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The AMERICAN ARCHITECT AND BUILDING NEWS

Regular Edition

Vol. XCI.

MAY 25, 1907.

No. 1639.

SUMMARY:

205-206

Non-observance of a Building-law invalidates a Contract—The Passing of the Lenox Library Building, New York—Another Instance of the Temporary Nature of Real-estate Restrictions—The Demand for more Court-rooms due to the "Long Vacation," A Selfish Custom—The American Holocaust of the World's Artistic Patrimony—The Late Sir Benjamin Baker on the Present Condition of St. Paul's—English Working-hours: a Case of Nuisance—Canadian Architects drawing a Line Against Americans.

REINFORCED CONCRETE: ITS LIMITATIONS.—I.	207
WESTMINSTER CATHEDRAL.—III.	208
PROFESSOR WALDSTEIN AND THE EXCAVATION OF HERCULANEUM.	210
GALERA, A LOST CITY OF THE CAMPAGNA	211
THE FIRE INSURANCE HABIT	212
ILLUSTRATIONS	212

The Maryland Institute Building, Baltimore, Md.: Four Plates
—Newel and Ramp, No. 49 West 46th Street, New York, N. Y.
—The Engineers' Club, West 40th Street, New York, N. Y.:
Three Plates.

Additional: The Engineers' Club, West 40th Street, New York,
N. Y.: Three Plates—House on Lake Avenue, Chicago, Ill.

NOTES AND CLIPPINGS	212
SOCIETIES, PERSONAL MENTION, BUILDING NEWS, ETC.	

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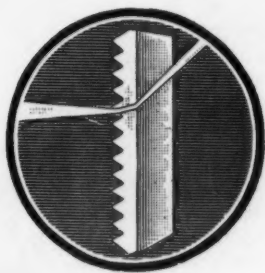
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Alphabetical List of Advertisers

For CLASSIFIED LIST, See Page xviii.

A	Expanded Metal and Corrugated Bar Co.vii	L	Society of Beaux-Arts Architects.iv
Alsen Cement.xviii		Lane, John.xv	Soltman, E. G.xvii
American Concrete Steel Co.vii	F	Loomis-Manning Filter Co.ii	Standard Sanitary Mfg. Co.vi
American School of Correspondence, xlv	Fisher Co., Robert C.ii	Lufkin Rule Co.xix	Stanley Works.viii
American Luxfer Prism Co.iii	French & Co., Samuel H.viii		Summer School of Painting.x
American Mason Safety Tread Co.xix	Frink, I. P.xix	M	Sun Dial Co.xv
American Sheet & Tin Plate Co.xxviii		Mass. Institute of Technology.iv	
Associated Expanded Metal Co.xix	G	Miller & Bro., James A.xviii	T
Atlas Portland Cement Co.ii	Genasco Roofing Co.x	Mittineague Paper Co.xvi	Taylor, J. W.xix
	General Compressed Air and Vacuum Co. xix	Monarch Water Heater Co.xv	Thorn Co., J. S.viii
B	Globe Ventilator Co.xviii	Mullins Co., The W. H.viii	Thorp Fireproof Door Co.xii
Barber Asphalt Paving Co.e-o-w, x	Gorham Mfg. Co.xxxvii	N	Troy Laundry Machinery Co.xx
Batterson & Eisele.xxxii	Gurney Heater Mfg. Co.xx	National Fireproofing Co.iv	Trussed Concrete Steel Co.xii, xiii
Barger Mfg. Co.ii		National Lead Co.xii	
Bird & Sons, F. W.xxxii	H	Neuchatel Asphalt Co.x	U
Burt Mfg. Co.v	Hartmann Bros. Mfg. Co.ii	New York Belting & Packing Co.xi	U. S. Mail Chute Equipment Co.xiii
	Harvard University.iv	New York Blower Co.x	U. S. Mineral Wool Co.viii
C	Hayes, Geo.viii	Northwestern Terra Cotta Co.xiv	Universal Portland Cement Co.xx
Campbell, Walter M.xix	Holophane Glass Co.xix		University of Illinois.iv
Cardinell-Vincent Co.lxi		O	University of Michigan.iv
Cement Age Co.lviii	I	Okonite Co. (Ltd.).iv	University of Pennsylvania.iv
Chappell Furnace Co.xv	Information Bureau of Tile Indus- try.xii	Otis Elevator Co.ii	
Chicago Portland Cement Co.xx	J		V
Clinton Wire Cloth Co.xix	Jackson Co., Wm. H.xx	P	Vaile & Young.xx
Contractors' Supply & Equipment Co. xvi	Jenkins Bros.x	Peerless Rubber Mfg. Co.iii, iv, v, vi	W
Corrugated Concrete Pile Co.viii	Jones, T. W.viii	Pennsylvania Rubber Co.ix	Washington University.iv
Cutler Mfg. Co.xiii			Weber Steel Chimney Co.xii
	K	R	Winslow Bros. Co., The.xv
D	Kewanee Water Supply Co.xiii	Raymond Concrete Pile Co.ix	Winslow Co., E. J.v
Deane, E. Eldon.xix	Keystone Varnish Co.xvii	Rider Ericsson Engine Co.xvii	Wirt, F. B.xix
Dixon Crucible Co., Jos.xiii	Knoche & Steves.x	S	Wolff Mfg. Co.xxxv
		St. Louis Portland Cemnt Co.xx	Y
E		Samson Cordage Works.x	Yale & Towne Mfg. Co.x
Elevator Supply and Repair Co.ii		Smith Co., H. B.xvii	
Emmel, Charles.xiv			



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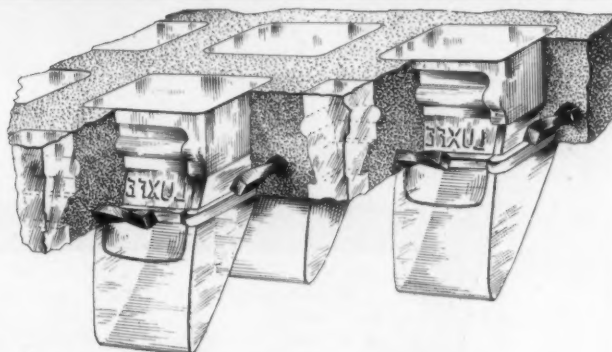
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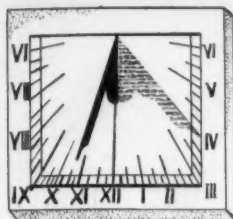
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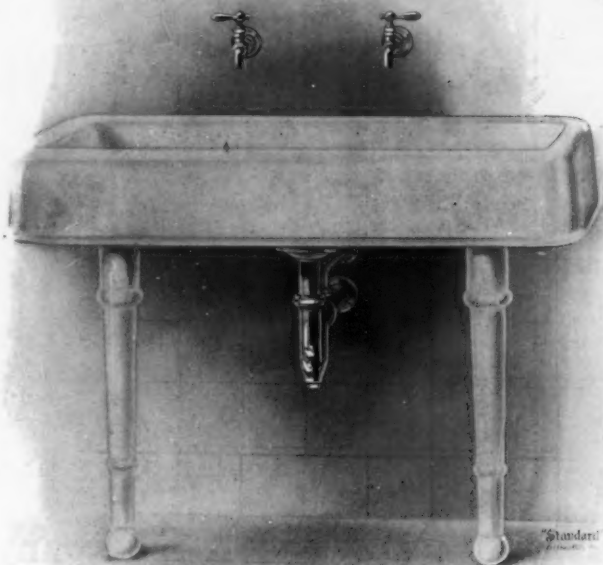
SOCIETIES

HARVARD UNIVERSITY.

The Julia Armory Appleton Fellowship in Architecture, one of the best given in the university, has been awarded for next year to Ralph W. Varney, '04, S. M. '05. This Fellowship, which has an income of \$1,000 a year, is awarded to graduates in

the Department of Architecture who have taken the degree with distinction, or who have completed with distinction a year in the Graduate School. The selection was made on the basis of a competitive examination held last month, in which each candidate was examined on a special period of architectural development. The holder of the Fellowship is required to spend a

year in travel and study in Europe, under the general direction of the Professor of Architecture. He is required to submit monthly reports of his progress, and to send at the end of each half-year a measured drawing of some great European monument of architecture. He is also required to make during his stay in Europe a detailed study of a building or group of



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buildings, and to publish the results of his study in permanent form when he relinquishes the Fellowship. The award was made on the nomination of the Department of Architecture, and with the co-operation of a committee of practising architects.

CHICAGO ARCHITECTURAL CLUB.

At the annual meeting of the Chicago Architectural Club the following officers were elected: *President*, Herman V. von Holst; *Vice-Presidents*, C. H. Hammond and Herbert Green; *Secretary*, Hugo A. Zimmerman; *Treasurer*, Otto A. Silha; *Chairman Educational Committee*, N. Max Dunning; *Chairman House Committee*, Leon Burghoffer.

COMPETITIONS

PHILADELPHIA, PA.—Press reports state that the Art Club has decided to remain in its present quarters and make improvements to cost not more than \$100,000. There is a movement afoot, it is said, to have every architect who is a member of the club submit competitive plans for the proposed changes, rather than hand the commission over to some one of them without taking the claims of the others into consideration. It is urged by those favoring a competition that no architect who is not a member should be allowed to compete. The matter will be laid before the members of the board within the next few days.

BUILDING NEWS.

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

ABERDEEN, WASH.—Finch & McCaw, it is said, will erect a four-story building on H and Heron Streets, to cost about \$150,000.

AKRON, O.—J. Milton Dyer, of Cleveland, is reported to have prepared plans for an edifice to be erected for the St. Paul's Episcopal Church, at a cost of \$100,000.

ALBANY, N. Y.—A stone colonnade of twenty-eight Corinthian columns, each 65 feet in height, and the row extending more than 500 feet, facing the Capitol Building, will be the unique feature of the new State Education Building, the design for which was adopted this week. This will be, it is said, the longest Corinthian colonnade in this country. The main building, 600 feet long and four stories high, will be of pure classic design, and cost upward of \$4,000,000.

BALTIMORE, MD.—It is reported that plans are being prepared by Bruno Wozney, of Springfield, Mass., for the proposed structure to be erected at Wagner's Point for the Catholic Church, Rev. Charles Kotlarz, pastor, 504 Fourth Avenue, north; structure will be of Gothic style architecture; red brick with concrete trimmings; slate roof, etc.

BANGOR, ME.—Press reports state that John C. Stevens, Oxford Building, Port-

land, is preparing plans for the erection of the east wing for female patients; cost, about \$170,000.

BEDFORD, IND.—Bids are asked by James Knox Taylor, Supervising Architect, Washington, D. C., until 3 P. M., June 12, for the construction, including plumbing, gas piping, heating apparatus, electric conduits and wiring the U. S. Post-office Building at Bedford.

BELLEFONTAINE, O.—Architect Frank L. Packard, Harden Building, Columbus, has prepared plans for the new First Presbyterian Church, to cost \$30,000.

BOSTON, MASS.—It is reported that revised plans for a \$600,000 office and bank, to be erected on Devonshire and Summer Streets, will be ready for figures. Architects, Peters & Rice, 20 Pemberton Square, Boston. Structure will be two stories high.

The High School of Commerce will probably be erected on Tremont Street, at a cost of \$465,000. John F. Cracker, president of the Chamber of Commerce.

BRIDGEPORT, CONN.—Contracts will be awarded soon for St. Patrick's Roman Catholic Church, Rev. J. B. Nihill, pastor. Architect, J. J. Dwyer, Hartford.

BROCKTON, MASS.—A site has been selected on West Elm and Warren Avenue for a new First Baptist church, Brockton. Architect not selected.

BROOKLYN, N. Y.—Mrs. Russell Sage is reported to have given to the Naval Y. M. C. A., at 167 Sands Street, \$200,000 to be used in extending the present building.

BUFFALO, N. Y.—It is reported that the Sisters of Mercy are planning the erec-

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tion of a convent and school on Abbott Road, to cost about \$200,000.

CHESTER, PA.—It is stated that plans are being prepared by Chas. L. Hoffman, of Philadelphia, for the four-story brick and stone theatre and apartment-house combined, to be erected on Seventh and New Market Streets, at a cost of about \$140,000. Frederick F. Faber, of Prospect Park, is reported interested.

CHICAGO, ILL.—Plans have been accepted for the proposed new City Hall. The plans for the exterior will be exact duplicates of those for the exterior of the county building, now nearing completion. Work will be started at once razing the present City Hall. Estimated cost, \$10,000,000. Holabird & Roche, Monadnock Block, Chicago, are architects.

The Seventh Church of Christ, Scientist, is to erect a structure in Buena Park, to cost \$70,000. The building will be one story high, 150x150 feet. The exterior will be of brick and steel will be used in the interior construction. S. S. Beman, 203 Michigan Avenue, is the architect.

CLINTON, IA.—Plans are being prepared by Architects Morrell & Sons for the Scottish Rite cathedral, at a cost of \$100,000.

CINCINNATI, O.—Architect Harry Hake, Andrews Building, it is said, has prepared plans for a fifteen-story building at Seventh and Vine Streets for the Provident Savings and Trust Company, Chamber of Commerce Building, Cincinnati. Estimated cost, \$500,000.

CLEVELAND, O.—The Williamson Building Company will add a sixteen-story addition to its building on Euclid Avenue, to cost about \$750,000.

It is stated that plans have been filed for a combined parsonage and school building, to cost about \$100,000, and to be located at West Forty-first and Newark Avenue, southwest, for St. Procop's congregation.

COLORADO SPRINGS, COL.—It is reported that bids are now being received for additions which it is proposed making to the Glockner Sanitarium, at a cost of about \$100,000, according to plans prepared by G. M. Bryson.

COTTONWOOD, IDAHO.—Reports state that a college, to cost about \$50,000, will be erected here by the Jesuit Fathers.

COVINGTON, KY.—The Board of Education will receive bids for a new school at Nineteenth Street and Maryland Avenue, to cost about \$50,000.

DALLAS, TEX.—First Baptist Church will expend \$60,000 in improving and enlarging edifice, providing a seating capacity of between 3,000 and 4,000; Dr. George W. Truett, pastor; M. H. Wolfe, chairman Building Committee.

DANVILLE, ILL.—It is reported that the School Board will receive bids until June 1 for erecting a school on Gilbert Street, to

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replace the Washington school. Probable cost, \$100,000.

DETROIT, MICH.—The members of the Fellowship Club (Charles W. Kotcher, president) propose to erect a \$100,000 clubhouse.

DULUTH, MINN.—The Sacred Heart Institute O. S. B. (Mother Scholastica, superior) have had plans prepared for a two-story addition to a one-story convent building at Duluth, Minn., and is taking figures. She desires catalogues and information on deafening material, flooring, cold storage, plastering, lighting, vacuum heating systems, etc. It will be three-story, have stone exterior, and cost \$200,000.

EDMONTON, ALTA.—Reports state that bids will probably be called for soon for the erection of the City Hospital, for which Johnson & Lines, 110 Jasper Avenue, are preparing plans; probable cost, \$150,000. W. Briesbach, Mayor.

FAIRBURY, NEB.—W. F. Gernandt, architect, it is said, has prepared plans for the new hotel to be erected by the Boone Hotel Company. Cost, \$50,000.

FULTON, MO.—Sealed proposals will be received by W. R. Painter, president board of managers Missouri School for the Deaf, until May 30, for erection of fire-

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proof boys' dormitory building; also separate bids for steam heating, plumbing, electric wiring and brick barn. Plans and specifications may be seen at Missouri School for the Deaf and at office of M. F. Bell, architect, Fulton; usual rights reserved; certified check of \$300, payable to J. B. Sharp, treasurer, must accompany each bid; N. B. McKee, superintendent.

GENEVA, ILL.—Bids are asked by John Wheeler, chairman of the Building Committee of the Geneva Public Library Board until June 1, for the completion of the Geneva Hall Company Building, at Geneva, according to plans and specifications which may be seen at his office or at the office of William A. Otis, architect, 175 Dearborn Street, Chicago, Ill.

GETTYSBURG, PA.—Architect Herman Miller, Crozier Building, Philadelphia, it is said, has prepared plans for a three-story brick bank and office-building for the First National Bank, at a cost of about \$60,000.

GRAND RAPIDS, MICH.—Plans are being prepared by the United Presbyterian Church for an addition to the building, according to reports, to cost \$50,000.

GROSS POINT FARMS, MICH.—It is reported that plans are being prepared by John M. Dwyer for a residence, to cost \$100,000.

HACKENSACK, N. J.—Second Reformed Church, it is reported, has decided to build an edifice on a new site instead of rebuilding the one damaged by fire.

HAMPTON, IA.—Bids will be received until June 12 by F. B. Strike, City Clerk, for furnishing material and erecting a brick combined electric-light and water-works building.

HARRISBURG, PA.—The Senate is stated to have passed a bill appropriating \$150,000 for the erection of a State Hospital for the treatment and care of the insane, to be called the Western State Hospital.

HOUSTON, TEX.—Reports state that T. H. Scanlan will erect a ten-story fireproof

business building, to cost about \$75,000.

Adath Yeshurun congregation is having plans prepared for erection of synagogue, to cost \$30,000.

Sanguinett & Staats, Fort Worth, Tex., will prepare plans and specifications for edifice to be erected by the Shearn Methodist Church.

JACKSONVILLE, FLA.—St. Luke's Hospital, it is said, contemplates erecting new building, to cost \$100,000; A. B. Campbell, chairman board of trustees.

JEFFERSONVILLE, IND.—Plans are being prepared for a hospital building for the Sisters of Mercy, at a cost of \$50,000.

KANSAS CITY, Mo.—The United States-

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CONTENTS

SUMMARY: Pages 205-206

Non-observance of a Building-law invalidates a Contract—The Passing of the Lenox Library Building, New York—Another Instance of the Temporary Nature of Real-estate Restrictions—The Demand for More Court-rooms due to the "Long Vacation," a Selfish Custom—The American Holocaust of the World's Artistic Patrimony—The Late Sir Benjamin Baker on the Present Condition of St. Paul's—English Working-hours: A Case of Nuisance—Canadian Architects drawing a Line against Americans.

REINFORCED CONCRETE: ITS LIMITATIONS—I. . . . 207

WESTMINSTER CATHEDRAL.—III. . . . 208

PROFESSOR WALDSTEIN AND THE EXCAVATION OF HERCULANEUM 210

GALERIA, A LOST CITY OF THE CAMPAGNA 211

THE FIRE INSURANCE HABIT 212

ILLUSTRATIONS: 212

The Maryland Institute Building, Baltimore, Md.: Four Plates—Newel and Ramp, No. 49 West Forty-sixth Street, New York, N. Y.—The Engineers' Club, West Fortieth Street, New York, N. Y.: Three Plates. Additional: The Engineers' Club, West Fortieth Street, New York, N. Y.: Three Plates—House on Lake Avenue, Chicago, Ill.

NOTES AND CLIPPINGS 212

SOCIETIES, PERSONAL MENTION, ETC. . . .

MANY a young architect, who has begun his career by treating contractors if not with haughtiness at least with condescension, has found himself seriously indebted to them before long for some kindly hint or warning in matters of construction that has spared him the shame of responsibility for a disaster. It is the part of prudence to listen patiently to anything in the form of a remonstrance that comes from a contractor or intelligent mechanic, and the advice is as applicable to the relations that exist between contractors and sub-contractors as between architects and contractors. That this is so is shown by a case recently decided by the full bench of the Massachusetts Supreme Court that arose out of the building of the Hotel Somerset in Boston. The general contractor for that building, the Webb Granite and Construction Company, sublet the metal-work to the Eastern Expanded Metal Co., who carried out the work acceptably until it came to erecting the roof; then the sub-contractor refused to go on with the work, alleging that the roof had not been designed in accordance with the building-laws. As the general contractor refused to pay for the work done on the lower stories, claiming breach of contract, the sub-contractor brought suit and the court has just ordered their claim, \$28,809, to be paid in full. The court ruled that, the roof design having been proved to be in violation of the stipulations of the municipal building-law, the con-

tractor could not hope to enforce its execution, and that the contract which was sought to be enforced was illegal and unenforceable, whereas the sub-contractor could fairly exact payment for the work actually and lawfully done.

TO the "man in the street" who, as he walks along the Central Park side of Fifth Avenue, does not know what the Hunt Memorial means—unless he stops to read—or why it is set just where it is, it may be a matter of indifference that in a year or two the presence of that monument will more than ever require an explanation, but architects will regret keenly that the march of events should have deprived the explanation of its material corroborative evidence. As Mr. H. C. Frick has acquired the full Fifth Avenue frontage between Seventieth and Seventy-first Streets, and intends to build there a dwelling for himself, it seems to follow that the Lenox Library building, Hunt's most sincere and studious achievement, the explanatory vis à vis of the memorial on the opposite side of the avenue, is shortly to disappear, to the regret of architects and all those amateurs of art who feel that each passing wave of fashion should leave its most perfect work to stand for ages, as an historical record. Perhaps the singularly short-lived vogue of the Neo-Grec style in this country was due to the fact that, apart from Hunt, there were few who understood it or could handle it: its elusive refinements were not the things to attract or be understood by those who, a few years later, were such zealous proselytes of the tenets of Romanesque architecture—as they understood it.

WE had been under the apprehension that in the deed granted by James Lenox there was a provision that, if ever the building ceased to be occupied as a library, it and the land on which it stands should revert to his heirs-at-law. But, as Mr. Frick seems to have acquired the property, we presume that if there actually was such a provision the astute lawyers have discovered some way of quieting the title. In view of the ingenuity of the courts in regulating such affairs according to the whim of the man or men who happen to be called on to deal with the question, it really seems as if there were small use in incorporating restrictions into real-estate grants or in heeding them if they happen to have been incorporated. At about the same time as the sale of the Lenox Library site, the Appellate Division ruled that the restrictions imposed on a neighboring lot, once also owned by James Lenox, now no longer have any weight. In the deed affecting this lot, at the corner of Madison Avenue and Seventy-third Street, it was covenanted that it should be used only for first-class residences and until now it has been so used. But the present owner decided to alter the dwelling-house thereon standing so as to provide stores at the street level and apartments above, and thereupon the owner of the adjacent dwelling-house sued out a restraining order, and it is this order that the Appellate Division has now dissolved. We wish some one could explain authoritatively when and under what conditions restraining covenants lose their virtue.

BUT, when it comes to matters of law, the legal profession has all the rest of the world at its mercy and does not hesitate to disregard the rights of suitors and the public, if its own pleasure and convenience are in danger of being discommoded. We regard as one of the greatest evils of modern life, one of the wrongs that cry most vehemently for righting, the unconscionable way in which the courts everywhere, in other countries as well as in this, are closed for the "long vacation," to the inconvenience of the business public and the great personal wrong done to criminals and indicted persons who are kept shut up in places of detention while lawyers and judges enjoy a prolonged recess. The result of this unjustifiable practice, which is sanctioned by custom not by common sense, is that the dockets are crowded, and when the courts reconvene there are neither judges nor court-rooms enough for the proper handling of the business that awaits them. At the present moment there is, on all sides, the most clamorous demand for more court-rooms and a new court-house in this city, and yet the court-rooms that are in existence are not fully made use of, since they are on the point of being closed for several months in order that lawyers and judges may fish, sail and loaf, indifferent to the loss their selfishness imposes on their fellow citizens or the despair they needlessly inflict upon those who, possibly innocent, must await behind locks and bars their day of trial.

ASSOCIATED with the iniquity that permits the mighty annual loss of material wealth in this country through the action of preventable fires, a loss which falls mainly on the community that permits if it does not actively encourage it, is another which concerns the entire civilized world. Even Americans understand and reprehend what are known as acts of vandalism when such acts affect the masterpieces of art of one kind or another, and are stirred with indignation when they learn that an antique statue has been mutilated, an old master cut from its frame and stolen, or an interesting or beautiful building unskilfully restored or destroyed. Yet, though they realize the criminality of such acts, they seemingly applaud and commend the equally vandalistic acts of our men of wealth who are doing what they can to transfer to this country all the works of art that, openly or secretly, find their way into the European market, only, in nine cases out of ten, to house them in combustible buildings. Underwriters can replace buildings, books, furniture and clothing, but they cannot replace the works of the dead masters of art. From this point of view, the Paca edict and our own present tariff laws deserve a high place in the roll of righteous legislation.

ONE of the last things done by Sir Benjamin Baker, who died at Pangbourne last Sunday, was, at the request of the London County Council, to examine and report upon the possibility of damage being done to St. Paul's Cathedral by and because of the construction of a low-level sewer that it was proposed to construct in such a way that it would pass at a distance of forty-five and a depth of fifty-two feet from the southwest tower of the

cathedral, one of the most "sensitive" portions of the structure. Although Sir Benjamin, who as the inventor of the pneumatic shield now so much used in tunneling and caisson-building was rightly considered an expert amongst experts, reported essentially that the sewer-building would work no damage to St. Paul's, it is gratifying to learn that the London County Council has practically decided to give the sewer a slightly different course and so avoid all responsibility for any future mishap to the building. As to Sir Benjamin Baker, even if some mighty tornado shall at some time overturn the Forth of Firth bridge or the attrition of the mighty Nile eventually undermine the dam at Assouan, these two great and useful structures will have lasted long enough to give their author an enduring place in the ranks of the world's great engineers.

FEW things strike the American traveling in England for the first time as more singular than the extremely leisurely way in which the natives seem to begin their day's work, particularly those who serve in hotels, eating-places and dwelling-houses. Very likely the general habit may be traceable to the curious custom of holding the sessions of Parliament at night and the extraordinary hours kept by fashionable London "in the season." However this may be, the custom has recently given rise to a curious action for nuisance, tried in the King's Bench. The plaintiffs, the landlord and landlady of a certain hotel in Bond Street, London, asked for an injunction and damages against certain builders because they allowed their workmen, in the prosecution of repairs to adjacent premises, to begin work at the unearthly hour of half past six! As damages for the loss of the custom of guests who desired to prolong their beauty-sleep to a much later and more conventional hour, the jury awarded to the plaintiffs a verdict of seven guineas.

THE citizens of the Dominion of Canada have shown themselves at times apt disciples of and believers in the theory of protection, and have insisted on erecting barriers along our northern boundaries that good Americans find peculiarly awkward. The latest instance of their fealty to the American doctrines they have adopted is afforded by the Ontario Association of Architects, who have made a formal protest to the managers of the Manufacturers' Life Insurance Company against the selection, which these managers were said to contemplate, of a Detroit architect to design the company's new office-building at Toronto. We confess to having a good deal of sympathy for the Canadians, because of the reasons they advance; but we approve their protest more because we do not fancy the idea of American architects earning a commission across the line and then scurrying home to spend it in just the way the reprobated Chinaman or Italian now adopts as soon as he has accumulated a modest competency. As one Toronto architect pointed out, if the commission went to a native architect he would have to pay an income-tax upon it, whereas all that the government could get out of the Detroit architect would be the customs dues on one set of blue-prints.

REINFORCED CONCRETE: ITS LIMITATIONS.¹—I.

EVER since I have had the honor of being a member of this Club, I have made it a rule, whenever I learned something new or acquired some new experience, to bring it before the Club in the shape of a paper, and so now, feeling that I have again "something to say," I enlist your patience for a short hour. Of course the subject is on reinforced-concrete; what else could a structural engineer speak about nowadays, when we are in the very high tide of this wonderful material, when wood and steel and cut stone are going out of fashion, when the engineer who is not ready and able to use, intelligently, reinforced-concrete for anything in the building line, from a fence to an office-building, from a sewer to a railroad-bridge, might as well take down his shingle and retire?

The subject before us being "Limitations of Reinforced-Concrete," it seems appropriate to begin with "Limitations of this Paper." It will not deal with the whole range of the subject, for then I should in a few hours be speaking to empty benches; no new formulas or scientific investigations will be brought forward, for under the wise laws of division of labor, we designing engineers can leave these safely in the hands of the professors and specialists; you may, or, rather you will, discover other "limitations" of this paper; but then, such as it is, offering some homely truths found in actual experience, some considerations worthy at least to be discussed by you, and also deduced from actual experience, you are asked to listen to the same.

Why is concrete reinforced? Because, the ready answer is, the reinforcement imparts to concrete the inestimable quality of resisting shear and tension, as well as compression. But there is another reason of hardly less importance: reinforcing rods, judiciously placed in the body of concrete, transform it into a monolith. Now the generally prevailing opinion is that concrete itself without reinforcement, in drying, contracts into a monolith, but this is, in most cases, at least in the shape in which we generally use the material, not the case. Unless we have to deal with concrete in the shape of a cube, or a globe or a prism of simple shape, no concrete forms into a monolith, but into a number of monoliths. It contracts in drying on what may be called lines of least resistance into several pieces of concrete, separated by more or less open cracks, and it is the fact that this can be prevented by embedded steel rods, properly called "shrinkage rods," in combination with the effect of the reinforcing rods used to resist tensions, that has given reinforced-concrete its high place among building materials.

Some years ago we listened in this Club to an interesting paper on continuous street-car rails in which the remarkable fact was explained that street-car rails can be made continuous without being damaged or torn apart by changes in temperature, as the friction between the surface of the sides of the rails and the pavement is sufficient to hold the rail in place. Substitute in this last sentence the embedded steel rods for the pavement and the mass of concrete for the car rail, and we have stated the principle of the shrinkage rod. It is the internal stress caused by shrinkage of so many square inches of concrete against frictional resistance of so many square inches of embedded surface of steel.

Let me give you a few illustrations of the way in which plain concrete in drying separates. The figure before you shows a

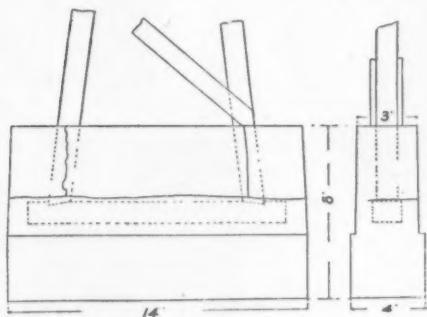


FIG. 1.

had not prevented it. You notice the wide crack along the sill and the two vertical cracks along the posts. Two sets of shrink-

¹A paper by Mr. Carl Gayler, read before the Engineers' Club of St. Louis, January 2, 1907, and published in the "Journal" of the Association of Engineering Societies.

age rods, one set horizontal to prevent the vertical cracks, and another vertical set would have prevented the mischief.

Some years ago, at a time when Portland-cement concrete, without reinforcement even, was a new thing, I had occasion to extend the wings of a small highway bridge, using concrete for the extension and stepping it off, as you see in Fig. 2. The result was a pretty illustration of how such concrete, regardless of the good intentions of the engineer to form a monolith, separates into a number of them. It is hardly necessary to add that the same engineer, to-day, would not design any such graceful stepping-offs, and would probably insert some shrinkage rods.

Some of you may have had occasion to build a concrete coping with an iron railing on top of it. Now nothing is more natural,

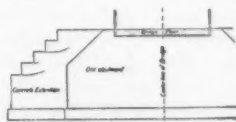


FIG. 2.

or better, than to embed the ends of the railing posts in said coping. But I can state as an absolute fact, observed not only in St. Louis but also in other cities, that of twenty such railing posts, whether they are of cast-iron or steel angles, not less than ten will crack a 12-inch or 14-inch coping, 3 feet to 4 feet wide at right angles to the line of the coping. The explanation is simple enough; being hindered by the railing posts from contracting into one continuous monolith, the coping contracts into a number of monoliths, each as long as the distance between the railing posts. The remedy suggests itself also. But in this example, insignificant as it may seem to you, we are confronted with another very important problem. If, as we have seen, 10 or 12 inches of 4-inch by 4-inch steel angle, inserted into a body of concrete of 3 to 5 square feet area, are liable to crack the concrete clear across, isn't it apparent that we should look on all embedded reinforcement as, under certain conditions and proportions, an element of weakness instead of additional strength?

We reinforce concrete by steel rods, and we do so successfully with 0.75-inch, 1-inch, or even 2-inch rods, but what, in view of the above, is the result if we employ still larger rods, or I-beams, or steel rails, or, as is daily done in architectural work, if we use a number of small rods, close together, forming a very cluster in a narrow beam?

To illustrate this latter point I have taken at random a section of a reinforced-concrete girder from one of the technical journals and shown it in Fig. 3.

I may here remark incidentally, which will also apply to one or two other points brought out later on in this paper, that the architects are in a far more favorable position than we engineers, since they have a way of plastering, casing in, covering up,

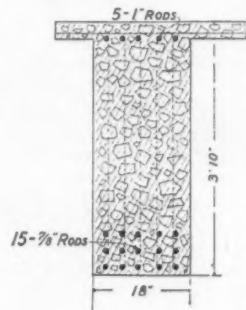


FIG. 3.

in a word, of hiding their work, which we have not. Longitudinal cracks along the reinforcing rods of their girders and beams—and we find here and there mention of such cracks in the publications—do not show in their work.

Now the question is: When have we reached the point where the inclosed metal separates and cracks the concrete instead of being firmly gripped by the same? It is not at all the mere surface contact between the two materials which constitutes the efficiency of the reinforcement, but the fact that concrete in drying shrinks, which shrinking produces its gripping effect on the reinforcement, and it is therefore all important that this shrinking should take place towards the metal, not from it.

It is still customary, although not to the same extent as in former years, to build floors of buildings and viaducts by means of concrete arches between I-beams. The centers of these small arches are generally left in position till the concrete is tolerably hard. But the mass of concrete keeps on drying and consequently shrinking, for a long time after; the concrete is generally of too great a thickness to allow of sufficient elasticity to conform to the new span, and the consequence is that a crack forms, either on one side or on both sides of the I-beams, i.e., we have not an arch at all but a solid stone, concave below and resting principally on the bottom flanges of the beams. This is no mere theory. I have built hundreds of such arches in former years and hardly ever without meeting with these annoying cracks along the beams. There is a viaduct over the railroad tracks in this city whose

floor consists of such concrete arches between 24-inch I-beams which carry the street-car rails. Now, if during a heavy shower you should be seeking shelter under said viaduct, as has happened to the speaker, you would be glad to have an umbrella over your head. Still, although not perfect, such arches are useful structures and generally answer the purpose very well.

This subject of the shrinking away of concrete from the steel work, instead of clinging to it, is very fascinating and worthy of the closest observation. We have been so educated into the belief that concrete and steel have, so to say, an affinity for each other, that it is not easy to get rid of that impression. Concrete, in fact, has no affinity whatever for any other material. We all know that it is next to impossible to make concrete join completely a hardened surface of concrete, or masonry, or cut stone, or any other material, *not excluding steel*. There are a number of steel plate-girder bridges in this city with concrete floors, on which a concrete wheel-guard is built up against the web of the plate girders. Surely this is a case where the embedded steel surface should appear to the naked eye as a unit with the concrete, but on a hot, sunshiny day you may notice here and there a very fine crack separating the two materials for considerable lengths.

To sum up:

(1) Concrete in hardening grips embedded steel under conditions which depend on the relative size and shape of the metal.

(2) Concrete in hardening has a tendency to separate from any adjoining surface, due to its own shrinkage. Which rules can be well illustrated, as in Fig. 4.

The above considerations apply to the whole field of reinforced-concrete work, and furnish, for instance, a strong argument against the Melan reinforced-concrete arch and in favor of the reinforced-concrete arch where steel rods or bars are so distrib-

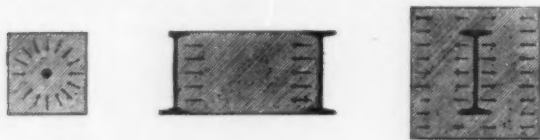


FIG. 4.

uted over the intrados and extrados that the stresses are readily imparted to the surrounding body of concrete. This is confirmed by the experience of the Passaic River bridge in Paterson, N. J., where the arches in their downfall separated into longitudinal sections along the lies of the I-beams. The downfall, however, as you know, was caused by undermining of the foundations during an unusual high water, not through any fault of the system of the reinforced-concrete.

But there is another serious limitation to the successful use of reinforced-concrete, and this paper has been brought before you in vain, if it fails to impress you with its great importance. I refer to the question of proper inspection.

We have, all of us, inspected material, wood, iron, steel, stone, almost any building material used by mankind, but now a problem in inspection has come up such as we never before had to deal with. Assume, to make my argument clear, the case of a steel structure, either the skeleton of a building or a viaduct, and assume further that said steel structure is built without any inspection, either at the mills, or at the shop, or during erection. Now, I will not go so far as to say that the structure will be as good as if built under inspection, but it will be *nearly so*. There may be flaws in some of the plates, ragged edges to some of the shapes; there may be here and there a loose rivet; in putting the work together there may be some maltreatment of the metal; some member may after erection be slightly out of line; but after all we shall have a safe, serviceable structure, provided that the plan is correct. Let us now consider the same structure built in reinforced-concrete, on a plan equally correct with the plan for the steel work, under the same conditions, no inspection or tests of material, no supervision of the manner in which the rods are placed, more than that whether they are placed at all,—and this is no supposititious case but has to my knowledge been experienced again and again,—no control over the all-important question of continuity of operation, and the plain fact is that we shall not know what we have got at all; we have relied entirely on the honesty and efficiency of the contractor, *i.e.*, we have shirked our duty as engineers under circumstances such as we were never before confronted with. While in the case of the steel structure the possible range between a structure built under thorough inspection and under no inspection is from an excellent structure to a fairly good but at any rate safe structure, the

range of reinforced-concrete work under the same conditions is all the way from an excellent structure to absolute destruction.

In confirmation of the first statement I can, from memory, quote Theodore Cooper, who some years ago expressed himself somewhat to this effect: "Every recorded case of failure of an iron bridge (leaving out of consideration accidents through derailments, washouts, etc.) can be explained through faulty design, never be attributed to poor material or workmanship." If I recollect rightly this was brought out in the discussions arising from the failure of the Tay bridge in Scotland. In confirmation of the second statement we can point to the numerous recent failures in reinforced-concrete work.

To illustrate the above-mentioned question of continuity of operation (I like illustrations, they save words and they impress):

Let G, Fig. 5, represent a heavy reinforced-concrete girder, B, the beams supported by the same. Now the best method of carrying on such work is to do it uninterruptedly, as far as possible, or, at least, to complete girder G at one time with proper recesses for the beams, and then to finish each beam B at one time.

But take the case that the work is not done on such lines, that the foreman is incompetent or careless, the contractor, as is often unavoidable, absent from the work,—what is to prevent said careless foreman from finishing girder G by itself, without recesses for the beams and to build in afterwards, perhaps after an intervening Sunday, the beams B; or supposing the work done under

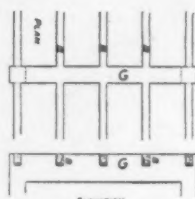


FIG. 5.

a glaring sunshine—and I have had cases where I felt like praying for clouds and rain—and the heavy girder G finished to half its height and then let go for a time without troubling about sprinkling,—imagine such and similar conditions, which to a greater or less extent are bound to happen, unless you are lucky enough to have an excellent foreman who relieves you of your responsibility, or unless you have the most rigid and intelligent inspection,

where is the very safety, not to say excellence, of the work? The success of reinforced-concrete work lies in the inspection to a far greater degree than with any other class of building material. And the difficulty and expense of obtaining such inspection, which is generally only to be obtained in government work, municipal work not blighted by politics, or in the thorough organization of railroad work, but seldom in private undertakings or in works built in out-of-the-way localities, are in my opinion to be classed among the limitations of reinforced-concrete work.

Of course, this applies with much less force to foundation work, heavy piers or abutments, etc.

(To be continued.)

WESTMINSTER CATHEDRAL.¹—III.

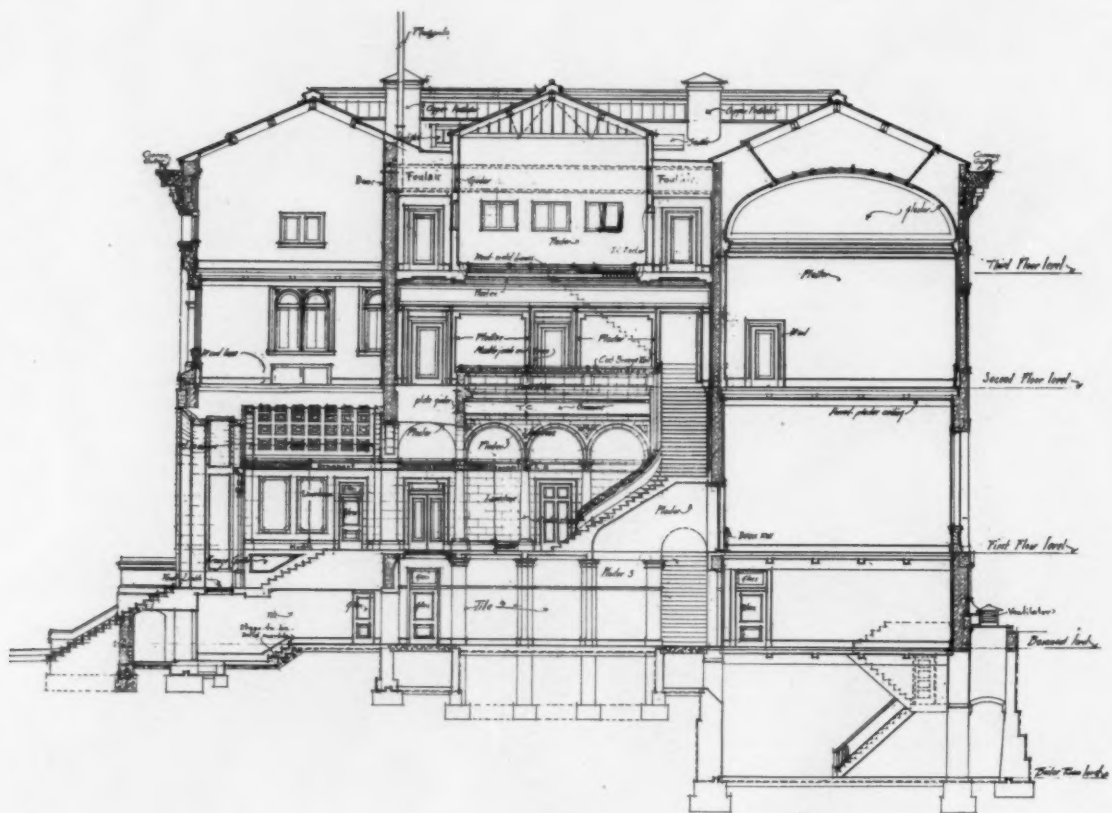
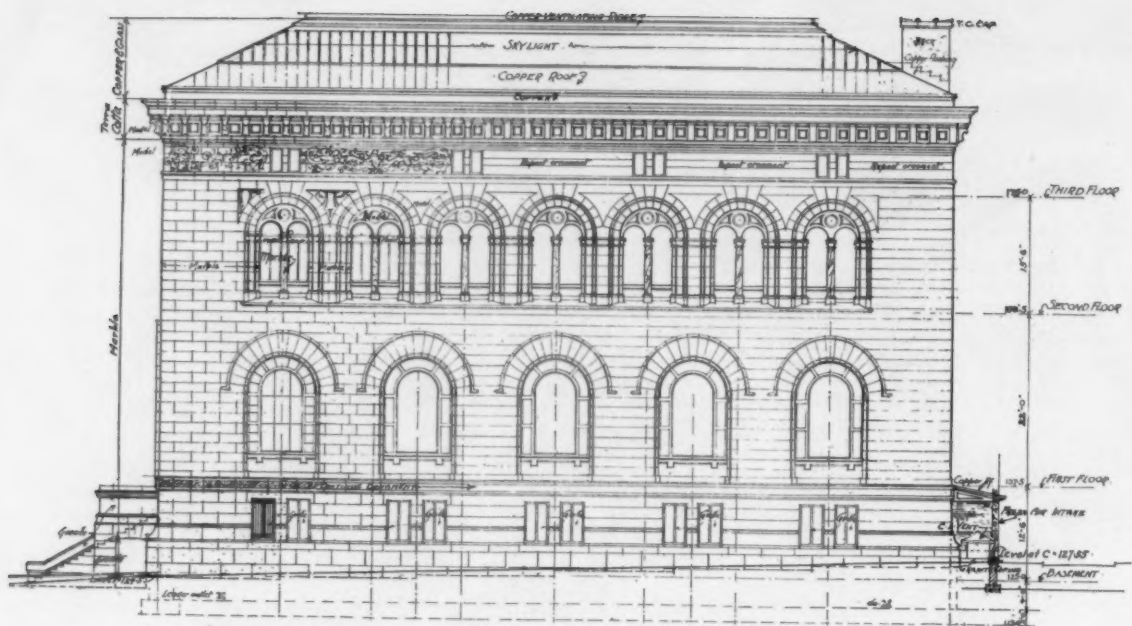
HAVING now dwelt on some of the most salient features of the construction, some reference will be expected, in a paper with so comprehensive a title, to the internal decoration, intended by the architect to form an essential part of his conception, but which, unfortunately, he did not live to see carried out and scarcely commenced. When Mr. Bentley received instructions to design the Cathedral he had scarcely been out of this country, certainly not to "the land where the citron blooms." He then felt it his duty to see for himself those incrustations of marble and mosaic so charmingly described by Paul the Silentiary and John Ruskin. He did not, however, cross the Adriatic nor visit Sicily. He had realized his powers, and was therefore in a position to discriminate. He took with him a small notebook, but excepting four plans of churches it came back empty. He had neither time nor inclination for mechanical toil; that would have dispelled the charm as it did eventually for Ruskin in Venice.

The Italian tour did not determine the style of the Cathedral though it confirmed it.

The first sketch plan made after the architect's return suggests in parts Sta. Sophia, Constantinople, though Mr. Bentley never saw that building; the final plan shows, as we have seen, the influence of St. Mark's tempered by an ideal he had made his own.

Mr. Bentley's suggestions for the revetment of the interior show, as might be expected, an appreciation of the principles

¹A paper by Mr. J. A. Marshall, read before the Architectural Association, April 12, and continued from page 201, No. 1638.



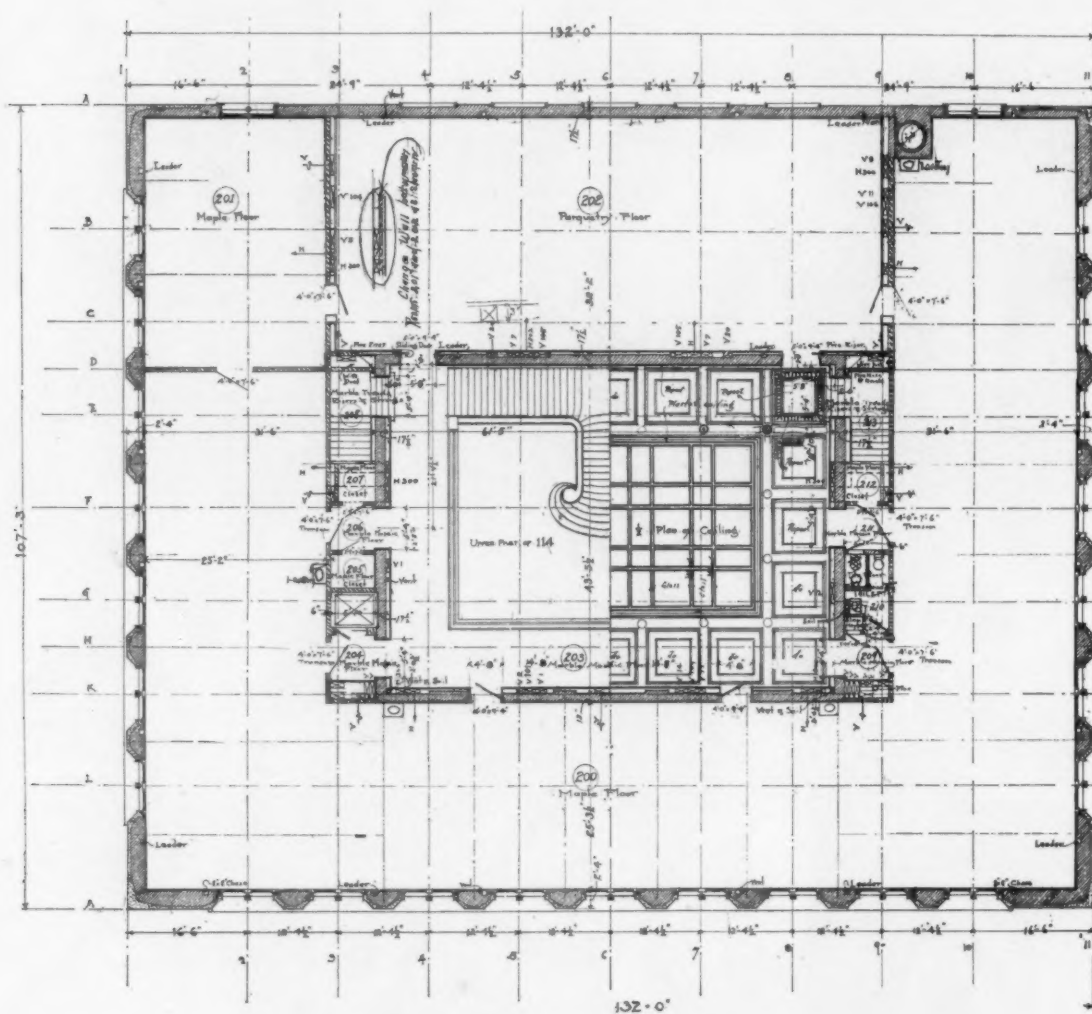
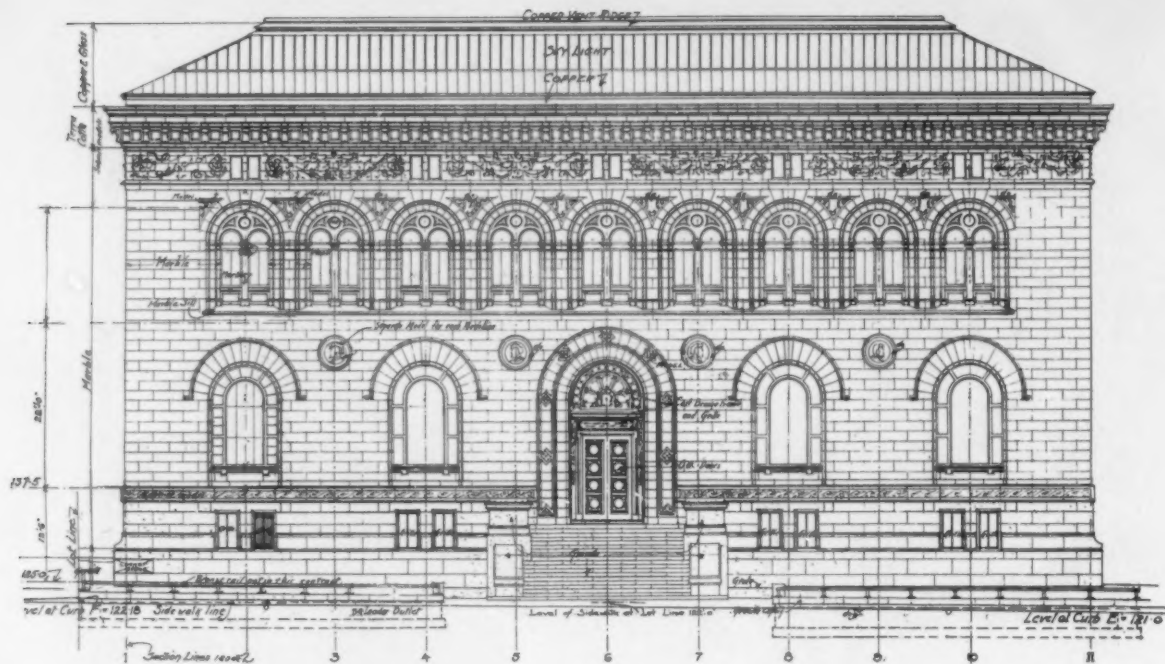
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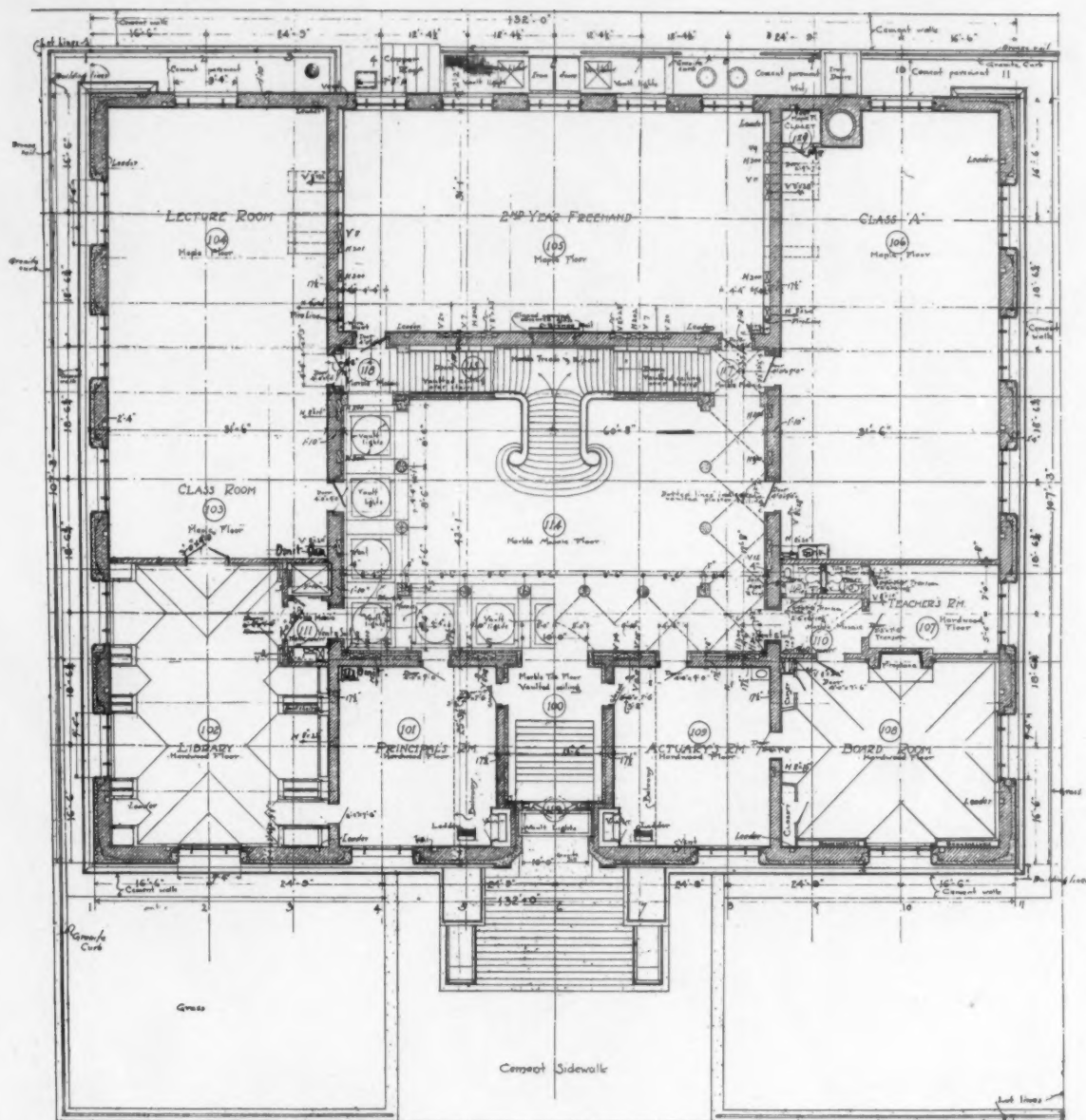
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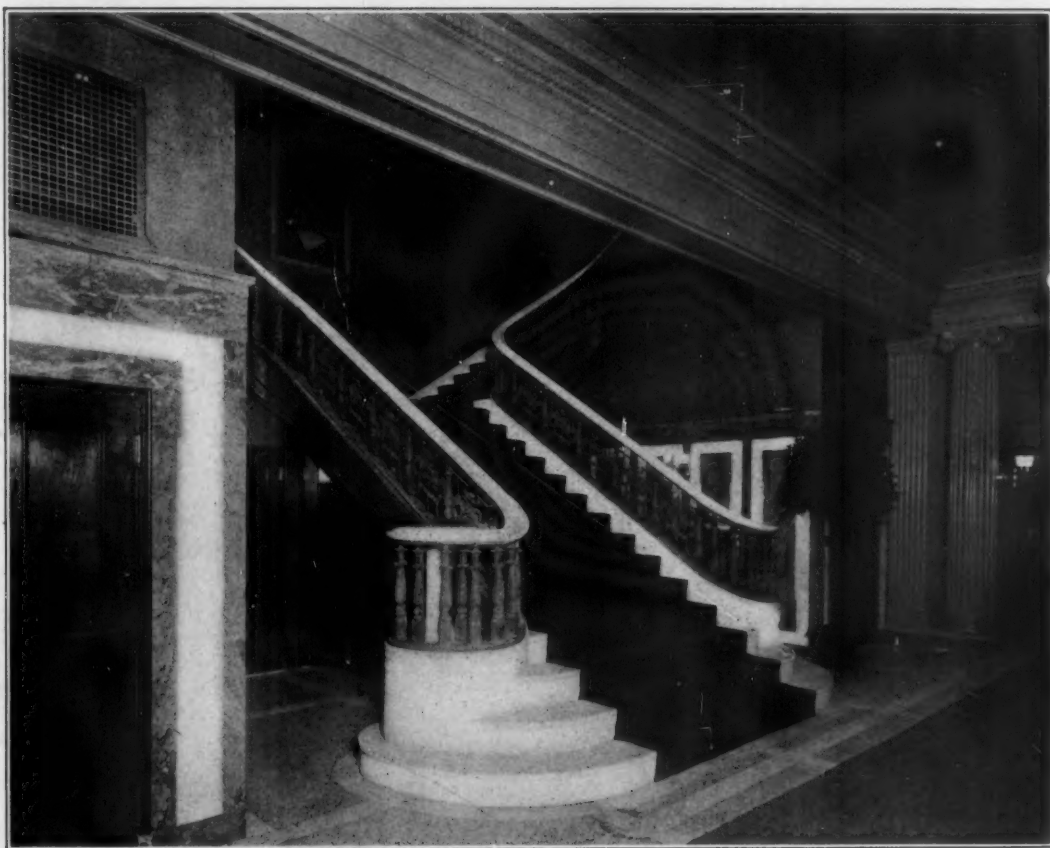
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underlying the application of marble and mosaic as exemplified at Venice and at Ravenna.

The well-defined line of demarcation between the two materials at a uniform level; the high and narrow slabs riveted to the walls and piers and "opened out" so that they could not possibly be mistaken for solid masonry; the strips of facets that roughly follow the curves; the extreme thinness of the veneer exposed at all salient angles; and above all the vast expanse of sheeting due to the unbroken wall-surfaces and the massiveness of the piers undisturbed by mouldings and made more impressive by the insertion at rare intervals of choicer slabs and by the brilliancy of carving—these are some of the qualities we associate with the ideal type of marble revetment.

This being so it is evident that the essential features of Mr. Bentley's plan scarcely afford scope for a full development of this type. The subdivision or multiplication of the piers and the lack of unbroken wall-surface on the ground floor demanded a treatment on independent lines that may perhaps be best described as a compromise between the Byzantine and the Renaissance.

Another marked divergence from the Byzantine type, in an opposite direction, is seen in the sparing use of columns for the gallery arcades, resulting in a rather wide intercolumniation, again in favor of the Renaissance.

But if the piers and walls do not present an ideal field for the application of marble this cannot be said of the floor-space where unbounded facilities are afforded for that most essential feature, from the architectural point of view, a marble pavement throughout the building.

The value of the marble paving in relation to the wall lining can be seen in the Chapel of the Blessed Sacrament and in the two western chapels of the nave. In the nave itself a commencement of Mr. Bentley's scheme for the paving has been made by laying the narthex and the strips or borders between the piers and columns so that these latter are spared the indignity of rising from a platform of wood-block flooring. The marble paving of the sanctuary around the baldacchino has just saved this immense canopy from a similar insult, though it can never compensate for defects due to the lack of Mr. Bentley's personal supervision. The same may be said of the organ-gallery screens adjoining. Unfortunately, while the painter can rectify a weakness or a false note of color by a stroke of the brush, the designer in marble is committed for ever to the first touch. His only safeguard is to remember that the doctrine of harmony and restraint applies to all the arts, and if an extensive palette is a snare to the painter it is a still greater entanglement to the designer in marble, whose best effects are produced by a limited range of colors.

The most beautiful and varied material used by the architect is soon brought into discredit if misapplied or mixed up with other materials. The simple slabwork of a fishmonger's shop is more impressive than the incoherent displays so often seen in more important buildings, where the chief aim of the designer seems to have been to destroy those very qualities that give value to the material. But the intrinsic value of marble does not depend entirely on the beauty of the color or the interest of the veining. Strength and durability must be considered, or the result in our humid atmosphere may be as transient if not as beautiful as a sunset or a smile.

In the majority of instances the very nature of the material is against its permanency.

The pasty magma and the infiltrated fractures, to say nothing of artificial "stopping," are the channels most infected by the destroyer. Indeed the few sound marbles of good color that

can safely be used without restraint may be counted on the fingers. The weakest marbles, like certain persons, are often the most attractive; they should be reserved for occasional indulgence only.

I will not weary you more than I have already done by attempting a description of the marbles used at the Cathedral, especially in view of the fact that the subject of marbles in general has only recently been dealt with by those able exponents, Sir Lawrence Alma-Tadema and Mr. William Brindley. We may, however, be permitted to remind you that in the two western chapels of the nave Mr. Bentley imitated the principle of framing the variegated revetment with white marble only; thus there is not that confusion of color or workmanship nor that rampant effect of the strings, cornices, and architraves that one so often sees when the reverse method is adopted; in a word, the effect is refined rather than bizarre.

The respective merits of these two chapels cannot be considered apart from the mosaics, and if

the Chapel of the Holy Souls is the most concordant this is because its mosaic decoration most nearly approaches Mr. Bentley's ideal.

The guiding influence of the architect is here strikingly apparent throughout, and Mr. Symons, who made the cartoons for the mosaics from his own sketches, has admirably followed the architect's suggestions without that self-effacement that would have destroyed vitality. While not opposed to tradition like the "New Theology" and the "New Art," the work is as unfettered in style as the Cathedral itself. If the general effect is satisfactory, the barbarity of the technique may be condoned.

These subsidiary parts of the Cathedral may be regarded as experimental, in view of the vast area awaiting decoration in the nave. For this Mr. Bentley left no suggestions excepting details



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W. B. Tuthill, Architect.

for the marble work. Some men get ideas very quickly, flashes of inspiration, a kind of radio-activity, and the thing is done. Without a moment's hesitation they rush in where angels fear to tread. No wonder their works look raw and unfinished and will not stand the test of time. With others the idea grows or develops, they feel their way gradually, one thing leads to another, and ultimately to a solution of the problem. The result has entailed much labor, though it may seem to have been without effort, the work endures—this was Mr. Bentley's way.

PROFESSOR WALDSTEIN AND THE EXCAVATION OF HERCULANEUM.

IN a recent letter to the London *Times*, Professor Charles Waldstein sets forth in this wise his position in his controversy with the Italian Government on the subject of the excavation of Herculaneum. He says:

Sir:—When, in April, 1904, I had succeeded in gaining the support of the chief Italian authorities for my plan of an international excavation of Herculaneum, in conjunction with and under the direction of the Italian archaeologists and under Italian laws, the matter was settled in its first stage by the warm assent of the then Minister of Public Instruction, Signor Orlando. He supplied me with my credentials, which were to show the world that I was acting with the cognizance and the direct encouragement of the Italian Government, by giving me, at my request, the letter which has already been published. In this letter he recognized all the difficulties which lay before me in this *iniziativa modiale* before I could secure the co-operation of the civilized world for such a colossal and ideal task, and expressed the hope that I should not meet with insuperable difficulties.

I thereupon began my propaganda for the international enterprise in Europe and the United States, and carried the first stage almost to completion, in a manner which was as satisfactory to me as it was surprising.

When, however, in January of 1905, from utterances in the Italian press, and from a speech made by Signor Orlando in the Italian Chamber, it became manifest that the Italian Government was no longer prepared to support my scheme whole-heartedly, I wrote as follows, in a letter published in the *Times* of January 23, 1905, in which letter I also insisted upon the competence of Italian archaeologists. "Compare," I urged upon the reader, "the appropriations made by the Italian Government for archaeological, scientific and artistic work with those of our own Budget, and our admiration of the Italian sense of intellectuality as a factor of national life may not exclude a sense of shame as regards our own national attitude in such matters." The letter ended with the following passage:

"Should the Italian nation object to such international work and excavate Herculaneum themselves, I shall not regret the efforts I have made for the wider plan. Herculaneum will be restored to light, which is the most important matter. But at the same time I shall regret that Italy does not also seize this opportunity of making itself the centre for a great work in which all civilized nations will unite in harmony on the very soil upon which the essence of their common civilization rests. This would be the type for other similar enterprises in science and art, and would confirm *de facto* what the peace conferences and the treaties of arbitration are establishing *de jure*. One thing remains certain, that without the cordial and unqualified assent, nay, the positive encouragement, of the Italian Government, the Italian people, and my Italian confrères, the work on which I am engaged cannot proceed."

What I then said in 1905 was meant in all sincerity and applies to the present moment. Herculaneum must be excavated as soon as possible, because of the quite exceptional character of what we have every reason to expect to find, because of the increased difficulties and cost which every year and week of delay entail, and because of the advantages to the living and coming generations which the results will yield, and of which they ought not to be deprived. On this all who have any right to an opinion—from Beulé and Gaston Boissier to Reinach and Professor Dall'Osso of the Museum of Naples, the greatest authority on such matters in the present day—are agreed.

What happened since January, 1905, may be outlined briefly by the following salient events:

In the autumn of 1905 the project was submitted by the Italian Government to the Central Commission dealing with such matters. This commission recommended its adoption by nine votes to four—four abstaining; while Professor de Salinas, of Palermo,

subsequently published the fact that he was temporarily absent when the vote was taken, but that he would have voted for the proposal. It is a noteworthy fact, which has only become known recently, that Commendatore Boni absented himself from the meeting held at Rome which other members, travelling from Palermo and Milan, made a point of attending.

After some delay I was officially informed of this vote through the Italian embassy in London. The Government had changed, and Signor Bianchi succeeded Signor Orlando. In the spring of 1906 I informed Signor Bianchi, through the British embassy of Rome and the Italian embassy of London, that I was willing to travel to Rome to see him, if there was any chance that the whole question could be finally settled one way or the other. I was informed that Signor Bianchi could not undertake to promise this.

Thus the matter remained undecided, until, last autumn (September, 1906), a Giolitti cabinet having again come to power, I traveled to Rome to see Signor Tittoni by appointment, as well as Signor Rava, the present Minister of Public Instruction. Signor Rava had gone to Milan (whence I came) on my arrival in Rome, and had returned to Rome when I arrived in Milan, owing to exigencies of his office. But the Minister of Foreign Affairs—with whom I, as a foreigner, would also naturally deal—though he pointed out that the matter was not in his immediate competence (*ressort*), manifested his sympathetic interest in it, and assured me that the question would be pushed to a conclusion without delay. This promise was manifestly fulfilled, for the project was again referred to the Central Commission, who, in November of last year, to the agreeable surprise of all concerned, unanimously recommended its acceptance, and strongly urged upon the Government its speedy realization. I must again point out—which I did not know before—that Commendatore Boni had absented himself from this meeting also. Meanwhile, besides this remarkable support of the archaeologists, public opinion in Italy, as represented by the press, had emphatically turned in favor of my international plan and gave it unqualified and enthusiastic approval. This I can prove at any moment, as I have received the newspaper cuttings from all parts of Italy. The *Giornale d'Italia*, of Rome—formerly more or less opposed to the scheme—printed a long article by Professor Conti, who had been the most decided opponent before, in which that archaeologist generously recanted his previous condemnation of my efforts, and lavished unqualified praise on myself and my work. The *Tribuna*—the paper supposed to be most immediately in touch with the Government, formerly distinctly unfavorable to the scheme—published three long articles by Professor Dall'Osso, supporting it in the strongest manner, and giving a most luminous exposé of the way in which the actual work should be undertaken. It was thus assumed, from November to February, by the Italians and by the whole world that the question was settled and the project accepted. I was myself informed by those competent that this was the case, and, though I received no official intimation to that effect, I myself felt convinced that the matter was settled.

Then, towards the end of February, there appeared the extract from Commendatore Boni's letter to me—which I had not yet received—and in three days the decision of the Italian authorities was apparently reversed. I say "apparently," because I have only the conflicting newspaper reports and private information to go upon, for I have not yet received official information on the matter. The subjoined letter to Signor Corrado Ricci will make clear this last phase:

Propriété St. François, Galraut, Nice,
April 7, 1907.

Sir:—In the month of October of last year you sent me a very courteous reply to a letter in which I had pointed out to you the interpretation which had been given to certain expressions of yours cited by the newspapers to my disadvantage, and you assured me that it was not to me that your words applied. At the same time you announced to me that my project concerning Herculaneum, which had been discussed for two years past, would shortly be submitted afresh to the Central Commission, adding that, although at the moment your personal opinion was not favorable, you would not in any way use your official position to influence the members of the commission.

Evidently you had loyally kept this promise, for, at the beginning of the month of November, all the newspapers announced that the commission had expressed itself unanimously in favor of the project, while laying down certain just conditions and recommending its speedy realization to the Government. Of this I

had information from the newspapers and from private sources, but I have had no direct or official communication. Our ambassador at Rome and yours in London assured me that they had more than once written and requested that this direct and official communication should be sent to me. In reply to a letter written by me to Signor Tittoni, the only member of the Government with whom I had conferred in person, his Excellency wrote to me in the month of February that the question would be immediately decided by the Council of Ministers, and that I should receive a direct communication.

You know the events that followed the publication of Comendatore Boni's letter. The newspapers announced that my project had been rejected by the Government. On the 23d of February our ambassador at Rome informed me that he had received a letter from H. E. Signor Rava, in which the latter said that the decision of the Government would be sent to me. Since then, in reply to a letter addressed to H. E. Signor Tittoni, the Ministry of Foreign Affairs replied to me that the information would be immediately sent direct to me from that of Public Instruction. It is now the 7th of April, and I have yet received no official communication either of the decision passed by the Central Commission at the beginning of last November or of the rejection of my project in the month of February, while the newspapers write of the subject and discuss it repeatedly. I am receiving letters from all quarters asking me for information concerning the facts of a matter in which I am believed to be the person most immediately concerned.

This is the simple state of the case, and I must ask you and also the Minister of Public Instruction to take cognizance of it, and to act as seems to you appropriate in the interest of a question of such importance for science, for Italy, and for the world of culture.

Yours very truly,

CHARLES WALDSTEIN.

PROFESSOR CORRADO RICCI, *Director-General of Fine Arts and Antiques.*

It now only remains for me again to express the hope that the Italian authorities will speedily undertake the excavation of *Herculaneum* themselves, and will carry it to a successful issue, and to give utterance to my sincere gratification that under the present Government such splendid appropriations are being made for archaeological research. Such efforts can but evoke joy and admiration in all those interested in archæology, in science, art and culture.

Allow me, in fine, to seize this opportunity of thanking all those, in Italy, and every part of the world, who directly or indirectly have given me help and encouragement. Above all, I should like to acknowledge publicly my debt of gratitude to my friend, Mr. Leonard Shoobridge. It was he who, in 1903, urged me actually to take in hand the international scheme, which I had developed for so many years, but did not see my way to carry into effect owing to my numerous duties. His active co-operation led to my decision. We traveled to Italy together in the spring of 1904. He prepared the way, by study, on the spot, by procuring copious illustrations and collecting the literature on the subject, and has since given me moral and actual support in the work which has demanded some energy and sacrifice.

CHARLES WALDSTEIN.

P. S.—Since the above was written, I have received a letter from Signor Corrado Ricci, to which I have sent the following reply, here given in translation:

"Propriété St. François, Gafraut, Nice,

"April 17, 1907.

"Sir:—I have just received your kind letter, which you tell me is '*privée et personnelle*.' I am thus debarred from publishing its contents. My letter to you was in no way personal, but purely official. I asked of you and of the Minister of Public Instruction that, at last, some direct and authentic information be given me as to the fate of my 'international project,' which has now been discussed for three years. Your letter does not provide this information, and I must again beg that this be sent to me in accordance with the promise made by the Minister of Public Instruction to our ambassador on February 23.

"Believe me yours very truly,

"CHARLES WALDSTEIN.

GALERA, A LOST CITY OF THE CAMPAGNA.

FEW visitors to Rome are aware that there is a mediæval Pompeii within fifteen miles from the Porta del Popolo, a Pompeii, too, within easy reach of a wayside station

on the line of the Viterbo. So when strangers from the capital arrive at the modest inn of S. Maria di Galera the few inhabitants of that commodious village appear surprised. Every now and again some member of the German college, which owns this modern Galera, comes out to inspect the place and drives in at the archway, which still bears the arms of the great Borghese pope, Paul V. But if the new arrival be an Englishman, it is, of course, assumed that he has come to see old Galera or Galeraccia, "wretched old Galera," as the innkeeper's wife contemptuously but characteristically sums up the deserted town of the Orsini, where the great Emperor Charles V. did not disdain to dine when he was returning from his memorable journey to Rome—that journey which cost the city 200 churches and gave us the principal approach to the Capitol. As for the excellent hostess, she has lived here all her life, but has never taken the trouble to walk a mile to "Galeraccia." There is nothing to see there, she says; besides, she had heard from some daring explorer who had once been there that there were snakes in the rank grass. This piece of information was true; Galera is infested with reptiles; otherwise it would be an artist's paradise.

Here, in this bare Campagna, it would be impossible to find a finer site. Galera stands, or rather stood—for it is now all in ruins—upon a steep rock of tufa, the base of which is washed by the River Arrone on its course between the Lake of Bracciano and the sea. The stream is almost buried in overhanging bushes, and the walls of the mediæval town are scarcely visible for ivy and creepers. Not a sound is to be heard as we enter the gate, for no human being has lived here for a century, when malaria drove the last pale and gaunt peasants from their eyrie above the river to the less exuberant vegetation and purer air of St. Maria. Some of their mediæval monuments they took with their few household gods, chief among them the inscription, now in the church of the modern settlement, which records the consecration of the Church of St. Andrew by Cardinal Peter, Bishop of Porto, in the pontificate of Innocent III., and in the year of grace 1204. Occasionally they have used the old town as a quarry, but the people are few in these parts, and houses and walls are not much wanted, so that Galera has been left pretty much untouched. The arms of the Orsini still adorn the deserted town, which that great clan held for nearly five centuries; the belfry of one of the churches where they worshiped still stands, a prominent landmark from a distance; the remains of their palace are still visible, though the wild fig-trees are doing their best to tear the stones asunder. Nowhere, except down at Ninfa, in the Pontine marshes, is desolation at once so picturesque and so complete, and in both cases the cause has been the same. Yet these overgrown and almost impassable lanes have had a long and eventful history.

An anti-pope once sought refuge behind these ivy-clad ramparts, for it was here that Count Gerardo of Galera sheltered Benedict X., the nominee of the Roman nobles, from the assaults of the 300 Norman knights whom Nicholas II. and his great adviser, Hildebrand, had dispatched to the siege. The steep hillside and the stout walls proved too much for the Norman besiegers; but ere long the attack was repeated, and the count had to surrender his dangerous guest, who was sent to meditate in a monastery on the defective fortifications of Galera. Throughout the Middle Ages Galera shared the usual fate of the Campagna castles. As an Orsini stronghold it was, of course, sacked by their rivals, the Colonna; when Fortebraccio ("Strong-i'-th'-arm"), the great robber captain of the fifteenth century, descended upon Rome, Galera sent out a force of armed men to oppose him, and every important event which affected the prospects of its lords was doubtless reflected in the lives of the dwellers on this isolated rock.

Malaria has lost much of its terrors; quinine and wire-netting have made places habitable which not so long ago would have been considered as veritable fever-beds. The Isola Sacra, near Ostia, is no longer deserted in the dog-days; there is talk of turning Castel Fusano into a watering-place; the colonists from Ravenna belie the pompous inscription in the courtyard of Cardinal della Rovere's castle, which bids the stranger "seek their scattered bones in the fields" (that inscription was the work of a Socialist deputy from the Romagna). But Galera is too picturesque and too circumscribed to entice its inhabitants back; nor is the fact to be regretted, for a deserted city is always most likely to be preserved.—*Rome Correspondence of London Morning Post.*

THE FIRE-INSURANCE HABIT.

THE press has done splendid work in combatting patent medicines and other great abuses, but none of these, in my estimation, equals in sinister and far-reaching results the insurance habit into which our people have drifted or been beguiled, says Architect F. W. Fitzpatrick, in the current *Inland Architect*. Though fire insurance was primarily established as a wise and beneficent safeguard against possible accident, it has grown to be a gamble of vast proportions and most insidious ramifications.

But a few years ago the companies figured up their ratio of losses versus premiums scientifically and all that sort of thing, but paid only scant attention as to how buildings were built and how cities were managed from the viewpoint of fire prevention; to-day their engineers are among the most skilful in the country and know what constitutes good construction. But the local agents of the different companies were only interested in premiums, not in good building, and they turned heaven and earth to get their companies to accept what everyone knew was a poor risk. What was the consequence? Poorly constructed and ill-protected structures have been insured at such rates that the propagation of their species appeared to be profitable. This condition of affairs prevailed at San Francisco before the fire. A ridiculously low rate was made on buildings there, practically a ninety per cent. frame risk, because San Francisco possessed an excellent fire department. Now that San Francisco, the city of wood, fostered by the insurance companies, has been destroyed, the rates have gone up on everything new and old in that city, in addition to a general increase almost everywhere else. Yet the San Franciscans do not seem to understand that good, sound fireproof construction is the best insurance, even with their city laid in ashes and the horrible lesson of poor building printed in letters of fire before their eyes.

Are they taking steps to prevent such an occurrence in the future? Are they building their structures of steel framing, protected from rust with cement and from fire by hollow tile fire-proofing? Are they cutting off story from story by enclosing elevator and stair wells, so that those conductors of fire may be closed off, and are they taking the other precautions that would render their city immune to the blight that only a year ago almost totally destroyed it? No.

Right there in that city there is a demand for 2,000,000,000 feet of lumber, something like \$40,000,000 worth. What for? For more shoddy, though well-insured, construction, more fuel for the fire that follows the next earthquake.

ILLUSTRATIONS

THE MARYLAND INSTITUTE BUILDING, BALTIMORE, MD. MESSRS. PELL & CORBETT, ARCHITECTS, NEW YORK, N. Y.: FOUR PLATES.

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NOTES AND CLIPPINGS

CONDITION OF THE ALHAMBRA DANGEROUS.—The Governor of Grenada has convened a meeting of experts and prominent citizens to consider immediate steps to preserve the Alhambra, some of the buildings of which, it is declared, are in imminent danger of collapsing. The buildings range in age from about 660 to 550 years. Some of them were damaged by fire in 1890. The condition of decay into which they have fallen has attracted a good deal of attention lately, and the Spanish Government has been criticised for its indifference to their preservation. The poor condition of the building is not due so much to its age as to the bad usage it has received at Christian hands. After Ferdinand had taken Grenada, the Alhambra was greatly defaced. The Spaniards even whitewashed it. Charles V. pulled down the greater part of the "winter palace" to make room for a palace

of his own, which still stands, roofless, very much as he left it. Other changes which were not improvements were made by Philip V. In 1812, when the French occupied it as a fortress, they endeavored to restore parts of the interior, but when they evacuated it they blew up several of its towers in order to destroy the strength of its fortifications. In 1821 a violent earthquake made further inroads upon it, and it was not until 1862 that civilization had so far advanced in Spain as to make possible a true appreciation of its intestimable value. In that year Queen Isabella began the work of restoration, for which the world is in her debt, even though much still remains to be done to preserve it from decay.—*Exchange*.

THE VIRTUE IN THE POINT OF VIEW.—Nature abhors uniformity, and very often a single block of marble contains an infinite variety of color and description of veining. This is all very well where architect and client remember that they are dealing with a natural product; too often they expect a uniformity which can only be obtained by a manufacturing process, or by a slow and tedious method of selection, in which time and cost are items beyond calculation. It is true that greater knowledge is removing many difficulties, but professional opinions upon these points still widely differ. Two practical instances will serve to illustrate the point. In the one case an eminent architect was of the uniform school. Having made a selection of material from a small 4 by 3 sample, he sent the pattern to his clerk-of-the-works with instructions to compare it with every slab sent in fulfillment of the contract, in the full expectation that this would be a satisfactory method of procedure. Just as if marble were a material like cloth or cotton print produced in bulk by machinery, with the utmost precision! Naturally friction and disappointment ensued. A particular tone of color was demanded, which at the time was unobtainable from any quarry in existence. At last in despair the contractor suggested an artificial marble, and submitted a sample of the exact coloring required. It was approved, with the warning that the sample would be compared with every foot of the bulk. There was no difficulty about this, as a material can be manufactured by man with uniformity which nature absolutely refuses to give, and it is to be hoped everyone was satisfied. Quite another experience befell an over-conscientious marble-worker. In this case, his blocks, when sawn, opened out with more than ordinary variations of tone and color. He made a selection, and then ordered a further consignment from the quarry owners. It was winter; the quarries were covered with snow, and roads almost impassable. There was consequent delay, which called forth a furious complaint from the architect. To the explanation that the cause of delay was the difficulty of matching the material came a reply which is characteristic of quite another school of thought. "The reason given," so ran the message, "was no reason for the delay—only an excuse. Do you think I want the hideous uniformity which is some people's idea of beauty? Do you think to please me by doing away with nature's own charming variety?" Heaven forbid! It is not one of the least of the troubles of the worker in the ornamental stones that it is not always possible to discover the exact school of thought to which a customer belongs until the knowledge is gained by practical experience.—*Stone Trades Journal*.

RECENT ARCHÆOLOGICAL FINDS IN ITALY.—Several archæological discoveries of interest are reported from Italy. In Catolica Eraclea, in Sicily, the foundation walls of a magnificent theatre, dating from the Classical age, have been uncovered, and extensive researches have been begun. In Ancora a number of Roman tombs have been found, containing, among other things, two beautiful silver vases, a number of urns, with ashes of cremated persons; gold earrings with smaragd stones. Signor Pellegrini, the director of the Museum at Ancora, believes these finds belong to the third pre-Christian century.—*N. Y. Evening Post*.

TO THE WINDOW-PANE VANDAL.—A window in a Surrey hostelry, says Mr. Hamp, is completely disfigured by numberless autographs of nonentities, and in the middle of the center pane, conspicuous among the maze of signatures, is the following epigram:

"Should you ever chance to see
A man's name writ on glass
Be sure he owns a diamond
And his parents own an ass."



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PROPOSALS.

Treasury Department, Office of the Supervising Architect, Washington, D. C., May 13, 1907.—Sealed proposals will be received at this office until 3 o'clock p. m. on the 11th

PROPOSALS.

day of June, 1907, and then opened, for the steam heating and ventilating apparatus, etc., complete in place, for the U. S. Court House, Custom House and Post Office building at Seattle, Washington, in accordance with drawings and specification, copies of which may be had at this office or at the office of the Superintendent at Seattle, Washington, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1638-1639)

Treasury Department, Office of the Supervising Architect, Washington, D. C., May 13, 1907.—Sealed proposals will be received at this office until 3 o'clock p. m. on the 24th day of June, 1907, and then opened, for the construction (except heating apparatus, and conduit and wiring) of an extension to the U. S. Post Office and Court House building at Ogden, Utah, in accordance with drawings and specifications, copies of which may be had at this office, or at the office of the Custodian at Ogden, Utah, at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1638-1639)

Mexican Trust Company is reported to have filed plans for a four-story brick and stone building which is to be erected at Tenth and Baltimore Streets, at a cost of about \$125,000.

Orient Building Company has not completed plans for new building recently mentioned. Building is to be fireproof, have steam heat, electric elevators and combined lighting; cost, \$650,000; bids to be opened about July 10; H. A. Garvey, manager.

Architect John H. Stein, 8 Claypool Building, Indianapolis, Ind., has prepared plans for a sixteen-story office-building,

PROPOSALS.

Treasury Department, Office of the Supervising Architect, Washington, D. C., May 16, 1907.—Sealed proposals will be received at this office until 3 o'clock p. m. on the 15th day of June, 1907, and then opened, for the construction of new coal bunkers, etc., at the U. S. Mint in Philadelphia, Pennsylvania, in accordance with the drawings and specifications, copies of which may be had at this office or at the office of the Custodian at Philadelphia, Pa., at the discretion of the Supervising Architect.—James Knox Taylor, Supervising Architect. (1639-1640)

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96x115 feet, at the southeast corner of Tenth Street and Grand Avenue, Kansas City, for the Orient Building Company. Estimated cost, \$700,000.

Plans are being prepared by Architects Howe, Hoit & Cutler, Bayard Building, Kansas City, for the new St. Mary's Hospital, at Twenty-eighth and Main Streets. Cost, \$200,000.

LAKE BLUFF, ILL.—The Noel Construction Company, McCulloh and Eutaw Streets, Baltimore, Md., was awarded the general contract for the construction of the ten principal buildings to be built in connection with the Great Lakes Naval Training School at Lake Bluffs, Ill., for the

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Bureau of Navigation, Navy Department, Washington, D. C. The contract price is \$1,500,000. The contract includes the administration building, 225x82 feet; instruction building, 387x120 feet; drill hall, 400x92 feet; mess hall and galley, four dormitories, main guard-house and power-house. They will be two-story, have concrete and pile foundations, be of fireproof reinforced-concrete construction, with steel beams and girders, exteriors of pressed brick, ornamental and plain terra-cotta and stone, have slate and gravel roofs, pressed brick and plaster interiors, and the most approved ventilation and heating systems. Capt. Ross, Lake Bluffs, Ill., will have charge of the work. Secretary of the Navy Metcalf has decided to invite new bids for the remaining buildings, after revised plans, so as to bring their total cost within the balance of the appropriation available, about \$400,000. The buildings yet to be provided for are the prison, galley and laundry, six receiving dormitories, main guard-house and power-house. Architect Jarvis Hunt, Monadnock Block, Chicago, Ill., made the plans.

LITTLE ROCK, ARK.—A bill is stated to have passed second reading in the House, authorizing the appropriation of \$150,000 for the erection of a State Normal School.

H. A. Bowman, it is said, will erect a nine-story office-building on the southeast corner of Fourth and Main Streets. Estimated cost, \$125,000.

LOS ANGELES, CAL.—Morgan & Walls, 232 North Main Street, are stated to have prepared plans for the seven-story building to be erected at Seventh Street and

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St. Vincent Place, at a cost of \$150,000, and also for the seven-story Hart Building, to be erected at Seventh Street and Hill Street, to cost \$300,000.

LOUISVILLE, KY.—A Business Women's Club (Mrs. E. A. Carsey, president), it is said, will be erected here at Walnut Street and Fourth Avenue, at a cost of about \$65,000.

MASON CITY, IA.—H. H. Perkins, chairman Public Building Committee, writes that the proposed City Hall will cost about \$25,000. No architect yet selected.

MENOMINEE, MICH.—Plans are being considered for the new Methodist church by the Rev. W. M. Todd, at a cost of \$50,000.

MERIDEN, CONN.—Bids are asked by James Knox Taylor, Supervising Architect, Washington, D. C., until 3 P. M., June 13, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. Post-office Building at Meriden.

MILWAUKEE, WIS.—Architects Leenhouts & Guthrie, Miller Block, 102 Wisconsin Street, will soon have completed plans for a two-story and basement school building of solid brick construction for the Eleventh District of the city of Milwaukee. Cost, \$72,000.

MINNEAPOLIS, MINN.—The Minnesota Transfer Company will erect a three-story fireproof office-building, a three-stall addition to the roundhouse, a blacksmith shop, three freightsheds, a carpenter-shop and a boilerhouse. Bids for the construction of the buildings will be let soon and work will be pushed as rapidly as possible. The office-building will be fireproof, 100x150, of modern construction in every respect, and cost, probably, \$50,000. M. J. Dooley, superintendent.

MONTEVALLO, ALA.—Reports state that Alabama Girls' Industrial School will have plans prepared by W. E. Spink, Birmingham, Ala., for assembly hall with seating capacity of 1,200, thirty new class-rooms and 128 additional rooms to dormitory. It is also proposed to build new laundry, boiler-rooms, machine-shops and several other structures. Aggregate cost is \$200,000.

MOUNT VERNON, O.—Frank L. Packard, 1212 Hayden Building, Columbus, O., has prepared plans for a three-story administration building, 254x121 feet, one-story power-house and laundry buildings, 55x100 feet, and kitchen and cold storage buildings, to be erected at Mount Vernon for the State Sanatorium Commission, C. O. Probst, President, Columbus.

MUSCATINE, IA.—Plans are being prepared by the members of the First Congregational Church for an addition to the church. Cost, \$50,000.

NEWARK, N. J.—Reports state that definite steps will be taken soon toward the erection of a new edifice for St. John's Episcopal Church on the order of the new Christ Reformed church. It will be located at Lincoln and Elwood Avenues.

School House Committee of the Board of Education has adopted plans of Nathan Myers, 238 Washington Street, for the Manual Training High School, and the plans of Runyan & Carey, 122 Market Street, for heating same. The plans pro-

vide for a four-story terra-cotta and rough brick building, to cost about \$400,000.

NEW LONDON, CONN.—Announcement is made that plans for the new Swedish Congregational church have been practically completed and are in the hands of builders for estimates. Dudley St. Clair Donnelly is architect.

NEW ORLEANS, LA.—The Audubon Hotel Company (Wm. Mason, president), it is stated, will erect a hotel, at a cost of about \$2,000,000.

Jas. Stewart & Co., of New York, N. Y., it is reported, have secured the contract to erect the Union Depot and train-sheds at Canal and Basin Streets for the joint use of the Rock Island, 'Frisco and Southern railroad systems. The cost is stated to be about \$500,000.

Knights of Pythias have organized Damon Castle Hall Company, which is contemplating the erection of temple; to be of mill and steel construction; five stories; cost, \$50,000 to \$75,000. Address P. Werlein, 605 Canal Street.

Diboll & Owen, 215 Baronne Street, have prepared plans for temple to be built by Pythian lodges of New Orleans. Structure will be of brick, five stories high, and cost \$50,000.

NEW YORK, N. Y.—It is reported that plans are being prepared by Hale & Rogers, 11 East Twenty-fourth Street, for the dwelling for E. S. Harkness, at Fifth Avenue and Seventy-fifth Street. Cost, \$500,000.

According to reports, a twenty-story skyscraper, 72x82 feet, is to be erected for Edward Holbrook at 15 to 19 Maiden Lane, to be occupied by Goldsmiths & Silversmiths Company. Estimated cost, \$750,000.

No plans have yet been drawn or architect appointed for the new hospital which the Italian Benevolent Institute, of which Celestino Piva, 20 West Sixteenth Street, is president, will erect on the easterly block front in Thompson Street, between Washington Square south and Third Street, on a plot 209x50 feet and irregular. A. R. Massiglia is the Italian Consul General in New York. The Italian Government has contributed \$60,000 for the endowment of the proposed hospital.

Plans have been prepared by Architects Rouse & Sloan, 11 East Forty-third Street, for an addition to the apartment-building, 175x90 feet, Hendrik Hudson, at Riverside Drive, 111th Street and Broadway. Cost, \$500,000. Previously reported.

Architect W. C. Frohne, 26 East Twenty-first Street, has prepared plans for a twelve-story brick office-building and warehouse at Seventeenth Street, west, at \$415,000.

Reports state that contract for the large house which Geo. J. Gould is to erect on the site of his present residence, a plot of 50 feet, fronting on Fifth Avenue, and 125 feet in Sixty-seventh Street, the northeast corner, has been awarded to the firm of D. C. Weeks & Son, of 289 Fourth Avenue. There will be five stories, the whole exterior being of buff Bedford Indiana limestone, with a base of Milford pink granite. The entrance will be in the center of the building in Sixty-seventh Street. The estimated cost is placed at about \$500,000. Horace Trumbauer, 1408 Land Title Building, Philadelphia, Pa., is the architect.

Kittelplan & Rubinger, 5 Beekman Street, it is stated, will build a six-story flat at 141-143 East Twenty-sixth Street, 48.4x85 feet, to cost \$50,000. L. A. Goldstone, 110 West Thirty-fourth Street, is architect.

Plans have been filed for two three and one-half-story brick, stone and concrete public libraries; one to be erected at 202 West 115th Street, and the other at 9 West 124th Street, at a cost of \$70,000 each for New York Public Library. McKim, Mead & White, 160 Fifth Avenue, architects.

NORTHAMPTON, MASS.—The Trustees of Smith College, it is stated, have decided to erect the following buildings: An assembly hall, to cost \$125,000; a library building, to cost \$125,000, and two residence houses, at a cost of about \$40,000 each.

NORWICH, CONN.—Reports state that \$650,000 has been appropriated by the Senate for the Norwich Hospital for Insane.

NORWOOD, O.—The Board of Directors of the Norwood National Bank, it is stated, has adopted plans for a three-story office-building to be erected at Main and Sherman Avenues, at a cost of \$55,000. Werner & Adkins, of Cincinnati, are the architects.

OAKLAND, CAL.—Plans are being prepared by H. J. Hardenburgh, of New York, N. Y., for a hotel, to cost \$2,000,000.

The Western Pacific Railway Company has decided to begin construction of its terminal at Oakland at once. The work will involve filling a mole 1,000 feet wide between 4,000 and 5,000 feet long, and includes a new station with slip approaches at the western end. The work, which will take about eighteen months to complete, will cost about \$2,500,000. V. G. Bogue, San Francisco, is vice-president and chief engineer.

OELWEIN, IA.—The Catholic congregation is considering the erection of a brick and stone church, to cost \$40,000. Rev. P. S. O'Connor, pastor.

OMAHA, NEB.—Architects Fisher & Lawrie, 212 Paxton Building, have prepared plans for the new office and exchange building, 50x100 feet, for the Independent Telephone Company, near Twentieth and Harney Streets. Estimated cost, \$60,000.

The Sisters of the Good Shepherd are said to be planning improvements to the convent at Fortieth and Jones Streets, at a cost of \$50,000, which will include the erection of a chapel.

Reports state that a ten-story dry goods building will be erected by Hayden Brothers at the corner of Tenth and Dodge Streets. Estimated cost, \$250,000.

Reports state that plans are being considered by the Sisters of Good Shepherd for a chapel at Fortieth and Jones Streets, to cost \$50,000.

OSKALOOSA, IA.—It is reported that a girls' dormitory, costing about \$50,000, is to be erected this summer at Penn College.

PEORIA, ILL.—The School Board is reported to have adopted plans for a high school, to cost \$100,000.

PHILADELPHIA, PA.—The Harn & Hardart Baking Company, 818 Chestnut Street, are proposing the erection of a four-story reinforced-concrete bakery on South Tenth Street, to cost \$125,000.

It is reported that the J. G. Brill Company will erect a \$50,000 steel-iron building at Sixtieth Street and Woodland Avenue.

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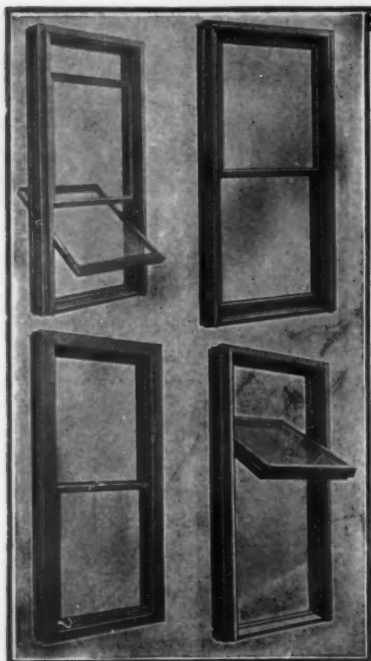
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PITTSFIELD, MASS.—The committee having in charge the erection of a school in the Fourth Ward, it is stated, will ask local architects to submit plans and estimates for an eight-room building.

PLAINFIELD, N. J.—Press reports state that Tucker & Vinton, of New York, N. Y., have secured the contract for constructing the buildings for the proposed plant of the Rushmore Dynamo Company; total cost, \$65,000.

PORTSMOUTH, O.—The members of the Sixth Street Church are said to be planning the erection of a new edifice, to cost \$75,000.

PRINCETON, N. J.—It is reported that \$1,200,000 has been given to Princeton University to erect a physical science laboratory and a biological museum and laboratory; \$600,000 to be divided in each case, \$400,000 for building and \$200,000 for maintenance.

PROVIDENCE, R. I.—It is reported that plans have been completed by Martin & Hall, Union Trust Building, for the new City Hospital wards, to cost \$175,000.

REDWOOD CITY, CAL.—Jos. H. Nash, County Clerk, it is stated, will receive bids up to about July 1 for the erection of a Court-house, to cost about \$150,000. Architect, Glenn Allen, 330 Turk Street, San Francisco.

ROCKFORD, ILL.—It is reported that it is proposed to erect a Y. M. C. A. building, to cost about \$150,000.

ROCKVILLE, CONN.—The trustees of the George Sykes fund of \$100,000 for the erection of a manual training school are report-

ed to be seeking a site. Chas. Phelps is a member of the Board of Trustees.

RUTLAND, VT.—Reid & McAlpin, of Boston, Mass., are reported to be preparing plans for an edifice which is to be erected for the members of the Church of Holy Innocents, which is to cost about \$60,000.

ST. LOUIS, MO.—It is stated that about \$60,000 has been raised by the members of the Episcopal Church of the Ascension with which it is proposed erecting a \$60,000 edifice.

The members of the Wednesday Club Building Association are said to be considering the erection of a building, to cost about \$60,000.

Mauran, Russell & Garden, architects, Chemical Building, St. Louis, are preparing plans and will receive bids at once for a sixteen-story bank and office-building, 150x128 feet, at Broadway and Pine Street, for the National Bank of Commerce. The building will be constructed of brick, stone, terra-cotta and reinforced-concrete. Estimated cost, \$750,000.

The Melrose Building and Investment Company will erect an apartment-house on site 91x213 feet; cost, \$100,000.

Gilbert C. Goodlet, 1005 Chestnut street, it is said, will erect an apartment-building, to cost \$165,000. Plans were prepared by E. Ross Chamblin, 1014 Holland Building.

The Lean-Gould Advertising Company will erect an eight-story building at Washington Avenue and Charles Street, to cost about \$150,000.

ST. PAUL, MINN.—The North American Security Company has been organized and

has authorized Thori, Alban & Fisher, architects, to prepare plans for a hotel which they propose erecting on the northwest corner of St. Peter and Exchange Streets. The plans call for eight-story and deep basement, fireproof steel construction throughout. Cost, \$200,000.

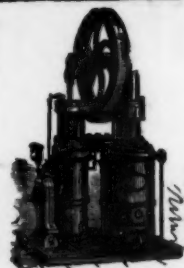
The Legislature, it is said, has authorized \$800,000 in bonds for high schools, and the plan of the board is to erect four new buildings at the same time, dividing the money as follows: For a new high school in the Sixth Ward, \$100,000; for a Security Trust Company, to cost \$150,000, for a new Central high school in the West End, \$350,000; for a new Mechanical Arts high school, centrally located, \$200,000, and whatever the city may realize from the sale to the State of the present Mechanic Arts site. As soon as the bonds are sold, designs will be submitted for these buildings and bids taken.

SALT LAKE CITY, UTAH.—It is said that a new apartment-building will be erected on Second East Street by the Salt Lake Security Trust Company, to cost \$150,000.

SAN ANTONIO, TEX.—Alfred Giles, Soledad Block, is preparing plans for a six-story apartment-house to be erected on Soledad Street for A. J. Appler, to cost about \$60,000.

Plans are being prepared by George Danks, architect, 324 Mermod & Jaccord Building, St. Louis, Mo., for a hotel to be constructed here, to cost about \$500,000.

SAN FRANCISCO, CAL.—Architect H. Barth, 2500 Fillmore Street, it is stated, has prepared plans for a four-story Class



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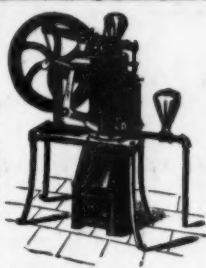
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A building at the southwest corner of Market and Sixth Streets for E. I. Delger. Estimated cost, \$150,000.

Application has been made to the Board of Public Works by James L. Flood, James Flood Building, for a permit to erect a five-story brick building on the north side of Mission Street, between Third and Fourth Streets, at a cost of about \$175,000.

Architect Emil John, Emma Spreckels Building, has prepared plans for a building, 87x137 feet, on Geary Street, between Stockton and Powell Streets, for the Behlow estate. Estimated cost, \$150,000.

Edward Rolkin, Oak and Stanyan Streets, has applied to the Board of Works for a permit to build a five-story and basement brick hotel building containing 600 rooms on the corner of Larkin and McAllister Streets, at a cost of \$300,000. M. J. Lyon, 919 Ellis Street, is architect.

SEATTLE, WASH.—Bids are asked until 3 P. M., June 11, by James Knox Taylor, Supervising Architect, Washington, D. C., for installing steam heating and ventilating apparatus, complete, in the U. S. Court-house, Custom-house and Post-office building at Seattle.

A. Warren Gould, Arcade Building, is said to be preparing plans for a seven-story concrete building on Railroad Avenue and Main Street, to be erected by the Guffney heirs and I. M. Buttnick, at a cost of \$100,000.

The Trustee Company, it is stated, intends erecting a six or eight-story steel building, to cost about \$500,000.

SIoux FALLS, IA.—It is reported that the English Lutheran Society intends erecting a new church, to cost \$50,000.

SOUTH BEND, IND.—It is stated that the Studebaker Bros. Mfg. Co. have ordered plans for a \$250,000 office-building and repository, to be of pressed brick, four stories high, 120x344 feet, fireproof construction, oak finish with maple floors. S. M. Beman, Chicago, Ill., architect.

SPOKANE, WASH.—R. B. Paterson will expend \$100,000 in the erection of a six-story brick and steel building, 142x150 feet, at Lincoln and Railroad Avenue, for jobbing and manufacturing purposes. The company will also build a structure, 56x142 feet, five-story, of steel and brick, to cost \$125,000, at Wall Street, between Main and Riverside Avenue.

It is said that the money has been raised for St. John's Cathedral Institute, Jackson and Martin Streets. Very Rev. J. J. Keogh, pastor, and Bueming & Dick, architects,

521 Jackson Street, are drawing plans for the \$150,000 structure.

The First Presbyterian Church has bought a site, 50x142, at Fourth Avenue and Lincoln Street, and will erect a building, to cost \$100,000. William Burnes, chairman building committee.

Kirchoff & Rose, architects, 201 Grand Avenue, it is said, have let contracts for the \$1,500,000 theatre and office-building to be erected by the Schlitz Brewing Company, Third Street and Grand Avenue, to Griffiths & Sons, Chicago.

Charles H. Reeves, it is said, is planning to erect a six-story business building at Main Avenue and Washington Street, to cost more than \$100,000.

The Holy Trinity Episcopal Church is planning the erection of a stone church. Cost, \$60,000.

Reports state that the Puget Sound Realty Association will erect a twelve-story fireproof building, to cost from \$275,000 to \$450,000.

J. K. Dow, Empire State Building, and Preusse & Zittel, Jameson Building, architects, have been appointed by the Washington State Board of Control to prepare plans for all East Side public buildings to be erected as provided for at the last session of the Washington Legislature. The appropriations for these buildings amount to \$680,000.

STOCKTON, CAL.—Plans have been prepared for an eight-story building for the Stockton Savings and Loan Society Bank, at the corner of San Joaquin and Main Streets. Estimated cost, \$200,000.

STORRS, CONN.—The appropriating of \$50,000 for the erection of a horticultural building and greenhouses at the Connecticut Agricultural College is reported under consideration.

TACOMA, WASH.—It is stated that bids are wanted until July 15 for erecting a six-story, 70x120-foot, pressed-brick, local stone and marble Y. M. C. A. building; probable cost, \$100,000. G. W. Bullard, architect, Provident Building.

TOLEDO, O.—The Columbia Construction Company, of Cleveland, is reported to have secured the contract to erect an addition to the Scottwood apartment-house on Monroe Street, to cost about \$125,000.

TORONTO, ONT.—Carrere & Hastings, of New York, N. Y., are reported to have been engaged to prepare plans for the bank building to be erected on King Street by the Royal Bank, and Norcross Bros., of Worcester, Mass., are stated to have received the contract for construction. The build-

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ing is to be six stories high and is to cost about \$200,000.

The J. F. Brown Company, it is stated, intends erecting a six-story brick and steel building on Parliament and Queen Streets, to cost \$50,000.

URBANA, ILL.—A bill is reported to have passed the House and Senate appropriating \$55,000 for the erection of additional buildings for the University of Illinois.

WASHINGTON, D. C.—Church of Pilgrims (J. W. Frizzell, pastor) will have new plans prepared by James H. Warner, architect, Thirteenth and F Street, northwest, for its new church building which is to be erected at corner Massachusetts Avenue and B Street, northeast; cost, about \$50,000.

North Presbyterian Church, N Street, between Ninth and Tenth Streets, northwest, will erect a new church building, to cost about \$50,000. L. Cabell Williamson, chairman of building committee, 458 Louisiana Avenue, northwest.

WATERTOWN, N. Y.—German Evangelical Lutheran Concordia Church Society will erect a church edifice. Address Rev. Yost Brent.

WATERVILLE, ME.—Plans are being prepared by Architects H. L. Gilman & Co. for a seven-story cordage factory, 100x1,300 feet, for the International Fiber Company. The building will be of reinforced-concrete construction, and cost \$1,500,000.

WEBSTER CITY, IA.—Bids are asked until 3 P. M., June 17, by James Knox Taylor, Supervising Architect, for constructing, complete, the proposed U. S. Post-office at Webster City.

WICHITA, KAN.—Bids are asked by James Knox Taylor, Supervising Architect, Washington, D. C., until 3 P. M., June 6, for construction, complete, of the extension to U. S. Post-office and Court-house at Wichita.



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Classified Index to Advertisements

(FOR ALPHABETICAL LIST SEE PAGE 42)

- | | | | |
|---|--|--|--|
| <p>AIR DIFFUSERS.
New York Blower Co., Chicago....</p> <p>ARCHITECTURAL ORNAMENTS.
Emmel, Charles, Boston....
Knoche & Steves, Cincinnati, Ohio....
Plastic Relief Mfg. Co., Chicago, Ill....</p> <p>ARTIFICIAL MARBLE.
Mycenian Marble Co., New York....</p> <p>ASPHALT.
Barber Asphalt Paving Co., Philadelphia, Pa....
Neuchatel Asphalt Co., New York....</p> <p>ASPHALT ROOFING.
Barber Asphalt Paving Co., Philadelphia....
Bird, F. W., & Son, East Walpole, Mass....</p> <p>BRONZEWORX (Ornamental).
Gorham Mfg. Co., New York....
Jackson, Wm. H., Co., New York....
Winslow Bros. Co., The, Chicago, Ill....</p> <p>CAPITALS AND COLUMNS.
Hartmann Bros. Mfg. Co., Mount Vernon, N. Y....</p> <p>CARPETS, RUGS.
W. & J. Sloane, New York....</p> <p>CEMENT.
Alsen's Cement Works, New York....
Atlas Cement Co., New York....
Chicago Portland Cement Co., Chicago....
St. Louis Portland Cement Co., St. Louis, Mo....
Universal Portland Cement Co., Chicago....</p> <p>CHIMNEYS.
Weber Steel Concrete Chimney Co., Chicago, Ill....</p> <p>COAL CHUTES.
Chappell Furnace Co., Morenci, Mich....</p> <p>COLUMNS (Lock Joint).
Hartmann Bros. Mfg. Co., Mount Vernon, N. Y....</p> <p>CONCRETE PILING.
Ailing Construction Co., Chicago....
Corrugated Concrete Pile Co., New York....
Engineering-Contracting Co., Baltimore....
Miller, William L., Boston....
Raymond Concrete Pile Co., Chicago, Ill....</p> <p>CORDAGE.
Samson Cordage Works, Boston....</p> <p>CORRESPONDENCE SCHOOLS.
American School of Correspondence, Chicago....</p> <p>DETAIL PAPER.
Mittineague Paper Co., Mittineague, Mass....</p> <p>DOORS (Inlaid Wood).
E. J. Davis Mfg. Co., Chicago....</p> <p>DOORS (Fireproof Metal-covered).
Thorp Fire Proof Door Co., Minneapolis, Minn....</p> | <p>DRAUGHTSMEN'S SUPPLIES.
Favor, Ruhl & Co., New York....
Schumann, E. G., New York....</p> <p>ELECTRIC SIGNALS.
Elevator Supply & Repair Co., New York....</p> <p>ELEVATORS, ETC.
Otis Elevator Co., New York....</p> <p>ENGINES (Hot Air).
Rider-Ericsson Engine Co., New York....</p> <p>EXPANDED METAL.
Associated Expanded Metal Co., New York....
Expanded Metal & Corrugated Bar Co., St. Louis....</p> <p>FILTERS.
Loomis-Manning Filter Co., Philadelphia, Pa....</p> <p>FIREPROOFING.
Associated Expanded Metal Co., New York....
Clinton Wire Cloth Co., Clinton, Mass....
Expanded Metal and Corrugated Bar Co., St. Louis....
Gilbreth, Frank B., New York....
Imperial Expanded Metal Co., Chicago....
National Fireproofing Co., Pittsburgh, Pa....</p> <p>FIREPROOF LATHING.
Hayes, Geo., New York....</p> <p>FLOOR POLISH.
Butcher Polish Co., Boston....</p> <p>GLASS GLOBES.
Holophane Glass Co., New York....</p> <p>GRATES, MANTELS, ETC.
Wm. H. Jackson Co., New York....</p> <p>HARDWARE.
Stanley Works, New Britain, Conn....
Yale & Towne Mfg. Co., Stamford Conn....</p> <p>HEATING APPARATUS (Hot Water).
Gurney Heater Mfg. Co., Boston....
H. B. Smith Co., New York....</p> <p>HEATING APPARATUS (Steam).
Smith Co., H. B., New York....</p> <p>INSULATED WIRE.
The Okonite Co. (Ltd.), N. Y....</p> <p>INTERLOCKING RUBBER TILING.
See Tiles (Interlocking Rubber)....</p> <p>IRONWORK (Ornamental).
Jackson, Wm. H., Co., New York....
W. H. Mullins Co., Salem, Ohio....
Winslow Bros. Co., The, Chicago, Ill....</p> <p>LAUNDRY MACHINERY.
Troy Laundry Machinery Co., Troy, N. Y....</p> <p>LIGHTNING RODS.
T. W. Jones, New York....</p> <p>MAIL CHUTES.
Cutler Mfg. Co., Rochester, N. Y....
U. S. Mail Chute Equipment Co., St. Louis, Mo....</p> <p>MARBLE-WORKERS.
Batterson & Eisele, New York....
The Robert C. Fisher Co., New York....</p> | <p>METAL CEILING.
The Berger Mfg. Co., Canton, Ohio....
W. H. Mullins Co., Salem, Ohio....
See also Fireproofing....</p> <p>METAL LATHING.
American Rolling Mill Co., Middletown, Ohio....
G. Hayes, New York....
Truss Metal Lath Co., New York....</p> <p>MINERAL WOOL.
U. S. Mineral Wool Co., New York....</p> <p>MORTAR COLORS.
Sam'l. H. French & Co., Philadelphia, Pa....</p> <p>PAINT.
Joseph Dixon Crucible Co., Jersey City, N. J....
Keystone Varnish Co., Brooklyn, N. Y....
National Lead Co., New York....</p> <p>PHOTOGRAPHS.
J. W. Taylor, Chicago, Ill....</p> <p>PLASTER ORNAMENTS.
Samuel H. French & Co., Philadelphia, Pa....</p> <p>PLUMBING GOODS.
Standard Sanitary Mfg. Co., Pittsburgh, Pa....
Wolff, L., Mfg. Co., Chicago....</p> <p>PNEUMATIC TANKS.
Kewanee Water Supply Co., Kewanee, Ill....</p> <p>PRISM LIGHTING.
American Luxfer Prism Co., Chicago....
Holophane Glass Co., New York....</p> <p>PUMPS.
Rider-Ericsson Engine Co., New York....</p> <p>REFLECTORS.
I. P. Frink, New York....
Holophane Glass Co., New York....</p> <p>REINFORCED CONCRETE.
Clinton Wire Cloth Co., Clinton, Mass....
Expanded Metal and Corrugated Bar Co., St. Louis....
Gabriel Concrete Steel Co., Detroit, Mich....
Gilbreth, Frank B., New York....
Trussed Concrete Steel Co., Detroit....
Turner Construction Co., New York....
Underwriters' Engineering and Construction Co., New York....
W. N. Wright & Co., New York....</p> <p>ROOFING MATERIALS.
American Sheet & Tin Plate Co., Pittsburgh....
Barber Asphalt Paving Co., Philadelphia....
Bird, F. W. & Son, East Walpole, Mass....
Keasbey & Mattison Co., Ambler, Pa....
See also Asphalt Roofing....</p> <p>SASH-CORD.
Samson Cordage Works, Boston....</p> <p>SCHOOLS OF ARCHITECTURE.
Lawrence Scientific School, Harvard University, Cambridge, Mass....</p> | <p>Massachusetts Institute of Technology, Boston....
Ohio State University, Columbus, Ohio....
Society of Beaux-Arts Architects, The, New York....
University of Michigan, Ann Arbor....
University of Pennsylvania, Philadelphia, Pa....
Washington University School of Engineering and Architecture, St. Louis, Mo....</p> <p>SHEET-METAL WORK.
Berger Mfg. Co., Canton, O....
W. H. Mullins Co., Salem, O....
J. S. Thorn Co., Philadelphia, Pa....</p> <p>SKYLIGHTS, ETC.
Burt Mfg. Co., Akron, Ohio....
George Hayes, New York....
W. H. Mullins Co., Salem, O....
Vaile & Young, Baltimore, Md....</p> <p>STAIR TREAD.
American Mason Safety Tread Co., Boston....</p> <p>SUN DIALS.
Sun Dial, Pittsburg, Pa....</p> <p>TAPES AND RULES.
Lufkin Rule Co., Saginaw, Mich....</p> <p>TERRA-COTTA.
The Northwestern Terra-Cotta Co., Chicago, Ill....</p> <p>TILES.
Information Bureau of Tile Industry Washington, D. C....
Jackson, Wm. H., Co., New York....</p> <p>TILES (Interlocking Rubber).
N. Y. Belting and Packing Co., Ltd., New York....
Pennsylvania Rubber Co., Jeannette, Pa....</p> <p>TIN AND TERNE PLATES.
American Sheet & Tin Plate Co., Pittsburg....</p> <p>VACUUM CLEANING.
General Compressed Air & Vacuum Machinery Co., St. Louis, Mo....</p> <p>VALVES AND PACKING.
Jenkins Bros., New York....</p> <p>VENTILATING APPARATUS.
New York Blower Co., Chicago....
Thomas & Smith, Chicago....</p> <p>VENTILATORS.
Burt Mfg. Co., Akron, Ohio....
Globe Ventilator Co., Troy, N. Y....</p> <p>WATER HEATERS.
Monarch Heater Co., Pittsburg, Pa....</p> <p>WATERPROOFING.
E. J. Winslow Co., Chicago....</p> <p>WATER SUPPLY SYSTEMS.
Kewanee Water Supply Co., Kewanee, Ill....</p> <p>WEATHER VANES.
T. W. Jones, New York....</p> <p>WINDOW LINE.
Samson Cordage Works, Boston....</p> <p>WIRE GLASS WINDOWS.
George Hayes, New York, N. Y....
James A. Miller & Bro., Chicago, Ill....</p> |
|---|--|--|--|