it is so irritating to them by its wide birth; they will not come near it..

the iron furnaces, by fire and steam. silicate, alumina, lime and magnesia in of limestone. This is smelted in a cupola powerful jet of steam which is the con- here as mineral wool, and in England as

cold, for fire and frost proofing, deadening dampness and propagation of disease germs,

why is such an invaluable article so much many it is considered expensive, and by or perhaps, more practically expressing it, used by them they could get no returns may be so until the occupants of the house difference between lined and unlined houses should people who have to occupy upper endure the extreme heat in summer and with 2 or 3 inches of mineral wool will as the rooms underneath, and will also the lower parts of the house from escaping

pared to the comfort derivable from the use only costs 3 or 4 cents per square foot; the between studding in the walls prevents the frame houses (and too often fatal), the



Ygrande Design
(Louis XIV.)

SARGENT'S

Artistic Hardware

∴ And ∴

Easy Spring Locks

Are specified by the leading architects and are in use in many of the best buildings in all parts of the country. They are giving satisfaction everywhere.

Two of our artistic designs are shown here ; we have many others, appropriate for all schools of architecture, which are illustrated in a catalogue intended especially for architects ; this book also shows a great variety of Locks, suitable for dwellings, office and public buildings, hotels, asylums, churches, schools, etc., and the many other articles of hardware required in a building.

This book is indispensable to the busy architect ; we would be glad to furnish a copy on request.



Randolph Design
(Colonial)

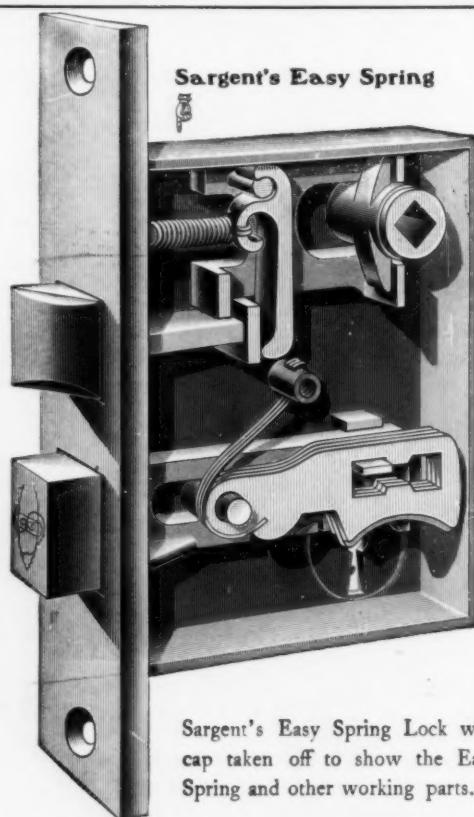
SARGENT'S ARTISTIC HARDWARE EASY SPRING LOCKS

Easy Spring Locks

SARGENT'S Easy Spring enables the Latch Bolt to work very freely, so that the door does not have to be slammed nor stand ajar, but latches gently as it is closed. This is accomplished by using a good stiff spiral spring, with a long leverage for the Latch Bolt, and a direct pull for the Knob, thus producing the desirable combination of

Easy on the Latch Bolt Firm on the Knob

The Spring cannot rub on the case, and it is impossible for it to bow or to get out of position. Working in a direct line, and so short a distance, without friction, gives great durability—no springs to be replaced, nothing to get out of order.



Sargent's Easy Spring

Sargent's Easy Spring Lock with cap taken off to show the Easy Spring and other working parts.

Cylinder Locks

GREAT security and a small key are desirable features, which, when combined with our famous Easy Spring principle, produce

Sargent's Cylinder Locks

the best in the world. The application of the Easy Spring to our Cylinder Locks is not shown in the cut, but it is the same principle, and it produces the same results in all of our Easy Spring Locks, both Cylinder and Bit-Key.

Sargent's Cylinder Locks are made in different styles for the different classes of work, all using the same small key so handy to carry.

SARGENT & COMPANY

Manufacturers

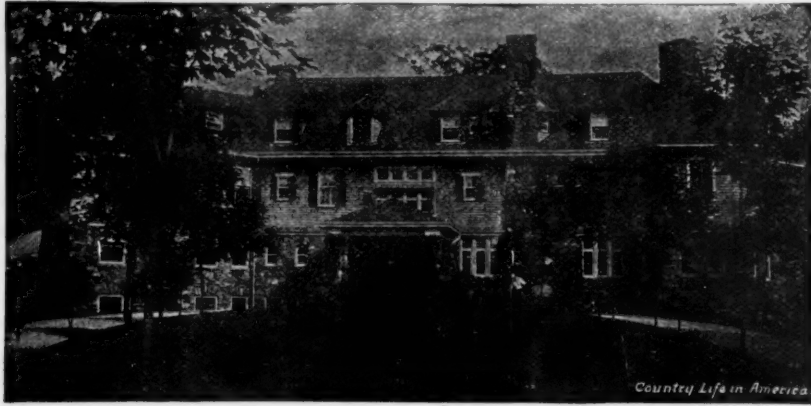
New Haven, Conn.

149-151-153 Leonard Street
New York

717-718 Witherspoon Bldg.
Philadelphia

112 Water Street
Boston

40 Dearborn Street
Chicago



Residence of Alfred Marshall, Esq., Mamaroneck, N. Y.

PEARSON Nails used throughout



Pearson Coated Nails are beyond the experimental stage. Their advantages in the lines of quality and economy have never been surpassed.

Pearson Coated Nails

are offered to Architects and Builders as being a decided improvement in this detail of construction supplies.

For Flooring

their use saves almost 30 per cent in time by actual working test and once driven they hold at least 100 per cent more than any other kind of nails. They draw down quickly and easily and the enormous holding power prevents for all time any possibility of springing floors. The cost is less. Write us at either of our sales offices for samples and detailed information.

Board of
Trade Bldg.
BOSTON

J. C. PEARSON COMPANY

Fuller Bldg.
NEW YORK

American Architect Removed

TO 238 TREMONT ST., BOSTON

BRASS
BRONZE
COPPER
STEEL

RADIATORS

KINNEAR
TRADE MARK
HOOD

Kinnear Radiators

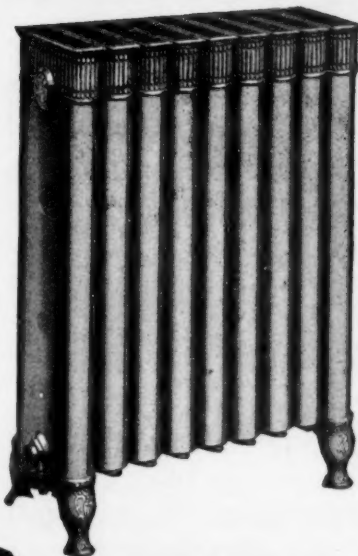
excel in artistic appearance, greatest heating surface in limited floor space, increased efficiency and decreased weight.

Durability Guaranteed

Beautifully finished to conform to any interior decoration.

Write for Catalogue No. 5

KINNEAR-HOOD STEEL CO.
141 Broadway, New York, N. Y.



The Edison Electric Illuminating Company of Boston has on view in its **EXHIBITION DEPARTMENT** at 1 and 2 Head Place, much novel, useful and interesting electrical apparatus.

This Department is open from 9 A. M. to 5.30 P. M., daily, and visitors are cordially welcome.

See the New Telautograph Machine of transmitting written messages to any distance.

See the New Edison Storage Battery

See the New Cooper-Hewitt Mercury Vapor Lamp

and many other illustrations of Electrical development

Enter from Boylston Street in rear of Masonic Temple

"The Georgian Period"

THIS publication, which now consists of eleven Parts, contains over two hundred pages of text, illustrated by over three hundred and fifty text-cuts, and four hundred and four full-page plates, of which over one-third are gelatine or half-tone prints. It is in truth a work of superior excellence and great usefulness.

The matter illustrated may in small part be classified thus:

PUBLIC BUILDINGS

City Hall, New York, N. Y.	Date 1803-12
Old State House, Boston, Mass.	" 1748
Pennsylvania Hospital, Philadelphia, Pa.	" 1755
Carpenters' Hall, Philadelphia, Pa.	" 1770
Independence Hall, Philadelphia, Pa.	" 1729
Faneuil Hall, Boston, Mass.	" 1741
and others.	

CHURCHES

King's Chapel, Boston, Mass.	Date 1749
Seventh-day Baptist Church, Newport, R. I.	" 1729
Christ Church, Alexandria, Va.	" 1767
Christ Church, Philadelphia, Pa.	" 1727
St. Paul's Chapel, New York, N. Y.	" 1764
Old South Church, Boston, Mass.	" 1729
First Church, Hingham, Mass.	" 1681
St. John's Chapel, New York, N. Y.	" 1803
First Congregational Church, Canandaigua, N. Y.	" 1812
St. Peter's P. E. Church, Philadelphia, Pa.	" 1758
Gloria Dei Church, Philadelphia, Pa.	" 1700
and others.	

IMPORTANT HOUSES

Fairbanks House, Dedham, Mass.	Date 1636
Royall Mansion, Dedham, Mass.	" 1737
Philipse Manor House, Yonkers, N. Y.	" 1745
Tudor Place, Georgetown, D. C.	" 179-
Mappa House, Trenton, N. Y.	" 1809
Woodlawn, Va.	" 1799
Mount Vernon, Va.	" 1743
and others.	

Incidentally there are shown special measured drawings or large views of the following features and details:

Porches and Doorways	67	Subjects
Staircases	23	"
Mantelpieces	89	"
Pulpits	9	"
Fanlights	60	"

In addition to the subjects enumerated above there is a large quantity of measured and detailed drawings of Cornices, Ironwork, Gateposts, Windows, Interior Finish, Ceiling Decoration, Capitals, etc., together with elevational and sectional views of entire buildings.

AMERICAN ARCHITECT & BUILDING NEWS CO., Publishers, Boston, Mass.

THE MEN OF L'ECOLE DES BEAUX ARTS who have used *Dixon's American Graphite Artist Pencils* know their superior is not found here or abroad. Made in every degree of hardness to suit every possible need. There is much useful pencil information in Booklet 14 J. Sent on request.

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

.. WATER ..

RIDER & ERICSSON HOT-AIR PUMPING ENGINES

If water is required for household use, lawns, 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 windmills. Prices reduced. Catalogue "B" on application.

RIDER-ERICSSON ENGINE CO.

35 Warren Street, New York
239 Franklin Street, Boston
692 Craig Street, Montreal, P. Q.

40 Dearborn Street, Chicago
40 North 7th St., Philadelphia
Teniente-Rey 71, Havana, Cuba

ESTABLISHED 1868

THE "HAYES" METALLIC GLAZED STRUCTURES

SKYLIGHTS FIRE-PROOF WIRE-GLASS **WINDOWS**

71-8TH AVE. NEW YORK.

METAL LATHINGS ETC.

"COHESIVE CONSTRUCTION."

An Essay on the Theory and History of Cohesive Construction.

By **RAFAEL GUASTAVINO, Architect.**

Price, \$1.25.

Cathedral of St. John the Divine.
New York, N. Y.

WE offer the illustrations of the competitive designs for the great Protestant Episcopal Cathedral, now building on Bloomingdale Heights, New York, submitted by the following Architects:

CARRERE & HASTINGS	New York, N. Y.	CRAM & WENTWORTH	Boston, Mass.
EDWARD P. CASEY	" "	JOHN LYMAN FAXON	" "
HENRY M. CONGDON	" "	PEABODY & STEARNS	" "
ROBERT W. GIBSON	" "		
B. G. GOODHUE	" "	STEPHEN C. EARLE	Worcester, Mass.
HEINS & LAFARGE	" "		
HUSS & BUCK	" "	T. P. CHANDLER, JR.	Philadelphia, Pa.
W. A. POTTER & R. H. ROBERTSON	" "	COPE & STEWARDSON	" "
RENWICK, ASPINWALL & RUSSELL	" "		
FREDERICK C. WITHERS	" "	W. S. FRASER	Pittsburgh, Pa.
PARFITT BROTHERS	Brooklyn, N. Y.	L. S. BUFFINGTON	Minneapolis, Pa.
W. HALSEY WOOD	Newark, N. J.	VAN BRUNT & HOWE	Kansas City, Mo.

In all, fifty-seven plates [loose], 14 x 20 inches, printed on plate-paper.
Price, \$2.50 per set.

AMERICAN ARCHITECT AND BUILDING NEWS COMPANY,
211 TREMONT STREET, BOSTON, MASS., U. S. A.

Established 1844

French's Paints and Varnishes

Highest Standard Attainable

Write for Prices and Samples

Samuel H. French & Co.

PHILADELPHIA

TRADE MARK

Everlastins

READY MIXED RED PAINT

Guaranteed the cheapest, most durable and absolutely the best for Buildings, Structures and all work that needs paint.

MEANS & THACHER, 6-8 CUSTOM HOUSE ST., BOSTON

Sole Manufacturers. Sample and prices on request



QUICK AND EASY RISING HAND POWER, BELT POWER AND ELECTRIC

ELEVATORS

SEND FOR CATALOGUE

KIMBALL BROS. CO., 1014 9th St., Council Bluffs, Iowa.

KIMBALL ELEVATOR CO., 141 Vincent St., Cleveland, O.

New York Office, 129 Cedar St.

Steel Concrete

Kuhn's Sheet Metal Structural Element for Fire-Proof Construction. Floors, Stairs, Partitions, Furrings, Outside Walls, Roofs, Side-walks, Trunk Sewers, Tanks, etc.

TRUSS METAL LATH COMPANY, Mfrs.
15-25 Whitehall St., New York

RICHARD CROWWELL, Jr., Pres. JNO. J. DUFFY, Gen'l Mgr.
CHAS. H. CROWWELL, Vice-President

The Lafayette Mill and Lumber Co.
Sash, Doors, Blinds and Lumber
Lafayette Ave. and P. B. & W. R. R.
BALTIMORE, MD.
Telephone Connections

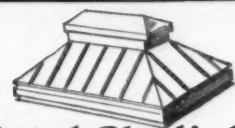
Masonry in Modern Work

A "Prolegomenos" on the Function of Masonry in Modern Architectural Structures.

By R. GUASTAVINO, ARCHITECT.

Price, Paper Cover, 30 Cents.

For Sale by the **AMERICAN ARCHITECT**



Metal Skylights

that positively will not leak, drip, sweat or burn; self-ventilating. All about them in our Illustrated Catalogue—free for the asking. Shall we mail it to you?

E. VAN NOORDEN CO.

944 Massachusetts Avenue
BOSTON, MASS.



JENKINS BROTHERS' VALVES

Perfectly tight under all pressures of steam, oils or acids.
Warranted to give satisfaction under the worst conditions.

RECEIVED THE **GOLD MEDAL** AT THE PAN-AMERICAN EXPOSITION

Insist on having the genuine, stamped with Trade Mark.

JENKINS BROTHERS, New York, Boston, Philadelphia, Chicago.

WARREN'S TRINIDAD ASPHALT

ROOFING "ANCHOR BRAND" PAVING

THE BEST MATERIAL FOR

WARREN CHEMICAL & MFG. CO., 17 Battery Place, N. Y.

CRANE VALVES

ESTABLISHED 1855

ASPHALT FLOORS, ROOFS, SIDEWALKS 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 NEUCHÂTEL ASPHALT CO., Limited
265 BROADWAY - - - NEW YORK.

New York Metal Ceiling Co. Interior Decorators

In Steel, Stucco and Enamelled Metal Finishes

ASK TO SEE ENAMETILE
A perfect substitute for Encaustic Tiling at about one-half the cost

Main Factory and Show Rooms
437-541 WEST 24TH STREET, NEW YORK, N. Y.
Boston Office, 19 Pearl Street

Cabot's Creosote Shingle Stains

Samples and full information sent on request



H. C. Pelton, Architect, New York.

The
Standard
For
Twenty
Years

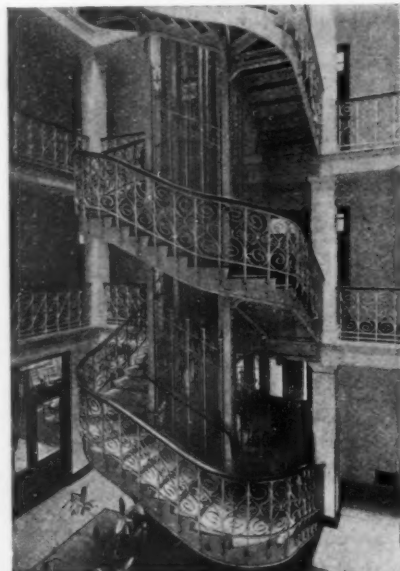
SAMUEL CABOT, Sole Mfr.
Boston, Mass.

"MINOR FOUNTAINS,"

Being No. 3 of a Series of "Architectural Odds and Ends,"

40 GELATINE PRINTS - - \$5.00 PER COPY.

AMERICAN ARCHITECT CO.



Architectural
Cast and Wrought
(Iron
Bronze &
Brass

STAIRS
ELEVATOR ENCLOSURES
STORE FRONTS
GRILLES
ENTRANCE DOORS
BANK COUNTER SCREENS
MARQUEES
HAMMERED LEAF WORK
Etc., Etc.

Iron staircase and balcony railing, St. Luke's Hospital, Ernest Flagg, Architect.

RICHEY, BROWNE & DONALD

Borden and Review Aves.

Long Island City, N. Y.

E. ELDON DEANE,

Architectural Colorist and Draughtsman.
63 Seymour Building, Fifth Ave., cor. 42d St.
NEW YORK CITY.

Conservatories, Greenhouses, Vineries, Etc.

Designed, erected and heated. Catalogue, also special plans and estimates, on application.

LORD & BURNHAM CO.,
1133 Broadway - - - New York City.

BOOKS:

"Cathedral of St. John the Divine."

Designs submitted in the First Competition.

57 Plates, folio. Price, \$5.00.

AMERICAN ARCHITECT COMPANY

BURDITT & WILLIAMS CO.

INVITE ATTENTION TO THE

FINE HARDWARE

On Exhibition in their

New and Spacious Hardware Store

4 High, cor. Summer St., Boston

Unique Reception and Sample Room
for the use of Architects and their clients.

Officially Approved and Adopted
Throughout the Civilized World, as the Standard

KEASBEY & MATTISON'S

➡ 85 Per Cent. ⬅

Sectional Magnesia Coverings.

85 Per Cent Magnesia Coverings are the highest priced coverings sold, but the cheapest to buy if you have to pay the coal bill yourself.

BUY THE GENUINE.

There are frauds and imitations being offered.
85 Per Cent Sectional Magnesia Coverings.

MANUFACTURED BY THE

KEASBEY & MATTISON COMPANY,
AMBLER, PENNA.

Branches in all the principal Cities.

All infringers will be held liable in heavy damages.

"Italian Renaissance Doorways"

104 PLATES, 10 x 14 1-2 inches

Uniform with the second Volume ["Door and Window Grilles"] of the Topical Architecture Library.

Price, bound in Cloth	\$7.50
" in Portfolio	6.50

American Architect Company, Publishers
238 Tremont Street, Boston

KOLL'S Patent Lock Joint STAVED COLUMNS

are particularly well adapted for out-door use. Made in all sizes from 5 in. to 42 in. diameter and proportionate lengths.

HARTMANN BROS. MFG. CO.
Mt. Vernon, N. Y., U. S. A.

N. Y. Office, 1128 Broadway. Western Factory, Henry Sanders Co., 77-85 Weed St., Chicago, Ill.



The
W. J. PERRY
Dumb
Waiter

FOR
Hotels, Restaurants
Stores, Libraries and
Private Residences

Installed very simply and at reasonable cost.

Manufactured by

W. J. PERRY

591 Atlantic Avenue, Boston, Mass.

Local agents wanted. Correspondence solicited.

"Hecla Fireproofing"

(PATENTED)

and Ornamental Metal Work

MANUFACTURED BY

HECLA IRON WORKS

Brooklyn Boro, NEW YORK



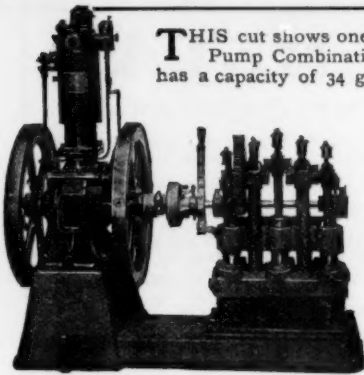
THEATRE VENTILATION

TO BE SUCCESSFUL MUST BE POSITIVE

The air must be distributed with the utmost refinement, the temperature must be automatically controlled and the vitiated air must be immediately removed.

The Fan System insures these results. It is the system which we have perfected during an experience of 30 years, and which we are completely equipped to design and install.

B. F. STURTEVANT CO.
BOSTON, MASS. **NEW YORK** **PHILADELPHIA**
 CHICAGO **LONDON** 314



THIS cut shows one of our smaller Gasolene Engine and Triplex Pump Combinations. The Engine is of 3 Hp. and the outfit has a capacity of 34 gallons a minute discharged at 146' elevation.

We are consulting and contracting engineers for Complete Water Works Systems, using Windmills, Gasolene Engines, and Electric or Steam Pumps, and are prepared to give advice to anyone on proposed plants and to submit proposals and estimates for the whole or any part of same. Send for our special catalogue on this subject.

CHARLES J. JAGER COMPANY
174 HIGH ST., BOSTON

ELECTRIC HOUSE SERVICE PUMPS

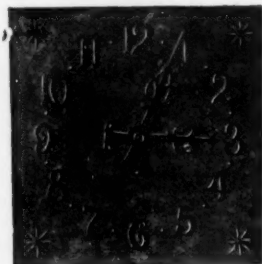
WILLIAM E. QUIMBY

[Incorporated]

141 Broadway, New York

CHICAGO
EDWARD YEOMANS
1141 MONADNOCK BLDG.

NEW ORLEANS
SAFETY ELECTRIC MFG. CO.
303 MAGAZINE ST.



CORRECT TIME

Fine Self-Winding Clocks for Office Buildings, Residences, Libraries, Churches, Etc.

Self-Winding Tower Clocks. No heavy weights. No stopping by storms.

Program Clocks and Time Systems for Schools, Public Buildings, Etc.

20,000 in Use

Write for Catalog

Blodgett Clock Co., 141 Franklin St., Boston

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

lot of land on Tannery St., North Cambridge, containing 62,158 square feet. The property adjoining that of the city of Cambridge whereon the City Home is located. It is understood that the intention of the American Vulcanized Fibre Co. is to erect a manufacturing plant there.

Chicago, Ill.—James Gamble Rogers is designing a mercantile building, three stories high, 100' x 130' in ground dimensions, to be built at the northeast corner of 13th St. and Michigan Boulevard for the Winton Moto Vehicle Co. at a cost of \$80,000.

Detroit, Mich.—Joseph E. Mills is preparing drawings for a \$30,000 brick and stone church for the Baptist Society of this city.

Mason & Painter are preparing plans for a large apartment-house to be built on the southeast corner of Woodward and Hendrie Aves. It will be 150' x 218' and be constructed of steel and concrete throughout. Cost about \$350,000.

S. C. Falkinburg is preparing plans for a six-story apartment-building for C. H. Lawrence to be erected on John R. St., near Miami Ave., and will cost about \$60,000.

Dorchester, Mass.—A lot of vacant land situated on Bellevue St., near the corner of Stanley St., containing 2,964 square feet, and owned by Ellen F. Gould, has been sold on private terms to James L. Holland, who will improve the same with a house for occupancy. The land has a taxed value of \$1,000.

A large tract of vacant land has been sold by Mary E. Pierce to William A. Whittemore. The location is on the corner of Hancock and Glendale Sts., there being 57,005 square feet, having a taxed value of \$14,200. It is the intention of Mr. Whittemore to improve the land with a number of houses for investment.

Evanston, Ill.—Murphy & Camp, 632 N. Wells St., Chicago, are the architects for a three-story parochial school to be erected by St. Mary's R. C. congregation, at an estimated cost of \$60,000.

Fort Wayne, Ind.—The plans of Wing & Mahurin, Pixley Building, have been accepted for rebuilding St. Paul's Lutheran Church. Bids for construction will be received February 26. Probable cost, \$25,000.

Frankfort, Ky.—The House and Senate have passed a bill appropriating \$1,000,000 to erect suitable State buildings in this city.

Georgetown, Mass.—At the annual town meeting, which will be held in the near future, the matter of the erection of a new library and town-hall will be discussed.

Harlan, Ia.—The question of the erection of a public library building here is being agitated.

Lancaster, Pa.—Plans have been drawn by C. Emlem Urban, Trust Building, for improvements to Fulton Opera-house; cost, \$30,000. Owners, Yecker & Gleim.

Logansport, Ind.—Badgley & Nicoll, of Cleveland, O., have prepared plans for an edifice for the Broadway M. E. Church, to cost \$45,000.

Los Angeles, Cal.—Press reports state that the officials of the San Pedro, Los Angeles & Salt Lake R. R. have secured land on the Los Angeles River, from 1st to 7th Sts., and intend erecting depot, shops and roundhouses. Total cost, \$2,000,000.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Milwaukee, Wis.—Bids will shortly be asked by Jos. McC. Bell, 260 Knapp St., for erecting three and four-story brick and Bedford stone flats on W. Grand Ave. Total cost, \$250,000.

Monmouth, Ill.—The Co. Library Bd. is said to have under consideration the erection of a library. Probable cost, \$17,000.

Montrose, Pa.—Col. E. R. Warner, of New York, will give the Susquehanna County Historical Society \$4,000 with which to build a free public library here, upon condition that the building be known as the Warner Memorial Building. The gift has been accepted.

Newark, N. J.—Conditional contracts to furnish preliminary plans for the new schools and additions to be erected this year have been awarded as follows: Charles F. Bertrand and Frank F. Ward, 12-room addition to 7th Ave. School; Hooper & Co., 10-room addition to Sussex Ave. School; Julius Strombach, 9-room addition to Newton St. School; William M. Eisenbiegler, 12-room school house in the 13th Ward; Gustavus Staehlin, 9-room addition to Washington St. School; Hurd & Sutton, 6-room addition to Lafayette St. School; Romolo Bottelli, 6-room addition to Hawkins St. School. \$200,000 will be appropriated for the work to be done on the various buildings and the sites to be purchased.

New Orleans, La.—The Central Library will be located at St. Charles Ave. and Lee Circle, on the site known as the Masonic property. The amount to be expended will be \$175,000. The branch libraries will be located through the city, one to be erected in Algiers, the second in Carrollton. The third branch may be located in the 9th Ward, though this has not yet been definitely settled upon. Should the funds be available the Board will order the erection of the fourth branch.

New York, N. Y.—Mr. James Henry Smith is planning a \$3,500,000 palace for the northeast corner of 5th Ave. and 52d St. Mr. Smith has entrusted the details of the structure to William Baumgarten & Co.

North Bay, Ont.—Fresh tenders have been called for the erection of the new R. C. Church at this place, which it is estimated will cost some \$53,000. The pulp mill which is to be erected by Mr. J. J. Warren, of Toronto, and his associates will, it is said, cost \$200,000.

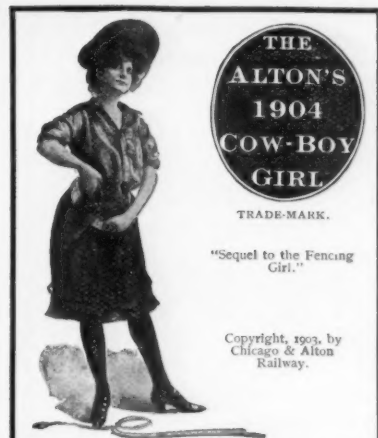
Oakland, Cal.—A bond committee will soon submit to the voters of Oakland a plan for expending \$4,000,000 in public improvements. One of the recommendations of the committee will be the erection of a new city-hall on the site of the old one at a cost of approximately \$375,000.

Oklahoma City, O. T.—The Waters-Pierce Oil Co. has purchased a site, and intends erecting a \$50,000 office-building.

Oneonta, N. Y.—L. H. Blend, architect, will draw the plans for the new building to be erected for the J. O. & G. N. Rowe.

Pensacola, Fla.—The Bldg. Com. of the Y. M. C. A. is having prepared plans and specifications for a \$25,000 building.

Pierre, S. D.—Bids for the erection of the federal building will be taken about April 15.



THE
ALTON'S
1904
COW-BOY
GIRL

TRADE-MARK.

"Sequel to the Fencing Girl."

Copyright, 1903, by
Chicago & Alton
Railway.

ART CALENDAR

Four graceful poses from life; figures ten inches high, reproduced in colors by a process far superior to last year's calendar. Highest example of lithographic art.

"THE ONLY WAY"

to own one of these beautiful calendars is to send twenty-five cents with name of publication in which you read this advertisement, to Geo. J. Charlton, Gen'l Passenger Agent, Chicago & Alton Railway, CHICAGO, ILL. The best railway line between CHICAGO, ST. LOUIS, KANSAS CITY and PEORIA. Take the "Alton" to the St. Louis World's Fair, 1904.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Plymouth, Ind.—Plans have been prepared by John Sutcliffe, 218 La Salle St., Chicago, Ill., for a new edifice for the St. Thomas Episcopal Church. Cost, \$20,000.

Racine, Wis.—Milwaukee parties contemplate erecting a fireproof opera-house here to cost \$40,000.

H. R. Williams, of Chicago, has prepared plans for a \$100,000 office-building for the J. I. Case Threshing Machine Co.

Redwood City, Cal.—The Board of Supervisors is considering the erection of a brick or stone courthouse.

Rochester, N. Y.—Plans have been accepted for a \$200,000 building to be erected by the Rochester Trust & Safe Deposit Co. at Main St. W. and Exchange Pl.

H. H. Egerton has the contract to erect a theatre here, to cost \$60,000.

The report of the special committee chosen to select a site for the new public library and the central fire station has made its report, and the same has been adopted by the city council. The library is to be located on the old Main St. school-house lot, and the fire-station on the upper portion of the city lot on Wakefield St.

Roxbury, Mass.—Plans and specifications for two school-buildings to be erected here are being considered by the School-house Commissioners. One will be erected upon the site of the present Dearborn School in Dearborn Pl., and the other on a site to be selected later.

Plans and specifications for a school-building to be erected on the site of the present building called the Ticknor will be advertised for contractors, and bids will be returnable on February 29.

Rutland, Vt.—The Rutland Board of Education is receiving plans and bids for the construction of a new high-school building to cost \$45,000.

Salem, Ill.—W. J. Bryan will build and equip a public library here in memory of his father and mother. The library will be on the site where Mr. Bryan was born and will cost \$25,000.

San Luis Obispo, Cal.—San Luis Obispo has secured a site for its new Carnegie Library building, the lot fronting 74 feet on Monterey St. and 114 feet on Broad St., and the Library Board now invites competitive plans for the building. The main floor is to have a general reading-room, librarian's room to be used also by the trustees and a stack-room which will accommodate 12,000 volumes. In the basement are to be a janitor's room, rooms for storage, fuel and bicycles, besides a dumb waiter to the main floor. The total cost must not exceed \$9,000, the gift being \$10,000.

Schenectady, N. Y.—A five-story pressed-brick apartment and Turkish bath house is to be erected on State St. by Rob't S. Masterson, of New York City, and Albert Van Voast and R. W. Link, of Schenectady, at a cost of about \$70,000.

Seattle, Wash.—Plans have been drawn for a Roman Catholic Church to be erected here at a cost of \$150,000.

The Portland Cordage Co. will establish a cordage plant to cost \$350,000.

Work will begin at once to put four additional stories on the Colman Block, on 1st Ave., running from Columbia to Marion Sts., making the building, when completed, six stories high, and the largest office-building in the city. The additions to the building will cost \$200,000. The present building will be reinforced with steel throughout, before the four higher stories are built on. A. Tedemand is the architect.

Somerville, Mass.—The \$23,000 mark has been passed in the pledges for the Somerville Y. M. C. A. The new building will be located on Highland Ave., near the city-hall and other public buildings, and convenient to all parts of the city.

Spokane, Wash.—Jos. White will erect a three-story hotel building at Sprague Ave. and Stevens St., to cost \$25,000.

A permit has been issued for the erection of the Masonic Temple, to cost \$65,000.

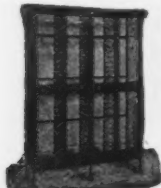
St. Paul, Minn.—The St. Casimir Catholic parish



Architectural Sheet Metal
Ornamental Work
Cornices, Skylights
Tile Roofing
Statuary

Send for illustrated
catalogue.
Architects' special
designs accurately
produced in sheet
metal.
Write for our prices.

W. H. MULLINS
107 Depot St.
SALEM, - OHIO



EXPANDED METAL LOCKERS

From an Hygienic Standpoint

admit plenty of light and air on all sides. From the safety point they resist fire, won't burn. From the protective point, the material is heavy gauge steel, cut and opened into meshes without being jointed or interwoven; cannot be forced apart, will not sag or warp.

For additional particulars and estimate send size of space to

MERRITT & CO.
1015 Ridge Avenue
PHILADELPHIA, PA.

J. S. THORN CO. Architectural Sheet Metal Works

Manufacturers and Erectors of Ventilating Skylights, Fire-proof Window Frames and Sash, and Opening Fixtures to operate ventilating sashes.

Nos. 1223 to 1233 Callowhill Street
PHILADELPHIA, PA.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

is having plans prepared for a new church which will be erected this summer on Jessamine and Forest St. It will be 60' x 14', of brick and cut stone. Cost, \$30,000.

Swampscott, Mass. — Work is in progress on improvements on the New Ocean House property here, preparatory to the summer opening. A pile driver is in operation on the swampy land at the rear of the property, making a foundation for 6 buildings. The buildings at the rear will be placed on the pile foundation, and then reconstructed, in part. The present site of these buildings will be utilized in beautifying the grounds of the hotel. The improvements will be completed at an estimated cost of \$15,000.

Syracuse, N. Y. — Leveus B. Farrington is having plans prepared in the office of Architect Merritt C. Conway for a substantial twin house, 33' x 50' in dimensions, which he will erect this spring in Fitch St. The estimated cost is \$6,000.

Tacoma, Wash. — It is reported that the Northern Pacific R. R. is contemplating the erection of a new warehouse.

Terryville, Conn. — \$25,000 bonds will be issued with which to purchase a site, erect and furnish a school here.

Toledo, O. — Plans are being prepared for a \$60,000 edifice for the St. Marks Episcopal congregation.

Toronto Island, Cal. — A large summer hotel may be built on Toronto Island, near the eastern gap, at a cost of \$400,000. Architect Lenox, of Buffalo, N. Y., has prepared sketches for a building 500 feet long, for the purpose of organizing a company, and if the capital is subscribed construction will be proceeded with.

Union Hill, N. J. — Andrew Carnegie has notified the authorities of Union Hill that he will give \$25,000 to put up a public library in that town provided the town authorities will agree to raise \$2,500 a year toward its maintenance. The offer will probably be accepted.

Urbana, Ill. — J. W. Royer, City Building, will prepare plans for the two-story \$40,000 jail to be erected here.

EXPANDED METAL

For Fireproofing and Concrete Construction

ASSOCIATED EXPANDED METAL COMPANIES Room 1205, 256 Broadway
NEW YORK

PASSAIC STEEL COMPANY

A. C. FAIRCHILD, Pres.

GEO. H. BLAKELEY, Chf. Engr.

SUCCESSOR TO
Passaic Rolling Mill Company
J. B. COOK, Sec. and Treas.

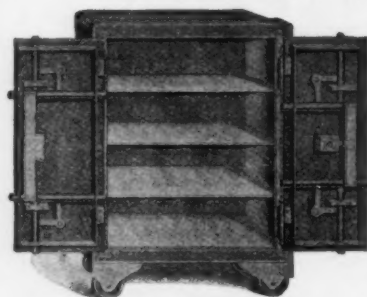
Manufacturers, Contractors and Engineers for all kinds of

Structural Steel Work for Buildings

Plans, Specifications and Estimates Furnished on Application.
Main Office and Works, Paterson, N. J. Boston Office, 21 State St. New York Office, 5 Nassau St.

MORRIS-IRELAND SAFE CO.

64 SUDBURY STREET, BOSTON



SILVER SAFES
FOR RESIDENCES

FIRE-PROOF SAFES
HOUSE SAFES
BURGLAR-PROOF SAFES
POST-OFFICE SAFES
RAILROAD SAFES
VAULT DOORS
BANK SAFES

MORRIS-IRELAND SAFE CO.

64 SUDBURY ST., BOSTON

Telephone 557 Haymarket

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Waco, Tex. — Judge Eugene Williams has sold his place fronting the Country Club to Thomas Taylor, of Galveston, who will in a very short time erect a \$25,000 residence on the place. The amount paid for the tract of land, which includes 20 acres, was \$10,000.

Walla Walla, Wash. — The Walla Walla Hospital Association will erect a three-story brick hospital here, which, including equipment, is to cost about \$70,000.

J. E. Ransom will erect at once a four-story building of brick, 60' x 120'. Cost, \$45,000.

Washington, D. C. — The Century Architectural & Engineering Co., 309 Fourth Ave., Pittsburgh, Pa., is reported to have plans for a brick and terra-cotta hotel to be erected here at a cost of \$100,000.

White Plains, N. Y. — The Board of Supervisors is considering the erection of a new wing to the courthouse, at a cost of \$100,000.

Winnipeg, Man. — The Broadway Methodist Society will erect a modern stone church at a cost of \$75,000. The First Baptist Society is considering the erection of a larger church.

Worcester, Mass. — A contract calling for the expenditure of about \$70,000 on a three-story brick building to be erected on land on the northwest side of Lake Quinsigamond, recently purchased for the sisters of Notre Dame, has been awarded Messrs. McDermott Bros., and work on the building will begin early this spring. The building, when completed, will cost, according to the estimates of the architects, McGuinness, Walsh & Sullivan, of Boston, at least \$100,000. The new building is to be used by the sisters of the order for a retreat and home for its aged members, that have given up the best years of their lives in the work.

COMPETITIONS.

HIGH SCHOOL.

The Board of Public Works of Woburn, Mass., invite for examination, the submission of plans and specifications for a high-school building for the accommodation of at least 550 pupils, to contain an assembly hall and chemical laboratory; the total cost of which, including foundations, not to exceed \$75,000. All those intending to respond to this invitation, to insure consideration, should do so on or before 5 o'clock in the afternoon of Tuesday, February 23, 1904. Per order of the Board of Public Works of Woburn, Mass. JAMES McAVOY, Clerk, Woburn, Mass. 1469

PROPOSALS.

CEMENT.

Department of the Interior, United States Geological Survey, Washington, D. C. Sealed proposals will be received until February 29, 1904, at the department for furnishing 150,000 barrels or more of first-class Portland cement, delivered at the dam site near the mouth of Honto Creek, on Salt River, Ariz. Specifications and forms of proposals may be obtained upon application to the director of the U. S. Geological Survey, Washington, D. C., or to Arthur P. Davis, Phoenix, A. T. E. A. HITCHCOCK, Secretary. 1469

PROPOSALS.

BRIDGE.

[At Hanover, Mass.]

Sealed proposals will be received at the office of the County Commissioners of Plymouth County for the construction of a highway arch and approaches over North River, between the towns of Hanover and Pembroke (about 1 mile south of Hanover Four Corners), in accordance with the plans and specifications which may be obtained from either of the undersigned Commissioners until 12 o'clock noon, March 2, 1904, and then and there publicly opened and read. The Commissioners reserve the right to reject any or all bids, should the interests of the County require. WALTER H. FAUNCE, Kingston, Mass., WILLIAM RANKIN, Brockton, Mass., LYMAN P. THOMAS, Middleboro, Mass., County Commissioners. 1469

POST EXCHANGE.

[At Fort Duchesne, Utah.]

Denver, Col. Sealed proposals will be received here until February 29, 1904, and then opened for constructing frame post exchange building at Fort Duchesne, Utah, including plumbing, steam heating and gas piping. Information furnished on application to Q. M. Fort Duchesne, or the undersigned. COL. J. W. POPE, C. Q. M. 1469

Treasury Department, Office of the Supervising Architect, Washington, D. C., February 8, 1904. Sealed proposals will be received at this office until 3 o'clock P. M. on the 21st day of March, 1904, and then opened, for the low pressure steam heating apparatus, complete in place, for the U. S. Post-office building at Butte, Mont., in accordance with drawings and specification, copies of which may be had at this office or at the office of the Superintendent at Joplin, Missouri, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1469

Treasury Department, Office of the Supervising Architect, Washington, D. C., February 8, 1904. Sealed proposals will be received at this office until 3 o'clock P. M. on the 22nd day of March, 1904, and then opened, for the low pressure steam heating apparatus, complete in place, for the U. S. Post-office building at Butte, Mont., in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Superintendent at Butte, Mont., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1469

BUILDINGS.

[At Fort Riley, Kan.]

Bids will be received by Capt. G. O. Cress, Constructing Q. M., on March 3 for the construction of buildings at this post. 1469

COURT-HOUSE.

[At Huntington, Ind.]

Bids are wanted March 10 for erecting a court-house. Probable cost, \$200,000. J. W. Gaddis, architect, Vincennes. 1470

ADDITION TO COURT-HOUSE.

[At Perry, Ga.]

Bids will be received March 3 by the County Commissioners for erecting an addition to court-house. 1470

SCHOOL.

[At Winnetka, Ill.]

Bids will be received March 1 by the Bd. Educ. for erecting a brick school. 1470



HANOVER BANK BUILDING

Nassau and Pine Streets, New York.

The interior woodwork was finished with our I. X. L. Varnishes



TRADE MARK.

The trade mark that stands for highest quality. Established 1827.

Seventy seven years Experience in every can



BANK OF COMMERCE BUILDING

The interior woodwork was finished with our I. X. L. Varnishes



PRESBYTERIAN BUILDING

156 Fifth Avenue, New York City

The woodwork of this building is finished with our I. X. L. Varnishes



FAYERWEATHER HALL

Yale University, New Haven, Conn.

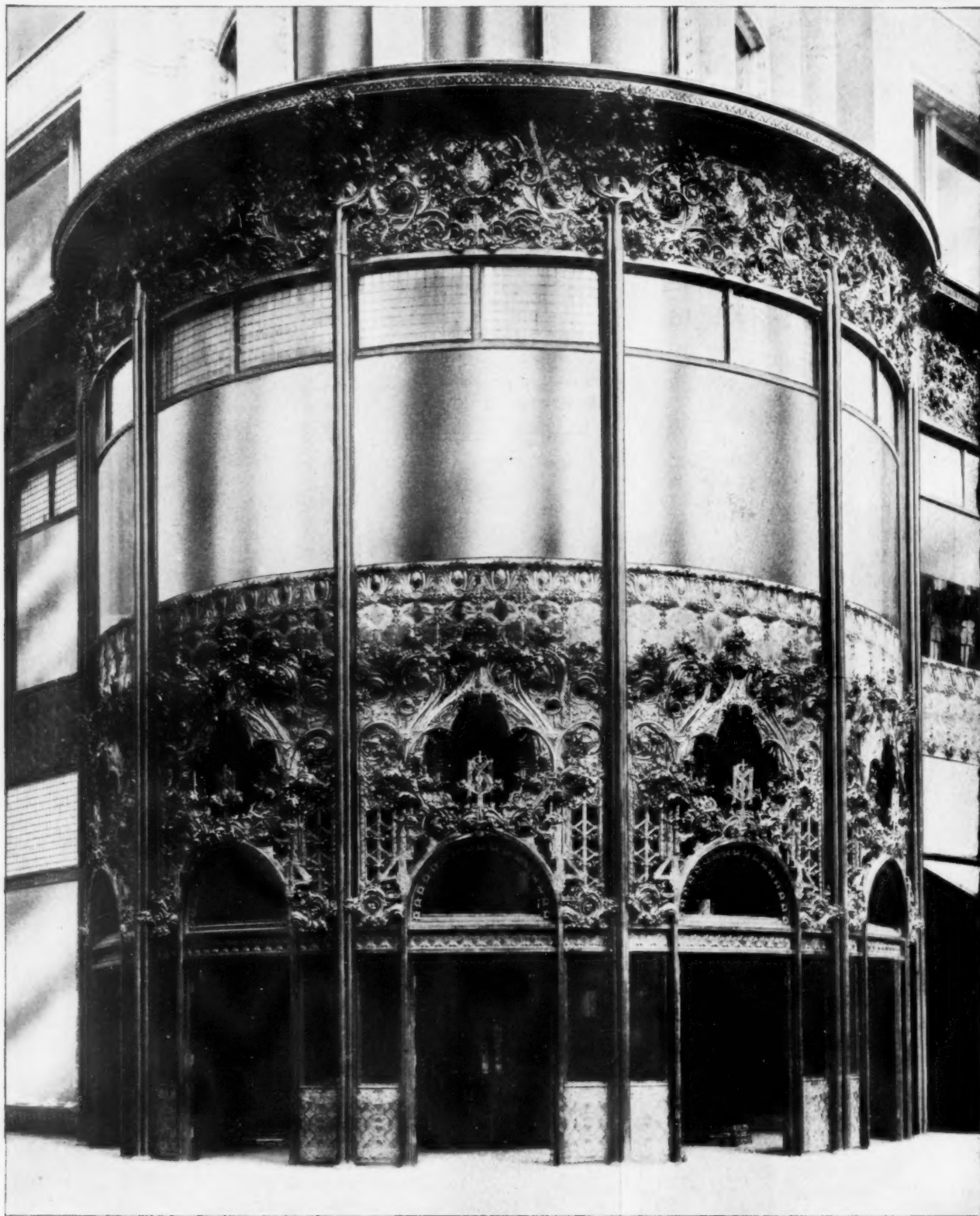
The steel frame was coated with our rust proof Durable Metal Coating and the interior woodwork with our I. X. L. Varnishes

For strictly High Grade Varnish, communicate with

EDWARD SMITH & COMPANY

45 Broadway, New York

59 Market St., Chicago, Ill.



CIRCULAR CORNER ENTRANCE—SCHLESINGER & MAYER BLDG., CHICAGO. LOUIS H. SULLIVAN, *Architect*
ENTIRE FACADE TWO STORIES HIGH AND 350 FEET LONG, EXECUTED IN CAST IRON

The WINSLOW BROS. COMPANY

CHICAGO. NEW YORK

ARE EQUIPPED TO EXECUTE

ORNAMENTAL IRON AND BRONZE

REQUIRING SKILL AND EXPERIENCE

ALSO

MONUMENTAL BRONZE STATUARY

Smooth, Hard Braided Sash Cord

wears five to twenty times longer than common braided or twisted cord or chain.

Architects can save their clients time and money by specifying

SAMSON SPOT CORD

and seeing that it is used.

Summary of Wearing tests made at the Massachusetts Institute of Technology

Samson Spot Cord

Average of Lifts, 214,371 Cost per Foot, $\frac{3}{4}$ ct. Cost per One Hundred Windows, \$18.00

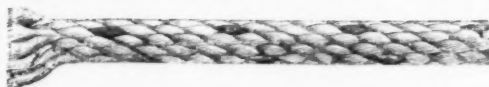
Best Metal Sash Chain

Average of Lifts, 75,848 Cost per Foot, 5 cts. Cost per One Hundred Windows, \$120.00

FULL TEST SENT ON APPLICATION

In the severe competition for business, manufacturers of braided sash cord have put on the market low grades of cord, made of poor material, roughly braided and badly finished. These break and cause great annoyance and expense. To protect buyers against these unsatisfactory goods, we adopted ten years ago, as a trade mark for our first quality cord, a colored spot, appearing at short intervals on the cord. This is called the

Samson Spot Cord



It is made from the very best cotton yarns, manufactured in our own mill, and guaranteed free from waste stock. Great care is taken in its braiding and finishing, and it is inspected to insure freedom from flaws. The colored spot is a guarantee of extra quality. We also make linen, solid braided cord, which is very strong and durable.

SAMSON CORDAGE WORKS

BOSTON, MASS.



Its Utility as a Money-Saver and its Advantages for the Handling of Crowds

The Pitt Balance Door is absolutely unaffected by the force of a gale blowing against it; in its operation it does not in the slightest degree diminish the size of the opening in which it is placed. It opens either way upon the gentlest pressure and offers no obstruction to a panic stricken crowd. It closes quickly and silently behind one and offers no possibility of accident to its users. It can not possibly pinch or slam against anyone. These are its salient points of value, its appearance and durability being equal to, and its cost as reasonable as, that of any other door constructed today.

The Pitt Vestibule, as it should be more correctly styled, is designed for use in Public buildings requiring easy means for egress and ingress for large crowds; buildings wherein the doors are so constantly in use as to cause drafts and the inrush of cold air to a degree materially affecting the heating of the halls and largely increasing the running expenses.

Each vestibule contains two pairs of doors, placed one behind the other, to all appearances identical with the old fashioned ones; each door bearing weather strips on all sides, and closely fitting its frame. The door, because of its peculiar construction, closes with great speed, and although the two pair may be open at the same time it must be as the result of two people each opening one of a different pair; and their simultaneous opening can at the most be of but a moment's duration.

One person walking at top speed can not possibly open the second pair before the first pair is securely closed behind him. The probability is, that the cold air which enters a building during the occasional moments of a complete opening of the Pitt Vestibule is no greater than that which is fanned in by a revolving door with its continual rotation.

The possibility of an occasional direct draft of a second's duration through a Pitt Vestibule is more than offset by the great expedition with which people may pass through it. It opens so easily and closes so quickly, takes up so little space in its swing, that its adoption does away with the jostling, elbowing crowd, six or eight deep, waiting to get in or out of a building equipped with other means of weather proof doorways.

In a few words the Pitt Balance Door Vestibule offers the maximum of weather-proof qualities and the minimum of inconveniences of usage.

The PITT BALANCE DOOR CO.



THE PRACTICAL EXAMPLES

The larger illustration is of the entrance to the Irving National Bank, West Broadway and Chambers Sts. These doors have been subjected to the severest weather and strongest winds this winter. The Bank is patronized daily by enormous crowds, and the doors have satisfactorily kept out the cold air from the main room, a room which, before their installation, was dangerously draughty to the force working there.

The smaller illustration is of McCreery & Co's. 22nd St. entrance. The doors here open directly into this enormous store, and as one approaches them from the inside, it is noticeable that the immediate vicinity to the Pitt Doors is not colder than is the interior of the Store. A fact which is not true of the 23rd St. entrance, equipped with ordinary double swing doors, which are continually blowing open.

In fact the 23rd St vestibule contains three large radiators, and one is also placed directly inside of it, in addition to which glass screens to protect the clerks are placed at the end of each counter.

In the Pitt Vestibule are small registers which are turned on only in very severe weather, and the employees at that end of the store are absolutely comfortable without screen protections of any kind.



PITT BALANCE DOOR CO.

111 5th Ave., N. Y.

PITT
Balance Doors
Cold Proof
Wind Proof
Space Savers

The man who is struggling with a crowd to enter a building hails a

PITT
BALANCE DOOR
with delight

THEY WORK SO
QUICKLY
AND
EASILY

This is what they
DO in

Cold Weather

Close instantly
Open easily
Prevent all draughts
Save money in coal

This is what they
DON'T in

Cold Weather

Don't let in the cold
Don't **BLOW** open
Don't Slam in your face
Don't pinch or hurt anyone
Don't require a hard push to open them

PITT
BALANCE DOORS
\$ COST MONEY \$

BUT THEY
SAVEMORE
\$ \$ \$ \$ \$ \$

THAN THEY COST



THE GENUINE
YALE LOCK
is made only by the

Yale & Towne

Mfg. Company.

General Offices: 9-11-13 Murray St.,
New York City.

How to distinguish it from its many imitations is carefully explained, with illustrations, in a little brochure which will be sent on request.



JORUTH

THE MODERN BLIND FASTENER

AT ALL HARDWARE DEALERS

JORUTH MANUFACTURING CO., Wollaston, Mass.

The BUILDING NEWS

Every Friday. Price Fourpence

The **BUILDING NEWS** is an English Illustrated Journal devoted to Architecture, Civil Engineering, the Arts of Design, and Building.

It contains eight or more pages of lithographic illustrations, usually from two to four pages more of engravings, together with Original and Practical Essays on Fine Art, and on the Principles and Practices of Construction; Descriptions (accompanied with Illustrations, Details, etc.) of new English and Continental Bridges, Notices of New Buildings in all parts of the World, Reports of Architectural and Scientific Societies, Notes on Church Decorations, Statues, Memorials, and Stained Glass; Sanitary, Gas, Water, and other Intelligence; Improved Dwellings for the Working Classes (with Plans); List of Tenders received, suggestions (oftentimes illustrated) on subjects specially interesting to Architects, Builders, Contractors, Engineers, and their Employes; Prices of Materials; and a variety of interesting Miscellaneous Matter.

Annual Subscription to United States, \$6.25, or £1 6s.

Specimen copy free on receipt of postcard.

Offices—Clement's House, Clement's Inn, Strand, London, W. C., England.

PROPOSALS.

SEWER MAINS.

[At Lakewood, O.]

Proposals will be received until February 27 by Henry J. Senel, village clerk, for furnishing and laying sewer mains in Newman Ave. and Webb Road.

1469

QUAY WALL AND CONCRETE AND STEEL PIER.

[At Portsmouth, N. H.]

Bids will be received March 5 by Mordecai T. Endicott, Ch. Bureau Yards and Docks, Navy Dept., Washington, D. C., for constructing about 750 feet of quay wall and a 400-foot concrete and steel pier at the navy yard here. Funds available, \$205,000.

1470

RIPRAP.

[At Gardiner's Bay, N. Y., and N. Y. Lower Bay.]

Sealed proposals will be received at the office of the Light-house Engineer, Tompkinsville, N. Y., until March 7, 1904, for furnishing riprap stone, as follows: 2,000 tons at Cedar Island light station, Gardiner's Bay, N. Y.; 600 tons at Romer Shoal light station, New York Lower Bay, N. Y.; 400 tons at Point Comfort light station, New York Lower Bay, N. Y., in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to MAJ. WM. T. ROSELLE, corps of engineers, U. S. Army.

1470

CEMENT.

[At Great Gull and Plum Islands, N. Y.]

U. S. Engineer Office, New London, Conn. Sealed proposals will be received here until March 5, 1904, for furnishing 10,000 barrels of American Portland cement on docks at Great Gull and Plum Islands, N. Y. Information on application. CHAS. F. POWELL, maj., engr.

1470

BRIDGE.

[At Boonville, Ind.]

Proposals will be received until March 7 for constructing an iron bridge. R. D. O. MOORE, auditor.

1469

[Now Ready: The Second Volume of the "Topical Architecture" Library]

"Door and Window Grilles"

104 Plates: 10 in. x 14½ in.

Uniform with the first volume ["Italian Renaissance Doorways"] of this Library

MARCH 22, 1902

THE next time you pass along the streets of one of our large cities, note what rapid progress is making in the use of wrought-metal grilles, screens and gates of various kinds for the ornamental protection of doorways and the window-openings of lower stories.

The great interest shown in this particular form of artistic artisanship just now is our reason for devoting the second volume of this Library to door and window grilles.

PRICE: Bound in Cloth \$7.50
In Portfolio 6.50

American Architect Company

238 Tremont St., Boston

"THE AMERICAN VIGNOLA"

The Five Orders of Architecture

By WILLIAM R. WARE

Professor of Architecture, Columbia University

Text and Plates, 86 pp., 9" x 12"

Price, \$3.00

AMERICAN ARCHITECT COMPANY

PUBLISHERS

The Heliotype Printing Co.

LITHOGRAPHERS, ETC.

211 Tremont Street
Boston

FAC-SIMILE REPRODUCTIONS IN COLOR
OR MONOCHROME A SPECIALTY



Lithography
Heliotype
Color Printing
Photogravure
Maps, Plans, etc.

BEST WORK ONLY
PROMPT DELIVERY
REASONABLE PRICES

WRITE FOR ESTIMATES

Rudyard Kipling

and

“Topical Architecture”

15 Volumes of the first } All for \$5.00
12 Numbers of the second }

On receipt of five dollars we will deliver, carriage paid, a fifteen volume set of Rudyard Kipling's works— cloth bound, pocket-volume size—and will send “Topical Architecture” for one year from date of order.

AMERICAN ARCHITECT COMPANY, Publishers
238 Tremont Street, Boston

BINDING.

The Standard Binding of the *American Architect* is a Cloth binding, which varies in color for the several editions, as follows:—

For the Regular Edition - - - - Maroon.
 " " International Edition - - - Blue.

The REGULAR EDITION is bound in Semi-annual Volumes.

The INTERNATIONAL EDITION is bound in Quarterly Volumes.

The price for binding is \$2.00 per volume, Semi-Annual or Quarterly. Any variation from our standard practice will entail an increased charge.

In every case the Plates are bound all together at the back of the volume to which they belong—the Double Plates being mounted upon guards.

Volumes sent to us for Binding will be treated according to this system, unless instructions of a contrary nature are given at the time the work is placed in our hands

NEW ENGLAND MATERIAL-MEN AND CONTRACTORS.

ARCHITECTS & DRAWING SUPPLIES (Repairing of Drawing Tool).

G. G. LEDDER,
9 Province Court, Boston, Mass.

ARTISTIC WIRE & METAL WORKS.

MORSS & WHYTE,
75-81 Cornhill, Boston, Mass.

ASBESTOLITH.

SIMPSON BROS. CORPORATION,
Room 58,
166 Devonshire St., Boston, Mass.

BAIRD'S HAND-MADE SILVER CLASS.

REDDING, BAIRD & CO.,
83 Franklin St., Boston, Mass.

BLUE PRINTING.

CHAS. E. MOSS,
Rapid Printing Papers,
38 Broad St., Boston.

PARKS & JEEVES,
34 Merchants Row, Boston, Mass.

BLUE PRINTING (Continu- ous.)

SPAULDING PRINT PAPER CO.,
44 Federal St., Boston, Mass.

BUILDINGS TORN DOWN.

A. A. ELSTON & CO.,
166 Devonshire St., Boston, Mass.

CONCRETE-STEEL CON- STRUCTION.

SIMPSON BROS. CORPORATION,
Room 58,
166 Devonshire St., Boston, Mass.

CONTRACTORS & BUILD- ERS.

McKAY & WOOLNER,
19 Harvard Place, Boston, Mass.
WILLIAM L. RUTAN,
1016 Tremont Bldg., Boston.

ELECTRICAL CONTRACT- ORS.

ERICKSON ELECTRIC EQUIP-
MENT CO.,
280 Devonshire St., Boston.

FIRE-ESCAPES.

STANDARD FIRE-ESCAPE & MFG
CO.,
120 Milk St., Boston, Mass.

LAUNDRY DRYING MACHINERY.

CHICAGO CLOTHES DRYER
WORKS,
136-138 West 24th St., New York.

LEATHER BELTING.

SHULTZ BELTING CO.,
114 High St., Boston, Mass.

MARBLE DEALERS.

COLUMBIAN MARBLE
QUARRYING CO.,
(Branch Office.)
166 Devonshire St., Boston, Mass.

MASONS AND BUILDERS.

MORRILL & WHITON CON-
STRUCTION CO.,
35 Federal St., Boston, Mass.

MEMORIAL WINDOWS.

HARRY ELDREDGE GOODHUE,
23 Church St., Cambridge, Mass.

MODELLING AND ORNA- MENTAL PLASTER.

SLEEP, ELLIOT & KING CO.,
351 Cambridge St., Boston.

ORNAMENTAL PLASTER- ING.

HERBERT FOWLE,
43 Bristol St., Boston, Mass.

PHOTOGRAPHICSUPPLIES.

ROBEY-FRENCH CO.,
34 Bromfield St., Boston, Mass.
Cameras.

PHOTOGRAPHY.

LEON E. DADMUN,
165 Tremont St., Boston, Mass.

E. PERCY OLIVE,
44 Washington St., Boston.
Tel. 1333-3 Richmond.

N. L. STEBBINS,
132 Boylston St., Boston, Mass.

PLASTERERS.

GALLAGHER & MUNRO CO.,
166 Devonshire St., Boston, Mass.

PORTABLE OVENS.

H. A. JOHNSON & CO.,
234 State St., Boston, Mass.

ROOFING DUCK.

C. H. BATCHELDER & CO.,
234 State St.,
Boston, Mass.

SASH CORD.

SILVER LAKE CO.,
73 Chauncy St., Boston.

SEAM-FACE GRANITE.

GILBRETH SEAM-FACE GRANITE
CO.,
Park Row Building, New York.
176 Federal St., Boston.

STABLE FIXTURES.

BROAD GAUGE IRON STALL &
VANE WORKS,
53 Elm St., Boston, Mass.

STONE CARVING AND MOD- ELLING.

HUGH CAIRNS,
48A Sudbury Street, Boston.

TELEPHONES.

S. H. COUCH CO.,
167 Pearl St., Boston, Mass.

TILES & FIREPLACES.

GEORGE E CRAWLEY & SON,
1 Somerset St., Boston, Mass.

WATERPROOF CELLARS.

FRANK B. GILBRETH,
Park Row Bldg., New York.
176 Federal St., Boston.

Professional Ethics.

The following . . .

. . . CODE OF ETHICS . . .

Prepared in Conformity with the
Best Standards of Practice, and
Recommended to its Members by
the Boston Society of Architects,
was . . .

ADOPTED BY THE SOCIETY, FEBRUARY 1

. . . 1895. . .

SECTION 1. No Member should enter into partnership, in any form or degree, with any builder, contractor, or manufacturer.

SECTION 2. A Member having any ownership in any building material, device or invention, proposed to be used on work for which he is architect, should inform his employer of the fact of such ownership.

SECTION 3. No Member should be a party to a building contract except as "owner."

SECTION 4. No Member should guarantee an estimate or contract by personal bond.

SECTION 5. It is unprofessional to offer drawings or other services "on approval" and without adequate pecuniary compensation.

SECTION 6. It is unprofessional to advertise in any other way than by a notice giving name, address, profession, and office hours, and special branch (if such) of practice.

SECTION 7. It is unprofessional to make alterations of a building designed by another architect, within ten years of its completion, without ascertaining that the owner refuses to employ the original designer, or, in event of the property having changed hands, without due notice to the said designer.

SECTION 8. It is unprofessional to attempt to supplant an architect after definite steps have been taken toward his employment.

SECTION 9. It is unprofessional for a Member to criticise in the public prints the professional conduct or work of another architect except over his own name or under the authority of a professional journal.

SECTION 10. It is unprofessional to furnish designs in competition for private work or for public work, unless for proper compensation, and unless a competent professional adviser is employed to draw up the "conditions" and assist in the award.

SECTION 11. No Member should submit drawings except as an original contributor in any duly instituted competition, or attempt to secure any work for which such a competition remains undecided.

SECTION 12. The American Institute of Architects' "schedule of charges" represents minimum rates for full, faithful and competent service. It is the duty of every architect to charge higher rates whenever the demand for his services will justify the increase, rather than to accept work to which he cannot give proper personal attention.

SECTION 13. No Member shall compete in amount of commission, or offer to work for less than another, in order to secure the work.

SECTION 14. It is unprofessional to enter into competition with or to consult with an architect who has been dishonorably expelled from the "Institute" or "Society."

SECTION 15. The assumption of the title of "Architect" should be held to mean that the bearer has the professional knowledge and natural ability needed for the proper invention, illustration and supervision of all building operations which he may undertake.

SECTION 16. A Member should so conduct his practice as to forward the cause of professional education and render all possible help to juniors, draughtsmen and students.

What the Critics Say of "The Georgian Period"

"Review of Reviews"	"The most interesting of all American publications in the field of architecture."
"The Nation"	"One of the most important American works on architecture."
"Architectural Review" [London]	"This great work."
"The Builder" [London]	"Of great value."
"Building News" [London]	"Beautifully printed and well delineated."
"Irish Builder" [Dublin]	"Of superior excellence and great usefulness."
"Journal of the R. I. B. A." [London]	"We can only hope the publishers will continue the series."
"N. Y. Tribune"	"A peculiarly fascinating and instructive work."
"N. Y. Evening Post"	"Grows in interest with every succeeding number."
"Art Interchange"	"One cannot but marvel at the extent and value of the contents."
"N. Y. Times"	"Needs only to be better known in order to secure a wider audience."

Montgomery Schuyler, whose name and opinion carry weight, calls the "Georgian Period" "a fine, even a monumental, piece of work," and says that the work has been "well worth doing" and has been "admirably done."

AMERICAN ARCHITECT COMPANY, Publishers
238 Tremont Street, Boston, Mass.

The Northwestern Terra-Cotta Co.

Manufacturers of High Grade

Architectural Terra-Cotta CHICAGO

PERTH AMBOY
TERRA-COTTA COMPANY,

PERTH AMBOY, NEW JERSEY.
OFFICE, 160 Fifth Ave., NEW YORK.

BOSTON AGENTS,
WALDO BROS., 102 MILK STREET.

Heliotype Printing Co.,

211 Tremont Street, Boston.

ESTABLISHED 1872.

- PHOTO-LITHOGRAPH.
- PHOTO-COLOR-LITHOGRAPH.
- PHOTO-GELATINE.
- PHOTO-GRAYURE.
- PHOTO-ENGRAVING.

COPIES OF ARCHITECTURAL
MECHANICAL AND OTHER
DRAWINGS, MAPS, PLANS, ETC.,
PORTRAITS, VIEWS AND ALL
BOOK ILLUSTRATIONS.

Heliotype Printing Co.

[See Alphabetical Index on Cover 2 for Pagination.]

CLASSIFIED ADVERTISEMENTS.

[Advertisers can be indexed only under a single head free of charge.]

ARCHITECTURAL METALWORK.
Mullins, W. H., Salem, O.....
ARTISTIC WIRE AND METAL
WORKS.
Morse & Whyte, Boston.....
ASBESTOLITH.
Simpson Bros. Corporation, Boston..
ASPHALT.
Neuchatel Asphalt Co., New York...
ASPHALT ROOFING.
Warren Chemical & Mfg. Co., N. Y..
BLUE PRINTS.
Moss, Chas. E., Boston.....
Parks & Jeeves, Boston.....
Spaulding Print Paper Co., Boston
.....(eow)
BRASS FINISHERS.
Marble Co., W. P., Boston.....
BRONZEWOR (Ornamental).
Richey, Browne & Donald, Long
Island City, N. Y.....
Tyler Co., The W. S., Cleveland, O...
Winslow Bros. Co., The, Chicago, Ill..
BUILDINGS TORN DOWN.
Elston & Co., A. A., Boston.....
CAPITALS (Carved).
G. T. Nelson Co., The, Columbus, Ohio

CARVING.
Waddell Mfg. Co., Grand Rapids, Mich..
CEMENT.
Atlas Cement Co., New York.....
CLEAN-OUT.
Craig, David, Boston.....
CLOCKS.
Blodgett Clock Co., Boston.....
COLUMNS (Lock Joint).
Hartmann Bros. Mfg. Co., Mount Ver-
non, N. Y.....
CONCRETE-STEEL CONSTRU-
TION.
Simpson Bros. Corporation, Boston..
CONSERVATORIES.
Lord & Burnham Co., Irvington-on-
Hudson, N. Y.....
CONTRACTING.
Flynt Building & Construction Co.,
Palmer, Mass.....
Rutan, William L., Boston.....
CONTRACTORS AND BUILDERS.
McKay & Woolner, Boston.....
Rutan, William L., Boston.....
CORDAGE.
Samson Cordage Works, Boston.(eow)
CRANES.
Northern Engineering Works, De-
troit, Mich.....
CUPOLAS (Foundry).
Northern Engineering Works, De-
troit, Mich.....

CUTLER PAT. MAILING SYSTEM.
Outler Mfg. Co., Rochester, N. Y. ...
DEAFENING QUILT.
Samuel Cabot, Boston, Mass.....
DOORS (Steel Rolling).
Kinnear Mfg. Co., The, Columbus, O..
DRAUGHTSMAN.
E. Eldon Deane, New York.....
DRAWING INSTRUMENTS.
G. G. Ledger, Boston, Mass.....
DUMB-WAITER.
Perry, W. J., Boston.....
ELECTRIC APPARATUS.
Edison Light, Boston.....
ELECTRICAL CONTRACTORS.
Erickson Electric Equipment Co.,
Boston.....
ELECTRIC SIGNALS.
Elevator Supply & Repair Co., New
York.....
ELEVATORS, ETC.
Kimball Bros. Co., Council Bluffs, Ia..
Morse, Williams & Co., Philadelphia..
Whittier Machine Co., Boston.....
ELEVATORS (Foundry).
Northern Engineering Works, De-
troit, Mich.....

ELEVATOR SIGNALS.
Hertzog Telesene Co., New York.....
ENGINEERS.
Jager Co., Charles J., Boston.....
ENGINES (Hot-Air).
Rider-Erickson Engine Co., New York..
FAN SYSTEM.
Sturtevant Co., B. F., Boston, Mass..
FILING DEVICES.
Art Metal Construction Co., James-
town, N. Y.....
FILTER.
Loomis-Manning Filter Co., Phila., Pa..
FIRE-ESCAPES.
Standard Fire-escape & Mfg. Co., Bos-
ton.....
FIREPROOFING.
Associated Expanded Metal Co., New
York.....
National Fireproofing Co., Pittsburg,
Pa.....
FIREPROOF LATHING.
Hayes, Geo., New York.....
FIREPROOF SHUTTERS.
Kinnear Mfg. Co., The, Columbus, O..
FLOOR POLISH.
Butcher Polish Co., Boston.....
FOUNDRY EQUIPMENT.
Northern Engineering Works, De-
troit, Mich.....

