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A NEW German charity ought to be imitated in this country without delay. Every one knows that the Germans now lead the world in the struggle against tuberculous diseases; and, not content with the so-called "closed sanatoria," now more than a hundred in number, which devote themselves exclusively to the treatment of tuberculous patients in the curable stages, they have, to a great extent through the enthusiasm and energy of General von Pannwitz, Surgeon-General of the Army, adopted an auxiliary scheme, which seems destined to be of immense value. With the help of a committee of ladies, and other charitably-disposed persons, a movement has been started in Berlin for the establishment of what may be called day-sanatoria. The Municipal Government has aided the work by giving permission for the occupancy of certain tracts in the public forests in the neighborhood of the city. These tracts, which are not of large extent, are enclosed by a wire fence, with a gate, and within the enclosure are erected shelters for patients, and offices, cooking and administration rooms for the nurses, superintendent and servants. In the five establishments now open the average cost of fencing and buildings, including seats and other fittings, and drainage and water-supply, has been only about eight hundred dollars each. Each establishment is near some tramway line, so that patients may not be fatigued with walking. Every morning, from early spring until late autumn, a special car receives patients for the establishment which the line serves, takes them to their destinations, and brings them back in the evening. Two of the "cures" already in operation are for men, two for women, and one for children, and the special cars, with the patients, take as many as are needed of the volunteer nurses who manage the establishment. Arriving at the wire enclosure, each patient is registered, examined at regular intervals, and dismissed, to find rest and recreation in the shade of the trees, under the shelters, or in the sunshine, according to the weather. There are books and newspapers for those who wish to read, and games for the children, besides a mild sociability for all. Three times during the day each patient has a suitable meal, well-cooked and abundant, each establishment having its own dairy for furnishing the milk which forms a large part of the nourishment. Before the evening air becomes chilly, the special car is again brought into requisition; and, punctually at eight o'clock, the patients are returned to their starting-point, where those too young or too weak to take care of themselves are received by their friends. Admission to the special cars, and to the grounds, can be gained only by presentation of an order, signed by a known physician. The order is good for a single day, and is taken up at the gate, so that the patients are easily traced and recorded. A small charge is made for transportation, and for each meal; but various charitable societies arrange to hold themselves responsible for a given number of meal and transportation tickets, so that treatment is practically free for all who are unable or even unwilling to pay for it. The skilled service of the nurses, physicians and attendants is all volunteer, many members of the most distinguished families in Berlin taking part in it with enthusiasm; and the expenses of management are met by the ticket system. As the first of these establishments were opened only about a year ago, it is too soon to speak with certainty on the effects of the treatment; but no one who has seen how a tuberculous patient, who had been racked with cough in an ordinary room, becomes comfortable and quiet in the open air, can doubt the value of twelve hours of rest in a pure atmosphere every day for the sufferers in city tenements. At present, about five hundred patients a day are treated in the five "cures" near Berlin, and an incalculable benefit is thus conferred on a great number of poor families, who are unable to care properly for their sick members, and must, without such assistance, see them pine away and die, when, by proper means, they might easily be restored to health; while the patients themselves, instructed in the means of preventing infection, and convinced, by experience, of the value of hygiene and fresh air, become, later, missionaries of the gospel of cleanliness and care.

TO those who have seen, as any one can who goes about the poorer quarters of our cities in summer, sick girls laid on the doorsteps of a tenement-house, for want of any other place to give them a little fresh air, the example of Berlin appeals with peculiar force. Our summer climate is far more oppressive than that of Berlin, our streets are dirtier, our rivers more polluted, and the air of our cities more loaded with dust and effluvium; while, at the same time, we have the finest parks, and the best and most rapid urban transportation, in the world. The people of Berlin have taught us how to make one correct, to a certain extent, the other; and it is hardly possible that, if the attention of the medical profession, and of charitable persons, were once called to the matter, their example should not be followed. In Boston, more particularly, which has, in its magnificent Metropolitan Park System, scores of places exactly suited to such treatment, and offering, what cannot be found in Berlin, a choice of seaside and elevated inland localities, all served by a system of electric railways unrivalled for convenience, such day-sanatoria could be established and put in service in a few weeks; and as, in Boston, one person out of every family, on an average, dies of consumption, while many others suffer from tuberculosis in different forms, the need of them is too obvious to require comment. It is an old proverb that what is everybody's business is nobody's business, and it is, at least, conceivable that, while all the charitable people were waiting for each other to begin, nothing would be done; and it is not impossible that the Children's Hospital might, most properly, set the example. The Children's Hospital has an immense number of out-patients, who cannot properly be received into its wards, or even its convalescent home, crowded, as both are, with cases needing closer attention, but who would be very greatly benefited by simple hygienic treatment. Among them must be multitudes of children in the incipient stages of tuberculosis, who could be easily cured by proper regimen, but who, under present circumstances, are condemned to certain death. The Children's Hospital has plenty of friends who are glad to have the way pointed out to them for doing good with a sum of money not unreasonably large, and eight hundred dollars for an open-air sanatorium, to take care of a hundred children a day, ought to be easily raised. It can hardly be doubted that the Metropolitan Park Commission would permit the temporary use of a portion of the Blue Hill or Prospect Hill reservations, which would probably be the most desirable for the city children. Either of these is easily accessible by electric cars, is not too far from the city, and is free from dust and smoke; and the transportation of patients, furnished with orders from the Hospital physicians, would be an easy matter. The doubtful part would, perhaps, be the enlistment of volunteers to care for the young patients, but Boston has never yet suffered from the lack of people willing to devote their time to doing good; and it may be remembered that the open air would be good for the nurses, as well as the children, and that many a devoted worker in the day-nurseries and children's missions would have her life prolonged by being transferred to the new service.

ONE of the most promising steps yet taken in regard to the housing of the poor seems to be indicated in the decision of the City and Suburban Homes Company, in New York, to offer its services as manager of tenement property belonging

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to outside parties. The Company itself, under the direction of Messrs. R. Fulton Cutting, Adrian Iselin, Jr., D. O. Mills and E. R. L. Gould, has invested a large sum in model tenements, from which it derives a reasonable income, its dividends being at the rate of four per cent. In the care of its buildings, which, as is shown by its financial statement, have been efficiently and economically administered, it has trained a number of persons, whose experience, and knowledge of the needs of poor tenants, could not but be of value to other owners, and it is probable that their services will be eagerly sought. In many cases, the abuses which exist in tenement-houses proceed less from the selfishness of their owners than from their inability, or unwillingness, to spend their time in personal visits to their rather unattractive tenants. Owners of such property often deplore their inability to care for it themselves, and the salary of a regular janitor or agent cannot often be afforded out of the income from a single house. For people of this kind the opportunity to get good, honest and efficient supervision at a reasonable rate will be very welcome.

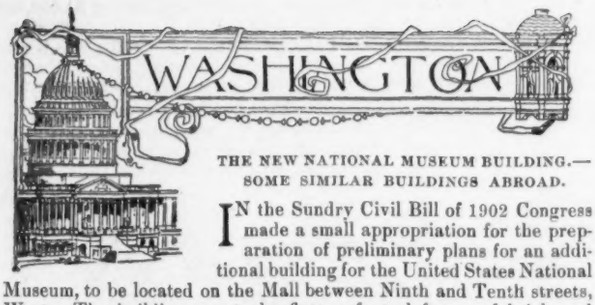
THE arrest of a walking-delegate in New York, charged with extortion, on account of having demanded and obtained money from various persons, in consideration of forbearing to order strikes on buildings in which they were interested, marks, probably, the beginning of a new era in labor matters in the city. For the first time in years, the victims of the systematic robbery practised in the name of the labor unions have dared to resist, and no one, we venture to say, will be more surprised at the developments which are likely to accompany the trial than the honest and industrious men whom their rascally leaders have swindled as shamelessly as they have their employers. An indication of the vast extension of the system of blackmailing and corruption carried on under the name of the labor organizations is to be found in the fact that the notorious Police Commissioner, Devery, who is believed to have made half a million dollars by extortion from criminals, as the price of "protection," came forward theatrically as bondsman for the accused delegate; and it is alleged that Devery, who, as is known, intends to stand as a candidate for Mayor next autumn, in opposition to Mr. Low, had arranged to join forces with Mr. Parks, whose ambition was to be elected President of the Borough of Manhattan, in place of Mr. Cantor. Even in New York it is unusual to select candidates from the jails for high public office; and, with the help of political rivalry, it seems likely that labor affairs in New York will receive, within the next few months, a much-needed investigation. Meanwhile, the architects, who do not pretend to take part in the struggles of the great, may find comfort in the indication which they give as to the proper method of dealing with the people who haunt their offices, demanding "subscriptions" or "assistance" for various labor organizations, in order to "prevent trouble."

MR. DEMETRIUS KALOPOTHAKES, a well-known student of archæology in the American schools, writes an interesting letter to the New York *Evening Post* on the excavations made by the French at Delphi, which have just been terminated by the expiration of their ten years' concession. It may be mentioned that the concession was offered first to the Americans, and was held under consideration by them for nearly a year before it was abandoned, in consequence of the difficulty of raising the money needed for excavation. Being next offered to the French, the Government interposed to assure the funds required, and the brilliant results of the work have fully justified its action, and have cast honor on France. An immense number of votive offerings have been brought to light, including many works of art of the greatest beauty; while the Treasury of the Athenians, in which were kept the offerings from Athens, although ruined, is so far complete, even in its fragmentary condition, that it is to be rebuilt. It is interesting to learn that the so-called Altar of the Chians, which was dedicated in the fifth century B. C., and stood directly in front of the Sanctuary of Apollo, stood, unquestionably, on the site of much earlier altars; for, on excavating around it, fragments of pottery dating back to, and including, the Mycenæan period, were found, mixed with ashes and votive offerings. The adyton, or Chamber of the Oracle, a subterranean cavity under the floor of the great temple, from which the priestess of Apollo delivered her inspired messages, still remains. It was once supposed that the adyton was filled with an intoxicating gas, which issued from the earth, and that the priestess spoke under its influence; but no trace of the gas which, for more than a thousand years, inspired words that made kings tremble on their thrones, and caused the temple precinct to be considered the centre of the earth, can now be perceived. Mr. Kalopothakes compares the influence of the Delphic Oracle in antiquity to that of the Church of Rome in the Middle Ages; but the Roman Church worked upon the world through a host of intelligent and devoted monks, while the Oracle of Apollo disdained such agents, and delivered its fateful messages only to those who sought it with humility at its own shrine.

ONE of the most remarkable of the wonderful bridges which have been built within a few years in the South of France is the new viaduct of the Viaur, on the line from Carmaux to Rodez. This structure is a cantilever bridge of a very simple type, the lower portion forming an arch across the valley of the Viaur, with a half arch on each side, joining the stone abutments, while the upper chord is level, the two chords being connected by verticals and diagonals of latticework, and resistance to wind-pressure being obtained by spreading the cantilevers apart at the bottom. Light and simple as the structure is, the dimensions are somewhat startling, the clear span of the central arch being seven hundred and fifteen feet, while the vertical distance from the underside of the arch, at the key, to the river below is nearly four hundred feet. The total cost of the bridge, which is thirteen hundred and thirty feet long, between abutments, was less than two hundred and fifty thousand dollars.

A VERY curious investigation is going on in Paris. The French Minister of Finance, in casting about for means of increasing the national revenues, has in view an income-tax; but, as an income-tax is very unpopular in France, on account of the inquiry which it implies into the private affairs of the taxpayers, he contemplates an indirect tax, basing the official estimate of the income of each inhabitant on the rental value of the dwelling which he occupies. Anything less accurately indicative of a person's income than this it would be difficult, in this country, to conceive; but it is possible that, in France, the proportion may be more definite. However that may be, a controversy has arisen over the average income of workingmen, living in the poorest class of tenements, for which they pay one hundred dollars a year or less. It has been assumed that the average annual income of the inhabitant of a tenement of this kind was five and one-half times the rent; or, in other words, that the Parisian workingman paid eighteen per cent of his income for rent. M. Leroy-Beaulieu, an excellent authority, thinks that this estimate underrates the earning capacity of workingmen, and that their average income is more nearly seven times their rent. If this estimate were correct, workingmen in Paris are better off than those almost anywhere else in the world. Statistics of workingmen's incomes are hard to get, for the reason that the unions, while cheerfully giving out details of the union rate of wages, never have anything to say as to the number of days or hours that their members are employed during the year; and it was officially ascertained, not long ago, that the average income of the carpenters in the city of Milwaukee, where the union schedule of wages is very high, and where living is expensive, was not over five hundred dollars a year. If, therefore, a Parisian carpenter, paying two dollars a week for his tenement, really has an income of more than seven hundred dollars a year, he is far better off, in consideration of the prices of living in Paris, and the numberless economies which he is enabled to make, than his brother in Milwaukee; and, even with the same income as the Milwaukee man, he would be much more comfortable.

THE people who have still a fancy for investing money in gold mines should take a look at Siberia, which, with Northern China, seems destined to be the great gold-producing country of the world. Up to the year 1900, Russia and Siberia together had already produced twelve hundred million dollars' worth of gold, and exploration of Siberia has hardly begun. Until within a year or so there was nothing like systematic working of any Siberian gold mine, the gold being extracted by the most primitive methods of placer-washing. Naturally, some of the placers have ceased to yield gold to the hand-rocked cradle of the native miner, but American hydraulic engines should reach the deepest and richest deposits of the placers themselves, while the auriferous rock from which the placers have been supplied remains untouched, waiting for the stamp mill and the amalgamating table to extract their riches.



THE NEW NATIONAL MUSEUM BUILDING.— SOME SIMILAR BUILDINGS ABROAD.

IN the Sundry Civil Bill of 1902 Congress made a small appropriation for the preparation of preliminary plans for an additional building for the United States National Museum, to be located on the Mall between Ninth and Tenth streets, West. The building was to be fireproof, steel frame, of brick and terra-cotta, and to cost $1,500,000.

The Secretary of the Smithsonian Institution, empowered to have these plans prepared under his direction, commissioned the firm of Hornblower & Marshall, of this city, who are also the architects of the U. S. Custom-house now building in Baltimore, to make them. These gentlemen, after extensive study of museums at home and abroad, worked out and delivered the tentative plans which are, by their courtesy, printed with this letter, and which were submitted to Congress in January last, with certain explanations by Secretary Langley, from which an extract follows: —

"The plan contemplates a rectangular building, about 486 feet front by about 345 feet deep and about 80 feet high, including the basement. The building is designed for four floors, and will afford about 400,000 square feet of floor-space, the first and second floors to be used for exhibition, the basement and upper floor for storage, workrooms, and other purposes necessary to the conduct of a museum. It could be erected in substantial form as a fireproof building for a sum not exceeding $3,000,000.

"The plan has been designed in such manner that approximately one-half of the building could be constructed at once, presenting the appearance of a completed building and suitable for the Museum needs.

"This half would consist of the main, or south, wing and the middle wing, and is exhibited in a separate drawing. While it would in no way provide for the growth of the Museum, it would relieve the present congested condition of the exhibition-halls, render possible a proper classification of the reserve collections, and remove the necessity of employing any rented buildings.

"The plan of the building has been drawn after a study of all important existing museums, both in this country and abroad, and embodies their useful features and avoids defects which have been revealed in the course of time. It is expected that, should this building be authorized, it would be superior for museum purposes to any building in this country or abroad, and it is respectfully recommended that the sum of $1,500,000 be appropriated for the construction of substantially so much of the building as is exhibited in Plan B."

In an appendix to this report Secretary Langley submits information concerning the national collections and their needs, and some interesting comparative statements as to size and cost of some of the great museums in Europe and of the American Museum of Natural History in New York, and refers to a collection of detailed plans of many of these which will be at the disposition of the architects in the preparation of working-plans for the new Museum. The National Institute of 1840, established in consonance with the terms of the Smithson bequest, became inactive upon the organization of the Smithsonian Institution, founded by Act of Congress in 1846, through which Act originated the United States National Museum. In a few years after its completion all available space in the Smithsonian Building was occupied.

A vast amount of material from the Centennial Exhibition of 1876, at Philadelphia, was donated to the Government which, for lack of exhibition-space, remained in great part stored in boxes until the present Museum Building was completed in 1881. This building measures 325 feet square, and was erected at the moderate cost of $250,000. It was filled in a few years. For exhibition of collections it has been fairly satisfactory; in other respects, for workrooms, storage and administration, inadequate. Several buildings are now rented for storage of collections, which remain in packing-cases, and for shops and laboratories.

The growth of the collections coming into the Museum, in accordance with the Act of Congress of 1880, from the Coast Survey, the Geological Survey, the Fish Commission, the Bureau of American Ethnology and the Department of Agriculture, and their increase by private donation, exchange and purchase, have "built up a museum of record which, in regard to the country it represents and the field it covers, is probably not equalled in extent or value at any other capital in the world."

The scope of the Museum covers all the sciences and arts which admit of museum treatment. It is best represented in the subjects of American ethnology and archæology, geology, zoölogy and botany. A beginning has been made upon the industrial arts and American history, and these collections are expected to increase rapidly by donation, when room is provided. The fine-arts make as yet a meagre showing.

The National Museum now occupies 238,689 square feet of floor-space, made up of 51,998 square feet in the Smithsonian Building, 143,488 square feet in the Museum Building, and 43,203 square feet in outside buildings.

The Secretary reports conditions of the several buildings which are "deplorable for the National Museum of a great country." And it may not be out of place to interpolate here that similar deplorable conditions exist and have gone on for years in other departments of the Government, a state of things which is utterly without reason, and, outside of politics, not to be understood. Valuable collections remain packed away and inaccessible in insecure buildings. The exhibition-halls of the present Museum are overcrowded, so that effective view of exhibits is impossible. To properly display even the present contents of the halls would require one-half to two-thirds more space. Reserve storage, workrooms and offices are lacking. Access to specimens, study and classification are impossible. Conditions are similar in the Smithsonian Building.

Much of the work of the Museum has been going on in outside quarters partly rented. Immensely valuable collections are stored in wooden sheds, the Marsh collection of fossils among them.

The National Museum wants a great increase of space and of space better adapted to its functions. A series of large halls is needed for the exhibition collections, in order to realize their educational value to the public. The record collections, the reserve or study series, comprising the bulk of material in most branches, derived from the Government surveys of the past sixty years and standing for a large output of public money, need arrangement to be got at. The work of the Museum demands proper laboratories for classification and research, and workshops for preparing specimens.

A function of the Museum is to provide facilities for investigators, and space is wanting for that purpose. Space also is wanted for the library, for a lecture-hall, for the heating-plant, for public-comfort rooms, and, finally, for future growth.

Much material of value has been necessarily declined or left unsought for years past because of lack of room. The Museum has grown in late years mainly from the material which the several enactments assign to its care.

The branch of Arts and Industries has suffered most, from a lack of space which has practically stopped its growth. The Secretary desires to make these features among the most important of the national collections. In sum, the report shows the need of about three times the amount of floor-space the Museum now has, or about 487,000 additional square feet to be provided in a new building.

In several plans it was tried, without success, to reconcile the needs of the Museum with the 1902 appropriation of $1,500,000. The last one, of the smallest building thought advisable to recommend, the plan herewith, was presented to the last Congress with the fortunate result that a bill was passed as follows: —

"To enable the Regents of the Smithsonian Institution to commence the erection of a suitable fireproof building with granite fronts, for the use of the National Museum, to be erected on the north side of the Mall between Ninth and Twelfth streets, Northwest, substantially in accordance with the Plan A prepared and submitted to Congress . . . under the provisions of the Act approved June 28, 1902, $250,000. Said building complete, including heating and ventilating apparatus and elevators, shall cost not to exceed $3,500,000, and a contract or contracts for its completion are hereby authorized to be entered into subject to appropriations to be made by Congress. The construction shall be in charge of Bernard R. Green, Superintendent of Buildings and Grounds, Library of Congress, who shall make the contracts herein authorized and disburse all appropriations made for the work, and shall receive as full compensation for his services hereunder the sum of $2,000 annually, in addition to his present salary, to be paid out of said appropriation."

The building — Plan A — will have a front of about 486 feet and a depth of 345 feet, and the front will be about 70 feet high from the ground-line. It will contain two open courts, each of something over 15,000 square feet. There will be four floors. The first and second floors will contain the public exhibition-halls, the basement and upper floors being assigned to the other purposes of the Museum, "an approximately equal division of the space between the public halls and the other requirements of the Museum."

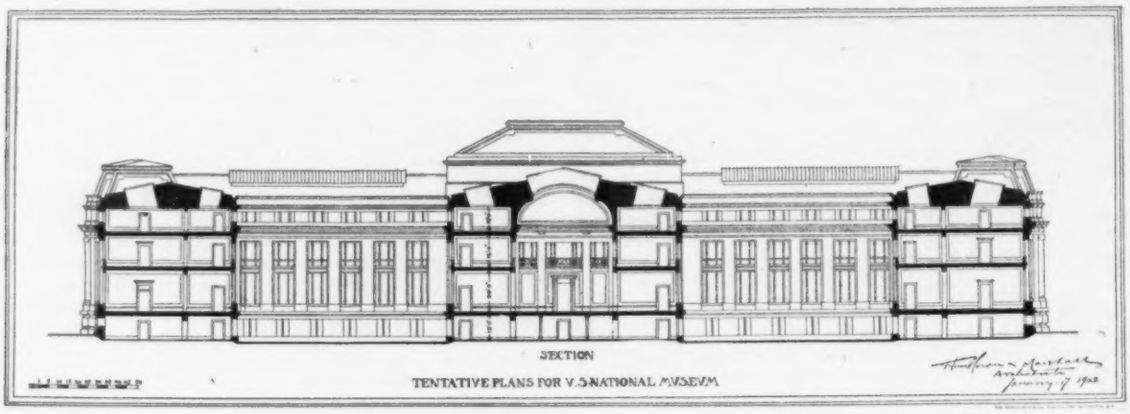
The arrangement of the main floors is "a combination of large and small halls, the three largest halls being lighted from above and having two series of galleries of sufficient width to permit of their being screened off and made into series of separate rooms for exhibition and other purposes . . . has been adopted as practically furnishing the largest possible amount of well-lighted floor-space in a building of the size proposed and as presenting many other important advantages."

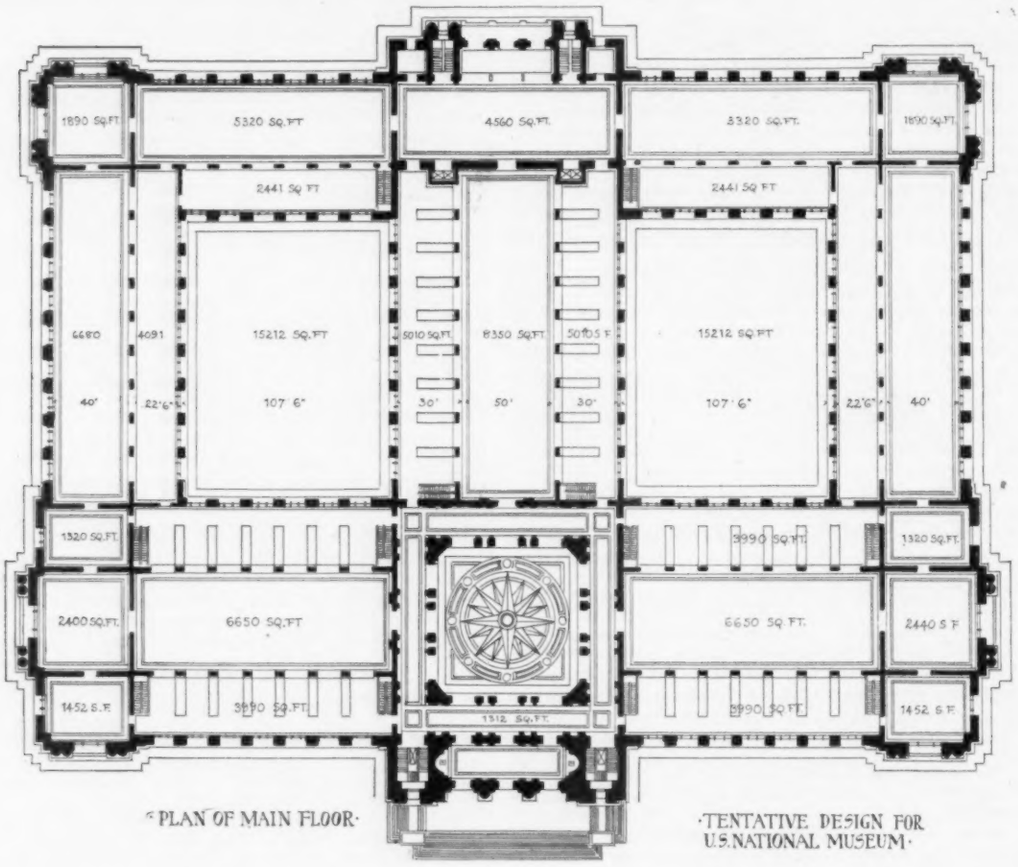
The estimate for this building, in steel frame, brick and terra-cotta, was about $3,000,000, to which sum Congress added $500,000 with a proviso for granite fronts.

The appendix to the Secretary's letter of transmittal gives some interesting information about foreign museums; from which, however, there is space here for the quotation of merely a few facts, to show the comparative standing our new Museum will take, among institutions of the same sort elsewhere, in the items of building and floor-space.

Out of the group, for instance, of scientific and industrial museums in London, aggregating a total floor-space of 1,000,000 square feet, in round numbers, in buildings which have cost together some $9,000,000, there is only one, the Bloomsbury Branch of the British Museum, containing the Library, whose cost, nearly $5,000,000, will exceed the generous appropriation for our National Museum.

The total of seven museums, of like function, in Berlin will exceed ours very little in point of floor-space and fall below in cost of buildings.





PLAN OF MAIN FLOOR

TENTATIVE DESIGN FOR U.S. NATIONAL MUSEUM

The figures given for two museums of similar aim in Vienna, the Natural History Museum and the Museum of Art and Industry, give a total of about the same floor-space, in buildings costing $1,000,000 less.

No figures are given for Paris, "noteworthy for the number of its Government, or national, museums, which cover the entire range of museum subjects in science, the industrial arts and the fine-arts

. . . many of them housed in large and costly buildings . . . the collections, as a whole, of incalculable richness and importance," but a list is given of some twenty-two of these collections with some notes of their treasures.

The appendix ends with a short account of the American Museum of Natural History in New York, "the largest and most important municipal museum of natural history in the world," it says, housed now, at a cost of about $4,000,000, in a structure which will have cost $12,000,000, in all likelihood, when completed.

THE MONUMENTS IN ST. PAUL'S CATHEDRAL.[1]

THE public have been for many years sufficiently familiar with the fact that the Abbey Church of Westminster is everywhere terribly overcrowded with public and private monuments, and that the time has almost come when it will be impossible either to admit new interments or to erect further memorials of any sort within its walls. By a singular piece of good fortune the destroying hand of the modern "restorer," which has done so much mischief elsewhere, has been warded off from Westminster Abbey; and no one will now be so bold as to propose that the needless shiftings and wanton destruction of the memorials of the dead which have disgraced the restoration of so many of our parish and cathedral churches should be permitted at Westminster, even for the laudable purpose of finding space to continue for the present and future generations that association of the names of illustrious Englishmen with "the Abbey" which has for so long been part of our national traditions.

In the absence of any generally acceptable plan for enlarging Westminster Abbey the nation must ultimately be forced to face the question whether there is to be any definite place for national burials and monuments. But we shall, no doubt, be told that there is no necessity for insisting upon this conclusion, as it will not really be reached until the available space in St. Paul's Cathedral, as well as Westminster Abbey, is absolutely exhausted. It will perhaps be thought that the third largest church in Christendom must surely contain ample room for all the great men likely to die within the next hundred years or more. Yet there could not be a greater mistake, as I shall have no difficulty in showing: indeed, the main object of the present article is to call attention to certain facts with regard to St. Paul's which practically very much restrict its use for monumental sculpture.

It may be desirable to recall, in the first instance, the history of the existing monuments. Although the building of the present church, which had been commenced in 1675, was finished in 1710, it was not until 1796, *i. e.*, after a lapse of eighty-six years, that the first monuments were erected, notwithstanding that many burials, notably that of Sir Christopher Wren, had taken place in the crypt.

The great cathedral may have seemed to the men of the early eighteenth century a thing so much to their taste and so complete in all its parts that they would not tolerate the idea of any addition to it, in spite of the fact that certain learned people of the period quarrelled with many of the architectural details which they failed to find in the copybooks. At all events, the capitular body seems to have been perfectly well contented with what Lord Orford called its "excess of plainness"; and when some one pointed out to Dr. Osbaldeston, Bishop of London, that Wren had himself provided for the introduction of monuments, he obstinately adhered to his own opinion that churches were better without them.

The change of sentiment which happened in the last ten years of the eighteenth century was perhaps largely due to the influence of the newly founded Royal Academy, and certainly, in a wider sense, to the revived interest in the remains of Græco-Roman sculpture initiated by the writings of Winckelmann. In 1791 the Dean and Chapter gave their consent to the admission of monuments "under proper restrictions," the decision having been come to upon the application of a committee for permission to erect a statue to Howard, the philanthropist. At that time funds were being collected for a monument to Dr. Johnson, which would in ordinary course have been erected in Westminster Abbey Church, where he was buried; but at the instigation of Sir Joshua Reynolds its destination was changed for St. Paul's. So accomplished an artist as Sir Joshua felt instinctively the necessity for the symmetrical disposition of monuments in a Classical building, and he must have foreseen how admirably the statue of his friend Johnson would balance that of Howard. These statues, both of them the work of that able sculptor John Bacon, R. A., and both dated 1795, were placed in the position they still occupy, under the northeastern and southeastern quarter-domes, practically at the same date, in 1796, four years after Sir Joshua's death. The editor of the *Gentleman's Magazine* for March, 1796, presented his subscribers with an engraving of the Howard statue, and printed a letter from the sculptor giving "the ideas that predominated in his mind while forming the statues of the late Mr. Howard and of Dr. Johnson." At the same time the editor made the following comment, which was, of course, seriously meant, although it can nowadays only raise a smile: —

"The introduction of monuments into the cathedral church of St. Paul's, while it forms a grand epoch to the professors of the Imitative Art will convey to posterity a striking example of the liberality of the present Dean and Chapter."

[1] Extracts from a paper by Mr. Alfred Higgins in the *Nineteenth Century* for May, 1903.

The statue of Sir William Jones, the Oriental scholar, another work of Bacon's, and dated 1799, was placed under the southwest quarter-dome. In this, as in the two previous statues, he evidently carefully considered the scale it was necessary to adopt in order to harmonize with the building — a scale "colossal" in the technical sense, *i. e.*, over life-size, and one which might very easily have been exaggerated with fatal effect. The statue, by Flaxman, of Sir Joshua Reynolds was placed under the fourth or northwestern quarter-dome in 1813, and satisfactorily completed what may be called a desirable enrichment of an important part of the structure of the church.

Proper regard for scale, coupled with a due sense of the relation of the sculpture to the surrounding architecture, is the redeeming feature of the greater number of those monuments in St. Paul's which were voted so liberally by Parliament, or erected by public subscription, during the eventful period of the beginning of the nineteenth century. It is indeed remarkable, and a subject for much congratulation, that such a quantity of colossal sculpture, admittedly of no transcendent merit either in conception or execution, should have been placed in the church with so little injury to its dignity or its fitness for public worship. The nave, including the nave-arcades (with the single exception of the graceful and noble monument to the Duke of Wellington), remains up to the present date absolutely free in all its lines, and nothing whatever interferes with the visitor's enjoyment of the magnificent western prolongation of the nave, probably the most stately and beautifully proportioned piece of Neo-Classical architecture outside Italy.

It must not, however, be supposed that the original allocation of the monuments was in all cases so happy as at the present time. In connection with the changes in the choir in 1858 and 1870, which have seriously altered the character of Wren's design as a whole — however unavoidable they may have been in order to adapt the church for the great congregational services of recent times — it became necessary to move the important monuments of Lord Nelson and Lord Cornwallis from the conspicuous places they occupied under the great arch at the entrance of the present choir. They were accordingly transferred to analogous, but much less important, positions under the great southern arch of the dome-area. Those positions were already occupied by monuments to Captain Burgess and Captain Faulknor, R. N., which had consequently to be removed elsewhere. Captain Burgess's monument, one of the most tasteless in the church, was therefore transferred to the westernmost bay of the south aisle of the nave. At the same time the opportunity was cleverly seized of turning out from under the great northern arch of the dome-area a still more objectionable group of sculpture to the memory of Captain Westcott, R. N. This latter group was replaced by the above-mentioned monument of Captain Faulknor (including a group representing the dying hero falling into the arms of Neptune and crowned by Victory), which originally stood where Lord Cornwallis's monument has found what we may hope is its final resting-place. If any one wishes to see Captain Westcott's monument they will find that it occupies the easternmost bay of the south aisle. The sculptured group forming the principal part of it represents the gallant officer in a classical costume (or rather lack of costume), supported in an unhappy fashion, partly by a coil of rope and partly by a Victory, whose figure is sloped at such an angle as to suggest that she is skating "on the outside edge." Ludicrous as these figures unfortunately are, they are not so utterly commonplace as the group, of portentous dimensions, in the adjoining central bay which commemorates Bishop Middleton, the first Bishop of the Church of England in India. Perhaps this monument, like some others, such as Earle Howe's, Sir John Moore's, and Lord Rodney's, has been unfairly treated by taking away an iron railing that was round it; and if this is so the railing might surely be replaced with advantage in his instance.

Irreparable damage has been done in Westminster Abbey and in other ancient churches by the removal of the fine wrought-iron railings placed round the mediæval tombs; and the similar removals in St. Paul's, notwithstanding that the railings themselves were simple rather than dignified, are to be regretted, as the sculptors must have taken the enclosures into account in preparing their designs. Grilles or railings are in many cases of great value as contributing to that sense of reserve and aloofness from casual surroundings which is generally essential to monumental sculpture. A lamentable instance of the ill effects of removing the railings round a public statue is the case of the bronze figure of James II by Grinling Gibbons, which stood behind the Banqueting Hall at Whitehall. The figure looked so forlorn and unprotected when the railings had been taken away that it excited the compassion of the Office of Works itself, and it was consequently removed to an enclosed space next Gwydr House, but it was not allowed to rest there, and now we hear of some wild project of sending it away to Hampton Court, perhaps the most inappropriate place that could possibly have been chosen.

The taking away of the railings around the equestrian statues of Charles I at Charing Cross and George III in Cockspur Street was no less unfortunate, but has not yet led to proposals for removing those works of art from their present sites.

Probably very few of the readers of this *Review* who take an interest in the Fine-Arts have ever given more than a passing glance at the monuments at St. Paul's; and many people will be prepared to accept without question the opinion expressed in an elaborate history of art recently issued in Germany that St. Paul's and Westminster Abbey are more like chambers of horrors than museums of sculpture. The modern visitor is too much repelled by the general

conception common to nearly all these monuments to do anything like justice to them. There is, indeed, an undeniable poverty of invention, as well as an absence of fine taste and intimate knowledge of form, in the majority of these productions. We object nowadays to the triviality and triteness of such objects as Victory pointing out the figure of Lord Rodney to the Historic Muse; Britannia, attended by Sensibility and the Genius of Great Britain, crowning the bust of General Dundas; Brittannia calling the attention of two sailor-boys to the statue of Lord Nelson, or, as in another instance, directing a youthful soldier towards the inscription on the base of the sarcophagus of General Le Marchant. No sympathetic emotion is produced by a Victory overcome with grief, reclining nearly at full length under the sarcophagus of Captain Hardinge, or by another Victory who makes use of her wreath as a sash for the purpose of helping to lower Sir John Moore's body into the tomb.

It is hardly necessary to insist upon the fact that the simplest motives are really the most touching and appropriate for sepulchral monuments. This is nowhere so finely exemplified as in the Attic tomb-reliefs of the fifth and fourth centuries B. C.; but they are treated with an exquisite taste and the most evidently genuine feeling, as well as with a sense of nobility of form derived from the great art of the school of Phidias and his immediate successors. The fact is that it is the artificial character of the sentiment rather than the bad art of the early nineteenth century that repels the present generation. In this respect the monuments in St. Paul's do not differ greatly from monuments of the same date on the Continent of Europe, and they should be accepted as part of the history of the age to which they belong. Their inferiority to contemporary work in France and Italy must be set down to a low level of attainment on the part of our sculptors at that time, mainly due to a general national want of sympathy and appreciation for the sculptor's art.

I have already referred to the characteristic feature of the architecture of St. Paul's, viz, to the simplicity and magnitude of its component parts, as opposed to the multiplication of small parts in Gothic architecture. This characteristic is, of course, common to all buildings of its style, but it is more particularly of importance in churches of vast dimensions such as St. Paul's and the Roman basilica of St. Peter's. The magnitude of component parts, coupled with symmetrical disposition of those parts, necessarily imposes a certain scale upon everything of a permanent character added to the building.

The due attention to scale which marked the first statues erected in St. Paul's in 1796, and also the large groups of the naval and military monuments of the earlier part of the nineteenth century, has been lamentably wanting in some of the monuments added during the last few years. Take, for example, the monument of General Gordon, which occupies the central bay of the north aisle of the nave. The sarcophagus, with its recumbent figure no larger than life-size, seems lost in its present position, almost on a level with the floor, and suggests rather a bier temporarily placed in a mortuary than a stately monument to a national hero. The same neglect of the requirements of scale applies also to the monument of Lord Leighton, which looked a refined piece of work when seen in plaster in the comparatively small sculpture-gallery of the Royal Academy, but appears almost insignificant in St. Paul's. Moreover, it suffers from close proximity to the Wellington monument, which has a sarcophagus of somewhat similar but bolder outline. The Leighton cenotaph is also injured by the poor quality of its pseudo-cipollino marble. . . .

We do not think it worth while to discuss the not very material question whether the completion of the Wellington monument should be undertaken by the Government or should be carried out under the responsibility of the Dean and Chapter of St. Paul's by a committee approved by them. The main point which concerns the public is that the work should be done quickly, and that nothing more should be done than is absolutely requisite in order to show Stevens's own handiwork on the equestrian group to the best advantage. It will rather be consonant with the object of the present paper to point out how perfectly the whole monument, when completed, will comply with the all-important condition that such a work must be designed with due relation to its architectural surroundings. The main problem which Stevens had before him in preparing his scheme was the designing of a structure so light and graceful in form that it would appear to fill satisfactorily the space under one of the nave arches without in any way seeming to block it up, or interrupt the sequence of the massive arcades which form the principal architectural feature of the nave. But in its present truncated condition the monument only fills the space between the piers, and the arch above is left entirely empty. This fact alone imperatively calls for the erection of the equestrian group and its pedestal, and should entirely dispose of the theoretical objection which some persons besides Dean Milman have felt to an equestrian statue placed over a recumbent effigy of the dead. The most famous precedent for such an arrangement is, of course, the fourteenth-century monument to Can Grande della Scala over the door of S. Maria Antica in Verona, but there are very many others in Italy, not outside, but inside, important churches, and we need go no further than the sacrarium of Westminster Abbey to find two instances of the same idea. Aymer de Valence, Earl of Pembroke, and Edmund Crouchback, Earl of Lancaster, are each represented "on their barded horses" in the trefoil which fills up the pediment above their tombs. The Earl of Lancaster has his hands folded in prayer, but the Earl of Pembroke is riding gaily along in full armor with a surcoat over it, which was originally brilliantly colored. These figures are, it is true, in relief and not in the round; but as a scheme for a monument the idea is the same as Can Grande's; and surely no more appropriate scheme could be found for the memorial over the grave of a Christian knight than to set forth in sharp contrast the fulness of life and the solemnity of death. The motive is commoner in Renaissance than in Gothic art, although the "lively effigy" does not very often take the form of a man on horseback. It has been objected that the Greeks of the fifth or fourth century B. C. would not have dealt with the problem in this way, and that is true enough. They would, as in the Dexileos monument in Athens, have shown the man in full vigor of life trampling over his enemies; but they would have suppressed altogether the recumbent effigy of the dead hero which appeals most closely to modern sentiment.

The failures in the matter of scale in the case of the Leighton and Gordon monuments should impose great caution upon those responsible for admitting and placing further monuments in St. Paul's. They should be called upon to emphasize very distinctly the necessity for observing the rules which governed the scale and placing of the earlier monuments. They cannot insist that only fine works of art should be admitted; but they can and are bound to insist that the church committed to their charge shall not be deliberately spoiled by crowding it with sculptured groups or wall-slabs for which there is really no room. It is to be observed that, unlike the interior of so many churches in Italy, where we find vast wall-spaces urgently calling for paintings and monuments to cover them, the interior wall-surfaces of St. Paul's are fully occupied by pilasters, panels and windows, with full architectural details and rich floral decoration in wrought stone. Unless, therefore, the architectural design is cut into or blocked out, there is hardly any available space for monuments of any size, and as regards the main architectural lines of the building the vital importance of keeping them perfectly free as in the nave cannot be too strongly insisted on.

If any one wishes to satisfy himself how small is the room now left it will only be necessary for him to refer to a ground-plan of St. Paul's giving the position of the existing monuments. Such a plan will be found in the useful handbook of the Rev. Lewis Gilbertson, sold in the church for sixpence. It will there be seen that nearly all the possible sites for monuments of a size necessitated by the scale of the building are already occupied. Many persons feared, not without some show of reason, that the filling of one of the arches of the nave by the Wellington monument would seriously injure the architecture. This fear has proved groundless owing to the elegance and refinement of the structure, standing as it does in marked contrast with the great solid piers on either side of it. But a repetition of the experiment under another arch of the nave would be perilous in the extreme, even if we had another Alfred Stevens with us. It seems also right, apart from architectural considerations, that the monument of Arthur, Duke of Wellington, should stand alone.

The exercise of very great vigilance in using the extremely limited space in St. Paul's and Westminster Abbey may put off for some years the question whether there are to be any more national monuments except in the open air and whether there are to be any more burials of distinguished persons apart from the common burial places in cemeteries. How the question will be ultimately solved it is impossible to foresee.

There is a most serious objection to the burying of dead bodies within buildings heated and in constant use by large numbers of persons, as our principal churches are nowadays. Possibly some "God's acre" under the free canopy of Heaven on one of the hills near London might be reserved as a place for the interment of the remains of those whom the State may desire to honor. The sculptured memorials, especially if they are to be of marble, might find a place in a cloister surrounding the consecrated ground, to which naturally a church or chapel and a residence for custodians would be attached. So wide a departure from national tradition as is here indicated would not be seriously thought of unless it is absolutely clear that it is impossible for us to continue in the ancient ways; but, if a precedent is required for the form of burial-ground suggested, there is a noble one, very well known, in the lovely Campo Santo at Pisa, erected in the thirteenth and fourteenth centuries around the fifty-three shiploads of earth which Archbishop Ubaldo de' Lanfranchi brought home from Mount Calvary.

COMMUNICATIONS

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

THE BOSTON PUBLIC GARDEN.

PROVIDENCE, R. I.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — Apropos of your recent editorials with reference to the location of Boston City-hall, I am reminded of a previous suggestion to occupy a portion of the Public Garden by buildings which I believe is not known to many.

In the year 1856 the Commonwealth of Massachusetts adopted a

plan prepared by the late Arthur Gilman for a Commission appointed to prepare and report a plan for laying out the tide-flowed lands owned by the Commonwealth and known as the Back Bay.

The writer drew the plan under Mr. Gilman's direction and recalls the earnestness with which he urged upon the Commissioners that Commonwealth Avenue be laid out on the generous scale proposed, which would "leave an open way across the Common and Public Garden from Brimstone Corner to eternity," and his confident prediction of the growth of Boston, and especially that this section must and would be the "Court end" of the town.

This plan contemplated a street 80 feet wide to be placed on the easterly line of its holdings, with house-lots laid out only on the westerly side of the street and fronting the Public Garden. Between the line of the Commonwealth's ownership and the westerly line of the Public Garden as it then existed, there was left a strip of land, which, thanks to Mr. Gilman, is now a part of the Public Garden. His energetic work was the most potent factor in preventing its being sold for house-lots, securing the dedication of the entire space for a Public Garden.

His letter to Hon. F. W. Lincoln, Mayor of Boston, which was published in the Boston *Journal*, June 5, 1858, and reprinted on a separate sheet for general distribution, exerted a powerful influence in moulding public opinion, and the reasons he then gave should be sufficient to save the Public Garden from the erection thereon of any building, public or private.

The following extract from this letter is interesting reading, now that Mr. Gilman's most sanguine expectations have been more than realized: —

"The case, then, is briefly this. The line of the Commonwealth's ownership unfortunately does not commence exactly at the present western boundary of the present Public Garden as it now exists, filled up and improved as we see it. There is yet a small, irregular goring strip of flats, now covered with shallow water — flats appurtenant to the Garden and thus within the ownership of the city of Boston — extending along the present water-front of the Garden from Beacon Street on the north to Boylston Street on the south, 30 feet wide at the Boylston Street end and 154 feet wide at the Beacon Street end, and over which the Commonwealth has, therefore, no direct control. The suggestion, then, as made by some members of the City Government, and which caused so much anxiety and so much delay, is this, that the city of Boston should proceed to fill up this little piece, and equalize the width of it by taking a piece from the Garden at the narrow end, adding as much to it at the other end; then lay off a narrow street in front by taking the same bodily from the area of the Garden, and sell off a continuous range of shallow house-lots on it, leaving only the central avenue open to the Garden, but cutting off permanently the magnificent improvements of the Commonwealth from any connection with the Common, other than that just named, and interposing a barrier of brick between them which, it must be seen, some future city government would gladly pay millions to remove, if they could legally and properly do so. These supposed houses would back directly upon the chief line of communication with the noble central avenue, and form an unsightly and incongruous blot upon a plan which it was confidently hoped could not come to be marred by any such objectionable feature. It is not believed, indeed, that the good sense of a majority of the City Government will ever allow them to regard this proposition with favor, especially as the ablest legal authorities, however much they may differ as to the details, are agreed that the attempt to sell would raise such an array of technical and legal difficulties as to involve the city in a plentiful crop of injunctions and law-suits for years to come. But it is, nevertheless, to be feared that an imperfect idea of the results of this proceeding may lead some persons to regard the proposition with less of reluctance than that which they would be sure to entertain, if the case, in all its bearings, were rightly and fully understood.

"The Commonwealth, by its plan as adopted, has liberally and generously given up about one-fifth of the territory to which it has a rightful claim, solely for the benefit and advantage of the city of Boston. Men from all parts of the State — from the Old Colony, from Berkshire, from the Connecticut Valley, and from Nantucket — who sat on that laborious legislative commission united cordially in according this great favor to the capital of their State. Little did they think that their free act would be met by the city of Boston in the spirit which the adoption of the suicidal measure would reveal. And the only fear is that the next Legislature, disgusted and disheartened with the want of appreciation of their motives which such an act would show, will rescind and repudiate the whole affair, dismiss the commission and let the whole project dissolve back into the original elements from which it has been so watchfully and anxiously elaborated.

"That such an event would be most truly deplorable for the city of Boston, no one who can see an inch beyond his nose can for an instant deny. At the very time when the cities of New York and Philadelphia are expending millions for public pleasure-grounds — at a time, too, when the subject of providing for the health and recreation of our overworked people receives so much attention from every careful and thinking man — for the city of Boston to stultify all her previous acts, and belie all her previous reputation, by the adoption of such a measure, is indeed incredible. And it is with the hope of calling the public attention to the true effect of such a mistaken line of policy that I have ventured to trespass upon your indulgence in the publication of this appeal. It would be hard indeed for those of us who have labored and watched and waited for this great improvement — now for more than six years — to be forced to see it all come to nothing, or else behold it so maimed and disfigured in its execution as only to fill us with fruitless regrets for what it might have been. But far worse will it be for the future interest of the city. The City Government of Boston is the quarter from which of all others such an act was least to be expected, and their hands indeed the last from which a blow so fatal should come.

"It is perfectly within the power of the City Government to fill this pitiful little strip without one penny of expense to the city. The State's contractors have now completed their railroad, and each succeeding day will see them pouring the hard, firm gravel of the Needham Hills into the "empty basin," at the rate of thousands of feet per diem. But then a period of nearly two years must necessarily elapse before the houses about to be erected there will be ready for occupancy. Let this interval be improved by the depositing in this strip in question all the coal-ashes collected by the city carts, and all the earth from the numerous and spacious cellars which are now being excavated all over the city — all of which must be put somewhere, and which will abundantly suffice to fill this small area within the time required. And thus, while effectually avoiding any taxation of the present generation, they will be conferring the greatest boon on posterity which it is within their province to bestow. And, as in the finale of Molière's famous comedy, when the devil flies away with the wicked Don, Sganarelle exclaims, "Justice is satisfied — everybody is satisfied!" so let the city authorities be assured that in following out this reasonable course they will hear no single word of objection from any interest which is worthy of the name.

"The appointment on the 27th ult. of a joint committee of both branches of the City Council, to arrange these matters with the Back Bay Commissioners, is at least a substantial step in advance. The gentlemen composing that committee are, it is believed, without exception, eminently fit to give the subject a dispassionate and enlightened consideration — several of them, by a happy selection, perhaps the fittest persons out of the whole City Government that could have been named for the duty. And it is sincerely to be hoped that they will act with the same liberality of views and the same largeness of foresight which have hitherto marked the action of the officials of the Commonwealth. If they do, then the noble and spacious West End of Boston, with its magnificent shaded avenue of three miles and a half in length — the backbone and central point of the future city — will be something for which all coming generations will hold their memories in lasting honor."

Very truly yours, ALFRED STONE.

ILLUSTRATIONS

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

THE PUBLIC LIBRARY, TAUNTON, MASS. MR. ALBERT RANDOLPH ROSS, ARCHITECT, NEW YORK, N. Y.

ELEVATIONS OF THE SAME BUILDING.

DETAILS OF THE SAME BUILDING.

Additional Illustrations in the International Edition.

THE GOODWIN MEMORIAL LIBRARY, HADLEY, MASS. MR. GUY KIRKHAM, ARCHITECT, SPRINGFIELD, MASS.

THE building is of red brick with white mortar joints and Indiana limestone trimmings. The first story is devoted to the library, the second (lighted from the roof) to a hall for lectures and exhibitions. In the basement is a room for an historical collection.

FRAGMENTS FROM THE CHOIR OF CHARTRES CATHEDRAL. [AFTER PLASTER CAST.]

THE ORANGERY, POTSDAM, PRUSSIA.

THE PUBLIC LIBRARY, TAUNTON, MASS. MR. ALBERT RANDOLPH ROSS, ARCHITECT, NEW YORK, N. Y.

"WAYSIDE": HOUSE OF ELISHA DYER, JR., ESQ., BELLEVUE AVE., NEWPORT, R. I. MR. J. D. JOHNSTON, ARCHITECT, NEWPORT, R. I.

NOTES & CLIPPINGS

THE FRENCH WATERLOO MONUMENT. — The French monument which is to be erected on the field of Waterloo is now complete. It consists of an immense eagle mounted on a granite pedestal. — *Exchange.*

FRUIT-TREES AND RAILWAYS. — When we read of the fruit-trees which are planted along Bohemian railways, so that six or seven thousand miles of beauty and fruitage fill those narrow strips of ground which go to waste with us; of the achievements of the British Government in reforesting the parched soil of India; of the economical and systematic care of German forests, and of the libraries of literature which the indefatigable Germans have written on the theoretic side of their subject, we realize that we have indeed "much to learn." — *Maud Going in N. Y. Evening Post.*

CEMENT PAINT. — In the course of a lecture delivered before the American Chemical Society the statement was made that the setting of some cements used in building construction is attended by the liberation of calcium-ferrite, a substance which produces rust when in contact with clean steel. Having arrived at this conclusion by chemical investigation, the lecturer had made some novel experiments with cement preparations, eliminating iron, changing the specific gravity of the cement, and diluting it in such a way that it could be used as a paint. He thus produced a cement paint, that is described as setting quickly, adhering to iron and steel, and having the same coëfficient of expansion. While we are not prepared to endorse the suggestion that cement is apt to cause the oxidation of steel, it is undoubtedly the fact steel cannot be protected with a wash of Portland-cement, for the simple reason that the cement will not adhere to the metal. If the new form of paint should prove to be adapted for practical use, it may cause extensive changes in methods of preserving steel and iron structures. — *The Builder.*

NEW MONUMENTS FOR SAN FRANCISCO. — A Corinthian column of granite, 105 feet high, surmounted by a bronze figure of Victory, 12 feet high, standing upon a globe, the whole intended as a monument to Admiral Dewey, the figure by Robert I. Aitkin, and the architectural design by Newton J. Thorp, was unveiled in San Francisco during President Roosevelt's recent visit there. On the sides of the pedestal supporting the column are bronze tablets representing the cruiser "*Olympia*," Dewey's flagship, and the battleship "*Oregon*." Two other monuments intended for San Francisco are by Douglas Tilden — one to Peter Donahue, and the other to the memory of the Pacific Coast soldiers who fell in the Spanish War. The design for the first shows a symbolic figure astride a winged horse, a flag in one hand and a sword in the other, while upon the sides are infantry soldiers in action. The monument to Donahue represents a group of workmen operating a huge machine known as the lever-punch. Three nude men hold the lever, while two others present the sheet of metal to be punched. Peter Donahue was a mechanic who went to California in 1850 and became prominent among the pioneers of the State. He melted his first pot of brass over a blacksmith's forge, and from this small beginning grew the great Union Iron Works which turned out the battleships "*Oregon*" and "*Wisconsin*." Donahue also built the first railroad, the first street-car line, and the first gas-plant in the State. His son left a bequest of $25,000 for the erection of this memorial. — *N. Y. Evening Post.*

A NEW TUNNEL UNDER THE SEINE. — According to Thornwell Haines, United States Consul at Rouen, France, a tunnel to cost about $6,000,000 will soon be begun at either Tancarville or Quillebeuf, under the River Seine. Between Rouen and the sea there is no crossing of the Seine except by boat, a condition that for many years has caused great inconvenience and retarded commercial growth. Moreover, Havre is connected with the rest of France by only one railroad line. The projected tunnel will connect it with Pont-Audemer, and hence with the rest of France, giving two diverging lines from Havre — one to the right and one to the left of the Seine. Last year the Chambers of Commerce of Rouen and Havre furnished $3,860 to an eminent engineer, Jean Berlier — the constructor of the Clichy and Concorde tunnels under the Seine at Paris — to make preliminary investigations as to the feasibility of the work. Mr. Berlier has recently published an exhaustive pamphlet with map, drawings, etc., showing the result of his investigations and giving an outline of the manner in which the work should be accomplished. He advocates a double tunnel, the total cost of which he estimates at 30,600,000 francs ($5,905,800), and so feasible is its construction considered that he asks no payment in carrying out the work until one-fourth of it is finished. The construction will be in "*fonte*," or cast-iron, wherever there is pressure, the distance between the top of the metallic tube and the lowest part of the river being 5.5 metres (5.9 yards). The interior diameter of each tube will be 5.4 metres (5.8 yards), leaving room for a small platform at each side for travellers, in case of accident or stoppage. Mr. Berlier proposes to accomplish the work in three years with the following plant: Nine groups of boilers of 200 horse-power each, being 1,800 horse-power; eight compressing engines of 150 horse-power, capable of giving 4 kilogrammes (8.8 pounds) of pressure, being 1,200 horse-power; two compressing engines of 25 horse-power, of 20 kilogrammes (44 pounds) of pressure, and serving as injectors, being 50 horse-power; three dynamos of 100 horse-power, being 300 horse-power; two rolling bridges for the shafts; one derrick of 20-ton power on the bank of the river; four draining-pumps, one fire-pump, five electric tractors for the excavations, and sufficient cables, rails, etc., for the exterior. The cost of all this is estimated at 1,200,000 francs ($231,600). — *Exchange.*

JERUSALEM AQUEDUCTS. — As usual in Oriental countries, the admirable works constructed in ancient times for the water-supply of Jerusalem were long ago allowed to fall into a lamentable state of disrepair. The aqueducts no longer served their original purpose, or only did so when they happened to be in repair, and quite recently a serious water famine was only averted by the timely assistance of the railway company. Since then, a water-system upon modern lines has been established, and water is now brought to the city from the so-called "Pools of Solomon," situated at a distance of about seven miles. A portion of the old stone aqueduct has been utilized in parts where it could be repaired without unnecessary expense, but for the greater part of the distance 4-inch iron pipes have been laid. Two public fountains have been erected for the use of the inhabitants, one within the enclosure of the Great Mosque, and the other outside the walls. The supply is still far from adequate, but the risk of water famine is much reduced. In connection with this subject it is interesting to recall the inscription at Siloam referring to the rock-cut tunnel leading from the Ophel ridge to the Pool of Siloam. The most recent translation thus describes the construction of this ancient engineering work: "(Behold) the excavation! Now this is the story of the tunnel: While the miners were still lifting up the pick towards each other, and while there were three cubits (to be broken) the voice of one called to his neighbor, for there was an excess in the rock on the right. They rose up — they struck on the west of the tunnel — the miners each to meet the other pick to pick. And there flowed the waters from their outlet to the pool for 1,200 cubits, and (three-quarters) of a cubit was the height of the rocks over the heads of the miners." From this account it appears to be clear that the tunnel was excavated by two gangs working in opposite directions, a method requiring a considerable amount of skill and accuracy. — *The Builder.*

DANGERS OF ACETYLENE. — According to the annual report of the National Board of Underwriters the dangers from acetylene in the way of explosions of mixture of acetylene and air, with the consequent destruction of life and property, serve once more to "emphasize the importance of placing acetylene-generating apparatus outside of, and detached from, buildings, the necessity of using properly designed and safeguarded generators, and the folly of using an open light, when attempting to adjust or repair a gas-machine." A review of the reports which the board has compiled, covering acetylene losses, indicates that over ninety-five per cent of the fire-waste due to acetylene might have been avoided, if the first precaution had been universally observed. Over eighty-five per cent of the losses were occasioned in installations, using machines which had never been examined under the direction of the Board, or had been dropped for cause from its list of permitted devices of this character and over fifty per cent by persons deliberately opening generating-chambers or gas-holders in the presence of a flame. — *Fire and Water Engineering.*

THE SIEGESALLEE, BERLIN. — I will even make bold to say that nowhere in all the world is there such a magnificent promenade as the Siegesallee, or Victory Avenue, in the Thiergarten, lined with the marble statues of thirty-two of the Emperor's ancestors, rulers of Brandenburg and Prussia, from Albrecht the Bear to Kaiser William I. One misses the Emperor Frederick among these historical celebrities, but a special monument to him, as well as one to his English consort, is about to be erected over against the Brandenburg Gate. The wits of Berlin and other places have made merry over what they call the Emperor's "Sea of Marmora" into which he has converted the Siegesallee, while others here questioned the taste of this representation in marble of the history of the house of Hohenzollern from the twelfth to the twentieth century. But, honestly speaking, it strikes me as being a most perfect and beautiful thing of its kind. The effect is not only grand — it is almost grandiose. Anyhow, the Prussian people have nothing to complain of, as the Emperor-King has done the whole thing out of his own private purse as a compliment to the city of Berlin, and it must have cost him a very considerable penny — far more than a coronation ceremony would have done, and with that he has hitherto dispensed. At the present time the Germans do not stand particularly high as painters, or as workers in the field of the *belles lettres*, which may now be said to be practically non-existent in the Fatherland; but they are not so far behind with their sculpture, and all these Hohenzollern statues are really very finely done. Those, in particular, from the "Grosse Kurfürst," to what the Emperor erroneously calls the "Grosse Kaiser," strike me as the perfection of portraiture in marble, while the historical character of the rest has been well expressed in their figures and features even when these were only legendary. And what a magnificent avenue of approach is thus formed to the Königsplatz, with its gilded Victory Column in the centre, which has now been adorned by the Imperial Parliament House, or Reichstagsgebäude — a building worthy of a great people, and the visible sign and symbol of their political unity. In front of this massive and majestic pile stands a monument to the chief architect of that national unity, with the ravens of the Kyffhäuser among its allegorical embellishments, but this Bismarck statue strikes me as being a much less successful one than those of the Siegesallee. For, not giving the Iron Chancellor his jack-boots, the sculptor has merely invested him with a pair of baggy trousers, of which any military tailor in Berlin would be ashamed, and thus somehow marred the soldierly character of the statesmen's figure by imparting to it an appearance of Dutch skipper dumpiness. — *London Chronicle.*

FORESTRY SCHOOLS. — The Cornell State College at Ithaca, N. Y., offers a course of four years. Yale gives a graduate course of two years, and at Biltmore, N. C., students have the opportunity to take a one-year course, in which practical work in the forest is combined with theoretical instruction. Besides these three schools which teach the science of forestry alone, there were in 1890 thirty-eight institutions which included some instruction in forestry in their educational course, and twenty-one forestry associations in the separate States, besides a national one in Washington. — *Exchange.*

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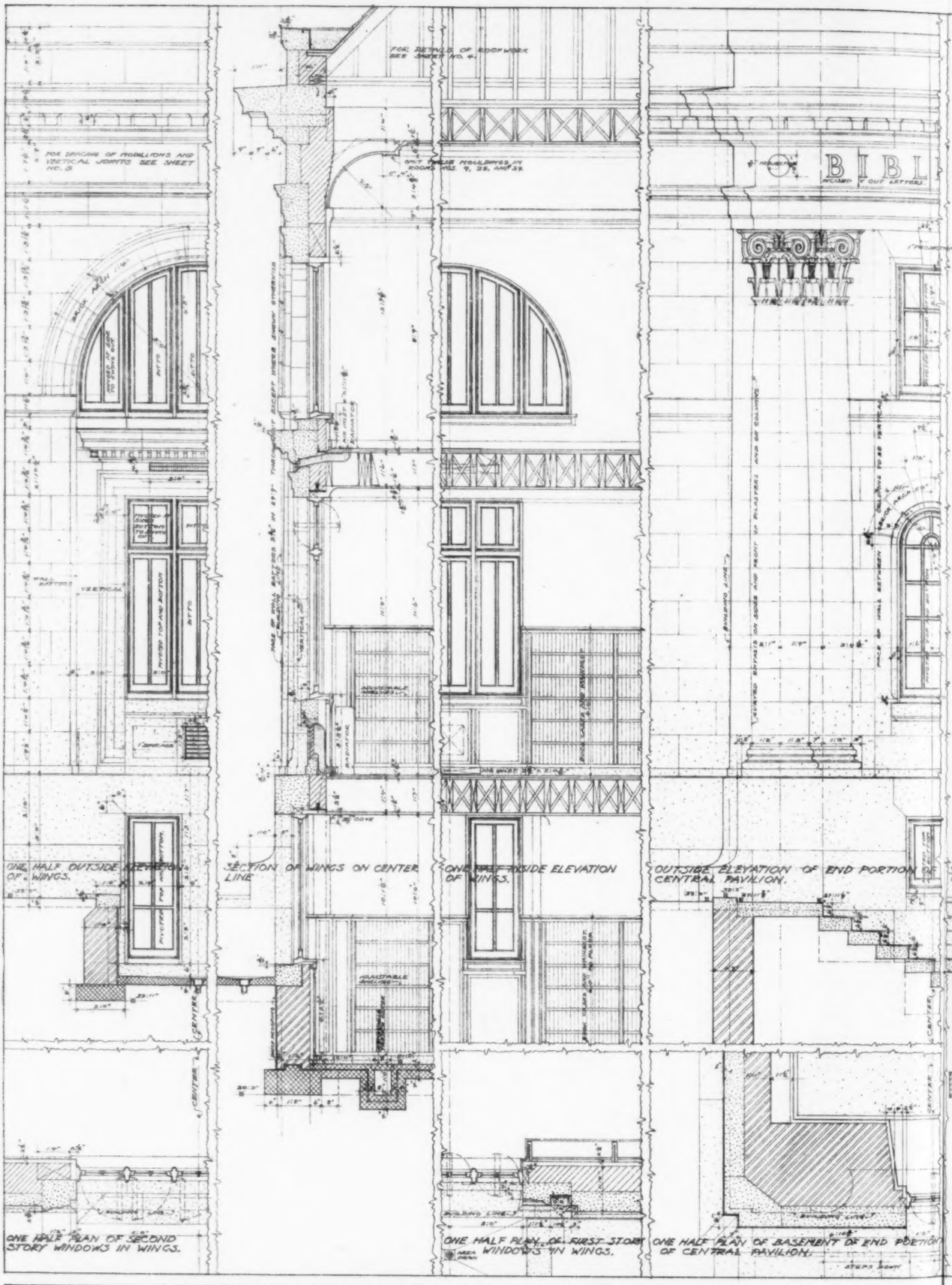

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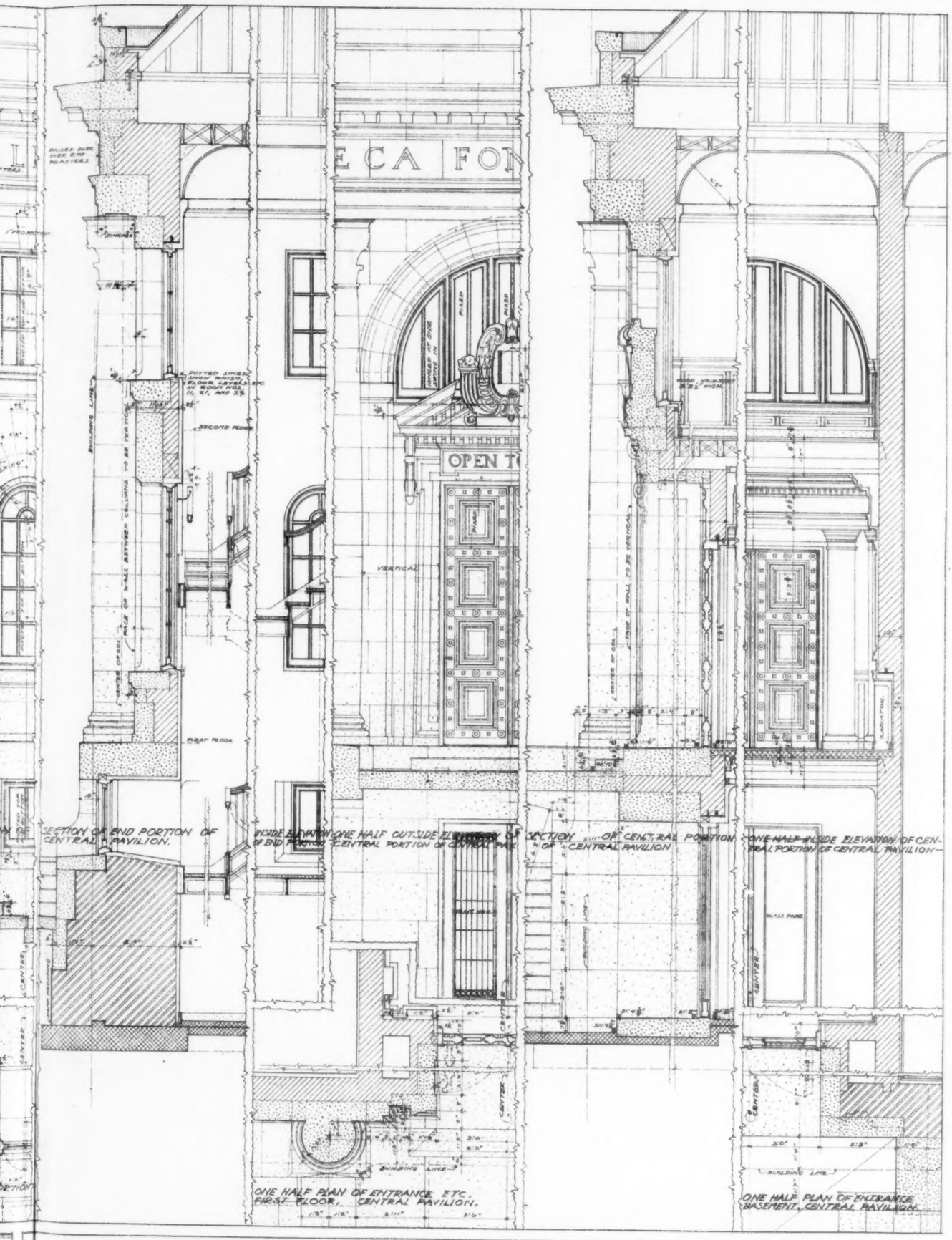

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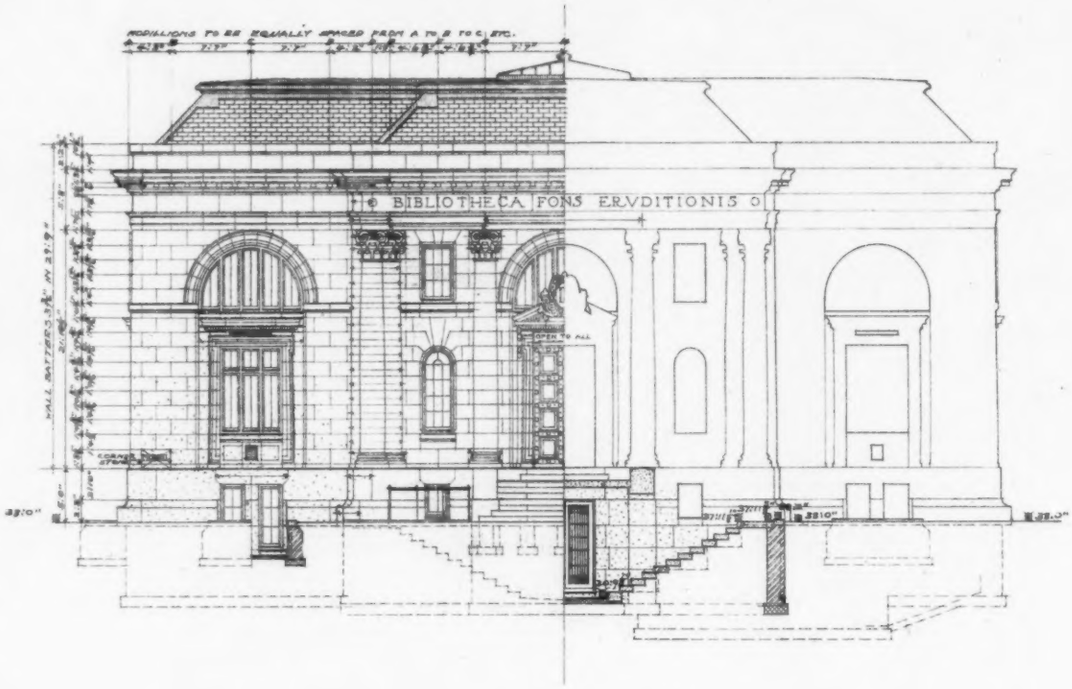

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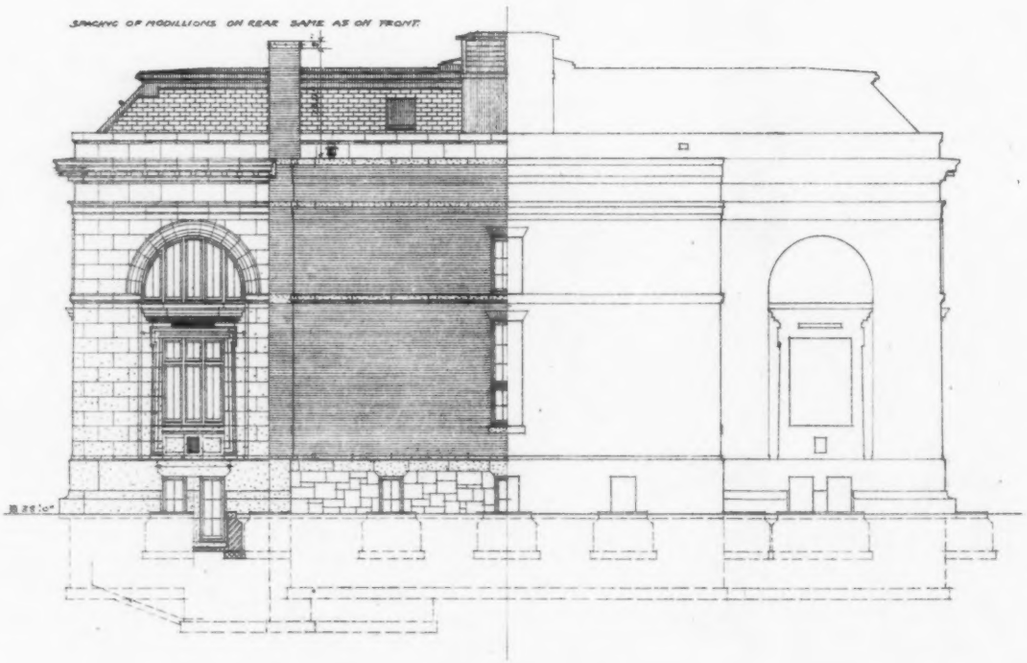

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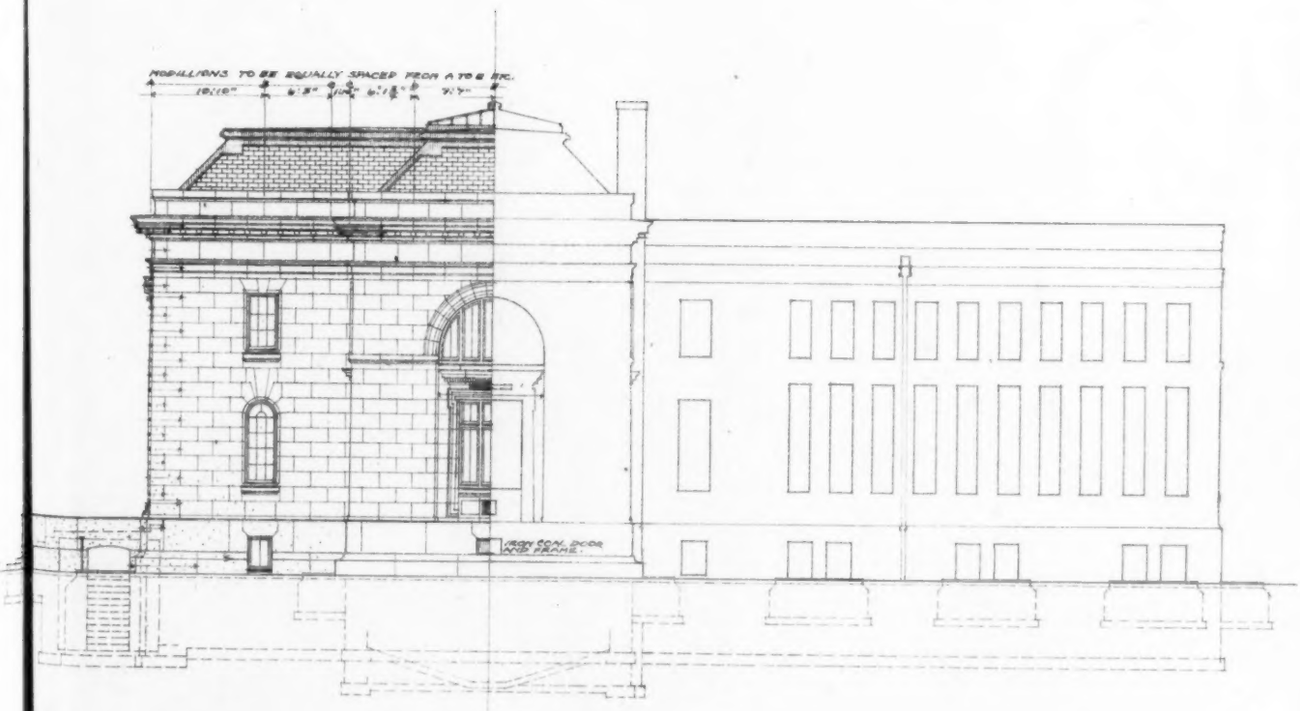

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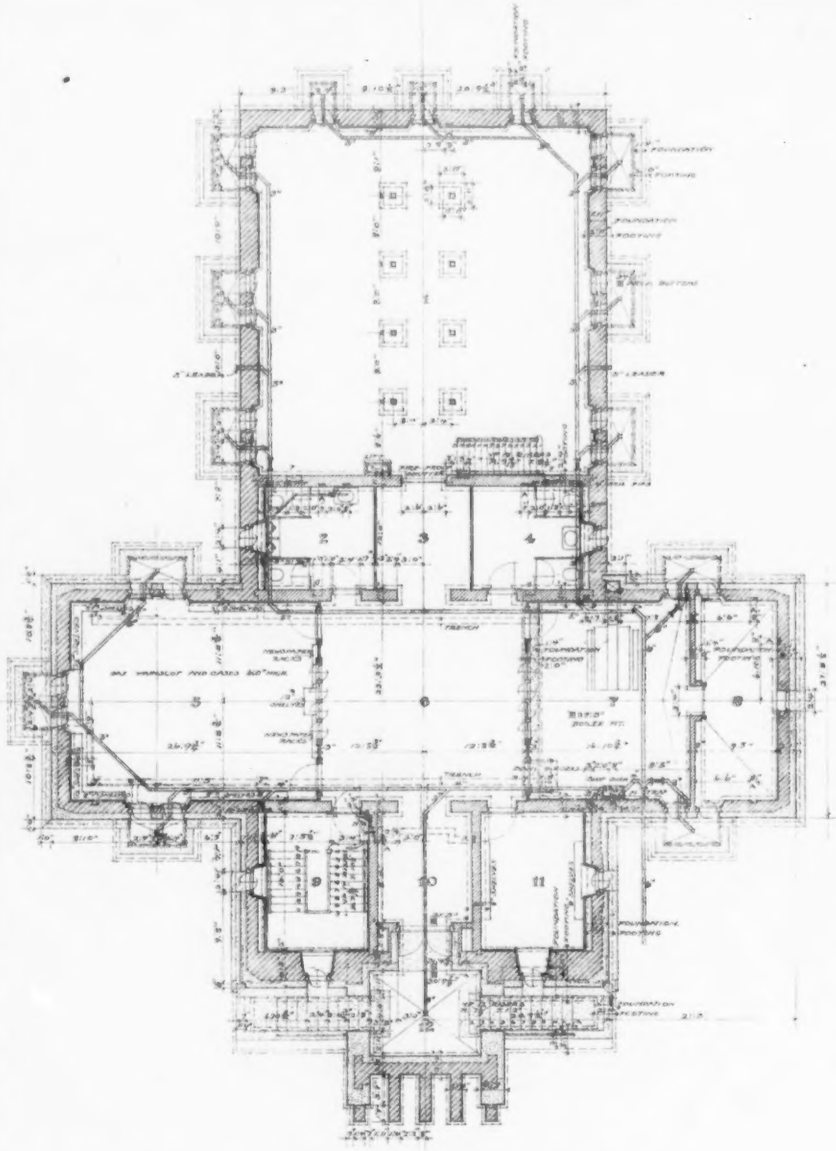

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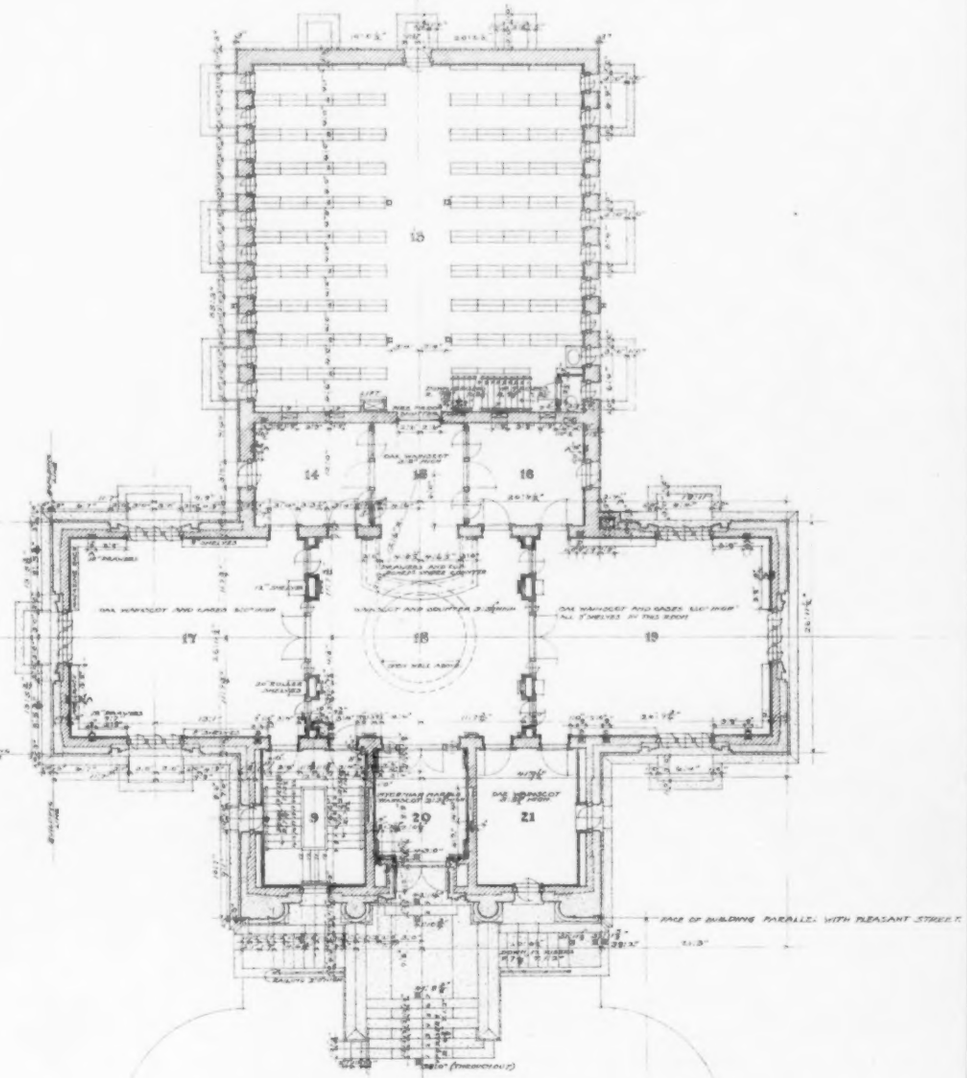

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	RUBBLE	PLASTER BLOCK, NOT TO FINISH PLASTER.
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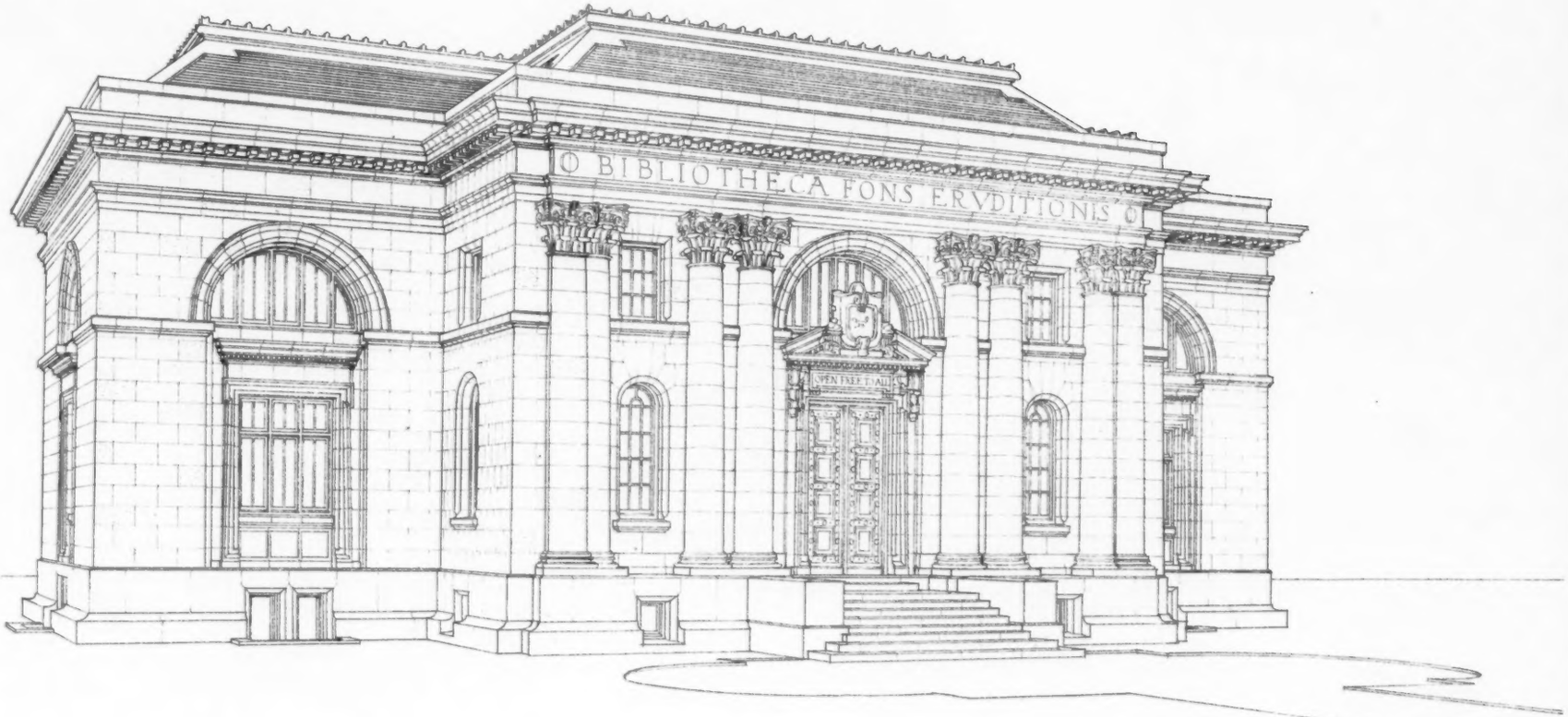

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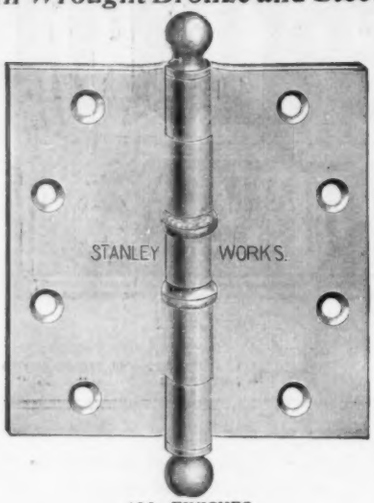

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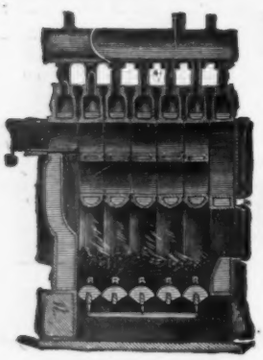

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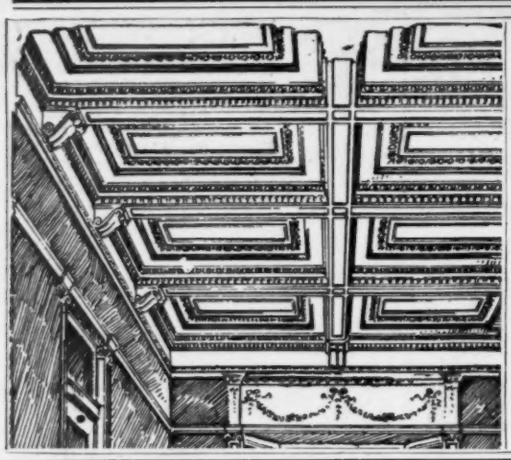

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CODE OF PRACTICE

FOR SUB-ESTIMATING AND SUB-CONTRACTING

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ARTICLE I.

Obligation of Principal Contractor to Sub-Contractor.

A principal contractor is under obligation to treat upon an equal basis all estimates which he "receives" prior to putting in his own bid. Estimates must be considered as "received" when they come into a principal contractor's possession, either by his direct solicitation or by being accepted by him. *The opening of a bid, knowing it to be such, constitutes receipt of the same.*

A principal contractor is under no obligation to use a bid which he has not solicited, accepted, or received, but if he does not wish to use the estimate of a sub-bidder he should decline it, if proffered personally, or should return it unopened if sent to him by mail or otherwise. The retention of a bid should be construed as a receipt of the same.

* * * * * * * * * * *

A principal contractor, when making up his estimate, is not entitled to receive bids from sub-contractors if he is at the same time making himself their competitor by figuring their portion of the contemplated work. It is legitimate for a principal contractor to figure all portions of work, depending upon no one for what are usually known as sub-estimates, but it is not legitimate for him to receive bids from others for sub-work if he is himself figuring those portions independently.

ARTICLE II.

Award of Sub-Contracts.

The principal contractor having been awarded a general contract should immediately award the sub-contracts to the lowest bidder in each branch.

ARTICLE III.

Penalty for not Awarding Contract to Lowest Sub-Bidder.

A principal contractor failing to award a sub-contract to the lowest sub-bidder to whom he is under obligation as previously provided should be liable to pay damages to the said lowest bidder, in amount not less than ten per cent of the amount of the estimate.

Payment of such damages will not relieve the principal contractor from liability to discipline under provisions of Article X of the By-Laws of this Association.

* * * * * * * * * * *

ARTICLE V.

Payments to Sub-Contractors.

Unless the contracts made with sub-contractors otherwise provide, payments during the progress of the work should be made by the principal contractor to the sub-contractors upon the same basis of payment, in relation to amount of work performed, as is prescribed in the contract made by the principal contractor with the owner.

Final payment to a sub-contractor should be considered as *due* at the expiration of thirty days after the completion of his work and its approval by the architect or owner, unless otherwise provided by the sub-contract or agreement.

* * * * * * * * * * *

ARTICLE VII.

Obligation of Sub-Contractor to Principal Contractor.

Should a sub-contractor refuse to contract at the amount of the estimate he has given to a principal contractor who has used the said estimate in good faith, he then should be liable to the said principal contractor for damages in amount not less than the difference between the amount of the estimate which was submitted by him and the amount at which the principal contractor may be obliged to contract the work.

Payment of such damages will not relieve the sub-contractor from liability to discipline under provisions of Article X of the By-Laws of this Association.

* * * * * * * * * * *

ARTICLE X.

Bids to Architects or Owners.

When bids for separate departments of work on a building are solicited by the architect or the owner, they should be submitted with the understanding that they are direct estimates, for which direct contracts are to be made by the owner with the lowest bidder, and no other disposition of such bids should be permitted without consent of the bidder submitting the same.

Sub-bids should be given only to the principal contractors who are estimating the work in question, and should not be left with architects or owners for the inspection and information of principal contractors. Sub-contractors must understand that bids thus left with architects or owners are in great danger of losing their confidential character, and that if they so leave them they cannot claim protection or redress under the first article of this Code.

SUGGESTIONS.

Members of this Association having sub-contracts to let, or material to buy, should, as far as may be consistent with business principles, deal only with members of the Association, or at all events give their fellow-members an opportunity to compete, and ther give them the preference, other things being equal.

All bidders should take cognizance of the danger they may be subjected to through the practice, so prevalent in some architects' offices, of making change. in plans or specifications, or in both, during the progress of estimating. Correction of this pernicious practice can only be obtained through refusal by contractors to estimate under such conditions.

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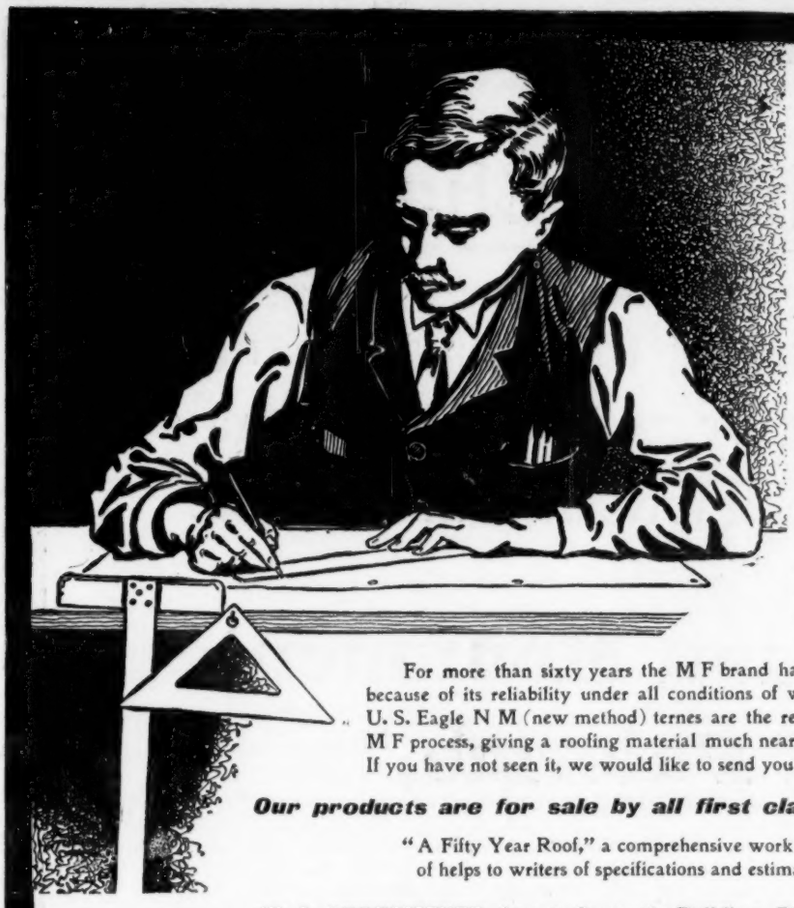

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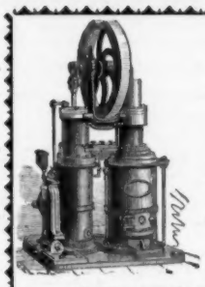

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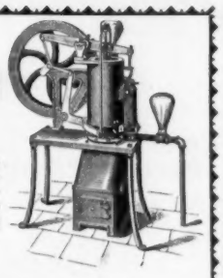

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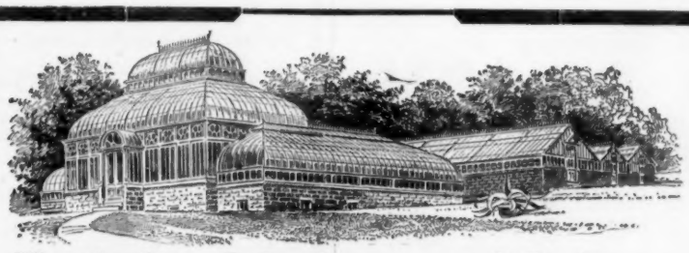

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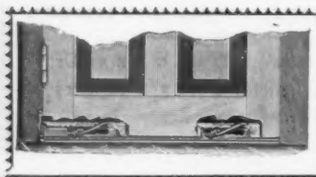

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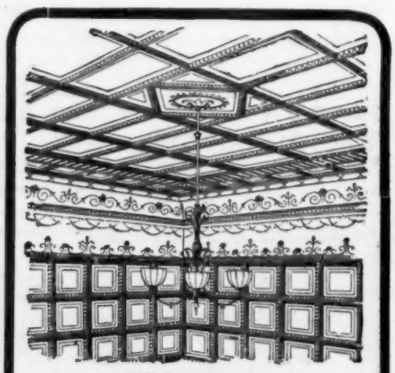

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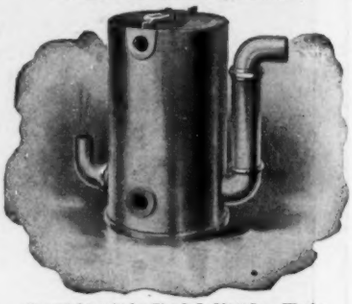

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BUILDING INTELLIGENCE.

(*Advance Rumors Continued.*)

Augusta, Ga. — Plans for new church to be erected by the Second Presbyterian congregation have been prepared by C. C. Wilson, architect, of Columbia, S. C. Cost of building will be $30,000.

Baltimore, Md. — It is proposed to purchase a lot and put up a building for a fire station in the vicinity of Garrison Ave. and Liberty Road.

Bar Harbor, Me. — Adams & Warren, of Astor Court, 20 W. 34th St., New York, have drawn plans for a large country residence to be erected at Frenchman's Bay for Henry Lane Eno.

Bay City, Mich. — A $35,000 building will be erected here for the Bay City Club, by the Colonial Building Co. Pratt & Koeppe, Clark & Munger, arch'ts.

Boliver, Pa. — Plans have been prepared by Wild & Rogers for a $30,000 brick store and office building for E. R. Hammond & Co.

Boston, Mass. — A four-story addition will be made to the dwelling of Alfred S. Dabney, at 411 Beacon St., together with other extensive alterations. Plans have been drawn by Wheelwright & Haven. Cost, $30,000.

Contracts for the erection of a new laboratory and class room building for the Institute of Technology have been awarded. It will be erected at the corner of Stanhope St. and Trinity Pl., and will be known as "Engineering Building C.' It will accommodate the departments of naval architecture, mineralogy and chemistry.

Plans have been prepared by Chas. E. Cassel, Baltimore, Md., for a six-story stone, brick and iron office-building for J. A. Whitcomb, at 245 Washington St. Cost, $100,000.

Brooklyn, N. Y. — The Board of Estimate has allowed $395,000 to be used in erecting a stable and repair shop here, $6,533,000 for the steelwork on the new East River bridge, and $3,100,000 for repaving streets.

Charleston, W. Va. — Charles Weyland, together with Pittsburgh capitalists, is interested in the erection of a $250,000 brewery building.

Colorado Springs, Col. — About $90,500 will be

BUILDING INTELLIGENCE.

(*Advance Rumors Continued.*)

spent by the trustees of the Colorado Deaf and Blind Asylum for gymnasium, library and other improvements.

Columbus, Ga. — A. J. Bethune has let contract for a four-story office-building to David Jones. Cost, $40,000.

Des Moines, Ia. — Hallett & Rawson have drawn plans for a three-story fireproof exchange building for the Iowa Telephone Co. Cost, $35,000.

Dubuque, Ia. — The congregation of the St. Colimbkill's Church on West's Hill will erect a new brick edifice. Cost, $30,000.

East Orange, N. J. — Messrs. Ludlow & Valentine, 100 Broadway, New York City, are preparing plans for a stable for Mr. Marcus W. Adams. The building is to be constructed of frame and stucco, will have concrete floor in carriage-room and clinker brick in the stalls and stall-room and all usual stable fittings. Size of building 27' x 52'.

El Paso, Tex. — It is reported that a new government building will be built at the corner of St. Louis and Mesa Sts. to be used as a post-office. Estimated cost, several hundred thousand dollars.

Erie, Pa. — Plans are being prepared by Architect J. W. Yard & Son for a four-story brick apartment-hotel building. Cost, $60,000.

Fairmount, W. Va. — Geo. M. Jakes will erect an office-building on Monroe St. to cost about $40,000, after plans by A. C. Lyons.

Fort Dodge, Ia. — The Commercial Club will erect a $100,000 hotel building.

Fort Hall, Idaho. — Plans have been approved for the new Indian School here. Congress has appropriated $75,000 for this project. The plans contemplate a combination boys' and girls' dormitory, a dining-hall and kitchen, a school building, employes' quarters and water and sewerage system.

Gardener, Mont. — A $60,000 addition will be built to the Lake Hotel building in Yellowstone Park.

Helena, Mont. — It is reported that the proposed

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(Advance Rumors Continued.)

Henrietta Brewer Memorial Hospital will cost $50,000. A society is being organized to construct the building.

Houston, Tex. — J. E. Lester will erect a residence on Main St. to cost $11,000.

Ithaca, N. Y. — The members of the Ithaca Lodge of Odd Fellows have secured options on two sites on which to erect a temple. No plans have been made.

Jackson, Miss. — The stockholders of the Capital Light and Power Co. have let contract for a $25,000 plant.

Jacksonville, Fla. — Improvements will be made to the Anheuser-Busch Brewing Co.'s property on W. Bay St., costing $35,000. Address Jos. Zapf.

Kokomo, Ind. — Plans have been drawn for an

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

$18,000 polo rink, 90′ x 132′, for a company of which J. W. Barnes is president. It will have steam heat and metal roofing. Stephen O. Yates, Richmond, architect.

Lancaster, O. — The city has voted to issue $75,000 worth of bonds to purchase a site and erect school-buildings.

Las Vegas, N. M. — A Trainmen's Home is to be erected at a cost of $300,000.

Lewiston, Idaho. — It is stated that the Northern Pacific will erect a new freight-house and remodel the present depot into a passenger and baggage depot. It will cost $30,000.

Los Angeles, Cal. — A press report states that Theodore F. Curtis, of Minneapolis, Minn., has purchased

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Grand Ave., between 4th and 5th Sts., and will erect a handsome hotel of 300 rooms to cost $250,000.

Macon, Ga. — It is reported that $70,000 will be expended in improvements and additions to Mercer University.

Manhattan, Kan. — $50,000 will be spent for the construction of a new court-house for Riley County.

Memphis, Tenn. — The Elks are discussing plans for proposed new building on Jefferson St. It is the intention to have the new building ready for occupancy by the first of next year. The cost will be about $40,000.

Thompson, Starrett & Co., of New York, have the contract for the erection of a ten-story modern fireproof hotel. Cost of building will be about $600,000.

Menominee, Wis. — Plans have been prepared for the $200,000 hotel building for the Northern Hotel Co.

Milford, Conn. — Brown & Von Beren, of New Haven, are making plans for a three-story hotel to be erected here for J. McLaughlin.

Milwaukee, Wis. — A store and bakery building will be erected by Cathrine Moser & Co. to cost $20,000. Building will be of brick, three stories, 48′ x 80′. Plans by E. H. J. Peege, 454 Broadway.

Minneapolis, Minn. — Plans have been drawn by Channing C. Whitney for a 30-room addition to the Lafayette Club-house. Cost, $20,000.

Morganza, Pa. — Plans have been prepared for an $85,000 building for the girl's section at the Reform School. A house for boys will also be erected at a cost of $20,000.

Moultrie, Ga. — C. E. Mace will begin at once the erection of a $20,500 cotton-seed oil mill.

Mt. Pleasant, R. I. — A new fire station is proposed with a new company and new equipment.

Nashville, Tenn. — Plans are being prepared by J. E. R. Carpenter, New York, for the new ten-story office-building for B. Stahlman and others. Cost, $700,000.

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BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

New Haven, Conn.—Brown & Von Beren have drawn plans for the $65,000 addition to the Home of the Little Sisters of the Poor on Winthrope Ave.

New York, N. Y.—G. F. Pelham, 503 Fifth Ave., has drawn plans for a six-story apartment-house, 50′ x 87′, to be erected on 99th St., near Madison Ave. Cost, $45,000. Lashkowitz & Cohen, 14 W. 118th St., owners and builders.

Bernstein & Bernstein, 72 Trinty Pl., are making plans for 2 six-story brick tenements, 37′ 6″ x 43′ & 45′ 6″ x 50′, to be built on the corner of Houston and Lewis Sts. for Jacob Weinstein, 72 Trinity Pl. Cost, $60,000.

Plans have been drawn by G. F. Pelham, 503 Fifth Ave., for 2 six-story elevator apartment-houses, 50′ x 87′, to be built on north side of 107th St., near Broadway. Cost, $120,000. Owners and builders, Gross & Sarber, 161 W. 51st St.

Neville & Bagge, 217 W. 125th St., have drawn plans for a six-story brick tenement, 49′ 8″ x 86′ 10″, to be erected on 141st St., near 8th Ave., for Hoffmann & Ellender, 24 E. 99th St., at a cost of $75,000

Plans have been completed by Bernstein & Bernstein, 72 Trinity Pl., for 2 six-story brick tenements, 40′ x 84′ & 42′ 6¾″ x 84′ 8″, to be built at 705 711 E. 5th St., for Max Kotzen, 52 Broadway. Cost, $75,000.

The Zion African Methodist Episcopal Church has bought from Joseph Holland a plot of three lots on the south side of 89th St., 325 feet east of Amsterdam Ave. A new home for the church will be built there.

The four-story buildings occupying a plot of ground 50′ x 100′, at Nos. 62 and 64 E. 125th St. have been purchased by Edward D. Farrell. As soon as the present lease expires it is Mr. Farrell's intention to erect on the site a $250,000 ten-story office building or store.

Plans have been filed for a twelve-story brick and terra-cotta hotel to be erected at the corner of Lexington Ave. and 30th St. Gilbert Orcutt, owner. C. Stimmetz, architect. Cost, $400,000.

Architects Lowinson & Eisendrath, 25 W. 24th St., have prepared plans for the new five-story club-house for the Citeron Club. Cost, $80,000.

Norfolk, Va.—It is reported that the Seaboard Air Line R. R. will rebuild shops recently destroyed by fire at this place.

Pasadena, Cal.—Wm. B. Edwards has drawn plans for A. Chanda for a two-story apartment-house to be built on the corner of Fair Oaks Ave. and Painter St. Also plans for a twelve-room apartment-house for John McCarthy, to be built on the corner of Walnut St. and Winona Ave.

Architect C. W. Buchanan is preparing plans for Mrs. George W. Childs, of Philadelphia, for a two-story residence of 15 rooms to be built on the corner of Buena Vista St. and Meridian Ave.

C. F. Driscoll is preparing plans for alterations to the Auditorium Building, which has been purchased by the Y. M. C. Association. There will be a two-story addition, 28′ x 40′, to contain bowling alleys, bath and dressing rooms, offices, etc., on the first floor and audience room on the second floor.

Peoria, Ill.—Architects Reeves & Baillie are preparing plans for changing the Niagara Building from an office-building to a hotel-building. Cost, $59,000.

Pittsburgh, Pa.—Plans have been prepared by Architect T. D Evans, Lewis Building, for the $90,000 stone edifice for the First Congregational Church.

Plainfield, N. J.—The Aluminum Press Co., North Ave. and Berckman St., will erect five buildings at Dewey Park to cost $100,000.

Portland, Me.—It is decided that the site for the new court-house and post-office will be that extending from Federal to Newbury Sts. and from Market to within 70 feet of Pearl St. If the Government after making the purchase should deem it wise to take all the land in the square, the strip along Pearl St. could then be obtained either by purchase or by condemnation proceedings.

Portland, Ore.—L. B. Stearns is reported to be about to erect a four-story brick building costing $75,000.

Princeton, N. J.—The contract has been awarded E. E. Paul, 289 Fourth Ave., New York, for erecting a two-story brick and stone dormitory building, 36′ x 280′, for Princeton University. Plans of Benjamin W. Morris, Jr., 5 W. 31st St. Cost, $110,000.

Raleigh, N. C.—It is stated that the Episcopalian Diocese will erect a handsome new home for Bishop Cheshire on the campus of St. Mary's Female College.

Sacramento, Cal.—A number of business men of this city plan to erect a club-house at the corner of 10th and L Sts., to cost about $75,000.

The Southern Pacific will erect a new depot and freight-house here.

BUILDING INTELLIGENCE.

(Advance Rumors Continued.)

Salisbury, Md.—Plans have been revised by Architect Jackson C. Gott for the two-story brick, stone and terra-cotta bank and office-building, 26′ x 57′. Cost, $30,000.

Salt Lake, Utah.—Mrs. Mary Judge will build a three-story business block on S. 3d St., between Main and W. Temple Sts. Cost, $30,000.

It is stated that the Ogden High School will be remodelled. An annex will be built on the north and east sides of the building and 12 rooms will be added. The cost will be $10,000.

The plans submitted by James H. Pulley to the Council for a new City-hall were accepted.

San Bernardino, Cal.—The Masonic Hall Association will erect a two-story Temple to cost $24,000.

San Francisco, Cal.—Lester S. Moore has prepared plans for a fire-engine station, to be built on Pasadena Ave., between Avenues 59 and 60.

A hotel will be built for Edward B. Hindes, of 328 Howard St., on Sutter St, between Mason and Taylor Sts. Cost, $150,000. Plans by Newton J. Thorp.

Salfield & Kohlberg, 339 Kearny St., have drawn plans for an apartment-house to be built for John M. Lee, on S. Sutter St., between Jones and Leavenworth Sts. Cost, $100,000.

Eugenie Gambetz will erect 2 three-story and basement dwellings on Broadway, near Pierce St. Their estimated cost will be $22,000.

The Wellman Estate Co. will erect a large warehouse on the west side of East St., between Jackson and Pacific Sts. It will be of brick and terra cotta, and will cost $80,000. Architect, Julius F. Krafft.

Santa Barbara, Cal.—Plans for the new building to be erected by the Santa Barbara Improvement Co. have been prepared by Architect F. W. Wilson. The cost is placed at between $30,000 and $40,000.

Sayre, Pa.—It is reported that the Lehigh Valley Railroad will extend its principal locomotive and car repair shops at this place. The intention is to construct during the next two years only additional facilities for locomotive repairs. The work during the first year will consist of preparing the site and erecting the principal buildings at a cost of about $1,000,000.

Sharon, Pa.—About $20,000 will be spent by the Buhl Independence Rifles, for the erection on Walnut St. of a two-story armory building, 80′ x 80′.

Spokane, Wash.—W. H. McVay has had plans

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BUILDING INTELLIGENCE.

(*Advance Rumors Continued.*)

drawn by C. F. White for a three-story and basement brick building, to cost $20,000.

Plans for the new St. Luke's Hospital building have been completed by Albert Held. The building will cost $25,000.

A press report states that plans have been completed for additions to Gonzaga College. The east addition will be five stories high, and a similar addition will be built to the west of the building and will contain a church. The expenditure will be about $250,000. Preusse & Zittel are the architects.

Springfield, Mass.—Peabody & Stearns, of Boston, are drawing plans for a three-story brick and stone building to be erected for the Springfield Fire & Marine Insurance Co. The structure will be 100′ x 133′ in size.

St. Louis, Mo.—Andrew Sproule will receive bids for erecting large store and hotel building. Plans by C. K. Ramsey. The cost of building will be $30,000.

The Crane Co., manufacturers of machinists' and plumbers' supplies, will erect a new seven-story warehouse, 100′ x 120′, at 16th and Walnut Sts. Cost, $100,000.

Plans have been prepared for the new eight-story hotel building to replace the old Pepper warehouse, at 12th and Market Sts. Cost, $200,000.

Plans have been prepared by Architects Mauron, Russell & Garden, Chemical Building, for a $2,000,000 hotel building to be built at 12th St. and Washington Ave.

A contract was recently let and ground broken for the erection of another beautiful residence on the north side of Hortense Pl., for Mr. Frank V. Hammar. The proposed structure has been designed by Mr. G. W. Helmuth and it will be the seventh residence he has designed for that aristocratic block. The proposed house will harmonize with the other houses designed by Mr. Helmuth in the neighborhood. The building will be of the New England Colonial style of architecture, which will be handsomely carried out in brick and stone.

Syracuse, N. Y.—The Dey Time Register Co. will build a five-story factory of mill construction at S. West and Tully Sts., 50′ x 171′, together with a power-house, 32′ x 50′, adjoining.

Tacoma, Wash.—A building permit has been issued for the construction of a large warehouse and dock extension by the Northern Pacific as an extension to Ocean Dock No. 2, at a cost of $40,000. Deeks & Deeks have the contract.

Texarkana, Ark.—Contractor Whitley has secured contract to build the $20,000 Methodist Church.

Vallejo, Cal.—O'Brien & Werner, of San Francisco, were the successful architects for the new Carnegie Library to be erected here. Ten plans were submitted. The building will cost $20,000.

Vancouver, B. C.—The Board of School Trustees are looking for a suitable site for the new $90,000 high-school building to be erected in Fairview.

Waltham, Mass.—The Waltham Board of Aldermen is considering the matter of erecting a new City-hall, the building now occupied by the different city departments being the old Rumford Building, which is entirely too small. A committee has been appointed to procure sketches.

Washington, D. C.—York & Sawyer, 156 Fifth Ave., have made plans for the American Security & Trust Co.'s bank building to be erected at 15th and Pennsylvania Aves. Cost, $150,000.

BUILDING INTELLIGENCE.

(*Advance Rumors Continued.*)

West Manchester, Mass.—The estimated cost of the summer dwelling to be erected here for Dr. R. H. Fitz, of Arlington St., Boston, will be $25,000. Plans have been made by Peabody & Stearns.

Youngstown, O.—Contract is soon to be awarded for new engine-house.

OFFICE-BUILDINGS.

New York, N. Y.—*E. Twenty-first St., Nos.* 24-26, nine-st'y bk. offices & store, 50′ x 100′; $250,000; o. & a., Fred C. Zobel, 22 E. 21st St.

TENEMENT-HOUSES.

New York, N. Y.—*Avenue D*, cor. 8th St., 2 six-st'y tenements & stores, 50′ x 53′ 6″ & 47′; $63,000; o., Lena Michelson, 136 Avenue D; a., G. F. Pelham, 503 Fifth Ave.

Ridge St., Nos. 25-27, six-st'y bk. tenement, 50′ x 87′; $50,000; o., Hyman Wynehouse, 393 Grand St.; a., G. F. Pelham, 503 Fifth Ave.

Second Ave., Nos. 317-319, six-st'y bk. tenement & stores, 34′ 8″ x 85′; $40,000; o., Henry Lippman, 60 E. 117th St.; a., Bernstein & Bernstein, 72 Trinity Pl.

E. Thirteenth St., No. 346, six-st'y bk. tenement, 42′ x 90′ 3″; $45,000; o., Isidore Gottlieb, 409 E. Houston St.; a., Sass & Smallheiser, 23 Park Row.

WAREHOUSES.

Chicago, Ill.—*N. Desplaines St., Nos.* 56-58, six-st'y bk. warehouse, 50′ x 90′; $30,000; o., Jacob Birk, 1901 Wellington St.; a., Huehl & Schmid, Metropolitan Block; b., John Gebhardt & Son, 160 Orchard St.

Besly Ct., Nos. 43-45, three-st'y bk. warehouse, 49′ x 148′; $20,000; o., Prier Teeple Co.; a., Rheder & Coppin; b., F. M. Garthwaite, 318 Chamber of Commerce.

New York, N. Y.—*W. Thirty-first St., Nos.* 35-37, eleven-st'y st., bk. & terra-cotta loft building, 33′ 6″ x 100′; $150,000; o., J. C. Woodhull; a., Augustus N. Allen, 571 Fifth Ave.

MISCELLANEOUS.

Brooklyn, N. Y.—*Bedford Ave.*, cor. Lefferts Pl., two-st'y bk. Sunday-school, 46′ x 73′ 4″, steam; $20,800; o., Flatbush Reformed Dutch Church, 900 Flatbush Ave.; a., G. F. Morse, 3 W. 29th St., N. Y.

New York, N. Y.—*Fifth Ave, No.* 574, six-st'y shop & studio building, limest. front, 25′ x 100′; $50,000; o., J. C. Woodhull; a., Augustus N. Allen, 571 Fifth Ave.

BUILDING INTELLIGENCE.

(*Miscellaneous Continued.*)

First Ave., cor. 45th St., six-st'y base. & attic abbatoir, 90′ x 106′; $90,000; o., W. H. Noyes, Orleans Hotel; a., Copeland & Doyle, 51 Exchange Pl.

COMPETITIONS.

SOLDIERS' MONUMENT.
[At Pittsburgh Landing, Tenn.]

To artists, designers and workers in granite: The Commissioners having in charge the erection of a monument to the memory of Wisconsin soldiers on the Shiloh Battlefield, at Pittsburgh Landing, Tenn., offer a premium of $225 for the best, and $75 for the second best design for such monument, submitted **on or before the first day of August, 1903.** The cost of the monument not to exceed $13,000. For full particulars, address D. LLOYD JONES, Secretary, Room 434, Post-office Building, Milwaukee, Wis. F. H. MAGDEBURG, President; D. LLOYD JONES, Secretary, Wisconsin Shiloh Monument Commission. 1435

PROPOSALS.

BRIDGE.
[At Washington, D. C.]

U. S. Engineer Office, 2001 I St., N. W., Washington, D. C. Sealed proposals for construction of a highway bridge across Potomac River at Washington, D. C., will be received here **until July 25, 1903.** Information furnished intending bidders on application. CHAS. J. ALLEN, Lt. Col. Engrs. 1434

TUNNEL CONSTRUCTION.
[At Boston, Mass.]

City of Boston. Boston Transit Commission. Sealed bids for constructing Section F of the East Boston Tunnel, from the westerly end of the Old State-house across Washington St. and along Court St. to near Tremont St., including a station in Court St. and underpinning the Sears Building, etc., will be received by the Commission at its office, 20 Beacon St., Boston, Mass., **until July 7, 1903.** Plans can be seen and specifications and forms of contract can be obtained at 20 Beacon St., fifth floor. George G. Crocker, Chairman. Charles H. Dalton, Thomas J. Gargan, George F. Swain, Horace G. Allen, Boston Transit Commission. Howard A. Carson, Chief Engineer. B. LEIGHTON BEAL, Secretary. 1435

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PROPOSALS.

ELECTRICAL CONSTRUCTION.
[At Deer Island, Mass.]

The Penal Institutions Commissioner invites proposals for electrical construction at House of Correction at Deer Island. The plans may be examined and proposals and specifications obtained at the office of the Public Buildings Department, Electrical Division, No. 11 Wareham St. Proposals will be received at the office of the Penal Institutions Commissioner, 32 Tremont St., **until June 24, 1903**, at which time and place the same will be publicly opened. JOHN B. MARTIN, Commissioner. 1434

BOILERS AND CONNECTIONS.
[At Deer Island, Mass.]

The Penal Institutions Commissioner invites proposals for furnishing and setting up three horizontal tubular boilers and connections at House of Correction at Deer Island. The proposals and specifications may be obtained at the office of the Penal Institutions Commissioner, 32 Tremont St. Proposals will be received at the office of the Penal Institutions Commissioner, 32 Tremont St., **until June 24, 1903**, at which time and place the same will be publicly opened. JOHN B. MARTIN, Commissioner. 1434

Treasury Department, Office Supervising Architect, Washington, D. C., June 11th, 1903. Sealed proposals will be received at this office until 3 o'clock P. M. on the 16th day of July, 1903, and then opened, for the construction (excepting heating apparatus, electric wiring and conduits) of the U. S. Post-office at Waterbury, Connecticut, in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Postmaster at Waterbury, Conn., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1435

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 11th, 1903. Sealed proposals will be received at this office until 3 o'clock P. M. on the 7th day of July, 1903, and then opened for furnishing and delivering the draughting materials required in accordance with the specification and schedule, copies of which may be had at this office. JAMES KNOX TAYLOR, Supervising Architect. 1435

PROPOSALS.

Treasury Department, Office Supervising Architect, Washington, D. C., June 10, 1903. Sealed proposals will be received at this office until 3 o'clock P. M. on the 14th day of July, 1903, and then opened, for the construction (including plumbing, heating apparatus, electric wiring and conduits) of the U. S. Post-office at Winston, N. C., in accordance with the drawings and specification, copies of which may be had at this office, or at the office of the Postmaster at Winston, N. C., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1435

HIGH SCHOOL.
[At Plainview, Minn.]

Bids will be received by the Bd. of Educ. **until June 30** for erecting a high school. G. F. SYLVESTER, Clk. 1434

PUMPING STATION.
[At Allegheny, Pa.]

Proposals for the erection of a brick pumping station will be received by D. L. Fulton, director department of public works, **until August 1.** 1434

BRIDGES.
[At Chicago, Ill.]

U. S. Engineer Office, 1637 Indiana Ave., Chicago, Ill. Sealed proposals for manufacture and erection of four riveted steel highway bridges will be received here **until June 27, 1903.** Information on application here, or to Assistant Engineer L. L. Wheeler, Sterling, Ill. J. H. WILLARD, Maj., Engrs. 1434

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 4, 1903. Sealed proposals will be received at this office until 3 o'clock P. M. on the 22d day of June, 1903, and then opened for furnishing and delivering Post-office Lock Boxes, etc., as they may be ordered for Post-offices in Public Buildings under the control of the Treasury Department, during the fiscal year ending June 30, 1904, in accordance with drawing and specification, copies of which may be had at the discretion of the Supervising Architect by applying to this office. JAMES KNOX TAYLOR, Supervising Architect. 1434

PROPOSALS.

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 3, 1903. Sealed proposals will be received at this office until 3 o'clock P. M. on the 8th day of July, 1903, and then opened for the construction (including plumbing, heating apparatus, electric conduits and wiring) of the extension of the U. S. Court-house, Post-office, etc., at Waco, Texas, in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Custodian at Waco, Texas, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1434

Treasury Department, Office of the Supervising Architect, Washington, D. C., June 6, 1903. Sealed proposals will be received at this office until 3 o'clock P. M. on the 6th day of July, 1903, and then opened, for the construction (except heating apparatus and electric wiring and conduits) of the U. S. Post-office at Norwich, Connecticut, in accordance with the drawings and specification, copies of which may be had at this office, or the office of the Postmaster at Norwich, Conn., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 1435

PORTICOS.
[At Preston, Minn.

The County Commissioners of Fillmore County will receive proposals for porticos on the north and south sides of the court-house in Preston, **not later than July 15, 1903.** All bidders to furnish their own plans and specifications. Photograph of building and measurements furnished on application to the county auditor. J. F. JONES, County Auditor, Preston, Minn. 1434

CONSTRUCTION.
[At New Orleans, La.]

Bids will be received **June 27** by Mordecai T Endicott, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., for constructing at the Naval Station, New Orleans, the following: Two-story brick office-building, appropriation $30,000; also a two-story brick and steel building for equipment. Limit of cost, $80,000. 1434

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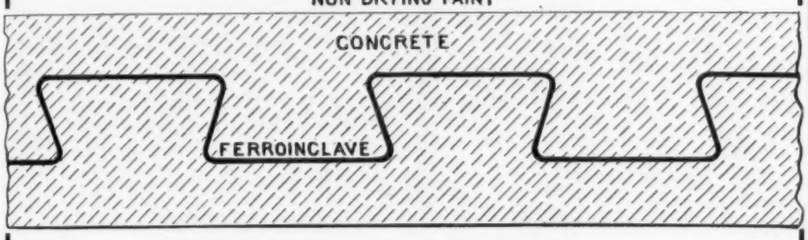

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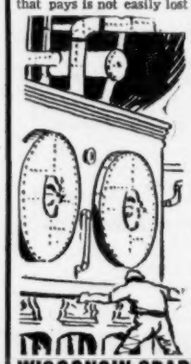

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