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THE LEANING BAPTISTERY OF PISA

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THE earliest mention of the constructive inclination of the Pisa Baptistery appears to have been made by Ernst Foerster, a distinguished German art historian, who flourished in the middle half of the nineteenth century. He was thus a contemporary and colleague of the great art historians Kugler, Burckhardt, Schnaase and Luebke. Among his important books are a History of Italian Art in five volumes and a Guide Book for Italy.*

This latter book resembles a Baedeker, as regards plan and purpose, but combines with it the criticisms and original information which can only be offered by an art historian. Foerster's biographer states that this guide has been only surpassed in later days by the guides of Gsell Fels. It had gone through eight editions in 1866.

It is in this guide-book that the inclination of the Pisa Baptistery is first mentioned by Foerster. It is quoted casually and without measures or details as one among various cogent reasons which favor the theory of a purposed construction in the Leaning Tower.¹ (See footnote on following page.)

Thus it appears that Foerster believed the

Baptistery inclination to be also intended.² (See footnote on following page.)

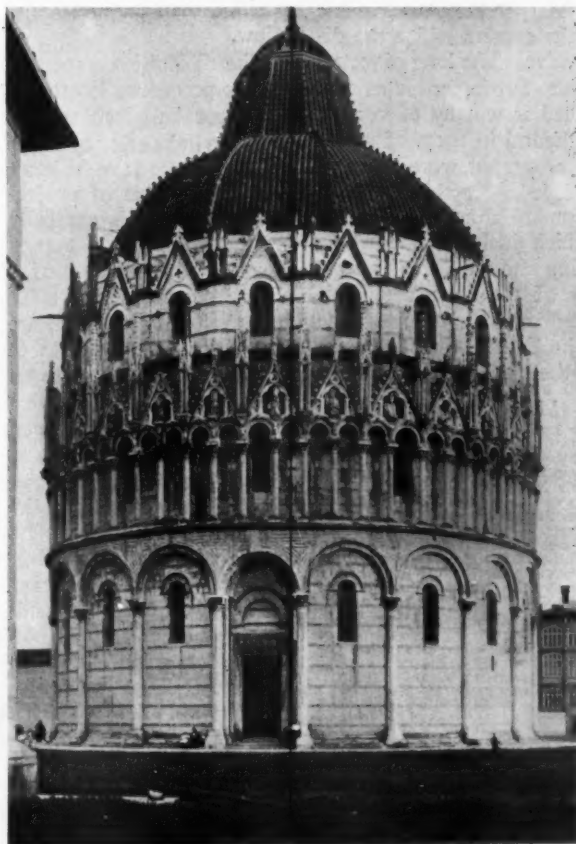
Since 1870, when I first visited Pisa and carried with me Foerster's guide-book, and since 1895, when I was first able to undertake and direct surveys, there or elsewhere, the inclination of the Baptistery has been one of the subjects regarding which ultimate and definite

information has been anxiously sought, but without complete success until May, 1910.

To the editors of THE AMERICAN ARCHITECT, to whose generous support and active interest the Brooklyn Museum Architectural Exhibition is so much indebted, this announcement of a new exhibit is, therefore, confided.

The feat of plumbing the Baptistery appears simple enough after it has been done (see frontispiece), but few may realize the long series of tentative efforts and repeated failures in this and similar cases until Professor Charles S. Hastings, the distinguished authority on optics and physics of Yale University, suggested the expedient of obtaining measured plumbs by placing a plumb line inside the camera.

It was not until 1910 that this method of obtaining measured plumbs by photographs was attempted.



THE PISA BAPTISTERY, NORTH SIDE.

From a Brooklyn Museum exhibit, photographed with plumb-line inside the camera. There is an inclination from west to east (i.e. from right to left) of 15 inches, which is due to building to the surface slope. The angle of the Campo Santo on the left is slightly out of plumb, and to that extent exaggerates the apparent inclination of the Baptistery.

*"Handbuch für Reisende in Italien." Eighth enlarged and revised edition, Munich, 1866.

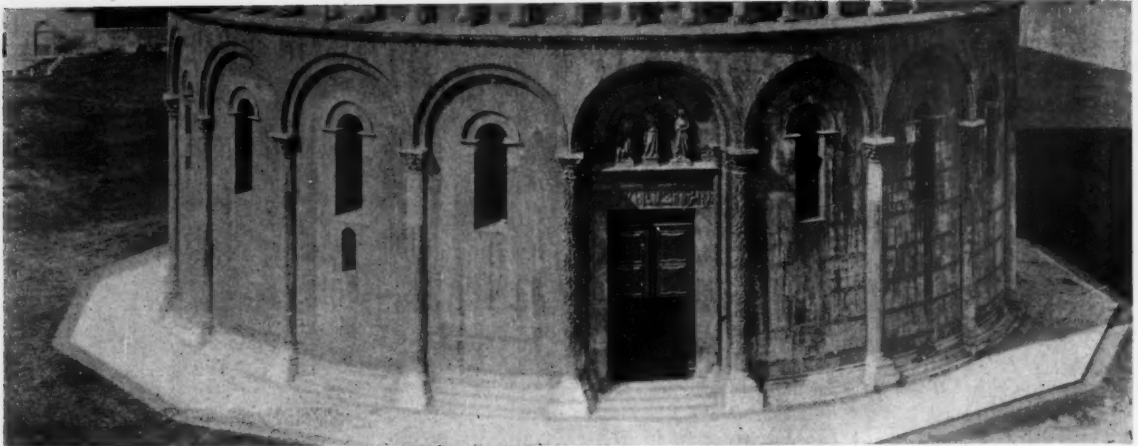


FIG. 1.—The lower story and polygonal platform of the Pisa Baptistery.

Aside from the physical impossibility in many cases of obtaining measured plumbs by suspension of a plumb line on the building (and the Baptistery is obviously one of these cases) there is another obstacle to the taking of plumb measurements by photography. This is the physical impossibility of obtaining a line of sufficient diameter to assure visibility in the photographic negative at the distance from the camera which the dimensions of a large building involve. The long sequence of experiments through which Professor Hastings' expedient was ultimately reached is worthy of record. For the plumbs of Amiens Cathedral in 1907, of which *one hundred and fifty-four photographs* were taken, a 1½-inch cable was at first employed. Anything smaller would not show through the sombre atmosphere of the cathedral in a photograph which included the whole height of the nave at the crossing and which was necessarily taken from the vicinity of the entrance. This cable was over 180 feet long³ and it required the strength of four workmen in the Cathedral loft to raise it from the pavement through the opening in the vault-

ing nearest to the position of the desired plumb. At each successive transfer of this enormous plumb line it had to be lowered again to the pavement. Still other difficulties were occasioned by the necessity of attaching braces, which were passed through some other opening, in order to draw the cable nearer to the desirable position than the location of the nearest opening would allow.

The difficulties, expense and waste of time involved in this procedure led to the experiment of projecting a fifty-foot half-inch rope (painted black for contrast with the light color of the piers) from the triforium half way down the nave. When the camera is properly placed and the amount of projection of the pole which supports the rope is carefully arranged, this rope shows against the more distant piers as though it were hung from top to bottom of the church. The half-inch diameter suffices for visibility, because the rope is one-half the total distance nearer to the camera and because it gives a contrast with the lighter color of the pier, whereas the cable has to be photographed in the darker atmosphere of the church without this contrast.

Later on the experiment was successfully tried of hanging a small cord from 6 to 15 feet in front of the lens. The secret of success, when this method is applied, is to focus on the line and not on the part of the building to be photographed. If the focus is adjusted to the part of the building to be plumbed the line will not show in the negative. Perfectly sharp pictures may, however, be obtained by this method if the smallest diaphragm stop is used (and the making of negatives for enlargement involves the use of this stop under any circumstances). In such pictures the jointed bamboo pole from which the line must hang is, however a very disagreeable feature in the view of a church nave. A frame with two uprights and a cross-bar might be used for such purposes, but would add too much to the impedimenta of travel.

We now come to the most insuperable difficulty relating to any and all exterior plumbs for purposes of photography. This is the wind, and the draughts which are rarely absent from the neighborhood of a large building. Many days may pass in waiting for a quiet

³The direction of the greatest lean is not mentioned in the guide (1866), but in Foerster's "Geschichte der Italienischen Kunst," Vol. I, p. 251 (1869), it is said to be from south to north. This is an error which must be due to sighting on the Baptistery, past the southwest angle of the leaning Cathedral façade, as, for instance, from the corner of the Via S. Maria, where it opens on the Cathedral piazza. From such points of view there is a strong optical illusion due to the westward inclination of the façade (THE AMERICAN ARCHITECT, Sept. 8, 1909) which makes the Baptistery appear to lean south or southeast. I have myself been deceived by this illusion. Foerster was certainly not aware of the façade inclination or he would undoubtedly have mentioned it. (It was unknown to the official in charge of the historic monuments of the Province of Pisa, in 1895, and it was unknown, in 1901, to the architect in charge of Cathedral repairs, until I showed it to him.)

⁴In view of the great importance of this observation, and of the significance which Foerster attached to it, as bearing on the question of the tower, the following biographical notes have value as showing the high standing of this critic: Born 1800; died 1885. Educated at the Universities of Jena and Berlin. His genius as an artist was discovered by the famous Peter Cornelius and he was associated with him in executing frescoes in the series of the Munich Pinakothek and other public buildings in Munich. Was commissioned by the Crown Prince Maximilian of Bavaria (afterward King Maximilian II) to obtain sketches of historic Italian paintings and study the Italian archives. Published many serious memoirs of original research relating to Italian and also to German art. Discovered in 1837 the important frescoes of the Cappella San Giorgio in Padua, until then concealed by dust and whitewash. Published two five-volume histories of art in Germany and Italy respectively. Was a member of the International Jury on the designs for the façade of the Florence Cathedral. Was associated with Franz Kugler as co-editor of the Stuttgart *Kunstblatt*. This association with Kugler is most significant for Foerster's standing, for Kugler was the first and greatest of the compendious art historians of Germany and of Europe.

⁵Having been obtained from the cathedral workshops and being in use for repairs of the cathedral, it was naturally considered inadvisable to cut it down for a temporary purpose. Of course, a length of over 139 feet was required for the plumbs.

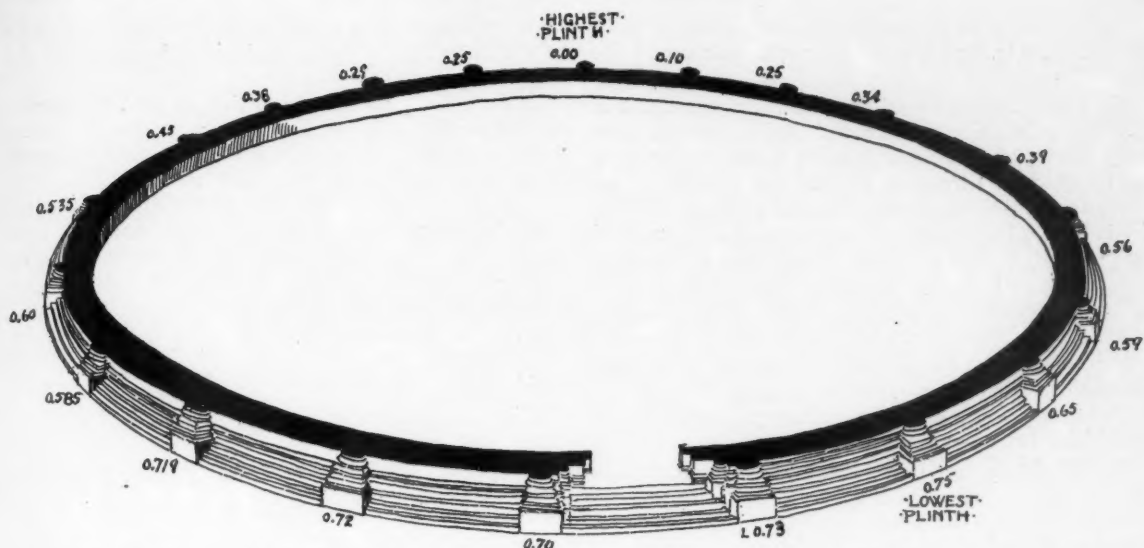


FIG. 3.—Levels of the foundations of the Pisa Baptistery. The east door, facing the Cathedral façade is at the bottom of the diagram. Measures in decimals of a foot.

moment when perhaps only a few hours can be spared for the given locality or the given church.

Professor Hastings' device of placing the plumb line inside the camera meets all these difficulties and it has enabled me to make astonishing headway during my recent trip abroad, to such an extent, indeed, that the publication of many results must be indefinitely deferred for want of an "organ" specially devoted to this subject.

In view of the preceding explanations it may be understood why the inclination of the Pisa Baptistery had never been measured until 1910.

Of course, this method of obtaining measures for vertical deflections by photographing a plumb line, also involves the placing of an object of known dimension, to be included in the photograph, on the plane of the measure desired. In the case of the Baptistery an oblong disk, 8 by 10 inches, taken from a surveyor's rod, may be seen on the extreme right resting on the pavement against the steps.

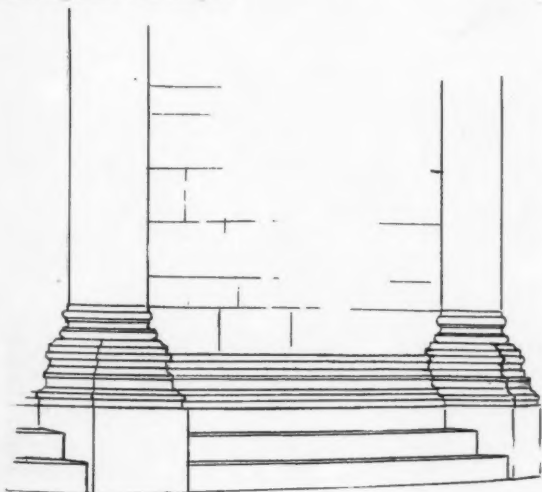


FIG. 2.—Detail of the steps, base moulding and plinths of the Baptistery.

Assuming that the line falls accurately at the upper center of the Baptistery, which it evidently does in the present instance, we obtain the measure for inclination by measuring with a compass from the point of the plumb line near the base of the building to both outer sides. The difference between these measures, as obtained by compass, when applied by compass to the 8 by 10 inch disk, will give the inclination of the Baptistery. It is desirable, of course, to have an enlargement for this use of the compass in order that the disk may have sufficient dimension for the compass test.

The dimensions of the frontispiece are wholly insufficient for such a compass test and in the present instance the measure has been obtained from three separate 11 by 14 inch glass positives, made from three different negatives, of which two were taken on opposite sides of the Baptistery. In each instance the result is very close to 15 inches, and the same result is obtained from a 16 by 20 inch enlargement for the south side and a 25 by 35 inch enlargement corresponding to the frontispiece, for the north side. The glass positives were employed in order to avoid error, due to possibly unequal expansion and contraction of a paper print.

The inclination having been measured (for the first time in history), we have next to inquire what is the cause. The answer is quite simple. The foundations have been built to the surface slope, which amounts to about 0.75 foot, or 9 inches, in a diameter of about 122 feet. The building has otherwise been erected in the usual manner.

There were two alternatives, as against the one of building to the surface slope and thus allowing the Baptistery to lean in a corresponding degree. One alternative would have been to build the water table to the surface slope and then rectify the masonry to a true horizontal above the water table by cutting the blocks of the next adjacent course of masonry in wedge fashion, so as to correct the slope.*

* This method was actually employed in the Pieve Nuova at S. Maria del Giudice. See Fig. 3, THE AMERICAN ARCHITECT, Oct. 27, 1909.

The objection to this method would be the expense and the trouble, in view of the great delicacy of the slope.

The other method would have been the one which is universal in modern practice and *which was also generally employed in mediæval building*, viz., to level up the foundations before laying the water table. This would have involved a course of plain masonry at the visible base, 9 inches high on the east side and diminishing gradually in height to the surface level on the west side (unless, of course, a higher foundation of plain masonry had been constructed, with a similar accommodation of heights to the surface slope).

The objection to this method will be apparent when we consider at what a sacrifice of the present beauty of the Baptistery the true (and unnecessary) perpendicular would have been obtained.

The Baptistery now rises from a gently upward sloping polygonal pavement (Fig. 1).^{*} Its wall rests on three steps, which are surmounted by a base moulding of elaborate profile (Fig. 2). The bases of the engaged columns which support the wall arcades rest on plinths which are set into the steps in such fashion that the plane surface of the rectangular plinth is exactly as high as the combined height of the steps (Fig. 2). The base moulding above the steps is continued around each plinth and the base of the column rests on this plinth moulding, thus rising above the bottom of the wall.

Now all this obviously artistic and subtle attention to the details of appearance at the base of the Baptistery must have been sacrificed if the steps and base moulding did not rise from the polygonal pavement, and if this pavement did not rise from the surface. The alternative would have been a substructure of plain masonry built to level above the surface slope.

The conclusion is, therefore, that an invisible and unnecessary mathematical perpendicular was sacrificed to the beauty of the base. Surely Mr. Bosworth's happy term, "temperamental architecture," may be employed to advantage here.[†]

Not the least interesting part of this matter is the series of levels for the foundations by which this careful adjustment was made possible. These levels show a gentle slope of the steps and plinths, amounting to 9 inches, between the east and west sides of the Baptistery (Fig. 3).

We have seen that the inclination of the Pisa Baptistery was quoted by Foerster as indicating purpose in the inclination of the tower. Under the light of the present article it must be agreed that the explanations of motive cannot be the same in the case of the two buildings, but, in spite of the fact that strictly logical reasoning cannot argue directly from one building to the other, there is no doubt that the inclination of the Baptistery does make it easier to understand the Leaning Tower.

The Pisan temperament, which so easily accepted a departure from the true perpendicular in the one instance, may be more easily conceived, on that account, to have projected a directly purposed inclination in the

other instance. The former case is an incipient stage of the latter, or, at least, might have been one of the suggesting causes.

Is there any parallel case to that of the Pisa Baptistery in mediæval Italian architecture? The answer is: Most certainly, there are, at least, two other instances. Both cases have been published in *THE AMERICAN ARCHITECT*,^{*} and one of them is the Pisa Cathedral. Only the surface slopes of the Cathedral, however, were published in the quoted article. To photograph the resulting inclinations would have been practically impossible before Prof. Hastings' device had been suggested. Hence, the plumb line photographs of the Pisa Cathedral, showing the inclinations which resulted from building to slope, will be the subject of a future article.

^{*}October 27, 1909.

THE NEW HOME OF THE BOSTON ARCHITECTURAL CLUB

When a History of Architectural Development in America is written, the story will not be complete without including that of the formation of the various architectural clubs throughout the country. These architectural clubs were the direct result of the desire on the part of the men who formed them to improve and better themselves—not alone professionally, but along social and educational lines.

The old system of apprenticing young men to architects, which is still maintained in England, long since fell into decay in America, and finally, on account of our peculiar institutions, was abandoned entirely. The

(Continued on page 42)



ENTRANCE, 16 SOMERSET STREET

^{*}Although Cresy and Taylor, pl. XII, and Rohault De Fleury, pl. XVIII, have represented this pavement as circular in plan.

[†]See the title of Fig. 1, in Mr. Bosworth's article on "Architectural Dissymmetries," in *THE AMERICAN ARCHITECT* of Sept. 21, 1910.

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Country Houses by Guy Lowell, James S. Lee and Davis, McGrath & Kiessling.

Frontispiece:

The San Miguel Doorway, Cathedral, Seville.

A THEORY ACCOUNTING FOR STRUCTURAL WEAKNESS

AN interesting theory advanced to account for the sudden collapse of the girders supporting the upper floors of the Chamber of Commerce Building, which burned in Cleveland recently, is that attributing the unexpected weakness of the supporting structural members to the action of electric currents that had found their way into the framework of the building, due to imperfect insulation of the electric feed wires. It is stated that not only were the trunk wires poorly insulated, but they were carried up through the building in close proximity to the structural columns and were, moreover, so greatly overloaded as to cause an alarming rise in temperature in the copper. Whether there is merit in the above theory will probably never be known, but certain it is that a condition such as is indicated could not be regarded otherwise than as extremely hazardous. Possibly electrolysis did not cause the collapse of the Cleveland building, but there seems to be little question of their deleterious action on steel and iron when electric currents are brought in contact with the skeletons of buildings. Safety from possible injury lies in thoroughly and completely insulating both the electric wires and the metal structure below grade as well as above. Perhaps as a general statement it would be safe to state that greater danger of injury lies below grade than elsewhere, since a defect hidden below the basement floor is not liable to be detected until considerable harm has resulted, and after detection great difficulty may be encountered in making correction and repairs.

AS OTHERS SEE US

IT is most gratifying to read in the pages of our dignified and representative contemporary, the *London Builder*, the very flattering appreciation of the work of architects in America which is printed in another column. We have become so accustomed to being char-

acterized as superficial on account of haste in construction that to receive commendation from so excellent an authority is extremely satisfactory.

As the question involved is one entirely of education and training the answer must lie in the fact that we have in this country the better facilities for architectural education. And these facilities are not alone the result of theoretical views as to the proper education of the architectural student, but a curriculum that has been outlined by the experience gained in actual practice.

The excellence of our architectural schools is generally conceded, but also must be borne in mind the valuable work of the Institute and the Society, together with that of the Society of Beaux-Arts Architects and the dependent ateliers.

We doubt if there is anywhere abroad that fostering spirit of paternalism that is displayed by the members of the profession in this country toward the student and the member just entering its ranks. The value of this oversight on the part of men who have and are accomplishing the important things in architecture, combined with a thorough knowledge of the necessities of practice, has resulted in the conditions that appear so commendable to *The Builder*.

BUILDING CODES

PROBABLY no enactments of law present so many points of divergence as do the codes that are passed by municipalities throughout the country. The very emphatic disapproval of the proposed new code for New York City, presented during the closing days of Mayor McClellan's administration, resulted in its postponement, and we have yet to hear that the investigation then instituted has resulted in a final report.

Just at the present time the city of Columbus, Ohio, is discussing a building code with considerable warmth. Objectors contend that the code as drawn will so materially increase land values and cost of construction as to prohibit the erection of the class of houses intended for tenants of moderate means. Questions of light space, forms of construction and ventilation made imperative, it is argued, will so restrict the size of a building that may occupy a given site that investors would, in order to secure a fair return, be compelled to increase rents to an extent that would leave small possibility of the premises becoming tenanted. A further provision, and one that would seem to impose a real hardship, is that requiring buildings already erected to be altered to conform to the new code. In other words, the proposed code is made retroactive. The questions of materials and fireproofing do not appear to be much debated, and the objections come mainly from owners and speculators in real estate.

As the code has, however, received the endorsement of the Architectural Club of Columbus, it seems probable that its provisions are in accordance with proper building methods. It would be well for the framers of the code to lend an attentive ear to any suggestions that may be made by architects and engineers, who, by education and experience, should be qualified as most competent judges in these matters. To premise that a committee of the local government possesses the necessary

technical ability to intelligently frame an ordinance of this kind is unwarranted and illogical. These matters of code revision might better be left to specially appointed committees composed of architects, engineers

and men of demonstrated ability along lines that fit them for the work required, and thus not only insure results of the highest order, but remove any grounds for suspicion of political or commercial influence.

THE NEW HOME OF THE BOSTON ARCHITECTURAL CLUB—Continued from page 40

young man of to-day, with all the various architectural schools open to him where may be obtained first-class architectural instruction, knows little of the methods of thirty or forty years ago. Even then the old apprentice system was falling into disrepute. In fact, the condition of the art of architecture in this country was at that time reflected only too well in the entire lack of organized architectural education in America.

Out of this chaotic condition there grew in the minds of the architects and draughtsmen, and those especially interested in architecture in America, the desire for furnishing some means whereby the draughtsman of that day would have made up to him the benefits lost through the then growing unpopularity of the apprentice system. Associations for mutual benefit along educational and social lines among these men suggested itself naturally, with the result that within a few years the architectural clubs of Philadelphia, Chicago, New York, Pittsburgh and Boston had been formed and were in active operation. They planned to meet the demands of that time on the part of the younger men for that instruction that had formerly been given draughtsmen by architects in their own offices. The clubs started educational work, planned to give the young men training in water color, pen and ink, sketching from life and nature, and general instruction through lectures, etc., in architectural matters. The province of these clubs

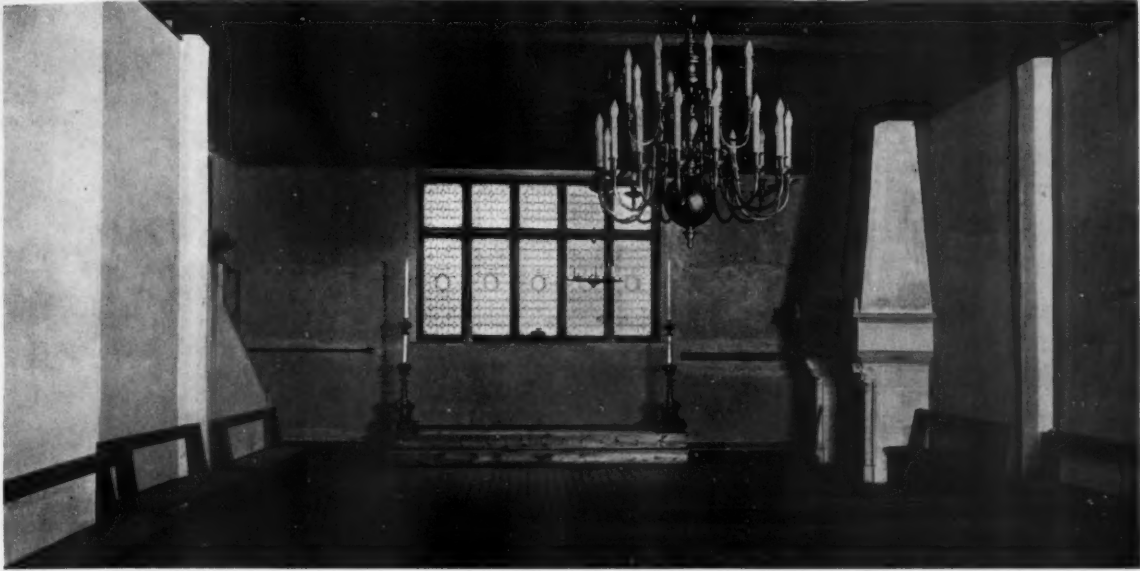
is to give healthy, sane and competent direction to the younger men, the aspirants of the profession, to produce, if possible, in their membership the same spirit of emulation that is the great abiding virtue of the French atelier system, which really is the foundation of that wonderful spirit of unity and efficiency which is distinctly characteristic of the French school.

In Boston there was formed in 1883 an architectural association which in 1889 went out of existence, and the Boston Architectural Club was formed, since which date it has had a varied and active career. Starting in modest rented quarters, it has been buffeted by real estate developments and changed from pillar to post until this year, when it acquired property of its own at 16 Somerset street, which has been remodeled and made suitable for the various activities of club life.

The first floor is arranged with a large room 30 x 60 feet, two stories high, where will be held exhibitions, lectures, banquets and general meetings. On the second floor are arranged the office, a large reading room and a secluded library wherein is housed a very valuable collection of books that have been bought with the income of a fund left by Arthur Rotch some years ago. On the third floor is a large working room used by the beginners' class in architectural design, which class numbers some fifty young men. The top floor or garret is a large room of 1,200 square feet, two stories in height, running into the roof where are exposed the old hewed timbers of the original building. This room is made



THE LARGE ROOM, LOOKING TOWARD ENTRANCE BALCONY



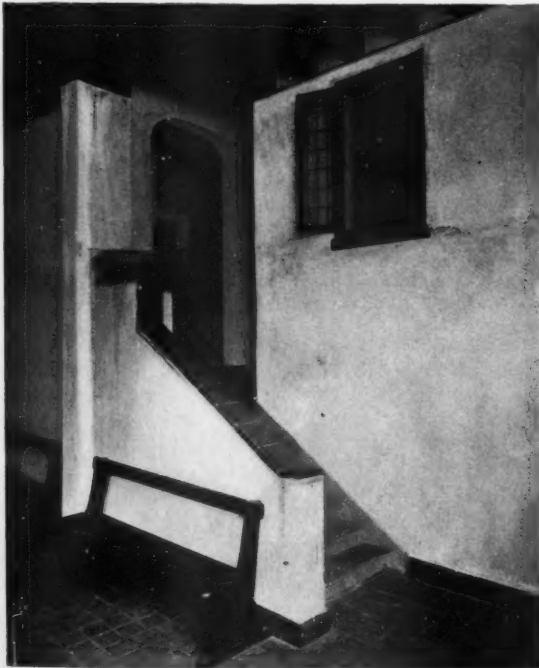
LARGE ROOM, FROM ENTRANCE BALCONY

use of by the atelier proper, consisting of sixty men.

This is the equipment of the club, the possession of which is hardly yet realized. Centrally located as it is, it aims to reach and benefit the public at large through lectures and exhibitions, and the unparalleled equipment for class work along its given lines of architectural design and studies opens up a field of architectural instruction that is unique in America and with almost unprecedented possibilities as far as its usefulness to the public at large is concerned.

Arrangements are on foot to unify the club work and standardize its efforts in architectural instruction. Its distinct field as an instructor in architectural education is recognized by other educational agencies, and it is working in close harmony with the architectural departments of Harvard and Technology, to which schools in a large measure the club atelier is a feeder.

The above story is true not only of the Architectural Club in Boston, but could be true of any other club similarly situated.



MEMBERS' ENTRANCE TO LARGE ROOM



THE FIREPLACE IN THE LARGE ROOM



READING ROOM ON SECOND FLOOR, BOSTON ARCHITECTURAL CLUB

A MERICAN DETAILS

In the course of an article reviewing an American publication of architectural details, the *London Builder* says as follows:

It has been said that one of the reasons why American builders can accomplish work at a pace which seems incredible when compared with our usual progress, is the completeness and excellence of the details furnished by the architects and the high standard of knowledge among American architects' assistants of the methods of manufacturers and practical workers in the building trades. Americans familiar with the work and drawings of English architects are apt to chaff at our details, and say that they are mere sketches, alleging also that, except in rare instances, they have to be remade by draughtsmen in the manufacturers' shops before they can be regarded as intelligible to the average workman.

One is for ever reading or hearing of the "rush" in which everything is supposed to be done "on the other side," and a certain amount of credence must be attached to such persistent reports; but there must be quiet places where, free from the distracting influence of pressure and hurry, men study calmly the plans and details for the remarkable enterprises for which the United States is so well known.

That architecture in America, notwithstanding the vast shoal of cheap, speculative building amongst which it finds itself, averages very high as compared with the standards of European countries, goes without the saying. In monumental work, especially public work, the Americans, as represented by McKim, White, Burnham, Cass Gilbert, Carrère, Hornbostel, Swartwout—to mention a few of the names we all know—may be considered the peers of the French; in the architecture of commercial buildings, what architects of any other country can be compared with their men Sullivan, McKim, and Burnham? In the field of ecclesiastical work there are Masqueray, Cram, Hastings and Maginnis, who are the equals of our own best designers, and

whose opportunities have been greater. As to domestic architecture, in which we have, during some years, been credited with the leading position, is not that also to be fairly challenged by such artists as Charles Platt, Wilson Eyre, Frank Wright, Elmer Grey, Albro and Lindenberg, Bragdon, Stratton and Baldwin, and a whole host of others? And in every branch of their work, whether the smallest cottage or the greatest public structures, there is evidence of the most careful, painstaking, and often brilliant study of detail; and no one with the least knowledge of how work is done in our American contemporaries' studios can doubt that this is due to the enthusiasm they put into it. But aside from the enthusiasm and active leadership which an architect must himself take in his work, he must have the support and assistance of better-trained and better sophisticated draughtsmen than it is our present lot to be able to obtain in England. Possibly this is due to slightly higher salaries paid to assistants, and to higher fees paid to architects; and more regular continuous employment which both find in the newer country. On the other hand, it seems probable that owing to the non-existence of quantity surveying as a profession in the United States, it became necessary first to make very good details in order that the tenders for the work could be made as accurate as possible; and that the expert detailer arose as a consequence. The value of the assistant rose in proportion to his skill and knowledge, and the architects' fees were bound to follow the tendency to higher cost of drawings. To-day the American architects charge a minimum fee of 6 per cent. in place of our five; and an assistant of the class who receives 5l. per week in London would probably receive 6l. in New York—but the American would be the better-trained assistant.

Vegetable Dyes for Oriental Rugs

Consul-General William H. Michael, of Calcutta, India, writing in further reference to the new Persian law, summarizes the conditions in the rug industry of India as regards dyeing processes, to enable American consumers to protect themselves against the purchase of poorly made rugs. He states that synthetic or aniline dyes are not adapted for use in the manufacture of the superior grades of oriental rugs, but that during recent years they have been extensively employed by makers of cheap and low-grade rugs. The products of these manufacturers pass into the hands of traders who put them through a process of "washing" in a solution of chloride of lime to give them the peculiar luster which is represented to be a silky effect due to age and high quality of materials. During this chemical process muriatic acid is formed, which eats away the wool and cotton in such a manner as to greatly weaken the warp and deteriorate the pile of the rugs.

On the other hand, the better class of rugs made in India are colored exclusively with dyes of vegetable origin, and articles of this type possess not only all the beauty and lustrous finish of the imitation antique rugs, but also a firmness and durability which render them far superior to the latter.

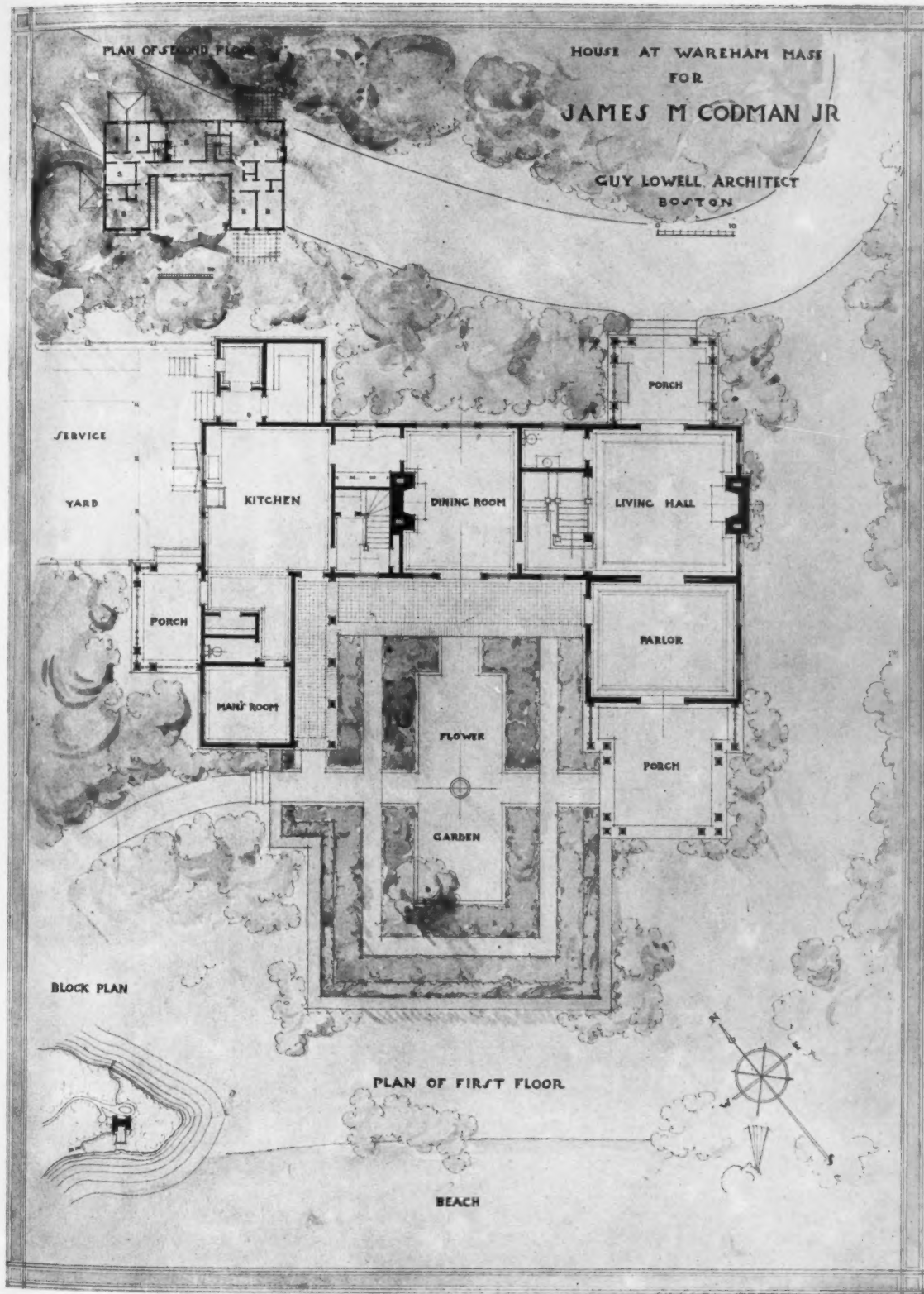


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HOUSE AT WAREHAM, MASS., FOR JAMES M. CODMAN, JR.

GUY LOWELL, Architect





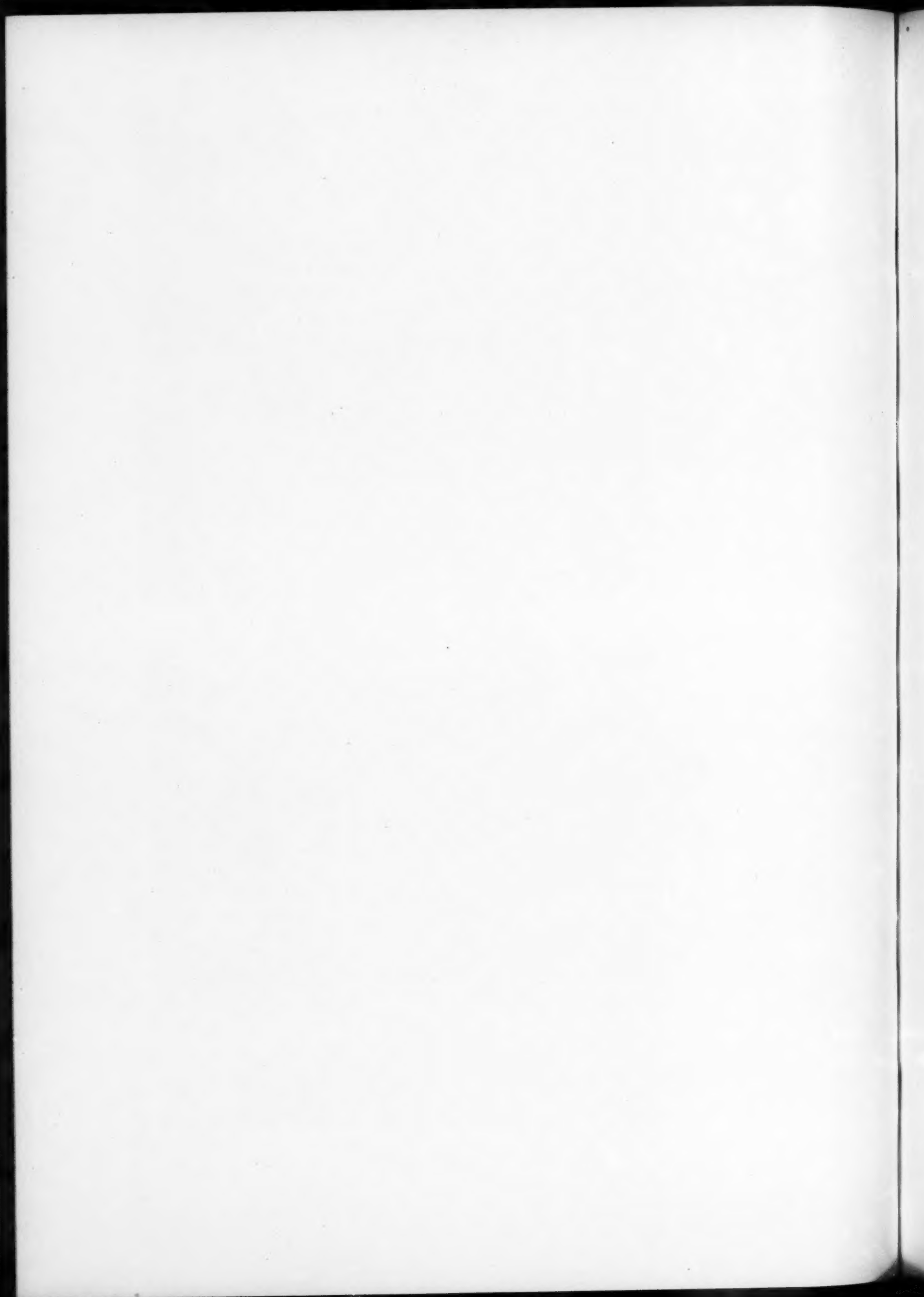


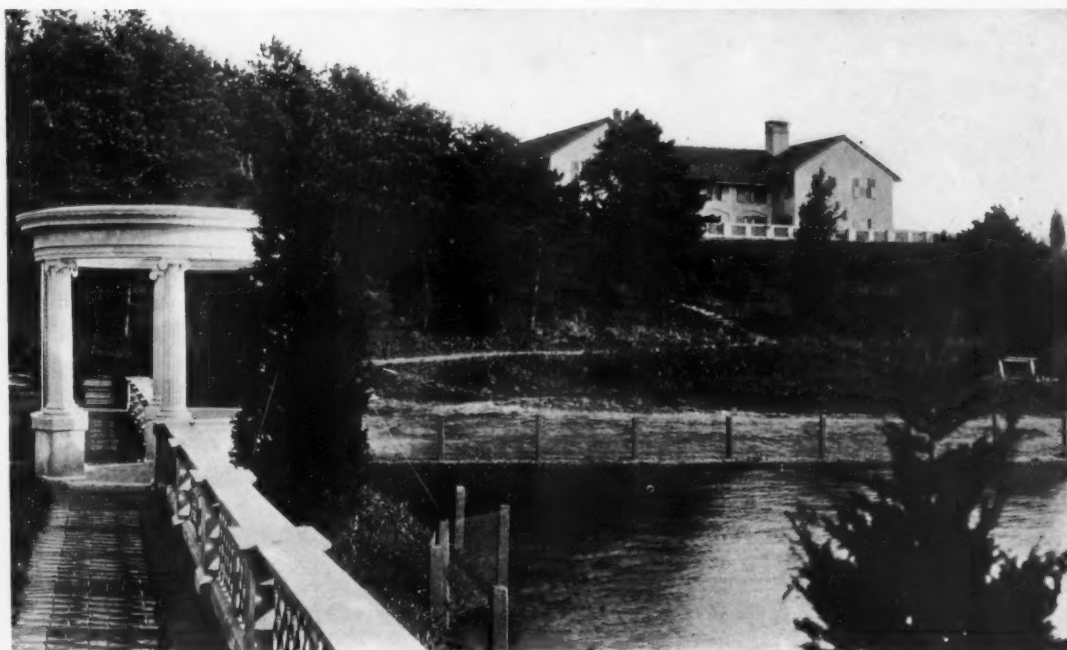


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HOUSE AT WAREHAM, MASS., FOR JAMES M. CODMAN, JR.

GUY LOWELL, *Architect*





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A BUNGALOW ON BUZZARDS BAY, MASS.

JAMES S. LEE, *Architect*

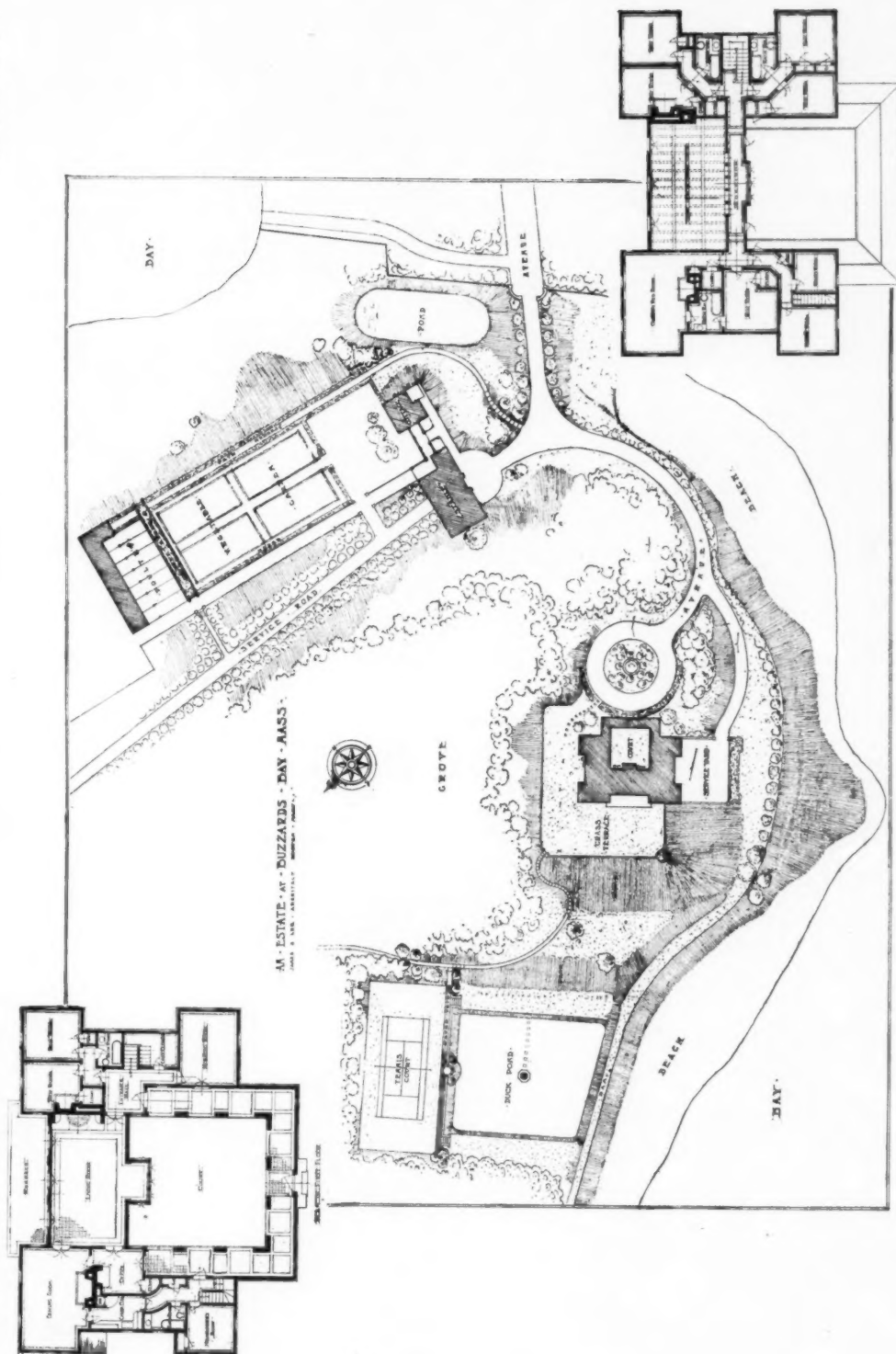


This house was designed for occasional use, but at any season of the year. Bed-rooms are made small and arranged in suites to accommodate largest number of guests. The court is enclosed and sheltered from the high winds prevailing on Cape Cod. Foundations are of concrete, walls of stucco on frame. Interior finish is cypress. Floors of living room and hall of brick; others hard pine. Exterior balustrades cement and tile. Exedra in tennis court of cement. Landscape work simple as possible to avoid expense of upkeep. Native cedars and pines used to afford good effect the year round. Planting all hardy shrubs, flowers being confined to perennials.

A BUNGALOW
ON BUZZARDS BAY, MASS.

JAMES S. LEE, *Architect*



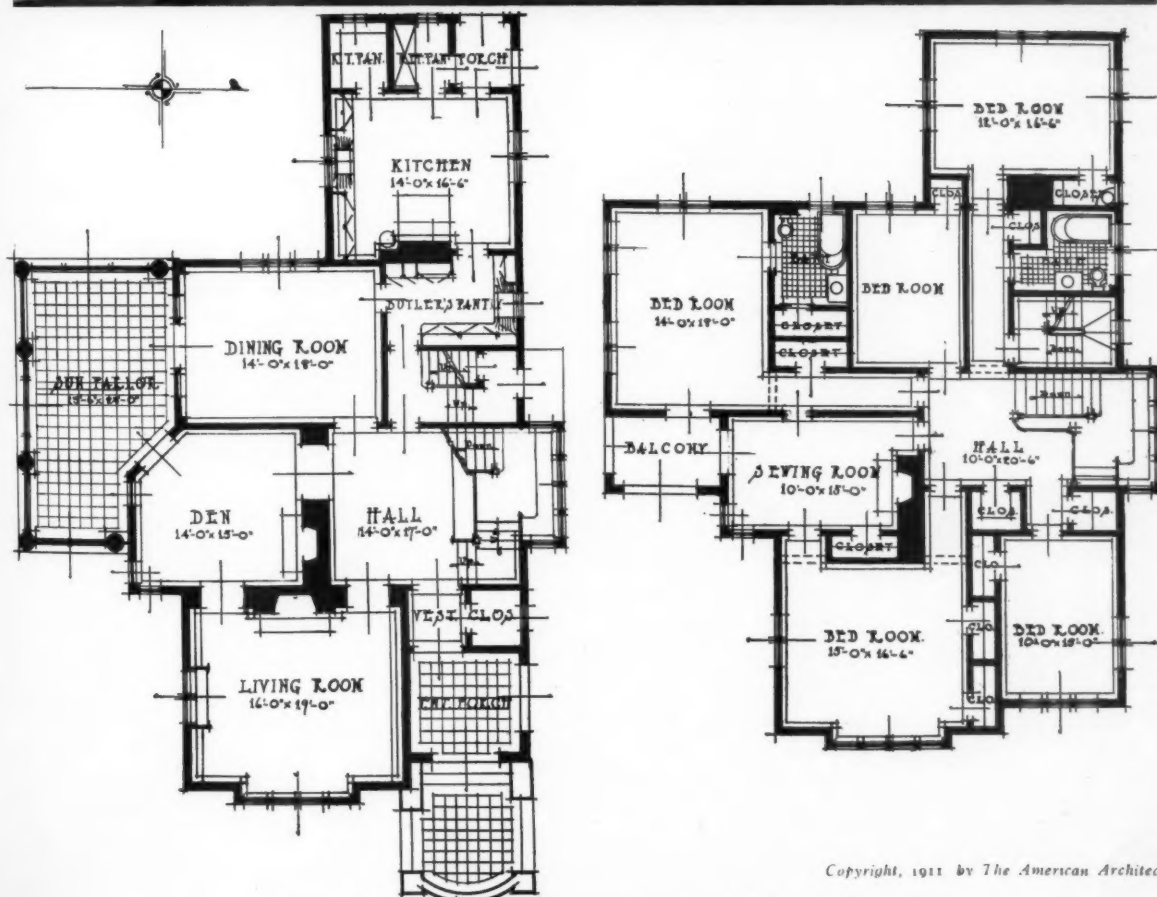
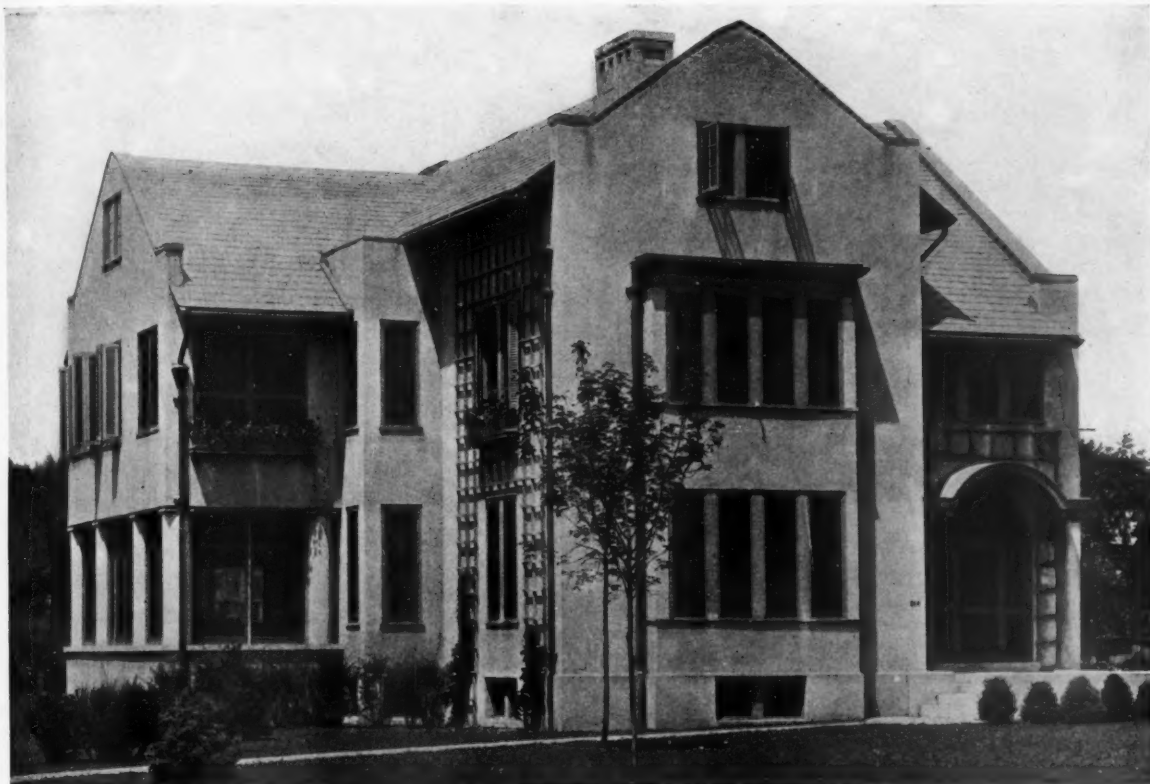


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AN ESTATE ON BUZZARDS BAY, MASS.

JAMES S. LEE, Architect



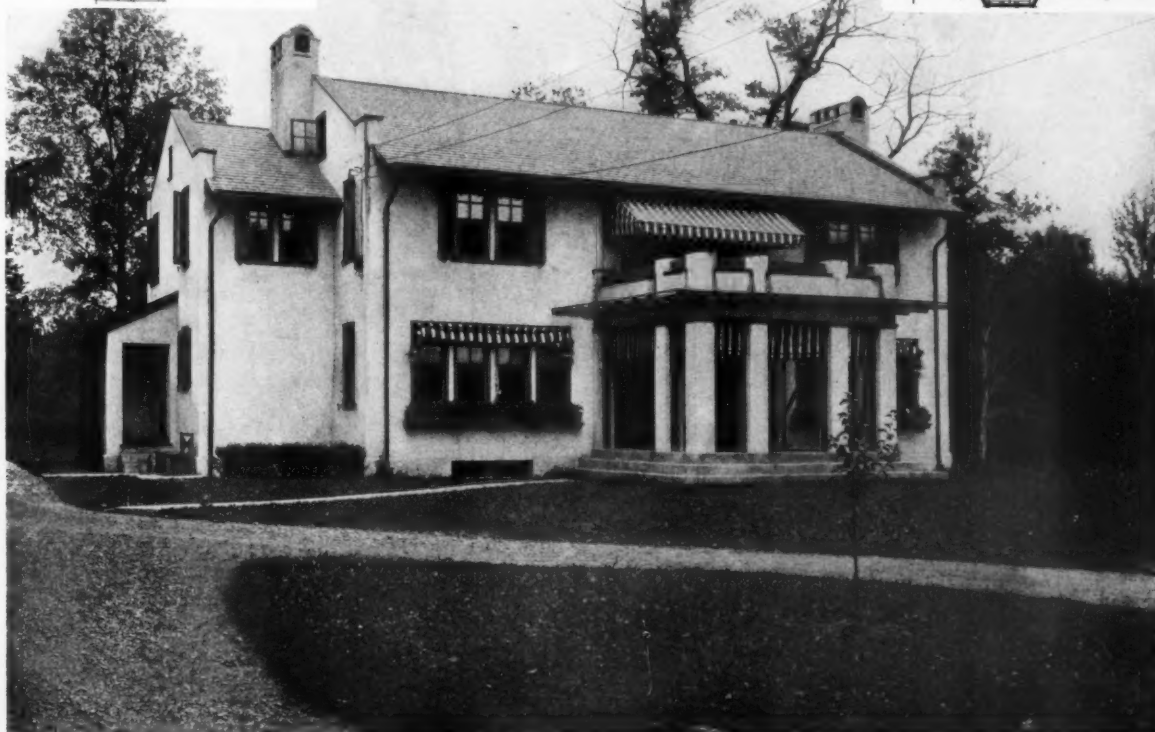
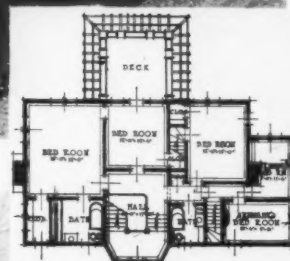
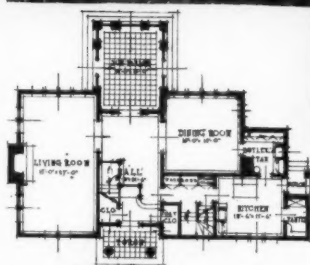
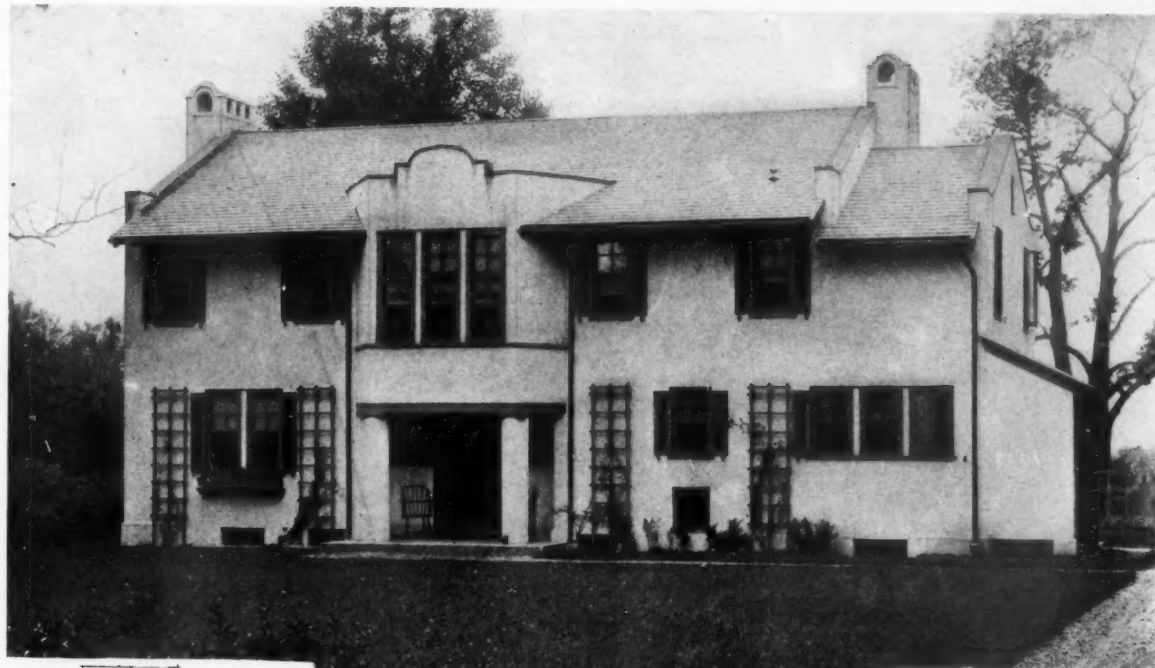


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RESIDENCE OF MR. H. M. EDWARDS, GLEN RIDGE, N. J.

MESSRS. DAVIS, McGRATH & KIESSLING, Architects





RESIDENCE OF MR. WM. M. PROBST, ENGLEWOOD, N. J.

MESSRS. DAVIS, McGRATH & KIESSLING, Architects

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CURRENT NEWS *and* COMMENT

CONVENTION OF THE A.I.A. AT SAN FRANCISCO

SUMMARY OF FIRST DAY'S PROCEEDINGS OF THE FORTY-FOURTH
ANNUAL CONVENTION

The American Institute of Architects opened its forty-fourth annual convention at the Fairmont Hotel, San Francisco, January 17th. This is the first convention held by the Institute west of Chicago.

The morning session of the convention was devoted, in the main, to the hearing of reports of officers and committees. There was a large attendance of leading architects from abroad and at home.

In the afternoon the visitors were taken on a sightseeing tour by automobile and were entertained at luncheon at the Cliff by the San Francisco chapter. In the evening a reception was given by the local chapter.

The exercises were opened by John A. Kelly, acting Mayor of San Francisco, in an address of welcome to the visitors.

President Irving K. Pond, of Chicago, in his annual address dwelt upon the accomplishments and needs of the Institute at length. In the course of his able speech he said:

"It is the province of the Institute to deal broadly and in detail with the principles underlying the science of building and the ideals underlying the art of design. To these is added by the very character of the work the necessity of taking cognizance of the ethics of business, for the Institute, like the architect, cannot to-day, even if it would, sit aloof from intimate contact with the mighty current of commercial endeavor, but must be a factor in the great world of affairs. Commercial instinct gives way in the Institute to business idealism, but this strengthens rather than weakens the business capacity of the high-minded practitioner."

A report by the board of directors was read by R. Clipston Sturgis, of Boston, and showed a membership of 1,084, as follows: Fellows, 311; associates, 615; honorary, 72; corresponding members, 86.

The following associates were recommended for advancement to fellows: George C. Nimmons, Illinois Chapter; Milton B. Medary, Jr., Thomas M. Kellogg, Philadelphia Chapter; Arthur B. Benton, Southern California Chapter; William B. Stratton, Michigan Chapter; Frank W. Ferguson, Arthur Little, Harry J. Carlson, Boston Chapter; John A. Dempwolf, South Pennsylvania Chapter; W. R. B. Wilcox, Washington State Chapter; Robert Maynicke, John Beverly Robinson, Philip Sawyer, D. Everett Waid, Robert D. Kohn, New York Chapter; Aaron M. Gove, Colorado Chapter.

Two new chapters have been organized within the past year, one in New Orleans, La., the other in the State of Indiana.

At the last convention the dues of members were increased and it was hoped this would allow an ample margin above all the normal expenses of the Institute. After paying into the reserve fund \$1,621.34, the amount ordered by the last convention, and settling bills inherited from the last two years, which aggregated \$2,600. Such payment will not be necessary during the current year, and it is hoped that the Institute will be able more liberally to support the officers and the various committees, thus increasing the efficiency of the Institute.

The esthetic contribution of the session was a paper on "Al-lied Arts" by Louis C. Mullgardt, of San Francisco. The essayist treated largely of color in architecture, and in the course of his paper said:

"Perhaps we would find upon investigation that intense color in our present-day architecture is inadvertently acquired. Some people wear red underwear, not because it is red, but because it is flannel.

"Thus it may be that we have inadvertently acquired some of the violent masses of color in architecture because we want the material and the color is an unpremeditated incident in the result."

Solidarity was the keynote of the report of the committee on education, which was prepared by Ralph Adam Cram, of Boston. Among other things it said:

"The solidarity of the architectural profession, architects, draftsmen and students; the community of interests that binds them together rather as fellow workers than as employers and employed; the necessity of unending education and the duty of each architect to see that his men get enough of it and of the right kind; the need of establishing an intimate bond between the Institute and every student and draftsman at the very beginning of his career; the bringing into membership with the Institute of every decent and honorable practitioner in the United States, and finally the raising of the Institute itself to a point where it will command, where now it only deserves, universal recognition as the authoritative and definitive expression of the architectural profession in the United States.

"New Jersey has the honor already of recognizing the Institute as a power competent to judge of the ability of its members, and under the licensing law in that State a license to practise is issued to any member of the Institute without examination or other scrutiny. This is as it should be; all we ask is that the other sovereign commonwealths of the Union grant the same recognition, and that the Institute itself become the inevitable goal of every practitioner, until every competent and right-minded architect is enrolled on its lists of membership, and none others."

A report which it is expected will excite much debate during the session was prepared by Frank Miles Day, of Philadelphia, chairman of the committee on competition, and read by R. Clipston Sturgis. The report sustained the new rule of the Institute that it shall be held unprofessional for any member to take part in any competition the programme of which has not received the full approval of the Institute.

The following were announced as nominees for officers of the Institute for the ensuing term: For president, Irving K. Pond; first vice-president, Walter Cook; second vice-president, E. M. Wheelwright; secretary and treasurer, Glenn Brown; for directors—B. S. Hubbell, Thomas R. Kimball, William R. Mead, Milton M. Medary, D. H. Perkins, A. F. Rosenheim, T. C. Young; three directors to be elected.

Among the papers read by Secretary Glenn Brown, their authors not being present, were: "Bureau of Fine Arts, International Seal," by H. K. B. Magonigle; "Conservation of Natural Resources," by Cass Gilbert; "Electrical Code and Fire Protection," C. H. Blackall.

In conjunction with the convention of the American Institute of Architects the San Francisco Architectural Club is holding an exhibition of representative works of San Francisco architects and of the atelier of the San Francisco Architectural Club in the new club rooms at 126 Post Street. It will be opened to visiting delegates 10 a. m. to 5 p. m. and from 8 to 10 in the evening.

Fully 400 attended the evening reception, which was given in the Gold Room of the Fairmont, and during the evening many words of praise for San Francisco architects were heard for their work of the rehabilitation of San Francisco.

A telegram was received by President Pond, of the American Institute, from President Taft. In his message to the architects in convention President Taft extended his felicitations and congratulations for the great work the Institute has done.

AN HISTORIC TABLE USED AT THE CONVENTION

An historic old table, famed as the one upon which the ratification of the Treaty of Ghent, which closed the War of 1812, was signed by President James Madison and a commission of which Henry Clay was one of the members, was lent by Mrs. Alfred Hunter Voorhies, of San Francisco, to whom the table has descended, to the American Institute of Architects for use during the annual convention.

When the national assembly was called to order the president's gavel fell upon one of the most valuable and

historic heirlooms in the city, and upon the close of the convention, the massive piece of old mahogany was again removed to the Voorhies home on Van Ness avenue to take its place with one of the city's most interesting collections of old furniture outside of a museum.

The table first figured in history when, upon the destruction of the White House by fire in 1814, President Madison established the executive offices of the nation in the old "Octagon," a colonial mansion in Washington, D. C., now owned by the American Institute of Architects. It was in the library upstairs that the famous Treaty of Ghent was soon thereafter signed by Madison, Henry Clay the while standing at his elbow.

Shortly afterward, upon the rehabilitation of the White House, the table passed into the possession of George Ogle Taylor, of Forngaux, King George County, Virginia, and about twelve years ago Mrs. Voorhies became its owner.

The table is of massive construction and made with the care and thoroughness of the hand manufacture of a century ago. It is circular, four feet in diameter and on a revolving pedestal. Twelve drawers, the labels made of ivory, are ranged around the under edge and a section of the top lifts up to form a rack for papers or for music.

SOCIETIES

THE BOSTON ART COMMISSION

Referring to the controversy as to the proposed placing of a portrait of Mrs. Julia Ward Howe in Faneuil Hall, the Executive Committee of the Boston Society of Architects has passed the following resolution:

Resolved, That the Executive Committee of the Boston Society of Architects hereby expresses its sense of the importance to the city of the work which is being done by the Art Commission and its confidence that the members of that Commission are moved by a single regard for the artistic interests of the city.

PITTSBURGH ARCHITECTURAL CLUB OPPOSES CONTINUED ERECTION OF TALL BUILDINGS

The Pittsburgh Architectural Club has adopted resolutions opposing the continued erection of skyscrapers in Pittsburgh because "they discharge vast multitudes at given hours, congesting streets and crowding cars; they darken the air, keeping out the sun; because they confine business to a restricted area." The resolutions will be presented to the authorities in an effort to secure a revision of building restrictions while the movement for city improvement is at its height.

SAN FRANCISCO CHAPTER, A. I. A.

In the matter of the proposed competition for San Francisco's city hall, reference to which was made in the editorial columns of a recent issue of *THE AMERICAN ARCHITECT*, the following resolution adopted by the San Francisco Chapter of the A. I. A. is of much importance. It points a way and shows how wide a

field of influence and usefulness there is open to Chapters throughout the country to prevent errors on the part of perhaps well meaning but poorly advised municipal and State officers.

If we are to achieve correct and well matured designs of city planning and good architecture it would seem that it is wise and proper that the councils of those best fitted to advise should be sought and when secured strictly followed. The resolution referred to is as follows:

The San Francisco Chapter of the American Institute of Architects, at a special meeting held Thursday, January 5, 1911, hereby calls attention to the fact that many cities are actively engaged through various commissions, official and unofficial, in developing plans for municipal improvements, and in a number of instances are actually engaged upon constructive work along the lines of such plans, and,

Whereas, public improvements have been and are now being carried on in the City and County of San Francisco under various official bodies, such as the United States military authorities, the State Board of Harbor Commissioners, the Board of Park Commissioners and the Board of Public Works, which bodies are each acting independently of the other and entirely without a comprehensive general plan, therefore be it

Resolved, that the San Francisco Chapter of the American Institute of Architects expresses the belief that the same work now being carried on by these various official boards and commissions above mentioned would result in a finer general harmony and be of far greater benefit to the city if the same were executed in accordance with a single comprehensive plan, and it strongly recommends

That, a Municipal Commission be created for the purpose of developing a general plan for municipal betterment along practical and economical lines, in order that all public work may conform thereto, and,

Therefore, this Chapter respectfully suggests to his Honor the Mayor and to the Honorable Board of Supervisors that they take under consideration the advisability of creating, for the purpose of developing and executing such a plan, a Municipal Commission, and that the Secretary of War, the State Board of Harbor Commissioners and the Board of Park Commissioners be requested to co-operate in determining the scope and nature of said plan with a view to assisting in its preparation and execution, and, be it further

Resolved, that we suggest to the various boards, commissions, commercial bodies, improvement clubs and associations that they request his Honor the Mayor to call a convention of their representatives for the purpose of discussing the question, and, be it further

Resolved, that we, in view of the great benefit that would accrue to the city if a practical way can be found to working out such a plan, that the Mayor and Board of Supervisors be requested to defer any action looking toward the construction of a new City Hall until such a municipal commission has taken up a study of the requirements and outlined the problems to be solved so that our new City Hall, when erected, will reflect in the fullest sense the judgment and wisdom of our people



DETAIL OF REREDOS.

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ST. PAUL'S CATHEDRAL, DETROIT, MICH.

MESSRS. CRAM, GOODHUE & FERGUSON, *Architects*, BOSTON AND NEW YORK.