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## CHAPTER XII

# THE WORK OF THOMAS U. WALTER, ARCHITECT

PRESIDENT Millard Fillmore evidently considered the action of the Senate in authorizing a competition not within the law, as he states in his annual message of December, 1851, that an “act of Congress approved September 30, 1850, contained a provision for the extension of the Capitol according to such a plan as might be approved by the President, and appropriated \$100,000 to be expended under his directions by such architect as he should appoint to execute the same.”<sup>1</sup> Acting under this authority, President Fillmore appointed Thomas U. Walter Architect of the United States Capitol Extension, and on the 10th day of June, 1851, approved a general outline of the plan submitted by Walter. June 11 the following oath of office was administered:

“I, Thomas U. Walter, do solemnly swear that I will support the Constitution of the United States, and well and faithfully discharge the duties of Architect to execute the plan adopted by the President for the extension of the Capitol, as authorized by act of 30 September, 1850.

“THO. U. WALTER.

“Sworn to and subscribed before me this 11th day of June, A.D. 1851.

“T. HARTLEY CRAWFORD, *“Judge of Court, D.C.”*”

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<sup>1</sup>For President Fillmore’s second annual message of December 2, 1851, see James D. Richardson, ed., *A Compilation of the Messages and Papers of the Presidents* (New York: Bureau of National Literature, Inc., 1897), vol. 6, 2672. See also “An Act making Appropriations for the Year ending the 30th of June, 1851,” in *United States Statutes at Large*, vol. 9, 538. Fillmore did not consider the competition authorized by the Senate illegal. The competition and the law enacted by Congress for the extension of the Capitol were separate actions, and were not in conflict as Brown assumes.

Walter made several plans on this authority. Plates 149 and 150 show two of his suggested methods of treatment, and the third one, which was approved by the President, is illustrated by the following description and plates: This scheme for an extension contemplated two wing buildings placed on the north and south of the old Capitol and 44 feet from it, but connected with the old building by corridors.<sup>2</sup> The dimensions of each building as planned were 142 feet 8 inches from north to south and 238 feet 10 inches from east to west, exclusive of porticoes and steps. Plates 151, 152, 153, and 154 show the cellar, basement, and principal and third story plans of the Senate wing, while Plates 155, 156, 157, and 158 show the basement, and principal and third stories of the House wing.

The corridors consisted of passages leading from the center of the building to the wings, 21 feet 4 inches wide, with outside colonnades, making the entire width of each corridor 56 feet 8 inches. Plate 159 shows a design for the south and north fronts of the wings, made by Walter, but modified in the approved plan as shown in perspective [Plate 164]. The east front of the wings was to have porticoes similar to the one on the old building, extending across the whole front. Each portico had a central projection 10 feet 4 inches by 78 feet [Plate 160]. Porticoes were designed on the west fronts with 10 feet 6 inches projection by 105 feet 8 inches in width [Plate 161]. On the north and south fronts were similar porticoes 124 feet 4 inches wide. Plate 162 shows the character of design where the wings face the old building,

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<sup>2</sup>Plates 149 and 150 were studies Walter made prior to his appointment. They were not alternative plans as Brown claimed.

and Plate 163 shows the design of the walls behind the porticoes. Walter, in his first report, dated December 23, 1851, says that “The architecture of the exterior is designed to correspond in its principal features to that of the present [old] building, and the disposition of the various parts is intended to present the appearance of one harmonious structure and to impart dignity to the present building rather than to interfere with its proportions or detract from its grandeur or beauty.”<sup>3</sup>

The principal entrances were placed on the eastern porticoes, at the top of a long flight of steps leading from the ground up to the colonnade. The principal doorways opened into a vestibule 27 feet wide, and this vestibule opened on a hall 45 feet square, lighted from the roof. Galleries around this hall gave access to the offices in the second story. The gallery was supported on columns with entablature and balustrade. From the large halls vaulted passages 26 feet wide led to a corridor 23 feet wide, which connected the wings with the main building [Plates 153 and 157]. The Hall of Representatives and the Senate Chamber were placed in the western half of the south and north wings respectively, the Senate occupying only the northern portion of this part of the wing. The Hall of Representatives was to have been 130 feet by 97 feet 10 inches and 35 feet high. The Senate Chamber was 76 feet 6 inches by 97 feet 10 inches, with a ceiling 35 feet high. Both Houses were to have galleries on three sides, and to be lighted from the ceiling, as well as from windows in the exterior walls [Plates 153 and 157].

July 4, 1851, the corner stone of the Capitol extension was laid with elaborate civic and Masonic ceremonies. The President of the United States, Millard Fillmore, attended by Walter Lenox, mayor of

Washington and son of Peter Lenox, clerk of works for thirteen years on the old building, heads of Departments, officers of the Army and Navy, George Washington Parke Custis, the clergy, Masonic orders, and civic organizations, formed a procession at the City Hall and marched to the Capitol. Thomas U. Walter, the Architect, deposited a sealed jar in the corner stone containing historical parchments, coins of the United States, a copy of the oration to be delivered by Daniel Webster, the Secretary of State, newspapers, and other memorials. President Millard Fillmore then laid the corner stone, and the Masonic ceremonies for such occasions were performed. B. B. French, grand master of the Masonic fraternity, made a short opening address, and Daniel Webster made an elaborate oration.

An excellent account of the proceedings of the day is given in the following portion of the address which Webster prepared and which was placed in the corner stone:

“On the morning of the first day of the seventy-sixth year of the independence of the United States of America, in the city of Washington, being the 4th day of July, 1851, this stone, designated as the corner stone of the extension of the Capitol, according to a plan approved by the President of the United States, in pursuance of an act of Congress, was laid by Millard Fillmore, President of the United States, assisted by the grand master of the Masonic lodges, in the presence of many members of Congress; of officers of the executive and judiciary departments, National, State, and District; of officers of the Army and Navy; the corporate authorities of this and other cities; many associations, civic, military, and Masonic; officers of the Smithsonian Institution and National Institute; professors of colleges and teachers of schools of the District of Columbia, with their students and pupils, and a vast concourse of people from places near and remote, including a few surviving gentlemen who witnessed the laying of the corner stone of the Capitol by President Washington on the 18th of September, 1793.

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<sup>3</sup> Architect of the United States Capitol Extension to the Secretary of the Interior, December 23, 1851, in “Extension of the Capitol: Message from the President of the United States, Transmitting the Report of the Architect for the Extension of the Capitol,” H. ex. doc. 60 (32–1), Serial 641.

“If, therefore, it shall hereafter be the will of God that this structure shall fall from its base, that its foundation be upturned and this deposit brought to the eyes of men, be it known that on this day the Union of the United States of America stands firm; that their Constitution still exists unimpaired and with all its original usefulness and glory, growing every day stronger and stronger in the affections of the great body of the American people, and attracting more and more the admiration of the world.

“And all here assembled, whether belonging to public or private life, with hearts devoutly thankful to Almighty God for the preservation of the liberty and happiness of the country, unite in sincere and fervent prayers that this deposit, and the walls and arches and domes and towers, the columns and entablatures, now to be erected over it may endure forever.

“God save the United States of America!

“DANIEL WEBSTER,  
“Secretary of State of the United States.”<sup>4</sup>

The work progressed rapidly after the corner stone was laid, and many contracts were let for both labor and materials.

Thomas U. Walter made the following contracts: August 1, 1851, with James S. Piper, quarryman, of Baltimore, Md., to furnish building stone for the foundation, for \$2.25 per perch, measured in the wall; Samuel J. Seely, of New York, lime merchant, for wood-burned lime at \$1.30 per barrel, with a reduction of 12½ cents for every barrel returned. August 12, with Aloysius N. Clements, Washington, D.C., dealer in building sand, for clean, sharp river sand, at 2¾ center per bushel (3 cents, November 28, 1851). August 22, with George Shafer, dealer in

cement, Funkstown, Md., for best hydraulic cement, in barrels, for \$1.17, delivered. November 25, with Christopher Adams, brickmaker, Albany, N.Y., for 5,000,000 hard-burned brick, made of tempered clay, at \$6.37 per thousand. November 28, with John Purdy, lumber merchant, of Washington, D.C., for cullings, at \$14 per thousand; spruce scantling, \$15 per thousand; white pine scantling, \$16 per thousand. December 4, with Henry Exall, builder, of Richmond, Va., and M. G. Emery, granite cutter, of Washington, D.C., to furnish and set all granite work for \$22,400. December 4, with Andrew Hoover, lime merchant, of Washington, D.C., for wood-burned lime, at 97 cents per barrel, 12½ cents deducted for returned barrels. December 19, with Alexander R. Boteler, dealer in cement, Shepherdstown, Va., for hydraulic cement, at \$1.12½ for every barrel delivered, and deduction of 12½ cents for barrels returned. John Rice, John Baird, Charles Hubner, and Mathew Baird, all of Philadelphia, Pa., for all exterior marble work, to be procured from quarries at Lee, Mass., at the following rates: Blocks less than 30 cubic feet, 65 cents per cubic foot; over 30 cubic feet, \$1.98 per cubic foot; contract made January 17, 1852. Contract made with Provest, Winter & Co., of Washington, D.C., marble masons, on July 12, 1852, at stipulated prices, which are laid down minutely in the contract, by piece-work, for cutting and setting all the marble work.<sup>5</sup>

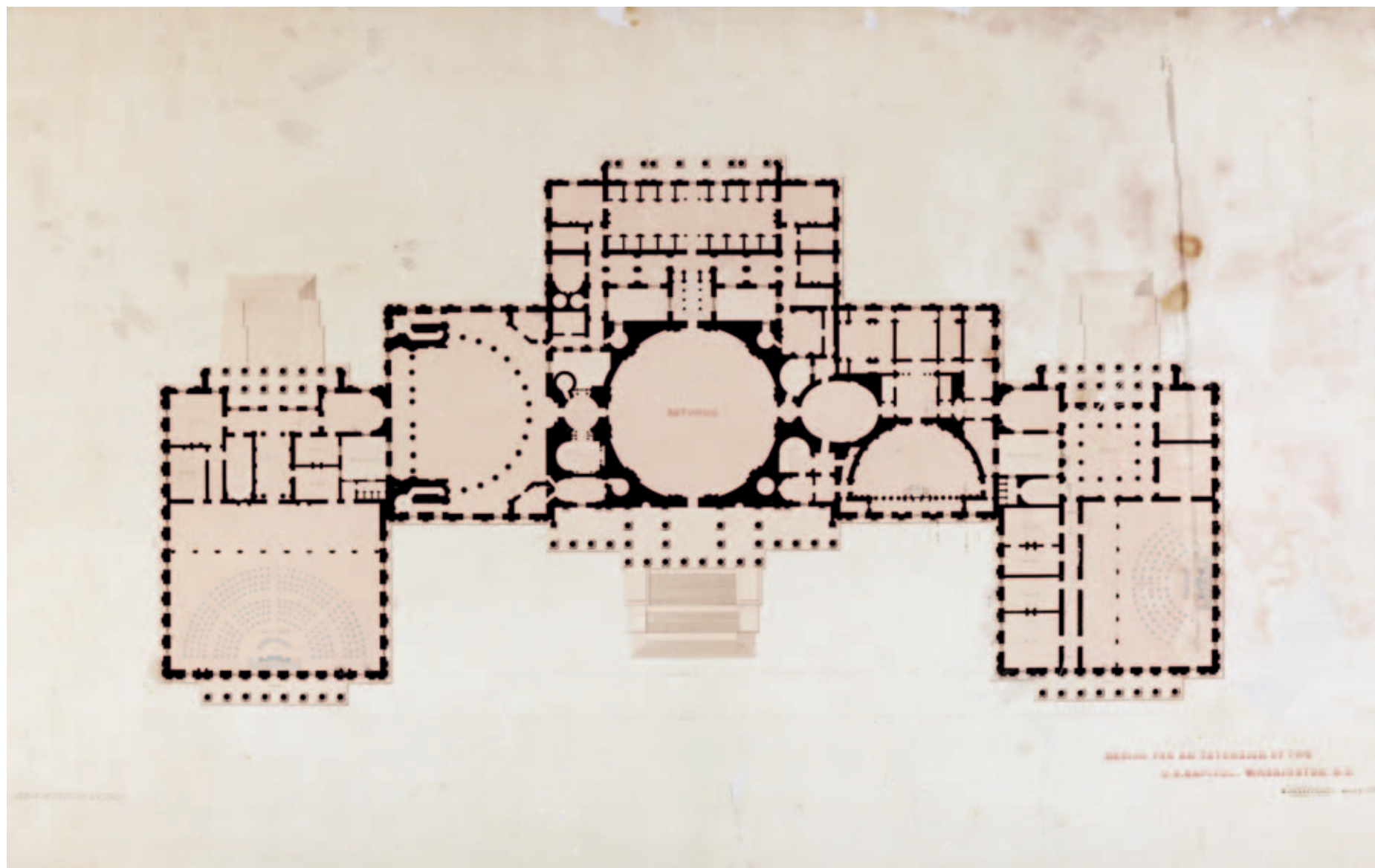
Neither the Senate nor the House seems to have been consulted as to the character of the arrangements in the building that was being erected for their comfort and convenience, as the Senate on March 16, 1852, directed the Committee on Public Buildings to make a thorough examination of the work which had been completed on the Capitol extension and to obtain the aid of the United States Topographical

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<sup>4</sup>“Oration of Daniel Webster, Delivered July 4, 1851, At the Capitol, on the occasion of the Laying of the Cornerstone of the Extension of the Capitol,” *Daily National Intelligencer*, July 8, 1851, 2.

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<sup>5</sup>“Accounts Current from August 2, 1851, to March 27, 1852,” in *Reports of the Commissioners of Public Buildings, 1850–1855*, bound volume, Curator’s Office, AOC.



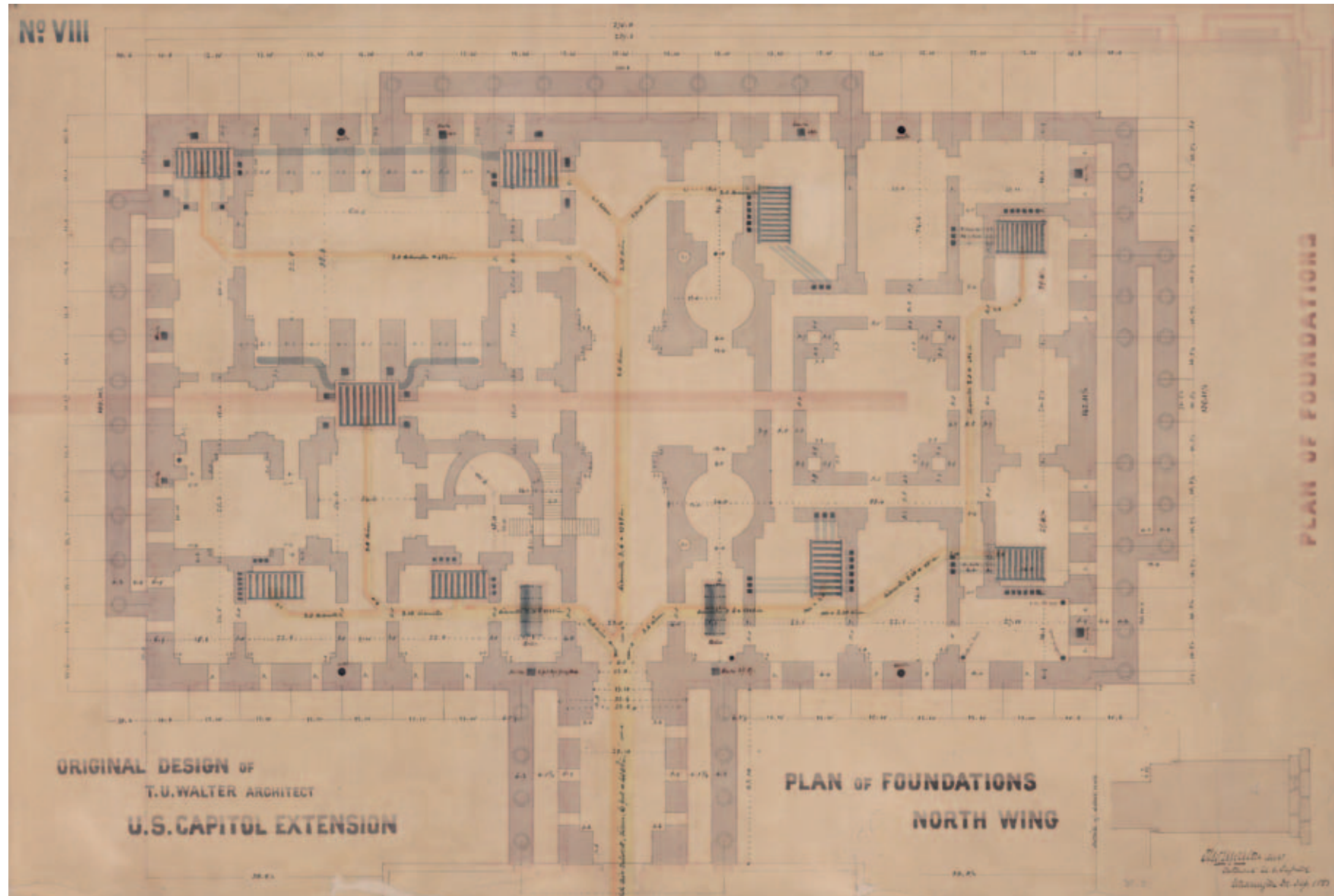
PROPOSED PLAN, AFTER COMPETITION,—WALTER ARCHITECT, 1851.

Principal floor plan for a proposed extension by wings extended eastward.  
 In this study, the chambers for the House of Representatives and the Senate are located in the eastern section of each wing.



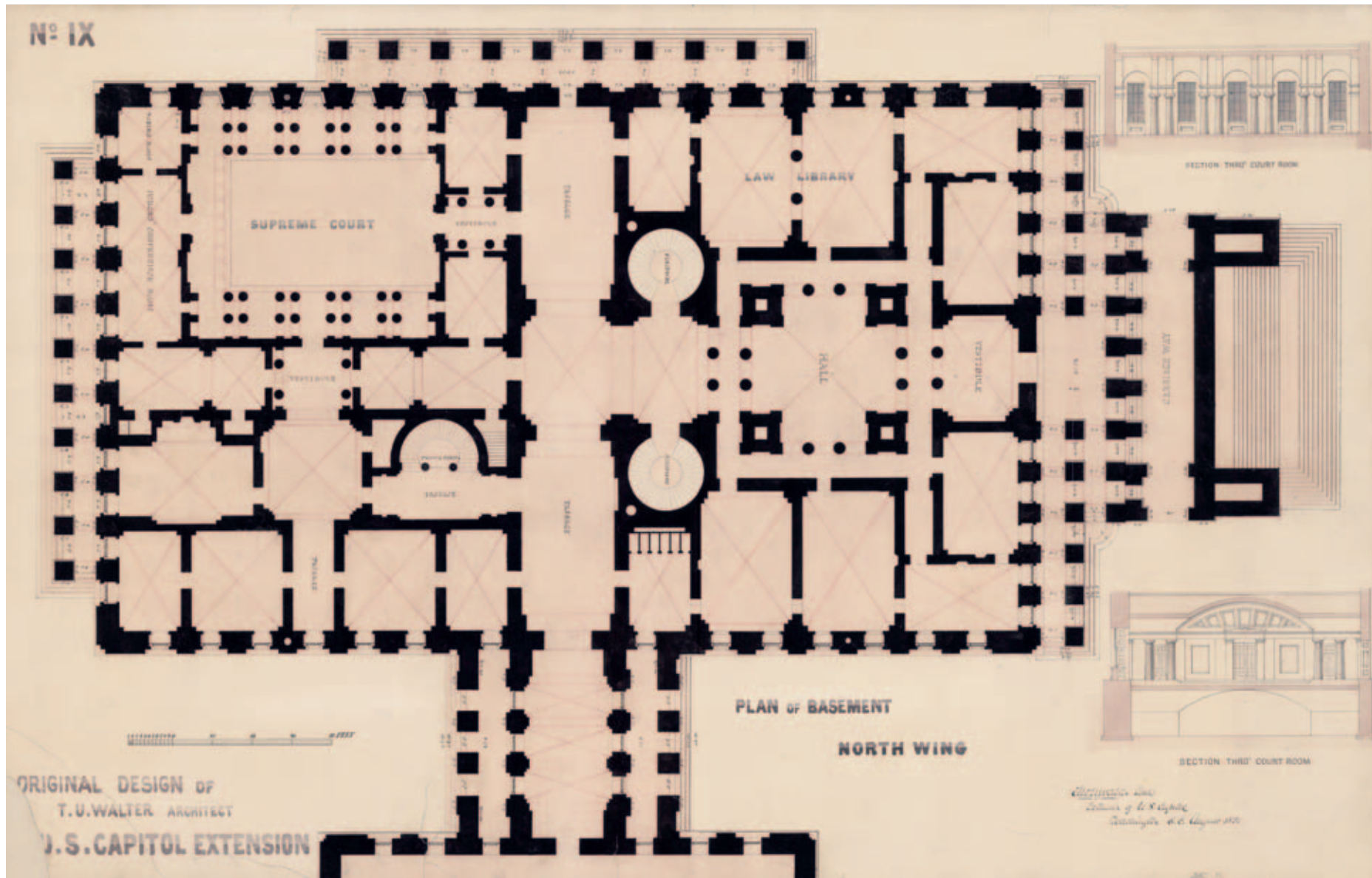
PLAN MADE BY WALTER AFTER THE COMPETITION.

Principal floor plan for a proposed extension by wings attached directly to the north and south elevations of the Capitol, 1851.  
 In this study, the chambers for the House of Representatives and the Senate are located in the western section of each wing.

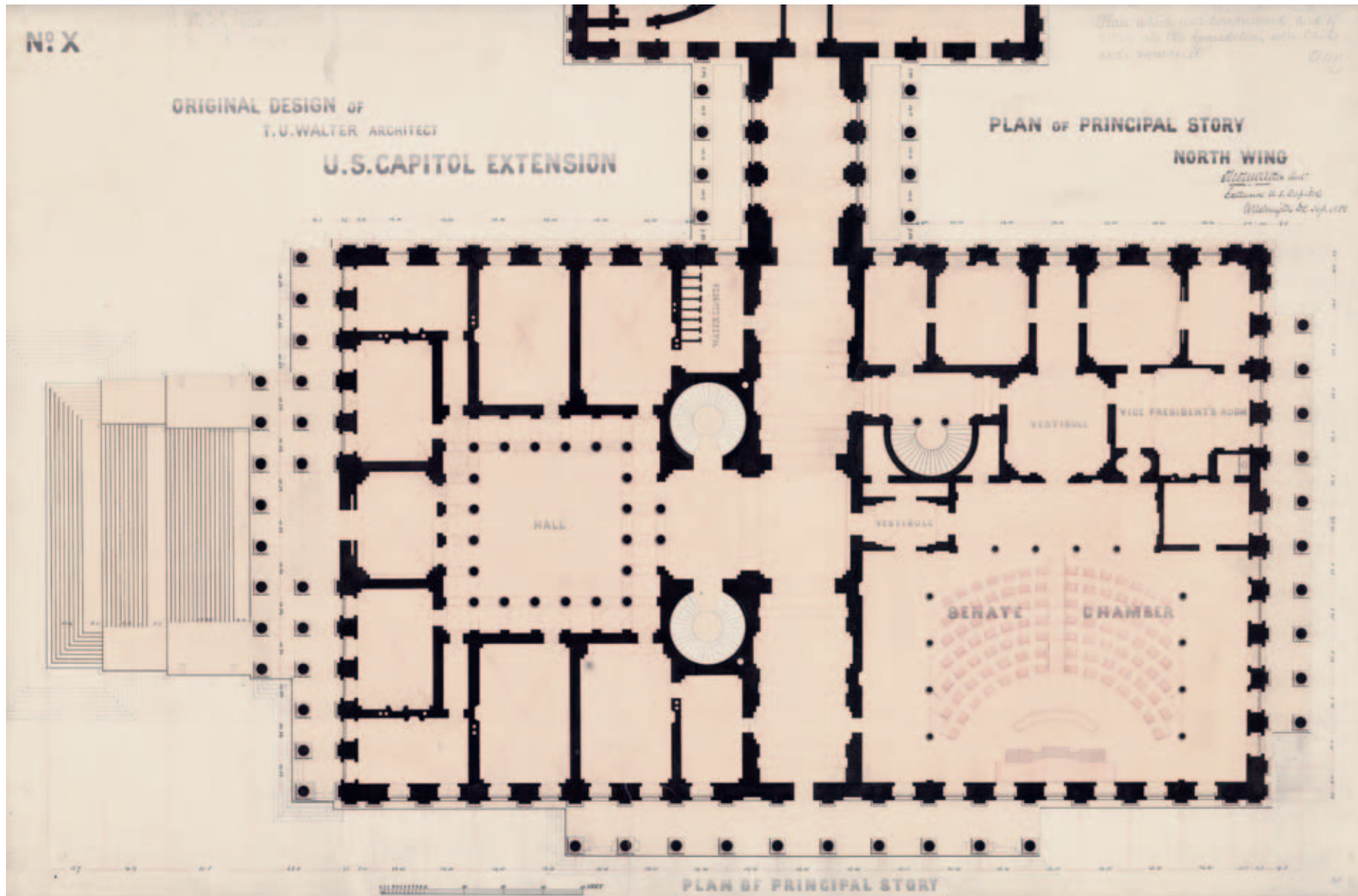


PLAN OF FOUNDATION 1851, NORTH WING,—T. U. WALTER ARCHITECT.

This plan shows the north wing as it would be executed, attached to the old building by a connecting corridor.

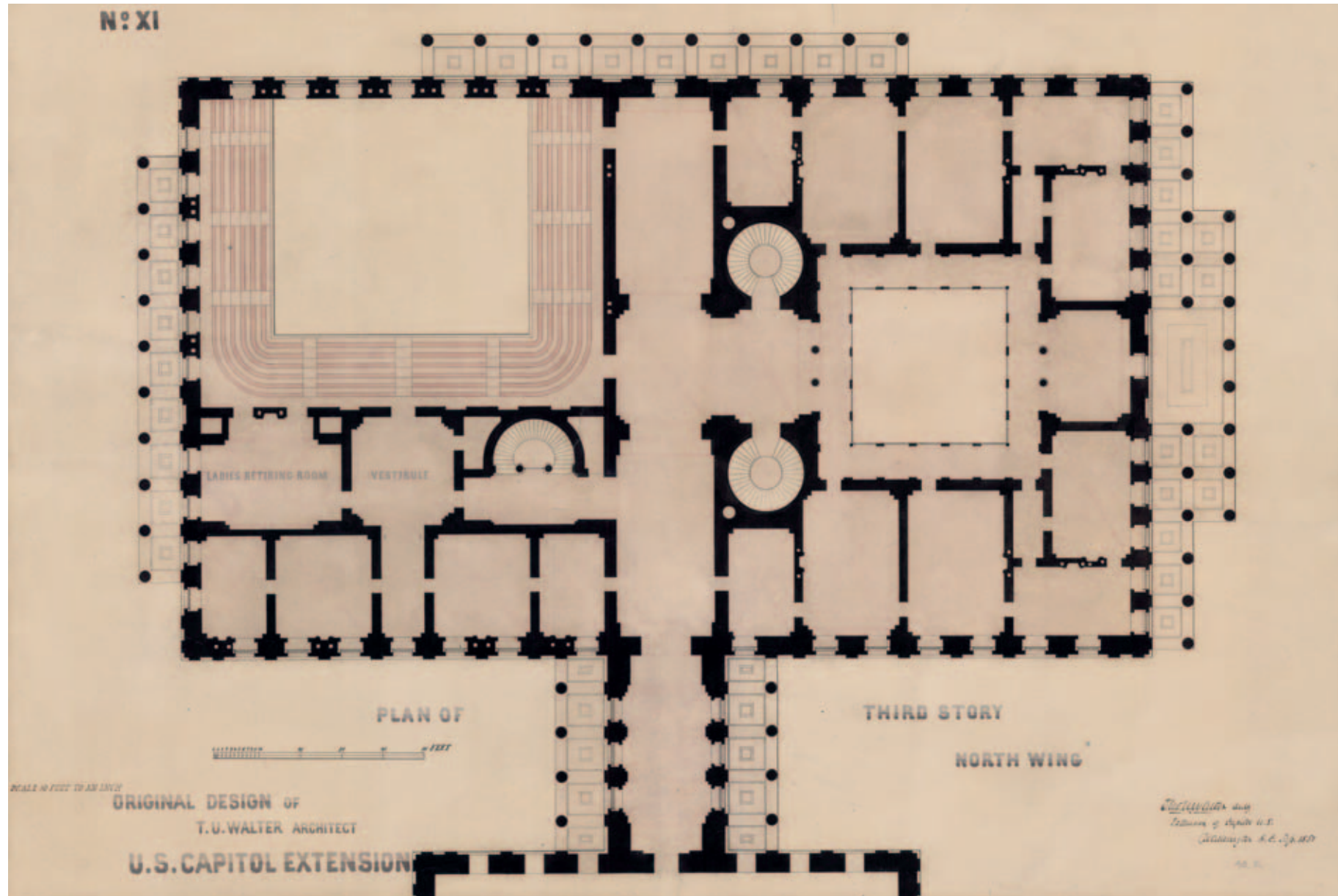


BASEMENT PLAN NORTH WING, APPROVED BY PRESIDENT FILLMORE 1851—WALTER ARCHITECT.  
 Walter prepared drawings to illustrate ideas for the Supreme Court's accommodation in the Capitol's extension.  
 This design was not used, and the court moved into the Old Senate Chamber in 1860.



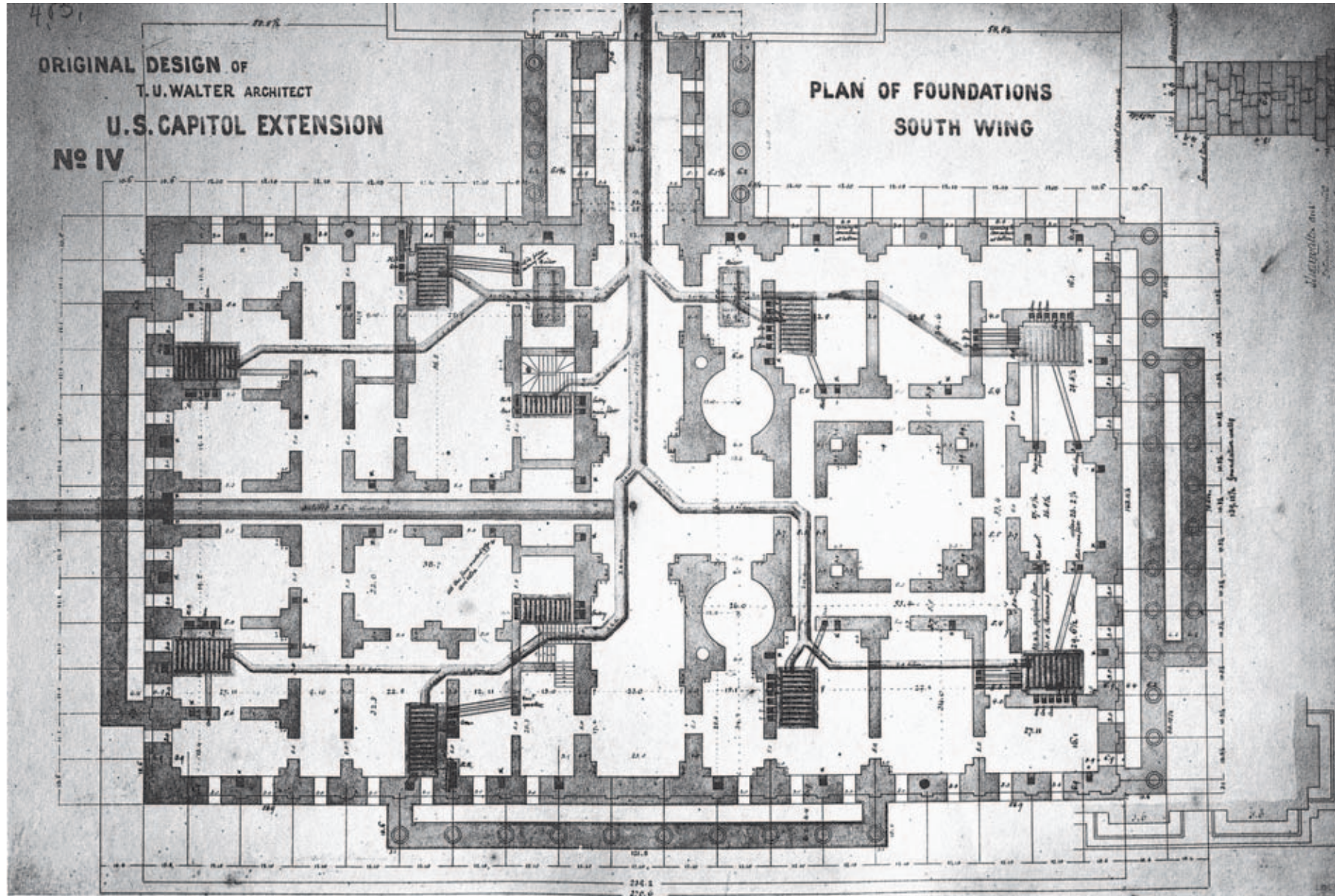
PRINCIPAL STORY PLAN, NORTH WING, APPROVED BY PRESIDENT FILLMORE 1851—WALTER ARCHITECT.

In this plan of the second floor, the Senate Chamber was to be placed in the western half of the north wing.

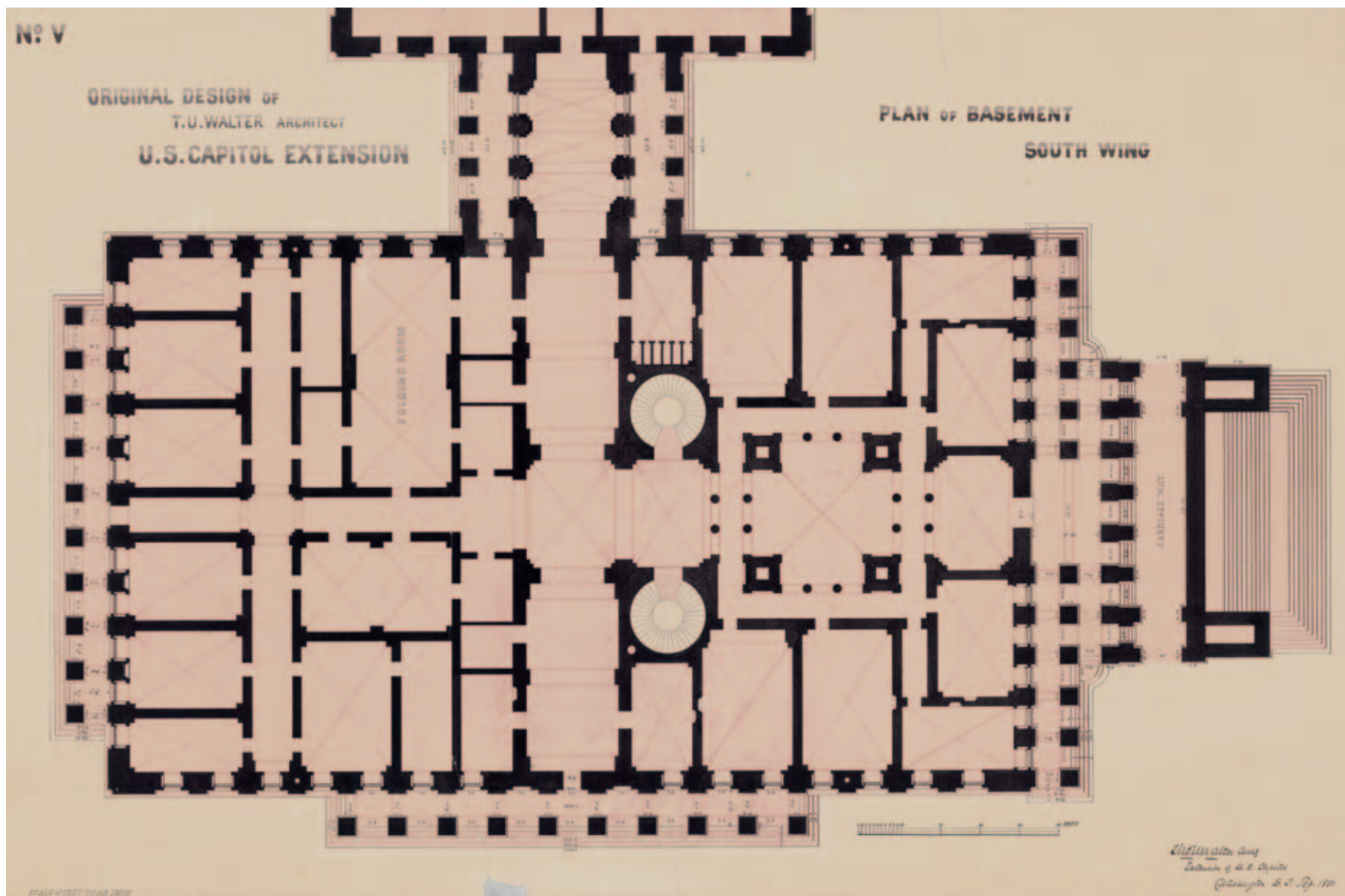


ATTIC STORY PLAN NORTH WING, APPROVED BY PRESIDENT FILLMORE 1851—WALTER ARCHITECT.

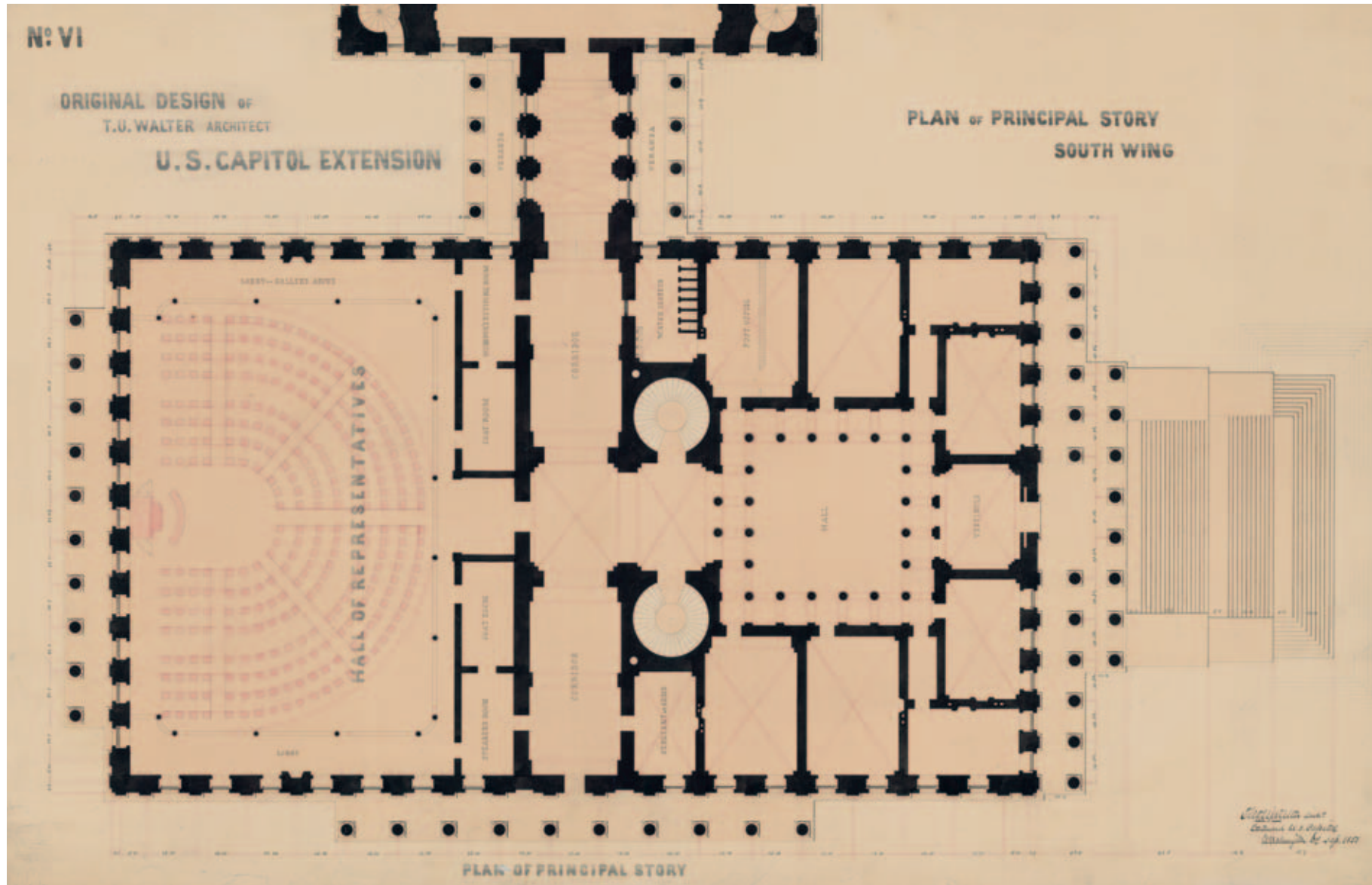
In Brown's time the third floor was called the attic story.



PLAN OF FOUNDATION 1851, SOUTH WING,—WALTER ARCHITECT.

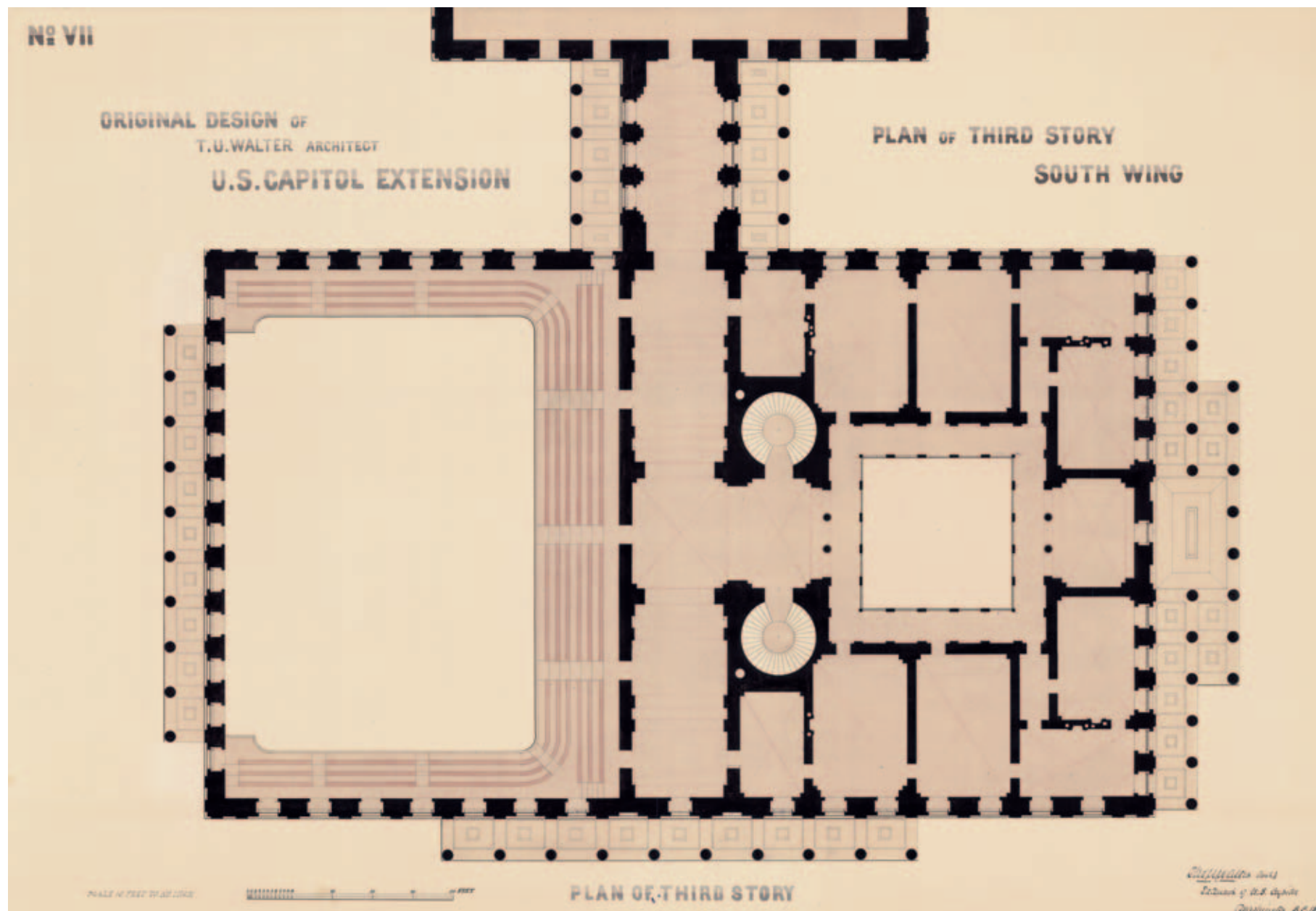


BASEMENT PLAN, SOUTH WING, APPROVED BY PRESIDENT FILLMORE 1851—WALTER ARCHITECT.

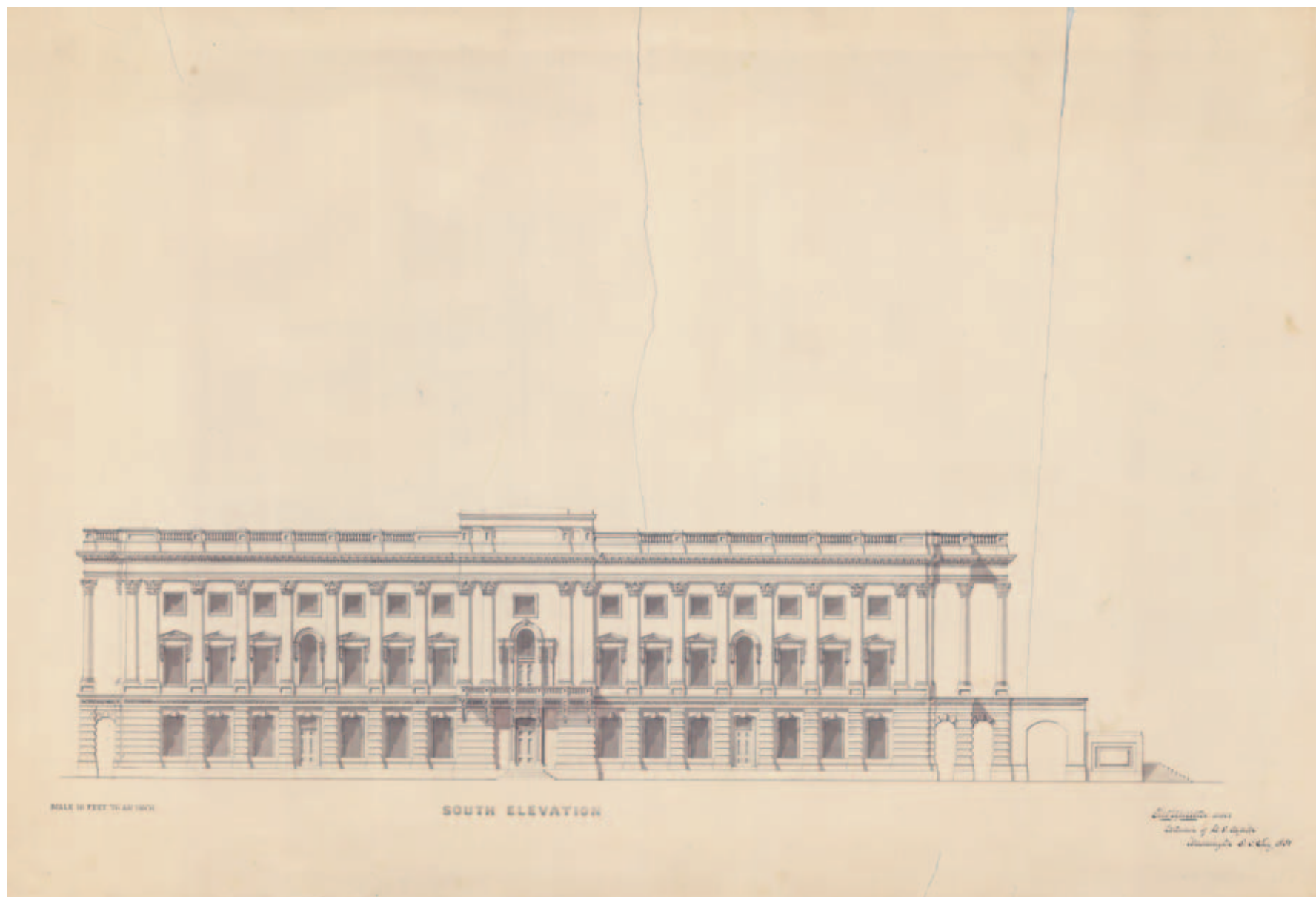


PRINCIPAL STORY PLAN, SOUTH WING, APPROVED BY PRESIDENT FILLMORE 1851—WALTER ARCHITECT.

The House of Representatives Chamber is located in the western half of this plan of the south wing.

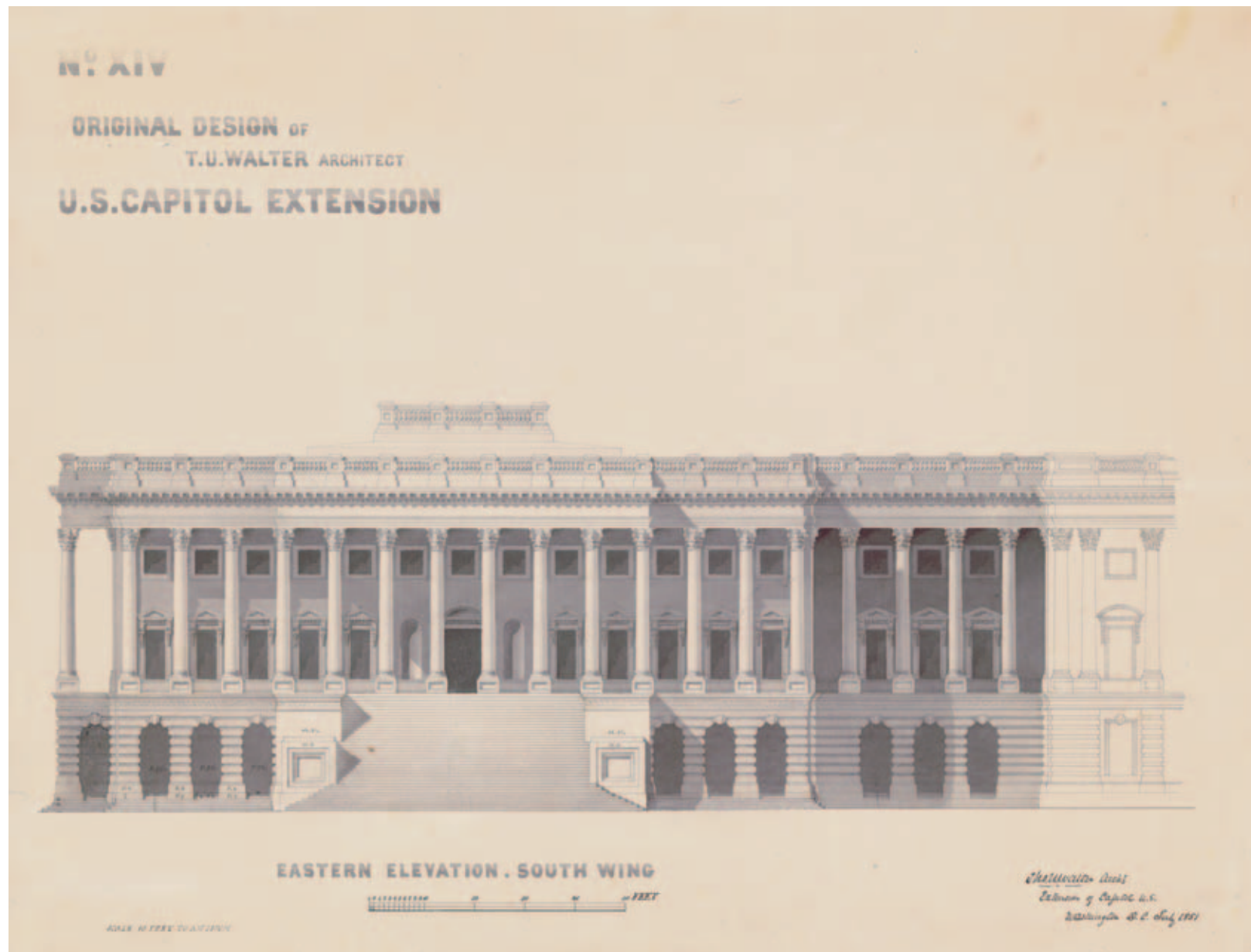


PLAN OF THIRD STORY, SOUTH WING, APPROVED BY PRESIDENT FILLMORE 1851,—WALTER ARCHITECT.



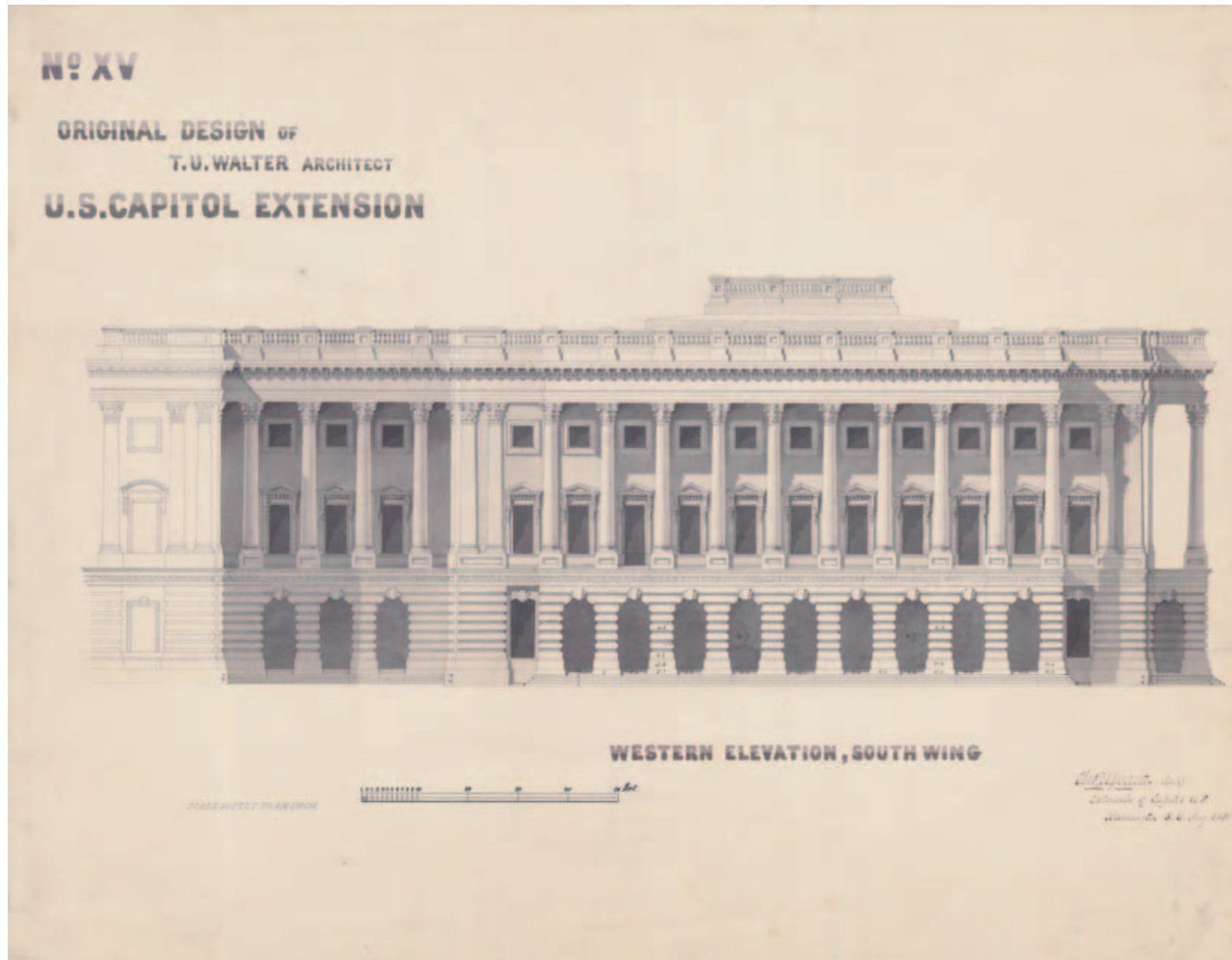
DESIGN FOR SOUTH ELEVATION 1851,—T. U. WALTER, ARCHITECT.

Design study illustrating the appearance of the Capitol without the end porticos that were eventually built.



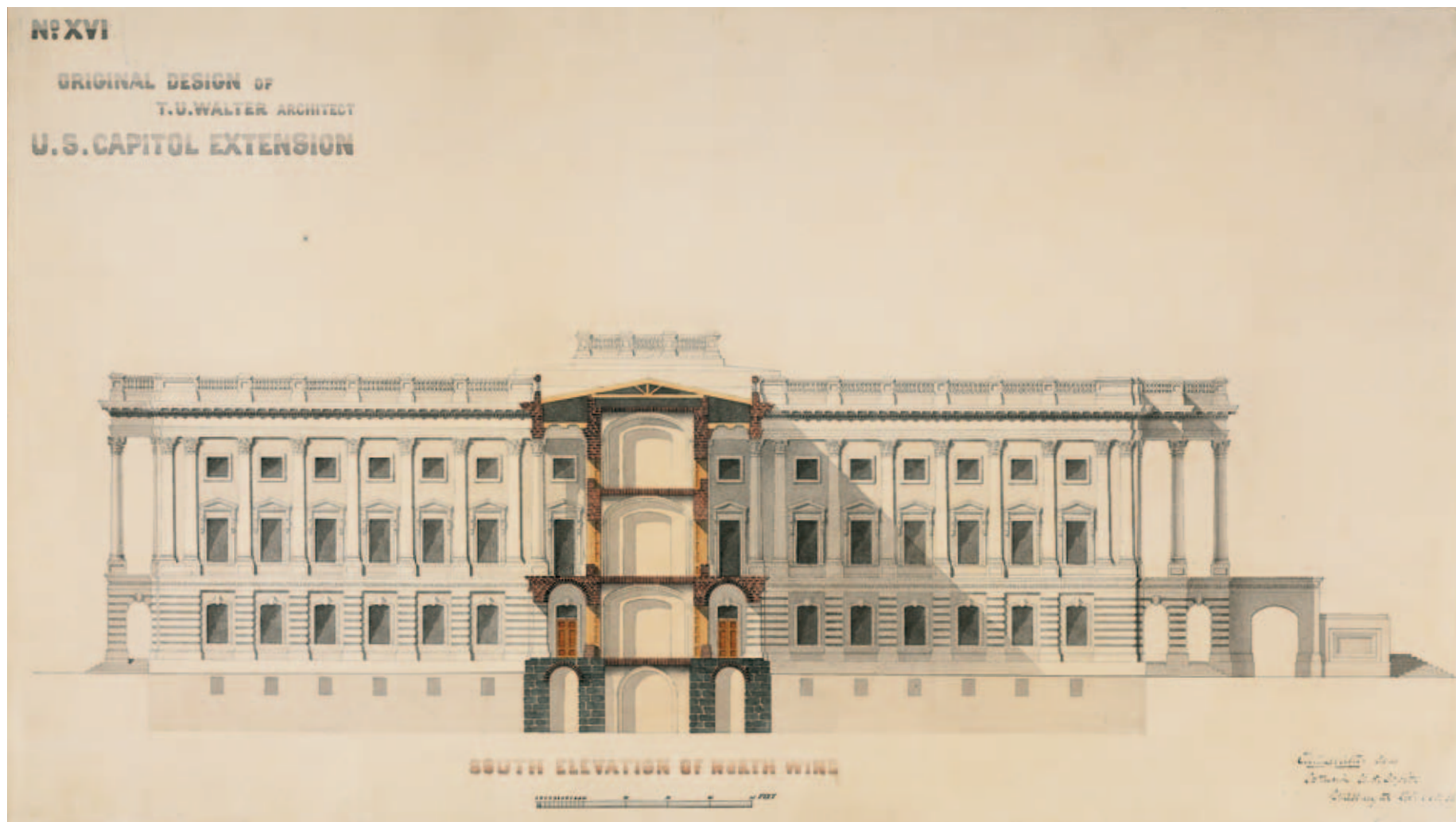
EAST ELEVATION, NORTH AND SOUTH WINGS SIMILAR, APPROVED BY PRESIDENT FILLMORE 1851,—WALTER ARCHITECT.

The original design of the east front did not include pediments, which were added in 1853 (related drawing, plate 182).



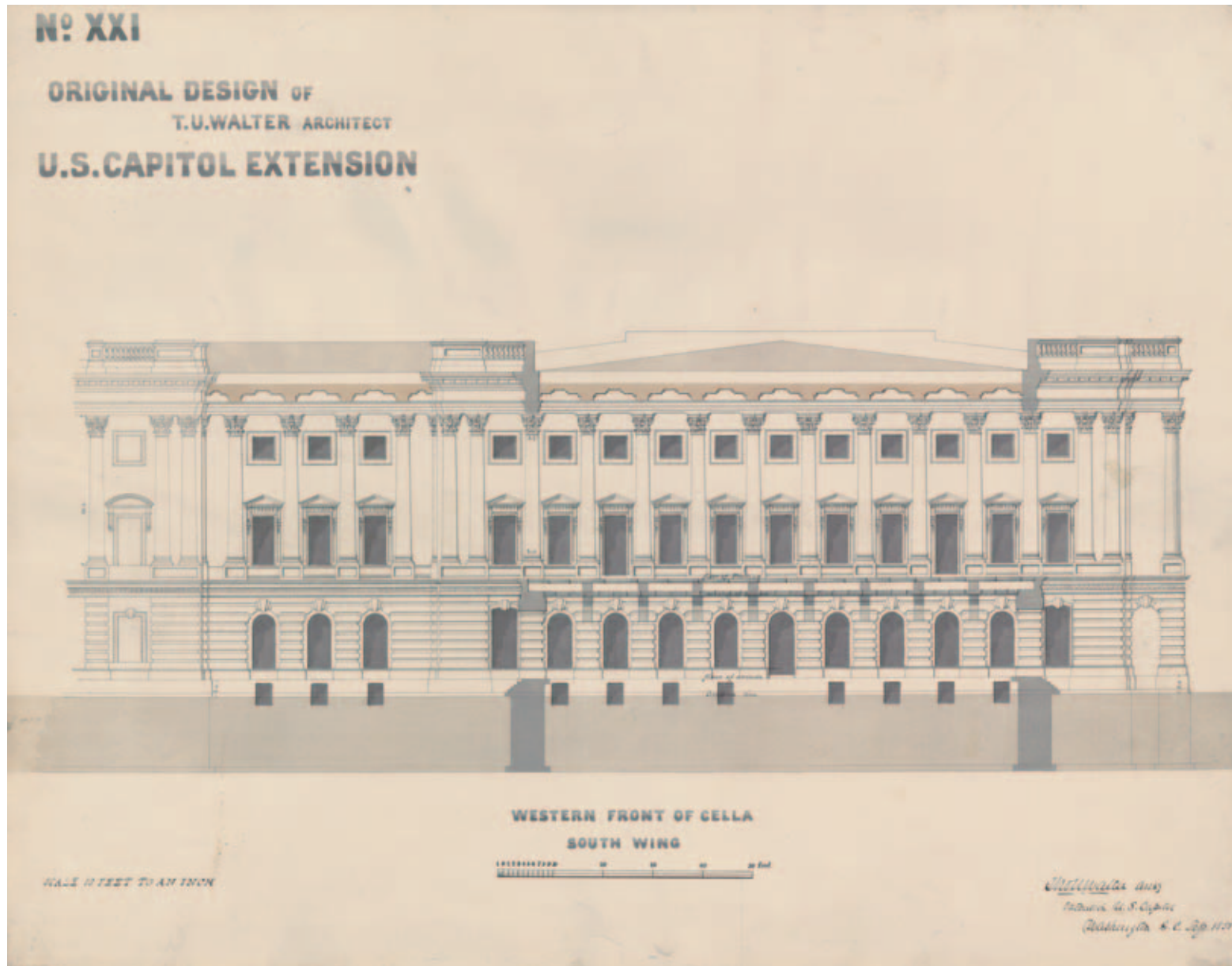
WEST ELEVATION, NORTH AND SOUTH WINGS OF SIMILAR DESIGN, APPROVED BY PRESIDENT FILLMORE 1851—WALTER ARCHITECT.

A later version of this design is illustrated in plate 183.



ELEVATION OF WINGS FACING OLD BUILDING, 1851,—WALTER ARCHITECT.

View of the Senate wing looking north.



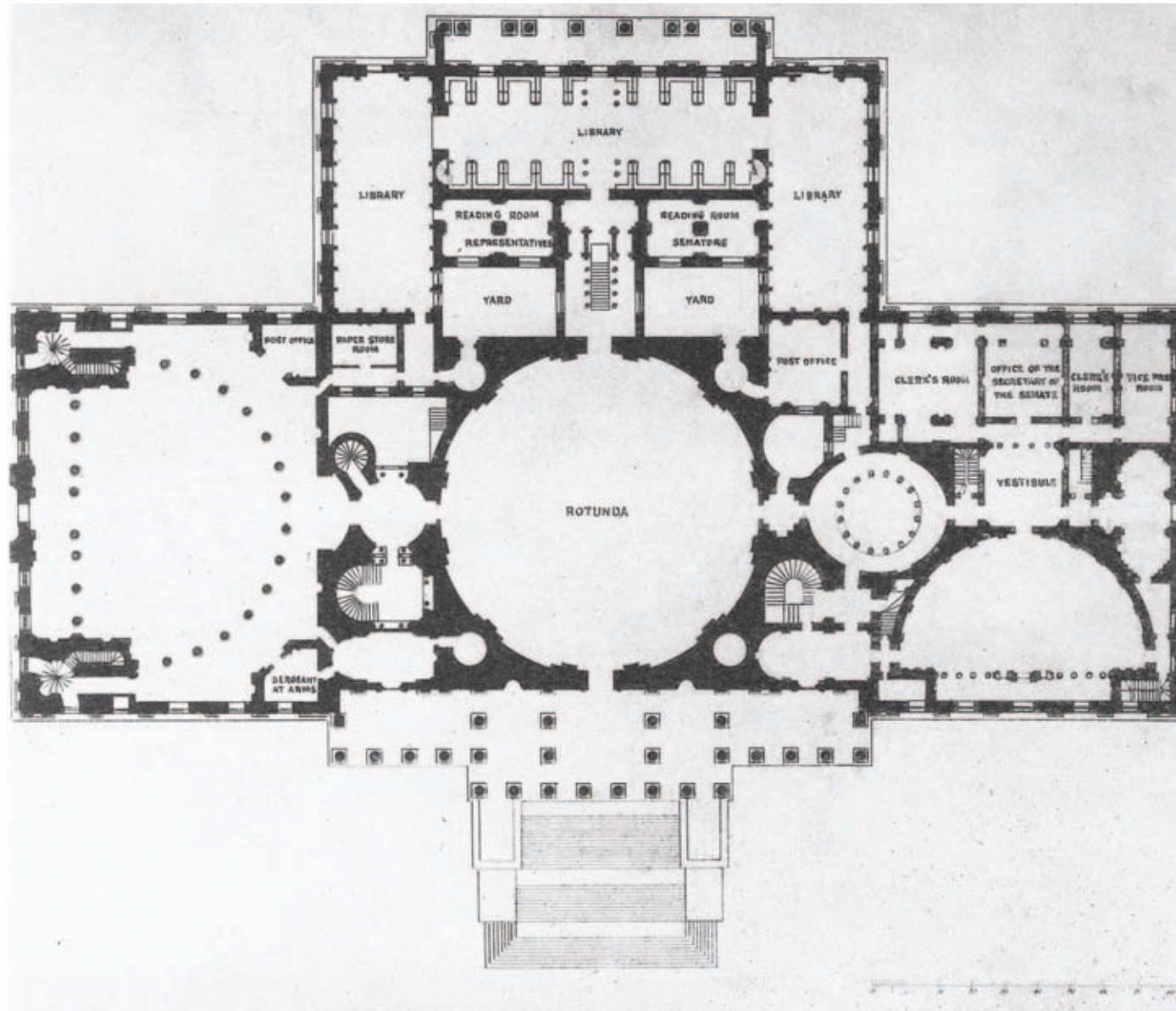
ELEVATION REAR OF PORTICO 1851,—WALTER ARCHITECT.  
Walter removed the portico for this western elevation to show the building's facade.



EXTERIOR DESIGN APPROVED BY PRESIDENT FILLMORE 1851—WALTER ARCHITECT.  
Perspective view of the Capitol's design with north and south wing extensions, June 11, 1851.  
The original is in the Athenaeum of Philadelphia.

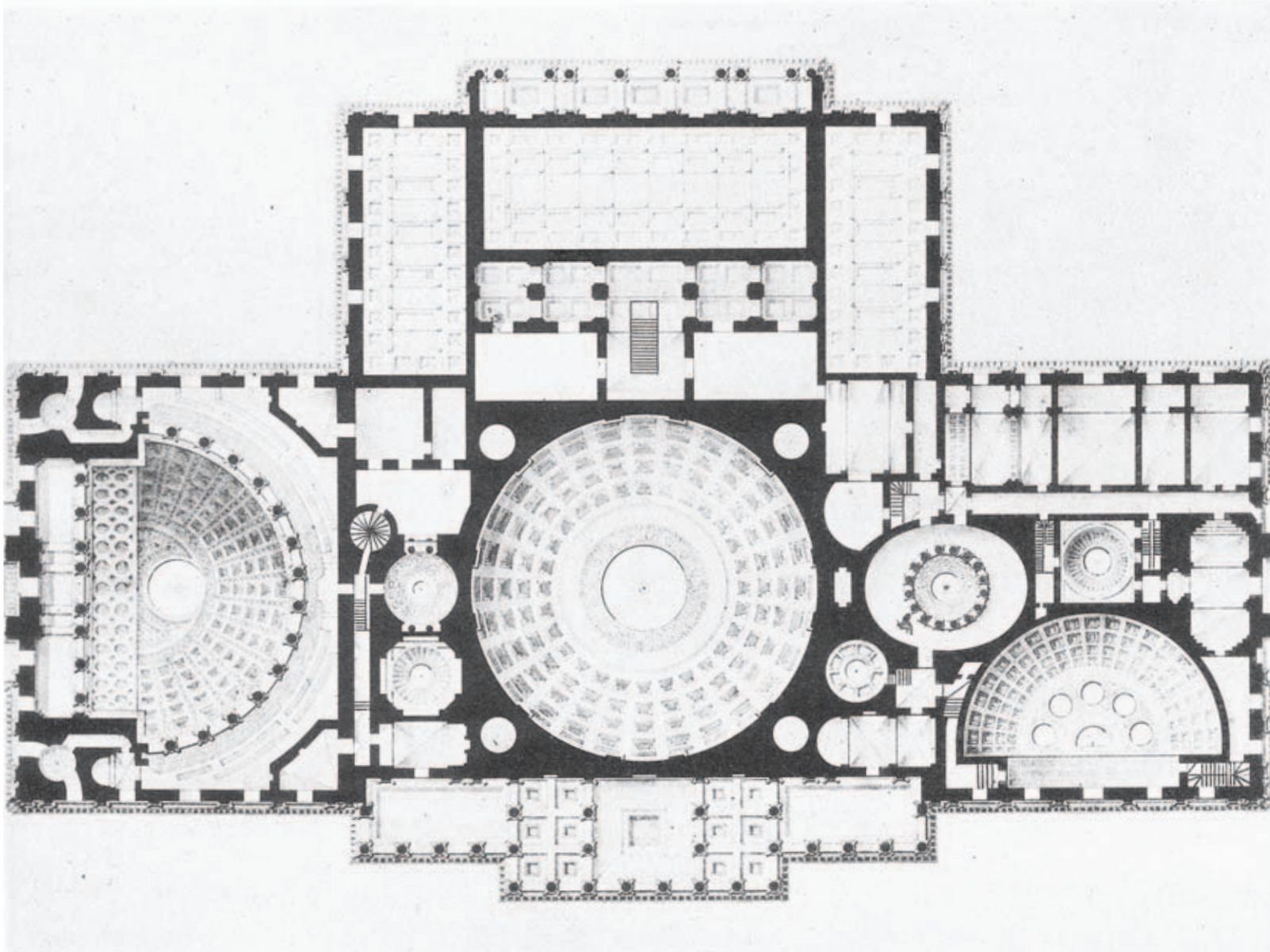






PRINCIPAL STORY PLAN, CENTRAL BUILDING 1852.

Construction on the Library of Congress extensions indicated in the plan did not begin until 1865. *Location unknown.*



ATTIC PLAN, CENTRAL BUILDING 1852

This drawing records the reflected ceiling plan of the building. The 1865–66 Library of Congress extensions are also indicated. *Location unknown.*

Engineers and others whose assistance was considered valuable.<sup>6</sup> On March 24, 1852, the same body passed a resolution calling upon President Fillmore “to communicate to the Senate any plan which may have been adopted for the extension of the Capitol,” “what, if any, plan had been adopted to secure the proper lighting, warming, and ventilating,” and asking what construction had been approved to secure proper acoustics for the two Halls of Congress and the Supreme Court.<sup>7</sup> The last resolution was answered by the President’s message of March 29, 1852, accompanied by a report from the Architect which contained the information desired.

The report of the Committee on Public Buildings, together with reports of several United States engineers, was made April 2, 1852. Another Senate resolution was passed August 26 asking for further information which Mr. Walter answered December 1, 1852, by abstracts from his annual report, stating that the cellars of both wings and the arches to support the basement floors were completed; all the foundations were laid, some of which were 40 feet and none of which were less than 15 feet below the ground line of the building. In connection with this report Mr. Walter gives a report of Prof. Walter R. Johnston on the stone used or proposed to be used in the building. The House of Representatives had shown its interest in the new structure by a special committee requesting that tests should be made by Professor Johnston of the stone which had been used in the foundations of the wings.<sup>8</sup> This stone came from the Potomac River, above Washington. Mr. Johnston informs us that the stone is midway in composition between true mica,

slate, gneiss, having quartz, mica, and feldspar in its composition. His test showed an ultimate average crushing strength of about 15,000 pounds per square inch. Before the marble was selected for the exterior of the building Alexander H. H. Stuart, Secretary of the Interior, who was in charge of public buildings, appointed a commission to test the samples of marble submitted from different quarries. This commission consisted of Joseph G. Totten, Joseph Henry, Thomas Ewbank, A. J. Downing, and Thomas U. Walter. The commission was appointed November 30, 1851, and made its report December 22, 1851.<sup>9</sup> The difficulties in making satisfactory tests and the results of the tests made by this commission are interesting. They first experimented with several testing machines and finally adopted one invented by Major Wade and used at the Navy-Yard for testing gun metal. “The instrument consisted of a compound lever, the several fulcra of which are knife-edges opposed to hardened-steel surfaces. . . the equilibrium of which was produced by 1 pound in opposition to 200 pounds.” The specimens of marble were prepared in the forms of cubes with 1½-inch faces, and they were dressed and rubbed so that the faces were as nearly parallel as it was possible to make them. In carrying out the test the cubes were placed between steel plates, then pieces of sheet lead were inserted between the cubes and the steel plates, following the instructions as laid down by Remie in the Transactions of the Royal Society, so as to equalize the pressure on the face of the cube. Other tests were made without the lead sheets, and the commission was very much surprised to find that the cubes, when lead sheets were not interposed between the stone and the dies of the testing machine, required twice as much pressure to break them. The report says: “This remarkable fact was verified in a series of

<sup>6</sup> *Congressional Globe*, (32–1), vol. 24, pt. 1, 761.

<sup>7</sup> *Ibid*, pt. 2, 845. “To the Secretary of the Interior, 27 March 1852,” in *Message from the President of the United States Communicating an Answer to a Resolution of the Senate, Calling for Information in Relation to the Extension of the Capitol, a Report of the Secretary of the Interior*, S. ex. doc. 52 (33–1), Serial 619.

<sup>8</sup> *Report on Public Buildings*, H. ex. doc. (32–2), Serial 673.

<sup>9</sup> Report of the Commission Appointed by the Department of the Interior, “To Test Several Specimens of Marble Offered for the Extension of the United States Capitol,” H. doc. 1, Serial 673, 588–594.

experiments embracing samples of nearly all the marbles under trial, and in no case did a single exception occur to vary the result.” After this fact was clearly proved, lead and all other intervening substances were discarded and the cubes were tested directly between the steel plates. Experiments were made to show the action of freezing and thawing on the different specimens submitted. These tests were made by alternate freezing and thawing by artificial cold and heat. The commission concluded that these latter tests proved but little. Marble from Lee, Mass., was selected for the building. It was found to require 22,702 pounds to crush a square inch, the marble had a specific gravity of 2.862, weighed 178.87 pounds per cubic foot, absorbed 103/10000 of an ounce of water, and lost by freezing 9/10000 of an ounce per cubic foot.

Plates 165 to 168, inclusive, show the plans of the cellar, basement, and principal and attic stories of the central portion of the building at this period. The two latter plates give Walter’s modification of the central portion so as to increase the area of the old Library.

On December 24, 1851, the interior of the central portion of the west front of the old building, occupied by the Congressional Library, was destroyed by fire. Mr. Walter made an examination and recommendations for repairs. On January 27, 1852, he submitted plans for refitting the Library within its old limits, with suggestions for its enlargement. These plans were approved by the Senate Committee on Public Buildings, and an act was passed on March 19, 1852, authorizing the execution of the design and appropriating \$72,000 for its execution, and the work was contracted for June 21.<sup>10</sup> The interior ornamental and structural work was to be of iron, including shelves and bookcases [Plates 169 and 170].

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<sup>10</sup>“An Act to Provide for the Repair of the Congressional Library Room, lately destroyed by fire,” 19 March 1852, in *United States Statutes at Large*, vol. 10, 3. This tragedy influenced congressional approval of fireproof materials for the new wings. RG 40, Subject Files, Curator’s Office, AOC.

The work on the foundations of the wings progressed rapidly. The base was laid with an 8 foot 9 inch footing, and the cellar wall was built 6 feet 9 inches thick above the footings. While good natural ground was found on the east and west fronts, it was necessary to excavate to a depth of from 20 to 40 feet on the east.<sup>11</sup> December 4, 1852, the last report made by Thomas U. Walter before Captain Meigs was placed in charge shows that the foundations were complete for subbasement and the brick floor arches of basement turned and pavements laid ready for tiling, a large part of the cut granite finished, and portions of the basement story or marble work in progress, and the refitting of the Library nearly completed.<sup>12</sup> Samuel Strong acted as superintendent, the work being done by day labor. The Library iron work was contracted to Beebe & Co., New York. From the beginning of the work on the extension until March 23, 1853, the building was under the Interior Department, Alexander H. H. Stuart, Secretary, supervised by Thomas U. Walter. Fillmore, during his term of office, judging from the reports and messages of that period, was not swayed or influenced by Congressional action. He continued the execution of the work on the lines which he had first approved, in the face of many requests for information and protests, until he retired from the Presidency, March 4, 1853.

The Capitol was in charge of the Commissioner of Public Buildings and Grounds, but when the extension was commenced his jurisdiction over that portion ceased, and the Architect became responsible directly to the Secretary of the Interior (the Commissioner retained jurisdiction over the central or old Capitol). William Easby, the incumbent at this period, felt aggrieved at not having charge of the extension

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<sup>11</sup> The east foundation had an excavated depth of 20 feet and the west 40 feet. RG 40, Subject Files, Curator’s Office, AOC.

<sup>12</sup> Walter’s last report was dated December 1, not December 4. See *Report on Public Buildings*, H. ex. doc. 1 (32–2), Serial 673.

and he soon made objection to the methods of work. August 28, 1852, he made charges of fraud in the employment of workmen, the method of letting contracts, and in the character and quality of materials as well as the method of measuring the material and completed work. After a searching investigation a House committee reported March 22, 1853, giving all the affidavits of the parties who testified. This testimony when carefully sifted shows that the allowance of 65 cents per cubic foot for marble in blocks under 30 cubic feet and \$1.98 per cubic foot for blocks over 30 cubic feet was unnecessary, and that the contractor was allowed to furnish a greater proportion of large blocks than was necessary for the proper execution of the work. Mr. Walter's testimony shows that no more of the large blocks were used than were intended under the original estimate on which the award was made. While Walter wished to let out both workmanship and material under one contract for a specified sum, he was overruled by the President and the committee of Congress. Consequently the contracts were let separately. The stone contract, by the cubic foot, was always a fruitful source of trouble. It was found that Adams, a brick contractor, had assigned his contract to the superintendent, Samuel Strong, whose resignation was accepted January 13, 1852. The Architect wished to let out all parts of the work by contract, as the most desirable method next to a general contract, but he was again overruled by the committee, and large portions were done by the day. Many of the charges were that some of the work was done unnecessarily well, while other portions were imperfect in material and workmanship. In reference to the latter charges, Capt. F. H. Smith and Brevet Lieutenant-Colonel Mason, of the Engineer Corps, made a report on the questions submitted to them March 25, 1852, finding that the "natural foundation on which the building rests is of uniform incompressibility, and that there is no reason to apprehend a settlement of the walls from its giving way. The quality of stone used (gneiss) is excellent; probably no better could be obtained for

foundations. We would have used more cement in the lime mortar, but the introduction of cement in this country has been of quite recent date, and in many large and substantial structures not a particle has been employed. The character of the work and the mode of construction we consider excellent, with the exceptions alluded to [mortar], and in no part do we perceive deficiencies to warrant in us an apprehension as to the power of these foundations to resist the pressure of the superstructure."<sup>13</sup>

Lieut. Col. James Kearney and Capt. Thomas J. Lee, of the Topographical Engineers, made a similar report March 20, 1852. President Fillmore and Alexander H. H. Stuart, Secretary of the Interior, explained the reasons and methods of making the contracts and upheld Thomas U. Walter. Although the party who brought the charges was to a certain extent an interested party, and the witnesses against the building were nearly, if not all, unsuccessful bidders or discharged workmen, it probably had its effect in causing the new President, Franklin Pierce, to transfer the superintendence of the building to the War Department.<sup>14</sup>

President Franklin Pierce was apparently inclined to conciliate the Senate, as he issued the following order a short time after his inauguration:

"EXECUTIVE OFFICE, *March 23, 1853.*

"Believing that the public interest involved in the erection of the wings of the United States Capitol will be promoted by the exercise of the general supervision and control of the whole work by a skillful and competent officer of the Corps of Engineers or of the Topographical

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<sup>13</sup>Fred. A. Smith, Captain Engineers, and J. L. Mason, Capt. Engineers, Bvt. Lt. Colonel to R. M. T. Hunter, Chairman of the Committee on Public Buildings, *In the Senate of the United States: Report*, S. report 1 (32-1), Serial 630.

<sup>14</sup>James Kearney, Lt. Col. Topographical Engineers, and Thomas J. Lee, Captain Topographical Engineers, to R. M. T. Hunter, Chairman of the Committee on Public Buildings, in *Ibid.*

Corps, and as those corps are more amenable to the Secretary of War, I hereby direct that the jurisdiction heretofore exercised over the said work by the Department of the Interior be transferred to the War Department, and request that the Secretary of War will designate to the President a suitable officer to take charge of the same.

“FRANKLIN PIERCE.”<sup>15</sup>

Acting upon this order, the Secretary of War, Jefferson Davis, on March 29, detailed Capt. M. C. Meigs to act as superintendent. He was specially charged to examine the condition of the foundations which had been already completed, and to minutely inquire into the arrangements for warming, ventilating, and the acoustic properties for speaking and hearing. Captain Meigs did not consider the scheme for ventilation or the arrangements for acoustics satisfactory, and on May 20, 1853, Prof. A. D. Bache and Prof. Joseph Henry were commissioned to investigate these subjects in connection with the new extension.<sup>16</sup>

Captain Meigs immediately suggested radical changes in the interior arrangements of the wings, and these modifications were approved by the above-mentioned commission. All reports on the Capitol extension at this period were made by the Engineer officer or Superintendent to the Secretary of War. In his report of October 22, 1853, he states that “the [modified] plans were prepared by the accomplished Architect, Thomas U. Walter, and I am happy in being supported by his opinion that not only will the Legislative Halls be better adapted to their main purpose as rooms for debate, but that the architectural beauty and the convenience of the buildings will be increased by the changes which have been made.” Upon the receipt of this report of May 23, President Pierce, on June 27, adopted the modified plans which had been prepared

for the south wing, and on July 5, 1853, adopted the modified plans for the north or Senate wing.<sup>17</sup> Plates 171 to 174 show cellar, basement, and principal and attic stories of the south wing. Plates 175 and 176 show longitudinal and transverse sections of these wings. Plates 177 to 180 show principal and attic stories of north wing. Plate 181 shows a cross section of north wing made on a broken line through the lobbies and halls. The change in the arrangement consisted in placing the Senate Chamber [Plate 179] and the Hall of Representatives [Plate 173] in the center of their respective wings instead of in one end of each wing, as was the case in the plan originally adopted by President Fillmore. Broad halls encircled the Chambers and gave access to the gallery and floor on all sides. Monumental stairways were located on the east and west of the Chambers. The ceiling was formed into panels by deep beams, and the panels were glazed. In this modified plan the Hall of Representatives was 137 feet long, 92 feet wide, and 30 feet high, and upon three sides was surrounded by a wide gallery capable of seating 1,200 people. Arranged in a semicircle on the House floor were 300 separate desks for the use of members. The ceiling was to be of iron suspended from iron trusses, with many panels filled with stained glass, through which the light for the Halls of Congress came. The position of the Hall of Representatives in the center of the wing gave an opportunity to group around it committee, retiring, conference, and other rooms for the convenience of the members. In addition to the Hall of Representatives, the principal floor contained a vestibule, corridors, stairways, two for the public and two private, and fourteen well-lighted rooms.

The second floor gave access to the public galleries through five doors, while a reporters' gallery with retiring and work rooms were provided on the third side.

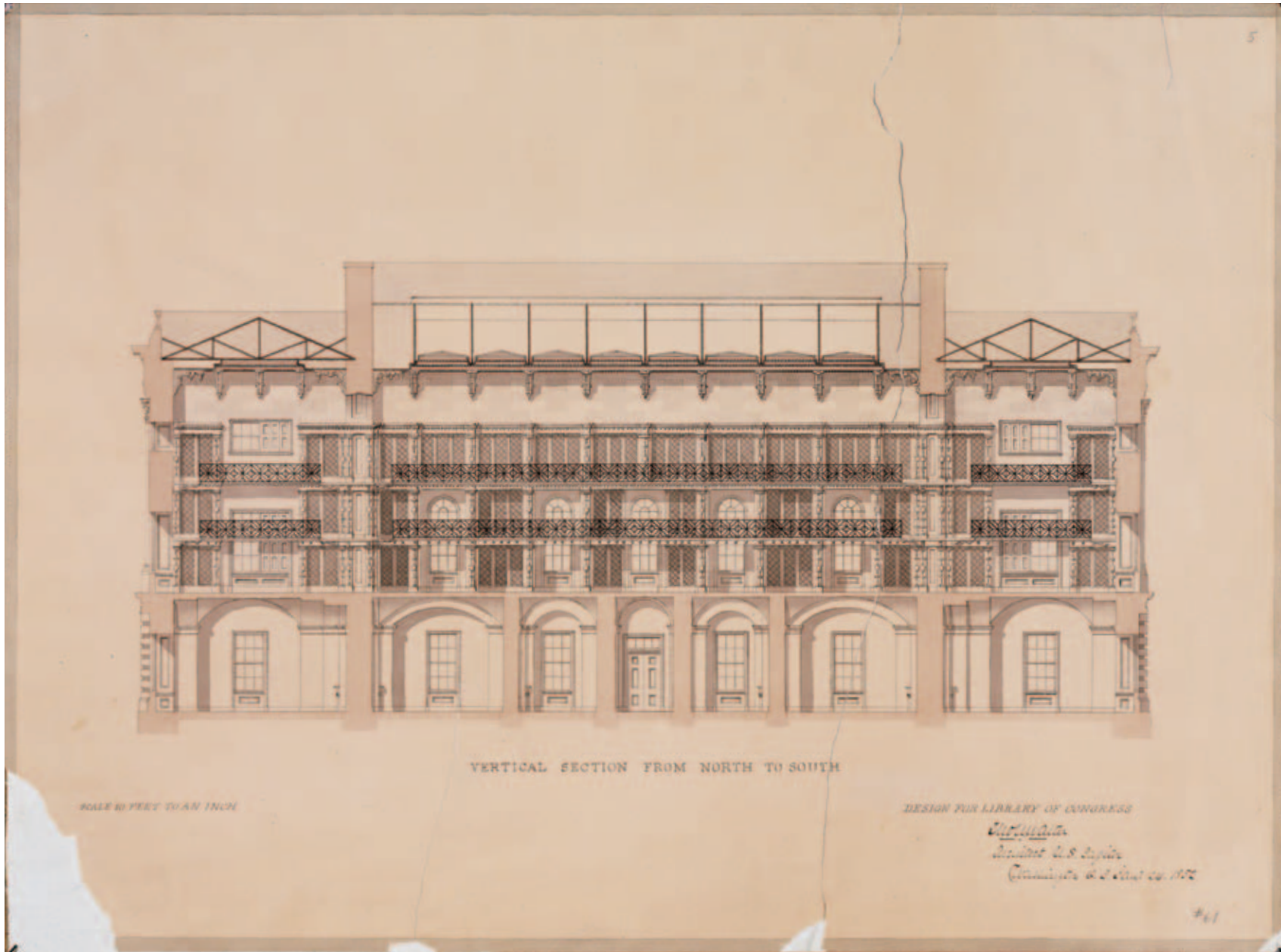
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<sup>15</sup> DHC, 585.

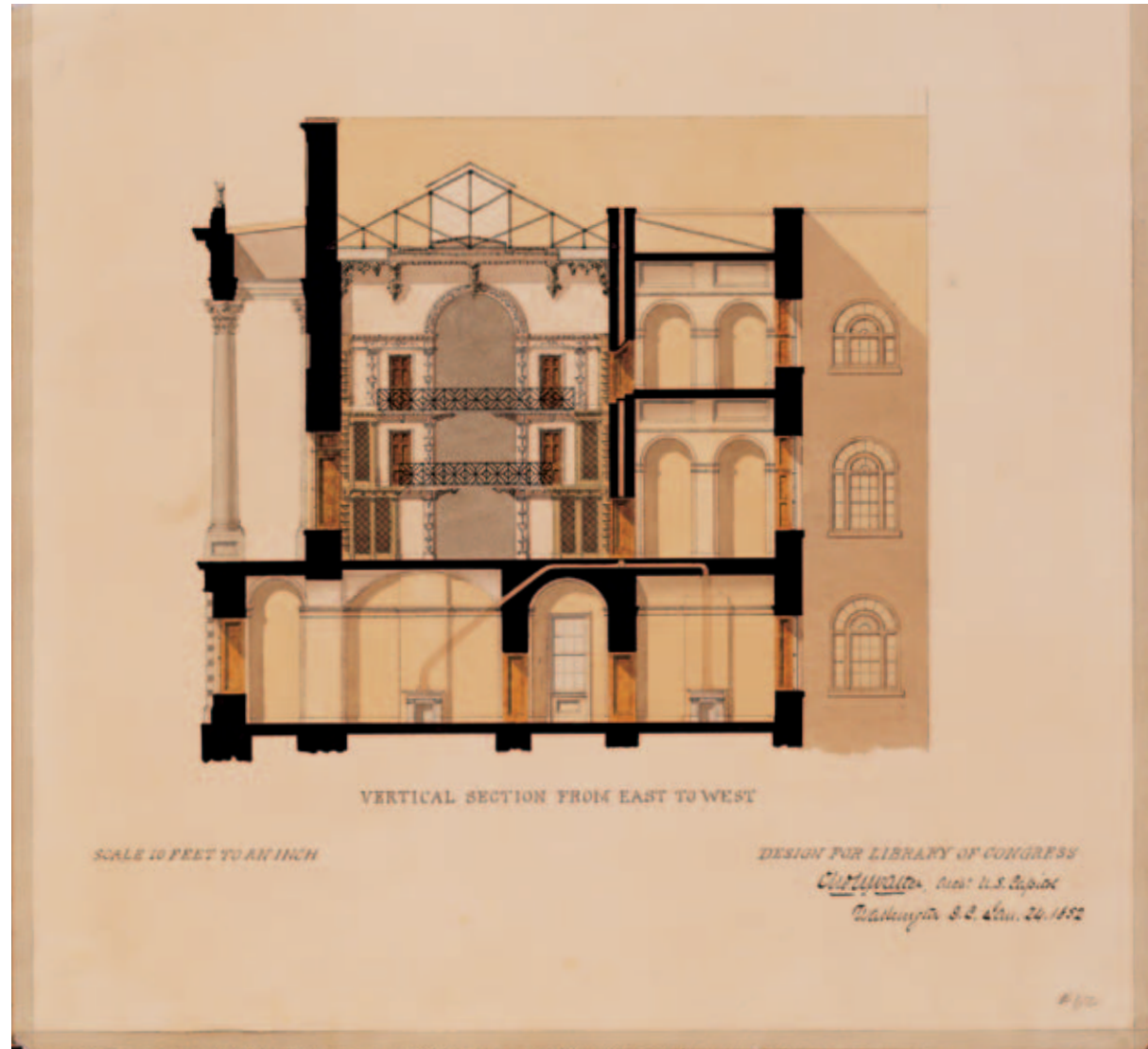
<sup>16</sup> H. doc. 1, 1853, *Capitol Extension*, October 22, 1853, 69–92.

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<sup>17</sup> Captain of Engineers in Charge of the U. S. Capitol Extension, “Capitol Extension,” in *Report of the Secretary of War*, S. ex. doc. 1 (33–1), Serial 691.

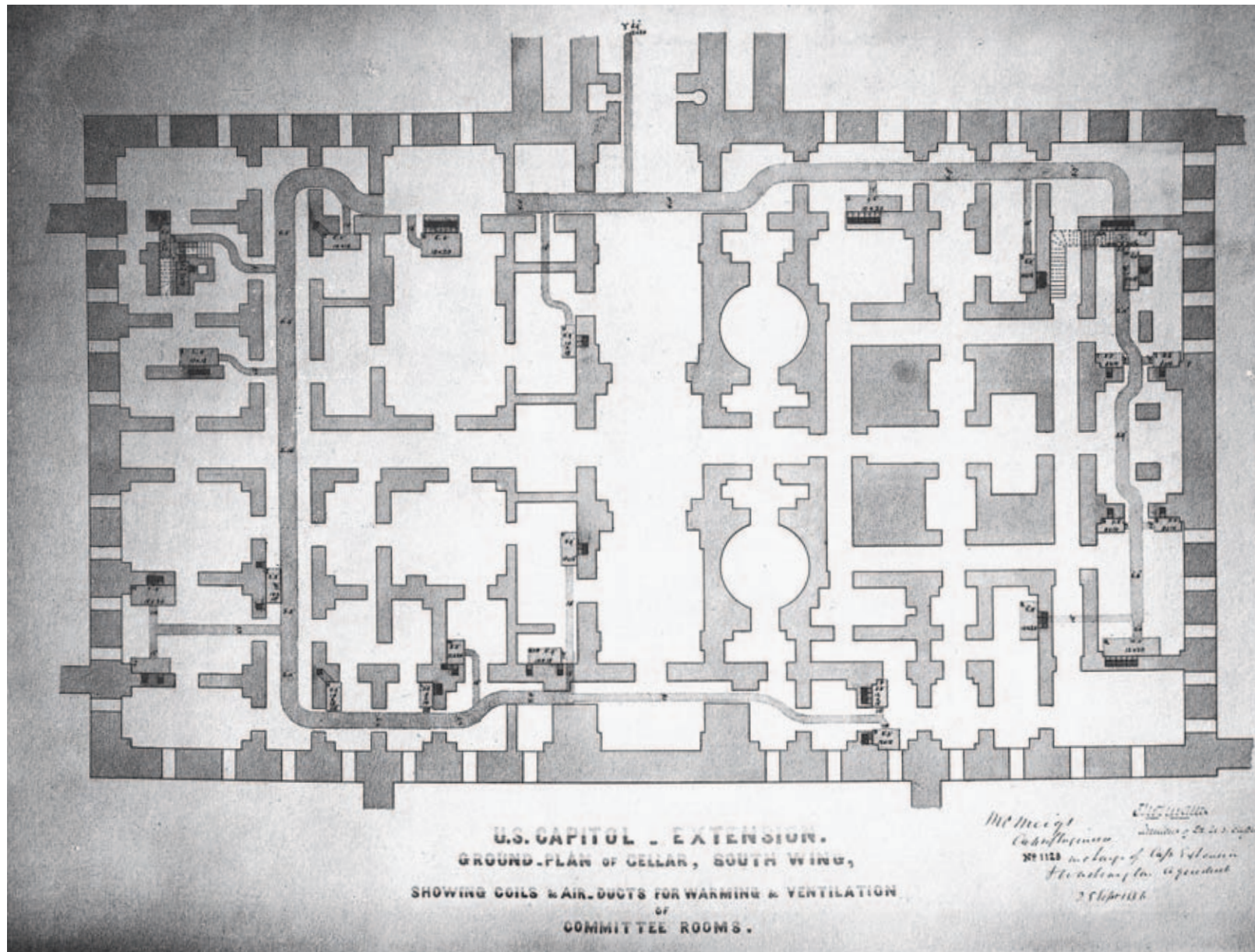


NORTH & SOUTH SECTION FOR REMODELLING, CONGRESSIONAL LIBRARY 1852,—WALTER ARCHITECT.

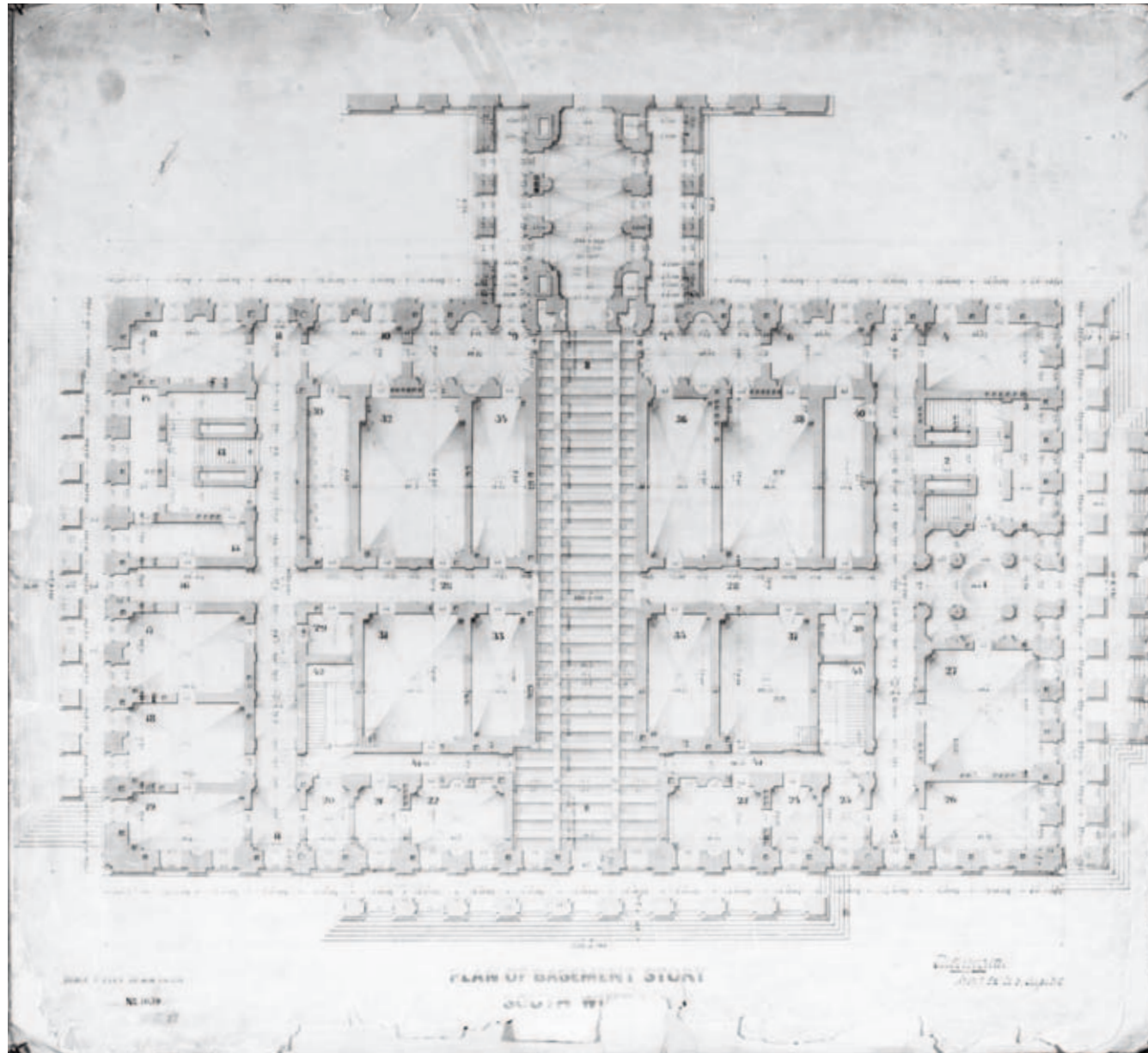


EAST AND WEST SECTION OF CONGRESSIONAL LIBRARY, 1852—WALTER ARCHITECT.

Section looking north.

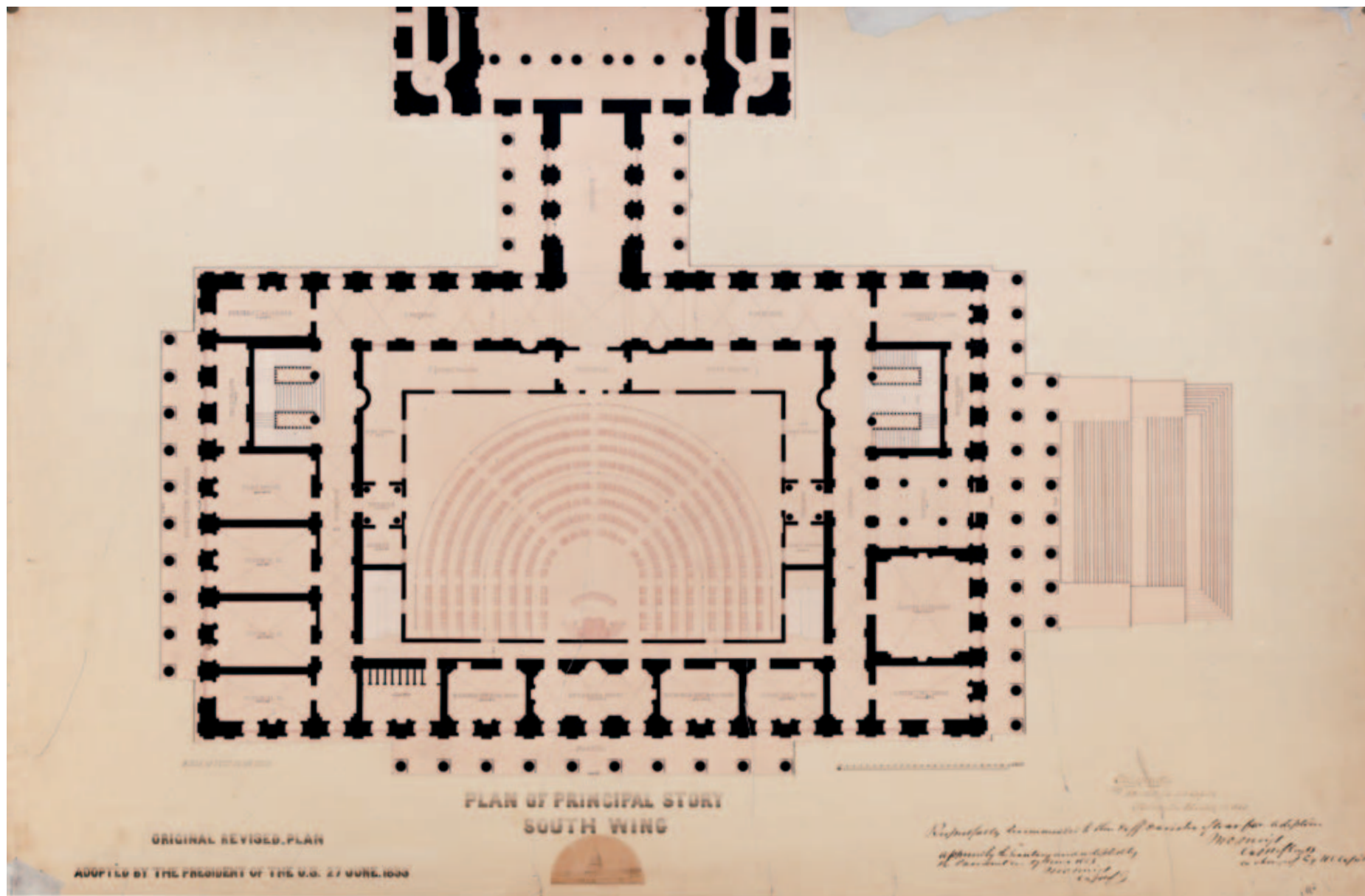


CELLAR PLAN SOUTH WING 1853,—WALTER ARCHITECT.  
Brown incorrectly dated this drawing, which was completed on September 25, 1856. Location unknown.

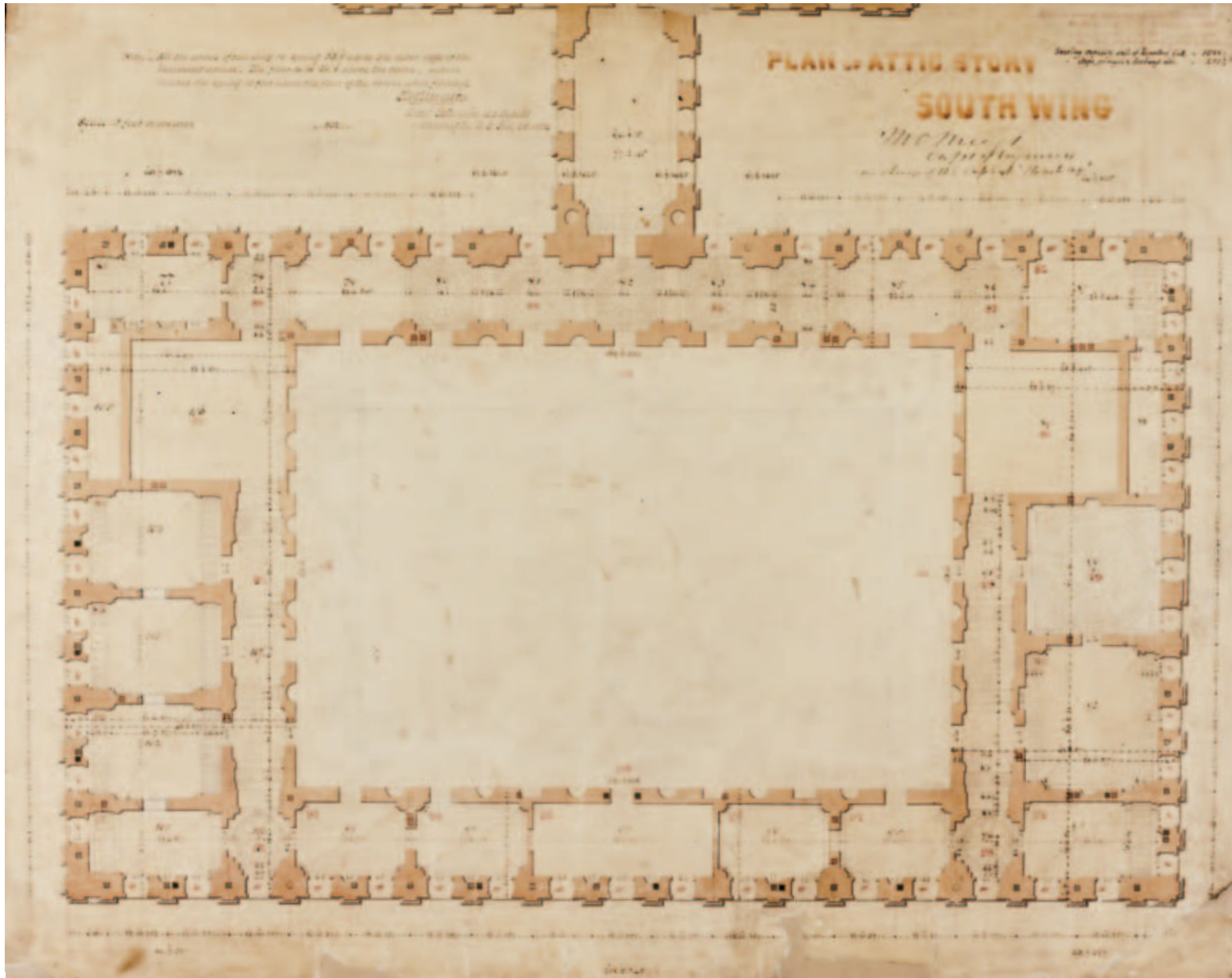


MODIFIED PLAN OF BASEMENT, SOUTH WING, 1853—WALTER ARCHITECT.

Brown incorrectly dated this drawing, which was completed on October 28, 1857.

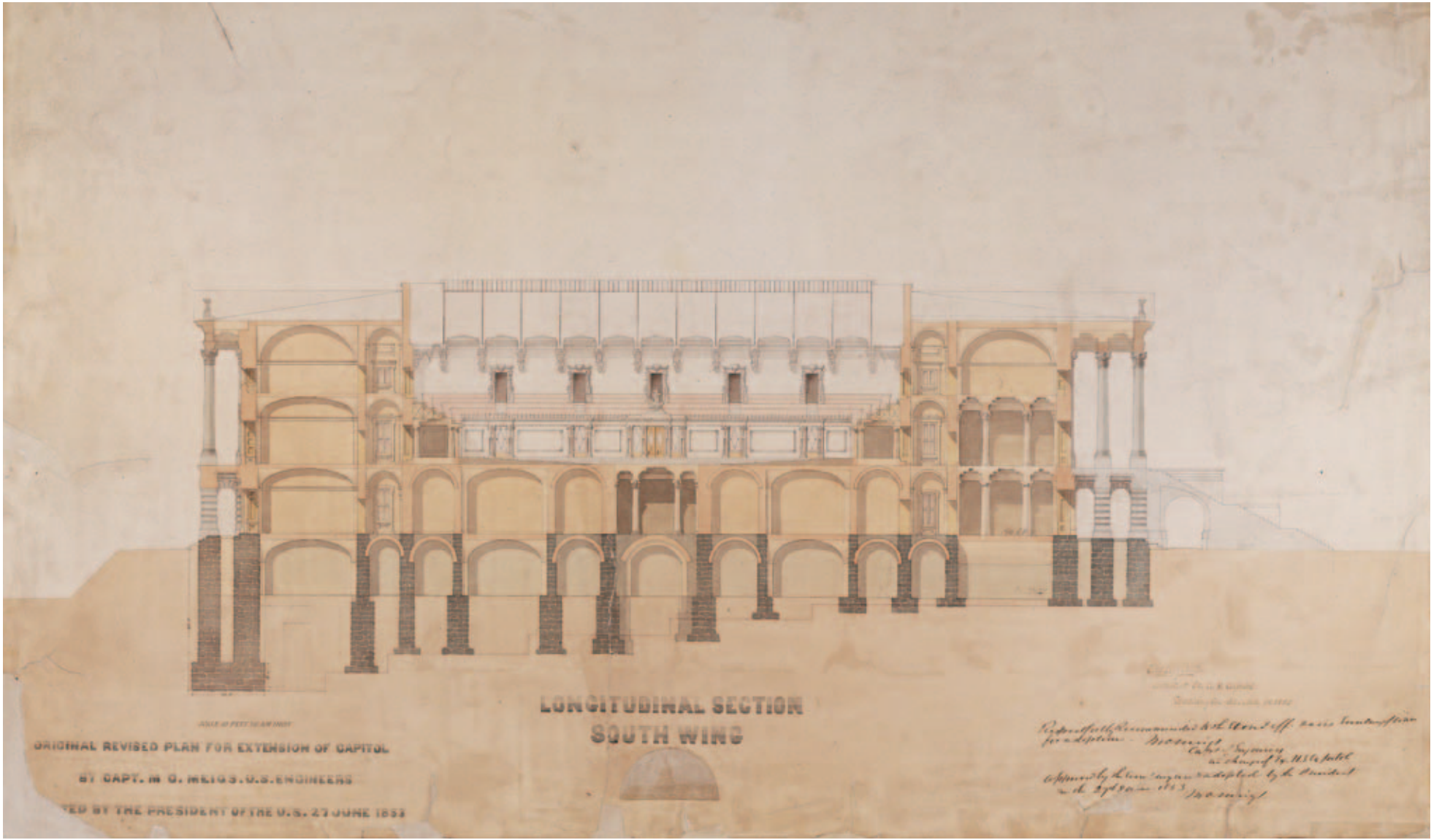


MODIFIED PLAN OF PRINCIPAL STORY, SOUTH WING, 1853—WALTER ARCHITECT.

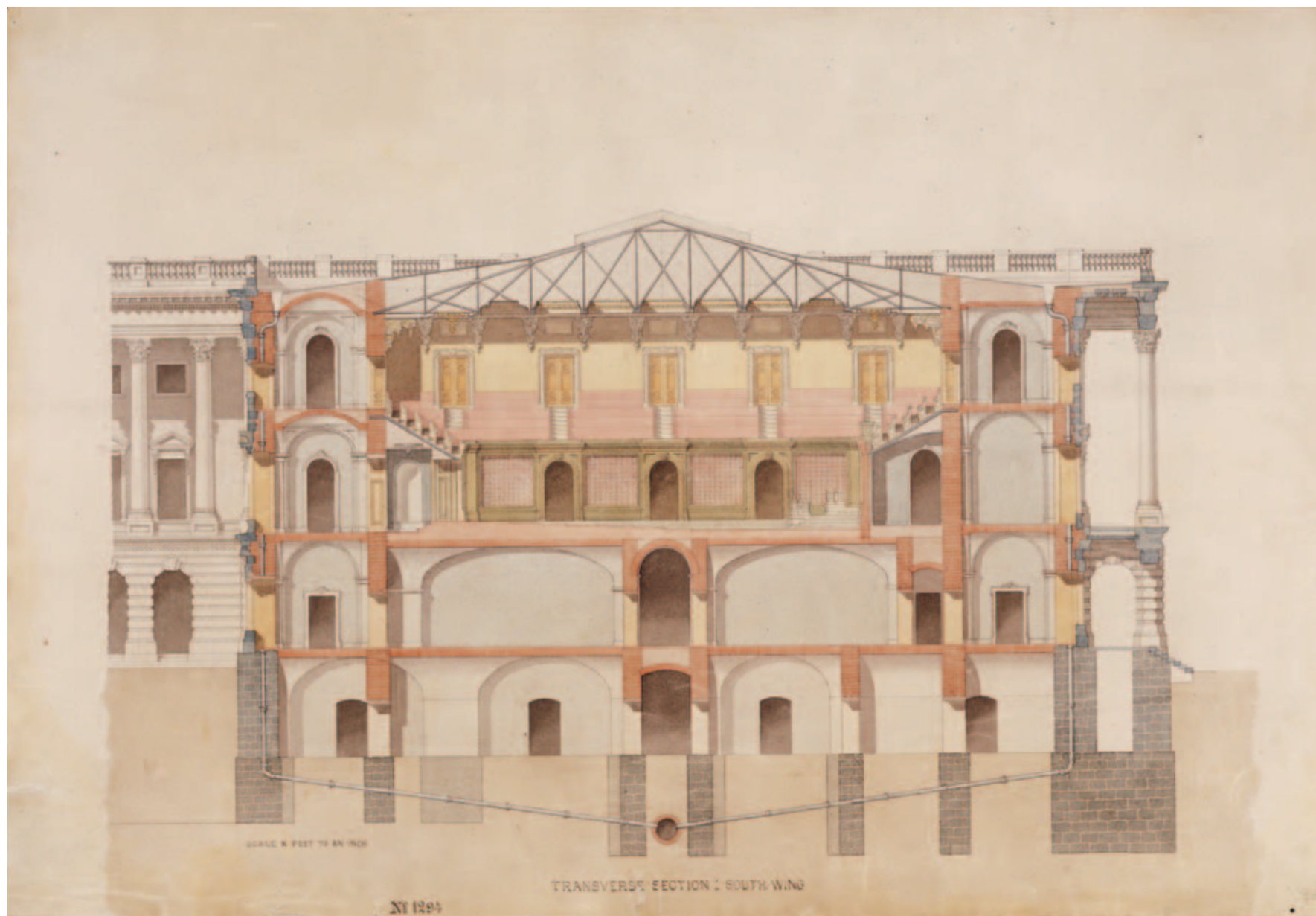


MODIFIED PLAN ATTIC STORY, SOUTH WING, 1853—WALTER ARCHITECT.

Brown incorrectly dated this drawing, which was completed on July 25, 1854.



LONGITUDINAL SECTION SOUTH WING, MODIFIED DESIGN 1853—WALTER ARCHITECT.  
Drawing relettered by Captain Meigs to assert his authority over Walter and to claim credit as the building's principal designer.



TRANSVERSE SECTION, SOUTH WING, MODIFIED DESIGN, 1853—WALTER ARCHITECT.

Brown incorrectly dated this drawing, which was completed on February 17, 1857.

One of the most striking features of this wing was the entrance lobby, with its coupled Corinthian columns and marble ceiling.

The Hall of the Senate was smaller, but arranged on the same plan, being 82 by 112 feet. The size of this Hall gave an opportunity for larger retiring rooms and more imposing lobbies. The most important suite of apartments were the Senators' retiring room, the conference rooms, with the Vice-President's room, and their approaches. The western and northern porticoes were reserved for the use of Senators.

The design for the east portico was modified by introducing a pediment over the central projection [Plate 182], while the west portico was unchanged [Plate 183].

The Senate Committee on Public Buildings, on March 29, 1864, made an interesting report on a memorial of Charles F. Anderson, one of the competitors for the Capitol extension in 1850.<sup>18</sup> Anderson claimed compensation for the use of his design in the building as finally executed. From this report it appears that Anderson was the only competitor who located the Houses of Congress in the center of each wing. His stairway and committee rooms were not arranged like the executed drawings. In Anderson's plan the west front of the wings of the building was placed 80 feet east of the extreme western line of the old building, with the Halls of Congress in the center of each wing. Anderson's plan was one of the four schemes purchased under the competition held in 1850, from which Robert Mills was directed to take certain features in the preparation of his plan for the building. From the description of the

committee and the fact that the plan of Mills shows the wing extending far to the east it is probable that this general idea was taken from the plans submitted by Anderson. Thomas U. Walter, when he made the designs under the approval of President Fillmore, changed the position of the wings and placed the central axis north and south on the north and south axis of the old building, keeping the Halls of Congress in the east end of the wings, where they were located on the plans prepared by Mills. This committee says that Meigs had several interviews with Anderson, and as the Government at that time was in possession of Anderson's plans, they felt assured that it was these suggestions which caused Captain Meigs to propose the change of location of the halls which was adopted in the execution of the work, and finally that it was Anderson's plans of the interior which Meigs first submitted to the President for approval. Thomas U. Walter, while approving and adopting the general suggestion, so modified the interior as to make it his own. In matters of design and detail he seems to have been untrammelled, and it will be seen by a comparison that on the exterior he made but few changes from the design which received the approval of President Fillmore.<sup>19</sup> One of the first duties performed by Captain Meigs was to personally investigate the character of the work which had already been executed. He found the foundations ample to bear the weight which was to be imposed upon them, although he states that he would have used a greater proportion of hydraulic cement in the mortar. The foundation stone of Potomac blue gneiss was good in quality and of proper size, well laid, and the joints well filled. He could not find any evidence of recent settlement, and as the walls varied in height from 15 to 40 feet, this was a sign of a good natural foundation and workmanship,

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<sup>18</sup> *Congressional Globe* (38–1), vol. 42, pt. 2, 1847. The Senate passed a private bill (S. No. 27) directing the Secretary of the Treasury to pay Anderson \$7,500 for his work on the plans of the Capitol extension. Walter and Meigs vehemently denied that Anderson's plan influenced the eventual design of the Capitol. For discussions of Anderson's claims, see William Sener Rusk, "Thomas U. Walter and His Works," *Americana* 33 (1939): 151–179, and William Allen, *The Dome of the United States Capitol: An Architectural History* (Washington: Government Printing Office, 1992), 13.

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<sup>19</sup> There were five plans purchased by the federal government from the competition of 1850 and not four as Brown noted. Before his appointment Walter had prepared a plan with the chambers on the east side, but President Fillmore wanted the chambers on the west side. RG 40, Subject Files, Curator's Office, AOC.

in both footings and walls. The question of the discoloration of the marble was submitted to a chemist, and he reported that the stains would disappear as the stone dried out. This was proved to be true by stone which had been under observation, and Captain Meigs concluded that after the walls dried out it would present the “most beautiful specimen of marble work in the United States.”<sup>20</sup>

The question of the validity of the contracts for furnishing, cutting, and laying the marble was referred to the Attorney-General, and he sustained their validity in an opinion dated May 6, 1853. These reports finally disposed of the complaints against the character of the work done under Walter’s supervision. Contracts were made with Frederick A. Burch, December 29, 1852, to lay all brick, including arches and groined arches, but to furnish no material, for the sum of \$2.49 per thousand, kiln count, and on April 23, 1853, with Cornelius Wendell, brickmaker, of Washington, D.C., to furnish 10,000,000 brick, at \$5.85 per thousand. These contractors failed to carry out their contracts, both having taken the work at too low a figure. Because of this failure, early in 1853 the contractor for brickwork was relieved and the brickwork done by day labor. Captain Meigs purchased brick in Baltimore, Philadelphia, and New York, because the former contractor failed to deliver them as rapidly as his contract required, and the contractor and his bondsmen were held responsible for the difference in price. During the year 1853 the basement story was completed with the exception of the floor arches for the principal story, and during the year 1854 the masonry of the basement story in both wings was completed, the marble facing was carried up to the top of the window openings on the principal story, and the interior walls were built up to the roof or ceiling of the Halls of Congress. The stone was not delivered as rapidly as

could be desired. Being quarried in Berkshire, Mass., it was necessary to transport it 90 miles by rail to Bridgeport, Conn., and thence it was carried by water to Washington.<sup>21</sup>

April 4, 1855, just before adjournment, Congress authorized a change in the design of the old Dome, or rather the replacing of the old Dome, which was of wood covered with copper, by a dome of cast iron.<sup>22</sup> The drawings [Plates 184, 185, and 186] for this dome were made by Thomas U. Walter, the exterior showing an octagonal base which was to rest upon the walls of the old Dome, on which was placed a peristyle 124 feet in diameter composed of columns 27 feet in height. The entablature of the peristyle was to be 127 feet above the basement floor. From the entablature sprang an attic 44 feet high and 108 feet in diameter, and from the cornice of the attic arose a semiellipsoidal dome to a height of 228 feet. The dome was surmounted by a lantern 17 feet in diameter, 52 feet high, the whole to be capped with a bronze figure 16 feet 6 inches high and 300 feet above the basement floor. It was determined to leave the old Rotunda unchanged to the level of the stone cornice 44 feet above the Rotunda floor. It was the intention to carry the wall 9 feet above this cornice, recessing it so as to receive a continuous band of sculpture illustrating the history of the country from the landing of Columbus to the period of the work. Just above the cornice of this frieze was a corridor encircling the Rotunda, composed of a series of piers and attached columns, from the cornice of which the interior dome sprang. An opening 65 feet in diameter was left in the crown of the interior dome, through which could be seen a lighter colonnade ending at the base of the lantern. This work was commenced in 1855 by

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<sup>20</sup> See “Capitol Extension,” in *Report of the Secretary of War*, 1853, 69–72;

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<sup>21</sup> See Captain of Engineers in Charge of the U. S. Capitol Extension, “Report on the Capitol Extension,” in *Report of the Secretary of War*, H. ex. doc. 1 (33–2), Serial 778.

<sup>22</sup> This authorization was passed March 3, 1855. For a discussion of this authorizing legislation, see Allen, *The Dome of the United States Capitol*, 17–18.

erecting a temporary roof over the Rotunda and a partial removal of the old Dome. A scaffolding 100 feet high and 18 feet base was extended up through the eye of the old Dome to form a platform for a derrick. (Plate 187 shows scaffolding.) This derrick had a mast and boom each 80 feet, so that all the ironwork could be raised from the exterior by a boiler and an engine, which were placed on the roof of the old building. The columns for the peristyle were let to Poole & Hunt, of Baltimore, Md. The work on the Capitol progressed satisfactorily during the next few years. In October, 1855, the marble work was reported as being at an average height of the attic windows on the exterior. On the interior about half of the columns and pilasters of the grand corridor of the south wing were in place, and one of the grand stairways commenced in the same wing, the brick vaulting for the floors was leveled up for tiling, the roof trusses for the south wing were completed and a number of them erected, while the trusses for the Senate wing were ready for erection. The Tredegar Iron Works, of Richmond, Va., supplied tie-rods. All tensile members were subjected by hydraulic proving machine to a strain of 10,000 pounds per square inch. Cooper & Hewitt, of New York, furnished the rolled I beams weighing 30 pounds to the linear foot. Plastering was progressing in the basement story.<sup>23</sup>

In November, 1856, Captain Meigs reported that the exterior marble work was leveled up to the top of the architrave, and that in many places the cornice was finished. The principal corridor in the south wing was complete and work progressing rapidly on corridors in the north wing. The work was progressing on the principal and private stairways and brickwork for same completed; granite stairways to cellar and attic finished; tiling progressing rapidly on the floors; corrugated copper

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<sup>23</sup> Captain of Engineers in Charge of the U. S. Capitol Extension, "Reports of Captain M. C. Meigs, Corps of Engineers, in Charge of the Capitol Extension, Reconstruction of Dome, and Post Office Extension," in *Report of the Secretary of War*, H. ex. doc. 1 (34-1), Serial 841, 111-112.

roofing and glass were all in place; the iron ceilings of both Houses of Congress were completed; the cast-iron door and window frames and the cast-iron trimmings in the basement were set, and many of the committee rooms and corridors were painted.<sup>24</sup> The work on the Dome was confined to completing the derricks, cranes, and other machinery and casting the columns for the peristyle, because Congress expressed an intention to have the designs which they had adopted changed. For this purpose Walter submitted a modified drawing of the Dome [Plate 188]. In 1860 a drawing was made showing suggestions for roof of Dome [Plate 189].<sup>25</sup>

During the session it was determined to adhere to the first design, and the old stone and brick work was removed down to the old exterior cornice, 64 feet above the Rotunda floor, and the brick lining was removed to the level of the interior cornice. Brickwork was relaid in cement as a foundation for the new Dome.

The corridors connecting the wings with the old building were the last portion of the new structure to be commenced. The excavations and a part of the foundations were put in during the year 1856. All vaulting under the pavements for the boilers, coal, and passageways was also completed during this year. Tilework and stairways were still in progress. In the report for November, 1857, Captain Meigs states that the House of Representatives was nearly ready for occupancy. The House at first questioned the propriety of meeting in the Chamber, as they feared ill effects from the dampness of the walls, and a special committee was appointed to investigate the condition of the Hall, and

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<sup>24</sup> Captain of Engineers in Charge of the U. S. Capitol Extension, "Reports on the Capitol Extension, Re-construction of the Dome, and Post Office Extension," in *Report of the Secretary of War*, S. ex. doc. 5 (34-3), Serial 876, 217-227.

<sup>25</sup> This design change in the Dome's proportions was prompted by the need to accommodate Thomas Crawford's statue of *Freedom*. For a discussion of the Dome's redesign, see Allen, *The Dome of the United States Capitol*, 42-49.

reported December 14 that the Hall was dry and everything ready for occupancy. The Hall was first used for divine worship, December 13, 1857, Rev. G. D. Cumming conducting the services. December 16, 1857, the House of Representatives took formal possession and held their first session in their new Hall.<sup>26</sup>

The detail drawings made for the House of Representatives by Walter show careful consideration of every particular. Plate 190 gives a detail section of this Hall, and Plate 191 shows a reproduction of the drawing for the desk of the Speaker and clerks. The ceiling was a carefully designed paneled work in iron and glass [Plate 192].

The delay in receiving ironwork for the Senate wing caused a delay in the completion of this portion of the building. During this year (1857) all woodwork was completed; plastering completed, with few exceptions; progress made on stairways, painting, and decorations; drainage for roof water, water-closets, wash basins, and other toilet fixtures were put in place. A 10-inch gas main connecting with the main of the gas company was put in place. This branched so as to give one 8-inch main for each wing. Although these mains were run, it was found that the gas company's plant was not large enough to supply the new demand until they could erect a new gasometer. The base for the ironwork on the Dome was built into place, consisting of the large brackets which were to carry the peristyle, with interior vertical framing.<sup>27</sup>

Work during the year 1858 consisted in the erection of the arcades on the basement story of the porticoes, and the cellar walls, of the connecting corridors on the exterior, and the completion of the marble work connected with the stairways on the interior. The Dome was completed

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<sup>26</sup> Captain of Engineers in Charge of the U. S. Capitol Extension, "Report on the Capitol Extension, Re-construction of the Dome, and Post Office Extension," in *Report of the Secretary of War*, S. ex. doc. 11 (35-1), Serial 920, 40-47.

<sup>27</sup> "Report of the Architect of the United States Capitol Extension," in the *Report of the Secretary of War* (Washington: Government Printing Office, 1857), 750-751.

as high as the cornice of the circular colonnade, and the cast-iron work for the outside shell was let to James Beebe & Co., of Baltimore, Md.<sup>28</sup>

December 23, 1858, the Senate passed a resolution directing that their new Hall should be ready for occupancy by January 4, 1859, and on that date the Senate first assembled in its new home. Plate 193 shows an enlarged drawing of a section of this room. The ceiling and an enlarged drawing of one of the panels are shown in Plates 194 and 195. In the latter part of 1859 the interior of the building was nearly complete, with exception of the iron and bronze work on stairways, and painting. In 1858 Congress passed a resolution prohibiting the use of any part of the current appropriation for decoration until a committee of artists should pass upon the character of decorations that should be most suitable for the building. The floors of all except a few rooms were laid with encaustic tile, from Minton, Stoke-upon-Trent, by Miller & Coates, of New York. The last of these floors was laid before the meeting of Congress in December, 1859.<sup>29</sup>

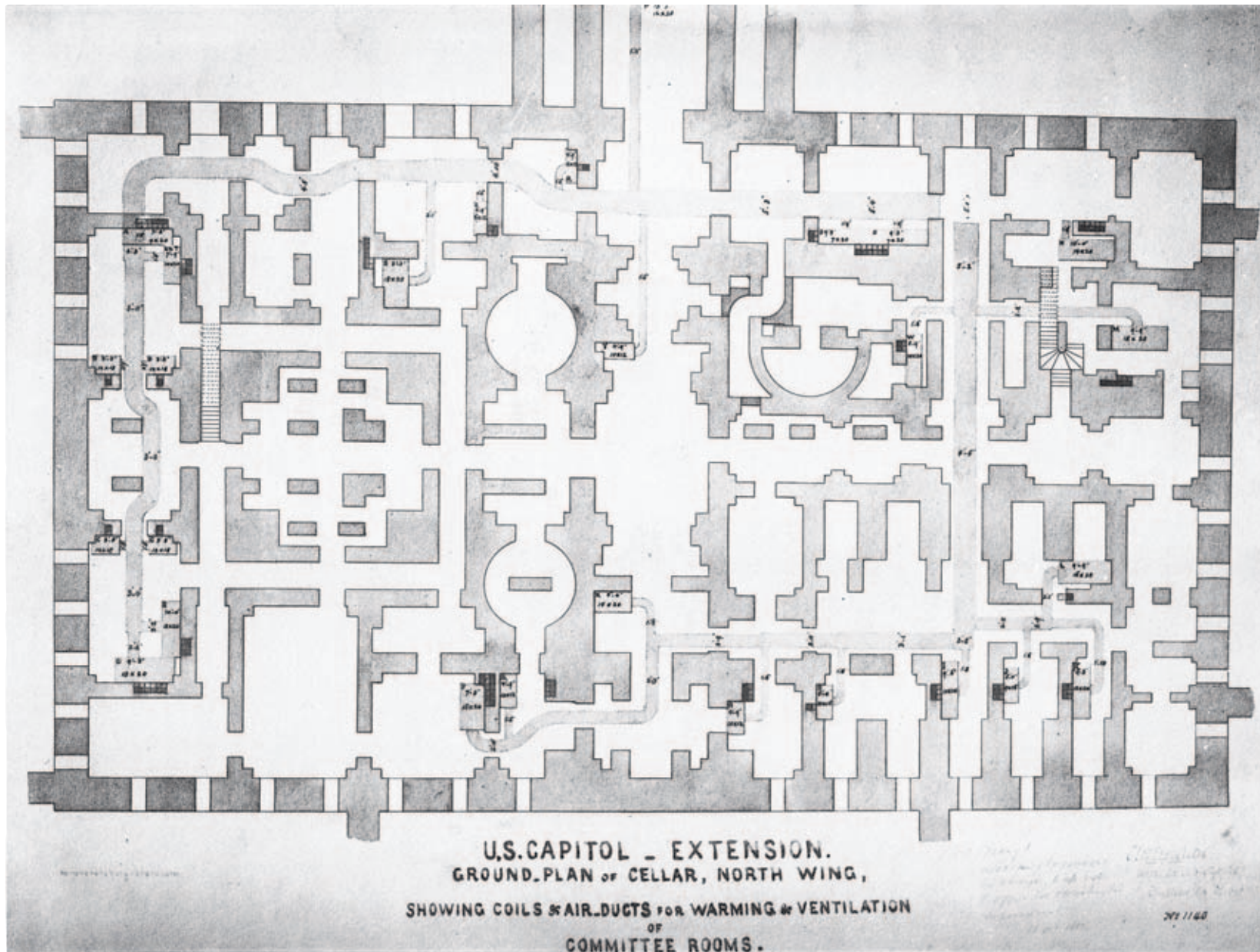
The interior construction of the wings of the Capitol is of solid brick masonry, all the ceilings and floors being composed of brick vaulting, with the exception of the ceilings over the Halls of Congress, which were made of cast iron with glazed panels on which are painted the coats of arms of the different States. The roofs are carried by trusses of rolled beams and iron rods and are covered by glass and copper laid on rolled-iron purlins.<sup>30</sup>

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<sup>28</sup> The contract was let to Janes, Beebe & Co., of New York, not James Beebe of Baltimore. See Captain of Engineers in Charge of the U.S. Capitol Extension, "Report on the Capitol Extension, Re-construction of the Dome, and Post Office Extension," in *Report of the Secretary of War*, S. ex. doc. 11 (35-1), Serial 920, 40-47.

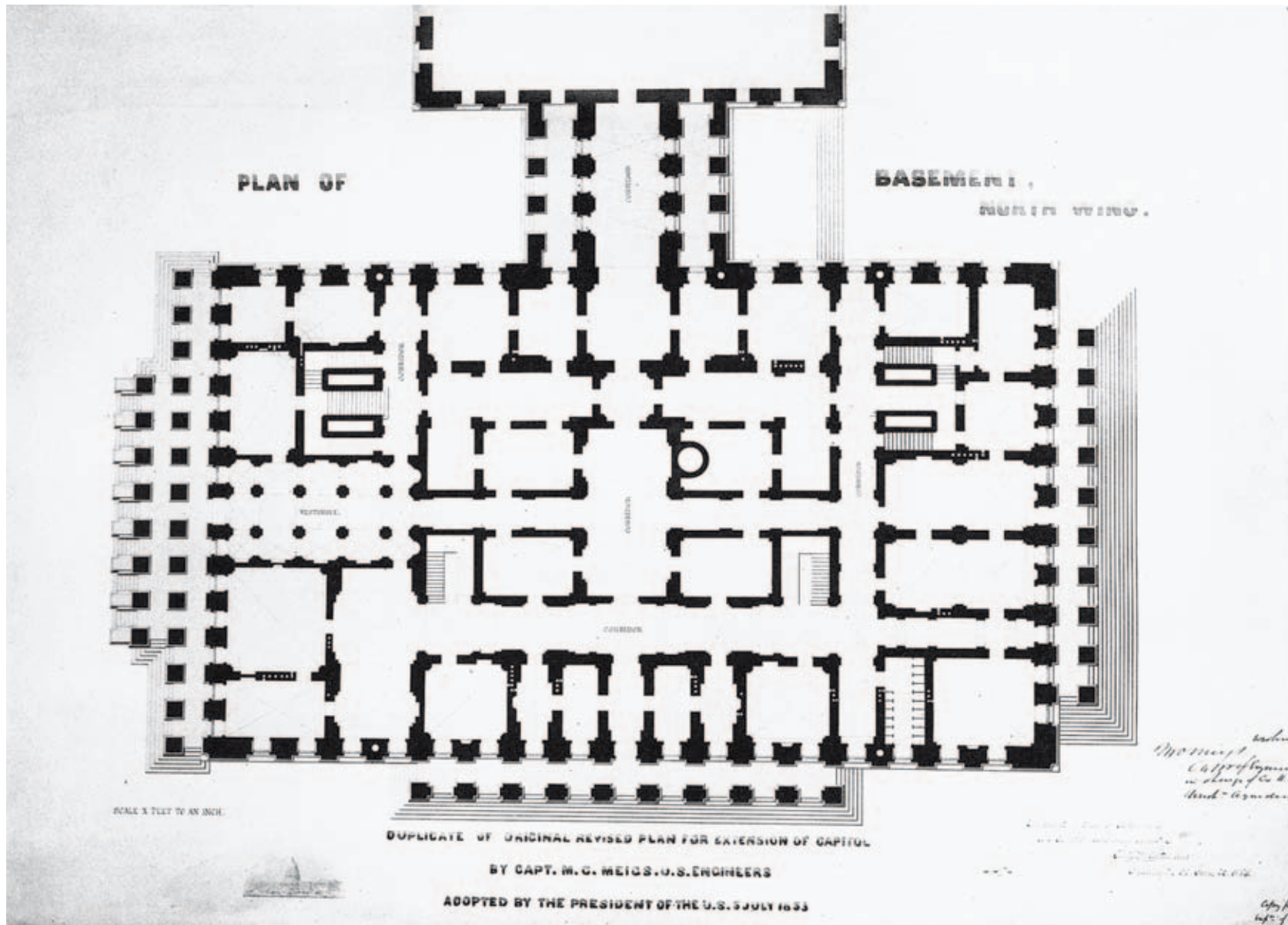
<sup>29</sup> DHC, 722.

<sup>30</sup> Trabeated marble ceilings of the landings were built as a part of the four main staircases, the Senator's Retiring Room (called the marble room) and two principal eastern entrance vestibules; there is a cast iron ceiling over the Hall of Columns and Members' Retiring Room in the House wing. In the Senate the glazed panels were emblems of industry and science and in the House Chamber they represented the state seals.



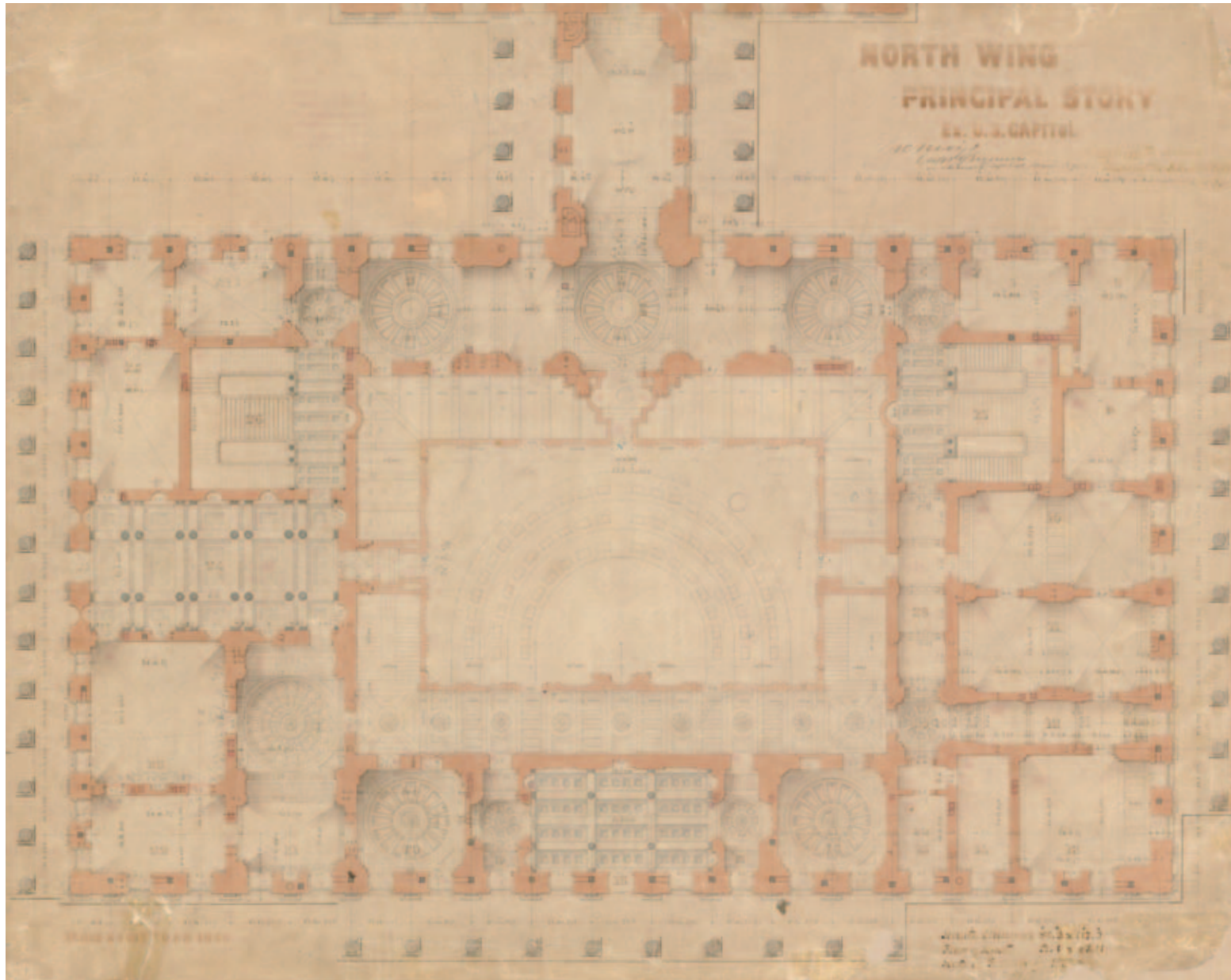
CELLAR PLAN, NORTH WING, 1853—WALTER ARCHITECT.

Brown incorrectly dated this drawing, which was completed on October 9, 1856. *Location unknown.*



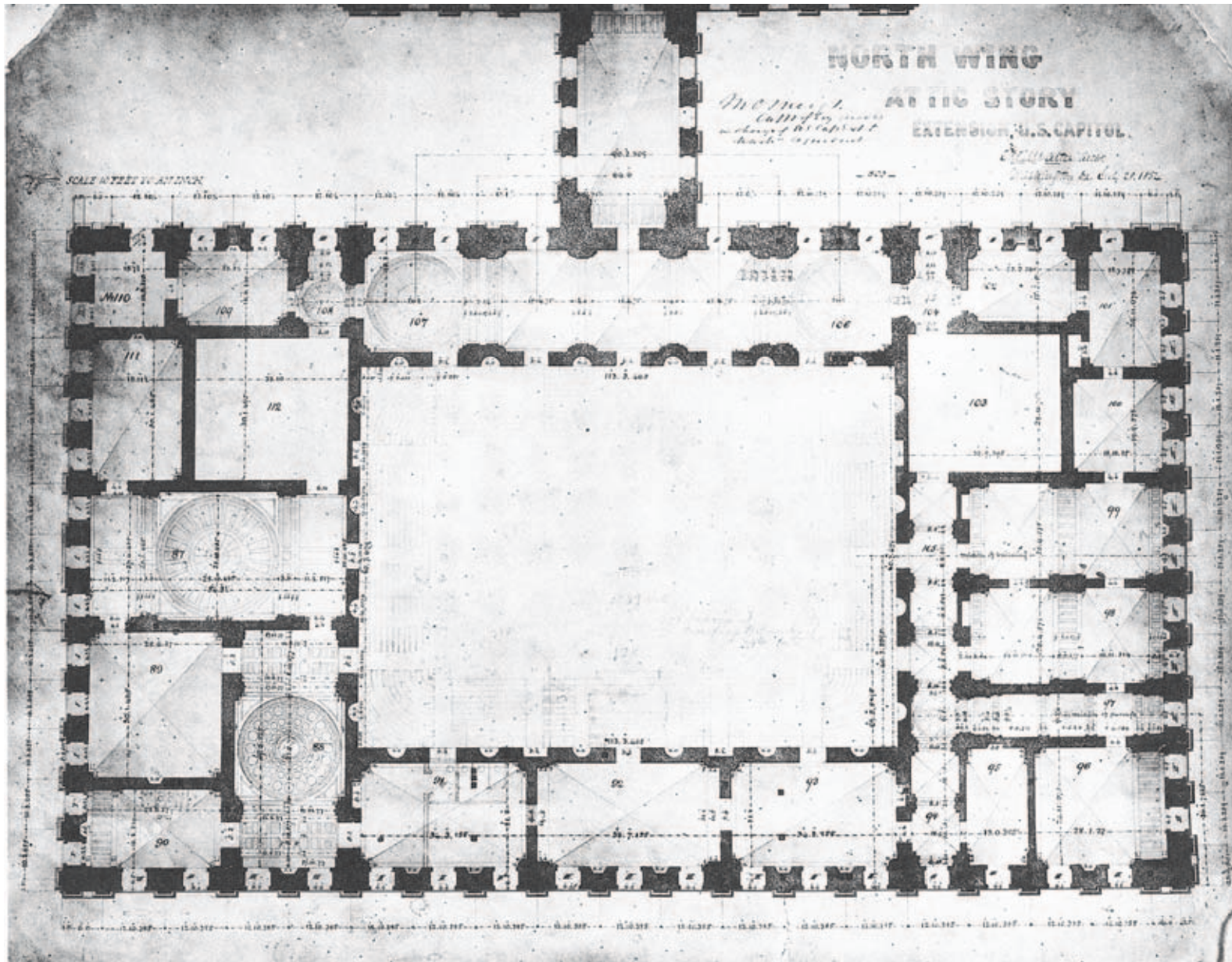
MODIFIED BASEMENT PLAN NORTH WING 1853,—WALTER ARCHITECT.

Brown incorrectly dated this drawing, which was completed on June 20, 1854. Another drawing relettered by Meigs to support his claim for credit in the design of the extensions. *Location unknown.*

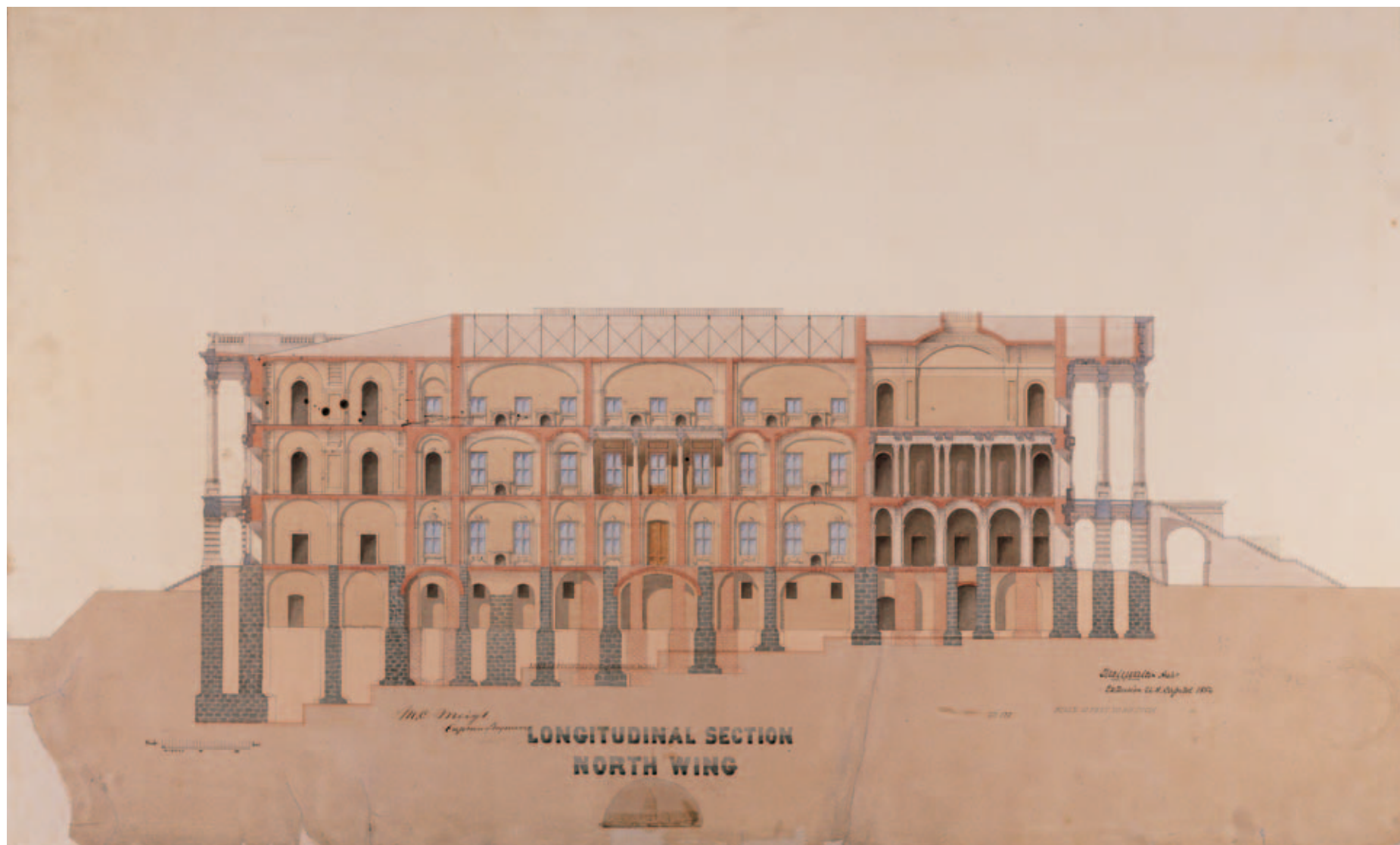


MODIFIED PRINCIPAL STORY PLAN, NORTH WING, 1853—WALTER ARCHITECT.

Brown incorrectly dated this drawing, which was completed on March 31, 1854.



MODIFIED ATTIC PLAN, NORTH WING, 1853,—WALTER ARCHITECT.  
Brown incorrectly dated this drawing, which was completed on July 28, 1854.

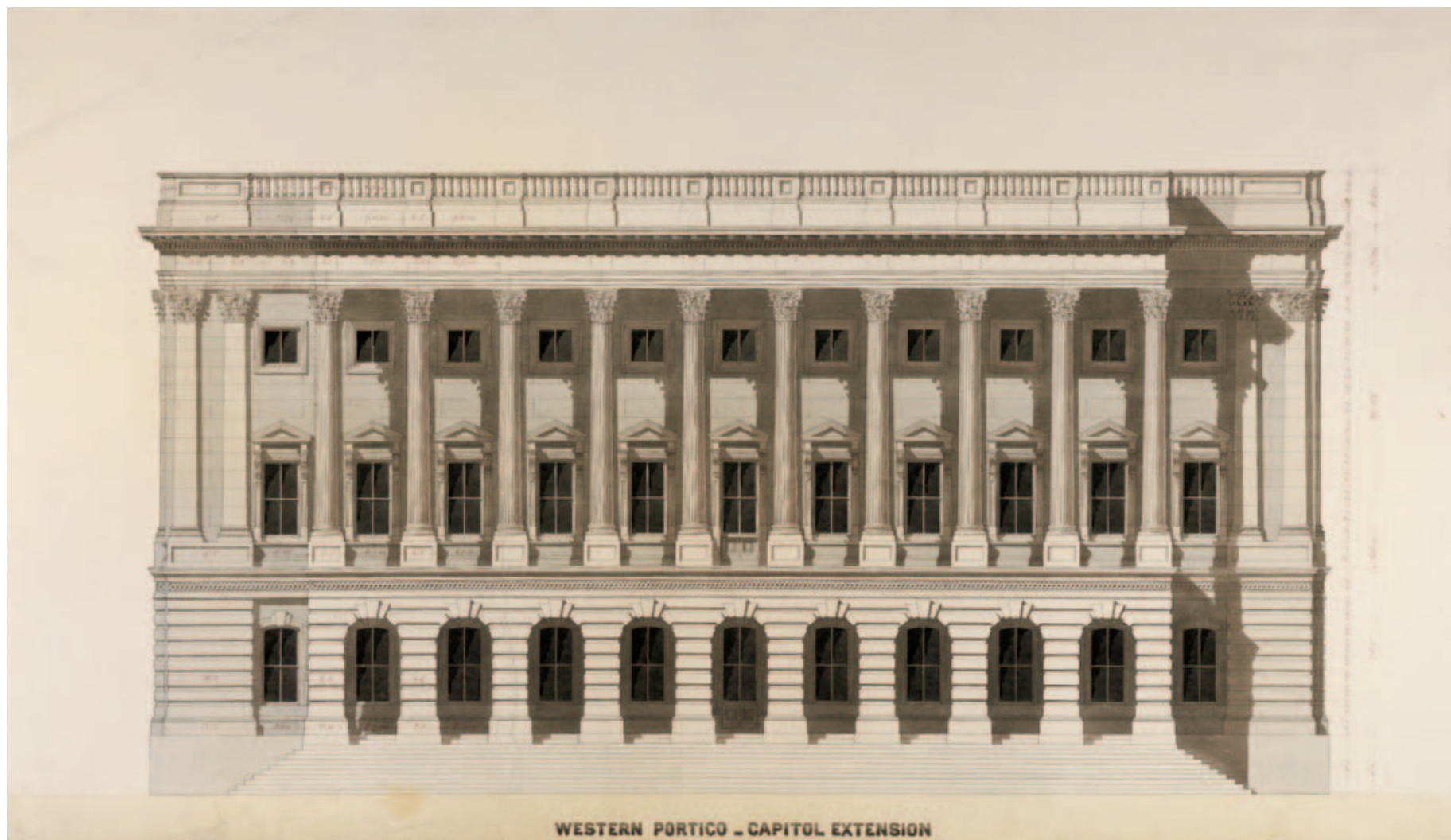


MODIFIED LONGITUDINAL SECTION, NORTH WING 1853,—WALTER ARCHITECT.

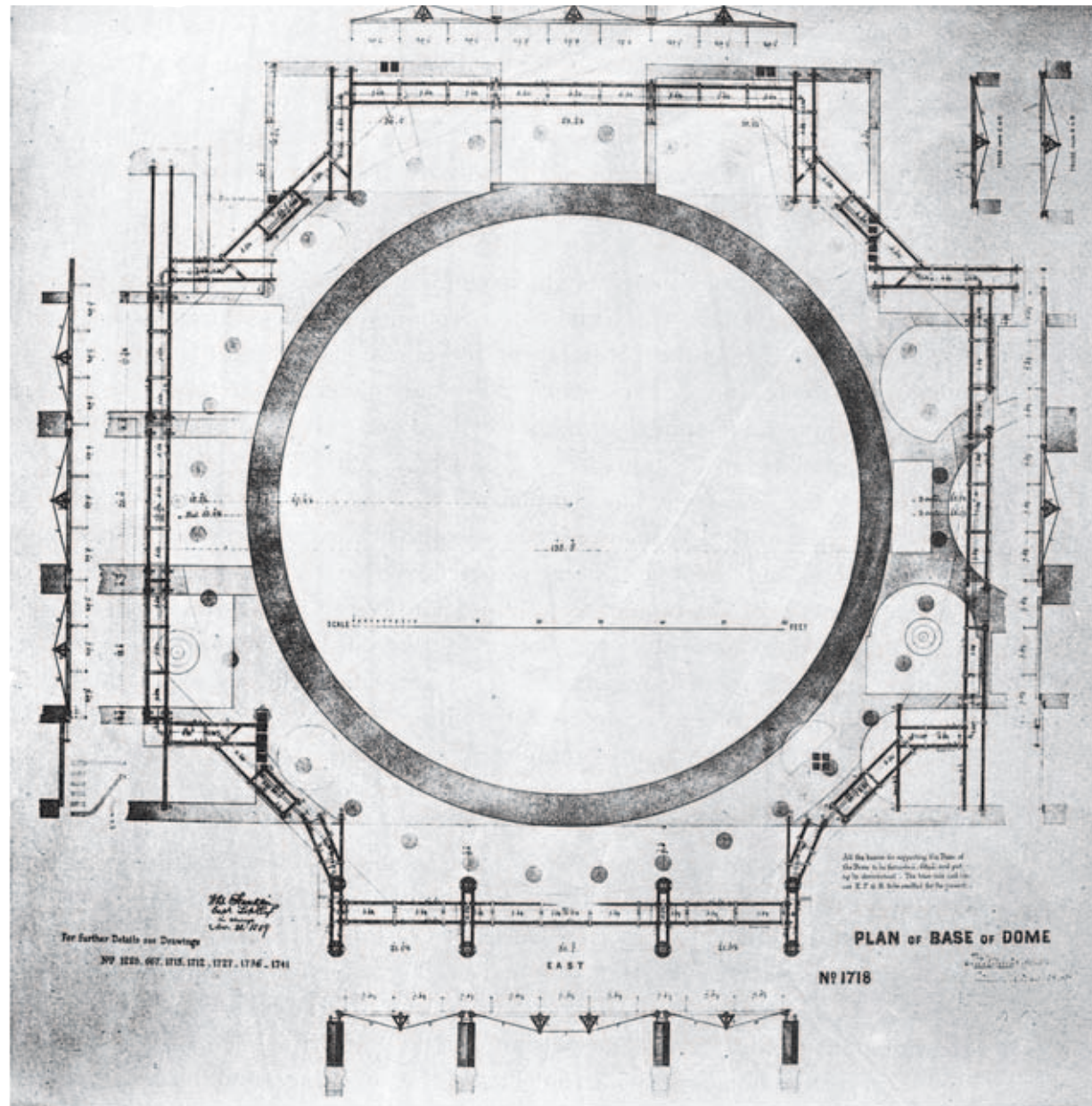
Brown incorrectly dated this drawing, which was completed on September 20, 1854.



EAST PORTICO OF WINGS, 1853—WALTER ARCHITECT.  
Compare to the earlier design of the east front porticos illustrated in plate 160.

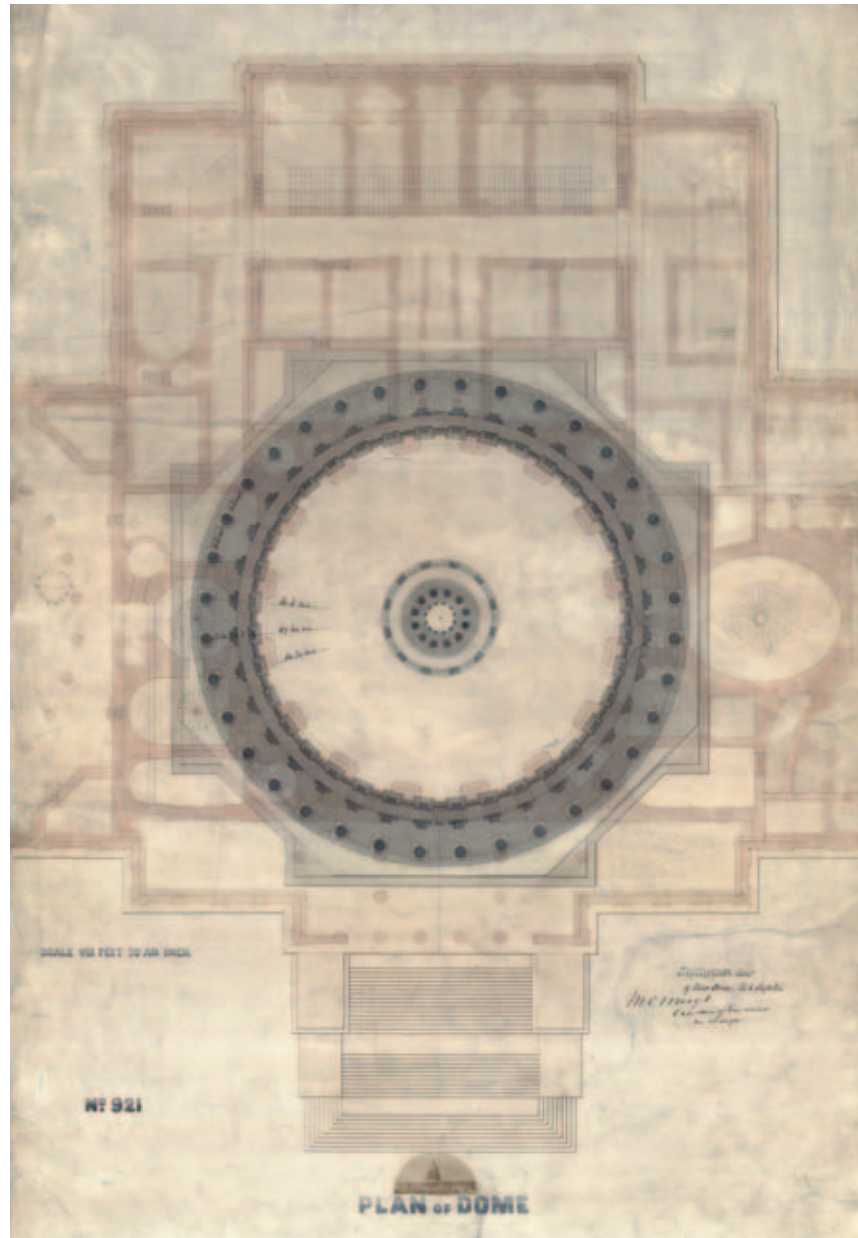


WEST PORTICO OF WINGS, 1853—WALTER ARCHITECT.  
Compare to the earlier design of the west front porticos illustrated in plate 161.



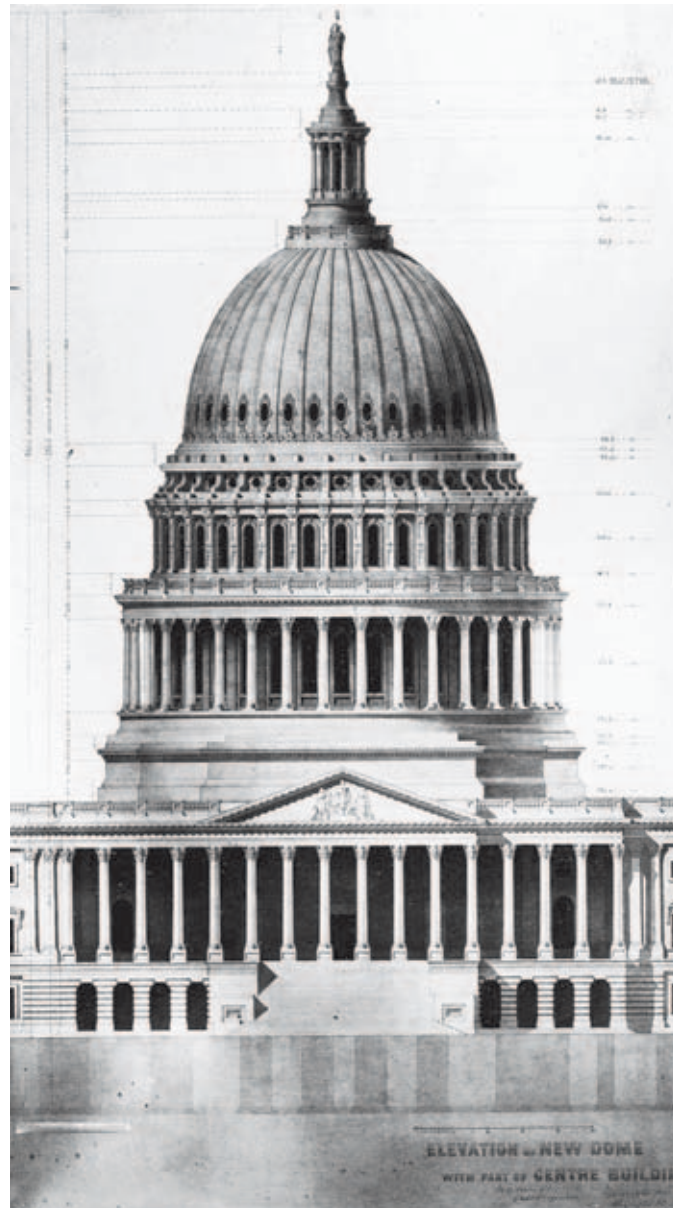
PLAN OF BASE OF DOME,—T. U. WALTER, ARCHITECT.

January 25, 1858. Location unknown.

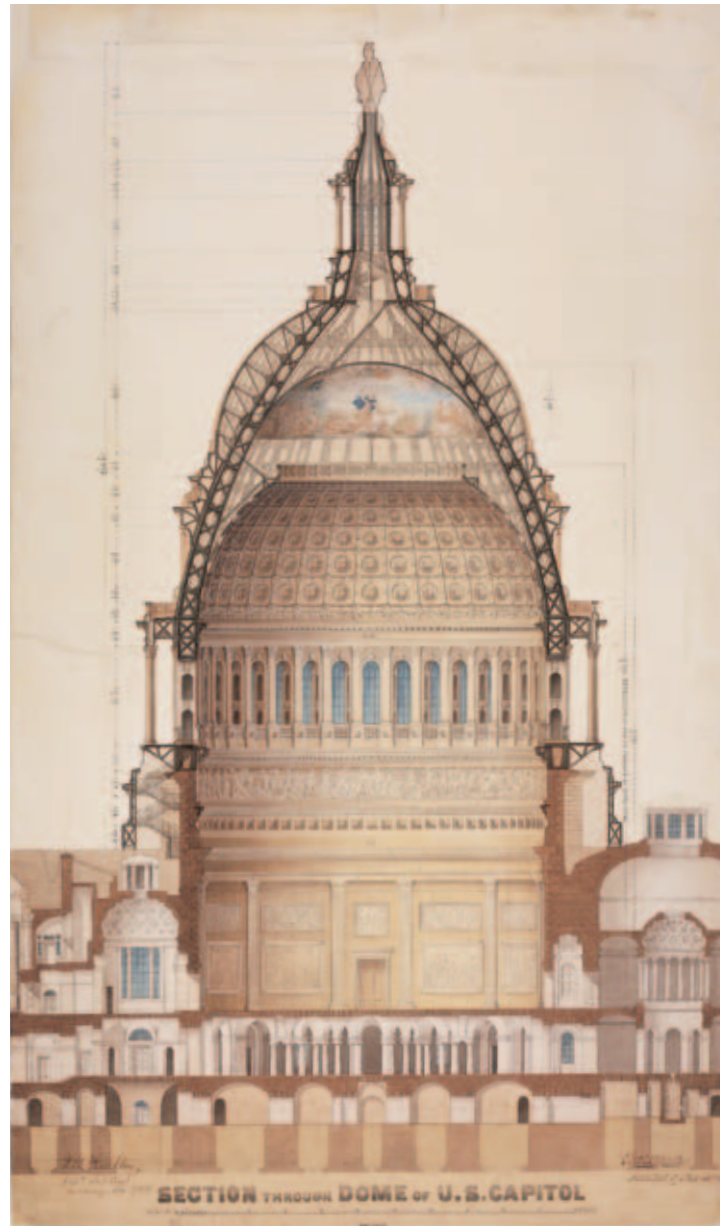


PLAN OF DOME,—WALTER, ARCHITECT.

March 25, 1856.



ELEVATION OF NEW DOME 1855,—WALTER ARCHITECT.



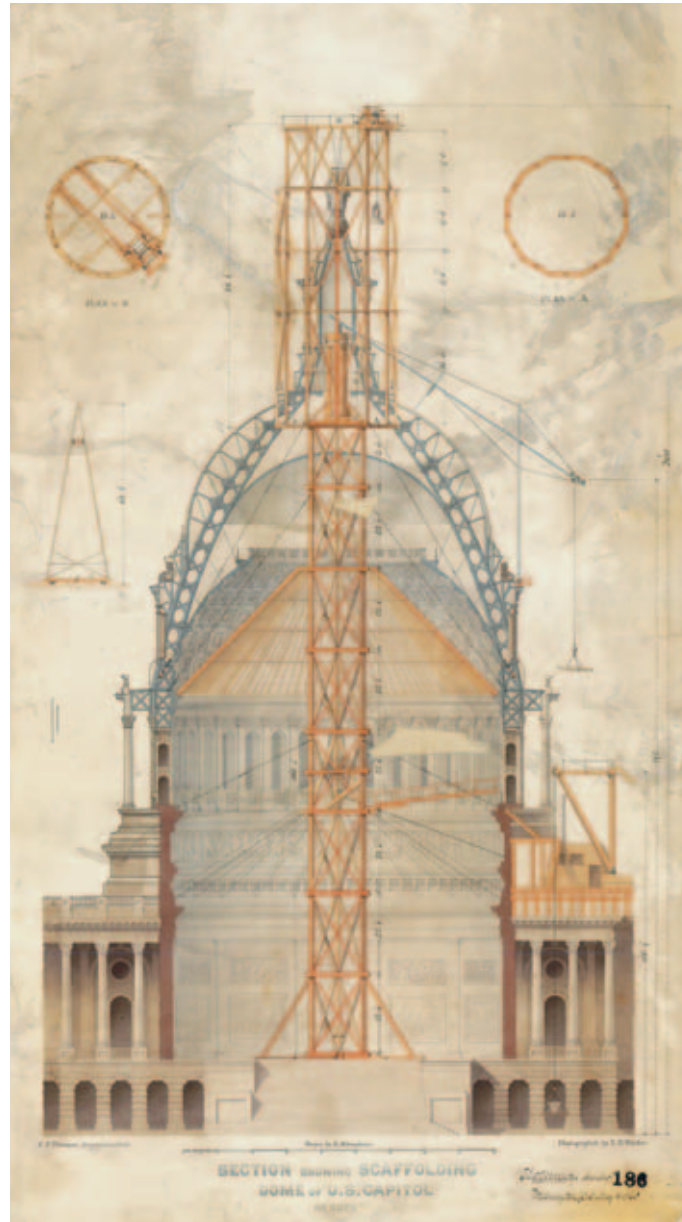
SECTION OF DOME,—WALTER ARCHITECT.

Revisions made in 1859 resulted in this double dome. Walter finished the drawing on July 21, 1859.



OUTLINE SECTION OF DOME SUGGESTING ALTERATIONS ABOVE THE PERISTYLE,—WALTER ARCHITECT.

1859 design study eliminating the dome's second story (related drawing, plate 188).

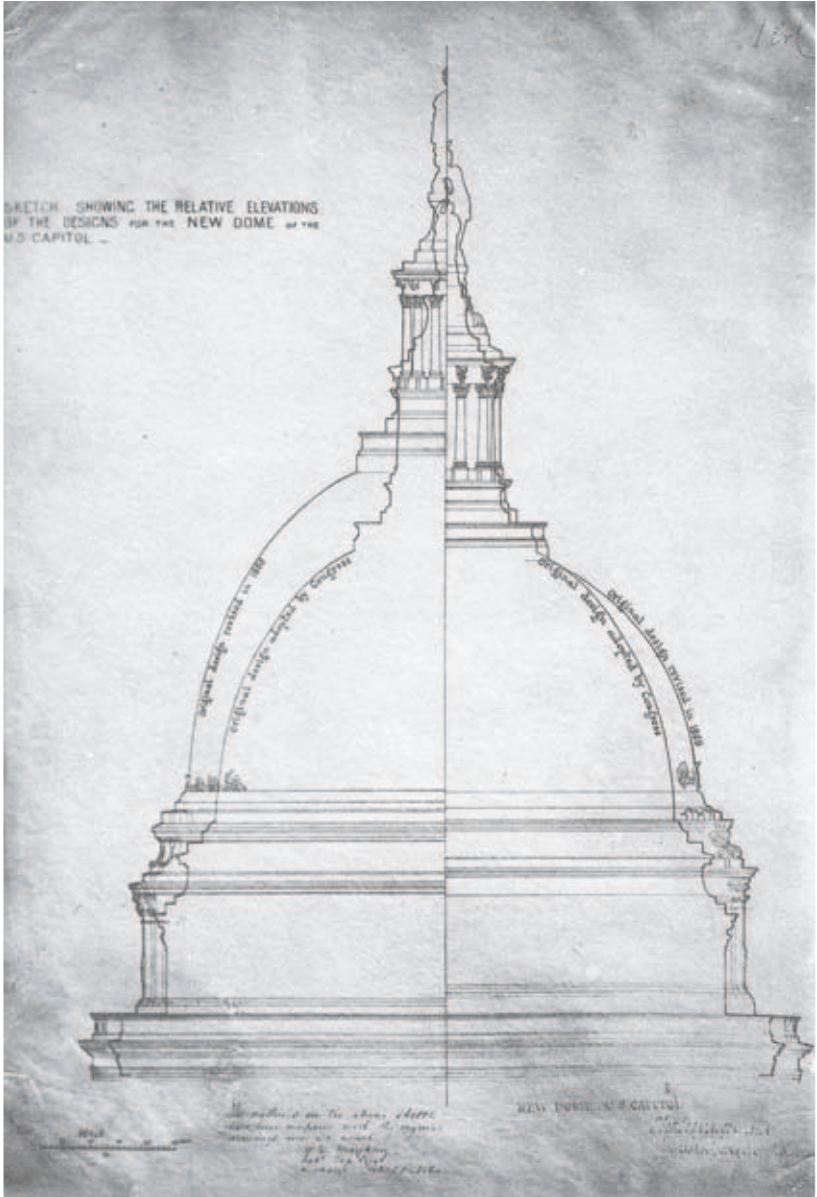


SECTION OF DOME SHOWING SCAFFOLDING AND TEMPORARY ROOF

The head of the Statue of Freedom is shown being lifted into place.



MODIFIED ELEVATION FOR DOME,—WALTER ARCHITECT. NOT EXECUTED.  
1859 design study (related drawing, plate 186a).



SUGGESTIONS FOR OUTLINE OF DOME.—WALTER ARCHITECT.

Drawing comparing the heights and profiles of the various dome designs. Signed and dated, February 25, 1860. This drawing was included in the *Capitol Extension and New Dome Photographic Books*, ca. 1860. Location unknown.