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THE NEW YORK CITY HALL. ITS "IM-
MENSE FABRIC" AS COMPARED WITH
ONE OF ITS MODERN NEIGHBORS.

THE ARCHITECTURAL RECORD

VOLUME XXXIX



NUMBER IV

APRIL, 1916

THE NEW YORK CITY HALL

By Charles C. May

PART I ~ HISTORICAL NOTES

AS no standard of value or size is absolute, but must be relative to its own epoch, so the New York City Hall, judged by bulk alone, has undergone a vast shrinkage during its century of existence.

To the citizens of its early days it loomed very large, the most monumental structure within their experience, and they spoke of it always in superlatives; today the inquiring visitor must take some pains lest in the maze of architectural monsters that surround it, the City Hall be missed altogether, and today one invariably hears it referred to in affectionate diminutives.

In the minds of the committee to whom the Common Council had entrusted the building of a new City Hall back in 1803, the structure was impressive

even in its first conception. They were frank to report that they "feel impressed with the magnitude of the undertaking." And through the years that followed, until the cupola had lifted its graceful silhouette into the city's skyline along with the spires of Trinity and St. Paul's, that impression must have been vastly deepened by the difficulties, structural, administrative and financial, that they were called upon to overcome.

Indeed, it is well nigh impossible for us in this day of skyscrapers, of syndicates, of bond issues in nine figures, to conceive the tremendous significance to our forefathers of this little building that rests so modestly within its providential Park.

But if in point of magnitude the City Hall has been differently regarded



THE "WALL" VIEW, NOW OWNED BY THE MUNICIPAL ART COMMISSION.

by succeeding generations, there has been only unanimity as regards its intrinsic architectural worth. Seldom has a building been awarded praise so wholesouled, so universal as that which has heaped itself upon this, New York's most precious structural inheritance. Indeed, when men have had the temerity to compile lists of the world's noblest examples of architecture, the New York City Hall has not infrequently been called upon to stand forth among America's representatives. Perhaps still more remarkable was its unanimous acceptance by its own day and generation.

Even when existent only in the form of competitive drawings it was recognized as worthy its high destiny. "The elevation," says the Post of 1802, "is elegant, and does no less credit to the taste and talents of the architects than it reflects honor on the judgment of the Corporation."

So in 1814, when the City Hall was newly completed, Thomas Stanford in his "Concise Description of the City of New York," placed his unhesitating stamp of approval upon the building: "Broadway," he says, "passes along the north side of the Park, which forms a

noble area, to the most magnificent structure in the United States, the new City Hall." And this merely in passing! When he comes up to the building itself, he grows more eloquent: "This magnificent structure unites a splendid combination of taste, grandeur and elegance. The front and two wings are of white marble and display the most beautiful order happily conceived and designed, and presenting specimens of sculpture honorable to any age." Incidentally, could anything better express the wideness of the breach between Stanford's day and ours than this, as he proceeds: "From its elegant dome a most delightful prospect may be obtained of the whole city and country round."

The growth which has today so hopelessly submerged the little cupola beneath the ever mounting host of giants that jostle about it had not proceeded very far in 1827, however, for James Hardie, writing at that time of the "Temple of Justice," "said to be the handsomest structure in the United States, perhaps (of its size) in the world," goes on to remark: "This chaste and beautiful edifice stands near the upper end of the Park, on the highest ground in that part



AN EARLY VIEW, SHOWING THE CUPOLA AS ALTERED IN 1830.

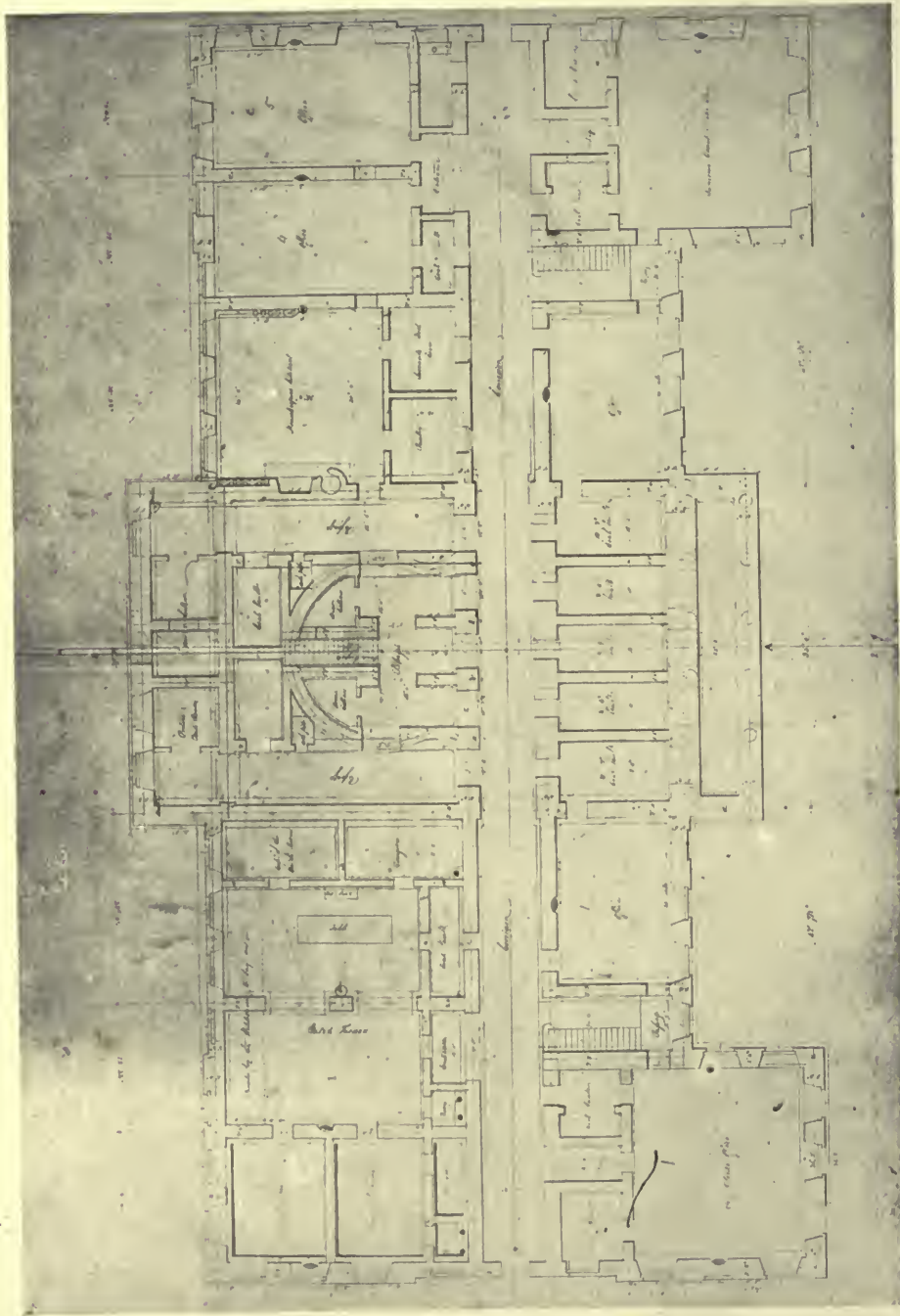
of the city; and is consequently seen to considerable advantage from almost every quarter."

So, in more recent years the City Hall has caught the eye and excited the admiration of many a distinguished critic and traveler, architect and layman. Most weighty, perhaps, is the tribute paid by Henry James, who pauses in his review of "The American Scene" to enjoy to the full the sensations aroused by "this divine little structure," justifying at some length the use of the first adjective, before starting his "adventure" of penetrating the mysteries of the interior. It is a pleasure, too, to hear from each succeeding occupant of the Mayor's office, a spontaneous expression which shows that they, one and all, have been sensible of the winning and lovable qualities of the building.

Just when toward the end of the 18th century the Corporate conscience became alive to the need of a new City Hall, and with whom the idea originated, is not clear, but it may well have had its birth in the numerous repair bills to the old City Hall (then standing at the corner of Wall and Nassau Streets). The minutes of the Common Council are filled with such items for a decade

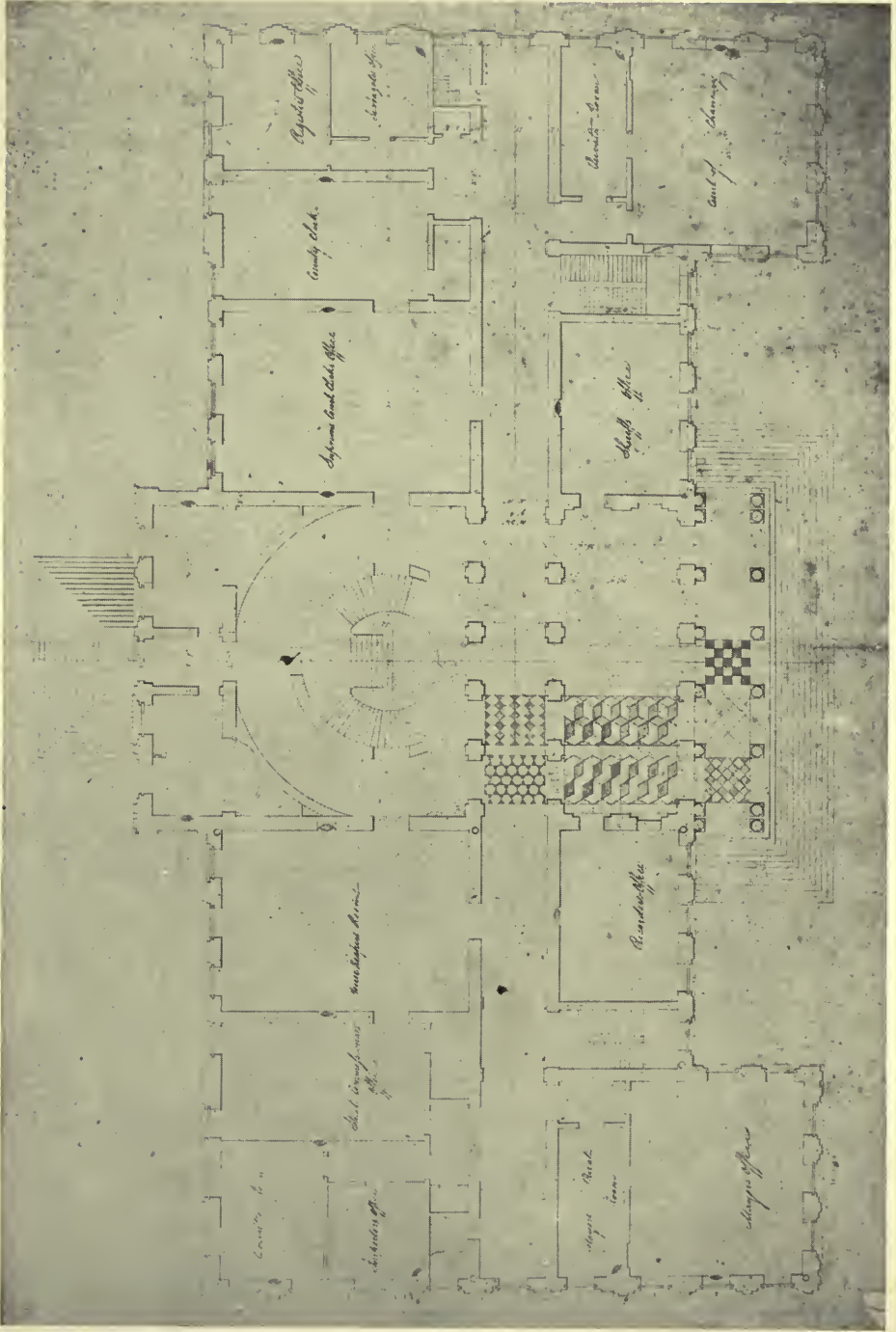
and more prior to 1800. Incidentally, these minutes, in their quaint wording, and naive reflection of the spirit of their day, are of absorbing interest, so that it would be cruelty, in quoting, to tear from their setting these crisp paragraphs that portray the beginnings of our City Hall hardly more vividly in the direct references than in the luminous context.

One of the very earliest must be this reference under date of November 13th, 1776: "Resolved in consequence of the ruinous situation of the City Hall, that the Common Council sit at the House of George Repaireck, adjoining the City Hall, until the 13th of October next, and that he be paid for the same £12." And ten days later we find the following entry—the relative importance of the two resolutions curiously reversed with respect to allotment of space: "Unanimously agreed that a new City Hall is necessary. In consideration of the great inconvenience that attends this city being a trading place fore want of having light in the dark time of the moon in the winter season—ordered, that all and everybody of the housekeepers within this city shall put out lights in there windows fronting the respective streets according as the Mayor and two aldermen and two assist-



BASEMENT PLAN AS ORIGINALLY PLANNED AND BUILT.

Drawings in Part I of this article are from originals by John McComb. Reproduced through courtesy of the Municipal Art Commission.



FIRST FLOOR PLAN. NOTE THAT THE NORTH APPROACH TO THE MAIN STAIR LANDING IS NOT HERE SHOWN.

ants shall direct." These directions, it may be noted, called upon every seventh householder to display and maintain a lantern before his house, the expense to be assessed equally upon all seven.

The above brave resolution was passed in the fall of 1776, after the Declaration, but war destroyed all possibility of new construction. The next references, therefore, return resignedly to patching up the old building.

This for example from a day in 1784, when the Common Council met at the "house of John Simmons, Inn-holder in the City of New York."

"Ordered that Mr. David Morris be Captain of the fire engine near the gaol in the stead of Mr. Pontius, who declines serving."

"An account of Michael Smith for labor and materials on the repairs to the City Hall, amounting to £77, 56½." And, Mr. Smith's account having been allowed by the Board, and the Treasurer directed to make payment "out of any monies which now are or may come into his hands," the Council passes on to decree "that Joseph Jedwin be and he is hereby appointed a Packer of Beef and Pork and a Cutter of Staves within this City."

We must remember too that these were the simple days when the Council had to appoint such Committees as that which was "to consider and report the best mode of supplying public Buckets at an early period of Fires, and the most suitable places to deposit the same."

Again we find the Common Council appointing "a Committee to direct the decayed Brickwork of the City Hall to be repaired and the street in the rear to be paved; to devise and direct measures for making the roof tight." Soon after, when the federal government was to make New York its headquarters, numerous further repairs and alterations were forced upon the long suffering council until at length on March 24, 1800, the nascent idea came to birth, and it was "ordered that Aldermen Lenox, De La Montagnie and Coles be a Committee to consider of the expediency of erecting a New City Hall, and to report to the Board their opinion thereon, as also the

proper Place, a Plan of the Building, an Estimate of the Expense, and in what manner the present City Hall ought to be disposed of."

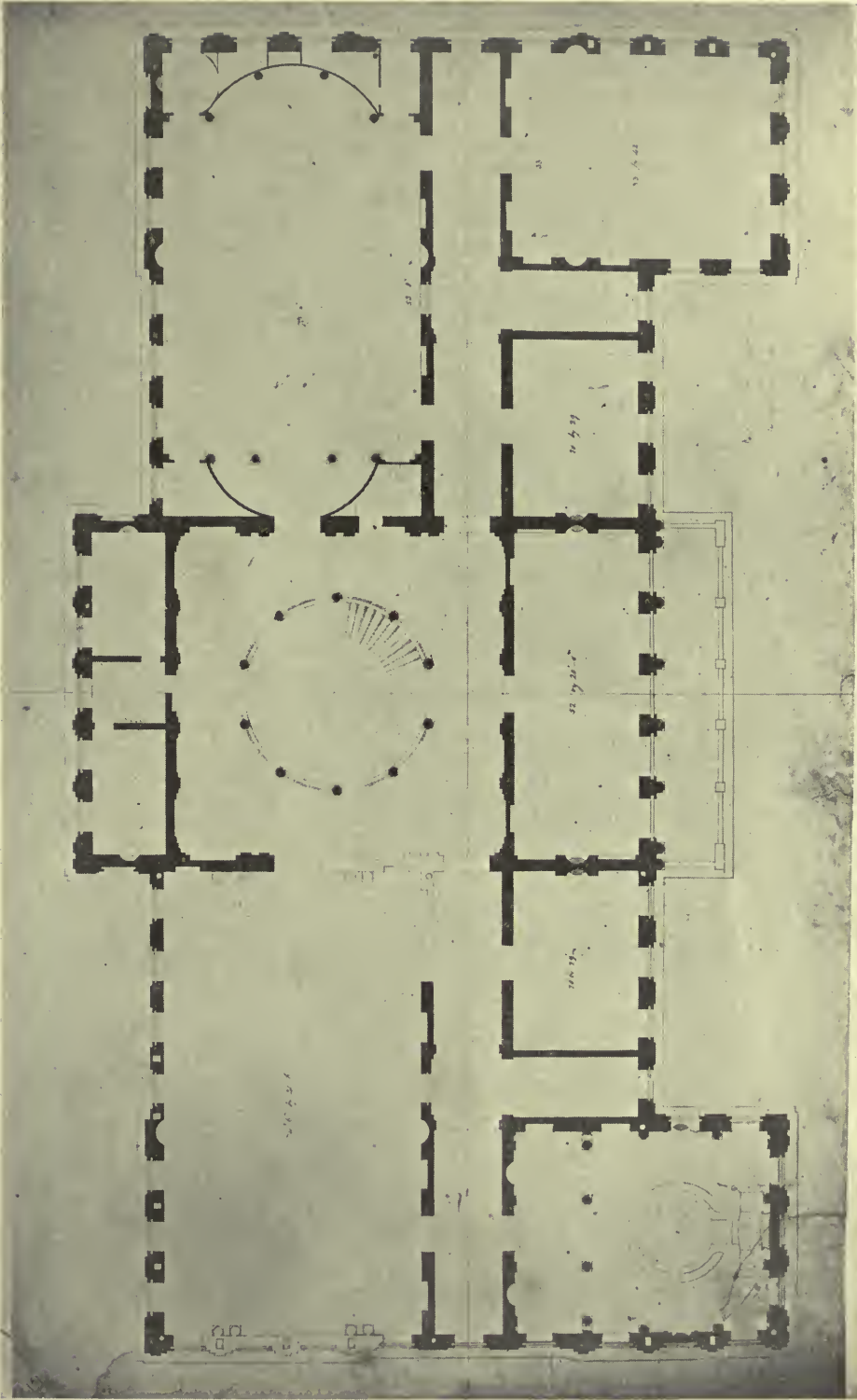
This building committee, like others of later days, was not distinguished for speed of execution, for two and a half years had elapsed before the matter was brought to the point of judging competitive drawings. On October 4th, 1802, "The Board, having proceeded to ballot for the plan of a Court House, and that of Mr. Joseph T. Mangin and John McComb, Junior,* having a large majority of votes, was accordingly adopted. Ordered that the Recorder be authorized to draw a warrant on the Treasurer in favor of Mangin and McComb as a premium for their plan being the successful one for \$350.00."

Having once determined on a plan the Common Council lost no time. One week later they ordered that "a New City Hall be erected conformable to the plan of Messieurs Mangin and McComb lately adopted by this Board," and they further proceeded to appropriate \$25,000 "towards erecting the same."

It is to be noted that up to this point the plans have been referred to by the Council as those of Messieurs Mangin and McComb; hereafter the former name gradually withdraws itself. During the winter while innumerable questions as to materials, site and modes of procedure were occupying the minds of the Committee, it was McComb whom they nominated as their "special agent." Likewise, in the spring of 1803, when they came to the appointment of a supervising architect, who, they said, "shall have complete control over every department," it was John McComb, Junior, who was chosen to receive the stipend

*From a pamphlet published by the Art Commission "John McComb was born in this city on October 17, 1763. His family was of Scotch origin and first settled in Maryland, but later removed to New York, where he practiced his profession. He furnished the designs for the front of the Government House in New York, which was erected in 1790, and for St. John's Chapel, the Murray Street and Bleeker Street churches, Washington Hall, and many other public and private buildings in this city, Philadelphia, and throughout the Eastern States. He filled many positions of honor and trust and died in New York on May 25, 1853."

It is only fair to add that Mr. McComb's share in the erection of St. John's Chapel was simply as a partner with his brother, while there is very slender evidence to connect him with the design of the Government House.



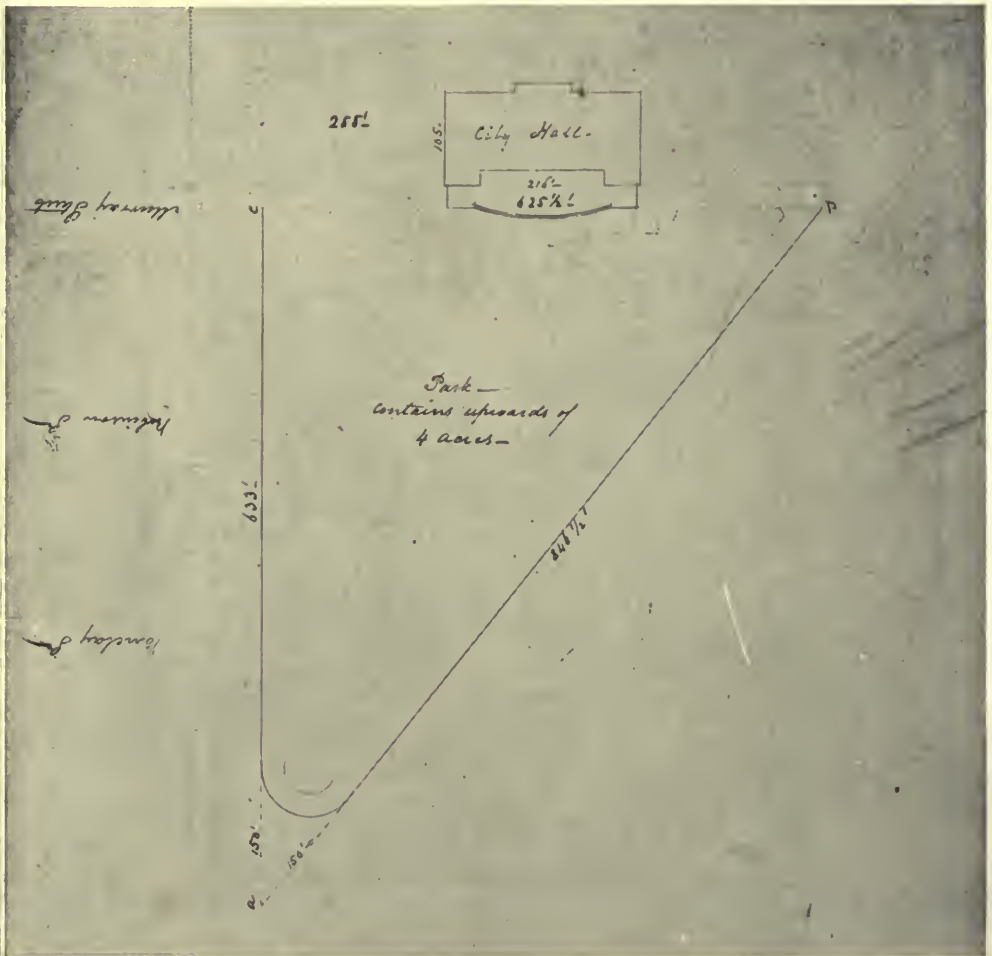
SECOND FLOOR PLAN, SHOWING THE GOVERNOR'S ROOM AT THE CENTER OF THE SOUTHERN FRONT. THE ROOMS AT EACH END WERE SUBSEQUENTLY CONNECTED WITH IT. THIS PLAN SHOWS THE ROTUNDA WITH TEN COLUMNS, AS EXECUTED; SOME OF THE EARLIER SKETCHES SHOWED EIGHT.

of "six dollars per day for each and every day he may be engaged at the New Hall." So too, it came about that when the time approached for laying the cornerstone, it was the name of McComb alone that was chiselled on the stone as architect. Meanwhile, the name of Mangin, senior partner in the firm that produced the original plans, was allowed to drop quietly from sight, to reappear only when another, more jealous apparently of his honors than Mangin himself, rose up in his behalf to compel public recognition for his share in the creation of the City Hall. Thus developed that peculiar, altogether regrettable contro-

versy that has waged with varying fortunes, but increasing intensity, through the century and down to our own day. The preponderance of traditional evidence, and virtually all the weight of active partisanship has been on the side of McComb, with only now and then a persistent outcropping of the opposing version.

It remained for the late Mr. Montgomery Schuyler to unearth from a contemporaneous newspaper the now well-known "Justice" letter.

This, from a spectator of the laying of the cornerstone, registered its protest against the absence of Mangin, and



BLOCK PLAN. McCOMB DECIDED THAT THE WINGS SHOULD "RANGE WITH MURRAY STREET" AND THAT "THE CUPOLA SHOULD RANGE WITH THE CUPOLA OF THE ALMSHOUSE." THE LATTER RELATION IS NOT INDICATED.

gave the record of his own picturesque zeal in causing a brass plate to be buried in the wall nearby, after having inscribed thereon in laudatory Latin the name of Mangin as "the real author of the plan of the new City Hall." He concludes thus: "And when the resistless hand of time shall have laid low the immense fabric, our descendants, in finding the stone, will also find the brass, and thus render to the artist who planned it, the justice he had a right to expect from his contemporaries. An old Italian proverb says, 'e meglio tardo chi mai.'" The letter had the editorial endorsement of the Evening Post, who had obtained "satisfactory reasons to believe it" (the letter) "is founded in too much truth." All this swung the pendulum sharply to the other direction, where, despite spirited attacks from the McComb partisans, it has remained to the present. It is only fair to say, however, that lovers of justice would welcome the discovery of further unassailable evidence in documentary form that might silence, once for all, the unseemly voices of factional quarrels, and place securely on record for all time the honor that belongs to him in whose mind grew the splendid conception which is now our City Hall. At any rate, the cornerstone was laid, all unaware of the accusations of bearing false, or at least incomplete, witness that were to be brought against it.

One is impelled at times to wish that modern newspapers might develop a hint of that conciseness that characterized those of 1803. The Post of May 27th of that year reports: "The cornerstone of the new City Hall was yesterday afternoon laid by the Corporation. On this occasion the regiment of artillery, several companies of Infantry, the Corporation and Gentlemen of the Bar formed a procession from the old City Hall to the Park where the ceremony of laying the cornerstone was performed in presence of a large concourse of spectators. The Mayor delivered a short and appropriate speech, after which a federal salute was fired." One might judge that the ceremonies were concluded at this point were it not for McComb himself who testifies through his Diary that the Mayor, on

laying the stone, gave one hundred dollars to the workmen, who were then invited to partake of "a handsome Collation," with "plenty of drink." The builders fared even better. They all "suped with a part of the Corporation at the Alms House—had an excellent supper—plenty of good wine. We staid till one o'clock a. m." Incidentally, one notes that closing hours have not materially changed since McComb's day.

We have passed lightly over the months that led up to these gatherings. They had been busy months for McComb, for the City Hall had not escaped those vicissitudes that have ever been corollaries of monumental municipal building projects. He had been called upon to present revised plans at a reduced scale, cutting down the building by two windows in length, two in the projections, and one in depth; to present an estimate on the saving thereby effected; to visit and evaluate quarries from Philadelphia to New Rochelle; to pass judgment upon their products; to calculate the comparative costs of brownstone and marble, and various combinations of the two; to choose the precise location for the building and mark it out; finally to acquire lease of one quarry which was to furnish the brownstone for the basement.

These months too had given him opportunity to display something of that sound judgment, resourcefulness and general competence which were amply proven later on. In placing the building he studied it carefully in relation to its surroundings. The Park was to give adequacy to its main approach. It should be flanked on the one side by the bridewell, on the other by the jail. Its wings were to "range with Murray street on a parallel line with the fence in front of the Alms House" and the cupola was to "range on a line with the cupola of the Alms House."

In leasing the quarry he showed a shrewdness that would incline one to look for his ancestry in New England rather than in Maryland. To quote the diary once more—"I have engaged the quarry in my own name and would wish it should not be known otherwise abroad,

as I am certain. I can work it much more economical."

It was doubtless due to McComb's influence, persistently applied, that the Committee retracted its decision as to a reduction in the length of the plan. Ultimately they reported that "after consultation with the chief architect they are of opinion that the full length of the building ought to be preserved agreeable to the original plan as being more conformable to the strict rules of architecture, which in a building of such magnitude is of primary importance."

So too, in the matter of materials, McComb's guiding hand may be plainly seen. The walls of the new building were now officially decreed to be of brown freestone. The first committee had reported in favor of Stockbridge marble, only to be promptly overruled, their report rejected, themselves as a Committee discharged, and the cheaper material at once approved by the new Economy Committee. But civic pride was not to be so readily crushed. The marble idea would not down. Thus, in September McComb reports finding some of the members more in favor of marble than they were, and in October he was dispatched on the first of those numerous, oftentimes arduous, journeys to the marble quarries of West Stockbridge.

The success of his expedition, and a fortnight's deliberation after his return, brought the committee to the point of submitting that thoroughly characteristic and oft-quoted report:

"It appears from this (the architect's) estimate, that the difference of expense between marble and brown stone will not exceed the sum of forty-three thousand seven hundred and fifty dollars, including every contingent charge. When it is considered that the city of New York, from its inviting situation and increasing opulence, stands unrivaled; when we reflect that as a commercial city we claim a superior standing, our imports and exports exceeding any other in the United States, we certainly ought, in this pleasing state of things, to possess at least one public edifice which shall vie with the many now erected in Philadelphia and elsewhere. It should be remembered

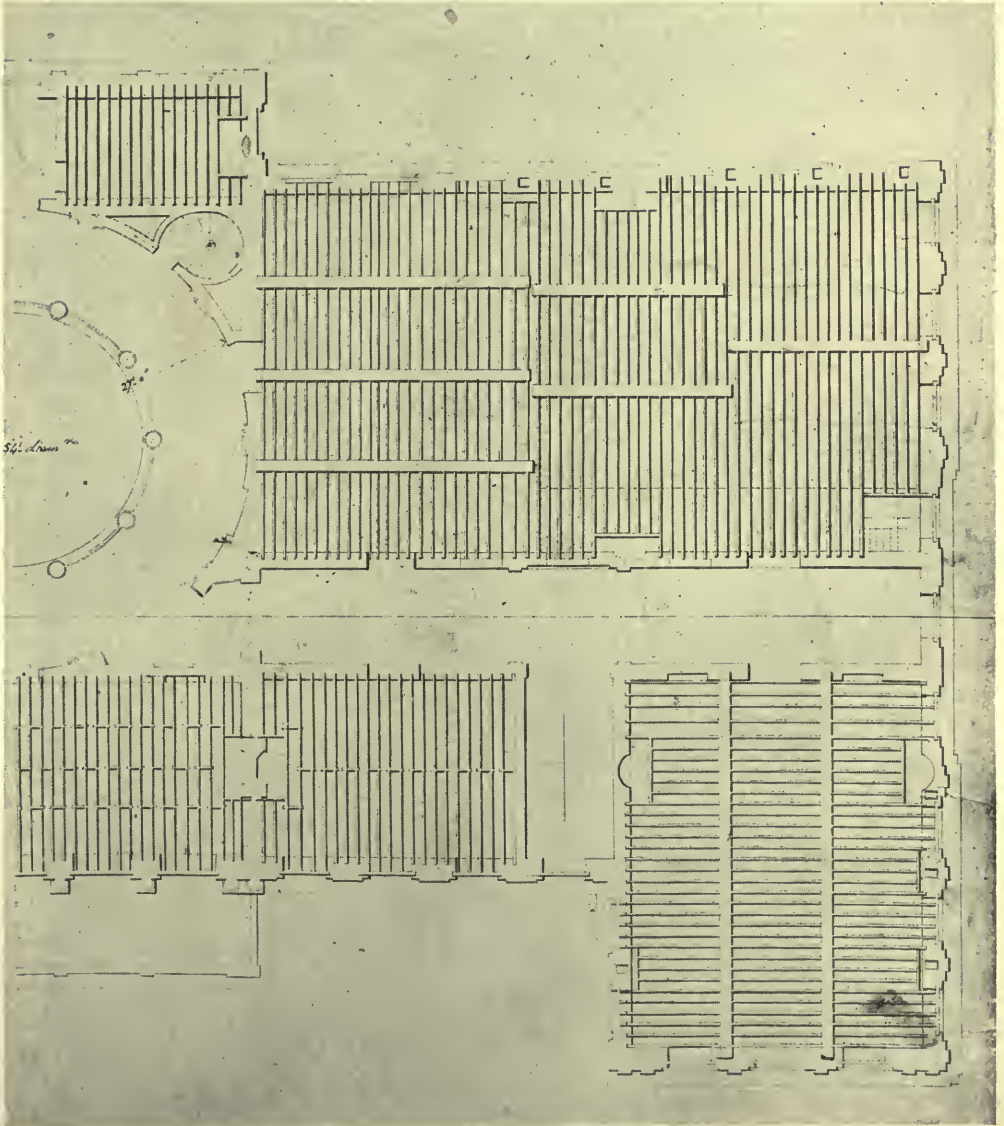
that this building is intended to endure for ages; that it is to be narrowly inspected, not only by the scrutinizing eyes of our own citizens, but of every scientific stranger, and in an architectural point of view it, in fact, is to give a character to our city. The additional expense of marble will be fully counterbalanced when we recollect that, from the elegance and situation of this building, the public property on the Broadway and Collect will much increase in value, and that the same influence will be extended to property far beyond these limits, and that in the course of a very few years it is destined to be in the center of the wealth and population of this city. A building so constructed will do honor to its founders, and be commensurate with our flourishing situation. Under these impressions, the Building Committee strongly recommend that the front and two end views of the new Hall be built with marble."

This quotation is further interesting because of its relation to that tradition that while the "front and two end views" were made of marble, the rear (they argued) might well remain of brownstone, since no one would be likely to notice the north side, situated so far uptown. After any sober consideration this must appear more picturesque than accurate. As a matter of fact, the city was at that moment settled, sparsely to be sure, up to Chatham Square, and beyond; the Alms House was directly north, and in this very report the committee prophesy with all assurance "that in the course of a very few years it (the City Hall) is destined to be in the center of the wealth and population of this city." In the face of these facts it is hard to understand how the tradition could have gained such power and momentum, yet it is this very bit of color that nearly all writers have hit upon and snatched up. Thus, John W. Francis, M.D., LL.D., writes in 1857: "So circumscribed, at that time was the idea of the city's progress, that the Common Council by a slender majority, after serious discussion, for economy's sake, decided that the posterior part of the hall should be composed of red stone, inasmuch as it was not

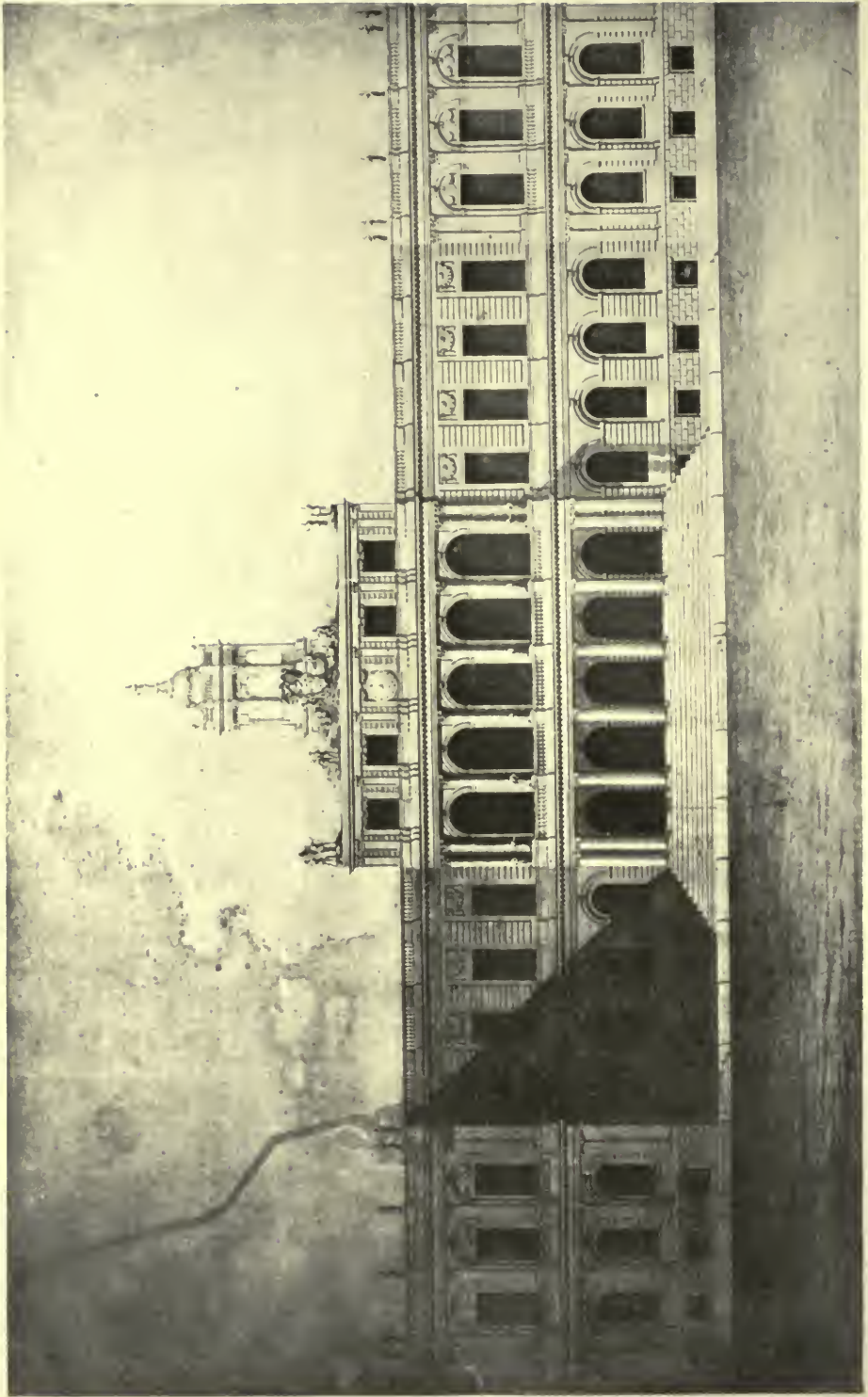
likely to attract much notice from the scattered inhabitants who might reside above Chambers Street." It is evident that Mr. Francis had had no occasion to consult the city map of 1811, which shows streets laid out up to 150th Street on the gridiron to which we are still enchaind.

More remarkable still, inasmuch as Mr. E. S. Wilde tells us that the Committee report quoted above was in Mc-

Comb's handwriting—comes this statement from Wm. E. Dodge, in an address delivered in 1880: "Some thirty years ago there resided near me an aged gentleman of the old school, Mr. McComb, who was the architect of the City Hall and who told me that in making the estimate of cost of the building, they found that the difference between marble and stone for the rear would be \$15,000. As it was so far up town that but few



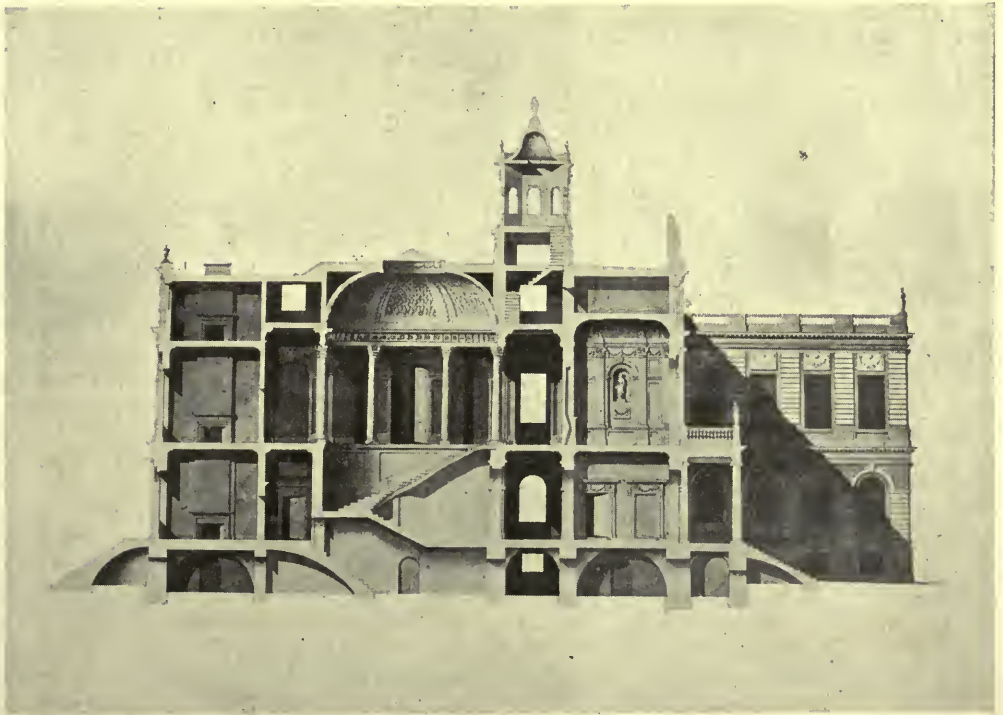
FRAMING PLAN, EASTERN PORTION AT SECOND TIER, SHOWING LONG SPANS FOR THE OAK GIRDERS.



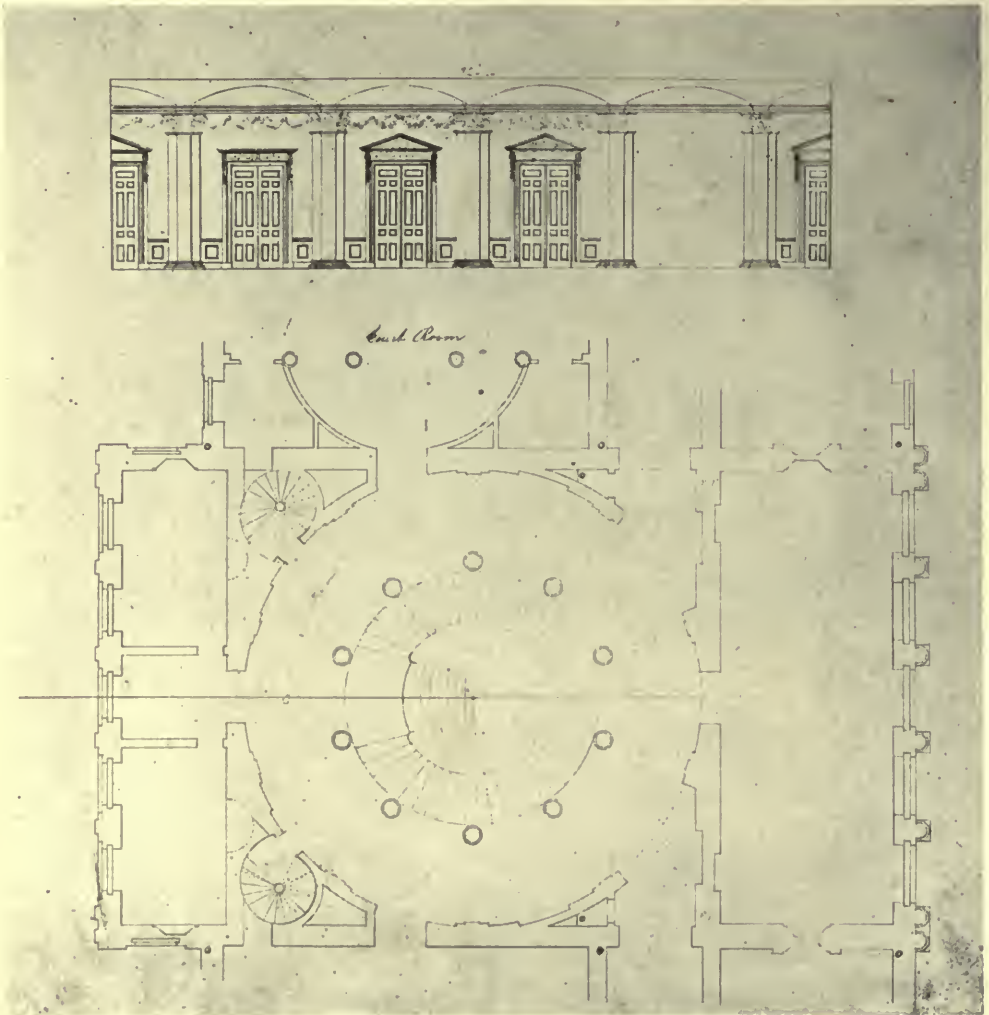
FRONT ELEVATION, SHOWING THE FIRST IDEA FOR THE POSITION OF CLOCK, AS WELL AS THE SCULPTURAL TREATMENT NEVER EXECUTED.



WEST ELEVATION, ACCORDING TO THE "DIMINISHED PLAN," WHICH WAS EXECUTED.



CROSS SECTION, ACCORDING TO THE ORIGINAL PLAN, WITH EIGHT COLUMNS IN THE ROTUNDA AND THE GREATER PROJECTION OF THE WINGS.



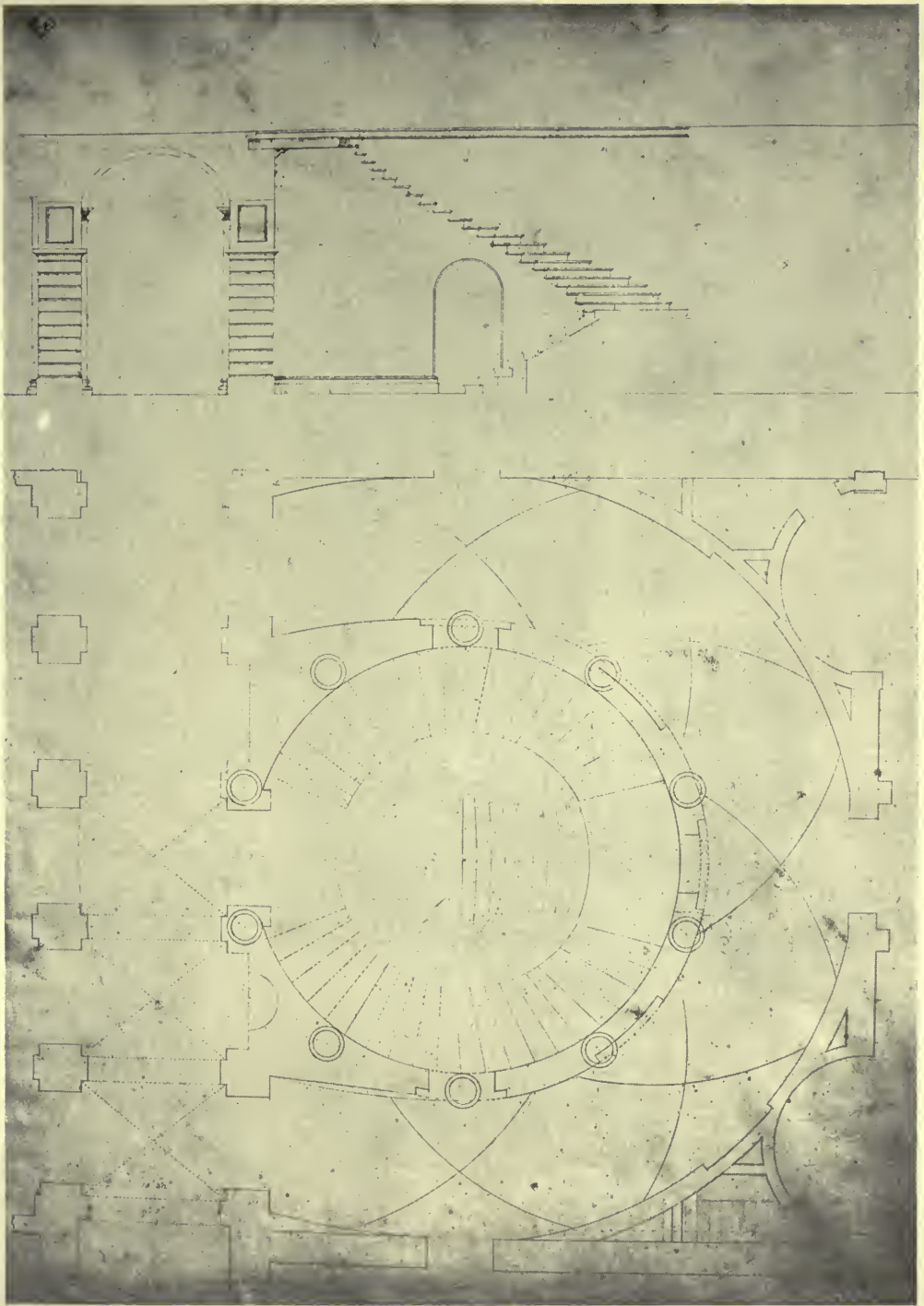
SKETCH FOR ROTUNDA TREATMENT.

would see the back part of the Hall, they decided to use the brown stone." Logic would seem to point the conclusion that the real reason for curtailment was that of economy and that the northern or "postern" part was chosen for the meaner material, inevitably since it was "postern," and not because of any supposedly "furthest north" isolation.

The materials selected, dimensions decreed, the cornerstone laid, construction work began in good earnest. Just as promptly began to appear the hardships which were to try very sorely the temper of builders and architect alike.

That first summer yellow fever made its annual descent upon the city, scattering the workmen, and compelling McComb to remove his own family to Bloomfield. No mention is made, however, of McComb's taking even a vacation. His troubles were in getting the masons to lay the stone walls according to his own ideas of solidity. Just how adamantine that was is doubtless best known to those who in late years have essayed to pierce those same walls with modern steam pipes, electric conduits and what not.

On October 29th (it is still 1803) he



STUDY FOR ROTUNDA. SECOND FLOOR
PLAN SUPERIMPOSED ON FIRST.



THE PORTICO, NEW YORK CITY HALL.

stops to note "this day the Hon. De Witt Clinton was sworn into the Mayor's Office." Evidently as a celebration of the event, McComb "had the pleasure to take a glass of wine with the members of the Corporation." The pleasure was not unmixed, however, for he adds, somewhat piqued: "The new Mayor took no notice of any of us concerned about the building." One judges that up to the end of November McComb had received nothing for his services, for at that time he writes: "I made up my account for services and expenses from the 10th of March to the 26th inst. I should have commenced my Pay sooner as I was waiting on the business for a long time before, but as there was no particular time set in the agreement I thought they might grumble to begin the Pay so early." Just then, too, he returned from a ten days' journey to the quarry, to find the workmen all discharged for the winter by the Building Committee. Irate but undismayed, McComb took the Committee in hand, with the result that two days later twenty of the best stone cutters were re-engaged for the winter months, and thereby insured as a nucleus for the next summer's organization. This incident helps to explain the seeming hardness of McComb's heart when he writes: "urged the propriety of appointing a permanent Committee—as we already begin to feel the bad effects of a Committee who have no judgment."

With all things thus pointing to this remarkable last century architect as a paragon of every constructional virtue, it comes almost as a relief to find his human fallibility proven by his own hand. Witness this from a letter to the quarrymen referring to his own list of the marble sizes for cutting: "Some of the pieces are not quite the size they ought to be, therefore please to look on this instead of the first bill."

Nor was it always over the draughting board or with the workmen that McComb's professional duties kept him engaged. "Architect" in that day implied much that had slender relationship to architecture. "Went to Newark," he says, "put up bills for the sale of the

Quarry and also sold the Brown horse for \$30.00, payable on 1st of January next." Further, "The bridges on the road and turnpike (over which the Stockbridge marble must be dragged) are very bad, and the Directors of the turnpike threaten to prosecute them if they damage their bridges. To encourage them I gave them ten dollars toward strengthening them."

So the crowded months passed and became years as the building slowly shaped itself. The summers came, and with them the fever; the winters closed in to bury quarries in snow, and to wear out the six-horse teams that struggled through the drifts dragging the marble toward the shores of the Hudson; hard times came to cut down wages and curtail appropriations; the city's finances became so straitened that they begged permission from the state legislature to raise \$100,000 by lottery; prosperity gradually returning, caused booms in other building projects, and created scarcities of labor; workmen struck for higher wages, threatening a general upheaval of the local building world; criticisms cropped up now and again, requiring refutation; the quarrymen fell into financial troubles, and must be helped out by the city; and always in the background, political considerations were present to play their part in the warping of judgments, the delaying of decisions, and the curtailment of appropriations.

Since "progress photographs" were not in vogue at the beginning of the nineteenth century, and since McComb's Diary is unfortunately discontinued in the midst of his connection with the City Hall, our picture of the building's progress must be gathered from the occasional reports made by the Building Committee to the Common Council. From such a source we learn that at the end of 1807, having expended about \$207,000, the walls stood at the level of the second floor window sills. McComb puts the blame for so slow progress squarely up to the Council for their meager appropriations, calling their attention to the fact that \$7,000 per annum was being paid to superintendents who could



THE PORTICO, LOOKING WEST.
NEW YORK CITY HALL.

"with equal facility oversee three times the number of workmen without added expense to the publick." A year later (Dec., 1808) the amount expended amounts to \$247,163, and the program calls for the building to be "completely roofed in the course of the following year." Hope continued to outrun performance, however, as the close of 1809 shows expenditures of \$273,916, and again the commentary—"we may indulge the pleasing idea of seeing nearly the whole of the outside work completed the next season." This "pleasing idea" was near to realization, as Nov. 1810, shows the finishing of a Common Council Room, one for the Mayor, Clerk and Comptroller to be "all progressing." Yet in December, "the season being so far advanced, the Committee propose leaving the building with a good shingle covering to secure it from the weather this winter and lay the copper in the spring." This, by the way, was the famed copper roof imported from England—a fact which seems remarkable to us in the year 1916, and doubly so since its cost (about \$10,000) was less than that contemplated by the Committee.

As everyone knows, the year 1811 had come before the City Hall was ready for formal entry by the Corporate officials, and then in the most piecemeal fashion. First, a modest 4th of July celebration in the Mayor's Room by the Common Council, probably no more than a roll-call and inspection; a month later, their official occupancy of that office pending completion of their own chamber; in October, a visit of the Justices of the Supreme Court to select "the rooms most suitable to be finished for the accommodation of that court." Even then, and for months after, the building was far from finished. Indeed, as it stands today it is still incomplete, since the sculptural foil intended for the base of the cupola has never been erected. Thus it has been the hard fate of the City Hall, not only to remain permanently incomplete, but to have undergone from the days of its comparative youth a series of alterations, repairs and renovations which have ranged at various times from intelligent restoration to bar-

baric vandalism. Among the first important changes was the installation of the clocks in the cupola. This was accomplished, not by embodying the clock faces within the form of the original design, but by slicing off the upper half of the cupola, inserting the square box that contains the clock, and replacing on top the portion that had suffered decapitation. It would have been a sad commentary on McComb's powers as a designer had so slipshod a method of alteration worked no harm to the building.

The City Hall had almost immediately taken its rightful position as the center of the city's official life—the place for state receptions, for municipal celebrations and the like. As early as 1813 we find the Common Council passing a resolution "that in celebration of the brilliant and memorable victory achieved by Commander Oliver H. Perry on Lake Erie and the important success of General Harrison, resulting in a great measure therefrom, the City Hall of this City be illuminated on Saturday evening next from the hours of 7 to 10 o'clock." Here, too, in 1824 was held the elaborate reception to General Lafayette; here, a year later, was celebrated the opening of the Erie Canal; and here, in 1842, the City welcomed the first of the new Croton water supply.

This last appears to have been a most thrilling celebration, judging from a news report, such as this: "There was a multitude present that no man could number, and the devices numbered an almost endless variety. We could neither number the one nor the other. The procession was two hours and ten minutes in passing the "Express" office on Broadway. The ranks were from 2 to 10 deep. Every rank, every age and every profession was represented. The church bells mingled their merriest peals, and the cannon spoke out morning, noon, and night in their most vociferous tones of power. It was a veritable water day: no wine or spirits of any kind were served."

These occasions were memorable and their mode of celebration harmless, but when in 1858 the successful laying of



DETAIL AT SECOND FLOOR, SOUTH FRONT.

the Atlantic Cable must have fitting recognition, the celebration spelled disaster for the City Hall. A stray spark from the official fireworks did its evil work, and the next day the City Hall stood shorn of its cupola, its dome disfigured, its roof timbers blackened and charred. Here again careless or stupid restoration work left its marks in the contraction of the opening at the eye of the dome, with the result that until its re-widening in 1913, the splendid rotunda, robbed of its light, was rendered dull, cavernous and dismal.

In more recent days, natural expansion in the municipal governing plant and its physical requirements have forced numerous shifts among the office forces and consequent alterations in the building itself. Furthermore, periods of notorious political corruption are not likely to be coincident with those of sensitive architectural appreciation in official circles. So the City Hall was called upon to pass through dark days of desecration

—some one has termed it “the tobacco juice period”—during which the building became more and more tawdry and ill-kempt.

The picture given by the historian is most depressing. “No one (he says) seemed to care for the architectural improvement of New York. The City Government had left its only fine building—the City Hall—in a condition of ruinous neglect since the cable celebration, when it had suffered from fire. Its front was blackened with smoke, its windows closed up with boards, its whole appearance saddening and repulsive.”

Then, too, the City Hall has been racked and tortured through the unfortunate but innocent exigencies of modernity. In 1812, fireplaces furnished the only heat, and the rooms must have been thoroughly frosty some winter mornings, for the Common Council had decreed that “all persons occupying offices in the City Hall be requested to see the fires carefully extinguished before they

quit their offices for the day." Now, of course, steam pipes spread in a network from one end of the building to the other, and from top to bottom. So with the innumerable plumbing pipes increasingly in evidence; so with the conduits for electric lights; so with the myriads of wires—telephones, call bells and what not—that a few years since stretched sprawling over every part of the building, unmindful alike of traditions from the past, and amenities of the present.

But these are sins committed during Dark Ages which intervened between McComb's day—a period of almost classic simplicity, and our own—a day, we

trust, of renascent reverence for the worthy in architecture. We can hardly hope to approach the naivete, but it might perhaps be well if we could regain some suggestion of the child-like spirit of unabashed enthusiasm that inspired, back in 1819, this gem of rhymed vers libre:

"And on our City Hall a Justice stands—
A neater form was never made of
board—

Holding majestically in her hands

A pair of steelyards and a wooden
sword,

And looking down with complacent civ-
ility,

Emblem of dignity and durability."



THE CUPOLA, AS ORIGINALLY EXECUTED.
NOTE McCOMB'S SIGNATURE.



DETAIL OF ENTRANCE—WALTHAM (MASS.) PUBLIC LIBRARY—LORING & LELAND, ARCHITECTS.



WALTHAM PUBLIC LIBRARY, WALTHAM, MASS.

THE PUBLIC LIBRARY AT WALTHAM, MASS.
AND
THE CARTER MEMORIAL HOSPITAL AT
LANCASTER, MASS.

Loring & Leland, Architects

BY MARTIN MOWER

THESE two buildings by Loring and Leland may properly be considered together. Interesting in design and plan, they contrast admirably in treatment, although done in the same general style.

The library, planned with the help of the experience of the librarian to give the greatest freedom of use to the public with least cost of supervision and upkeep, is Colonial in type, built of brick and limestone, a story and a half high. Good placing on its lot and a lift on delicately judged grading have helped, however, to give it a sense of height; this is added to by the design of the facade—a balance of two wings on a slightly advanced middle portion, which is filled for nearly its whole width by a limestone pillared portico rising the full height of the building. The eye is irresistibly swept upward by the pillars; and high arched windows, three in each wing, aid in the illusion of greater vertical meas-

ure than the structure possesses. The ends of the wings have each a Palladian window as the main feature of well worked out problems, slightly differing in that one includes a basement door and the other merely two small basement windows. The rear of the building is clean cut and business-like.

Considered in detail, the exterior gives ever increasing interest on to delighted satisfaction. The mouldings, cornice, balustrade, and portico are pleasing from every probable point of view, from every possible point, it may be. The architects never rested satisfied with what looked well on paper in elevation or thrown up in architectural perspectives, but had a quarter scale model made and colored. The curve of the roof on the portico, apparently so inevitable, so easily swung in, is in fact the outcome of a series of deliberate, delicate experiments to determine the precise amount of the circumference of a circle which would ap-

pear, seen from below, as a semicircle. The front entrance is charming with its interestingly paneled door and leaded light surmounted by a delightful bit of bravura in the boldly curved broken pediment and garlanded flaming urn. The effect, together with the swinging arc of the balustrade crowned portico and its columns, creamy pale against the darker red, brick wall, is of extreme graciousness, from which the balancing curves of the two descending sweeps of steps and the light iron railings, lace-like against the sturdier forms, detract nothing.

In the capitals of the pillars of the portico, the lower part of the abacus block seems to have become circular in plan leaving a rather thin, rectangular slab with moulded edges to receive the load; which might not have done in the days when columns worked harder.

In the wings, the tall, iron-balconied arched windows are well spaced in relation to the areas of plain brickwork, and set in two orders of brick arch, the outer accented by keystone and skewlocks in limestone, which although relatively small have a great deal to do with the enlivenment of the front. The basement windows and two small ones besides the door are unobtrusive. The whole is topped off by a balustrade kept from dullness by interruptions of closed panels. The Palladian windows at either end section are well handled; and a look of being well knit into the structure is given by springing an elliptical relieving arch over the three divisions and filling the somewhat sunken spandrel with bricklaying of a character differing from that of the rest of the wall surface.

The section on the west containing the children's door is most competently trim in arrangement of rectangular spaces of wall, openings, panel cornice and string course.

The rectangular window openings of the rear are nicely spaced and leave agreeable enough areas of brickwork, relieved under windows by plain panels the width of the window and about one-half that measure deep, contrived by slightly advancing several courses of bricks.

Iron railings of steps, portico, edge and balconies are crisp and simple. Slender verticals rise to a horizontal border where every other one is cut out, leaving small panels for pleasing ovals. The urn-shaped knobs of iron give accent to top of rail at terminations of stretches of rail. The panels of diagonally curving lines occurring at like points are not so happily thought out. The large balconies of the Palladian windows of the ends, have a vertical oval well filled with a "W" opposite the middle windows.

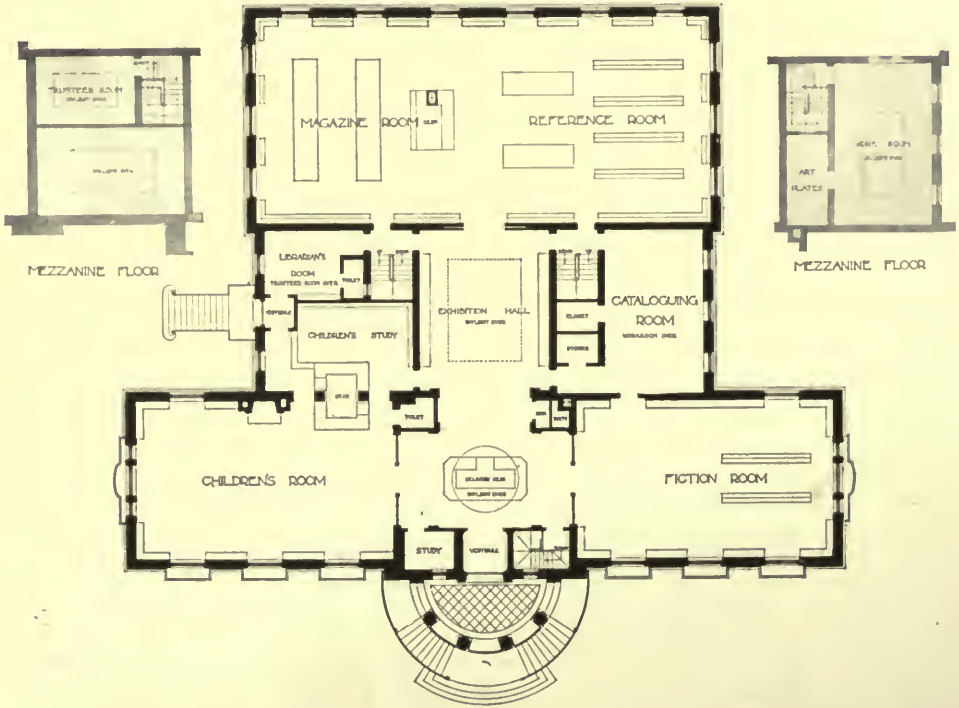
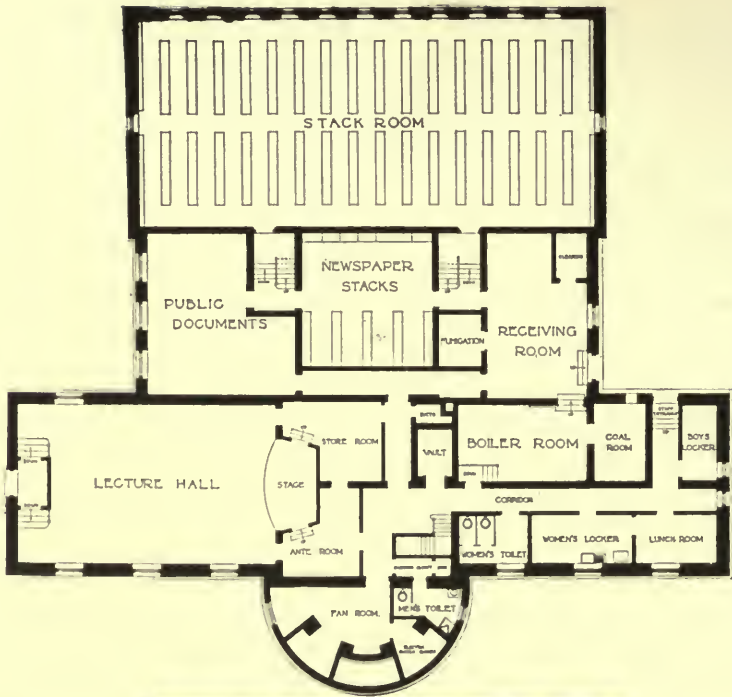
A peculiarly refreshing quality felt in the tonality of the exterior is by no means fortuitous. To get this agreeable sensation of tone in the brick work alone, no less than four elements were brought into play; value contrast, vibration of color, light and shade, and amount of light and dark. The bricks carefully chosen are of two kinds, the greater number being in variation from violet red to reddish orange. These used together give a livelier tint than could be got by an even mixture of the averaging red. The rest of the bricks are darker, in variation of olive browns and greens. They are all rough enough in surface to catch light and shade. These bricks are laid English bond, headers and stretchers, with joints of a pale grey rich textured cement which are "struck" to give further play of light and shade over the resulting ridges. The stretchers are all of the red bricks, but among the headers the ends of the dark olive green and brown bricks are used at intervals varying in count from six to nine, the average being seven. With all this care there is made up a mixture of visual stimulants which quickens and refreshes the eye whether it dwells on or passes over the wall spaces.

At the east and west ends of the front a pleasing variation in the brickwork is managed by bricks laid to form an elliptical relieving arch with a filling in the spandrels of headers only, among which the dark bricks occur in occult harmony of interspace. An average distance being kept between the variation of the occurrences.

It is only when handled by well



WALTHAM PUBLIC LIBRARY, WALTHAM,
MASS. LORING & LELAND, ARCHITECTS.



MAIN FLOOR AND BASEMENT—WALTHAM (MASS.) PUBLIC LIBRARY. LORING & LELAND, ARCHITECTS.



REAR VIEW—WALTHAM (MASS.) PUBLIC LIBRARY.
Loring & Leland, Architects.

trained designers that these variations become agreeable subtleties and not affections of disorder.

The limestone is light creamy buff, free from muddy or dusty quality. Here again extreme care was taken, no risk being run with descriptions or general specifications. An agent was brought on from Indiana to Boston to see what would be accepted and to look at two examples of buildings, both of limestone, under the same specifications, the one good to look at and the other cold.

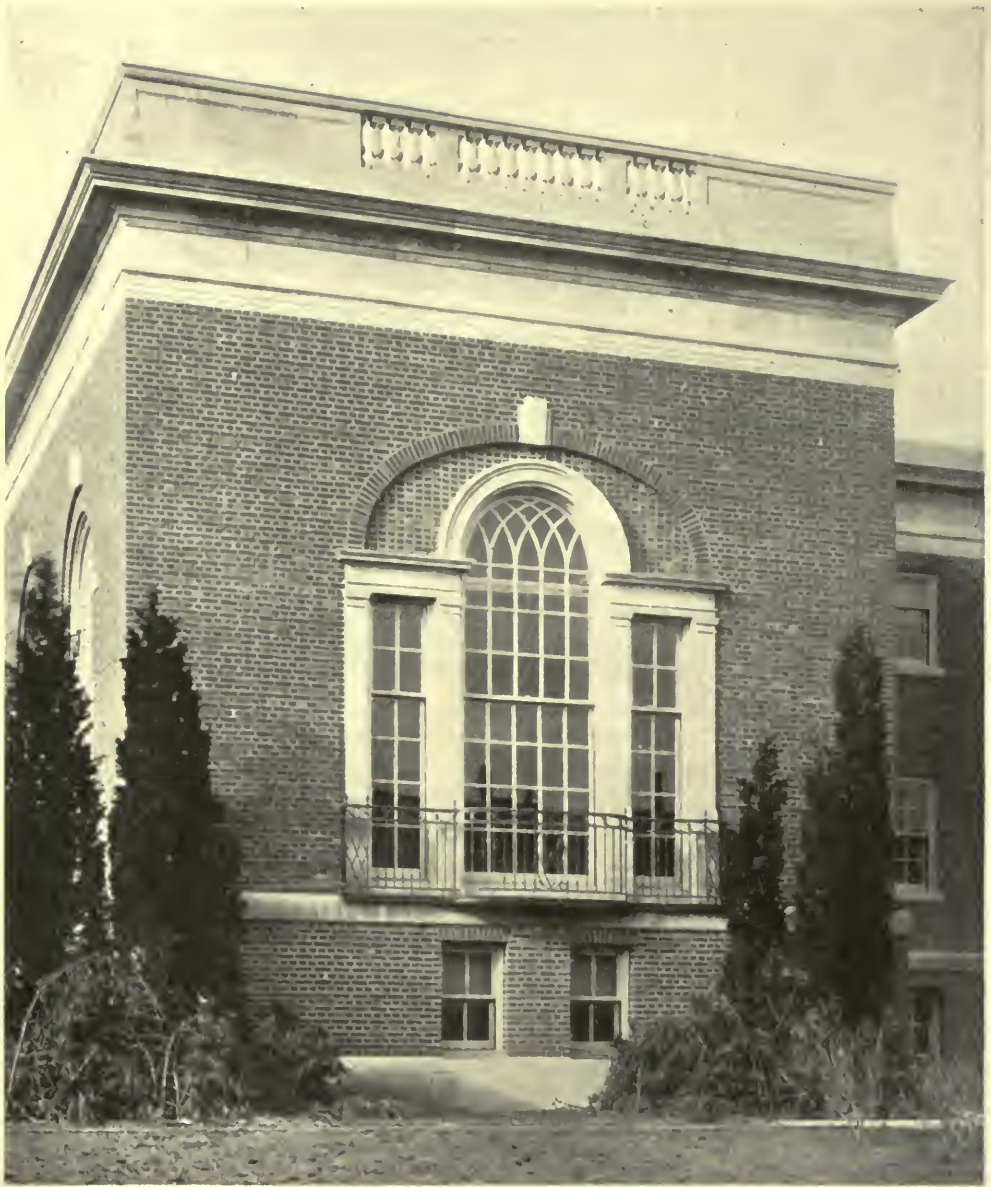
The interior, on entering from the main door and vestibule, shows itself as a sunnily lighted T-shaped hall, with the Delivery Room at the crossing. The Fiction Room, and the Children's Room, separated from the Delivery Room only by large panelled clear glass screens, occupying each an arm, respectively to right and left; and the exhibition hall in the stem, opening clear, but for an accentuation of narrowing by a slightly brought forward section of wall with pilaster.

Beyond, at the end of the Exhibition hall entered through double valved leath-

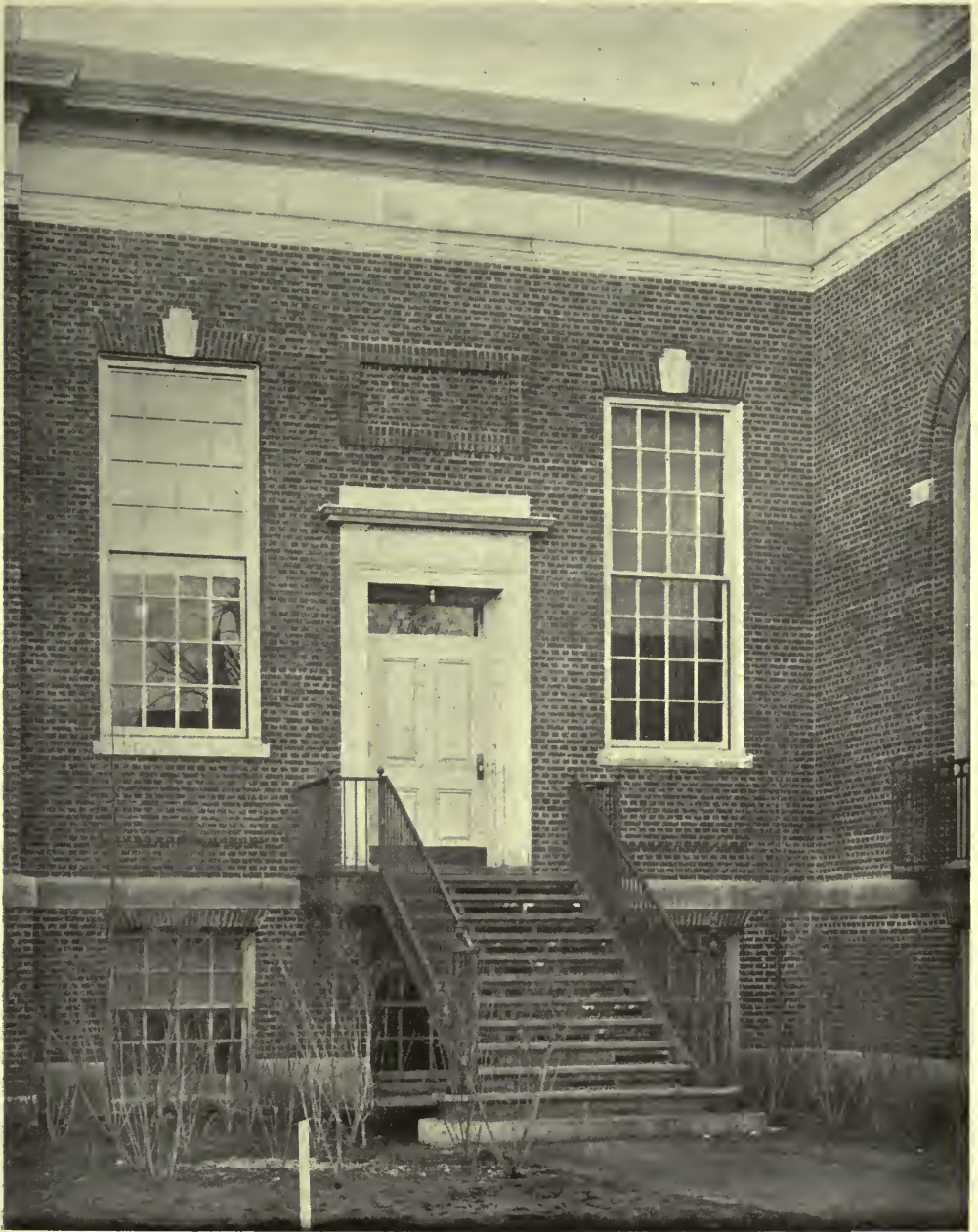
er-covered doors, is the Reference Room, parallel with the arms of the T. At the right of the Exhibition Hall, and opening into it by a door at the Delivery Room end, is the cataloguing and work room; also stair descending to stacks. On the left are the Children's Study, the Librarian's private office and various closets, passages and stairways. In a mezzanine story and lighted from the roof there is a cozy Trustees' room with its collection of medical books not open to the general public.

The precise arrangement of these rooms is shown in the main floor plan. The basement plan shows the disposition of the stacks, the Study room, the Lecture Hall and the positions of the boiler room, various store rooms, retiring rooms, corridors, stairways, etc.

Supervision of the three public rooms most needing it, is clearly to be managed with utmost economy from the Delivery Desk. A desk between the Children's Room and Study gives control of both. A third desk in the Reference Room controls that, and is connected by a book lift with the stacks below.



END WINDOW OF FICTION ROOM—WALTHAM (MASS.)
PUBLIC LIBRARY. LORING & LE LAND, ARCHITECTS.



CHILDREN'S ENTRANCE—WALTHAM (MASS.) PUBLIC LIBRARY. LORING & LELAND, ARCHITECTS.



DELIVERY HALL, LOOKING TOWARD FICTION ROOM—WALTHAM (MASS.) PUBLIC LIBRARY.
Loring & Leland, Architects.

The Library is a model of compactness for work and administration. The users on entering, turn, as usual in America, to the right. The space between vestibule door and desk seems narrow, but was so called for by the staff. The user then passes on, if only to glance at the daily newspapers most in demand, to the racks above benches against wall of the Delivery Room. Readers of fiction and such books of reference as cook books, nature study, and the like find the door of the Fiction Room within a few steps. More serious readers and students pass on to card catalogue and magazine shelves on right wall of Exhibition Hall or continue on through doors at the end to the Reference Room. This room is completely cut off from the bustle and chatter of the entrance, the Children's Room and the Fiction Room. The Children's Room, naturally noisiest, is completely shut off by the glass screen and has its separate entrance. The Fiction Room, in which much exchange of low voiced talk and much moving about goes on, is practically cut off by the glass screen.

The attendant at the Delivery Desk is near at hand to offer suggestions to those in pursuit of entertainment and diverting knowledge in the Fiction Room, to advise the inexperienced in the use of the card catalogue, to answer questions of the examiners of the exhibition in the cases in the Exhibition Hall; and meanwhile have an eye to the Exhibition Hall, and to the Fiction Room, and Children's Room, through the glass screens.

In time of rush of demand for books, workers in the Cataloguing Room can be summoned and in a moment's time step from the nearby door to the desk. In case of shortage of hands through epidemics of sickness in winter or of vacations in summer the Children's Room can be entirely run from the Delivery Desk by throwing open the door in the glass partition, and cutting off other entrances by silk cords. The stacks beneath the Reference Room are only seven feet in stud, which makes the descending stair so short a flight that possibility of promptness in delivery of books is assured.

Three rooms, the Lecture Hall, with



CHILDREN'S ROOM, LOOKING TOWARD DELIVERY ROOM—WALTHAM (MASS.) PUBLIC LIBRARY.
Loring & Leland, Architects.

its outside door, the Document Room, and the Study Room, containing the Public Documents, are available for lectures, student's debates, conferences, etc., and may all be used at the same time, being cut off from each other and from the reading rooms as far as noise is concerned.

There is plenty of room in the stacks and cases for the collection of books to grow. Filtered air, hot or cold, can be supplied to the Lecture and Childrens' Rooms. The circulation of air between the stacks is through slots along the edges of the floor of the upper tier instead of in the floor along the bottom of the shelves, allowing dirt to fall through on books below as in the old way. There is a complete system of inter-connecting telephones throughout the building.

The architectural features of the interior are well turned out and in good style. There is no redundancy, emptiness or ineptness. There has been no unintelligent following of precedent. Noticeable proof of this is in the slight increase in thickness of some members,

mouldings, window sashes and the like, over that of corresponding parts of Colonial examples. There results a sturdy look, an appearance of power, of resistance to the wear and tear of long hours of daily public use.

In the small marble-floored vestibule some neat use of reeding has been made about the door, and a simple meander happily inserted among the mouldings in the cornice. A finely proportioned doorway opens on the main axis of the interior, which is lighted from above by a flattened dome in the Delivery Room and by a skylight filling almost the entire ceiling space in the Exhibition Hall. The lights are of amber tinted cathedral glass, which with the pale yellow tints of the walls gives the noticeable sunny quality even on a dull day in winter to the floods of light.

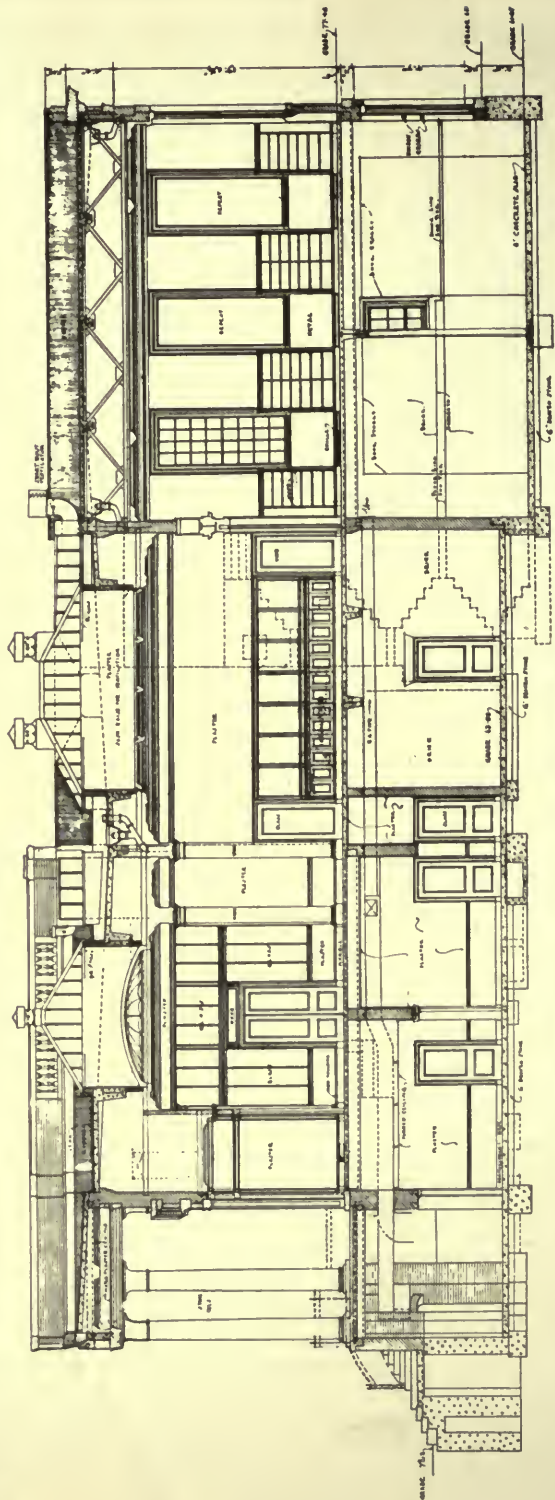
The flooring in the Delivery Room and Exhibition Hall is of grey clouded, yellow-white marble, and in the pavement the division between the rooms is differentiated by changes in the size, shape and direction of the laying of the slabs,

and by dark strips or bands of verd-antique. The Children's Room, Fiction Room and Reference Room are well lighted and sunned by tall windows, three facing south; white ceilings and pale tinted walls acting as reflectors. The floors are covered with a peculiarly grateful shade of greyish green linoleum, being a part of the last lot sent over from Germany, purchased before the building was started and held in storage till wanted.

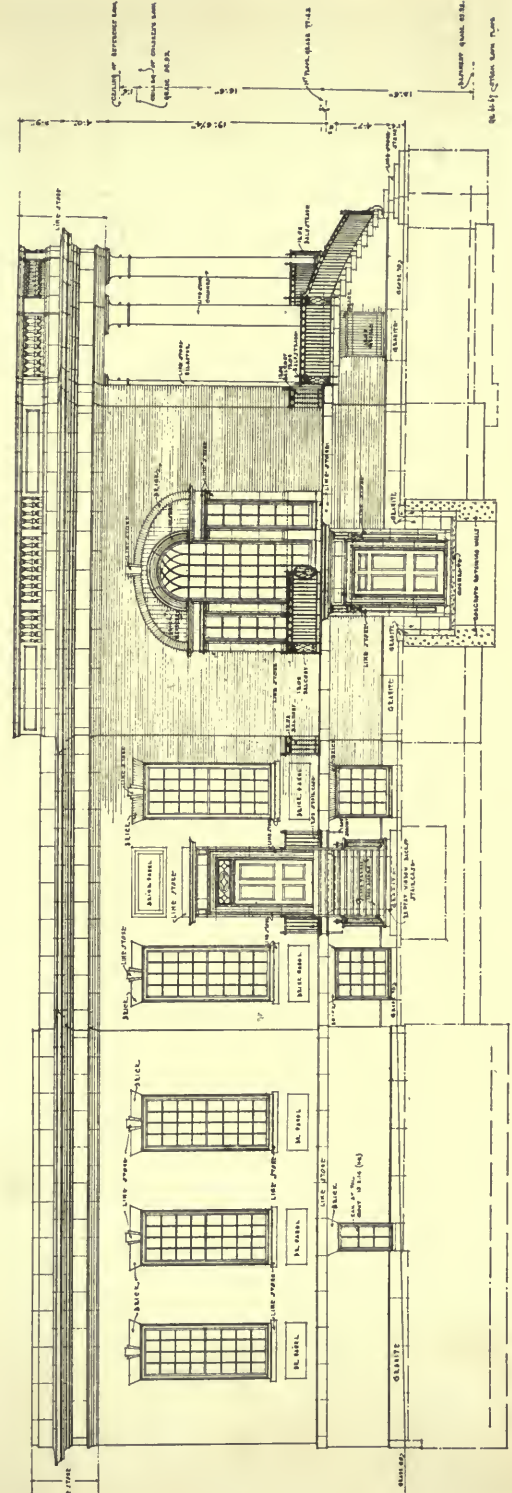
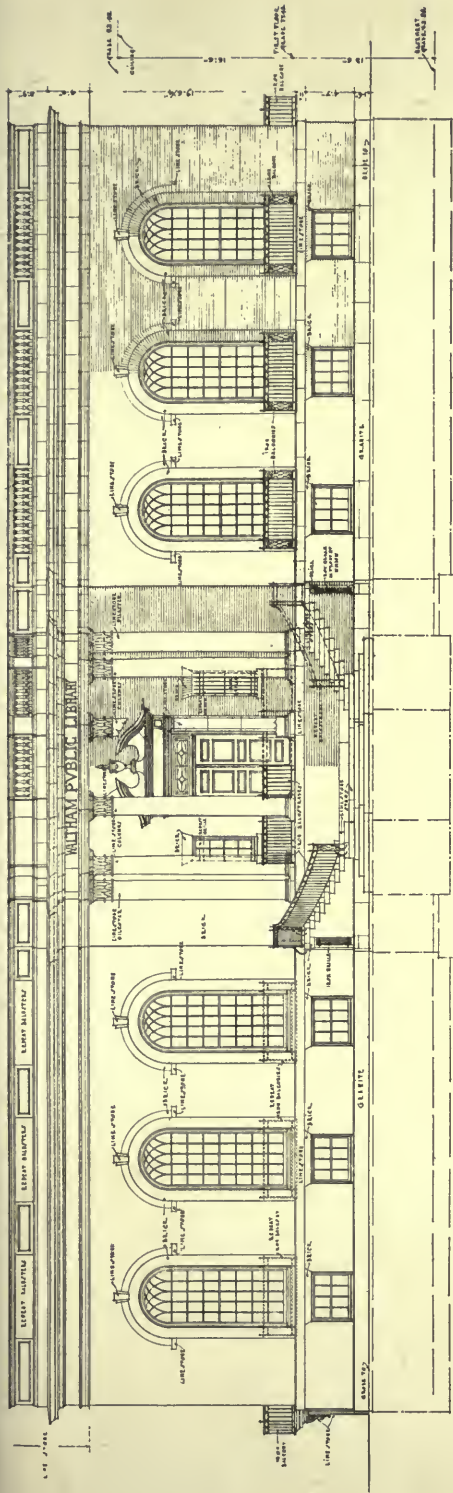
The screens of clear glass completely filling the openings to the Fiction and Children's Rooms have their large panels attractively arranged in groups of three. In the Fiction Room there is an interesting use of blind arch of wood with plaster intrados over the small door to the cataloguing room. It has the proportions and mouldings of the windows, and serves to balance the one opposite. The use of the Palladian motive in the opening between the Children's Reading Room and Study is ingenious, especially in relation to the desk, and passages at either side. The black marble mantel in the larger of the two rooms is very good in proportion.

The interior corner vestibule giving from the children's entrance to the Children's Study is an entertaining, if a bit ungraceful, working out of the problems of draughts, supervision and moulding, a semi-privacy for the entrance to Librarian's office door.

The laurel moulding on the ceiling of the Reference Room is most acceptable, and so is the Colonial motive in the cornices of the Children's Room and Study and the Fiction Room. A touch of graceful humor is given in the use



SECTION THROUGH ENTRANCE—WALTHAM (MASS.) PUBLIC LIBRARY.
Loring & Leland, Architects.



FRONT AND EXCHANGE STREET ELEVATION—WALTHAM (MASS.) PUBLIC LIBRARY. LORING & LELAND, ARCHITECTS.



CARTER MEMORIAL HOSPITAL, LANCASTER,
MASS. LORING & LELAND, ARCHITECTS.

of the watch-faced clock with its garland over the door of the Exhibition Room to the Reference Room.

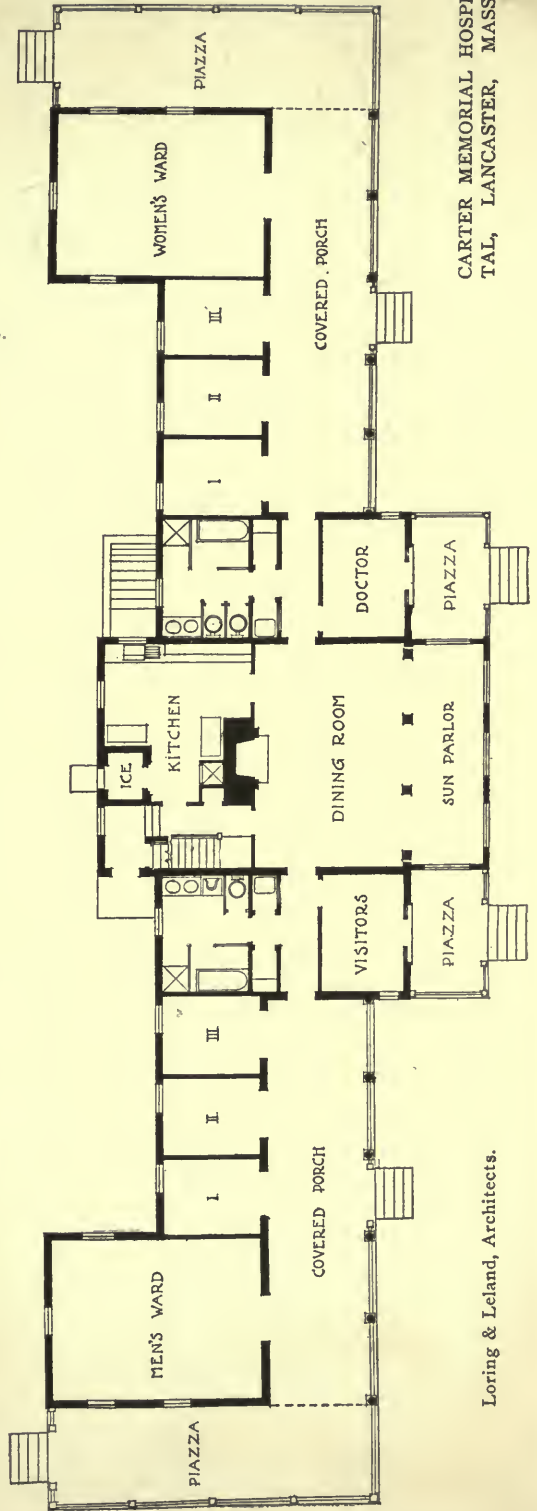
The arrangements for artificial lighting, heating, and ventilation are thoroughly well contrived, and sources of intense satisfaction to the staff. Unsightliness has been avoided and dirt gathering tendencies counter checked.

The electric light fixtures are in dulled gold. In the Delivery Room there are cylindrical lanterns, with cylinder glass protecting the light. In the metal lead lines of the bowls of the larger indirect lights in the Reference Room one feels a contrary motion and breaking up of areas into odd shapes brought about by the applied features. The smaller lamps have free hanging festoons of graded strings of little gilded balls, much better in effect.

The polished mahogany furniture is everywhere agreeable to the eye, particularly the movable bulletin boards with ornaments of carved pineapples. Throughout the building one is struck with the excellence of material and workmanship.

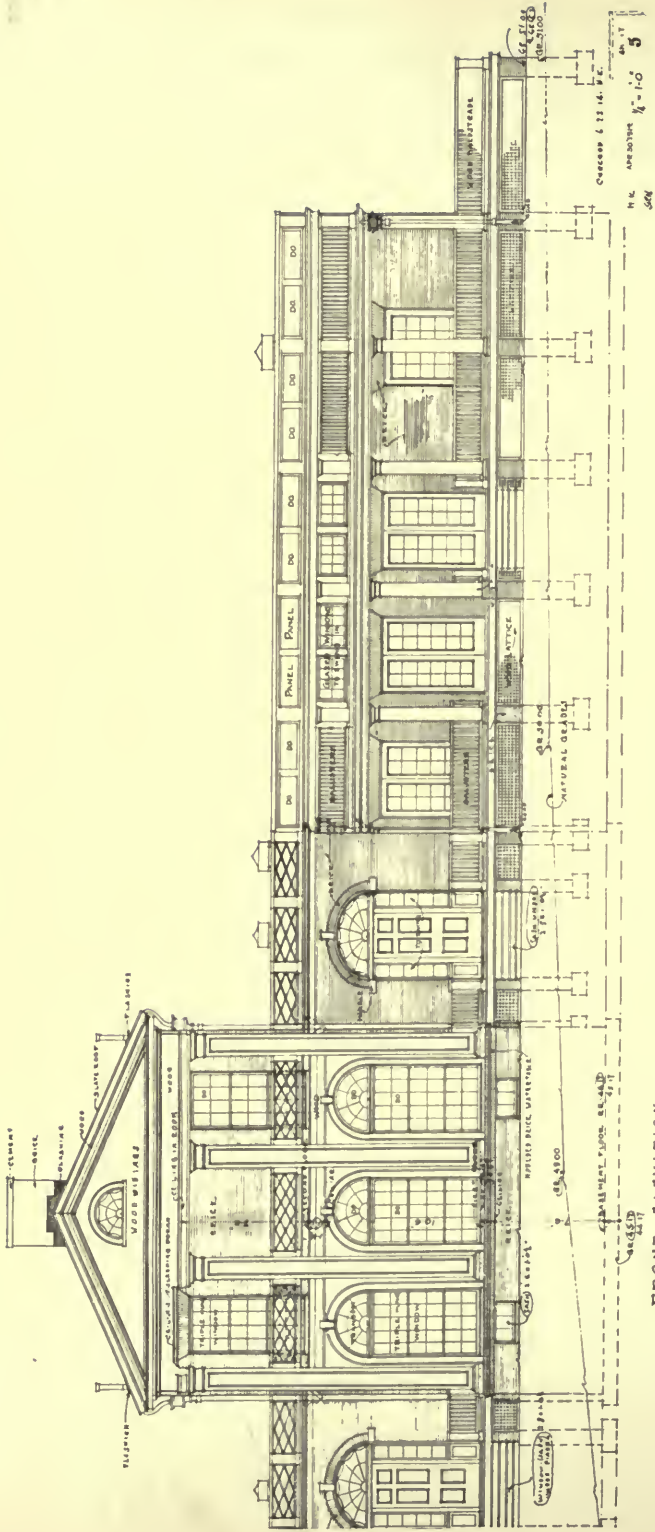
In the choice of colors for the tone schemes for the interior, the architects again show their discretion, taking as their greatest range never more than one-third of the spectrum. The chrome chord is orange, orange yellow, yellow, yellow green, green; but so reduced in intensity as only to be recognized in their subdued, but never dull or muddy tones, as cream, mahogany, verd-antique, pale sage, Roman gold, and the like. The large areas of wall, pilasters, ceiling, are in the higher values of the pale yellow and orange yellows, giving ample diffusion of pleasantly tempered light. Against these clean, pale tones, the dark clear orange brown of the mahogany comes out with much freshness of contrast. The linoleum flooring of most of the rooms, the lines of verd-antique in pavement, and the inconspicuous pale window shades give the green notes of the chord, which holds throughout a common note of yellow, and herein lies the secret of one element of the harmony of tone over the whole main floor.

The grounds slope away at the rear of



CARTER MEMORIAL HOSPITAL, LANCASTER, MASS.

Loring & Leland, Architects.



FRONT ELEVATION
SOUTH

DETAIL OF FRONT ELEVATION—CARTER MEMORIAL HOSPITAL, LANCASTER, MASS. LORING & LELAND, ARCHITECTS.



REAR VIEW—CARTER MEMORIAL HOSPITAL, LANCASTER, MASS.
Loring & Leland, Architects.

the Library to give light to the stacks and are graded for automobile service. The design of the iron supports in the lanterns in front at each side of the top of the steps to the sidewalk is not entirely happily conceived. The less pleasing motive of the stair rail has been taken and developed into a four-sided open work upright in which there is confusion to the eye as the sides are seen through one another. Pointed evergreens are grouped with good effect in places against the walls and some shrubbery is already set out. A board box hedge waist high would be a charming but probably impractical addition.

Last, and by no means least, the Library was completed well within the appropriation.

The Carter Memorial Hospital at Lancaster, Massachusetts, is planned for tuberculosis patients, and the technical solutions of the problems of supplying the prime necessities, fresh air, sun, and antiseptic conditions, are quite evident in the accompanying reproductions from drawings and photographs.

The plan comprises in general two long one-story wings of wards, flanking a middle portion of two stories and basement, having on the ground floor a diet kitchen, a refectory, a sun room, and sundry lesser features, and, above, three private rooms with bath, and a nurses' bath. An office for the physicians and a visitors' room occupy each a small wing respectively to right and left. Seen from the outside the hospital is reminiscent of Georgian, with its central pavilion with symmetrically arranged long wings, in red brick, and wood, painted white. The forms of wooden construction are made evident whenever wood is employed.

The central pavilion has in front a two-storied porch roofed in by the projection of the gable, and enclosed on the ground floor by filling the spaces between the pillars with broad, arched windows. The arches of these windows are repeated by the little semi-circle of the window in the gable and again by the arches over the fanlights of the balancing doors of the two small back wings. These wings are advanced beyond the



FIREPLACE IN DINING ROOM—CARTER MEMORIAL HOSPITAL, LANCASTER, MASS.
Loring & Leland, Architects.



SUN PARLOR—CARTER MEMORIAL HOSPITAL, LANCASTER, MASS.
Loring & Leland, Architects.



PIAZZA—CARTER MEMORIAL HOSPITAL, LANCASTER, MASS.
Loring & Leland, Architects.

long wings almost into the plane of the front of the central pavilion. They have around these tops a light wooden rail of rectangular posts with a filling of slender diagonal cross bars in the panels between the posts and the top and bottom rails. The railing is repeated on the upper porch. There is a plainly paneled wooden parapet on the front of the long wings. This completes the sober ornamentation of the building. The effect is nevertheless light and cheerful.

One is left in no doubt as to an economic or hygienic reason for every feature in the construction. The wide door windows opening on the broad porches allow the patients to be wheeled out in their beds for the fresh air cure, in any but the worst weather. The glazed lower porch of the middle portion allows of sheltered sun treatment. The unusual row of small windows just above the roofs of the porches of the long wing is cleverly managed to admit sun to the wards from which it is otherwise cut off by the necessary porch roofs. Every room has a cross draught.

There are in each wing three wards and two larger rooms intended for patients in the more advanced stages of the disease.

The mouldings, electric light fixtures and the like, are designed to catch as little dirt as possible, and to make its removal easy. This is especially noticeable around the fireplace, over which is the memorial tablet.

The radiators have a very useful contrivance by which fresh air from out of doors may be admitted to be warmed and distributed or cut off on very cold days to allow of reheating of air from the rooms.

The furniture, beds, bed tables, metal lockers, bedside chairs, bureaus, etc., are sanitary in type but agreeable in their spotlessness. In the Sun Room there are pillar-legged tables and spindle-backed wooden seated chairs of good Colonial design.

The interior, as may be seen in the photographs, is light and pleasant. The Sun Room indeed is quite uncommonly cheerful.



FIG. 1. REIMS CATHE-
DRAL: WEST FRONT.

Gothic Architecture and Its Critics

By F. D. F. Hamlin

Part I The Lure of Gothic

GOthic architecture is a subject of universal and perennial interest.

No other style exercises so potent a fascination upon the layman and the tourist, the architect and the painter, the ecclesiologist and the student of history; upon men and women of every rank and occupation. The cold perfection and finality of Greek art, the imperial grandeur of the Roman, the internal splendor of the basilican and Byzantine churches and baptisteries, the exquisite decoration and the sensuous beauty of the monuments of the Renaissance—all have their partisans; but for every one of these there are ten who read, study and wax enthusiastic over the monuments of Gothic architecture. The outpouring of books on these monuments shows no sign of dwindling; the English are especially prolific of such works, mainly designed for a highly intelligent and discriminating non-professional public, and Americans, though remote from the monuments of that art, have produced works of the same class quite worthy to stand with the best of the English productions.

A bibliography of Gothic architecture would cover many pages. There are in the Avery Library of Columbia University much over a thousand titles of works dealing with this subject in French, English and German. Any review of the criticism of Gothic architecture within the compass of two or three magazine articles must necessarily confine itself to a very few typical works, fairly representative, each of a class, in the great body of such literature.

I beg my patient reader to note this disclaimer of comprehensive and exhaustive treatment. Pray let him not, at the end of this article, fling at the devoted author the complaint that such and such a learned writer on Gothic architecture has

not received the tribute even of casual mention. Should he indulge in this fling, I should have to content myself with the old plea of confession and avoidance, or a *non volo contendere*.

II.

In order to understand both this architecture and its treatment by the literary critics, it is proper to inquire into the reasons for its extraordinary popularity. Some of them lie on the surface. The number, size and splendor of the monuments themselves are such as to impress even the most casual traveler. The majority of these monuments, moreover, are not only conspicuous by their situation, the loftiness of their dominating spires, and their impressive dimensions, but they are also the most public of all buildings, open to every comer seven days in every week. They still serve their original purpose—the worship of God, and the majesty and beauty of ancient rituals blend with the splendors of their architecture to produce a profound emotional impression. Behind and above all these influences is the intrinsic esthetic appeal of the buildings themselves, with their “long drawn aisles and fretted vaults,” their storied glass and naïve sculptures. For many souls also their antiquity, their religious and historic associations, the part they have played in the great movements out of which our modern civilization has grown, mingle their appeal with that of the material and visible structure.

There are, moreover, in the architecture we call Gothic, two qualities in which it surpasses all other styles—*mystery* and *variety*. In the monuments of classic antiquity and of the Renaissance there is majesty, beauty of detail, color and decoration, splendid sculpture and the glamour of religious and historic associations; but they lack mystery. They explain them-

selves, as it were, on first view. The Parthenon in its simplicity of plan and organism is final, complete, obvious, self-contained. The Pantheon is superb in its ineffable majesty, but its system, also, is devoid of complexity. So is that of the basilicas, and even, though in less degree, that of St. Paul's in London, or St. Peter's at Rome. A palace like the Louvre or the Vatican is, indeed, vastly complex; but every one of its parts—all that is visible at any one time—is obvious and self-explanatory. Not so the Gothic cathedrals! The pattern of the plan may appear simple on paper, but the building itself is a vast and fascinating marvel of complex parts. Piers round and clustered, arches wide and narrow, perplexing intricacies of tracery, soaring vaults, pointed pinnacles and flying arches constitute a colossal organism in which one feels that each part has its function; but the parts are so many and so various that the layman is at once fascinated and filled with wonder. What is the meaning of this bewildering marvel of construction? what is its recondite symbolism? how did such buildings come into being and why are they so different from all other kinds?—questions like these arise more or less consciously in every thinking mind upon the contemplation of Notre Dame* or Reims or Amiens or Canterbury Cathedral or Westminster Abbey. Hence the multitude of works to explain the mystery, proportionate to the number of those who, having felt it, desire to fathom its secret. Indeed, it was in answer to the actual host of inquirers and inquiries encountered in his official duties that a distinguished prelate of the Anglican Church published last year a charming little volume entitled "The Secret of a Great Cathedral."**

The second of these less obvious reasons for the popular interest in Gothic architecture is its *endless variety*. In any one cathedral or parish church it is often difficult to find two parts exactly alike,

even of those that serve precisely similar functions. Rarely, if ever, are two west towers identical in design. Capitals are endlessly varied; vault-bosses, shaftings, window traceries present an ever changing manifoldness of detail. The importance of this principle of variation in enhancing the charm and mystery of Gothic buildings has long been recognized; but it has been reserved for an American to penetrate deeper than any one else into the subtleties of the mediæval applications of the principle. The researches of Professor W. H. Goodyear of the Brooklyn Institute Museum, beginning in 1870 at Pisa, and prosecuted at intervals through more than forty years among the Romanesque and Gothic churches of France and Italy,* have revealed an extraordinary system of carefully ordered deviations from mechanical regularity. Curves and bends in apparently straight lines, variations of spacing, dimension and height in piers and arches, and numerous other subtle irregularities, are now found to play an important though hitherto unsuspected part, in producing the impression of life and mystery in many a church and cathedral. The Renaissance appears to have put an end to these practices.

The *symbolism* of the Gothic monuments possesses a strong fascination for many minds, both of readers and writers. Some of the latter have been so carried away with this aspect of the style that they have tried to impute recondite esoteric meanings to every detail and feature, making of Gothic architecture a mystic science instead of the very practical and reasoned art which it mostly was. They doubtless carry it too far in some cases, for it is easy to read into almost any monument mystic and symbolic meanings which never entered the minds of its designers. The extreme symbolical interpretation of Scripture by the early Christian Fathers and by some modern sects offers a parallel in exegesis to the

*In these papers the name Notre Dame without any local or qualifying designation shall be understood as referring to the Cathedral of Paris.

**The Secret of a Great Cathedral. By the Dean of Worcester. London, 1914.

*See Architectural Record, 1896, Vol. VI, Nos. 1 and 2; 1897, Vol. VI, Nos. 3 and 4; Vol. VII, Nos. 1 and 2; 1898, Vol. VII, No. 3; Vol. VIII, No. 2; 1899, Vol. VIII, No. 3, Vol. IX, No. 1; 1904, Vol. XVI, Nos. 2, 5, 6; 1905, Vol. XVII, No. 1.



FIG. 2. CANTERBURY CATHE-
DRAL, FROM THE SOUTHWEST.



FIG. 3. AMIENS CATHE-
DRAL, FROM THE WEST.

extravagance of some interpretations of Gothic design.* Nevertheless we know that the typical Gothic cathedrals, especially those of the 12th to the 14th centuries in France, were veritable Bibles in stone and glass. In an age when only the "clerics" could read and write, the histories and allegories of Scripture, the lives of the saints, and the great dogmas of the faith could be taught to the multitude only by word of mouth or by pictures and sculptures, and these were multiplied in the churches and cathedrals for the instruction of the worshippers as well as for the adornment of the edifice. The hundreds of grotesques were not mere humorous fancies, but symbols of virtues and vices, according to an organized system or language of symbolic representation, and also, no doubt, in many cases, talismans to charm away those evil influences with which the naïve superstitions of the times people the circumambient air.** Professor Moore has concisely and admirably set forth this aspect of Gothic art on page 28 of his excellent *Development and Character of Gothic Architecture* in these words: "Finally, it should be considered that the Gothic edifice * * * was like a vast open page whereon were written, in imagery which the most illiterate can read, the legends and traditions of the mediæval faith. These legends and traditions * * * appealed to the warmest sympathies and quickened the highest aspirations of the people, and filled them with devotion to the fabric, which they sought to make, at whatever cost of labor and of treasure, a fitting expression of their beliefs and hopes."

Whatever the motives and influences which led to this wealth of representative art, the result is deeply impressive, even to the sophisticated modern mind. To the purely esthetic appeal of the medi-

æval cathedrals it adds an element which ministers powerfully to their solemnity and conduces to the spirit of worship. This impression was felt as keenly in the Middle Ages as the Greeks of old felt the majesty of the Phidian Zeus in the temple of Olympia, or as Paul the Silentiary felt the overwhelming majesty and beauty of Hagia Sophia. The Abbot Suger, who built the Abbey of St. Denis (begun in 1140), has recorded the emotions aroused in him by his completed masterpiece, in an ecstatic passage from which I quote a sentence: "I seem to find myself under some clime foreign to this world, situated neither wholly on this vile earth nor yet wholly in the pure heavens, but lifted up by the grace of God from this lower to that higher realm." The "many-colored splendor as of gems" has vanished from St. Denis and from all other old churches, as from the Grecian ruins, and we cannot guess what the effect of the original mediæval painting and glass would be upon the more sober color-sense of our time. But despite this loss, the Gothic cathedral as a place of worship still has a marvelous power to lure the soul away from earthly cares and fill it with the spirit of devotion. No one can attend a full choral service in an English cathedral, or a grand high mass in Notre Dame or Chartres, without experiencing the stirring of his profoundest emotions, both esthetic and spiritual. Certainly one who can undergo those influences unmoved must be impervious alike to the esthetic and the spiritual appeal. Mr. A. K. Porter, whose two volumes on *Medieval Architecture** are a storehouse of historical research and detailed information, after quoting the passage, from Suger from which an excerpt was given above, expresses with eloquence this quality in the Gothic monuments: "It is this peculiar quality which for lack of a better term we may call emotional power, that separates Gothic from all other architectures and raises it to the supreme height. The Parthenon is more faultless in taste, more harmonious in ensemble, more perfect in technique; Hagia Sophia is as vast in di-

*I know of a much admired Soldiers' Monument for which the architect invented, after its completion, a most beautiful and appealing symbolism in explanation of its design. In this connection it may be pertinent to quote the familiar traditional jingle explaining the design of Salisbury Cathedral, dating from several centuries after its completion:

"As many days as in one year there be,
So many windows in this church we see;
As many marble pillars here appear
As there are hours throughout the fleeting year;
As many gates as moons one year does view,
Strange tale to tell, yet not more strange than true."
**Consult the article "Bestiaire" in V. le Duc's "Dictionnaire raisonné.

**"Medieval Architecture, Its Origins and Development." 2 vols.; The Baker and Taylor Company: New York, 1909.

mension and as warm in color. But the Gothic cathedral alone possesses the power to lift the mind entirely from the cares and thoughts of the world, * * * to call forth within the soul a more than mortal joy. * * *†

Doubtless many elements contribute to this impressive solemnity. The Gothic cathedrals were evolved, alike in their structural system and in all their parts, purely for the service of religion. The style is primarily an ecclesiastical style. The secular monuments of the Gothic period either, like the feudal castles, belong to and constitute a style apart, or they derive their entire architectural character from the ecclesiastical Gothic, as in the Palais de Justice at Rouen, or the town halls of Belgium, employing pointed arches, ribbed vaults, pinnacles, gargoyles, tracery, tabernacles and gables as nearly as possible like those of contemporaneous churches. The style grew up in the service of the church, under the hands of churchmen; it was a religious art. All the symbolism, the sculpture and the stained glass of these churches was intended to conduce to the spirit of worship. But apart from these factors—which, after all, one must recognize as existent in a high degree also in St. Mark's at Venice, in Hagia Sophia at Constantinople, and in other non-Gothic churches—there is one element peculiar to the Gothic cathedrals and to no other style. This is *the exaggeration of one or sometimes of two dimensions at the expense of the third*. Either length, as in the English cathedrals, or height, as in the French, was made completely dominant at the expense of breadth. It is the seemingly interminable length of Durham, Canterbury, Winchester and Ely, emphasized by their relative narrowness and by the nearly central break of the transept-crossing and lantern, that most immediately impresses the visitor to those shrines. It is the loftiness of Amiens, Beauvais, Cologne, even of Notre Dame and Chartres, that chiefly imparts to them their extraordinary majesty of internal effect. The Sainte Chapelle at Paris is nearly as high as it is long; it would certainly lose three-quar-

ters of its impressiveness if it were but half as high. The majesty of *spaciousness*, which one feels in vast interiors like the Pantheon and Hagia Sophia, was wholly foreign to the tastes and purposes of the Gothic builders. The long and relatively narrow nave leads the view and directs the attention to the altar and the mysteries of the solemn ritual in the sanctuary. The nave of Cologne cathedral is but little more than half as wide as that of St. Peter's at Rome, although of almost exactly the same height. But in Cologne, the gaze can wander only heavenward from the high altar, while in the Pontifical basilica the entire architecture seems designed to lead the eye and mind up and into the magnificent dome, under which the huge baldachino cuts off all view of the altar, and the gaze when not lifted to the dome, wanders from side to side in the vast expanse of the rotunda and nave. The length and loftiness of the Gothic cathedrals contribute mightily to the solemn impressiveness of their interiors.

For those who are not mere tourists, and whose interest in Gothic architecture is more than a casual and superficial fancy, there is a fascination in seeking out, studying and verifying the *constructive logic* which dominated the development of the style, especially in France. Ever since Viollet-le-Duc first expounded in his *Dictionnaire raisonné* this fundamental logic, and made clear the extent to which the evolution of French Gothic forms and details had been controlled by cool reasoning applied to structural requirements, this quality of logic in design has engaged the studious attention of critics, especially of Americans. To some of these, indeed, French Gothic architecture seems to present itself as less an art than a science; the considerations of pure form, of fancy and invention, of symbolism, ritual, and even *esthetic logic* as distinguished from *structural logic*, receive scant consideration at their hands, and their criticism is thus restricted to a narrow field. Such a conception fails to present an adequately broad and complete picture of Gothic architecture, and sometimes leads to forced and erroneous conclusions.

†Op. cit., Vol. II, 253.

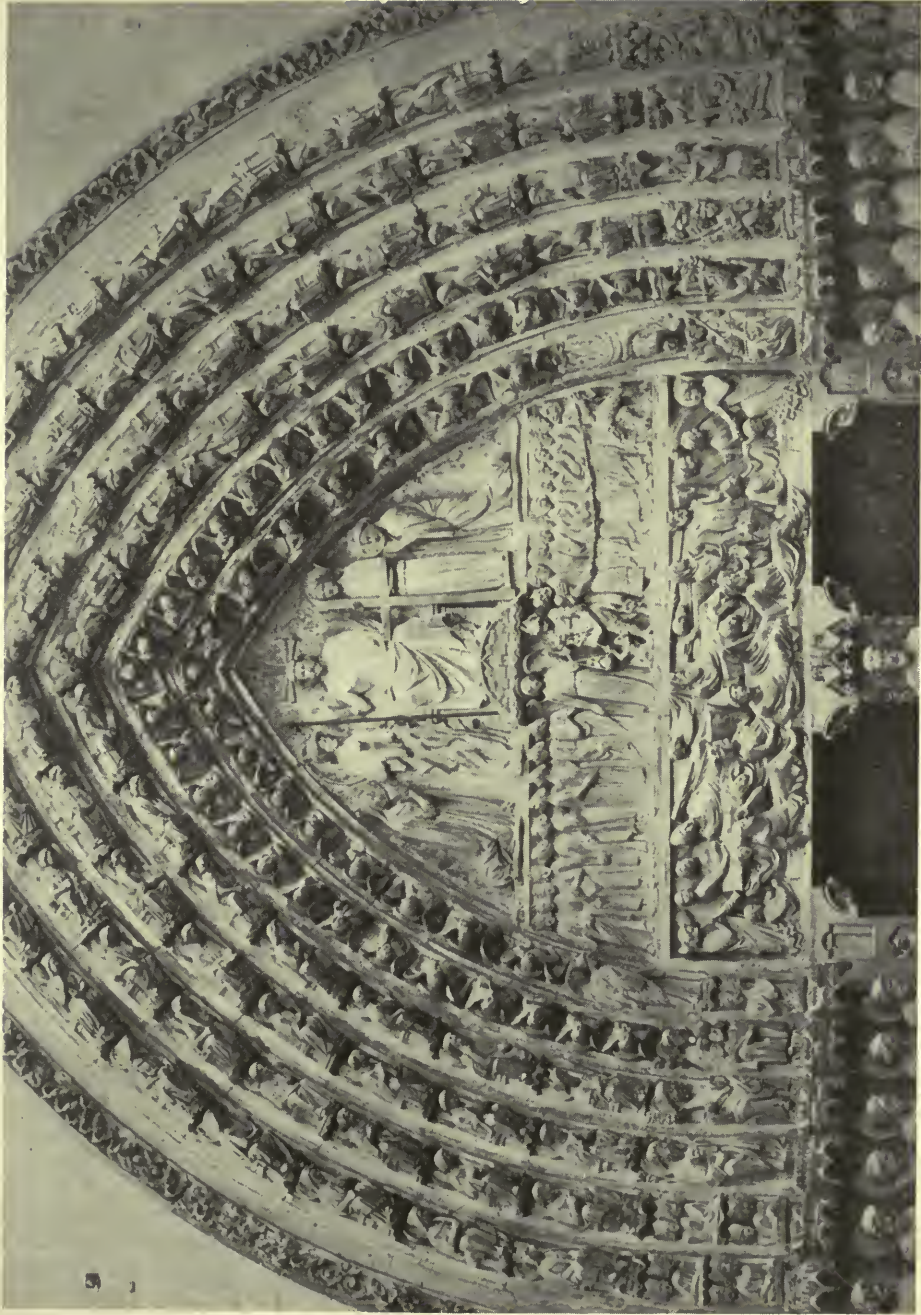


FIG. 4. A "BIBLE IN STONE," CENTRAL PORTAL, NOTRE DAME, PARIS.

III.

Having thus briefly outlined the factors which in the Gothic architecture itself contribute most powerfully to the popularity of the style, let me now direct attention to the literature, descriptive and critical, which first aroused, and has since ministered to, this popular interest. It seems at first sight incredible that this interest had its beginnings only a century ago, in a persistent polemic waged in its behalf by a few enthusiasts; such, however, is the case. In the eighteenth century Gothic architecture was quite generally decried as barbarous and inartistic, even by cultivated people. The great intellectual movement of the Renaissance, ushering in new ways of thinking and new ideals, had broken down the mediæval domination of the church over private thought and life, and had made fashionable the cult of antique art. The world of art and culture was too narrow in its tastes and habits to feel enthusiasm at one and the same time for the extinct Gothic style, with all its mediæval and ecclesiastical associations, and for the neo-classic art which was multiplying its masterpieces of architecture, painting and sculpture throughout Europe in the sixteenth and seventeenth centuries. In Italy the Gothic style was called, disparagingly, the *maniera Tedesca*—the German manner. Even Michel Angelo, who was great enough to appreciate the beauty of certain Gothic buildings, taunted Antonio da San Gallo (whom he hated), with designing his model for St. Peter's with "too many small and petty parts and wreaths of columns, after the 'German' manner." In the seventeenth and eighteenth centuries it became similarly the fashion in England to decry the Gothic style as barbarous, antiquated, without rules or "orders." The disparaging name of "Gothic" has come down to us from that undiscerning and uncritical age. It was not until the nascent spirit of archeological investigation had, near the end of the eighteenth century, begun to turn men's attention to the historic monuments of their own land in England, France and Germany, that here and there a spark of enthusiasm was kindled for the monuments of mediæval art. Professor Moore,

in his *Development of Gothic Architecture*, has briefly and effectively sketched the beginnings of this new interest;* an interest, it must be confessed, intellectual and literary rather than artistic. In the larger architectural libraries one may consult copies of the books he enumerates: Carter's *The Ancient Architecture of England*, and *Collection of Ancient Buildings in England*, published at the close of the eighteenth century; Britton's *Architectural Antiquities of Great Britain*, and *Cathedral Antiquities of Great Britain*, published early in the nineteenth; the various works of the elder Pugin, and others not mentioned by Moore. In France the monumental series of folios of Baron Taylor and M. Nodier, the *Voyage Pittoresque de la France*, begun as early as 1810 and continued for fifty years, prepared the way for the French awakening in behalf of the despised architecture of the Middle Ages. But, as Professor Moore points out, these early works were for the most part singularly uncritical, directing attention to details rather than fundamental principles. It was Rickman who first, in his *Attempt to Discriminate the Styles of Architecture in England* (1817), laid the foundations for a critical study of the historic development of the successive phases of Gothic architecture in England, by his division of its history into the Norman, Early English, Decorated and Perpendicular periods and styles. But like all the other early writers he treats of forms and details, not of organic principles. It was not until 1835 that the earliest recognition of the structural evolution of the style appeared in Willis' *Remarks on the Architecture of the Middle Ages*; and it was he who first, among writers in English at least, in his historic *Essay on Vaulting* (1842), expounded the structural development of Gothic vaulting and its fundamental importance in any analysis of the style. These and other works of a more popular character served to generate a fashionable interest in Gothic architecture among the educated and literary classes. After the middle of the century such works as Brandon's *Analysis of Gothic Architecture*, Sharpe's *Paral-*

*Op. cit., pp. 3-7.



FIG. 5. NAVE OF NOTRE DAME, PARIS.
EMPHASIS OF VERTICAL DIMENSION.



FIG. 6. BEVERLEY MINSTER, FROM THE SOUTHWEST. EMPHASIS OF LENGTH.

els and *The Seven Styles*, Parker's *Glossary*, Fergusson's *Handbook of Architecture* and his *History of Architecture in All Countries*, and Ruskin's *Seven Lamps of Architecture* and *Stones of Venice*, besides other less important works, converted the fashion into a genuine popular interest, based on a better understanding of principles, though the emphasis was still placed too much on forms and details.

IV.

During the period from (say) 1820 to 1850 the growing interest in Gothic art, still confined to a minority and tinged with a large element of affectation and false sentiment, had to contend with the more fashionable and widely favored Greek Revival. In a previous article* I have commented on the origin, nature and extent of this revival and its influence upon the criticism of Roman architecture,

*Architectural Record for May, 1915; Vol. XXXVII, No. 5.

and pointed out the concurrent progress and character of the Gothic Revival. Both movements were vitiated by an almost complete misunderstanding of the real nature of the styles they sought to promote, and indeed of architecture itself. The focusing of attention upon external forms and details, the failure to penetrate to the inner spirit and *rationale* of either style, and the disastrous notion that the rescue of architecture from its confessed inanition was possible only by copying as closely as possible the forms of some one dead and bygone style, all united to divide the would-be reformers into two hostile camps. The partisans of neither side were able to discover or admit any merit in the contentions of the other. The Hellenists looked upon the Gothic movement as a narrow, fanatical and artistically mistaken effort to reproduce the monuments of a benighted mediævalism, from which the world had been delivered. Greek art, on the other

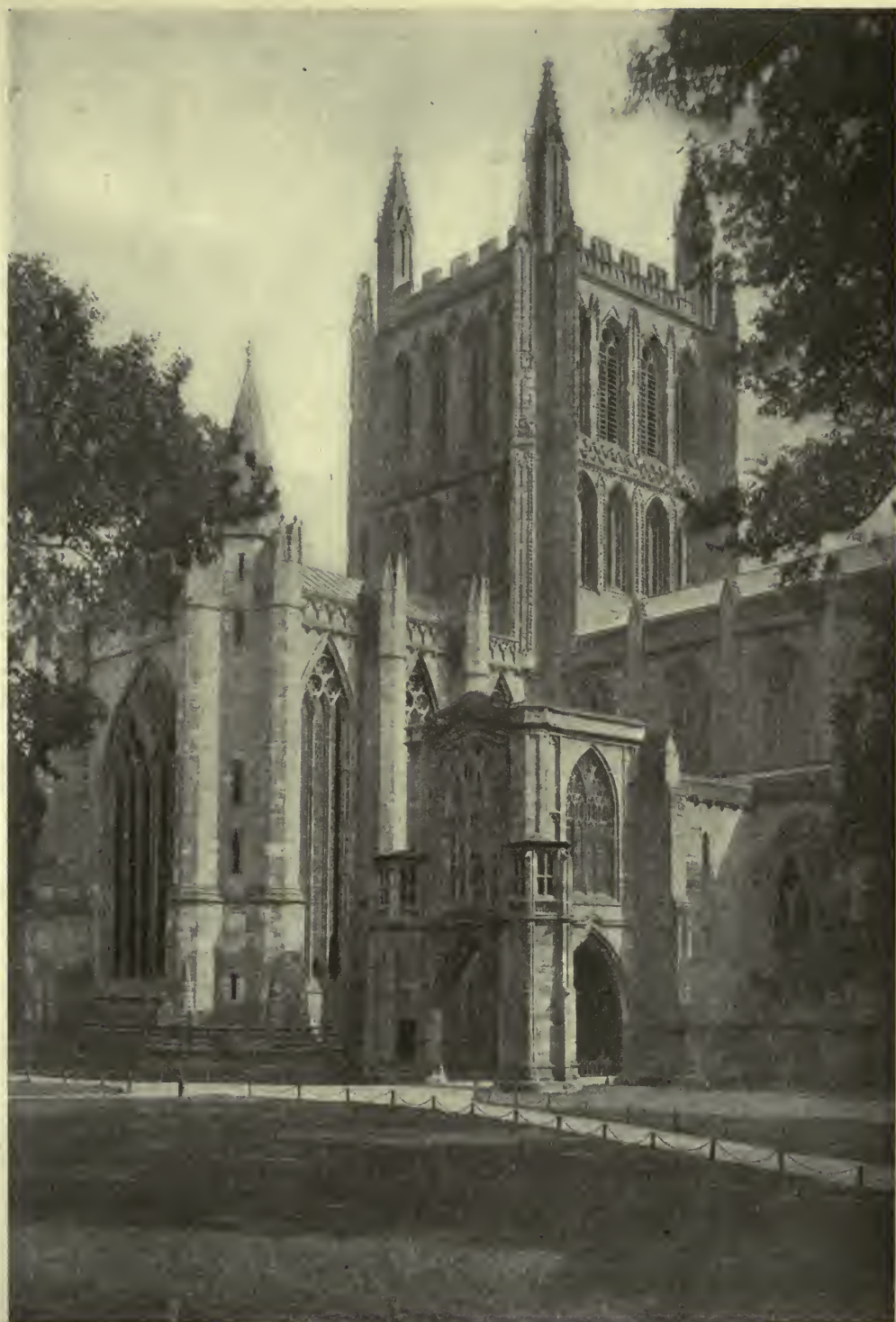


FIG. 7. HEREFORD CATHEDRAL:
GALILEE AND TRANSEPT.

hand, was the fountain head of all that is pure, true and beautiful in plastic design. The Gothicists regarded Greek architecture as pagan and foreign, utterly inflexible and inadaptable to modern needs, the work of a pre-Christian, immoral and long dead civilization; while Gothic architecture was Christian, British and capable of endless variation and adaptation. In this "battle of the styles" stalwart blows were dealt by the younger Pugin (Augustus N. Welby), who devoted all the strength of a fanatical conviction and the eloquence of a satirical pen to the defense and upbuilding of the Gothic cause, in his *Contrasts* (1836), *True Principles of Christian Architecture* (1841), and other works. His efforts were succeeded and powerfully seconded by the transcendental sermonizings of John Ruskin, whose *Seven Lamps of Architecture* appeared in 1849 and the *Stones of Venice* two years later. His architectural criticisms exhibit an extraordinary blend of poetic imagination, religious fanaticism, moral fervor and mistaken theory. No critic ever expressed his opinions with more dogmatic positiveness or greater literary eloquence, and none ever obtained so wide a hearing and extensive a following on so slender a basis of knowledge of his subject. The fundamental vice of Ruskin's criticism is not his intolerance, though that is of a kind that rouses one's instinctive opposition; nor his particular judgments upon buildings, which are sometimes keen and just; nor yet his inconsistencies, though these are sometimes glaring. The errors which run through and vitiate his whole critical structure, so far as it applies to architecture, are chiefly two. The first is his inability to distinguish between the fields of esthetics and of ethics. Ruskin was by nature a moral and social reformer, and all his judgments of architecture are colored by his views of the morals of the age which produced the works he judges. A good deal of a mystic himself, he loved mediæval art because the Middle Ages appeared to him as a deeply religious period, whose mysticism was beautiful in itself and beautified everything it produced. The Renaissance, on the other hand, was the em-

bodiment of the sceptical spirit, the destroyer of mysticism and of true religion, and of all that the mystical, religious Middle Ages stood for and produced. Therefore the Renaissance and all its works were hateful to him, and the vials of his scorn are emptied upon even its loveliest works, which have no beauty in Ruskin's eyes, because tainted with the vanity and corruption of an irreligious age. What he thought of Greek and Roman architecture I have briefly alluded to in a previous article.*

The second fundamental error in Ruskin's criticism is his ignorance of architecture. Few men have written on the subject who have so completely misapprehended what architecture really is, of what forces and influences it is the product, how a work of architecture is really brought into being. For him it is all a question of details. Read in *Stones of Venice* the long disquisitions on Italo-Byzantine capitals; on grotesques; on the shapes of arches; his amusing theory of the cusped arch; in *The Seven Lamps* his theory of ornament design; or almost any single chapter in these two works; the criticism is all about the details. Planning and construction hardly exist in his mind as elements of architecture. Yet his works have been read by more thousands than any other books on architecture in our language. Their influence on the popular mind has been both good and bad. They undoubtedly served to rouse Victorian England from her apathetic condition of smug self-satisfaction in the mid-century period—largely through their moral appeal, to which the English public was more sensitive at that time than to purely esthetic considerations. That was a real service. On the other hand, by their wholly false presentation of architecture itself, they greatly retarded the development of any true appreciation of architectural values. Moreover—and this is a singular fact—Ruskin's studies of Gothic architecture were almost wholly based on Italian examples, not on the parent French style nor on the derived but independently developed English Gothic. Now the Italian "Gothic" merits that

*In the *Architectural Record* for May, 1915, p. 443.



FIG. 8. "THE MONSTERS OF THE TOWER"; NOTRE DAME, PARIS.

name solely by its decorative details. Neither in its constructive system nor in its planning nor in its architectonic composition has it any affinity with the "true" Gothic of Western Europe. Its Gothic details are a borrowed fashion, applied decoratively to buildings whose primary conception is really Roman or at most Basilican in its essence. Ruskin's perverid criticisms of architecture therefore, so far as they produced any effect on British public taste, served to set up wholly mistaken standards by which to judge the fine Gothic architecture of Great Britain itself, or of France.

A much nearer approach to correct and rational standards of criticism was that of Fergusson's *Handbook of Architecture*, published in two volumes in 1855, a work which he later expanded into his well-known *History of Architecture in All Countries* (1871), also in two volumes, covering the history of styles down to the Renaissance.* This was the first

scholarly history of architecture in English, and for twenty-five years it was the accepted authority in our language, and deserved its high reputation. In its discussion of the Gothic styles it recognized the structural basis of their development, and showed little of that narrow, uncritical insistence, so common in English books, on an independent English origin for the style. This curious nationalistic partisanship it is hard for Americans to understand. It still persists in some English books of recent date, but is passing away; and the best of recent English histories—Simpson's *A History of Architectural Development* (1907-10)—betrays none of it. It offers quite the fairest and best of English discussions of the origin, development and characteristics of the Gothic styles in France, England and Germany. The writings of Francis Bond, with their superb illustrations and their wealth of detailed information, I shall refer to in another article.

Meanwhile in France there had appeared a work by Eugène Emmanuel Viol-

*These two volumes were supplemented by a "History of Modern Architecture" (1873) and a volume on "Indian and Eastern Architecture" (1876).

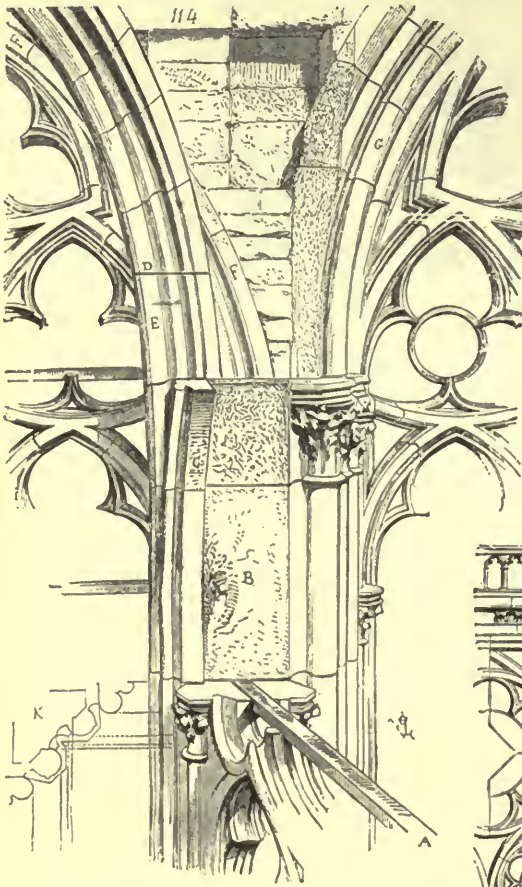


FIG. 10. A PAGE FROM VIOLETT-LE-DUC'S DICTIONNAIRE, ARTICLE "CHAPELLE."

let-le-Duc which, more than any other book ever written, seemed to make clear the real significance of Gothic architecture. This was his epoch-making *Dictionnaire raisonné de l'architecture française*, in nine volumes and an index, first published in 1854-68. It is a "reasoned" dictionary, accompanying every definition with a discussion of the causes, origins, development and reasons of and for the thing defined. The article *Architecture* occupies 337 pages; *Cathédrale*, 113 pages; *Construction*,* 279, and others in proportion. They are essays, based on a combination of erudite study of written docu-

*This important article was translated into English in 1895 by George Martin Huss, and published as a separate volume by Macmillan under the title "Rational Construction."

ments, and practical examination of the monuments. Its author was one of the draftsmen employed to illustrate the Taylor-Nodier *Voyage Pittoresque* (see ante, p. 346); a consummate artist, he was also a scholar and a practical architect. He above all other emphasized the structural and esthetic logic which dominated the development of the French Gothic style; he brushed away popular misconceptions and corrected the mistakes of learned predecessors, clearing up the detailed history of many of the great cathedrals and churches of France. He made mistakes, of course; a long line of illustrious contemporaries and successors like Ruprich-Roberts, Enlart, Lefèvre-Pontalis and others have disclosed and cor-

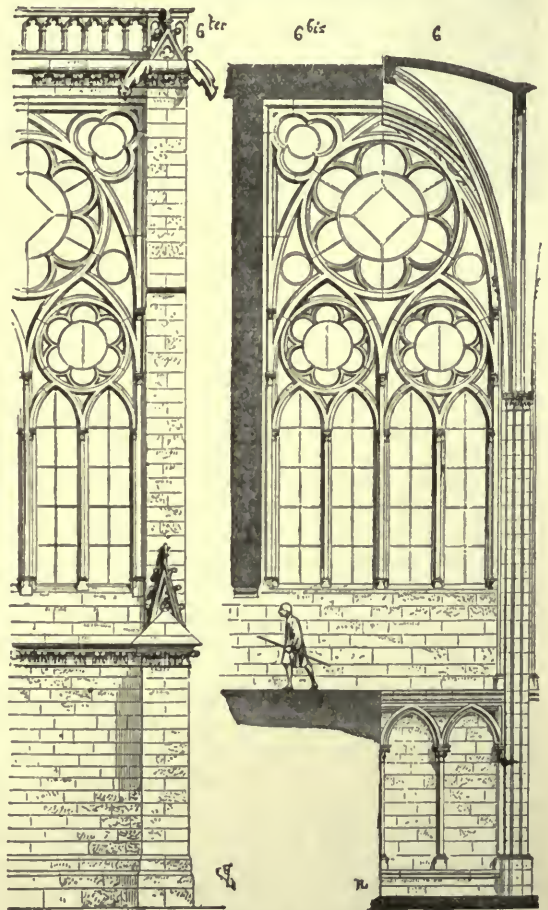
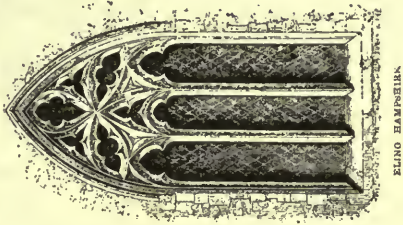
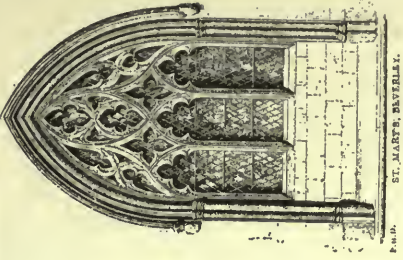


FIG. 10A. A PAGE FROM THE ARTICLE ON "CONSTRUCTION."

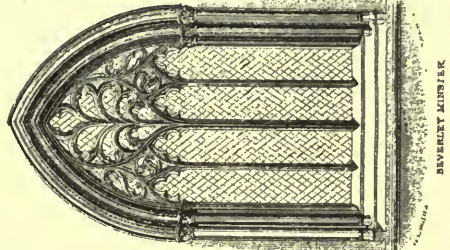
DECORATED ENGLISH WINDOWS



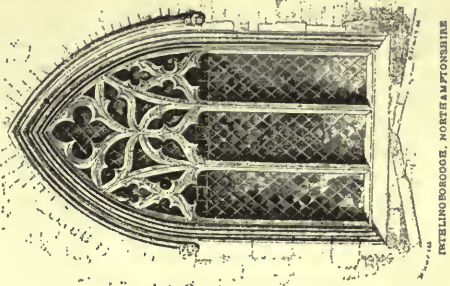
ELINO HAMPSHIRE



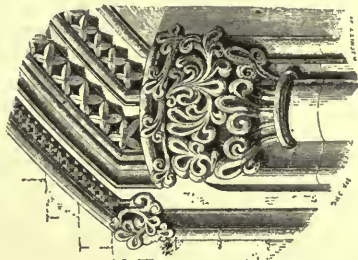
ST. MARY'S, BEVERLEY.



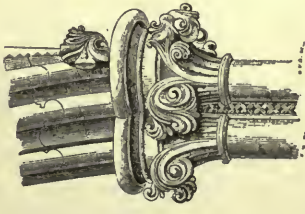
BEVERLEY MINSTER



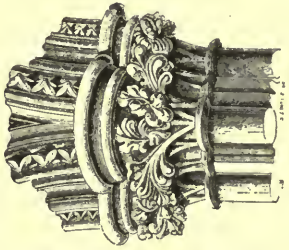
IWLINGBOROUGH, NORTHAMPTONSHIRE



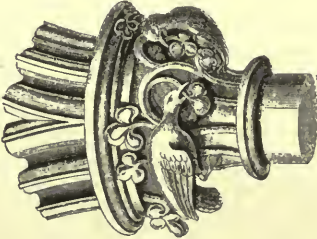
NORTH TRANSEPT, EBORAC ABBEY



NORTH TRANSEPT, LINCOLN CATHEDRAL.



NORTH TRANSEPT, YORK CATHEDRAL.



TOMB OF ABP. WALTER GRAY, YORK

FIG. 9. TWO PAGES FROM RICKMAN.

rected these; but save in some details, his work remains a lasting monument of patient, keen-minded and thorough historical criticism.

American critical discussion of Gothic architecture began in 1889 with the publication of Professor Charles Moore's *Development and Character of Gothic Architecture*. This work, of which several editions have since then appeared, has won for itself an honorable place in this field of criticism, in spite of certain defects which will be discussed later. It emphasizes to the very limit the structural logic of the French Gothic development, which its author insists on calling the only "true" Gothic. Seven years later I published my *Textbook of the History of Architecture*, in which I tried to develop a broader conception of the Gothic styles, without traversing otherwise the very acute, suggestive and scholarly discussions of my learned *confrère* of Harvard. In the same year (1896) appeared *European Architecture*, by the late Russell Sturgis, in which the principles and development of West-European Gothic architecture are very lucidly set forth, in a more popular style and with a more catholic sympathy for the non-French styles, than in Moore's notable book. Since then Mr Sturgis' *Dictionary of Architecture* and his posthumous *History of Architecture* have appeared; and the works of Good-

year and of A. K. Porter, earlier alluded to, and the latter's investigations into the Lombard origin of ribbed vaulting, have added to the reputation of American contributions in this literary field. The writings of Ralph Adams Cram and Henry Adams' *Mont-Saint-Michel and Chartres* are in a different vein, less scientific, more imaginative than those previously mentioned, but full of suggestion and well worth reading.

As I said earlier in this long article, I could mention but a few names and titles in the vast literature of the subject. Doubtless many of my readers will wonder at the omission of well-known works and writers; they would have chosen differently! Very likely their choice would have been better than mine; but they have not written this paper, and will have to supply its deficiencies in their own way. I have tried merely to sketch in a few broad outlines the genesis and growth of this literature in English (referring to the French only when absolutely necessary), in order to clear the path for a later paper or papers in which I shall seek to make clear some of the more prevalent fallacies and misconceptions to which some of these works have given an unmerited currency. The lure of the Gothic architecture is undeniable, and it is highly to be desired that those who love and admire its works should not be misled by errors which seem to have the support of scholarly authority.



ST. LOUIS HOTEL, NEW ORLEANS. BUILT ABOUT 1840.

The Dome of The Old St' Louis Hotel — New Orleans —

By N. C. Curtis

DURING the period from 1830 to 1845 New Orleans reached the meridian of ante-bellum prosperity. These years are spoken of as "the flush times" in Louisiana, when every Fall the wealthy planters and merchants journeyed with their families to the city to transact business and partake of the pleasures of the gay winter season. Soon the simple French pensions and inns were filled to overflowing, and in order to take care of the ever-increasing transient population it became necessary to provide larger and grander accommodations. So began the famous old St. Charles and St. Louis hotels. In those days there were no commercial exchanges and consequently the rotundas of these hotels were the customary places where merchants met to barter in such staple commodities as slaves, cotton and sugar. The hotels were the centers of life and fashion and the events associated with the subsequent history of these gorgeous caravansaries would fill a large volume—its pages

crowded with romance and political intrigue.

The present St. Louis hotel was built about 1840 at a cost of over a million dollars. After the ravages of the hurricane of last September, the building, reduced through many years of neglect to a mere rotting shell, was sold to a wrecking company and its demolition immediately commenced. *Sic transit gloria mundi.*

Architecturally the façade of the old hotel was simple, dignified and well-mannered enough, but it was not of exceptional importance. On the other hand, when we consider the interior there were two features of plan that are remarkably interesting, the grand spiral staircase and the circular rotunda. It is the constructive ingenuity and genius shown by the architect in building the dome over the rotunda that especially arouses our admiration. There is nothing like it in American architecture, and, in fact, hardly anywhere else in the world.

The havoc wrought by the great storm brought this method of construction to light, for how and of what material the dome was built had long since been forgotten.

The dome was not designed with a view to exterior effect and could not be seen at all from nearby streets, but delightful glimpses could be obtained of it from the courtyards within the hotel and from the upper windows of neighboring buildings and these were enhanced by the exquisite shades of green and pale-blue which time and weather had imprinted on its heavy copper plating. This plating was entirely stripped off by the gale, exposing the porous shell to the torrential rains that prevailed during the week following the storm. Large masses of the interior plaster work fell to the floor and the celebrated mural decorations attributed to Canova's nephew were soon obliterated. Thus came about the disclosure of the singularly interesting manner of construction; interesting not only on account of the bold spirit in which the architect conceived his undertaking and the success with which he carried it out, but also because this method is exceedingly rare in the annals of dome building. In fact the architect was constrained to adopt constructive devices which have not been employed for 1,400 years.

The dome is built wholly of earthen pots or cylinders, recalling at once some of the curiously constructed Early Christian churches in Ravenna—notably the Orthodox Baptistery and the famous Church of S. Vitale. The method of laying the pots adopted by the architect of the St. Louis dome is, however, quite different from the examples cited.

In the case of the Baptistery, it will be remembered that the pots or tubes, which are about eight inches long by three in diameter, are joined in a continuous spiral from base to crown. There are two layers of tubes which show as circles in vertical section, giving a thickness of shell of not more than eight inches, with a diameter of thirty-five feet.

In S. Vitale the earthen pots take the form of hollow terra-cotta urns and jars,

formed so that the bottom of one jar fits into the mouth of another. For about one-third of the height the urns are placed upright, and above these a double layer of jars occur, laid horizontally in a thick bed of cement—as in the case of the Baptistery. The thickness of the shell is about twelve inches and the central space fifty feet in diameter.

The St. Louis Hotel rotunda considerably exceeds in dimensions both its historic prototypes. It has a diameter of sixty-six feet, a height from spring to crown of thirty-eight feet and a total clear height above the floor of eighty-eight feet. The thickness of the shell is exactly twelve inches.

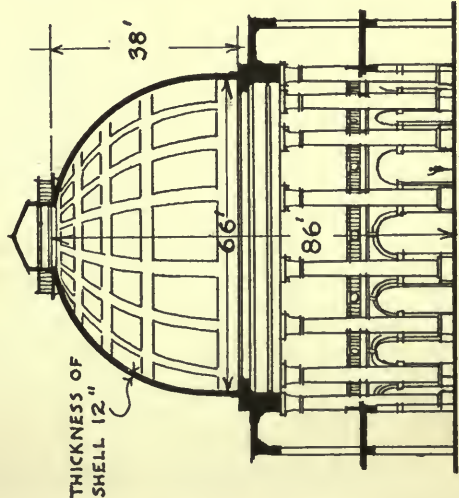
In deciding upon a form of construction for the dome, the architect, DePouilly, had to consider first of all that he was about to build on a soil little better than a quagmire. His dome had therefore to be of extraordinary lightness. The fact that after a lapse of three-quarters of a century no cracks or inequalities of settlement have appeared in his fabric is a tribute to his exceptional skill and judgment.

The dome is composed of one layer of hollow pots, varying in shape from cylinders in the lower courses to truncated cones, graduated to correspond with the diminishing diameters of the ascending circles. The ends of the pots are closed or nearly so and they are eight and ten inches in diameter, twelve inches long, with only three-eighths inch thickness of shell. They are laid with their axes along the radius, so that their round ends are exposed and not their sides as in the case of the Ravenna domes. This is the main point of difference.

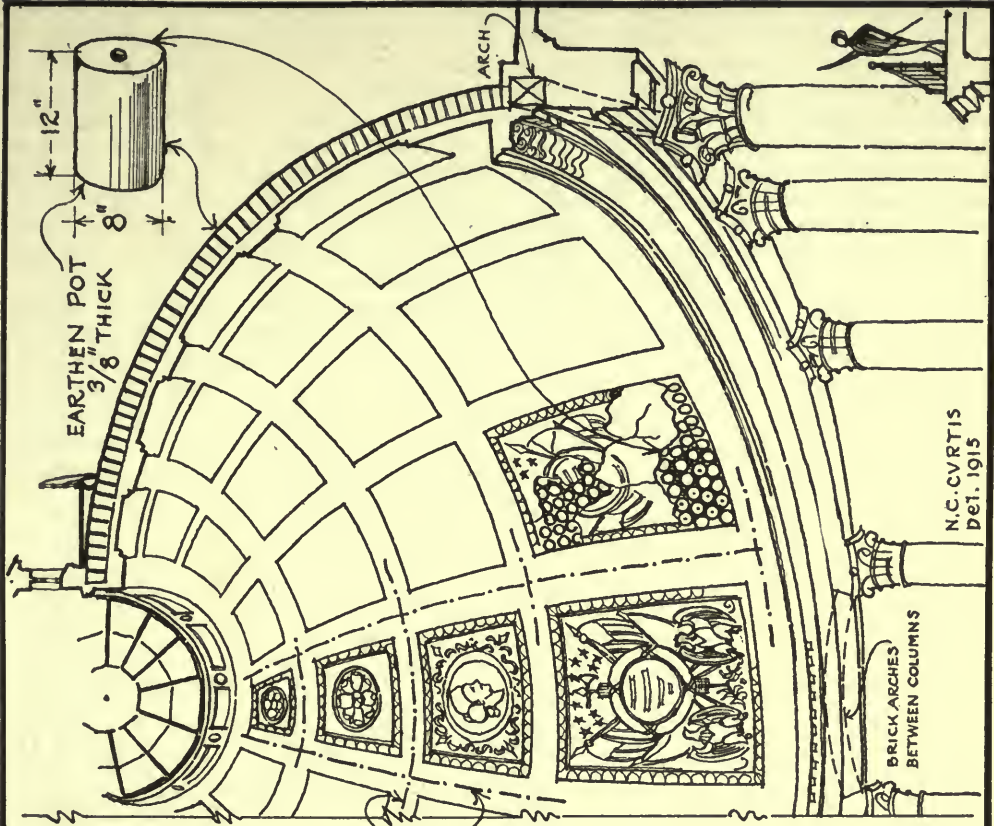
A little figuring on the content of the dome shell brings us to the conclusion that the proportion of solid material is only 16 per cent. of the spherical mass. Computing a little further we find that the total weight of the dome approximates no more than 100 tons. Since there are sixteen equally-spaced brick masonry columns supporting the dome, each three feet six inches in diameter and thirty-four feet long, a summation of weights brings a load of about twenty-five

• SECTION THRO' DOME
 OLD ST. LOUIS HOTEL
 NEW ORLEANS • 1840 •
 SHOWING HOLLOW POT-
 CONSTRUCTION •
J. N. De Pouilly, Architect.

FRAMEWORK OF
 2½" IRON BARS



THICKNESS OF
 SHELL 12"



BRICK ARCHES
 BETWEEN COLUMNS

N.C. CVRTIS
 Det. 1915

tons to bear on each footing, and if a supporting power of one-half ton per square foot is allowed the soil, it will be seen that, provided DePouilly figured on a timber grillage only ten feet square, he would be well within the limits of safety. The exact nature of the footings has not yet been ascertained, but they are probably grillage footings, as pile foundations were not used in New Orleans at that date. It is interesting to note that had the dome been built of solid brick masonry it would have weighed in the neighborhood of 800 tons and that dangerous settlement could hardly have been averted.

The portion of the dome between the columns is carried by segmental brick-rowlock arches sprung from column to column and spanning a distance of ten feet. Sixteen wrought iron ribs, linked

together at intervals, are built into the shell; possibly as reinforcement, but more probably they were erected to carry some sort of wooden centering for supporting the successive layers of tiles.

DePouilly received his training in Paris some time during the first quarter of the last century, and all his work is affected by the grandiose style of the Roman Revival. The old Citizens' Bank on Toulouse Street, which stood until late years, was a conspicuous example of his taste.

His dome should be recorded in history as an outstanding achievement in the annals of American architecture. It proclaims him a genius of no mean order. For real courage and constructive skill in dome building, his feat, considering all circumstances, has not often been surpassed.



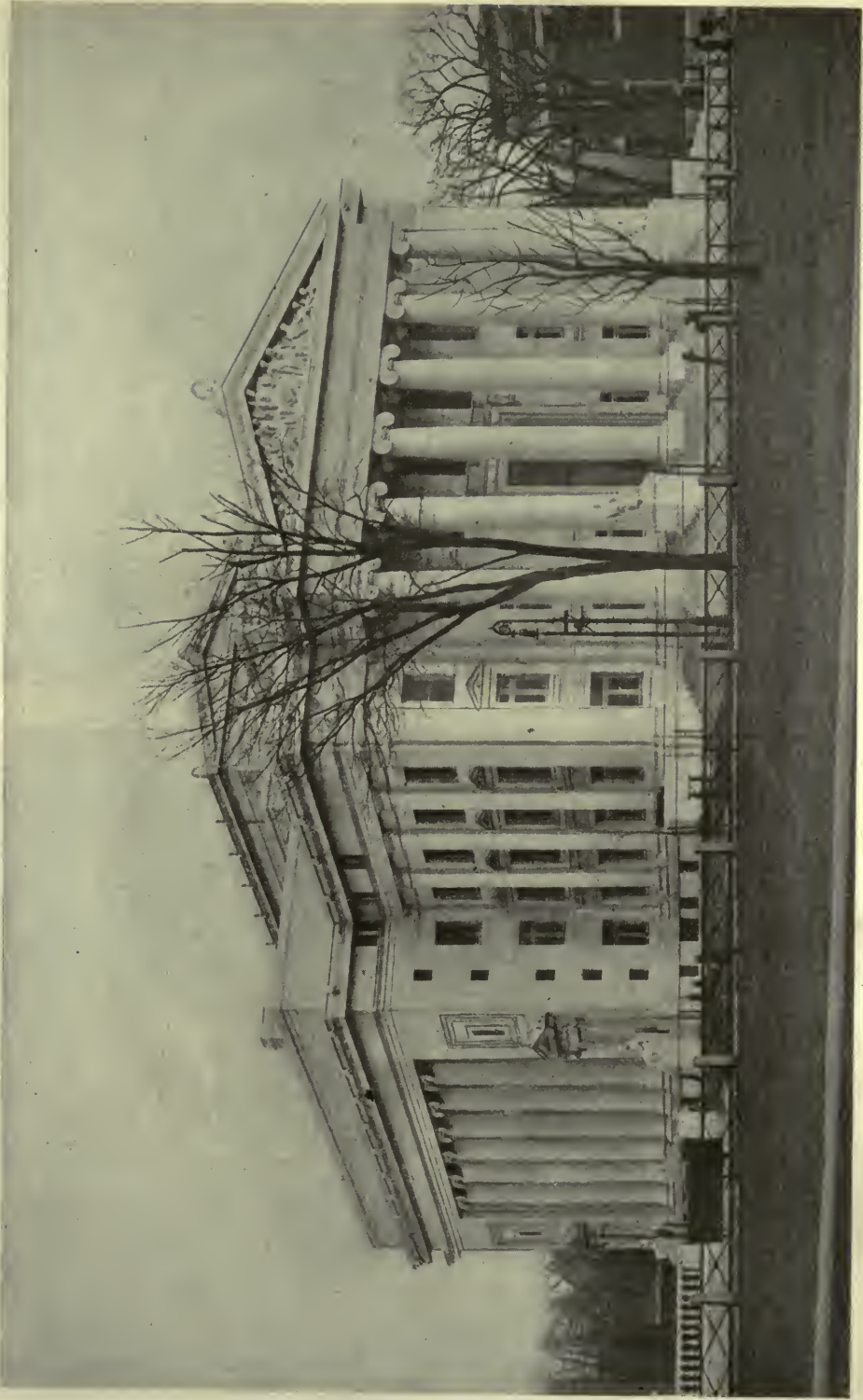
PORTFOLIO
OF CURRENT
ARCHITECTURE



ROSE



NEW HAVEN (CONN.) COUNTY COURT
HOUSE. ALLEN & WILLIAMS, ARCHITECTS.



NEW HAVEN (CONN.) COUNTY COURT HOUSE. ALLEN & WILLIAMS, ARCHITECTS.



TRUTH—NEW HAVEN (CONN.) COUNTY COURT HOUSE.
J. Massey Rhind, Sculptor.



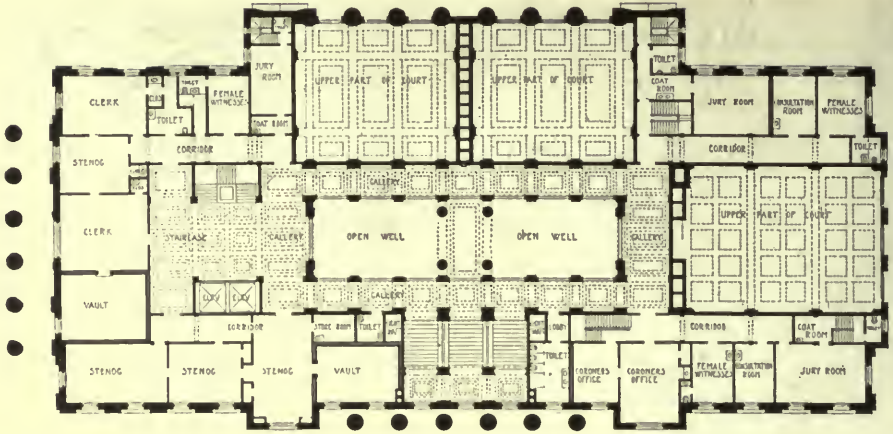
SELF-DENIAL—NEW HAVEN (CONN.) COUNTY COURT HOUSE.
J. Massey Rhind, Sculptor.



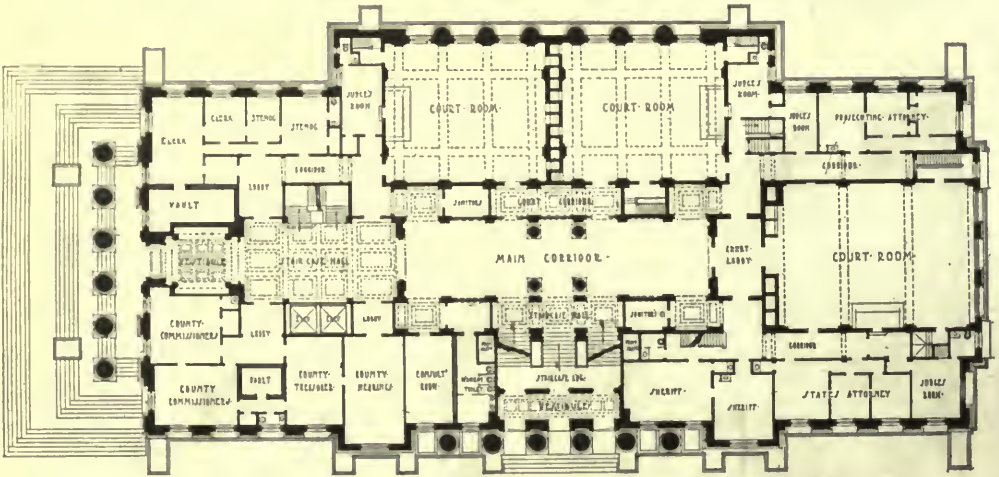
THE ADVOCATE—NEW HAVEN (CONN.) COUNTY COURT HOUSE.
J. Massey Rhind, Sculptor.



THE LAWMAKER—NEW HAVEN (CONN.) COUNTY COURT HOUSE.
J. Massey Rhind, Sculptor.

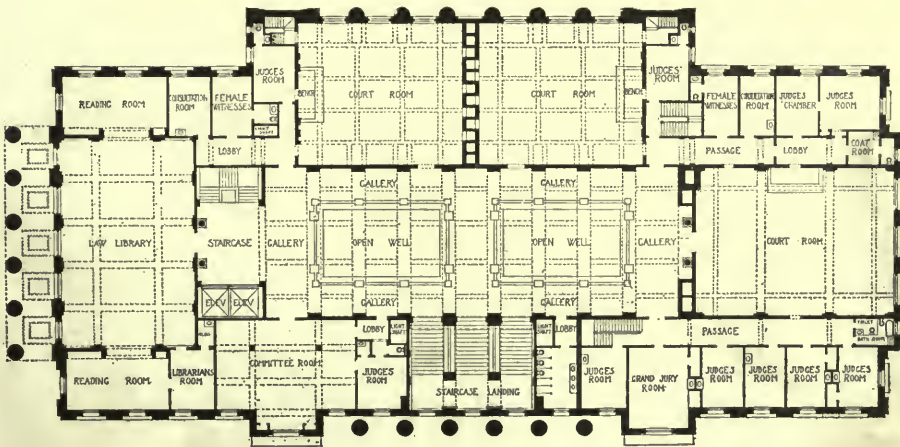


PLAN OF MEZZANINE FLOOR



PLAN OF FIRST FLOOR

NEW HAVEN (CONN.) COUNTY COURT HOUSE. ALLEN & WILLIAMS, ARCHITECTS.



UPPER CORRIDOR AND PLAN OF SECOND FLOOR—NEW HAVEN (CONN.) COUNTY COURT HOUSE. ALLEN & WILLIAMS, ARCHITECTS.



CORRIDOR—NEW HAVEN (CONN.) COUNTY COURT
HOUSE. ALLEN & WILLIAMS, ARCHITECTS.



SUPREME COURT ROOM—NEW HAVEN (CONN.) COUNTY COURT HOUSE.
Allen & Williams, Architects.



SUPERIOR COURT ROOM—NEW HAVEN (CONN.) COUNTY COURT HOUSE.
Allen & Williams, Architects.



STUDIO BUILDING, BOSTON, MASS.
LORING & LELAND, ARCHITECTS.



POST OFFICE AT WATERVILLE, MAINE.



POST OFFICE AT MARIETTA, GEORGIA.



POST OFFICE AT BROOKINGS, SOUTH DAKOTA.



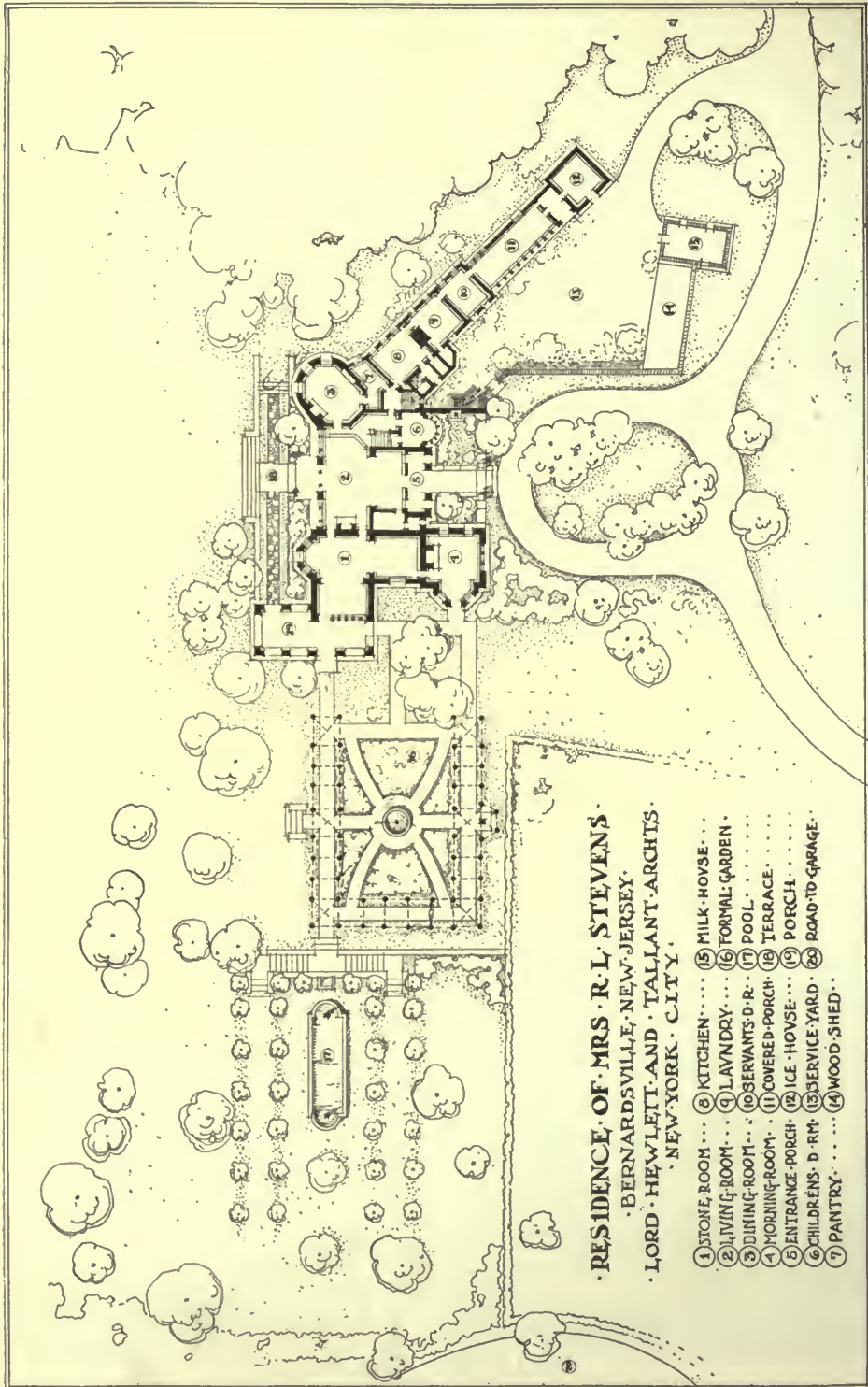
POST OFFICE AT SAN JUAN, PORTO RICO.



POST OFFICE AT MINNEAPOLIS, MINN.



POST OFFICE AT PARIS, TEXAS.

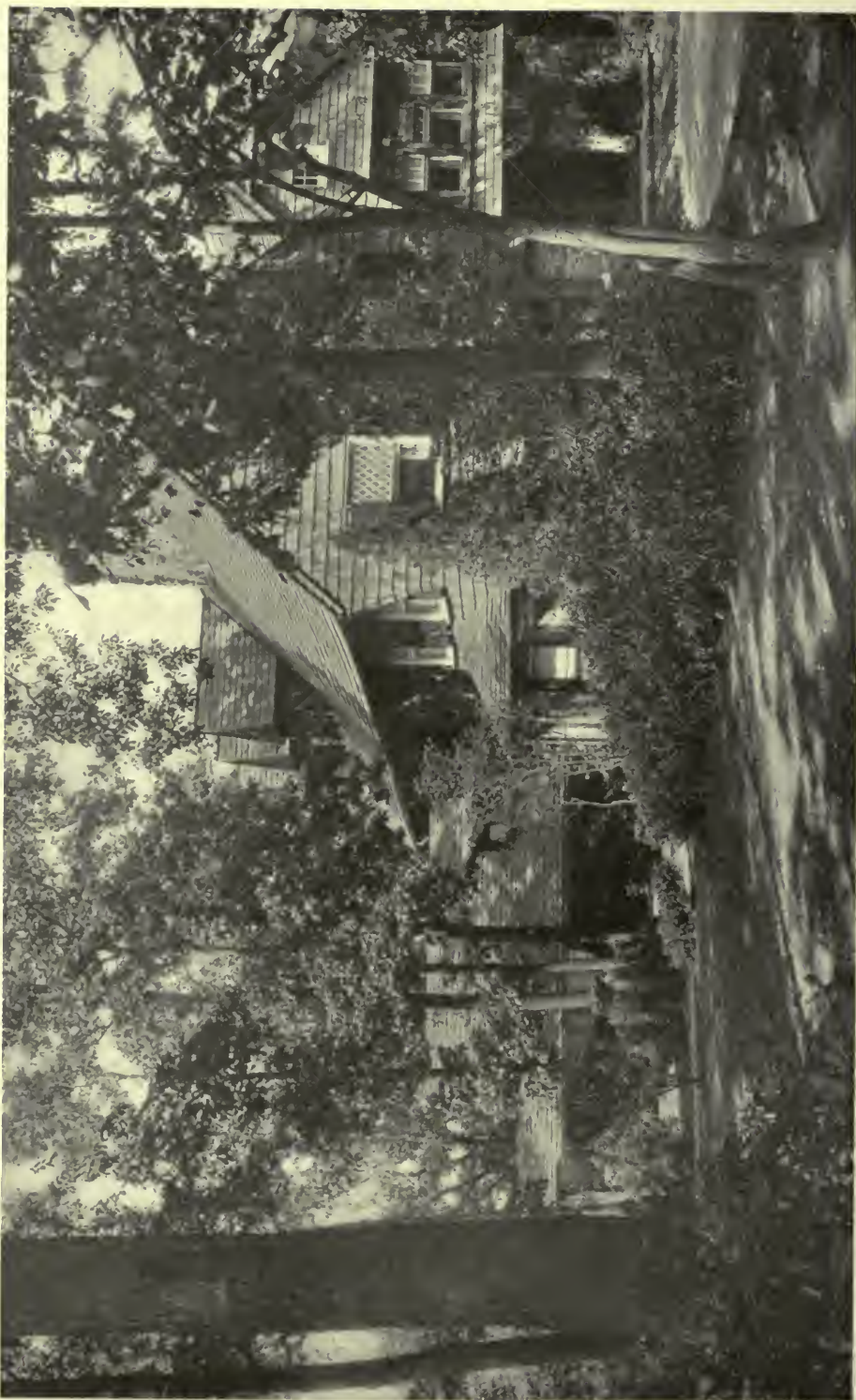


RESIDENCE OF MRS. R. L. STEVENS
 BERNARDSVILLE, NEW JERSEY.
 LORD HEWLETT AND TALLANT ARCHTS.
 NEW YORK CITY.

- 1 STONE ROOM
- 2 KITCHEN
- 3 MILK HOUSE
- 4 LIVING ROOM
- 5 LAV/DRY
- 6 FORMAL GARDEN
- 7 DINING ROOM
- 8 SERVANTS D-R
- 9 POOL
- 10 PORCH
- 11 COVERED PORCH
- 12 TERRACE
- 13 ENTRANCE PORCH
- 14 ICE HOUSE
- 15 PORCH
- 16 CHILDREN'S D-RM
- 17 SERVICE YARD
- 18 ROAD TO GARAGE
- 19 PANTRY
- 20 WOOD SHED



FRONT VIEW—RESIDENCE OF MRS. R. L. STEVENS, BER-
NARDSVILLE, N. J. LORD, HEWLETT & TALLANT, ARCHITECTS.
(For description see page 393)



FRONT AND SIDE—RESIDENCE OF MRS. R. L. STEVENS, BERNARDSVILLE, N. J.—LORD, HEWLETT & TALLANT, ARCHITECTS.



SIDE VIEW—RESIDENCE OF MRS. R. L. STEVENS, BER-
NARDSVILLE, N. J.—LORD, HEWLETT & TALLANT, ARCHITECTS.



REAR VIEW.—RESIDENCE OF MRS. R. L. STEVENS, BERNARDSVILLE, N. J.—LORD, HEWLETT & TALLANT, ARCHITECTS.



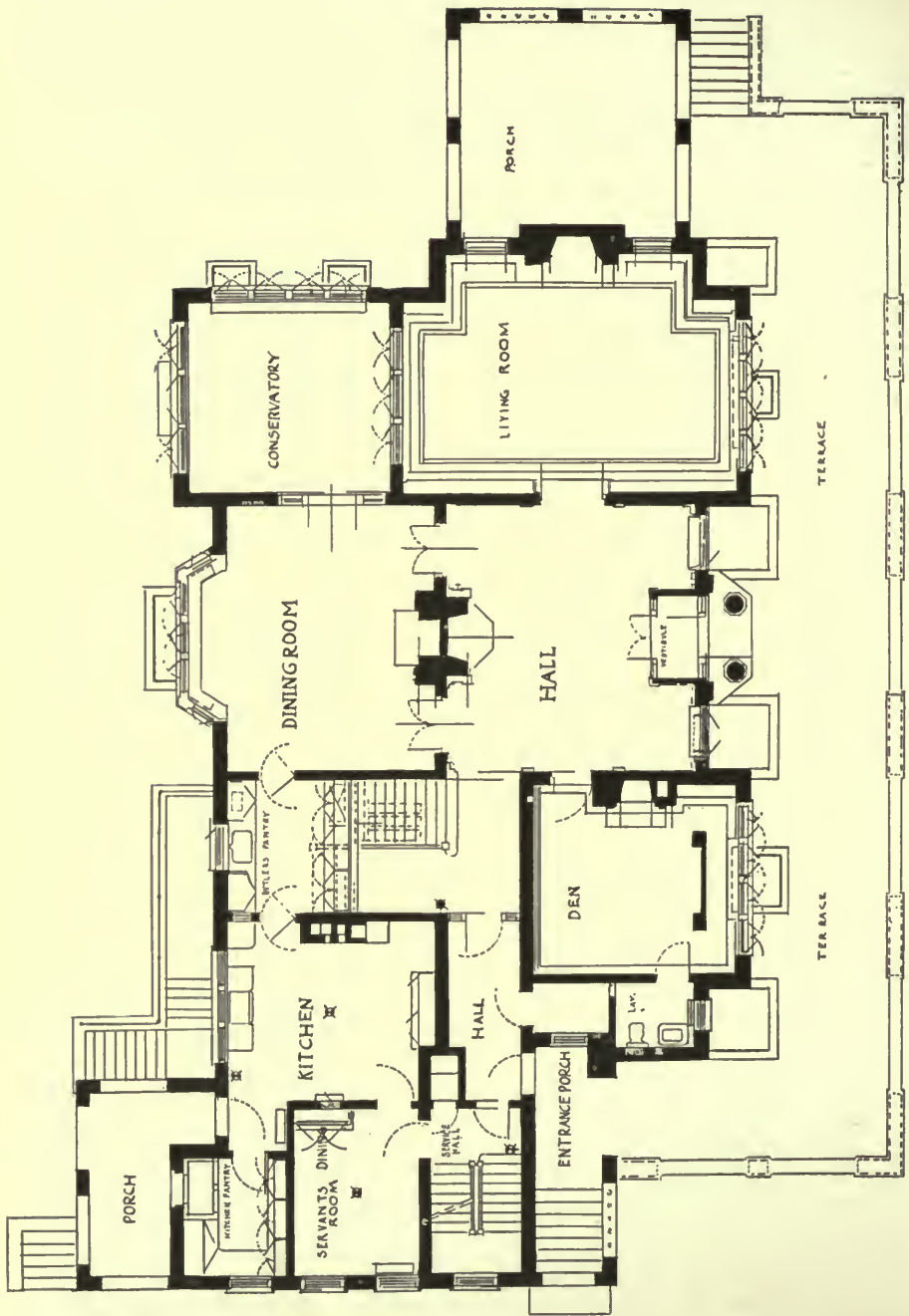
RESIDENCE OF J. C. REA, ESQ., PITTSBURGH,
PA. MACCLURE & SPAHR, ARCHITECTS.



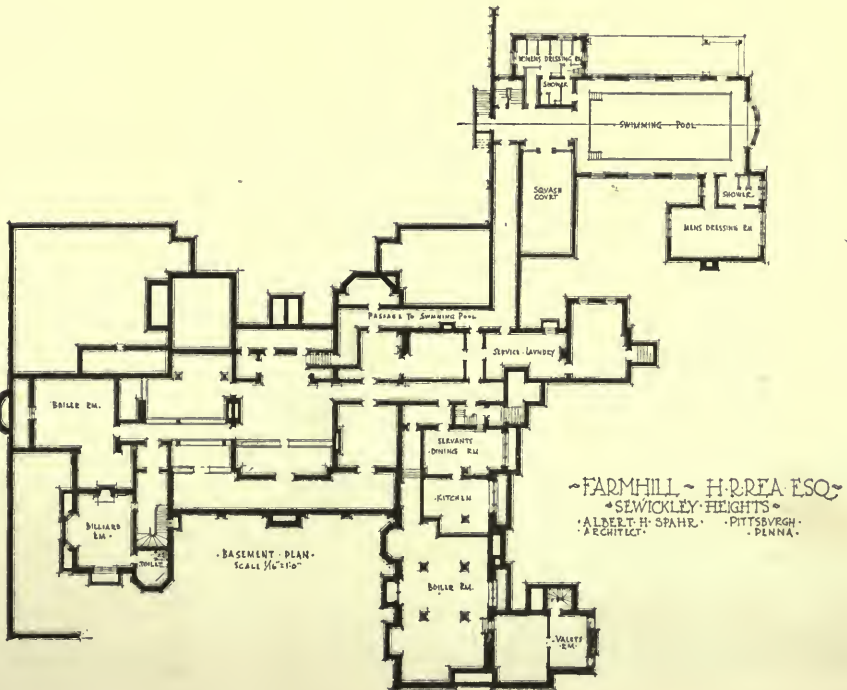
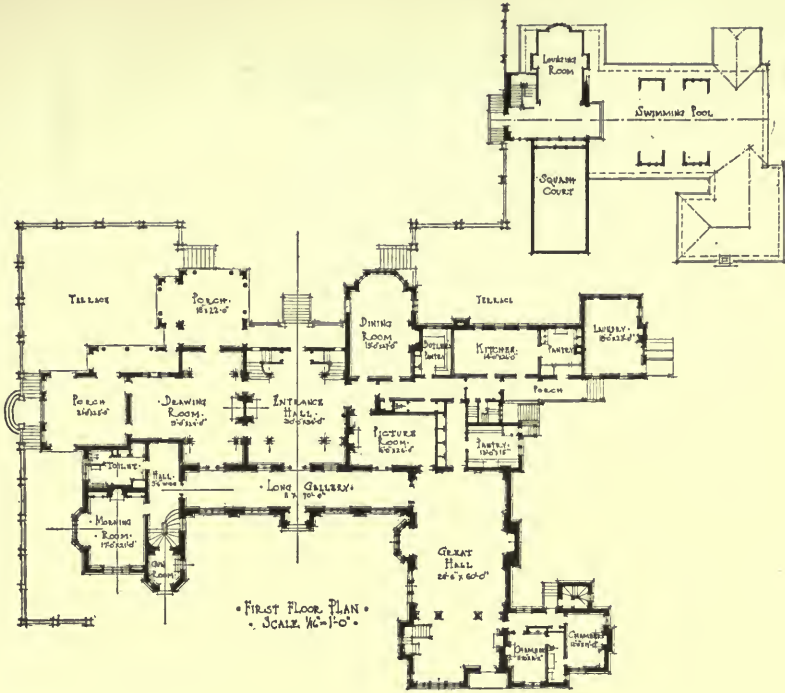
HALL—RESIDENCE OF J. C. REA, ESQ., PITTS-
BURGH, PA. MacCLURE & SPAHR, ARCHITECTS.

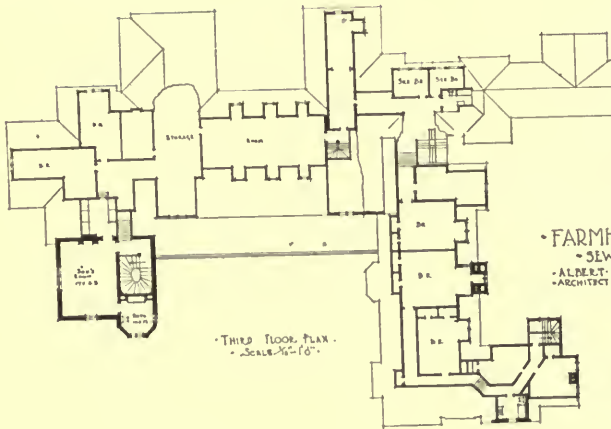


LIVING ROOM—RESIDENCE OF J. C. REA, ESQ., PITTS-
BURGH, PA. MacCLURE & SPAHR, ARCHITECTS.



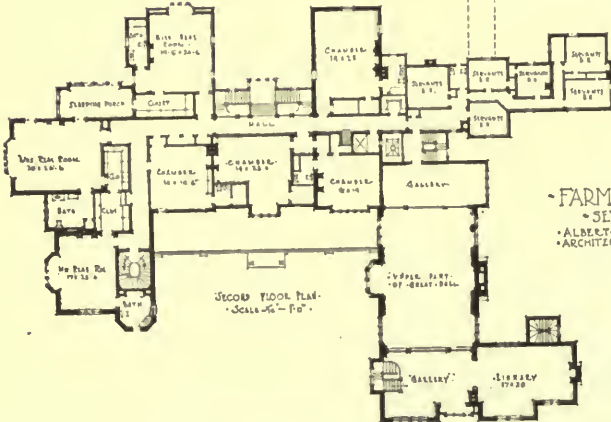
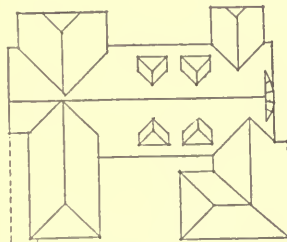
FIRST FLOOR PLAN—RESIDENCE OF J. C. REA, ESQ.,
 PITTSBURGH, PA. MacCLURE & SPAHR, ARCHITECTS.





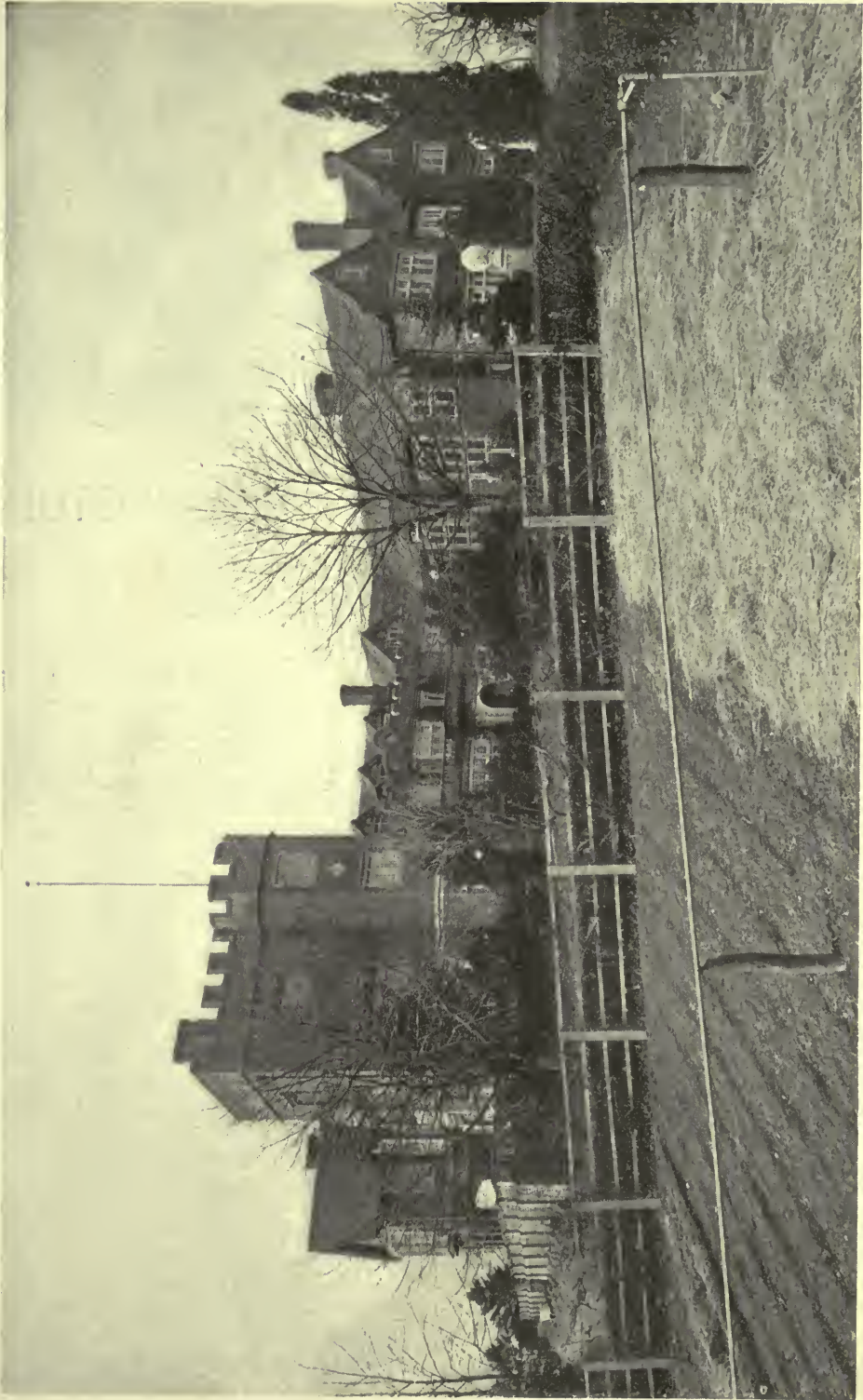
·THIRD FLOOR PLAN·
·SCALE 1/4" = 10'·

·FARMHILL· H·R·REA·ESQ·
·SEWICKLEY·HEIGHTS·
·ALBERT·H·SPAHR· PITTSBURGH·
·ARCHITECT· PENNA·



·SECOND FLOOR PLAN·
·SCALE 1/4" = 10'·

·FARMHILL· H·R·REA·ESQ·
·SEWICKLEY·HEIGHTS·
·ALBERT·H·SPAHR· PITTSBURGH·
·ARCHITECT· PENNA·



FARMHILL—RESIDENCE OF H. R. REA, ESQ., SEWICKLEY HEIGHTS, PA. ALBERT H. SPAHR, ARCHITECT.

THE ARCHITECT'S LIBRARY



BOOKS ON COLONIAL ARCHITECTURE

By RICHARD FRANZ BACH

Curator, School of Architecture, Columbia University

Part III.—Dwellings (Continued)

THE Dutch phase of American Colonial architecture which is illustrated exclusively in dwellings, has been adequately treated by Aymar Embury II in *The Dutch Colonial House, Its Origin, Design, Modern Plan and Construction* (Large octavo; pp. 6+iv+108, ill. New York: McBride, Nast & Company, 1913. \$2 net), published as one of an extensive series of useful volumes on domestic architecture past and present in this country entitled *The Country House Library*. In discussing his style the author finds it characteristic of Dutch Colonial architecture that its spread and effect seem to have ceased not long after New Amsterdam became British, and that there is no direct chain of buildings from old Dutch to present times carrying through a definite tradition. It stands, therefore, in direct contrast to the continuity of life which has favored the New England Colonial manner, and which has caused that style to live almost uninterruptedly up to the present as well understood and as vigorously active as though the interloping period of decadence, called the Victorian age, had never subjected Amer-

ican art to its baneful influence. It is interesting also to note the radical differences existing between the typical Dutch Colonial dwelling and the representative houses of both the New England and the Virginian varieties. Due, no doubt, to differences in home land origins, in religious points of view and not a little to the enormous intervening distances not yet reduced by rails or wires, the three fashions of building were able to develop what may be termed distinct styles, varying decidedly from one another, each representing a personal attitude toward life and an individual angle of attack upon the disheartening problem of forcing sustenance and domestic happiness out of alien soil and circumstances.

Mr. Embury finds that the attempt to establish the genesis of the Dutch Colonial style meets its first reward in a consideration of the materials at hand in the districts in which it flourished. "Northeastern New Jersey was at some remote age the termination of the glacial drift, and the fertile fields which offered such an alluring bait to the Dutch settler were covered with red sandstone,

not native to the country, but brought there long ago by the glaciers. These stones had to be removed from the fields before these (the latter) could conveniently be worked, and since they had to be moved, in the natural sequence of things it was as convenient to pile them on top of each other to form walls for the fields and walls for the house as to dispose of them in any other way. The earliest Dutch farm houses in New Jersey are, then, of stone. In Long Island, on the other hand, building stone was about as common as diamonds, and the houses were built of wood and then covered either with shingles or with clapboards, although in a few cases a frame wall was filled in with brick and plastered over the whole surface—the wood as well as the masonry. The New Jersey type of construction very probably led to the development of the most familiar characteristic of Dutch work, the long overhanging roof. In building their walls the early settlers did not have proper materials with which to build; lime had to be imported, and cement had not yet been invented; time and labor they did have, and in consequence instead of being built of rough, irregular shaped stones, with the interstices filled with mortar, their walls were built of square stones with level beds, competent to stand without any cementing together, and secured against intrusion of the wind and rain by the filling of the chinks with clay, just as had been the case in the log cabins which had been their first homes." The earliest houses, we are told, had roofs of a single pitch; only the later examples illustrating the familiar "Dutch" or gambrel type of roof. This mode of construction should be considered one of America's greatest contributions to home building art: "for small houses it is invaluable, for the reason which probably caused its invention, since it permits a greatly increased space in the second story without making necessary a roof of tremendous height."

It may be safely said that of all our shackle-free Colonial building styles the Dutch type was freest from the observance of tradition. Witness in this connection so important a detail as the col-

umn. This illustrates a fairly close adherence to tradition in the South, tremendously attenuated proportions in the North, though with a rough retention of classic proportions, and in both of these regions the shafts are round and frequently channeled. On the other hand, the Dutch examples are very often square or "carpenter-built," hexagonal or octagonal, square ones being sometimes paneled, and capitals savoring of Gothic rather than of classic precedents in many cases.

The Dutch style was never monumental, nor adequate to the purposes of a mansion of great size or of formal character. Statelyness was beyond its scope, as it was also beyond the Hollander of the old country where to this day the general manner of architecture is decidedly opposed to formality. The prevailing cast of the Dutch Colonial house was in the direction of the picturesque and home-like.

Mr. Embury's study of the genesis of the architectural manner of New Holland is followed, in the volume under discussion, by a fine chapter on materials, which has much to teach us; then by a detailed treatment of gambrel roof construction, illustrated by old as well as by modern examples of its use; by an equally good chapter on doors and windows, and another on the old Dutch plan and its modern counterpart. Shorter discussions of the treatment of the principal interiors, of furniture and of decoration are likewise included. The book is profusely illustrated with photographic reproductions and also with drawings of construction details and of plans. A number of illustrations of modern adaptations of the Dutch style, of which Mr. Embury is an ardent and probably the foremost exponent in current practice, are also included. All told, the volume is a useful contribution to a poorly understood building phase which merits greater attention in modern residence architecture, for the reason that it offers a highly attractive solution, with the assurance of effective simplicity, for the problem of small house design.

In the same series, *The Country House Library*, a collection of "architectural

books for the layman," also appeared a more general volume entitled *Architectural Styles for Country Houses* (Large octavo; pp. 123, ill. New York: McBride, Nast & Company; 1912. \$2 net), a symposium on ten different modes of building in use in this country, derived in part from Europe, in part from our own hard bought experience, and in part from combinations and adaptations of both. The essays aim to show the characteristics and merits of various types of architecture which have at different times found favor in the United States—both before and after its nationality became a fact—the modern feasibility of such types and somewhat of their history. The papers were written by ten enthusiastic advocates, under the general editorship of Henry H. Saylor, whose constructive genius furnishes the chief impetus for one of our foremost periodicals, *Country Life in America*. The volume contains an exposition of The Colonial House by Frank E. Wallis, whose name we have had occasion to note in connection with several volumes on the same subject earlier in our series of collective reviews, and another on The Dutch Colonial House by Aymar Embury II. No doubt the last named was the nucleus about which grew the volume on the style of the New Holland colonists noticed above. Other papers, of less interest for us at the moment, are concerned with Tudor Houses, by R. Clipston Sturgis; Modern English Plaster Houses, by J. Lovell Little, Jr.; Italian Adaptations, by Louis Boynton; The Swiss Chalet Type, by Louis J. Stellman; The Spanish Mission Type, by George C. Baum; The Half Timber House, by Allen W. Jackson; A Style of the Western Plains, by Hugh M. G. Garden; and The Northern Tradition, by Alfred Morton Githens. The general purpose of the book is clear; it presents a careful exposition of each of the most prevalent building styles at present in use, so that, above all, the otherwise unguided lay reader may in his selection avoid the pitfall of haste which is followed by the usual aftermath of repentance at leisure, for the style of his house, once chosen and put into execution, abides with him beyond

remedy. It is gratifying to note that the two papers chiefly concerning us, those by Mr. Wallis and Mr. Embury, have each been granted relatively more space than the individual chapters covering any other style treated in the book; we are also pleased to find the volume illustrated not only with the usual photographic reproductions, of which there are more than sixty, but also with plans in the body of the text. Perhaps by dint of untold perseverance the layman may ultimately be brought to an understanding of the value of the plan of his house and an appreciation of its significance as a prime factor in his future comfort and convenience, if not in his attitude toward life. To the average person of his tribe a plan is an utterly inscrutable thing; it savors too strongly of architects, of professionalism, of expense. However readily he may admit its usefulness, he restricts its scope to the builder and has been content himself to dwell in ignorance of its hidden virtues. We cannot have too many plans in books destined for the perusal of laymen; the more the layman sees of plans, the better will be his opinion of the architect, a type of thoroughly necessary expert that has too long been counted among the luxuries in the humbler phases of domestic architecture.

Among the numerous works on the Colonial aspect of our architectural history none have enjoyed so continuous and extensive a vogue as works of constant reference—with the possible exception of *The Georgian Period*—as have those of Eric Ellis Soderholtz and James M. Corner. The first of these gentlemen issued a general volume entitled *Colonial Architecture and Furniture* (Folio, pp. 6+60 Boston: G. H. Polley & Company; 1895. Rare). This was preceded by a volume concerning Colonial architecture in the New England states and followed by two others on the southern manifestations of the same style. In the last named Mr. Soderholtz collaborated with Mr. Edward Andrew Crane. In the volume on New England Colonial architecture Mr. Soderholtz was assisted by Mr. Corner. All of these works are now rarely found. The books in question are

properly collections of photographs of extant structures. Exteriors and interiors are given, but, of course, no scale details, plans or indications of construction are included. As photographs the plates have a peculiar value, for somewhat of the personal character and atmosphere of the original may be caught by the camera; but as adequate or complete works of reference on Colonial architecture they require the supplementary study of larger plates of line drawings which present accurate measurements of suggestive and well chosen details.

More recently has appeared *The Architecture, Interiors and Furniture of the American Colonies During the Eighteenth Century*, a collection of large folio reproductions selected by G. Henry Polley. (Pp. 5+plates 90. Boston: G. H. Polley and Company; 1914; \$40.) The point of view in this series is exactly the same as that of the other works just mentioned. The selection has been well made but the plates are in general not of the high quality maintained in the prototypes established by its predecessors of some twenty years earlier, some of whose plates it republishes.

From the professional point of view collections of photographs, such as those published in the Soderholtz and Polley books, are thoroughly useful as works of initial reference. They offer inspiration and suggestion and the architect is prompted at once to go to the more detailed studies which give him an occasional plan and, above all, do not ignore the inevitably essential section, a type of drawing that always conveys a mass of information in exact dimensions and proportions which the photographic perspective cannot be expected to indicate with sufficient accuracy. Being so accustomed to referring most fine arts to the sense of sight alone—even though the mode of execution constantly involves the third dimension—we come to rely too strongly upon the eye for a correct appreciation of depth, for the interpretation of which the sense of touch is the proper avenue. The architect's drawing of the section translates this reliance upon the sense of sight into terms of the sense of touch—optically as it were—and we are brought to feel

the significance of depth. We know of no more successful mode of presenting reproductions of buildings in all their parts than that of combining the perspective of the camera with the draftsman's plan and section. We have then at once a suggestion of constructive means and of interior heights and depths, as well as of exterior proportions. The plan gives exact dimensions and, in connection with the section, resolves the photograph into a diagram. If now we add some details at larger scale, perhaps with symbolic indication of materials, we shall have achieved the complete architectural reference work, the sort of book that must ultimately be the last resort when writers and publishers and architects have come to a full realization of the need for an authoritative body of works on Colonial architecture to supersede the numerous individual or regional books and to provide a general handbook of historical value and finality. Such a book or series of books would require and would readily obtain the sanction of important bodies of architects, if such bodies might not be held responsible for their inauguration as a contribution to architectural history in this country. We are glad to note that this mode of presentation of architectural work has latterly gained a certain amount of favor in certain quarters. Up to the present, however, it has been restricted to the publication of details, such as entrances, metal work and the like, and even these have been examples of current practice. We look forward to the appearance in the near future of other works planned on this basis, and offering complete studies of existing buildings of our formative styles in terms of proper combinations of photographs and drawings, appearing as far as possible on the same sheet and presenting an adequate method of visualization as an aid for the layman as well as for the architect.

Just as we go to press a new volume by Joseph Everett Chandler, bearing the title *The Colonial House* (Large octavo, pp. 8+341, ill. New York: Robert M. McBride and Company; 1916; \$2.50 net), has come to hand. Before we open the

book we are assured of its value, for the author enjoys an enviable reputation as one of the most serious and understanding students of the Colonial style, for which, in its manifestations during our early years both as colony and as nation, he consistently uses the name, *old Colonial*, no doubt to distinguish that sturdy architectural language from the many hybrid varieties of alleged Colonial derivatives that belong properly in the category of what he calls Kickapoo Colonial. Mr. Chandler's introduction and many paragraphs throughout his volume bring against the architect at large a scathing indictment of unstudied work, lack of taste, commercialism, and a lick-spittle subjection to the Boulevardesque of the Paris school. He gives a number of examples of the shameless descent from the old Colonial sublime to the alleged modern Colonial ridiculous. The book is of use to architects and laymen alike, and if its precepts are taken to heart such a self castigation among practitioners will result that the tasteless reproductions so casually foisted upon a public only too eager to live in Colonial houses will be forever consigned to the limbo of the architecturally unfit.

The general body of his text Mr. Chandler subdivides chiefly into a study of the style historically and aesthetically in detail treated in three stages or periods. The characteristics of each are carefully brought to light and profuse illustrations, some of them of entirely new material, serve to enliven the well written discussion. This general treatment is preceded by a chapter on The Plan and the Roof and succeeded by others entitled The Downfall, which makes short shrift of the Colonial mannerism which paralleled the black walnut craze and the pinnacled and crimped furniture that is within the memory of all of us, and Restorations, covering a number of successful efforts at modernization of old buildings. Then follows an enlightening chapter of admonition on What Not to Do, which, coming from an architect, carries particular weight, and another on Modern Work which gives credit where credit is due, but sparingly. The final section on Colonial Gardens deserves much praise,

for it was written by a lover of music and of poetry; in fact, in many places in his book Mr. Chandler rises to stylistic heights that give a new dignity to the subject of his discussion, for his manner of writing provides a readable work as well as an entirely adequate treatment of a field that merits and is gradually receiving a constantly increasing amount of attention and interest.

No writer on Colonial architecture can close his volume without a note of warning; with similar prophetic feeling Mr. Chandler adds his own: "One reason of the dislike some people have of Colonial houses undoubtedly results from the mental picture uppermost in their minds when the subject is mentioned. Then there 'flashes on the inward eye' the deeply shaded, tree-crushed facade of some old mansion of distinguished but grim individuality—trees planted too closely, untrimmed and uncontrolled, and shrubs unkempt and misplaced, marring that effect of cheerfulness which is of utmost importance—unless the person occupying it wishes to be judged as possessing a forbidding personality. All through the country are fine examples of the early work dropping in pieces, and the altogether attractive entrance gate of some once beautifully kept estate which today hangs on rusted hinges that will open the sagging gate perhaps but once more, and may tomorrow break and drop its burden, with the result that it will be propped against the adjoining fence a few days and then be carried to the wood pile on its way to serve as kindling wood. Much fine furniture has met a similar fate and the danger of like catastrophe still lurks in unappreciative sections of the country."

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Fire Protection and the Schools.

Recent loss of life in a schoolhouse fire at Peabody, Mass., and in a candy factory conflagration in the Williamsburgh district of New York City has brought about renewed activity in behalf of proper protection against fire in loft buildings and schoolhouses; but whereas the loft building fire could readily be laid at the door of neglect, coupled with flagrant disregard of existing laws, the schoolhouse fire is ascribable only to neglect, without the spur of public corrective measures under the control of a state department. Thus, although the state of Massachusetts has authority to regulate existing fire-escapes with reference to capacity, number and bearing strength, that sovereign state has, on the other hand, no authority whatever under the law to condemn for school use any buildings not provided with fire-escapes at all.

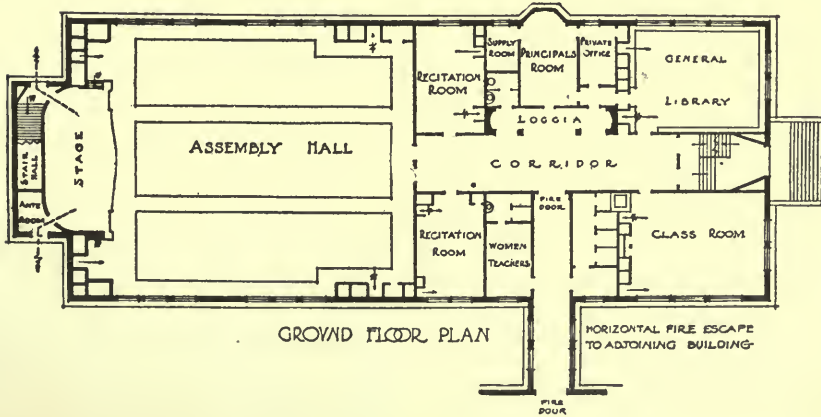
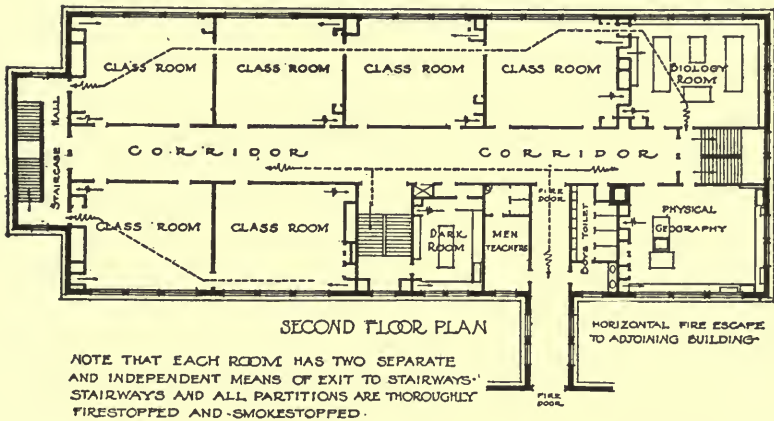
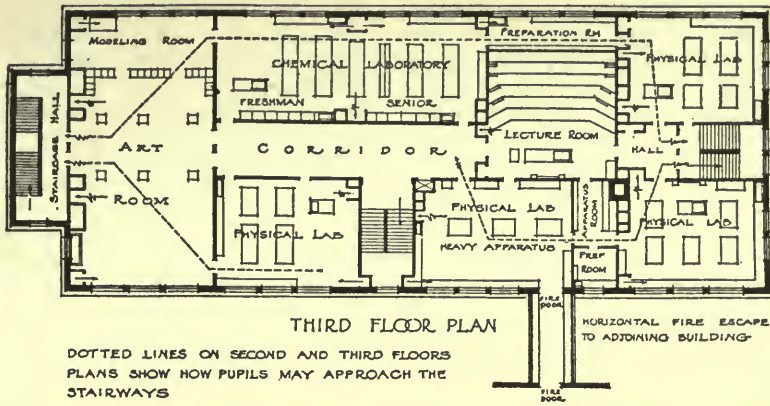
In the factory, where attendance is voluntary, remedial measures are possible; in the schoolhouse, where attendance is compulsory, no safeguard or public defense is forthcoming. The adult operative, subject to his own will, is protected; the child from six to fifteen years of age, controlled both by law and by parents, may be penned within a potential furnace without recourse even to the knowledge of his own danger.

This matter assumes an ominous importance if the facts concerning fires in recent months are considered. Thus it has been demonstrated that at least one schoolhouse fire occurs in the United States on each day of the year. During a period of sixty-eight days during 1915 no less than seventy-three fires were reported in schools and allied educational institutions.

With these threatening realities as a text, the National Fire Protection Association, with offices in Boston, has prepared a pamphlet giving much valuable data, compiled from various sources, on the subject of the

safeguarding of young lives in school buildings. The pamphlet inveighs strongly against wood construction, long corridors that almost instantaneously become giant flues, lack of proper isolation of heating and lighting plants, or of proper fireproofing of rooms assigned to specialized vocational departments using highly inflammable materials. It emphasizes the need for at least two doors for each classroom, frequent fire drills under all possible exigencies, the use of panic bolts and automatic sprinklers, and encourages a revision of current methods of stair construction with an eye to the disposition of exits proper and exit stairways upon a uniform axis and the elimination of all sharp angles on landings, and all diminution of width in vestibules or doors at the ends of stairways.

In 1910 the investigations of Frank Irving Cooper, an architect of Boston, undertaken at the request of the Russell Sage Foundation, brought to light the unbelievable fact that only two states in the Union had any regulations whatever for fireproof construction, and only one had considered fire retardant construction; six states had regulations governing exits, and thirteen required outward opening doors in schoolhouses. The discovery of this amazing condition of neglect and lurking danger resulted in much activity in a number of state assemblies, and the whole movement was brought to an exciting climax in 1914 when the newspapers espoused the cause of an engineer who had made a blanket condemnation of all New York City schools as fire traps. There followed then a thorough inspection and illuminating report by the Fire Commissioner of the city, whose department for the first time learned of the existence of acetylene gas plants and the storage of inflammable chemicals in cellars of school buildings; likewise of classrooms situated over automobile or plumbing schools, not to mention the total absence in many cases of any exit signs and the piling of highly combustible mat-

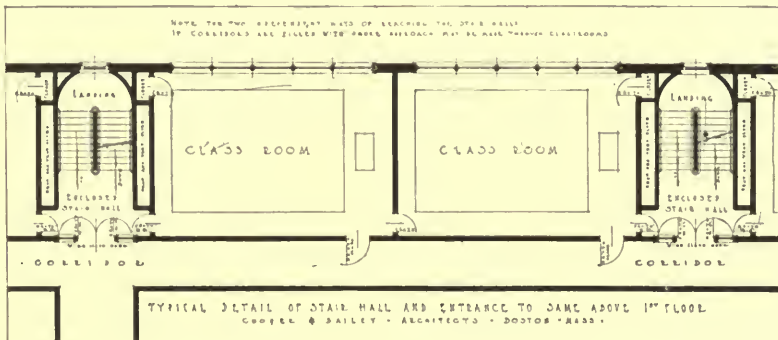


HIGH SCHOOL BUILDING AT BEVERLY, MASS. COOPER & BAILEY, ARCHITECTS.

ter against boiler smokestacks. Corrective measures were put in force at once and anxious parents sighed in relief, though their anxiety had become a fact only as the result of published information, not by any means because of a previous personal interest. Then was undertaken the systematic abandonment of the oldest school buildings, and the relegation of the last of these as entirely unfit for the purposes of the day will probably become a fact when the Gary plan—at present the topic of such acrimonious discussion—is finally ratified for general adoption throughout the five boroughs. This will reduce still further any existing fire hazard and the city will be justified in assuming that the ultimate precaution has been taken in safeguarding the lives of the growing generation.

Mr. Cooper has now come forward with further charted information to show the

A model plan, in which all safeguards to life have been fully considered, is reproduced herewith. The building is not of great size but is large enough to indicate similar solutions for buildings housing several thousands. It provides each classroom with exits to the main corridor, and in addition interconnecting doors are introduced to permit passage from room to room in case of sudden danger, a local disturbance such as an explosion, or in case of unavoidable delay in the corridor. The laboratories have been wisely isolated on the upper floor; there are three stairways, and a horizontal fire-escape to an adjoining building has also been provided. The stairways themselves are of the approved stairhall type, with wired glass enclosures; they all lead directly into the open, and each landing has been treated as a semi-circle in plan, so that the outer-



advances in the field of fire protection in schools during the period 1910-1915. His latest compilation shows "that only twenty-seven states have yet considered it advisable to exercise control over their school buildings, where the children spend one-third of their waking hours. Twenty-four of these twenty-seven states seem to realize the necessity for a quick exit from these buildings, as they specify, with exceptional agreement, that doors shall open outward. Seventeen of the twenty-seven states also agree that fire-escapes are desirable, but only six of the twenty-seven installed fire alarms to warn teachers and children that escape should be made, and only one state, Kansas, would drill its children in how that escape should be accomplished. Turning from escapes to methods of putting out a fire, it is found that eight states would provide fire extinguishers of various kinds; six states believe in standpipes (although there is some question as to the providing of any hose), and one state would have sprinklers under certain conditions."

most children in any hurried or mass exit of all classes cannot be crushed into angles of masonry while the main stream rushes by them to safety. In similar fashion the danger arising from the discrepancy in width between exit stairways and outside doorways has been removed by building the stairhall walls inward to the edge of the door frame. Thus the bitter lesson of a school fire at Collinwood, Ohio, where "scores of little children died within an arm's reach of safety, almost within sight of frenzied parents, jammed at the foot of a stairway in a solid arch of flesh and bone, skewed into projections caused by the lessened width of the vestibule," has been taken deeply to heart.

We cannot too strongly advise a country-wide interest in this patent menace of fire in schools. The obvious evils of slight construction, petty economy and ignorance too readily intrude upon good sense and safety in school buildings, as in buildings devoted to other purposes, involving the presence within them of a large number of persons

at a given time, especially if they be minors. Legislatures should have direct recourse to the foremost architects, engineers and experts in fire risks of their states in the drafting of fire protection legislation. The danger is as palpable and as preventable in many districts of this country as is the white plague itself. Finally, we can do no better than to emphasize the need for a general uniform system of fire protection, based at the outset upon fire proof construction, suitable exits and dependent stairway and corridor planning, isolation of inflammable materials both in storage and in departments using them in their instruction, provision for fire extinguishers, if possible, including an automatic sprinkler system, so that the danger may be promptly localized, and finally upon frequent and thorough fire drills in which all contingencies are provided for and all incidental duties properly apportioned among a limited number of reliable persons.

A set of eighty rules has been compiled by the New York Board of Education as a result of the careful investigation above referred to and in most instances are applicable to the schools of any town or city. They should be carefully studied by everyone charged with the heavy responsibility of safeguarding the lives of schoolchildren.

R. F. B.

**The Residence
of
Mrs. R. L. Stevens.**

This house, which is illustrated on pages 372 to 376, was built about twenty years ago; and the alterations and developments, which were undertaken within the past three years, have been made in conformity with the original character of the building and its setting on the edge of a wood with a commanding view down a valley to the southwest. The hill on which the house is situated was covered on its westerly slope with a young growth of wild cedars, and one of the most attractive features of the place is the cedar garden developed by the late Mr. Stevens by means of cutting alleys and winding paths through the growth of cedars and establishing points of interest at the terminations of the vistas so completed. Mr. Stevens, after his graduation from Columbia College, studied architecture in the Columbia School, and continued his interest in this subject, particularly in the development of landscape design. The work of Lord, Hewlett and Tallant, illustrated in the photographs and plan, con-

sists in the rearrangement and reconstruction of the house, the design of its surrounding garden treatment and the interior decorations, all of which was under the personal charge of Mr. Hewlett.

**Federal
Buildings.**

In the planning of public buildings and especially of those to be used by the various branches of the Federal Government, interesting and unusual problems arise. While, like any

other buildings, their first requirement should naturally be adaptability to the practical purposes for which they are erected and to the environment in which they are placed, they must in addition be of such a character as to fittingly suggest the dignity of the government which they represent. On the other hand, this idea of governmental dignity ought not to so obsess the designer as to induce him to strive only for monumental effect.

A certain uniformity of character in Federal buildings is also desirable in order that such structures may be readily recognizable, may suggest their official position and stand somewhat aloof from their more plebeian neighbors; yet it is equally desirable not to go to the other extreme of placing Greek temples in every community, be it a New England fishing village or some great commercial center, merely adapting them to varying conditions by the use of the diminishing glass or the magnifying glass as the size of the community may dictate.

In August, 1912, the act of Congress by which the Secretary of the Treasury had been authorized to select the architects for post office buildings by means of competitions, was repealed and the work was placed in the hands of the Supervising Architect of the Treasury Department. Halted by red tape and occupied by political incompetents, as such offices frequently are, this might well have been expected to spell the doom of any progress in the architecture of post office buildings.

It is a gratifying surprise therefore to find, upon looking over recent examples of this class of buildings, that a high standard of excellence has been maintained. The half dozen illustrations on pages 369 to 371 were selected at random and do not by any means show the choicest work of this class, yet they do show a dignity and versatility that speak well for the ability

and training of the men who designed them.

We may readily accept it as evidence of a general advance in our present standards of architecture that a governmental department which, unlike the private practitioner, is not goaded on in its struggle for excellence by the sharp prod of competition and is more or less subject to the influences of political environment, should produce work as meritorious as is to be found in the post office buildings which are now being erected throughout the United States.

I. T. Frary.

**Italian
Parliament
Buildings.**

Following the unpromising precedent of the Palace of Justice and of Sacconi's egregious monument to King Victor Emmanuel, Italy seems to have been misled once more into the insidious evils of underestimation of costs and poor management of construction in its latest public building of importance, the National Houses of Parliament. The original appropriation assigned six and one-half million lire for the erection of this edifice; to date it has involved an outlay of nearly twenty million lire. Excavation was begun in January, 1908, and, although the maximum period of construction considered necessary at the time was four years, it still stands incomplete. Various speculations have been advanced as to the reason for the undue expense and long drawn delay. Italian dailies speak of inexperience, poor taste, incorrect specifications, and one of them, the *Domenica del Corriere*, flays the Roman building commissions, whose chief duty it is to watch the destinies of such buildings, for the effete administration of its important field, since every public building undertaken in the Imperial City involves avoidable strife and high feeling, suspicion or even actual trials at law, as in the case of the Palace of Justice.

Francesco Crispi first launched the pro-

paganda for a new national assembly hall; deeming unworthy of the new Italian nationality of the old Palazzo Montecitorio, erected by a nephew of Gregory XV. in 1630 from designs by Bernini, the architectural giant of the seventeenth century. Crispi was hailed as the foremost spendthrift of the land, a squanderer of the taxes of the poor; he was informed from many directions that the project would entail an expenditure of ten or even fifteen million lire. So it was decided to draw the national pursestrings tight and to restrict the whole plan to a remodeling of the old palace instead, leaving the Renaissance facade and adding spacious halls in the body of the structure. And now after a period of nearly eight years twenty millions have melted into a group of unfinished salons hiding their ornate details behind the stern old front of the Montecitorio. As the scaffoldings fall, says the *Corriere*, the Italian soul revolts at the travesty upon Bernini's work. The commission was assigned, without competition, to E. Basile of Palermo, who, maintaining that "each epoch must have its own language, its peculiar forms and its individual art expression," has coupled the design of his own additions and the older portion of the edifice with a minimum of concession to the latter.

It is not for us at this distance to point a moral in times of stress that make all public building activity appear in the light of unnecessary expense of funds needed for national defense. We cannot avoid, however, the sentiment that even though a national edifice, indeed the central national building of all, justly deserves an adequate expenditure both of time and of money, especially in a monarchic form of government, it likewise merits an equally lavish outlay of ability, care, good management and taste. The national pride is apt to hinge upon such a building, it is a point of departure for the broadest inspiration, or even imitation; it must be kept free of building errors, both structural and financial, and finally it must for patent reasons be a model of the finest professional talent of the land.

R. F. B.