# CHAPTER 2-1854



"The Progress of Civilization," the pediment designed by Thomas Crawford for the Senate wing of the Capitol Architect of the Capitol



Constantino Brumidi, 1859 Architect of the Capitol

# Sketches by Meigs

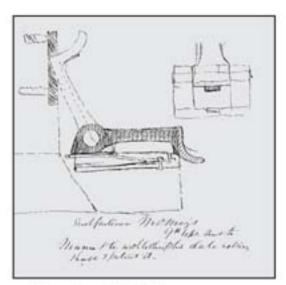
The Papers of Montgomery C. Meigs, Manuscript Division, Library of Congress. Shorthand Journal, Volume 1 (Oct. 15, 1852-Dec. 31, 1855)



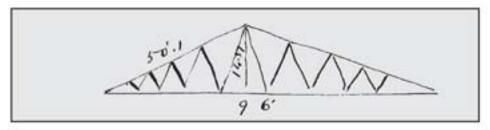
model of column capital



cast-iron die



sash fastener invented by Meigs



roof truss

# **CHAPTER 2—1854**

## [longhand transcription follows]

JAN. 1. Sunday—went to church.

[JAN.] 2. Holiday and visiting day. Called according to custom on the President who had a great crowd and must have shaken hands with some thousands. Called upon Secretary of War, Navy, and Treasury and upon some friends.

\* \* \*

[JAN. 3] Discharged Mr. J.B. Muller, draftsman. He does not draw well enough for me and I have not time to teach him.

The Civil and Diplomatic Bill is reported and printed and does not contain the appropriation for the Capitol as I was informed by the mayor—his informants misled him. <sup>1</sup>

\* \* \*

[JAN. 3 CONT.] A resolution calling for information in regard to Capitol passed the Senate this morning. The commission on marble is appointed by the Secretary. Bache, Henry, Totten.

The person who piled bricks at Capitol at 28¢[?] per thousand says he did not make money on this month's work of 700,000 bricks because the piles were too high.

General Totten says he had a talk with Senator Clayton<sup>2</sup> of Delaware, who expressed pleasure at being so right in regard to the Capitol and confidence in Bache, Henry and myself as committee on acoustics and ventilation.

I am sorry that the Capitol appropriation is not in the Civil Bill. There is no hurry for the money as we have enough to last till the end of the session and if there it would pass without inquiry. I under-

<sup>&</sup>lt;sup>1</sup>In the mid-nineteenth century and until ratification of the twentieth amendment in 1933, presidents took office on March 4, and a new Congress was required by the Constitution to convene on the first Monday in December. The dates of a Congress ran from March 4 of an odd-numbered year until March 3 two years later. Thus, the first session of a Congress that convened in December might run to July or August of the following year, depending on the press of legislation, while the second session could run only from December until the following March 3. In years when a new president took office, the Senate often held a special session in March to consider cabinet and other executive nominations.

<sup>&</sup>lt;sup>2</sup> John M. Clayton (1796–1856), Whig of Delaware, served in the Senate, 1829–1836, 1845–1849, and 1853–1856. He was secretary of state, 1849–1850.

stand Stanton is very active in regard to the Capitol, very much incensed and bent on mischief.

#### [several words in shorthand not transcribed, longhand continues]

Resumed the Practice of Phonography.

[JAN.] 4. Returned to General Totten McCulloch's Western Isles and ordnance manual borrowed from Engineer Department. Went to Ordnance Bureau and to Navy Yard to see about borrowing a testing machine. Called upon General Houston<sup>3</sup> whom I found stretched at length on a red blanket on the floor of an upper room at Willard's Hotel with his head supported upon a newspaper pillow. He received me courteously, professed rather a favorable disposition towards me, having served under[?] Return J. Meigs<sup>4</sup> and known thus of the western branch of our family. He never heard anything ill of me. But he was bitter against Walter and denounced him in unminced[?] terms. He was not well and lay prone during the hour or more I remained with him receiving visitors and pouring out tobacco spit and blasphemies in a mingled stream. He was civil towards me, however, and promised to call at the office, his only complaint being that Walter was retained; to him he never could be reconciled, considered it an indignity to the committee of inquiry and had nearly abstained from calling upon Jefferson Davis on 1st January on that account. However my visit was of use and I hope and believe will prevent his taking any active part against me.

\* \* \*

[JAN. 4 CONT.] Mayor called, thinks the Capitol appropriation has passed the Ways and Means though not in the Civil Bill as printed. Will see District committee and try to get them to act favorably on the Aqueduct Bill.

\* \* \*

[JAN. 5] Before going to the office I called on General Totten, reported progress as to the crushing machine and by his direction wrote a letter

<sup>&</sup>lt;sup>3</sup>Samuel Houston (1793–1863), Democrat then American party of Texas, served in the Senate, 1846–1859. He was previously governor of Tennessee (1827–1829), commander in chief of the Texas army, and president of the Republic of Texas (1836–1838 and 1841–1844). He served in the House of Representatives from Tennessee, 1823–1827. In the Senate in 1852 he had presided over hearings by a special committee looking into government contracts that uncovered wrongdoing by Samuel Strong, who had been the general superintendent on the Capitol extension, working under architect Thomas Walter. The inquiry called into question Walter's management of the project. See discussion of the investigation in the Introduction on page xxix.

<sup>&</sup>lt;sup>4</sup>Return J. Meigs, Jr. (1764–1825) of Ohio served in the Senate, 1808–1810. He was a cousin of Meigs' father.

for his signature asking Colonel Craig <sup>5</sup> for the machine at Pikesville Arsenal near Baltimore.

I called also on Mr. Burton Craige of North Carolina, Chairman of House Committee on Public Buildings, and had an hour's talk with him on the subject. He promised to visit the office at 7 p.m. for the purpose of seeing what was there done and how. I called for him at 7 p.m. and took him to the office, introduced him to Walter and Denham, showed him our books, reports etc, plans of alterations and of works in progress.

He seems intelligent, fair, and a gentleman and I do not doubt that he will be all right. Mr. Stanton has been with him and is very active desiring to appear before the committee and plead his cause.

The Mayor at my request called upon Mr. Craige today and I presume enlightened him a little.

I wrote my monthly reports—disbursements on Capitol during December about \$48,000 [\$45,000?]. Too much occupied today to write phonography. [shorthand phrase not transcribed]

\* \* \*

[JAN.] 7. It froze hard last night. On north wing of Capitol we are covering the works with several inches of sand and roughly paving the sand with brick to keep off rain and frost as much as possible. On south wing the spandrils being generally filled up level, a few inches of sand covered with boards have been laid down. Some bricks are still being delivered and some sand is arriving[?]

\* \* \*

Senator Hunter <sup>6</sup> came into the office, having just been into Mr. Walter's room and seen the plans and alterations. He seemed satisfied and was very pleasant. \$10 a thousand for brick being mentioned he asked if that was not a very high price. I told him yes but that it was the price in open market of paving bricks here now and that the question was not whether we should pay more or less but whether we should pay more or go without and then explained the facts of the case to him and asked whether I ought to have had the work stop or buy the bricks wherever I could get them. He said I was right, asked when the work could be finished. I told him we would roof it next year if Congress would enable us to make satisfactory arrangements with

 $<sup>^5\</sup>mbox{Henry}$  Knox Craig was chief of Ordnance for the army.

<sup>&</sup>lt;sup>6</sup>Robert M.T. Hunter (1809–1887), Democrat of Virginia, served in the House of Representatives, 1837–1843, 1845–1847, and in the Senate, 1847–1861. During the architectural competition for the Capitol extension, he chaired the Senate Committee on Public Buildings and Grounds. He had been Speaker of the House, 1837–1839. As chairman of the Senate Finance Committee, 1849–1861, Hunter was supportive of Meigs' work on the Capitol. The Senate expelled him in 1861 after his state seceded. For the Confederacy, he was secretary of state, 1861–1862, and senator, 1862–1865.

the marble contractors. I then told him of their claims etc. and after a very satisfactory conversation he left us.

Mr. Maury was present.

\* \* \*

[JAN. 7 CONT.] I wrote about a dozen letters and did a good day's business less interrupted than usual.

[JAN.] 8. Sunday, went to church.

[JAN.] 9. A letter yesterday from Levy the New York mantel maker, his German[?] carver has made a design for a mantel for the Capitol which he offers to send me for inspection. He also informs me that a block of Lee marble at auction in New York the other day brought \$4.50 per cubic foot.

\* \* \*

[JAN. 9 CONT.] Senator Hunter called to tell me of an attack on me in the *Herald* <sup>7</sup> and to ask about it. He said he supposed I was not thin skinned enough to mind it, but they said I had spoiled[?] the facade and ordered \$30,000 of sculpture. Had I done so. I told him that I had not wished that to get out and explained what had been done and showed him Crawford's designs for the pediment, with which he seemed much pleased. Mr. Burton Craige, chairman Committee on Public Buildings, called to get a copy of Rice and Heebner's contract and introduce some North Carolina colleagues, who wanted information about brick machines. He said he had concluded, if he could gain the assent of his committee, to report a bill authorizing me to make a supplementary contract for marble.

\* \* \*

[JAN. 9 CONT.] The *Herald* devotes over an entire column to me and the Capitol extension alterations and bricks and tries hard to make me famous. Clearly moved by Stanton. The war goes on. Craige, chairman of Public Buildings, is clearly enlisted on my side. Hunter is all right.

They have finished covering the floors of both wings and the laborers are most of them discharged. The carps [carpenters?] are making centers for vestibules.

 $<sup>^7</sup>$ The New York  $\it Herald$  was founded and published by James Gordon Bennett (1795–1872) from 1835–1867. In the 1850s, the paper often expressed Democratic and southern sympathies.

[JAN.] 10. Saw General Totten, who will meet with the other members of the marble commission at my office tomorrow at noon. Colonel Craig has sent orders to Pikesville to pack and ship to me the testing crushing machine for use of the commission.

\* \* \*

[JAN. 10 CONT.] Set the foremen to measuring the brick work laid in the Capitol new foundations in order to give the required information to the Committee on Public Buildings House.

\* \* \*

[JAN. 10 CONT.] Cleaned off my table and read over my printed report in 2d volume of Presidential Message. It is free from errors of the press and more free from verbal errors of style than I expected after so hurried a composition.

I put into the copying clerk's hands the rough of a letter to Mr. Craige, chairman of Committee on Public Buildings, in relation to expenditures etc.

\* \* \*

[JAN. 11] General Totten and Professor Henry met at my office at noon and proceeded (Bache being indisposed) to select blocks of stone from which specimens are to be cut for the test.

Directed Rutherford to prepare them to be sent to Smithsonian there to be cut.

Mr. Rice is in town today. I showed him the letter I had written to the Secretary of War with draft of a bill to enable us to make a supplemental contract with them.

\* \* \*

[JAN. 12] Asked Mr. Craige to call and see the marble offered by Smith and Mentation[?] and other bidders in competition with the Lee marble.

Mr. Dean of New Haven left a very beautiful slab of serpentine. Says it can be obtained of large size. It would make beautiful columns.

Wrote to E. Leutze  $^8$  Dusseldorf in regard to fresco painting in Capitol.

<sup>&</sup>lt;sup>8</sup>Emanuel G. Leutze (1816–1868) was an American painter who had a studio in Germany until 1859, then studios in New York and Washington, D.C. He is best known for his 1862 painting, Westward the Course of Empire Takes Its Way, in the Capitol and the 1851 Washington Crossing the Delaware at the Metropolitan Museum of Art in New York.

[JAN. 13] The bricks from abroad averaged unloaded here—\$9.80—delivered at Capitol \$10.56. There were nearly 5 millions. Total received this season 8,670,000.

Used in cellars 1,275,000—of the earlier contract \$6.37 and \$5.88 average  $$6.12\frac{1}{2}$ .

Total cost of cellar work will not probably exceed \$30,000. Laying bricks in cellar cost \$4.02 per thousand.

\* \* \*

[JAN.] 14. Completed and gave to Mr. Craige, chairman Committee on Public Buildings House of Representatives, the letter in regard[?] to expenditures on Capitol and changes of plan.

Total cost of changes in cellar and foundations \$26,000. Bricks laid in cellar 75,000 cubic feet 1,275,000—concrete 1,248 cubic yards. Laying the bricks cost \$4.18 per thousand—The concrete cost \$4.51 per cubic yard, of which the labor of breaking stone and depositing[?] was \$1.76, rest materials. Total bricks received 8,670,000. On hand now[?] 2,928,000. Laid 5,660,000. These numbers. are from masons and are not correct exactly but within a few thousands.

Bricks in basement laid this year: 4,400,000—Total cost of this year's work deducting debts paid by me for Walter's last year's work and value of bricks and marble in hire[?] about \$270,000, which has built nearly the whole basement story and a large quantity of alteration in cellar and bought machinery, tools, horses, carts, waggons, lumber, etc. applicable to future operations.

\* \* \*

[JAN. 14 CONT.] I saw Mr. Craige. He suggests various objections which Mr. Stanton is raising. He is taking the part of an advocate, has no objection to increase of size of marble perhaps because Provost and Winter will profit by it.

*Tribune* <sup>9</sup> contains a letter signed O.M. 11 January [18]54 Washington, which contains some allegations in regard to my giving bonds etc. which tempt me to answers.

Mr. Belcher <sup>10</sup> of Connecticut of Committee [on] Public Buildings called to get architect's report and I showed him the drawings of alterations and explained them to him.

 $<sup>^9</sup>$  The New York *Tribune* was the paper founded and edited by Horace Greeley from 1841 to 1872. In the 1850s it espoused Greeley's Free-Soil views.

<sup>&</sup>lt;sup>10</sup> Nathan Belcher (1813–1891), Democrat of Connecticut, served in the House of Representatives, 1853–1855.

[JAN.] 16. I saw today Bayard, <sup>11</sup> chairman Senate Committee on Public Buildings. Called at his lodgings and he afterwards called at my office. But the Senate had sat so late that he could not look at the drawings as he proposed. Will call tomorrow at 10 a.m. Spoke with Mr. Hunter also. Brodhead <sup>12</sup> too. [George Washington] Jones of Tennessee of House, and Mr. Chamberlain <sup>13</sup> of Indiana called at office. To him I showed the drawings and explained them. He is on the Committee of Public Buildings, House. Mr. Brodhead offered to be my channel of communication with the Senate.

Called on Bache to look at the stone of Capitol extension. This morning a meeting of the commission at which General Totten failed to be present. Adjourned to Wednesday evening at Smithsonian. Read over the Analyses of Smith[?] and Terry[?] and Ellet. <sup>14</sup>

\* \* \*

[JAN.] 17. A rainy day. Mr. Bayard called and looked at the drawings, mentioned to me the various charges he had heard made, as to changes, bricks contracts etc. and heard my explanations. He looked at the report of the commission on marble in regard to the strength of the Lee stone etc., and expressed himself satisfied that the new plans were much better than the old. The committee meets on Thursday morning and I must be present.

The *Herald* received today contains another article in regard to my works in which it dwells upon the fact of bonds not being given and says that I shall have \$1,750,000 at my disposal with no other guard than my honor. The letter charges me with extravagance etc. but makes no charge against my honesty or honor. The fact that I have so much money entrusted to me is presumptive evidence.

These people who write these letters are incapable of conceiving that honest men can look upon millions without the desire to steal them.

\* \* \*

[JAN. 17 CONT.] Tried chlorine wash upon some stains on Capitol, the result I cannot project till the application has remained for a time.

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[JAN. 18] Attended meeting of the Committee on Public Buildings of House. Stanton's resolution was not taken up as I expected, being post-

<sup>&</sup>lt;sup>11</sup>James A. Bayard, Jr. (1799–1880), Democrat of Delaware, served in the Senate, 1851–1864 and 1867–1869. He chaired the Committee on Public Buildings and Grounds in the Thirty-third through Thirty-fifth congresses (1853–1859).

<sup>&</sup>lt;sup>12</sup> Richard Brodhead (1811–1863), Democrat of Pennsylvania, served in the Senate, 1851–1857.

<sup>&</sup>lt;sup>13</sup> Ebenezer M. Chamberlain (1805–1861), Democrat of Indiana, served in the House of Representatives, 1853–1855.

<sup>&</sup>lt;sup>14</sup>Charles Ellet (1810–1862) was an American engineer.

poned. The supplemental contract resolution was, however, and after debate and explanation from me it was postponed for further information. I was directed to prepare an estimate of the difference in cost between the old price and that asked and the cost of returning to the 9 inch and 18 inch beds for ashlar.

\* \* \*

[JAN. 18 CONT.] In evening to meeting of marble commission at Smithsonian. Directed to prepare a frame for grinding down 18 cubes of marble at once and a box of silver to freeze them in.

\* \* \*

[JAN. 19] After this was settled I went to Senate Public Buildings Committee but no quorum was present. Mr. Bayard promised to let me know if he could get them together tomorrow morning.

\* \* \*

[JAN. 19 CONT.] Ordered frame for rubbing[?] cubes. Grindstone on vertical[?] axis also. Tried to get the silver tray made. Mr. Warriner <sup>15</sup> could not do it. Sent to Lewis <sup>16</sup> another but too late for an answer.

Rainy night, now dressed for Secretary Davis' reception and waiting for Nannie <sup>17</sup> and Macomb to go there.

\* \* \*

[JAN. 19 CONT.] *Tribune* of yesterday contains a correction of its correspondent O.M.'s lies in regard to my accounts and doings on Capitol extension.

Went to the Secretary's, saw there Colonel Taylor of the Comptroller's Office who is very bitter against Mr. Stanton of Kentucky, thinks him connected with contractors and at the bottom of the present difficulty.

\* \* \*

[JAN.] 20TH. Went to the Capitol to meet the Senate Committee of Public Buildings but they did not get together.

Gouverneur Kemble <sup>18</sup> called to talk of a scheme for a great historical gallery in the present House of Representatives, told him and proved to him that the room was not adapted to it. Columns not far enough

<sup>&</sup>lt;sup>15</sup>C. Warriner and Co. of Washington were jewelers.

<sup>&</sup>lt;sup>16</sup> Samuel Lewis was a silversmith.

 $<sup>^{17}</sup>$ Annie Rodgers Macomb (1824–1916), known as "Nannie," was Louisa Meigs' sister. She and her children lived in the Meigs household in 1859 while her husband was on assignment in Santa Fe.

 $<sup>^{18}</sup>$  Gouverneur Kemble (1786–1875), Democrat of New York, had served in the House of Representatives, 1837–1841. He was an art connoisseur and patron who had a foundry and home across the Hudson River from West Point.

apart to place them between and too dark behind them for pictures. Showed what we proposed in the way of art.

\* \* \*

[JAN. 20 CONT.] Went to Smithsonian to arrange the catalogue of marble specimens. Found two waiting[?]. I sent over one, the East Dorset Vermont stone, and will attend to the other.

\* \* \*

JAN. 21. Called on Colonel W.B. Burnett. <sup>19</sup> He was at breakfast, on Mr. Clingman <sup>20</sup> of North Carolina. He was not dressed though it was after 10 a.m.

\* \* \*

[JAN. 21 CONT.] In evening completed and handed to Mr. Craige an estimate of difference in cost of marble if all the demands of Rice and Heebner are allowed from the cost if we go back to the 9 inch and 18 inch beds of the contract. It is about \$66,000 including saving in cutting.

I told him I thought this a small sum.

\* \* \*

[JAN.] 23. Received from the secretary of the American Philosophical Society a notification of my election as a member. A letter from my father informs me that I had been nominated according to the rules 3 months before, not as is common by a friend but by the officers and council. So I suppose the election is an honour. I wrote to my father to tell me what I am to do and to pay and what advantage I am to gain by this election.

Mr. Henry Dmochowski Saunders, sculptor of France, called to present to me a young Polish engineer on his way to Lima who spoke no English and to whom I could be of no service. He also invited me to see some busts of his making.

Saw on the way to the Capitol Senator [George Wallace] Jones of Iowa who promised to come and see our plans, saying however that he expected to be one of the dissatisfied ones.

\* \* \*

[JAN.] 24. Today I signed and sent in my accounts for Fort Montgomery, Capitol extension and Aqueduct.

 $<sup>^{\</sup>rm 19}\,\rm Ward$  B. Burnett was a former army officer.

<sup>&</sup>lt;sup>20</sup>Thomas L. Clingman (1812–1897), Whig then Democrat of North Carolina, served in the House of Representatives, 1843–1845 and 1847–1858, and in the Senate, 1858–1861. He was expelled in 1861 after his state seceded. During the Civil War, he served in the Confederate army.

Arranged my commonplace book of newspaper scraps. I have less to record as business done today than on any day for some time past. I wrote some Phonography, read Mills' <sup>21</sup> pamphlet on waterworks, a collection of articles which appeared over his signature in 1850 or 1849 in the *Intelligencer* <sup>22</sup> etc. etc.

\* \* \*

[JAN. 26] Monday's *Herald* contains another column of denunciation of me. "Spoiled yes ruined the Capitol!" It is mixed up with much denunciation of military usurpation and other claptrap of that sort.

\* \* \*

[JAN. 27] The papers announce that A. Iverson <sup>23</sup> is elected to the Senate from Georgia, a son-in-law of Mr. Forsyth. <sup>24</sup> He will replace a very worthy man Mr. Dawson. <sup>25</sup>

# [shorthand transcription follows]

I received from New York today the compendium pasted in this book and the phonography book number 1.26

# [longhand transcription continues]

[JAN.] 28TH. Spent great part of the morning at the Library of Congress where I read and looked through various architectural works, particularly a description of the Panthéon and other Roman antique edifices. The palace of Diocletian among them.

Mr. Craige says he has appointed Wednesday as the committee day for the Public Buildings Committee and that he is satisfied that Stanton writes the articles in the *Herald*.

\* \* \*

### [shorthand transcription follows]

<sup>&</sup>lt;sup>21</sup>Robert Mills (1781–1855) was an American architect and engineer. In Washington he designed the Treasury Building, the Washington Monument, the Post Office, and the Patent Office.

<sup>&</sup>lt;sup>22</sup> Washington National Intelligencer.

<sup>&</sup>lt;sup>23</sup> Alfred Iverson (1798–1873), Democrat of Georgia, served in the House of Representatives, 1847–1849, and in the Senate, 1855–1861.

 $<sup>^{24}</sup>$ John Forsyth (1780–1841), Democrat of Georgia, served in the House of Representatives, 1813–1818 and 1823–1827; in the Senate, 1818–1819 and 1829–1834; and as secretary of state, 1834–1841. He was Meigs' uncle by marriage.

<sup>&</sup>lt;sup>25</sup> William C. Dawson (1798–1856), Whig of Georgia, served in the Senate, 1849–1855.

<sup>&</sup>lt;sup>26</sup>The compendium is pasted in the beginning of volume 2 of the original journal. It appears here as an illustration on page viii.

[JAN.] 29. Sunday. Went to church and heard Mr. Pyne <sup>27</sup> preach twice. He is a very fervent ordained preacher, and it is a great pleasure to hear a man in the pulpit who you are sure is sincere in what he says.

Johnny complains a good deal lately of headache. It is only caused by overindulgence in eating, but everything of this kind now makes us uneasy. Our poor little darlings Charlie and Vinty both died of disease of the brain.

There is today a little snow, just enough to remind us of the pleasant winter sports and employments of Rouses Point, where those dear little lost ones used to enjoy their freedom by the shore of the lake. They used constantly to regret that they ever left it and seemed to think that a return there would be the greatest happiness they could gain.

\* \* \*

[JAN. 31] The Secretary sent today for me, to ask some information about Walter's appointment. He proposed to write a note to the President in regard to him, recommending, I think, his dismissal, and thought that [he] was intriguing against me and was disposed to make short work with him. I combatted this \_\_\_\_\_\_ and I hope satisfied him that Mr. Walter was misjudged in the matter. We then spoke of the articles in the *World*. <sup>28</sup> I told him I had no doubt they are from Mr. Stanton, but he would not allow that he could write them. I told him what Mr. Craige said of his telling me something which appeared in his newspaper lately and that I had no doubt upon the subject, as I had similar information from several persons. We had a general talk, and I walked part way home with him. He invited me to take potluck with him but I declined, as they would wait for me at home.

\* \* \*

[FEB. 1] This morning I met the Committee on the District and had some discussion of the question of the marble contract. There was not a full meeting, and nothing was decided. Mr. Craige, chairman, is opposed to it because he thinks the contractors are trying to make money by an unreasonable demand. Belcher and Chamberlain are in favor of it.

\* \* \*

[FEB.] 2nd. Tried today the mortar mill and found the engine too feeble. It will be necessary to get a larger one. I thought this engine, which is of 4 or 5 horsepower, would be quite strong enough, for General Totten told me that his had been driven by 2 horses.

<sup>&</sup>lt;sup>27</sup> The Reverend Smith Pyne was rector of St. John's Episcopal Church, which Meigs attended and where he served on the vestry in 1854.

<sup>28</sup> New York World.

Mr. Hunter of the Senate asked me today whether there was any attempt to remove Mr. Walter. I told him what Mr. Davis had said and that I thought it a great wrong and a misfortune to me personally. He said he was convinced that Walter was true to me and he thought it very important to keep his services for the country, and he would see the Secretary on the subject.

This night I went to the reception, or a soiree, of Mr. Davis, Secretary of War. There was a great crowd.

\* \* \*

[FEB. 2 CONT.] Captain Alexander tells me that [Clement L.] West is very bitter against me and assumes it to be a fact that Walter is discontented with his position and feels bitter against me. He is intimate with Stanton and says that he has the articles of the *Herald* before they are printed. I believe he is wrong about Walter, but he has no sense and may honestly believe this and be mistaken. Still, I do not see why he should be so hostile to me. I always treated him well.

The party was a crowd.

[FEB.] 3. It is said that Mr. Stanton made a speech against me on the first or second of February in the House, but I have not yet seen it. Sent in my reports for January. The average force in the Capitol by U.S. and by contractors has been 220 men. In aqueduct, 250.

\* \* \*

[FEB. 3 CONT.] Senator Jones of [Iowa] called. He looked at the drawings and seemed pleased with the \_\_\_\_\_\_ beauty, particularly the staircase. He had with him Mr. Bolton of the Canadian Parliament and of the Eastman stone stressing [?] machine. Mr. Cheever[?] was also along. Mr. Bolton is here, I suppose, to try to introduce the machine here.

We received at the Capitol this season 112,545 bushels of sand, 2,207 barrels of lime, 520 perches of stone, 696 bushels of gravel, 3,537 bushels of white gravel, 309 perches of broken brick for concrete, 9,861 barrels of cement, 10 tons of asphalt, 21 casks of \_\_\_\_\_\_ tar, 8,760,062 bricks.

Besides this, there was a large quantity of other materials, marble. I must have a statement of the number of days' work of all kinds up to the 1st of January and of the number of feet of marble, and so forth.

\* \* \*

[FEB.] 6TH. I wrote today many letters which had accumulated since Saturday. Provost and Winter earned in January about \$7,000. I think

their payments for wages cannot have exceeded \$4,600, a pretty good month's work.

I dined with Mr. Walter and looked over his drawings and prints. He had not as many as I expected. Mr. Heebner came in, just arrived to look at some stone which he had requested me to suspend till he can see it, as our inspection has reduced it much in size and price.

Talked over the ceiling of the upper rooms. Determined to put several domes in the corridors to give variety by contrast with the groined arches which are so numerous. The ceiling of the attic must be of iron, and in this we again have great variety, making some flat domes, others ribbed, either flat or arched. By using iron, we can avoid the strain upon the walls caused by the thrust of the arches. I suppose, too, that iron will be as cheap as brick arches.

[FEB.] 7. I received today a letter from Mr. Kemble, who advised that the present Hall of Representatives is not suited for a picture gallery of large historical pictures and now proposes to devote it to a collection of statues of our distinguished men. He gives me some criticisms upon the principal painters of the United States, from which I am the more convinced that we have no painter of eminence known fit to decorate the halls of the new Capitol.

I called in the evening on Mr. Pearce <sup>29</sup> of Maryland and on Gwin <sup>30</sup> of California. Not finding them at home, I went to the theater to see the drop [?] scene, which Mr. Kemble had requested me to see, from a sketch by Chapman <sup>31</sup> of the landing of Columbus, which he designed for the Rotunda of the Capitol, until I found that Vanderlyn <sup>32</sup> had selected that subject. It is the design which for a long time headed the paper called *The New World* and is a landscape, not a historical picture.

Mr. Bayard called. His old \_\_\_\_\_ has been to him to talk about the Capitol, and he told him to submit any statement in writing; that he could not talk to every man he met upon these affairs and would investigate any charges submitted in writing.

<sup>&</sup>lt;sup>29</sup> James A. Pearce (1805–1862), Whig then Democrat, of Maryland served in the Senate, 1843–1862. From 1845–1862, he chaired the Committee on the Library, which had jurisdiction over considering works of art offered for the Capitol. In this role he was very helpful to and supportive of Meigs. He had served in the House of Representatives, 1835–1839 and 1841–1843.

 $<sup>^{30}</sup>$  William M. Gwin (1805–1885), Democrat of California, served in the Senate, 1850–1855 and 1857–1861. He had served in the House of Representatives from Mississippi, 1841–1843.

<sup>&</sup>lt;sup>31</sup> John G. Chapman (1808–1889) was an American painter whose *Baptism of Pocahontas* was placed in the Capitol Rotunda on November 30, 1840.

<sup>&</sup>lt;sup>32</sup>John Vanderlyn (1775–1852) was an American painter whose *Landing of Columbus* was placed in the Capitol Rotunda on January 5, 1847. His portrait of George Washington is in the House chamber

[FEB. 8] I called at the Department and saw General Totten, but the Secretary was so late I could not wait for him, and I had to take back to the office the drawings I wished to show him.

I read through tonight Mr. Walter's scrapbook containing most of the debates upon the extension. I do not think I had the whole of them.

Mr. Heebner is here, and I gave him a letter today introducing him to the chairman of the Committee on Public Buildings, Mr. Craige. He was much surprised when I showed him that Rice[?] had been engaged to supply all the stone for the Capitol in 2 years. He thought it was 4 years.

\* \* \*

[FEB. 9] Yesterday, Mr. Stanton, on the question of the Armory Commission, made a speech against the military superintendence of the Capitol, denouncing it bitterly.

Mr. Walter says that Craige told Heebner that the feeling against military rule was so strong as to make it probable that all civil works would be taken from us. This worried and alarmed Walter, and he proposed to write to Mr. Hunter a letter stating his position and feelings.

[FEB.] 10TH. Dined with the Secretary of War, Mr. Hunter, Bache, Henry, Perkins <sup>33</sup> and Mason <sup>34</sup> of the Patent Office, Craige, and some others. Hunter spoke to the Secretary about Walter and urged him not to think of removing him.

Craige told me they had adopted all the measures I had proposed in committee, but with some restrictions. Change in marble contract and all [?].

[FEB.] 11TH.... This is written on the 12th. I was engaged with Bache this morning, showing him the marble of the Capitol, which he could find no evidence of decay in.

The drawings of the principal floor progress. We are studying the ceilings. As we go, I proposed to use domes and pendentives a good deal. They give variety and relief. We have so many groined arches in the basement that I wish to avoid multiplying them in the principal floor.

<sup>&</sup>lt;sup>33</sup> John Perkins, Jr. (1819–1885), Democrat of Louisiana, served in the House of Representatives, 1853–1855. Later, he served in the Confederate senate, 1862–1865.

<sup>&</sup>lt;sup>34</sup> Charles Mason was commissioner of the Patent Office.

[FEB. 12] This evening I read a part of the *Phonographic Magazine*. <sup>35</sup> I find that I can read it, but it is slow work. It seems that Isaac Pitman, inventor of phonography, is still living.

[FEB.] 13TH. The House of Reps today passed a vote giving to Mr. Stanton the Select Committee on Military Superintendence of Armories, Custom House, etc. This Select Committee will be headed by the mover, Stanton, whose object is to attack the present administration of the Capitol. It was passed under the pressure of the previous question, which cut off all debate. I saw the Secretary, who went with me to see Mr. Perkins, Member from Louisiana, but he was not at home. I found him afterwards, however, and he promised me to try to call the attention of the House to it tomorrow and to prevent the Speaker, under the influence of Stanton, from packing the committee. Davis spoke very contemptuously of Boyd, <sup>36</sup> the Speaker, as he did also of Stanton. If Stanton can beat the Senate and the administration on this question, I can retire with a clear conscience and be quite as well paid as I am now and have much less labor and responsibility.

\* \* \*

FEB. 15. This is from the *Baltimore Sun*. <sup>37</sup> It may be an able committee but it is not a fair one. I believe it is a packed one. The chairman, Stanton, is of course not impartial. His object is to revenge himself for not being chairman of the Committee on Public Buildings. He has been almost crazy on this subject all the session and has written false accusations to the New York *Herald* and canvassed the House against me. Now his resolution is artfully framed to cover up his real object, the attack upon the Capitol in the armory question.

Of Dawson, <sup>38</sup> I as yet know nothing. Dickinson <sup>39</sup> is from Spring-field and elected to oppose military control of the armory there. Faulkner, <sup>40</sup> of the same feeling, was elected from Harpers Ferry. Of Sapp, <sup>41</sup>

<sup>&</sup>lt;sup>35</sup> Phonographic Magazine, published by Benn Pitman, Phonographic Institute, Cincinnati, Ohio.

<sup>&</sup>lt;sup>36</sup>Linn Boyd (1800–1859), Democrat of Kentucky, served in the House of Representatives, 1835–1837 and 1839–1855, and as Speaker, 1851–1855.

<sup>&</sup>lt;sup>37</sup> An article from the *Baltimore Sun* of February 15, 1854, inserted in the journal announces the appointment of the select committee, then adds: "This is a very strong and able committee, fully equal to the important task assigned to it. Mr. Stanton's resolution for the appointment of that committee was carried by a vote of 91 to 38—a pretty good vote on such a subject at this time."

<sup>&</sup>lt;sup>38</sup> John L. Dawson (1813–1870), Democrat of Pennsylvania, served in the House of Representatives, 1851–1855 and 1863–1867.

<sup>&</sup>lt;sup>39</sup> Edward Dickinson (1803–1874), Whig of Massachusetts, served in the House of Representatives from 1853–1855. He was the father of poet Emily Dickinson.

<sup>&</sup>lt;sup>40</sup> Charles J. Faulkner (1806–1884), Whig then Democrat of Virginia, served in the House of Representatives, 1851–1859. He later represented West Virginia in the House, 1875–1877. During the Civil War, he served in the Confederate army.

<sup>&</sup>lt;sup>41</sup> William R. Sapp (1804–1875), Whig then Republican of Ohio, served in the House of Representatives, 1853–1857.

I know nothing. Van Sant, <sup>42</sup> I am told, is, on the contrary, partial to me. Keitt, of South Carolina, is a member of the Committee on Public Buildings, and he promises to stand by me and see justice done. And he, I suspect, is the only one on the committee from whom I can expect anything like fairness or justice.

Mr. Craige and Keitt, as members of the Public Buildings Committee, are very much incensed. Keitt talked of resigning; and Craige, who had nearly prepared his report, ceased working at it, as the House had taken the matter out of their hands by referring it to a new committee. I desired them to make the report, however, as coming from a standing and an unprejudiced committee. It would have much more weight than anything coming from a committee known to be packed. After discussion, it was determined to make the report, which will be in my favor.

The joint resolution to change the contract was reported and passed in the House today, without objection, Mr. Craige making a little explanation of the \_\_\_\_\_ of the power. Taylor <sup>43</sup> is in favor of us, and he was for having the report made. I expect much trouble from this committee, but I expect that truth and justice will prevail at last.

The New York *Tribune* of yesterday publishes my letter of the 8th but does not correct editorially its misstatements of the former article. This is not fair. To admit my denial is not the same as to retract a false statement.

\* \* \*

[FEB. 17] At the Treasury, I got for Mr. Craige the exact process of drawing money from the Treasury, the hands through which the requisition and warrant pass, from the first letter of the disbursing agent till the warrant is given to him for every \_\_\_\_\_\_. This I handed to Mr. Craige this evening. Called at Mr. Hunter's, who, I was told by Mr. Craige, wished to see me, but he was out.

[FEB.] 18. Tom Florence, <sup>44</sup> a Democratic member from Philadelphia, called. He had a letter from some friend who desired to know when the contracts for the aqueduct would be given out. This led to a talk in which he said he was ready to learn and open to conviction and must look into this matter. He had received a letter from Major Charles Biddle speaking very highly of me, and although he had made a

<sup>&</sup>lt;sup>42</sup>Joshua Van Sant (1803–1884), Democrat of Maryland, served in the House of Representatives, 1853–1855

<sup>&</sup>lt;sup>43</sup> Either John L. Taylor (1805–1870) of Ohio, who served in the House of Representatives, 1847–1855, or John J. Taylor (1808–1892) of New York, who served in the House of Representatives, 1853–1855.

<sup>&</sup>lt;sup>44</sup>Thomas B. Florence (1812–1875), Democrat of Pennsylvania, served in the House of Representatives, 1851–1861.

speech against my direction of the Capitol as a military man, he did not desire to injure a townsman and a friend of Major Charles Biddle.

Professor Henry called, and I went with him to visit Craige and Hunter. Came home with influenza.

[FEB.] 19. In bed all day with violent influenza.

[FEB.] 20. Heavy snowstorm. Went to the Committee on Public Buildings of the Senate, and they adopted the resolution of the House for increasing the thickness of the ashlar and getting the columns in monolithic shafts. Then to the War Department, where Davis wished to see me to talk on the Select Committee, which he intends to keep up to their work, and he desired me to prepare a resolution of a form to call out for investigation of our points in connection with the Capitol extension.

[FEB.] 21. Detained at home by a severe cold. The joint resolution for procuring monolithic columns passed the Senate yesterday.

[FEB.] 22. Still detained at home by cold. Yesterday, a steam engine from Baltimore of 11 inch cylinder and 24 inch stroke, with boiler 36 inches x 40 inches, for \$1,600.

[FEB.] 23. Confined to my house by a cold or bronchitis.

[FEB.] 24TH. Went to the Treasury Department to attend to some point in reference to my accounts. Afterwards to the office. We have now both stories. Mr. Walter has taken the upper stories, which gives him better light and more room, and the clerks have a back room on the same floor as myself.

[FEB.] 25. Wrote to Rice, Baird, and Heebner, giving them size of the stones for pilaster capitals and requesting them to send them early in the season.

\* \* \*

[FEB. 25] Colonel Jones of New Hampshire called, also. He is now interested in the stone-cutting machine and wishes to get from Provost and Winter a contract for cutting the plain work of the Capitol. Studied the division of the corner, concluded to divide the whole entablature into four courses.

[FEB. 28] Mr. Heebner is here a good deal, put out by finding that I am not disposed to give him all he asks or wishes in the supplemental contract. He would like to be released from the obligation to send any stone at 65 cents.

\* \* \*

MARCH 1. The payrolls for February for Capitol cost amount to \$3,758.21.

\* \* \*

[MARCH 1 CONT.] Heebner is very much dissatisfied and declares that he will sell out, if he can, from the contract.

[MAR.] 3RD. I wrote to the Secretary to ask the purchase of several books on architecture. Walter has a letter from Rice, who says Heebner is in an awful humor and says he will not quarry another stone for the Capitol and will sell out his share of the contract. Mr. Walter is at work on a bill of stone for the cornice, and I prepared a draft of contract for the thicker ashlar and the monolithic shafts, also for those in 2 pieces.

The Secretary made a visit to the work the other day. I was not there and did not know it till this morning. He was pleased, I understand, with the marble and with the work generally.

\* \* \*

[MAR.] 8. Rice and Heebner refuse to sign the contract for marble in thicker blocks which I sent them. They insist on their offer for all the marble of the Capitol, both inside and out.

Provost and Winter asking settlement of the price of window dressings [?] which they say are much more costly than those they agreed to cut.

I spent some time in drawing the caissons for the elliptical dome which covers one of the rooms.

[MAR.] 10. I consulted with General Totten about Rice and Heebner's contract and Provost and Winter's windows. He thinks that I ought to be very careful and try to get the stone larger but not to submit to any imprecision. He thinks, too, that there is reason in the demand for allowance for cutting stone where the joints are not the same as in the old building if they are not represented on a drawing or described in the contract. So I shall try the time of cutting some of these and endeavor to ascertain the \_\_\_\_\_\_ of the old ones.

We had a meeting of the marble commission tonight. Got there in a very severe gust of wind and rain. Tried the balance of the machine and arranged preliminaries. Did not make much progress, however.

I asked today orders to go to Philadelphia and Lee to see Rice about his contract.

Reading Rondelet <sup>45</sup> tonight, I find details as to the joggling and cramping of the stones of Greek and Roman ruins, which shows that they did not trust to close fitting and to mortar alone but that those which are in the best condition were very carefully and completely bound together with metal bars and joggles. On this fact I shall profit and not trust so much as I have to the adhesion of cement.

\* \* \*

[MAR. 11] Work began on the Capitol on Thursday, a few bricklayers, on the north wing and making preparations on the south wing. I am promised 1,800 barrels of cement on Monday or early in the week from the Potomac Kilns [?].

\* \* \*

# [longhand transcription follows]

MAR. 14. A letter from Mr. Heebner to Provost and Winter shown me this morning states that he intends to ship no more marble until a proper arrangement is made with the U.S. I went to the Department to show this to the Secretary and get his orders to go to Philadelphia to try to make some arrangement with the contractors. But he was at the White House—had not signed my orders, which had been before him two or three days, as he thought I had better not go till I had answered the questions of the select committee. I told Campbell to show him this letter and to say that I felt obliged to go and I should trust to obtaining his after approbation of my journey as the whole season's work was threatened and therefore of more consequence than the answers which besides could be preparing in my absence from the records of the office.

I went by 3½ p.m. train to Philadelphia, which I reached at 12 p.m.

[MAR.] 15. Saw Rice, who said Heebner would be in town next day and he could say nothing till he saw him. I concluded to wait—He was to meet me at his office at 3 p.m. I went afterwards to see J. Baird <sup>46</sup> one of the parties to the contract and represented to him that if they failed in their contract he would be responsible. He said he

<sup>&</sup>lt;sup>45</sup> Jean Baptiste Rondelet (1734–1829) was a French architect and the author of *Traite theorique et pratique de l'art de batir*, Paris, 1827.

<sup>&</sup>lt;sup>46</sup> John Baird was one of the partners in Rice, Baird, and Heebner, marble suppliers.

held from them a bond of indemnity etc. I went to the college (Girard) to look at the condition of the marble. There is some settlement some flushing—and a general loss of the life and freshness of surface which gives much beauty to a new marble building. The material in its present state has not the beauty of sandstone fresh from the chisel. There are few evidences of actual decay but the surface is evidently touched everywhere. There is a good deal of color red and other staining about the frieze now[?] especially but this is not offensive. The ashlar, which is thin, seems to have been well secured to the walls and I saw no displacement. Some blocks were broken by settlement but none started[?] out.

The marble of the shafts looked better than any other. But there is none that I would like to put into the Capitol, none so white as that we use.

The corner columns have some color, the edges of the slabs of the portico floor adjacent to their bases have flushed—on no others did I notice this, though I did not examine all of them. The base of the cell[?] wall projects a few inches, under the windows this course was generally broken and was higher than under the piers, as could be seen by sighting along its corner.

Some water has passed through a few joints of the frieze and through the architraves, which are composed of 4 or 5 slabs side by side. The lime forming stalactites. I saw a few of the red corner stains which appear on our ashlar and which must be caused by the lead on which the blocks are set. Mr. Struthers tells me that in monuments he now never uses lead, that at Laurel Hill it has produced iridescent stains in many tombs. I'll[?] try veneers. He says too that the iron dowels in the Girard College outbuildings show in every block's face a dark color—and he would not use them without coating. Our asphalts will protect them I think. I looked carefully at the marble work [illegible word] in Philadelphia, steps, basement, and subbasement facings and door trimmings. Where new it is very handsome. Some new doors are beautiful but those of 10 or 15 years are all dull and have less beauty than any fresh stone. No sandstone fronts [illegible word] are to be seen in Philadelphia. I am pretty well satisfied that unless our Lee stone is better adapted to resist the effect of time than any other marble it is bad policy to use marble for the exterior of any public building in this country.

[MAR.] 16TH. With Mr. Baird at his yard saw some Danby marble and on the Willow St. Wharf saw 2,000 and up feet of it in slabs. This he says has been exposed to the weather one winter. It is selected as the best out of many thousand feet for exportation south. The marble does not stand. The edges of the slabs roughen[?] and the face

feathers[?]—as though it was full of small close cracks oblique to the surface which open after a short exposure like the grain of pine floor boards. Thus— [small sketch] It would not do for outside work—how it would stand indoors I do not know.

Mr. Rice did not come to his appointment. I waited an hour and then left.

He came to the house in the evening with Heebner, apologized, had missed the train, being out of town and been obliged to wait for a second one. Heebner was with him. We discussed the contract question but with no good result. They refuse the terms and offer, adhere to their letter of 16th Dec., seeming to be particularly tenacious about the having[?] "all remaining marble for the wings at \$1.98," in fact desiring to abrogate the 65¢ clause entirely.

I endeavored to show them they would lose money by the refusal, making by their own calculations by my offer \$35,000[?]—on 100,000[?] cubic feet to be sent this year, but they were not to be moved and we separated with the understanding that I would revoke the order of 9th Aug. last, revise the ashlar and send a bill according to the terms of their contract, while they threaten to resist[?] the contract and to try to show that it is void by my action. This seems to me childish and absurd, but they can delay and trouble us much.

[MAR.] 17. Returned to Washington. While in Baltimore walked to the steam derrick which is ingenious[?] reached Washington at  $5\frac{1}{2}$  p.m.

# [Shorthand transcription follows, except for brief sections of longhand, as noted.]

MARCH 18. Mr. Stanton succeeded in passing an amendment to the provision in the deficiency bill which provided for custom houses, preventing the employment of army officers in charge of them, and this provision was debated by himself and Mr. Craige but passed by a vote of 83 to 52. The whole custom house appropriation was afterwards rejected, and Stanton's motion fell with him.

This shows the feeling in the House, hostile to the Army, which proceeds from want of knowledge, I suppose. Every member with whom I get the opportunity to talk seems to give me his confidence and to be in favor of our employment, but I, of course, can see but few of them.

[MAR.] 20. I saw the Secretary, who is very much incensed against Stanton and denounces him unsparingly. I told him of the condition of the marble contract and got his authority to consult the \_\_\_\_\_\_ for an engineer.

I spent the afternoon and evening in writing answers to the questions of the Select Committee. All that I can answer without the records of the office. I have written those are in the hands of the clerks and will be ready in a day or two. They will admit of easy and effectual answer.

[MAR.] 21. Saturday. Mr. Barry <sup>47</sup> of Mississippi moved in the House Select Committee to investigate the charges made in debate by Stanton against the Secretary of War, Davis, but the rules were not suspended to receive the motion. Stanton denied making any charges against Davis or this administration but said his charge was that the military had for 20 years been encroaching upon the civil, and it had grown at last to be an enormous abuse and should be stopped.

A considerable force is now at work upon the Capitol, and good progress is made. I have had no answer to my last letter to Rice and Baird.

Ward, who, with \_\_\_\_\_\_, came into my office last winter to complain of a foreman, Jones, stopped me in the street today to ask for work and, on being referred to the overseers, said that McFarlan had refused, and he wanted an order from me to McFarlan to take him. This I refused, and he made a good deal of talk, declaring that he intended to go to work at the Capitol and should not rest till he succeeded, claiming the right as an American citizen to be taken, though he had quarreled with and insulted both foremen, Jones and McFarlan.

Houston, the clerk who has always made himself so busy about the Capitol, called today to try to induce me to take up the question of Stanton's interest with Strong in the brick contract, for which he says Strong <sup>48</sup> asserted that Stanton was to have \$2,000. I told him that was none of my business, which was to give the Select Committee answers to their questions, which I could, completely defeating any charge they might make. The old villain, I don't know whether he wants to trap me or whether he is about to desert his friend Stanton as the rats desert a sinking ship.

[MAR.] 22. To Georgetown College to execute the deeds for the Lee on \_\_\_\_\_ quarries, for which I paid \$5,000, and got a cheap bargain. I was employed most of the day in preparing the answers to the questions of the Select Committee. All but a few which require much measurement. I prepared and wrote a letter enclosing them to the Secretary.

<sup>&</sup>lt;sup>47</sup> William T.S. Barry (1821–1868), Democrat of Mississippi, served in the House of Representatives, 1853–1855. During the Civil War, he served in the Confederate army.

<sup>&</sup>lt;sup>48</sup> Samuel Strong was the general superintendent on the Capitol extension, 1851–1852.

\* \* \*

[MAR. 23] Left at Department the answers to Select Committee, which cover 40 pages of foolscap and are not yet complete, as several questions yet remain unanswered.

\* \* \*

[MAR. 24] The work goes on at the Capitol, particularly on Jones' side. He is much quicker than McFarlan and is always ready.

\* \* \*

[MAR. 25] At the Capitol, we are at work upon the brick work and are setting the stone during the winter. Provost and Winter notified me today that they are nearly out of stone and should be obliged to discharge their men at once. They ask when they may expect a new supply, to which I had to reply that I did not know but that I was doing all that I could to induce the contractors to fulfill their obligations.

[MAR.] 28. Sent in today the last of the answers to questions of the Select Committee.

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[MAR. 28 CONT.] I find in the *Civil Engineers Journal*, <sup>49</sup> received today, a very interesting discussion on the French and English \_\_\_\_\_ of iron and concrete on plaster.

\* \* \*

[MAR.] 30. Mr. Heebner is here. Walter beat down the first proposition which he said he had beat him to agree to. He gave up his absurd demand for the interior marble and the tiles and agreed to furnish the marble ordered on the 4th of March but demanded the \$1.98 for all the remainder. I refused this, and he left. After some time, he returned. Heebner would agree to it if I would allow 2 inches on the face of the stone. I told him that was a question of interpretation of a contract, if it belonged to him, let him make it appear to the law officers and I would pay it, but I could not contradict or change the meaning of the contract. If it belonged to him, it did for all he had already furnished, and he could recover it without a new contract. After some time Heebner came down, a great deal of talk, which ended in his agreeing to the draft I had first offered, changing ashlar into marble for the exterior. So that he gets \$1.98 for all stone of over 18 inches bed. This will prevent the difficulty in determining what is to

<sup>&</sup>lt;sup>49</sup> The Civil Engineer and Architects Journal, London, 1837–1868.

be considered ashlar, and I think is an improvement in the contract, though it will bring some stone to \$1.98 that would have been sent at 65 cents, as I first drew the contract. I think this is a fair contract and a good one for both the United States and Rice and Baird. It gives us the monolithic shafts, which are a great benefit; gives us the right to order stone of 120 cubic feet net.

\* \* \*

[MAR.] 31. I sent in today some more answers to questions of the Select Committee and received a letter from Mr. Davis, the Secretary, asking me to give him a more particular answer to a question as to the economy of the conduct of the work. I answered his letter and gave him some details as to the mode of management but told him I could not make comparisons between myself and the architect.

\* \* \*

[APR.] 6. The *Union*, <sup>50</sup> Sentinel, <sup>51</sup> and Star <sup>52</sup> of yesterday each contains an article on the military superintendence question. The *Union*'s article, written by Captain Alexander of the Engineers, is a very good and temperate correction of Stanton's misstatements in his speech and will do some good. The Sentinel's, evidently written by Stanton, is a diatribe and appeal to the interests of the outs to try to turn out the ins. The Star notices both and says the *Union* is unanswerable as far as it goes, but that it thinks that Congress ought to put an end to the necessity of employing military men by ceasing to claim all places for dirty politicians instead of men fitted for the work they are to do. As this will certainly never cease, we may count the Star as for this time taking our ground, but this may not be its position tomorrow.

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[APR. 8] The *Sentinel* returns to the attack upon the employment of engineers upon civil works. A long article evidently from Stanton's pen. I suppose that Alexander will answer him, and so the contest will become tedious.

\* \* \*

[APR.] 11. The papers continue to be full of the military superintendence. Colonel Ripley is out in the *Union* in answer to Governor Steel and demolishes him, showing that he is an applicant for the superintendency of the Harpers Ferry Armory. Steel denied being an applicant for Springfield in the *Star*, and this shows the evasion.

<sup>50</sup> Washington Union.

<sup>&</sup>lt;sup>51</sup> Sentinel was a German-American newspaper in Washington.

<sup>&</sup>lt;sup>52</sup> Washington Evening Star.

Alexander is about to publish a reply to Stanton's last, and the discussion is growing interminably.

\* \* \*

[APR.] 12. I sent today to the *Sentinel* a letter replying to their repeated assertion that I had ruined the basement rooms of the Capitol extension. I did not wish to take any part in this discussion, but Stanton replied to the *Union* and said this charge was an evasion. I thought, therefore, I ought to correct the *Sentinel* in this matter.

\* \* \*

[APR. 17] I have sent to Cincinnati for the *Reporters Manual and Vocabulary*, which is very much praised by the publishers, Pitman and Prosser. I begin to write with some facility, but it is still rather slow work for me.

\* \* \*

[APR. 18] I have not had anything from the marble contractors who object to some terms of the contract, and they agreed I read this contract correctly. And Heebner, seeing that I wished him to, endorsed it, that there might be no disputes afterwards. He agreed to it.

\* \* \*

[APR.] 19. Mr. Rice and Heebner came to settle their business. They are desirous of having all the stone delivered since 9th August paid for at the rates established by the new contract and talked a long time about it, but finally signed the contract as I had sent it to them. I took the contract to the War Department at once, but Mr. Davis had just gone out to the cabinet meeting, and I could not see him. Campbell, chief clerk, promised to try to get it signed this evening. This, I hope, will free us from all further trouble with these contractors.

The marble cutters are nearly all discharged. They refuse to allow Provost and Winter to credit the wages of men according to their skill and industry. This is somewhat inconvenient, for I need every stone set in order to employ our bricklayers.

Jones has nearly levelled up his basement, and I must give him some lines to work from in laying out the rooms of the principal floor of his wing.

Another article by Stanton in yesterday's *Sentinel* in answer to Alexander's last in the *Union*. This discussion is growing, still stupid and unprovable.

[APR.] 20TH. No action yet on the water works appropriation. I spent the afternoon in laying out the center lines of the north wing. How much trouble a little inaccuracy gives! These wings were both traced [?] wrong when first laid out. This brings the middle line of the original building out of the middle of the wings but parallel to that line. Mr. Walter's drawing showed the error but not the mode of concealing it, and after some time wasted upon it, I had to give it up and bring the drawing to him to correct.

Mr. Davis, the Secretary, does not like the liberty cap on the head of Crawford's Liberty. He says it is the sign of a freedman and that we were always free, not freedmen, not slaves just released. <sup>53</sup>

[APRIL] 25. I found this morning that the furring <sup>54</sup> has been omitted in much of the work done lately at the Capitol by McFarlan. I do not know whether the old gentleman is stupid or whether he omits it because it is so very troublesome. I shall write to him tomorrow a letter that will bring him to obey orders or leave \_\_\_\_\_. He does not do things as promptly as his coadjutor, Jones. I have 3 or 4 times told him to back up some blocks of marble which have been set several days, set with some men at once, and have this done, and yet I find today that they are not touched. If I speak to him, I shall find that he will be ready with some excuse, that the marble setters have not come near that yet, and he will have it done in time. I do not think I am particularly despotic, but these things are very provoking to me.

\* \* \*

[APR.] 26. This morning General Totten advised me to send to the *Sentinel* some reply to an article which appeared in it a few days since, stating a price paid for the bricks from New York for the Capitol. This was an extract from the answers to the Select Committee giving the cost and the reasons for purchasing at that cost. I wrote a reply and showed it to the Secretary. He seems to doubt whether I should do it or not, thinking that I am right in endeavoring to keep out of the contest. He had noticed the article and sent it to Mr. Keitt of South Carolina with a note saying that this was not fair and asking that he investigate the mortar matter. He gave me a note to Mr. Keitt and told me that he thought the proper thing to be done was to open the whole of it to the answers from which this garbled extract had been taken, being published, as he was quite willing to have the whole made public, but not such an extract only as would give a false impression. I saw Keitt, who promised to see the Secretary on the subject.

 $<sup>^{53}\,\</sup>mathrm{A}$  liberty cap was a close-fitting pointed cap that was used as a symbol of liberty during the French revolution and in the United States before 1800.

<sup>&</sup>lt;sup>54</sup>Furring involves the application of thin wood, metal, or brick to walls or joists to create an air space or level surface.

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He repeated his desire that I should prepare a draft of the report for him, as he knew nothing of acoustics and such things.

I wrote a pretty severe letter to McFarlan, foreman of masonry, today. The old fellow does not obey my directions with that promptness which he should. I found, too, the space left as furring in the walls of the rooms omitted in many places where he could find the smallest excuse for so doing. I have been obliged frequently to direct him to introduce it into walls where he had stopped it too soon. I believe he does not approve of the plan and take[s] every occasion to avoid it. He is an honest old fellow but a very obstinate one, and I find it necessary to let him see that he has to obey. There are some stones not backed up yet, which I have spoken to him about more than once or twice, having indeed at least once requested him to send men at once to attend to it. To this error I called his attention, telling him that my request ought always to be attended, as I am responsible for the work, and that it ought never to be necessary for me to give an order.

\* \* \*

[MAY] 2. This is my wedding day. We have been married 13 years. The day has passed without any celebration. We have not the means of making an expensive feast, and we have done nothing.

I paid this morning the premium due on a policy of life insurance of \$5,000, which I have paid now for 8 years. It is sometimes rather trying to see my old companions who have left the Army and entered private life making so much more money than I do, or seem likely to do every year. I know that I have as much talent and as much industry as most of them. I am as devoted to my duties, and I am charged with great ones. I have the control of hundreds of thousands of dollars, I rule hundreds of men, and believe that I see justice done and that the public money is saved by the regulations I have established. I receive for all this actually less pay than some of those whom I employ under my directions. My pay for this last month is, as just received, \$156.50, out of which I have to keep a horse, which costs me \$18 per month, leaving me \$138.50 as my net pay for the support of all my family. Excluding the sum absorbed by the horse, my pay will be about \$1,600 per year. To this, my father adds \$300, making \$1,900, and Mrs. Rodgers 55 pays towards the expenses of the house \$600. \$2,500—and the house belongs to her, so that we live rent-free. All this is spent in our household expenses. We are neither of us extravagant, neither of us indulges any useless or expensive taste, I keep no horse or servant that I can dispense with, and we live in a way that is more like

 $<sup>^{55}\</sup>mbox{Minerva}$  Denison Rodgers (1784–1877) was Meigs' mother-in-law. The Meigs family lived with her.

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to be called mean than profuse. It is a trial to have the habit of paying and handling thousands, to be buying with costs of thousands daily, and yet to have the constant feeling of the necessity in my own affairs with such rigid economy. Doubtless, however, it is good for us to have this trial and to be obliged to practice this self-denial. We have all that is really necessary for happiness and comfort, and we have never known what it is to want a meal. We have been able to clothe ourselves plainly but comfortably and to dress our children so as to be no disgrace to us.

The payroll for the Capitol for the month of April amounts to \$8,305.77. I have had about 200 men at work there during the month, besides the marble workers we had. They have had a small force only, having had a dispute with their men which has delayed them a good deal.

\* \* \*

[MAY] 3. Professor Frazer <sup>56</sup> of the Pennsylvania University came to the office today and looked over the drawing of the Capitol. I gave him a copy of my report containing the notes on acoustics, with Bache and Henry's letter upon that. Took him to the Capitol and showed him what we were doing there.

\* \* \*

[MAY 4] I saw today the silver tea kettle made to the order of the city for presentation to me. It is large and as beautiful a design as I have ever seen for such a thing. The ornaments, the chase work, are well executed and are well designed. They are of \_\_\_\_\_ and bear some relation to the aqueduct—water lilies and other water plants. A water snake forms the handle and spout. It is a very handsome . I took Lou to see it.

I sent today to Honorable Mr. Keitt of South Carolina, of the House of Representatives, a memorandum of a conversation between Mr. Walter and Stanton, in which Mr. Stanton expressly exonerates Mr. Walter from a share in the publication of the article in the *Sentinel* on the bricks and brick work of the Capitol. He also said that he showed the records of the Select Committee to Members of Congress that he could get to look at them. How he reconciles this with his statement in committee when asked by Mr. Keitt whether any member had divulged or shown or published any part of these records, it is for him to explain.

 $<sup>^{56}\</sup>mbox{John}$  F. Frazer (1812–1872) was a professor of chemistry and natural philosophy at the University of Pennsylvania.

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[MAY] 5. Hal<sup>57</sup> and his wife, Kate Trowbridge, now Kate Rodgers,<sup>58</sup> arrived tonight. Kate looks pretty and well. They have been long enough married to feel at ease in returning as man and wife to the house they left a few months ago in so different a relation.

\* \* \*

[MAY 5] I found this morning that in putting up the braces for the derrick, my directions had not been followed. I pointed this out to McFarlan, who tried to make out as though it was just as well and then said that it was the fault of the carpenters, who had been given their instructions saying that if he had understood my wishes, they should have been carried out. I told him I liked my orders obeyed exactly and that it would be a good lesson to the carpenter who was in fault to be made to change it. I gave him the necessary instructions. In the evening I met Slight, the master carpenter, who told me that he had distinctly understood me and told McFarlan how to do the work but that he would not do as he was told. Into this I must inquire. In this there seems a superlative meanness in disobedience, followed by an attempt to throw the blame upon an innocent person. And it is due to the innocent that the guilty one in that is dedicated in his

\* \* \*

[MAY 10] On the Capitol, the walls of the Representative Hall are rising so as to mark out its size. The Senate chamber is also coming into shape. A few days more will make it nearly impossible to change the plans which I have advised and begun, indeed, to not be done now without building down as well as building up. We are hoisting bricks, lime, cement and sand on the north wing by a small derrick worked by a horse. Timing the work on Monday, I found that a bucket holding 45 bricks was raised every 45 seconds, making a rate of one brick per second, which is = 36,000 per day of ten hours. 5 men and one horse attended this derrick, and the cost is at a rate of 16 cents per thousand, for raising a brick from the basement floor to the principal floor, a lift of 20 feet. A hod-carrier, Mr. Jones tells me, can carry 1,500 bricks per day on a level, not more than a thousand to the top of a 20 foot ladder. This would make raising these bricks in the common way cost not less than \$1 instead of \$0.16 per thousand.

On the south wing we are using the steam engine, which now works well but not so cheaply, I believe, as the horse. It is not yet ready to make the mortar, and the preparations are nearly made. When this

 $<sup>^{57}</sup>$ Henry Rodgers (1822–1854), known as Hal, was a brother of Meigs' wife. He was a lieutenant in the U.S. Navy.

<sup>58</sup> Katherine S. Trowbridge (1829–?) had married Hal Rodgers less than a month earlier.

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is at work, I expect it will be far desirable in the advantage of having a steady supply of mortar and in the better quality which it will make.

\* \* \*

[MAY 12] We lay now about 40,000 bricks a day, 20,000 on each end of the Capitol. The walls of the halls of both wings are rising rapidly. On the south wing they are on two sides already nearly 10 feet above the floor. On the north wing they have not yet reached in any place more than about 5 feet. These grow daily, however. The first cargo of marble this season arrived some days since. But very few men are employed by the contractors as yet, owing to the dispute between them and their men. Senator Hunter called today at the office and asked what progress we should make in the building. I told him that the contractors promised to send us stone enough to finish the and that Provost and Winter promised to cut it. If they would do this, he might see, by the manner in which the brick work done by the day was now in advance of the marble, that we should be able to put the roof upon the building this winter; that I would undertake to do it certainly if it were under my directions, without any contracts, but that whether these contractors would fulfill their promises was a question beyond my power to answer.

I directed Vincenti, the Italian sculptor and modeller, to make me a design for a shell supported by a human figure for the front of the pedestals of the stairway columns, this being a good place for a small stream of water to be kept flowing. He had presented a design which [was] too lush for a pediment. I showed him Crawford's and told him it was now under construction, but requested him to prepare this [fountain], with which he seemed much pleased.

\* \* \*

[MAY] 15. My brother-in-law, Hal Rodgers, received last night his orders to join the *Albany*, attached to the home squadron now at Pensacola.

\* \* \*

[MAY 15 CONT.] His bride, Kate, not yet a month married, bears this blow with fortitude and tries to cheer him. Lou is almost broken-hearted. But the vessel will not make a long cruise, and she will probably cruise to the north this summer and be relieved in six months.

\* \* \*

[MAY 15 CONT.] This has been a very warm day. I was compelled to take off my red flannel shorts this afternoon. We are laying about 40,000 bricks a day upon the two wings of the Capitol extension. They

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are hoisted from the basement floor to the principal floor by a derrick, worked on the north wing by a horse, on the south wing by a steam engine. Each hoists about 20,000 a day but is capable of doing more. This derrick also raises all the lime, sand and cement used upon the building.

I have attained a good deal of facility in writing this [Pitman shorthand], much more than in reading it. I believe I can write it as fast as I can read it. But that is not very fast.

[MAY] 16. Finding some disagreement between the center line of the south wing of the Capitol, given by me to Mr. McFarlan to abide by, and some other lines of the work, I tried with the square the 4 corners of the Representatives Hall, and with a 6-foot square I found an evident difference from a right angle in each. The building is a little askew, the southwest and northeast angles being acute, the other 2 obtuse. The difference in angle is not great, but it is enough to make an evident difference in laying out the different parts of the work. As the whole lower course of the marble was already laid when I took charge, I could not alter it then, even had I discovered it. But in fact I did not examine the matter, taking it for granted that in such an important work, the necessary precautions for insuring accuracy had been taken. What a different mode of construction from that employed by our officers!

\* \* \*

[MAY 16 CONT.] . . . It has been very hot today and yesterday. Our work in bricklaying makes good progress. And I find that the marble shop is again in operation, about 30 stone-cutters being now employed. Mr. Winter says he can get as many as he needs from New York.

I have set Vincenti, the Italian, to model a small figure for a water shell to be braced against the pedestals of the stairway. He tried several sketches in pencil, without pleasing me, and I told him what I wished, merely to try it in clay. This he did very quickly and made a sketch which, with some alteration, may do. But I fear that he has merely a facility in making something merely like a human figure and that he cannot make a really good statue.

\* \* \*

[MAY 17] I find Vincenti with a couple of sketches in clay for the [fountain] on the stairway, one a male, the other a female. [Sketch] These were, I thought, appropriate and I told him to get on with one of them and make it in clay of the size proportion for the finished figures. He is very much delighted and says he will be "\_\_\_\_\_ dei fare un figura." I think that he will make something good of this.

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If my friend Mr. Stanton gets hold of this, he will try to make a [case?] of it against me, I suppose. I am sure, however, that is right to use this ornamental sculpture in the building in appropriate places. The whole building has a good deal of it in various parts. And this is done by a sculptor we must have for the purpose of modeling the foliage and such ornaments of our architecture. Having finished the caps of the columns, I have set him to work upon these figures.

\* \* \*

[MAY 18] I am told that Stanton made his report today in the House. I suppose it must be against the military superintendence of civil works. If he is the author, it must be so, but I wonder that I have not been called before the committee nor heard anything from Mr. Keitt, who was to let me know what was going on, and for him I was to prepare a report. I think, from what I heard, that Stanton was in the minority.

\* \* \*

[MAY 18 CONT.] Our bricklaying now on the Capitol costs about \$3.80 per thousand, and for some days I have made calculations of the cost from the details given in the daily reports of Mr. Fitzpatrick, <sup>59</sup> and he made them wrong. This I did not discover at first. I may have noted it in this book as \$3.08 or \$3.06 per thousand, which is wrong.

\* \* \*

[MAY 19] The work in the Capitol is nearly ready for the arch to be begun.

\* \* \*

[MAY 19 CONT.] The Secretary returns my draft of a letter to Mr. Stanton which I sent to him for transmission if it met his approval, as I thought the proper channel of communication from the office to the committee was through the Department, with an endorsement saying that he thinks the proper course of correspondence should be adhered to and that Mr. Stanton should be reminded of it as often as might be necessary. I doubt this being a good move on his part. These Members of Congress do not appreciate the Army forms of correspondence. Mr. Davis also says he thinks it doubtful whether the duties and powers of the committee extend to the investigation of the plans of the Capitol. So that he thinks they have no business with the drawing.

Yesterday, the evidence in the armory case was ordered to be printed for the convenience of the committee in making up their report. The *Sun* states that a majority of the committee have determined to

 $<sup>^{59}\,\</sup>mbox{William J.}$  Fitz patrick was a clerk for the Capitol extension project.

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report in favor of restoring the civil superintendence. I find nothing in the proceedings of the House to indicate such a result.

\* \* \*

[On May 20, Meigs escorted Senators William C. Dawson, Judah Benjamin, 60 and John R. Thomson 61 to Great Falls to look at the aqueduct. His comments about the individuals are also relevant to the Capitol project.]

[MAY 20] Benjamin is a smart, quick, witty man and one that will make a mark in political life. He has more talent than Dawson. Thomson seems to me to be pretty nearly an old [bore]. Not fit to be a Senator, he is, I suspect, a mere tool of the Stockton and Stevens set. He seemed to go clearly for the aqueduct, however, and complimented me upon the order and regularity which he saw among my men upon the Capitol. He said he had much experience, having built many railways, and had never seen so good a body of men, such stalwart fellows, and so regular in work. I told him we took only those we believed to be good and kept only those who proved so, and that the government was merely making the overseers understand that I would have no swearing or abuse of the men, but that any man who could not be got to work without swearing was not fit for us. He said he knew enough to be sure that all of it depended upon the chief and that the real and only reason for all this good conduct was that I knew how to govern. Dawson, too, spoke of the good order and conduct of the workmen and contrasted it with what he used to see before I took charge. He said he now never saw the men collected in groups in the shade instead of being at work, as was formerly the case.

[They reported that at the Capitol] they amused themselves with looking over the windows of the committee rooms that commanded the north wing, now nearly at a level of these windows, and had there a good chance to see and to judge whether my rule over the men is good or bad. Benjamin was delighted with the sparkling brooks we passed, so different from what he was accustomed to at home, and said such a brook as that at the falls, which is led into the house, would be worth in his state any sum of money. We took tea at Mr. Dawson's.

[MAY] 21. This morning I received the May number of the London *Civil Engineer and Architect*, and the editor gives a complimentary notice of my works upon the Capitol. Says that my notes of acoustics and ventilation contain much that is exceedingly valuable and univer-

<sup>&</sup>lt;sup>60</sup> Judah P. Benjamin (1811–1884), Whig then Democrat of Louisiana, served in the Senate, 1853–1861. For the Confederacy, he served as secretary of war, 1861–1862, and secretary of state, 1862–1865.

<sup>&</sup>lt;sup>61</sup> John R. Thomson (1800–1862), Democrat of New Jersey, served in the Senate, 1853–1862.

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sally practicable, and that he therefore gives it at length. He prints an item of the notes accordingly. I am glad to have my article upon this difficult and hitherto obscure subject thus extensively made known. If there be any errors, this will lead to discussion and to their detection. If correct, as I feel sure that I am, this will give me reputation.

\* \* \*

[MAY 22] I have at length got the mortar-mixing machine to work. The Bogardus <sup>62</sup> mill does not seem to grind the lime as quickly as I expected. But the other parts of the process proceed with speed, and the mortar is well made and rapidly. The mill will doubtless work better after a day or two, when the operatives become more skilled in its management.

Vincenti has several clay sketches of figures for the fountain in the Capitol, and I told him to begin a full-sized model of one of them.

I received today a letter from Mr. Stanton in reply to my requesting him to make application to the Secretary of War for a drawing, in which he disputes my having any legal authority over Mr. Walter and says that he made application to me because he thought it to be more agreeable to me than to have the means of compulsion which the committee has at hand in the resolution creating it. I do not like to show this letter to the Secretary, for it will merely put him into a passion, and that will do no good. If subpoenaed, I must go, but I do not suppose that any subpoena will have power to make copies of drawings. It could only compel me to take up for exhibition the originals. Perhaps it might be as well to let him be guilty of this rudeness to the President, for it is merely an act of rudeness to compel his subordinate to bring up papers which are in his charge, instead of asking the President for them and thus getting them in the ordinary and civil mode.

[MAY] 23. I showed General Totten my draft of a letter to Mr. Stanton and asked his advice whether to send it or not. He said send it, and I did so. I took also the precaution to send a copy of it to Mr. Keitt, requesting him to show it to the committee, and thus to prevent their doing so discourteous a thing as to insist upon subpoenaing the President's subordinate to bring them papers which ought to be called for and sent in by the President himself.

Our mortar mill has been at work today and has made the mortar used for the south wing, except a few barrels made by hand while the mill was accidentally choked. It mixes very good mortar, but the Bogardus mill does not grind the lime as fast as it should. A few days'

<sup>&</sup>lt;sup>62</sup> James Bogardus (1800–1874) was an American inventor.

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practice, however, will teach those employed to use it to better advantage.

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[MAY 29] I got today the Congress Army Registry, which gives the total amount of pay received by every officer. I found that in the year ending 30 last June, I received from the United States for pay, rations, forage, etc., including traveling expenses, \$1,550.57, and am sure that I earned it.

\* \* \*

[MAY 31] Stanton met Mr. Walter today and told him that he had the Sergeant at Arms of the House after him to get these plans. Walter told him that he had them not, that no Sergeant at Arms could get from him what he had not. "You had no right to give them up." "I received an order from the President to turn them over to Captain Meigs. I obeyed that order." Upon this, Stanton gave up and said he would write to the President for them. Mr. Walter spoke of his attack, and he replied that he was no enemy to me but that this thing was now a principle with him and that he had thought of nothing else for 3 months, which is, I suppose, true.

Mr. Walter has made a sketch for a new dome to be about 100 feet higher than the present dome. It is a good one, but I find fault with the lower part of it, a circular colonnade which looks too much like a drum. We referred to St. Geneviève or the Panthéon at Paris, which has the same defect, and St. Paul's at London, which is the same, to St. Peter's at Rome, in which it seems to me that Michelangelo <sup>63</sup> has seen the defect and overcame it. He has surrounded the lower part of the dome with engaged columns on which he has placed a broken architrave and cornice. This gives variety to the composition, but it is false construction if a column is the supporter and is as useless, carrying nothing, as a table leg without a top. I think that the proper variety may be given to the composition by surrounding the lower part of the dome by a sort of flying buttress, adopting the Gothic principle of giving it a circular [?] form.

These 3 domes, the best in the world, are more or less definitive. Among other things, they are none of them in the center of their building. In our composition, we should have the advantage of them in that respect, for ours will be exactly in the center of the whole. The height of 240 feet gives a very good finish to the building. It is enough to make it appear one whole, the dome serving as a crown and collecting the whole into one grand composition. It seems to be as much

<sup>63</sup> In addition to his many famous paintings and sculptural works, Michelangelo (1475–1564), the Italian sculptor, painter, and architect, prepared plans for completion of St. Peter's Basilica in Rome.

as it is possible to get upon the base we have to build on without making it look too much like a steeple. However, I think we might have a little more height by raising the drum more.

\* \* \*

[JUNE 7] The plaster model of the pilaster cap was placed today in the attic window of the old building, that I might compare it with the old cap. It is far better and will in marble, I believe, be as fine as any in existence. There is a life and flow to its foliage which I have not seen equalled.

\* \* \*

[JUNE] 8. The payrolls for the Capitol for the last month amount to \$10,084.10, as follows: north wing bricklayers, \$1,609.82; south wing ditto, \$1,650.68; carpenters, both wings, \$1,680.05; smiths, \$482.60; foremen, receivers, etc., \$690.50; clerks, draftsmen, messenger, \$256.50; laborers, \$3,713.95. By which it appears that the labor about equals the bricklayers; carpentry-making centers, etc., equals ½ masons or bricklayers; smiths, ½ bricklayers; and that overseers, clerks, draftsmen, receivers, etc., cost about ½10 of all the wages.

I bought today one million of bricks from Rowe [?] at \$7.50 per thousand. He promises to deliver 15,000 per day, beginning within 2 weeks. From the Grinders <sup>64</sup> I agreed to take 10,000 per day till my supply for the season is completed; also at \$7.50. Others ask me \$8 and \$8.50. I believe I have made a good bargain if they will keep their engagements, which are only promises, not contracts, which I have no right to make without advertisement.

I ordered from John Cook Works, <sup>65</sup> Oneida County, New York, 250 of his patented cast iron tiles. They are very thin cast iron in the form of tiles, each covering a surface of 6 inches x 12 inches. I am to pay 6 cents per pound for them and to pay the cost of transportation to this city. They are to be put upon the little wooden office of Mr. Jones for a trial.

I had a good, bright sunshine today to look at the pilaster cap, as tried up in the south window, and I am satisfied that it is to be one of the best ever made. It needs a little deepening of the lines in order to support the detail more strongly. In grace and freedom of outline, it is, I believe, unequalled.

\* \* \*

[JUNE 8 CONT.] I have been reading and studying domes lately. I think that Mr. Walter's design for a dome is generally good but that it will

<sup>&</sup>lt;sup>64</sup> Grinder and Willack of Washington were brick vendors

<sup>&</sup>lt;sup>65</sup> John Cook Works manufactured cast iron.

want a good deal of studying to make it as good as it ought to be. It is too much frittered and too much cut up. But its general proportion and style are very good.

\* \* \*

[JUNE] 10. This morning I gave to the Mayor my letter in reply to that of the committee of the city council presenting me with a resolution of thanks for my water report. This resolution directed the committee to prepare a testimonial. It is a very handsome tea kettle of silver, made to stand upon a table, with a lamp and stand. The design is elegant and appropriate to the gift, having water plants and aqueduct insignia. The whole makes a very handsome present, and I shall be quite proud of it as a gift of the Capital City of the United States. In recognition of a faithful discharge of duty, in the completion of which I have been the means of doing a great good to this city, by showing so conclusively the advantages and the practicability of building an aqueduct from the Great Falls of the Potomac, as to get from Congress an appropriation for its commencement.

The kettle will be for some days at the store of the manufacturer, Mr. Galt, on the avenue, as he desires to exhibit it, being very proud of it. I have no objection myself to its being made as public as possible if this public recognition of my authorship of the design for the Potomac aqueduct will be of service to me. And out of this reputation I may some day make more money than Uncle Sam pays to his servants. 66

I received from the War Department the President's directions to show the committee the drawing of the old and new plans of the Capitol. After they have had this opportunity of examination, if they still desire copies, I am directed to furnish them. He wrote to Stanton, the chairman of the committee, communicating my orders and asking the committee to appoint a time for me to show the plans.

\* \* \*

[JUNE] 12. Letters from the quarry tell me that there are two vessels on their way with marble. The work is advancing rapidly. I am directed by the President to exhibit to the Select Committee the drawing of the Capitol, and if after examining that they desire copies, to furnish such copies.

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<sup>66</sup> This tea kettle, a gift to Meigs from the city of Washington in 1854 in gratitude for his report recommending the building of the aqueduct, is apparently not the same as the silver tea set and tray now in the permanent collection of the National Building Museum. The latter tea set was created by the Gorham Silver Company in 1859 and presented to Meigs by his foremen and employees in recognition of his work on the Capitol.

[JUNE 13] Mr. Davis, I am told, has lost his child. It has been dying for some days, poor little fellow, of the same convulsions as my own dear children, Vinty and Charlie.

The President sent for me today. He had received a letter from Stanton, who desires to know whether my exhibiting the drawing to the committee is the only condition upon which they can get that. He tells me that the committee desire the drawing merely, and if they need Captain Meigs's testimony, they will summon him as any other witness. The whole letter is an impudence, and the President told me he should not answer it but desired me to write to him a letter saying that as I had received no answer to my note offering to show the drawing as ordered by the President, I concluded that the committee did not desire to avail themselves of the opportunity offered for examination and would prepare the copies and send them in a few days. The President wrote this draft of letter himself, and I copied it and sent it to Stanton. He had not consulted the committee as to this matter, but Webster, <sup>67</sup> the private secretary, was sent to inquire of some members of the committee and ascertained that fact.

Dined with Mr. Walter, where I saw many sketches by a Mr. West <sup>68</sup> taken in China which are very interesting. They are the most life-like drawings I have ever seen of manners and people.

[JUNE] 14. I called this morning to see Mr. J. R. Chandler, <sup>69</sup> who told me that he wished to make a speech for the aqueduct this morning and asked me for some notes upon it. I wrote these notes and sent them up. He made his speech but did not use them as well as I might do. The House was not in the humor for business, and he held his audience by wit and pleasantry, and told them he would write out his speech and asked them to read it carefully. In the evening, he told me that he copied my notes as written into the body of his published speech, that that would so compact the statement of the subject as to be better than anything he could write upon it.

He was followed by Stanton, who indulged in a bitter tirade against all military superintendence and, while professing to think me a man of ability in my profession, asserted things as of my doing which would make me a fool. He asserted that I had rejected brick as unfit for the Capitol and thus ruined Wendell, <sup>70</sup> and then had bought the very same bricks for use in the aqueduct, that Wendell was his inform-

<sup>&</sup>lt;sup>67</sup> Sidney Webster was private secretary to President Pierce.

<sup>&</sup>lt;sup>68</sup> George R. West (active in Washington, 1856–1860) was a topographical artist known for his scenes of China and Japan. Meigs hired him in September 1856 to work on the Capitol, but the arrangement did not work out, and West left in December of that year.

<sup>&</sup>lt;sup>69</sup> Joseph R. Chandler (1792–1880), Whig of Pennsylvania, served in the House of Representatives, 1849–1855. He was minister to the Two Sicilies, 1858–1860.

<sup>&</sup>lt;sup>70</sup> Cornelius Wendell was a brick vendor.

ant and was willing to swear to this, but had not yet done so. Mr. Perkins of Louisiana interrupted him while making some insinuations against Beauregard.

[JUNE] 15. Furnished Mr. Chandler the notes to answer Stanton's speech. Attended the meeting of the House. They made much progress in the deficiency bill and reached the Custom House in a vicious debate likely to last some time [before?] they adjourned.

I went to the funeral of Mr. Davis' child. He is buried just above our little ones. <sup>71</sup> Died, it is now said, of the same disease of the brain. The President was there and said to me as we left the ground that he had received an apologetic letter from Mr. Stanton for his impertinent letter. He said he would show it to me some day and that he did not intend to take any notice of it.

[June] 16, 17. I attended to my office duties and also went to the House of Representatives to watch the progress of the debate upon the bill. But the civil bill did not come up again. I have furnished Mr. Barry of Mississippi and Mr. Chandler with notes upon Stanton's speech, and I hope that they will be able to get the floor so as to correct some of his misrepresentations in the course of the debate. A five-minute speech, however, will not suffice for correcting more than one lie or two at most. He has introduced into his speech more than half a dozen.

There is, I believe, a very general confidence in my ability in the House. I suppose that I now have a political feeling in the matter. I should get a strong vote in the House itself in my favor. But there is this feeling against military officers being put in charge of these works, and it may be that it will enable Stanton to carry out his views.

Should it do so, the question arises whether all the Engineer Corps will have in the fortifications of the country a sufficient field of labor. I think not, and if I cannot get from the President the assurance of being supported, I shall be tempted to leave the Army. To complete these great works, it would be worthwhile. It is very hard work to be compelled to carry on two great works at the same time, prepare answers to questions and assaults of an enemy who stops at nothing which he thinks will advance his object. I have written and talked to many Members of the House, but the question is so technical that it is difficult for them to understand or to remember what they have been made to understand. He had the advantage of an hour to make his attack, and my defenders are limited to 5 minutes in their replies.

[JUNE] 18. Sunday.

 $<sup>^{71}</sup>$  Jefferson Davis' son, Samuel E. Davis, who died June 13, 1854, was buried in Oak Hill Cemetery in Georgetown.

[JUNE] 19. Monday. This morning's Intelligencer contains my reply to Stanton's and Wendell's charge. It publishes the voucher on which Wendell was paid for 6,000 bricks, \$5.25, with the explanation written on it at the time of payment that the bricks were of inferior quality but bought for chimneys of laborers' , a temporary purpose, and asks whether Mr. Wendell's memory is not treacherous, on whether \$5.25 is a higher price than \$5.88, which is his contract price. Many persons have expressed their satisfaction at such a complete answer and wonder what lie he will find now to avoid the lie so fastened upon him. By advice of Major Lee, 72 I called upon the Secretary of War to ask him to write to Congress or to some member of influence to state to the House that Mr. Stanton's charges, if presented, would be investigated, and to ask them, on the part of the Secretary and the Department, not to act upon this subject before they get the evidence about to be taken by the committee which they have raised on the subject.

He wrote to Mr. Dawson of Pennsylvania, a member of the committee. Mr. Dawson assured me that the whole was a humbug, that the House cared not for what was said by Mr. Stanton or by any such partisans of one committee, that it would be acted upon as a political question and not as one of right and wrong, and it was not worthwhile to take too much trouble to answer such attacks, but that he would watch Mr. Stanton, and if he made any specific charge, he would pin him upon it.

The notes I wrote for the *Star* begin to come out. One column is devoted to his statements about the water works in today's paper, and 4 or 5 are answered most conclusively. The *Star* has put in less of his own than I expected. Except the preface and conclusion, the article consists nearly word for word of the notes I wrote.

\* \* \*

[JUNE] 20TH. John Lee tells me that Alexander has written and offered to the *Star* an article upon Stanton which he wished published as editorial or, if not suited to the editor's views, then as an advertisement, with authority to give his name as author, if asked for the name. It is a bitter personal assault, charging him with having come to Congress to make money and, finding the officers in charge of these works in his way, then beginning a crusade upon them in order to clear the way for speculation. The *Star* refused it and thus showed more truth and right feeling than I give it credit for. For such an article, however true, could do no good, especially if known to be written by an officer of the Army. It would make the Members of Congress hang together

 $<sup>^{72}</sup>$ Major John F. Lee, judge advocate in the Adjutant General's office of the War Department, was Meigs' neighbor.

the more tightly for what they would consider as an attack upon them all.

\* \* \*

[JUNE 20 CONT.] The *Star* this evening continues its review of Stanton's speeches and, taking up his assertion about the excavation, tells the truth and shows how wrong he was. I do not know whether it is of any use, however, to make these explanations. I doubt whether many in Congress read them. The citizens do and enjoy the refutation of the slanders upon me and upon the work.

I forgot to mention on Monday that Mr. Walter told me that he had shown to Stanton the drawing of the Capitol on Sunday. It seems that Mr. Dickinson, moved by Stanton's description of the injury I had done in altering the plans, which he said ought to be torn down, had determined to move the resolution to stop the work until Congress could determine whether it should be allowed to go on or be torn down and rebuilt upon the original plans. This alarmed Stanton and the contractors; and Winter and Mr. Towers, 73 the new Mayor, with Walter, got Stanton to go to the office and showed him the plans as now under construction, Mr. Walter making a strong argument for them and showing that it would require the pulling down of some 6,000,000 bricks. Stanton finally promised to stop Mr. Dickinson's attempt. . . .

\* \* \*

[JUNE 21] I received two offers today. Governor Pratt, <sup>74</sup> Senator from Maryland, sent for me to ask my advice as to getting an officer of the Army to take charge as chief engineer of the Chesapeake and Ohio Canal, salary \$3,500. To that, he said, could be made what would be needed in order to get a good man. I proposed Rosencrans, <sup>75</sup> lately resigned. But he did not want a man who had left the Army. He wanted one with a commission, desiring the confidence which he said the public would feel in the works being carried on with energy and honesty if under such direction. He said he supposed I had, with the Capitol and water works, too much to undertake this, but if I could do it, I would be the person wanted. I told him that the water works and the canal being near together, I could undertake both, but that the Capitol took so much time that I would not be able to do justice to 3. I am to consult General Totten and let him and Colonel Hambleton <sup>76</sup> know whether it is worthwhile to ask the Secretary for

<sup>73</sup> John T. Towers was mayor of Washington, 1854-1856.

 $<sup>^{74}</sup>$  Thomas G. Pratt (1804–1869), Whig of Maryland, served in the Senate, 1850–1857. He had been governor of Maryland, 1845–1848.

 $<sup>^{75}\,\</sup>mbox{William}$  S. Rosencrans, U.S. Army Corps of Engineers, retired.

<sup>&</sup>lt;sup>76</sup> Colonel Hambleton was the president of the Chesapeake and Ohio Canal Co.

an officer. It is partly a government work, the United States having a large portion of its stock.

In the evening, Mr. Charles Winder <sup>77</sup> proposed to me to take into consideration the propriety of going to North Carolina to take charge of a \_\_\_\_\_ lead mine which he owns and for which he offered me a permanent salary of \$5,000 a year. I do not know his means. He passes for a rich man, but I should not like to pin my fate to any single man. I told him I was in charge of the greatest work, the architecture and the greatest work, of a civil engineer in the country, and I preferred finishing that for nothing to going to take a similar work for a good salary. He was much surprised to find I got only \$1,800 a year, that it must be that in addition to my Army pay.

\* \* \*

[JUNE] 22. I consulted General Totten today about the chance of getting an engineer officer for the Chesapeake and Ohio Canal Company. He said that he could spare none. I asked whether Alexander could not spare time for it. He thought him fully occupied. This evening I have seen Alexander, who thinks he could spare the time from his present duties to do it. I shall mention his name to Governor Pratt for the place.

I gave a magnolia grandiflora to Vincenti today to model in clay. It is a beautiful flower, well fitted for decoration.

\* \* \*

[JUNE 23] The Secretary sent for me today to make some inquiry about the laws in reference to the Capitol extension. Mr. Gregg had asked him, and he wished to refresh his memory. I took the opportunity to ask him about the chance of success for an application for an officer to act as chief engineer of the Chesapeake and Ohio Canal. He declined to make a decision before the application was made. But it is evident that he will refuse. He wishes an application to be made, though, as it is creditable to the Army. The law of 1838 reorganizing the Army directs that no officer shall be allowed to engage in the service of any incorporated company, and this is conclusive.

\* \* \*

[On June 27, Meigs made a trip to Great Falls to inspect progress on the aqueduct.]

<sup>&</sup>lt;sup>77</sup>Charles Winder was the brother of William H. Winder of Philadelphia, a manufacturer of graphite paint, who is mentioned later in the diary.

[JUNE 27] Returned in the evening, after a very hot ride. Found a note from the War Department asking for Mr. Walter's letter upon the history of the plans of the Capitol.

\* \* \*

[JUNE 28] Provost and Winter want some increase in price of the surbase <sup>78</sup> and also to have the price of the window pediments fixed. They say they are hard run for money. This I shall try to attend to tomorrow morning, early.

\* \* \*

[JUNE 29] The contractors for marble cutting have sent in their estimate of the cost of cutting the pediment heads for the windows. They make it, including profit and 25 percent, about \$191. The contract was for about \$70 for this portion of the work. A very great difference. I think that they have not been very unreasonable in their demand, however, for the work is very costly and is well done. The stone cutting alone takes near 40 days' work. The wages are \$2.50, but with allowance for tools, \$2.75 per day. I must see Mr. Harkness in reference to this matter and to the mode of measuring the work. They suggest a price of \$4 per square foot for the sunk work. It is sunk about 16 inches. Many of our laborers have given out in consequence of the extreme heat. It has been about 90 degrees. Today there has been a cool breeze stirring, but still the men seem to be unable to bear up under it. Yesterday the brick masons gave out as well as the laborers, and that work made was only %10 of a day. It has been even hotter in the cities to the north than here.

\* \* \*

[JUNE 30] I fixed prices on several parts of the work for the marble contractors. The pediment heads of the windows of the principal floor. For this I gave an increase of ½ over the contract price, which is \$70, making that \$116.66 a foot for the sunk ashlar attached to that \$3.50 per foot, with 60 cents per square foot for the beds and ends. This makes each of these blocks cost about \$190, and there are 150 of them. This amounts to about \$28,000. For the plinths under surbases, long under construction, I gave 60 cents for the plain [?] working plinths instead of 46, and left the molding at 81.12½ per running foot. The cornice of this surbase I put at \$2.10 per square foot as resembling the basement cornice.

The pillars and pilasters of the vestibule I put for rubbed work at \$1.45; for beds and other rough work, 60 cents. In all this, I fixed the price of some \$50,000 worth of work. It is a heavy responsibility but

 $<sup>^{78}\,\</sup>mathrm{A}$  surbase is a molding above the base of a wall.

must be made, and I believe I have fixed it at fair rates for both parties, leaning if anything a little to the advantage of the contractors, who seem now to be trying to do their work well and quickly. It is far better for the United States to pay a good profit upon this contract, since it is unfortunately entered into, and thus make it the interest of the contractors to go on rapidly and contentedly with the work, than to be involved in constant delays and disputes with them, causing discontent among them and their men and retarding the completion of the work. They promise that they will get all the stones to the top of the cornice if it is supplied to them. I hope they will. Better to let it cost ½ more than to be 2 or 3 years about the building.

I drew my pay today for the past month, feeling it is too little—\$116.50 for pay and rations and \$24 for fuel and quarters, making in all \$145.50 for one month's work, during which month I have controlled and directed the labor of nearly 400 men and spent some \$50,000. Paying to many of my subordinate agents \$5 per diem, a rate of pay as large as my own, except that it does not include Sunday.

I raised today the wages of the sub-overseers of the Capitol to \$2.50. They have had \$2.00 heretofore. They are both good men, but the one who has most experience, Riar [?], requires some watching lest he fall into habits of drinking. The other, Burns, is a very trusty fellow, perfectly sober and steady, a very valuable man. The greater of the men under the direction of these overseers get \$1.25, and I believe it is a good rule of proportion to pay the leaders as much as twice the wages of the men they manage.

\* \* \*

[JULY 1] The weather continues very hot. The payrolls today amount for the Capitol to be about \$9,500. For the aqueduct, they are mostly paid already. I gave Mr. Denham, the pay clerk, \$800 to pay what may still be due. The sum of the payroll for the Capitol is as follows, not including the stone cutters, who are paid by the contractors: Masons \$2,923.59; carpenters \$1,665.30; foremen, receivers, etc. \$608.50; clerks, draftsmen, managers, etc. \$318.67; blacksmiths \$441.60. Laborers \$3,521.38. Total, \$9,479.04.

\* \* \*

[JULY] 5. This morning I find in the Baltimore *Clipper* a violent assault upon me as having taken unjustly Mr. Walter's place, and arguing then the propriety of turning me out of the direction of the water works. By way of retaliation, I suppose.

Provost and Winter's bill for the last month amounts to \$18,000, and this includes a considerable quantity of work done before, for which the price had not been fixed and which was therefore paid only in part on account. They have now between 90 and 100 stone cutters employed.

\* \* \*

[On July 5, the House preliminarily voted \$500,000 for the aqueduct.]

The Capitol extension passed also, \$750,000. In this, Stanton got a proviso inserted requring any officer, in giving bonds, to give them for disbursing money given in this civil bill. The proviso is general in its terms, but it means me. I presume it can be made to be understood in Senate.

[JULY] 6. The House rejected today the aqueduct amendment, also the Little Falls Bridge. They afterwards rejected the bill itself to a reconsideration and, pending this motion, adjourned. There is in the bill which will finally pass a proviso moved by Mr. Preston <sup>79</sup> which was intended for custom houses only but which by its terms applies also to the Capitol and aqueduct, which forbids the money being spent unless it is enough to complete the work or before the Secretary of the Treasury makes a contract for finishing it. This must be changed in the Senate.

[JULY] 7. I wrote to Hunter of the Senate Finance Committee and to Houston <sup>80</sup> of the House Committee on Ways and Means, calling their attention to the proviso in the civil bill. I also told Mr. Taylor <sup>81</sup> of Ohio of it, and he called out Mr. Haveshun [?], who drew up the proviso, and he said he knew of it, that it was done in a hurry and must be corrected in the Senate. He intended to call Hunter's attention to it himself and wished nothing done in regard to it in the House, lest it might embarrass the bill.

There was a beautiful debate by Mr. Preston of Kentucky, who spoke upon the custom houses and carried them at last, and I have never seen such an exhibition of intellectual power as this was. He called out all his opponents by some appeal to them and made their very answers help him by his replies. It was all done in good humor and kept the attention of the House and kept them in good humor, also.

The bill has passed without the water works but with \$750,000 for the Capitol. As I have on hand \$450,000, this makes \$1,200,000 for me to spend next year and is enough to give me occupation, but I regret

 $<sup>^{79}\</sup>mbox{William}$  Preston (1816–1887), Whig of Kentucky, served in the House of Representatives, 1852–1855.

<sup>&</sup>lt;sup>80</sup> George S. Houston (1811–1879), Democrat of Alabama, served in the House of Representatives, 1841–1849 and 1851–1861, and in the Senate in 1879. He was chairman of the Ways and Means Committee in the Thirty-second and Thirty-third congresses (1851–1855).

<sup>81</sup> John L. Taylor (1805-1870), Whig of Ohio, served in the House of Representatives, 1847-1855.

very much the loss of the water works and hope yet to repeal that loss in the Senate.

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[JULY] 12. Mr. Walter has gone to take his children down the river in one of the steamboats, to give them the benefit of pure air. He will return in the same boat about Sunday. I had rather a leisure day today. Only one letter by the mail. I spent some time in the shops and about the building. The workmen have begun the capitals of pilasters. They have some very beautiful stone for them. The caps of the pillars for the vestibules are also begun and look very well in marble. Vincenti has nearly completed the model in clay for the capital of the column for the basement corridor, south wing. This is very beautiful. I have put upon it the magnolia as the upper ornament with abacus. The three leaves in the middle of the upper row will be corn or maize leaves. The leaves under the volutes will be tobacco; the lower leaves, celery or acanthus. The form is very graceful and beautiful, and now it does not much resemble any capital which I have ever seen. [Sketch] <sup>82</sup>

We have reached in most places on both wings of the building the height of the tops of the arches of the attic floor. Some of these arches are turned, but the marble work is far below that, and I shall before long be obliged to discharge many of my masons unless the marble proceeds more rapidly. Mr. Crawford tells me that the groups of the children at school, the merchant, the Indian boy, the accessories for each end of the tympanum and some others will be ready to ship by the beginning of October next. He has finished them very well, so that it will be necessary only to copy them exactly in order to make good statues. He will send daguerreotypes in a short time. We are getting short of bricks, and few are received. I should have gone on a brickbuying tour today, but my horse was lame. Some injury received in the stable during my absence.

[JULY] 13. At Engineer Department today, told by General Totten that Senator Pearce of Maryland had told him that the Senate Finance Committee had before them a letter from me on the subject of giving bonds, and had also one from the Secretary of War, and that having considered them, they had resolved unanimously to strike out the amendment. I afterwards, at the War Department, saw the letter of the Secretary, which is just such a letter as I could wish him to write on the subject. This, I trust, will relieve me from all difficulty in this matter.

 $<sup>^{82}\,\</sup>text{See}$  illustration on page 40.

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[JULY 13 CONT.] I took a ride today among the brickyards, to endeavor to buy some more brick, but it began to rain soon after I started, and I was obliged to give it up. I wrote today to Provost, Winter and Co. to get more derricks to hoist their stone, as it is evident that they have not now enough to set the stone as fast and good. They have no derricks high enough to set the upper courses, and on the north wing they are already above the convenient reach of those they have.

\* \* \*

[JULY 14] Mr. Winter called to say that the contractors have nearly ready for use 4 or 5 derricks. The capital of the corridor columns is beginning to be very handsome. I brought to Vincenti today some cornstalks, and he has used the leaves in the upper part of the capital, where they have a good effect.

Mr. Stanton has failed in an attempt to prohibit the employment of officers of the Army on the works of the river and harbor bill, but has succeeded in getting a proviso that all who disburse money shall give bonds. This passed unanimously. The Senate will strike out.

Today I raised the price of bricks to \$8 per thousand. Bought from Lambell <sup>83</sup> 300,000, and told Grinder and Willack that I opened the market for them and that price till I had enough. This, they say, will bring me a good supply. I suppose I shall be obliged to pile them up for next year's use in the spring. Grinder says bricks, with a 75–cent haul, cost him \$6.50 all round, which makes \$8 a proper price for the hard bricks and \$7.25 and \$7.50 for the merchantable bricks.

\* \* \*

[JULY] 16. Mr. Pyne today gave us a sermon from the text "I cannot serve God and [Mammon]." He spoke of the sin of covetousness, and yet the Bible requires us to be diligent in our calling. He seemed to think that the only way to avoid a sin in the pursuits of business was to resolve not to be rich. This would not be difficult to avoid, for it is easy enough to give away, and to deserving objects, all that a man makes beyond the necessaries of life for himself and family. Few of us, however, have practiced this self-denial. So far, I have escaped the dangers of riches by not having them. I do not feel avaricious nor covetous, yet I should like to have now a little better fortune than I possess, for at present I am crippled in my family arrangements by want of money. I cannot send my children into the country because I cannot afford the expense. I cannot afford to keep a carriage for my wife to ride in, nor to hire a hack to take the children out of a heated town.

<sup>83</sup> Lambell and Co. of Washington were brick vendors.

Yet we possess all that is really necessary for comfort and ease in living, and our station is one of responsibility and honor. I am entrusted with high and important trusts, and in their discharge I am the channel through which flows the support of hundreds, if not thousands. I am able to direct these sums into the hands of the worthy in those cases where the sums are great, and to prevent any abuse of the money of the government. It all goes now into the hands of those who earn it, without diminution, and I have thus been able to erase an abuse which was tending to injure the country and the people by causing suspicion of the officers who manage the affairs of the Capitol. I believe that I am at the same time serving myself by getting a reputation for honesty and for ability which will enable me hereafter to take such a position in the ranks of the civil engineers as will be profitable to my purse as well as to my reputation.

Lou is now expecting her confinement. She is very unwieldy and suffers much from the heat of the weather.

\* \* \*

[JULY 18] John Hollohan 84 has presented a claim for \$800 for cutting another cap for a pilaster for the Capitol extension. He gets a letter from Senator Adams 85 to Secretary Davis, submits a letter from the late Secretary of the Interior, Mr. Stuart, 86 showing that he had directed, upon Mr. Walter's recommendation, an arbitration to be made, and that he should be paid whatever they decided. I report against the claim in toto. He had been told by Mr. Walter that his work was useless, and I had myself warned him against proceeding in this work; yet he has chosen to run the risk of doing it, trusting to get paid by influence. No one had any authority to make a bargain with him except the President or architect, who made a contract with other persons for the whole of the caps. But he claims that Senator Foote 87 of Miss. and the then Commissioner of Public Buildings made a bargain with him to cut as many caps as he chose. He has been 2½ years cutting 2. The whole would take him about 150 years at the same rate. His caps are of a different marble and different design and of bad workmanship, and the one paid for will never be used, though it cost the United States \$800, while the contract price for pedestal, base, shaft and cap cutting of pilasters is only \$585. Had he such a contract as he claims, it would amount to something like \$102,000 for caps alone, while the cutting of the whole of the pilasters will amount by contract

 $<sup>^{84}\,</sup> John$  Hollohan was a stone cutter.

 $<sup>^{85}</sup>$ Stephen Adams (1807–1857), Democrat of Mississippi, served in the Senate, 1852–1857. He had served in the House of Representatives, 1845–1847.

<sup>86</sup> Alexander H.H. Stuart (1807–1891), Whig of Virginia, was secretary of the interior, 1850–1853. He had served in the House of Representatives, 1841–1843.

<sup>87</sup> Henry S. Foote (1804–1880), Democrat of Mississippi, served in the Senate, 1847–1852.

to only \$70,900, a difference of \$30,000 between the cost of the caps by him and cost of cutting the whole pilasters by the contract. And yet such a claim can find Members and Senators to uphold it. If any claim exists, it is against those who he says presumed to make a bargain with him. If such a bargain was made, he has claim against them, not against the United States. \$800 has been paid to him, for which the United States has not and never will receive one cent's worth of advantage.

\* \* \*

[JULY 19] A beginning has been made upon the caps of the pilasters. Two or three are being roughed out. This has been a very hot day. I rise now pretty late, for I do not find it possible to dispense with my 8 hours in bed, and I cannot get to bed early in this hot weather. Get to the office between 9 and 10 a.m. There generally is something for me to do, and someone comes in, and between the office calls I am detained till about 12 or 1 o'clock. Then to the House or Senate to see what is doing in regard to my works in Congress. Then to the works. I walk through the shops, go over the wings to see what progress is made from day to day and to see that all goes right. Sometimes I correct an error, but generally I find nothing to alter, for the workmen and the overseers are pretty well used to my methods, and I find all going right. Then home and have a dinner eaten alone, for I seldom reach home till after all have done dinner. I ride out to the banks of Rock Creek and take a bath. Then home again, and read the papers or a book relating to my business till time to go to bed, 12 midnight.

\* \* \*

[JULY 21] The stone cutters are in a strike again. It seems that Winter employed two men on condition that if they could earn \$2.50, they would have it; if not, then they would have less. One of them spoiled a stone, cutting it so badly that it cannot be used for what it was intended for. Two must be recut and diminished in size considerably. He discharged him and offered him a pay at the rate of \$2 per day. This was refused, and the society struck to support the man. Winter tells me that he offered to pay him full wages if the society would send a committee to examine the work and after such examination decided that the man was a good stone cutter. This they refused, insisting upon his paying him full wages. And there they stand. Only about 3 or 4 men were at work this evening. Winter is in a high state of excitement about it. I hope that it will be the means of showing him and his partners that the tyranny of this society is getting too great to be borne. One of the men was sitting in the shop when I went

through it. Winter said to him, "Well, Bateman, are you in this war?" "Well, I seem to be drawn in," said he. Damn these foreign rascals.

The great majority of stone cutters are foreign and they rule the whole, allowing only 4 apprentices to be employed in that large shop, which is not enough to keep up the supply, and thus they keep the control in their own hands. It must lead to a crisis before long, which will not be for the benefit of all industrious and well disposed.

\* \* \*

[JULY] 22. The intensely hot weather continues. It is said that the heat reached 103 degrees in New York. Many cases of sunstroke, though not so many as last year, when it was not quite so hot. The men on the Capitol have mostly suspended work in consequence of the heat. The strike of the stone cutters continues. No arrangement has yet been made, though negotiations are in progress which will probably lead to settlement on better terms for the employers than have heretofore been obtained from the men.

In Senate today, the amendment of the House requiring the officers to give bonds was rejected without a dissenting voice. The water works \$500,000 also passed without objection, but Dodge <sup>88</sup> the younger having objected to it, it was laid over for discussion. It will probably come up for debate on Monday next. I do not doubt that it will pass the Senate by a very large majority, and I understand that W. W. Corcoran, the banker, has been lately very active in canvassing for it and feels very confident that it will pass the House.

The pay of the watchmen on the Capitol extension was, by an amendment in Senate today, fixed at an annual salary of \$750. This was on motion, I believe, of Mr. Adams. And I do not doubt that it came from Stanton. The increase is very little, for they get now \$2.00 per day. I told Mr. Hunter that it was increasing the pay of they knew not what, that they were appointed by me, and that there was nothing to prevent my appointing 20 of them, where there were now 7 of them; and that if their pay was to be fixed by law, they ought to be paid out of the general bill and not out of the Capitol extension appropriation. He agreed with me. And I also let him into the secret of Stanton's relationship to one of them. At this, he opened his eyes.

\* \* \*

[JULY 24] On Saturday, one of the carpenters, McMahon, a very good, industrious man, as he was going home from work, which had not exposed him to the sun, fell down in the street and died at midnight.

<sup>88</sup> Augustus Caesar Dodge (1812–1883), Democrat of Iowa, served in the Senate, 1848–1855. His father, Henry Dodge (1782–1867), Democrat of Wisconsin, was also serving in the Senate, 1848–1857.

He was in the habit of working in the shop at a bench and was not while at work generally exposed to the sun.

\* \* \*

[JULY] 27. The strike of the marble cutters still continues. I heard that some arrangement has been made. I believe the contractors are to pay  $\frac{1}{2}$  and the society  $\frac{1}{2}$  the sum in dispute.

\* \* \*

[JULY 28] The marble cutters have gone to work again, having made some sort of compromise with the contractors. Our brick work is getting short, we are so very far above the marble. Still, I keep on hoping that the arrival of the few pieces of cornice yet wanted cannot be long delayed and that when they do, we shall be able to make some approach to the brick work in our walls.

I received from Father <sup>89</sup> a letter today returning the invitation to furnish a dagguereotype for engraving in the portrait gallery of eminent living Americans. He thinks, as I do, that it is better not to try to force Olympus before something great is achieved. And I have written to the publishers to decline the offered honor till I have finished the great works which I have only just begun.

The heat is tempered by a pleasant breeze, but many of our laborers are off sick and overcome by the heat, and by nightly dissipation, I suppose.

[JULY] 29TH. I saw Mr. Robbins <sup>90</sup> today of Philadelphia and a Member of the Committee on Ways and Means.

\* \* \*

[JULY 29 CONT.] He advised me to make the acquaintance of Members of Congress, saying that a pretty general acquaintance would be highly useful to me in my works. This was said in reference to the Capitol extension as well as the water works. I had told him that the Select Committee had made up its mind not to table the Capitol at this session. He said that if I would make the acquaintance of Members in a natural way, treating them as equals but with civility, I would find that I could turn any of them around my finger! This is a very poor estimate of Members or a very high estimate of my ability.

\* \* \*

 $<sup>^{89}\,\</sup>text{Meigs'}$  father, Charles D. Meigs (1792–1869) was a well-known Philadelphia physician and professor of medicine at the Jefferson Medical College.

<sup>&</sup>lt;sup>90</sup> John Robbins (1808–1880), Democrat of Pennsylvania, served in the House of Representatives, 1849–1855 and 1875–1877.

[JULY 29 CONT.] I have ordered a scaffold to be made along the inside walls of the House and Senate, and the derrick in the south wing to be raised up to the height of the attic floor. We are now carrying our bricks up 20 feet; it is hard work. Much more expensive than by hoisting apparatus. The stone cutters are at work again, but I think their numbers have diminished.

[Aug. 2] I wrote to Mr. Heebner that he had sent in 9 weeks 10 courses of stone. He promised 2 courses a week. We are delayed for the want of it most sorely.

I have got a little steam engine, bought of Logan and [Vail]<sup>91</sup> of New York, at work in hoisting bricks upon the north wing. It works well, the engine is good, but the hoisting gear, which was made in Baltimore, is too slow. I directed the speed to be 60 feet per minute, but though I have more than doubled the size of the barrel to gain speed, it is still too slow. It hoists 75 bricks per minute to the height of 45 feet, however, which is better than a horse could do. A little more practice in its use will doubtless enable us to do still better with it.

I have just sent in my monthly reports, and below is a summary of the payrolls and work for the past month for the Capitol:

No. of bricks received during the month, 623,765. Laid on north wing 378,235, on south wing 231,910, total 611,145.

| Paid to bricklayers, south wing<br>Paid to bricklayers, north wing<br>Carpenters making platforms, scaffolds, centers, | \$1,221.50<br>1,314.52 |
|--|------------------------|
| etc.   | 1,825.99               |
| Blacksmiths  | 540.03                 |
| Foremen, overseers, etc.   | 755.17                 |
| Clerks, draftsmen, messengers, etc.  | 333.66                 |
| Laborers   | 3,503.87               |
|  | \$9.497.74             |

\$9,497.74

These are the men borne on our payroll. Besides this, we pay indirectly the workmen employed by the marble cutters and at the quarries. The marble cutters have had about 150 men at work, mechanics and laborers. Their bill amounts to \$8,250.23. I have paid for marble about \$19,000. This includes 3rd August, having received 11,172 cubic feet during the month. This has given employment to a great number of men in the Lee quarries, on the railways, and upon the sea in the

<sup>91</sup> Logan, Vail, and Co. of New York manufactured portable steam engines.

vessels which bring the marble from Bridgeport. The expenditures of the month have been about \$53,000.

\* \* \*

[AUG. 3] Rice and Heebner were here today. Heebner promised a better supply of stone, understanding now what we want. I hope he will keep his promise. Mr. Maples 92 pleases me much. He understands how to manage a stone, and the workmen under his direction make rapid progress.

30 jambs for the principal windows are now on their way, I am told, and 50 blocks for the caps of pilasters. This will give us a good supply for carving.

I understand that the answer of the Secretary to Mr. Dickinson's resolution was sent in today and that he gives the application made by Stanton for the place of Commissioner of Public Building, so that it seems he did make an application, and calmly tells me it is a very strong one, promising, if appointed, to be a very zealous and faithful officer. There are also applications from members of the Armory Commission for Superintendence of Armories, so that this communication will, I suppose, pretty well kill off Mr. Stanton. The House, I believe, already understands him, but this will put the proof upon him in a way not to be denied or explained away.

\* \* \*

[AUG. 4] I received today from Mr. Crawford photographs of several of the figures for the pediment of the Capitol extension. He sends me the school, the schoolboys, the mechanic, and the Indian boy. He will ship these statues with the soldier and the merchant in September. He sends also a plan of an atelier studio for the cutting of the statues, and a photograph of the design made by him for a monument for the Bird family in Saint Stephens Church, Philadelphia, which was not executed, never having been erected. The boy playing marbles is also sent, which is very pretty.

\* \* \*

[Aug. 4 cont.] On arriving home at  $12\frac{1}{2}$  p.m., I was surprised to hear so strong a voice crying that I did not at first think of it as of my own child. Lou has a fine daughter, born about noon, after a short labor, and they are both now very comfortable. I have written to my friends to inform them of my good fortune.

<sup>&</sup>lt;sup>92</sup> Mr. Maples supervised the carving of marble pilaster capitals.

[Aug.] 5. My wife and the baby continue well. The newcomer seems a and healthy child.

It seems to be the game of the Stanton party now to attribute the loss of the water works appropriation to the prejudice against military superintendence. This is a falsehood, for if there had been any such feeling, the House would not have given, without a dissenting vote, \$750,000 for the Capitol. I have understood that Wentworth <sup>93</sup> and other western Members have said distinctly that without the officers, they did not want the river and harbor bill, if the officers of the Engineers and Topographical Engineers were not to have charge of the works, saying they did not desire to have the money to be wasted or stolen by speculators.

\* \* \*

[AUG. 5 CONT.] I found that our little steam engine supplies the material as fast as we want it. I must hurry the change in its gearing, of which I wrote to the makers.

\* \* \*

[AUG. 6] I went around this evening to see General Totten, who had told me that he had some photographs of Roman ruins. He has quite a number, among them one of a temple of Saturn, which is the most beautiful specimen I have yet seen of the as applied to landscape. I asked him if he intended to set officers to work at once upon the fortifications. I told him that I had, I believed, a very good man to send to Fort Montgomery, Lambie. 94 He made no answer, as usual with him in such cases. I do not wish to lose the command of this fort, for I am in some doubt whether I would not be illegally in charge of the Capitol if I did not still hold charge of some fort. Kate Totten 95 is now staying with Mrs. Crawford 96 at the Baths of Lucca in Italy. She has written home that Mr. Crawford was very anxious about the fate of his designs and then that he was delighted at being successful. She is living in good style. Mrs. Crawford keeps her carriage. Kate therefore enjoys herself much.

Lou continues well, and the baby is as good as a baby has ever been.

[AUG.] 7TH. I wrote many letters today. One to Poole and Hunt<sup>97</sup> to hurry up with the alterations in the gearing of the hoisting apparatus. This machine does not supply us with bricks and other materials fast

 $<sup>^{93}</sup>$  John Wentworth (1815–1888), Democrat then Republican of Illinois, served in the House of Representatives, 1843–1851, 1853–1855, and 1865–1867.

 $<sup>^{94}\</sup>mbox{John}$  Lambie was a supervisor on the aqueduct.

 $<sup>^{95}\,\</sup>mathrm{Kate}$  Totten was a daughter of General Joseph G. Totten.

<sup>&</sup>lt;sup>96</sup> Louisa Cutler Ward Crawford was the wife of sculptor Thomas Crawford.

<sup>&</sup>lt;sup>97</sup> The Poole and Hunt foundry of Baltimore cast the thirty-six columns for the dome.

enough to keep us fairly at work. On my way to the office, I overtook Mr. Winter, and I told him that he must increase his force, for I found that he had not now enough men to prevent an accumulation of marble on hand. He says he is adding to it daily and that if time be allowed, they will soon have a sufficient number of hands. They are restrained by the society and cannot take in men from the shops of Struthers, Grebel, and Baird in Philadelphia. This makes it difficult to get men quite as fast as they wish.

All of the principal window jambs have been begun. Several caps have been roughed out. Some of the caps of the inside have been nearly finished. I had to condemn a good deal of marble today which was too blue for the exterior of the building. Some diminishment having occurred to a hydraulic press and jack, today I have studied its construction. It is a very beautiful and simple instrument. The one I have is a 7–ton jack, and men cannot easily shoulder it and carry it away. It works as easily and smoothly as a winch. And we want one a man can lift, anything within its power.

Mr. Walter, whom I asked to speak to Winter and warn him that if he did not increase his force, I shall certainly, myself, hire men to cut the stone which he left, says that he believes they are doing what they can, and that if time be allowed, they will accomplish as much as can be desired by them. Mr. Walter has a great horror of the society strikes.

\* \* \*

[AUG.] 8. Today Mr. Walter, who had insisted that he had not known of the contract between Provost, Winter, and Co. and Mr. Maples until within a few months and that he had forgotten the price to be paid for cutting the caps, told me that on going home, he began to remember something of it. Looking into his diary, he found that he had, himself, drawn the contract in June 1853 and that it was at \$260 per cap. He also saw Mr. Provost as he came to the office and asked him what he was to pay Maples. Provost said \$260. Now, Maples, himself, told me today, too, that his price was \$300. What should I believe from these men? Has Maples lied? Or has Provost lied?

Thomas McKay, who has brought me several letters recommending him for a watchman's place, but whom I have not liked and did not intend to appoint even if a vacancy should occur, came again this morning, but he walks into the office as if the letters of his friends would at once force me to make a place for him. I told him, as I have before, that there was no place and that I could not think of turning anyone out to provide for him. Most men have delicacy enough to disclaim any desire to have others turned out for them. He had not.

Meeting after, at the Capitol, Captain Dunnington <sup>98</sup> of the police, I asked him if he knew anything of this man, and he says he caught him stealing once. This is quite enough, I think, to account for his impudence.

I have given orders for fitting up 3 rooms in the basement of the south wing as office rooms. Mr. Slight thinks it will take a good while to get ready. But I trust that I will be able to hurry him a little.

I took to the Secretary this morning a drawing of Crawford's models. He was much pleased with them but at once objected, justly, to the Indian boy, that his face was not the face of an Indian, nor the hair the hair of an Indian. The mechanic and the schoolboys he very much admired. So, too, the school master. He looked at the plans of the 2 wings, which I have never before been able to get a chance to show him. Judge Perkins of Louisiana came in and was much pleased with the plans and the models, also. The Secretary has got over his anger at Stanton enough to talk to him without losing his temper, but is very free in his opinions to me of his being a most reckless man for a public man.

\* \* \*

[AUG. 8 CONT.] General Totten wished me to go to Fort [Montgomery?] to grant a right-of-way to the railway company. But the Secretary refused, saying that I had enough to do here and should not be taken away. He spoke of it afterwards, and I told him I could arrange to go but I would prefer not just at present, for I was desirous of studying the roof and getting it underway. I told him I was about to make the roof here with our own men, and he approved my intention of doing that and everything else that I could in this city.

I find the civil and diplomatic bill in the *Union* today. The appropriation for the Capitol extension has a proviso that the officer of the Army or Navy who may be put in charge of the disbursements of that work or of any other works, under that bill, shall be liable to all the requirements of the subtreasury law. This is merely re-enacting what was before law, for all disbursing officers have been subject to all the provisions of the subtreasury law ever since its enactment. So that Mr. Stanton's appeal upon the Capitol extension has failed utterly for this session.

The appropriations now under my direction are as follows:

For the Capitol, \$750,000; billings from last year's appropriation, \$395,845.47; total, \$1,145,845.47

<sup>98</sup> Charles W.C. Dunnington was captain of the Capitol police.

Fort Montgomery, \$15,000; billings from last year's appropriation, \$1517.16; total 16,517.16
Aqueduct, billings remaining 995.56
Making a total under my direction of \$1,163,35849

So I am not likely to be compelled to \_\_\_\_\_\_ the pay of \_\_\_\_\_.

The friction clutch of our hoisting machine does not work as well at could wish And the brake, which works perfectly is attached to

as I could wish. And the brake, which works perfectly, is attached to a wooden frame. I directed an iron frame to be made and a little different arrangement to correct the action of the clutch.

Ordered from Ellis a cast iron \_\_\_\_\_ and jig blocks for a boom derrick, wishing a stronger one upon the north wing. I am not satisfied with the little one we have there at present. I cannot venture to hoist any great weight with it.

I rode out this evening to look for a tobacco plantation. I found one a mile or two over the eastern branch and brought home a leaf. Vincenti has made a very exact copy of the leaf, and I shall tomorrow tell him to make a plaster mold of the capital for the vestibules. This capital contains the celery, the corn, the tobacco, and the magnolia, 3 entirely American plants, and is a very graceful and beautiful capital.

\* \* \*

[AUG. 8 CONT.] Some of the stone[s] for the east front \_\_\_\_\_ are too narrow in bed and must be ordered again. The plan for the eastern door also needs study. Part of it is built, and the details are not completely shown on the drawing.

Roach [?], the contractor, called today. He wanted to buy some stone cars, having a job to do in Alexandria, but he says that he buys cars which suit his purpose for \$75, while mine cost \$150 or so, and I do not doubt his word. I have bought a more expensive article than I needed.

[AUG.] 9TH. I went to the Metropolitan Foundry to see what tools and power they had. I did not find as much as I expected. They are beginners and have not yet completed their assortment of tools. Needing a small job for the purpose of working the pump on the north wing by the portable engine, I took it to them.

I approved today the drawing for the finishing of the 3 rooms in the south wing for an office. I had these rooms' arches covered with asphalt last year in order to keep that dry enough for use as an office. I will now lay down floors of wood and fit them up with plain wooden finish, with wooden window casing and shutters.

Had some discussion with Mr. Walter in regard to the style of finish of the doors generally to the building. We shall probably decide upon wooden doors of natural woods with iron casing and upon cast iron window casing. And some of the window shutters it will be best to make of iron, I think, for the safety of valuable papers, such as those of the Supreme Court and the Secretary of the Senate. I do not like to leave anything that can by any chance give room for the spread of fire. I must talk with the Secretary of War upon this subject. It is one of importance.

I directed greater speed and energy to be given to the scaffolding of the south wing, which does not advance as I could wish.

[Poole] and Hunt write that they will send the wheels for the hoisting apparatus tomorrow. The engine seems to have a much greater power than I now use, and I have ordered also a set of casting for a boom derrick like that on the south wing.

A letter from Gardner and Thurston, <sup>99</sup> Providence, tells me that in 2 weeks they will ship the portable engine ordered for the aqueduct by Eastman. This engine I shall be able to use for the blacksmith's shop at the Capitol. For the aqueduct, I have no money. I wrote to Eastman \_\_\_\_\_\_ to warn him today that the failure of the appropriation had deprived me of the means of paying for the stone cutting machine. His father was to make a delivery last March. This will be a great disappointment to the old general, and I regret it much. But I hope that he will be able to dispose of it to the Montreal people, who I was told were desirous of getting some of his machines.

\* \* \*

[AUG. 9 CONT.] I made sketches for the brake supports and the new lever and links for the friction clutch of the hoisting gear for Mr. Champion today.

A letter to the Secretary dated 3rd, asking for \$20,000 in Philadelphia, has failed. I sent in a copy today. I wrote to Crawford about the statues, giving him the opinion of the Secretary, as my own, that while his figures were very beautiful, he had not got the Indian type in his Indian boy.

I must think of the appropriation for getting out the finishing of the various rooms. We might be sawing out floor tiles for the rooms and corridors, getting the iron work of doors and windows cast. The ceiling and roof of the 2 buildings might both be underway.

[AUG.] 10TH. To my great surprise, Mr. Denham, my clerk, on going for the draft on Philadelphia, which I had asked for, was told at the

<sup>99</sup> Thurston, Gardner and Company of Providence, Rhode Island, manufactured steam engines.

Treasury that it must be suspended till I give bonds, as they thought the proviso of the civil and diplomatic bill made this necessary. I have carefully examined the proviso and the law to which it refers and under whose penalties and liabilities it places any officer who may be in charge of any work under the civil bill. I believe that the decision is altogether wrong and that the law is clear and explicit in every way, for its 14th section expressly excepts officers of the Army or Navy from giving bonds.

I was engaged during the greater part of the day, after having visited the works, in studying the roof for the Representatives. The clear span is 93 feet, which requires a careful study to make safe.

[Aug.] 11. At the Treasury, I learned that the Comptroller had withdrawn his objection to my draft, having consulted the Assistant Secretary of the Treasury and concluded that he had mistaken the law. I had gone to the Treasury with the laws, to lay the matter before the Comptroller. Finding that he had withdrawn his objection by information I got from Mr. P. G. Washington, <sup>100</sup> I of course did not trouble him.

\* \* \*

[AUG. 11 CONT.] The *Globe* <sup>101</sup> of last night contains some remarks of Stanton's upon the letter from the Secretary of War in regard to his application for the place of Commissioner of Public Building, the publication of which is very distasteful to him. He affects to consider it a very simple business. So does Mr. Faulkner of Virginia, who figures as the recommender of some person for a place at the armory, but who is proud to be able to tell the House that his name has never appeared as that of an applicant for any office! Why should he be proud of it?

I wrote to Peter Cooper <sup>102</sup> and to the Trenton Iron Company to ask some information as to the size of rails they could roll. I am surprised, in studying the roof of the Capitol, to find the formulas give such small dimensions for the principal rafters and ties. Even allowing the coefficient of safety to be less. That is making the beams six times as strong as necessary to stand for a time.

 $<sup>^{100}\,\</sup>mathrm{Peter}$  G. Washington was assistant secretary of the treasury in the Pierce administration.

 $<sup>^{\</sup>rm 101}$  Washington  ${\it Globe}.$ 

 $<sup>^{102}</sup>$  Peter Cooper was with Cooper and Hewitt of New York, the ironworks that supplied iron for the Capitol.

[AUG.] 12. I took Mr. Henley to the cars this morning, on our way to Carlisle, where Bayard 103 and Henrietta 104 are spending the summer. The cars leave at 6 a.m., and we walked up to the Capitol, being so near, to see whether watchmen were on duty. I found the two outside watchmen at their post, and Smith, 105 the inside watchman, north wing, entered the yard just ahead of me. I could not be sure whether he could have been there before or whether he was coming to his post at 6 o'clock, 2 hours after he ought to be there. McKay, inside watchman, south wing, I did not see at all. But after I had been some little time upon the top of the building, he made his appearance inside. I questioned him afterwards, and he said that he was late from having been sick last night, but that he was in the cellar at the time I was looking for him. He was driving a dog out. I doubt he does not tell the exact truth, and I have no doubt that Smith neglected his duty shamefully. I must take some means to ascertain which of these men does his duty and which does not.

Finding that the preparations for raising the derrick were made in part, I stayed to see that no accident occurred and was not able to leave till near noon. Thus, I was without eating from last evening till noon today. They had not well arranged materials, and I had to direct the places for the guys and to see that there were properly secured fastenings for each guy prepared. Two I put upon the chimneys of the House of Representatives; the other two in the doors at the south corners of the Hall of Representatives. I returned at 1 p.m., and by 6 p.m. we got the derrick parts hoisted up to the attic floor and the post upon which it is to rest put in place, though not finally secured. I have no good manager of such work at the Capitol. We have not rigging enough for keeping one man all the time, and we are obliged to pick up a man named Williams, who is of no judgment or discretion. I spent the whole day at this thing, which ought to have been all prepared beforehand and been set up in 3 hours at most.

\* \* \*

[AUG.] 14. We got the derrick up today; a heavy job it has been. I stayed at the work till it was ready. The bricklayers lost a part of the day for want of bricks, those hoisted before having given out before the derrick was ready for use.

At work upon the roof, which I find can be made with the rolled iron flange bars made by Cooper and Hewitt of New York. The pressure upon the ends of the rafters will be about 63,000 pounds.

<sup>103</sup> Henrietta Henley Smith was Louisa Meigs' cousin.

 $<sup>^{104}\,\</sup>mathrm{J}.$  Bayard H. Smith (1810–1889) was married to Louisa Meigs' cousin Henrietta.

<sup>&</sup>lt;sup>105</sup> Probably John W. Smith, identified in a city directory as a watchman at the Capitol.

\* \* \*

[AUG. 15] Going to the Capitol this morning, I found a man upon a plank, surrounded by people, and I thought that some of the machinery had given way and that at last I had a serious accident. Thus far, no accident of any importance has ever occurred upon a work under my charge. I was relieved [to] find that he had fallen from a ladder while carrying mortar. For this, no one but himself can be held accountable, for he missed his hold and fell from a good ladder which was secure. The man's name is Patrick Fleming, and the *Star*, in noticing the accident, says that the officers were waiting at the foot of the ladder to arrest him upon a charge of rape.

I have received but one bill of lading for a stone vessel since 25 July. Today came one for the Hittons [?]. This is 3 weeks [since] I wrote to Mr. Heebner and told him that if Mr. Carr [?] was not taken to send stone as we wanted it, I should be obliged to retract my permission to send stone for the upper courses and refuse to pay for any above the window heads. The basement cornice ordered 20 times and promised from week to week is not yet completed. And great gaps remain in our walls for want of it.

[AUG.] 17. Having left the key of my desk at the office, I could not write last night. I have been for several days engaged upon a study of the roof of the Capitol, and it requires more detail than I had any idea of. The derrick upon the south wing is now in good working order, being raised to the level of the attic floor. It raises the bricks and mortar nearly as fast as it did to the height of one story only. The time taken in hoisting being so small, about a half minute for 40 feet, the height of the two stories. The new wheels upon the small hoisting engine upon the north wing have given it double speed, and now it easily supplies all the materials wanted there. Mr. Denham told me today that he found men discharged in consequence of the derrick taking their place, whose pay amounted to \$8 or \$10. This is a decided saving.

I have had the friction band lever changed upon the south side, but with a tender. It was worked by hand, but in a position which required a tender to stoop to reach it. This was a piece of stupidity of the engineer, Ellis, who arranged it. It is now placed within reach of the hand of the tender without his stooping.

[AUG.] 18. Still at work upon the roof. I have made some progress, but there is much to study in it.

\* \* \*

[AUG. 19] An invoice arrived today for the *Waterloo*. I wrote to Mr. Rice that this was the second only in 25 days and that no basement cornice was in it, that such neglect was inexcusable.

Made some progress with the roof. I found in the library of the War Department Ferber's and also Clark's account of the Brittania tubular bridge. In that are some experiments upon the strength of cast iron. These are valuable. One point about which I was in doubt is stated by them, the size of pins and bolts used to unite bars at either ends under the tie beam of the roof truss. It seems that the section of the pin must be equal to that of the bar.

\* \* \*

[AUG. 19 CONT.] I want to go to the quarries to see if I cannot induce these people to go on faster with their delivery of stone. We are delayed by the want of it now, and I fear shall make no important progress this season. I should also like to see the Trenton Works, where the [sketch] iron beams which I shall be obliged to use in the roof are being rolled.

\* \* \*

[AUG. 21] I have been much engaged today in a study of the roof.

\* \* \*

[Aug. 21 cont.] Williams, Stevens and Williams <sup>106</sup> of New York, to whom I wrote to ask about glass, say that no plate glass is made in America. They recommend the French glass sold by the maker's agents, Noell and DeCourcy <sup>107</sup> of New York, as the best made in the world. I have ordered some from them for the windows of the rooms now fitting up for the office. It costs about \$14 a light, 4 lights to a window.

\* \* \*

[AUG. 21 CONT.] I began today keeping a rough of all my letters, writing them first in phonography. I can now write more rapidly in this way than in the common hand. By having a sheet of double-ruled paper on my table, I believe that I can write all letters first in phonography and then write them out in the longhand, and thus have the advantage of a copy and of a more deliberate consideration of the words that I write so quickly and so hastily that I have been careless lately of the facility, and I fear that I have let some slipshod preparations go forth with my name.

 $<sup>^{\</sup>rm 106}$  Williams, Stevens, Williams, and Co. of New York were merchants of glass and paintings.

 $<sup>^{\</sup>rm 107}\,\text{DeCourcy}$  and Noell of New York were importers of plate glass.

[AUG.] 22. I received today the orders to go to Lee and to New York and Trenton, which I sent yesterday to the Secretary for approval. This will enable me, I hope, to make some improvement in the delivery of stone which has been so slow as to cripple us for some time past.

\* \* \*

[AUG. 22 CONT.] I wrote lately to Hopt [?] to ask where he got the glass of the Pennsylvania railway depot and whether it was of American manufacture. It proves to be American, but I believe is not cast or plate glass but plated. First blown and then plated. I wrote to Pittsburgh and to the agents whom he named in Philadelphia to try to get someone to undertake the manufacture of plate glass in this country for the skylights of the Capitol, if not for the windows also. We have some 300 windows of glass which with French plate would cost about \$150,000, and I think that this would be enough of a job to induce some enterprising persons to add to their establishments the apparatus for casting glass.

\* \* \*

[AUG. 22 CONT.] The *Star* of this evening says that the sureties of Sam Strong are being sued for the failure of his contract for bricks for the Capitol. I know nothing of this. Perhaps there may be some suit between themselves. Strong is said to have run away to Australia.

\* \* \*

[On August 23 Meigs traveled to Philadelphia, arriving in the afternoon.]

[AUG. 23] I have been busy since I got here in looking in various manufacturers, and I expect to go in the morning to Trenton and, after a stay of 2 or 3 hours, to go to New York. Perhaps I may go to West Point tomorrow night. Perhaps not till the next.

I called at the office of Morris, Tescar and Morris <sup>108</sup> today to ask where their gas pipe factory was and whether I could see it. I was surprised to be told that they admitted no one to visit it. Its secrets are jealously kept. Do not admit engineers and customers? We make no exceptions. I told the clerk that I thought this was a curious thing and that if I could not see, I would buy elsewhere. There is another factory in 7th Street, above Market, to which I was taken by Mr. Hamilton, actuary of the Franklin Institute. <sup>109</sup> This belongs to two Englishmen, I judge, named Griffiths. They also refused to show their works,

<sup>&</sup>lt;sup>108</sup> Morris, Tescar and Morris of Philadelphia was a gas pipe manufacturer.

<sup>&</sup>lt;sup>109</sup> The Franklin Institute of Philadelphia was established in 1824 to promote the study of applied science and mechanical arts.

and I obtained their card of prices and left in a discontented mood. I am not accustomed to such illiberal treatment.

I found Mr. Walter, 110 the agent or owner of the glass factory, at his store, number 469 Market Street. It is a hardware store, in which I should not have looked for a man of capital and enterprise. He had some specimens of cast glass as much as 11/4 to 13/4 inches thick and said that he could make large sheets and in a few weeks be able to make them of 8 feet by 6 feet 8 inches. He seems an intelligent man. He has not yet put up machinery for grinding and polishing glass but hopes to be ready to do so before we shall want the glass for our windows and will be glad to supply us with the thick glass for the skylights. The glass of the Pennsylvania railway depot has cast plates. It looks like the French hammered glass, and he can make it of any size and thickness I may require for the Capitol. I was glad to find an intelligent man and one who was willing that I should see their works. Unlike the gas pipe makers, shutting up his shop against all visitors. I shall try to visit his works on my return, though they will not be then in operation.

I propose to go to Trenton tomorrow morning, and after seeing the rolling mill there, to go on to New York.

The new Farmers and Mechanics Bank here, built of the Lee marble, looks well. The design is picturesque and rich but not very well balanced, I think. The cornice is not rich enough for the lower parts. I met in the building Mr. Keyes, the architect, who carried me over the building. It is a very conveniently arranged banking house. I do not see that the stone is discolored except by dirt. The lower story is very dirty. The upper looks fresh and beautiful.

[Aug.] 24TH. I left Philadelphia at 7:30 p.m. At Trenton, I visited the works of Cooper and Hewitt. Saw the operation of rolling large beams. I found Mr. Abbot, the manager, there. I saw, also, the inventor of the machinery, Borrow by name, an Englishman, one whom I should notice rather as a stout man than one of intelligence in his appearance.

I came on to New York in a train which left Trenton at  $11\frac{1}{2}$  a.m. and got to New York at  $2\frac{1}{2}$  or before that time. I then walked to the Assay Office in Wall Street, next to the Custom House. This building is not yet quite finished. It is of brick, with masonry floors upon wrought iron beams. The roof is of galvanized iron upon T iron rafters, braced 12 feet, 16 inches apart. The berths [?] are of T iron truss. It makes a very light roof, but it is not of great span. I tried the stiffness of the corrugated galvanized iron and found that it yielded upon pressure of the finger. I should not like to trust it, and it is too thin to

<sup>&</sup>lt;sup>110</sup> William B. Walter of Philadelphia was a glass manufacturer.

be durable enough for a great public building like the Capitol. I saw from the upper windows of the Assay Office the roof of the Custom House. This is tiled with marble. It looks permanent enough, but Mr. Walter told me some time since that it leaned.

I found at number 79 John Street an establishment for making gas and steam fitting, conducted by Mr. James O. Morse. He was an assistant upon the Brooklyn Drydock, but has given up engineering and taken to manufacturing. He carried me over his works to show me his modes of making screws and other couplings and fittings. Says that he put all the gas and steam pipe into the St. Nicholas Hotel. As he was going there to inspect it all tomorrow, he offered to take me and show me the whole affair. I gladly accepted his offer and will stay in town tomorrow morning for the purpose. I expect to go to West Point in the afternoon.

I am now in number 295, Metropolitan Hotel. This is next to the roof, hard to climb up to it, but it has one advantage. This being above all other roofs, there is a delightful breeze coming in at the window.

[AUG.] 25. Mr. Morse called for me this morning, and I went with him to the St. Nicholas Hotel. We examined the gas works which are in rear of the house. They have 2 benches of retorts, in each of which are 3 retorts. Either of them is able to supply the house. The gas is made from resin, of which about 25 barrels are used weekly, costing about 2.50 per barrel. The product is 45,000 feet of gas and 10 barrels of resin tar, which is sold for making varnish at, I believe, 2.50 per barrel. I think that the engineer told me that the tar sold at a higher rate than the resin and that I have mistaken the cost of the resin, putting it too high. 3 men manage the works, which are kept going all night.

The steam engineer has charge of a pumping and boiling and steaming apparatus. There are two of Worthington's direct steam pumps which send water to the top of the house into a tank. This pump forces water through a main about 100 feet horizontally and 60 feet vertically. It works with a jerk, which is desecrable to me, but I was assured by the engineer and by Mr. Morse that the machine lasts and does not shake itself to pieces. Mr. Morse explained to me the patent. It is very simple. The application of steam direct is not patented, but only the mode of relieving the piston from pressure and thus insuring the opening of the valve when working slow. The piston works through a diaphragm, and when near the end of the stroke, some holes in the cylindrical piston open and communicate between the two ends of the barrel. The piston, being relieved of its load, jumps forward and throws the valve wide open.

\* \* \*

[AUG. 25 CONT.] Steam, Mr. Morse says, is to be preferred where you have an engineer to manage it, as it is less expensive to fit up, less costly to maintain, less heating service is required than with hot water apparatus. He put up at Savannah, Georgia, water works to supply the city. The House of Representatives pump has the motive [?] power. 3 pumps, I think he said, each capable of supplying a million gallons daily, raising it about 100 feet.

After seeing all these things and looking into Williams and Stevens shop to see the paintings and engravings, I went to the office of the Berkshire Crystal Glass Company. They had quite an assortment of cast roof glass in large plates, some of them over one inch thick. Some of it was of very good color, but most of it is quite green. It is full of bubbles. This they attribute to the pouring by ladles. They are now making machinery for pouring as in the French glass factories. I think their glass promises well.

Then to the Crystal Palace, which is well worth seeing. I saw, among other things, a very simple machine for cutting sheets, bars, and any irregular form which lies in one plane, as brackets. It also repeats any pattern with and without a molding on the edge. Two vertical arteries project from a table and revolve rapidly. The \_\_\_\_\_\_ next to the table is cylindrical, its diameter as great as the sweep of the cutters. The piece of wood to be cut is fastened by pins to a guide which is a piece of wood that is rubbing against the smooth cylinder and prevents the cutters penetrating too deep. Cutters of different forms give such molding as may be desired to the edges of the wood. Thus, picture frames, sheets, bars, brackets, etc., may be made. [Sketch]

\* \* \*

[After spending two days at West Point, Meigs returned to New York on August 28.]

[AUG. 28] I went to the Astor Library to look at the large copy of the works of Raphael in the Vatican. They have it well colored, or a part of it. They have 3 volumes—the pilasters, the arabesque[s], and the loggias. I have never seen colored engraving of these works before. They are very beautiful, rich and harmonious in color, simple and beautiful in design. I wish I could see the rooms themselves. This book will give us ideas in decorating our lobbies.

\* \* \*

[AUG.] 29. I left New York at 8 a.m. and reached Lee at 3 p.m. At the depot, I met Mr. Heebner, and he took me to his house. We went

first, of course, to the quarry. We found in the quarry a number of blocks of marble cut out, ready for shipment, and a very large quantity of marble ready to be quarried. Heebner is in apparent good spirits and seems to be going ahead. I found all things looking much better than I expected. No danger of the quarry giving out before we finish the Capitol. I sent from New York to Mr. Walter, for the payroll of this month, a check to Denham's order for \$9,200. Tonight I have sent him a requisition for \$50,000 for the service of the Capitol extension—\$20,000 on Philadelphia, \$30,000 on Washington.

[AUG.] 30. After another visit to the quarry this morning, I left at 9 a.m. for New York. Finding Mr. Heebner in good spirits and apparently busily engaged at his work, I believe that we have a good prospect to be better served with marble than for some time back. Yet I see that he knew of my coming, and I do not feel sure that this apparent activity may not be but for the occasion. They have opened the other quarry, which seems to furnish, from the surveys, stone even, a very good material. This is well, for it shows that there is marble enough, and if any difficulty occurs with Rice and Heebner, others will serve us for money.

\* \* \*

[On August 30, Meigs traveled on to Philadelphia.]

[AUG. 31] I went this [morning] to the Franklin Iron Works in Franklin Street, in Kensington, to look at their turning and boring tools. I found they did not make tools for sale. They make the iron work of the marble [sawing] frames. For those they ask 9½ cents per pound all around. That is for cast and rod rough and smooth work all told. The price is, I believe, reasonable. I took John 111 with me, and we saw a Nasmith's 112 steam hammer in use. It is a pretty big one, about a ton.

\* \* \*

[Meigs and his son arrived home in Washington on the evening of September 1.]

[SEPT.] 2nd. Today I have been busy bringing up my correspondence and paying off various debts. I paid to Rice and Heebner by check about \$8,300, which will, I hope, help to relieve Rice from the embarrassment which I hear he suffers from. He is borrowing money in

<sup>&</sup>lt;sup>111</sup>John R. Meigs (1842–1864) was Meigs' eldest child. He had been visiting his grandparents in

<sup>112</sup> James Nasmith (1808–1890) was a Scottish engineer who invented and patented a steam hammer and other machine tools

Philadelphia. Gives as his reason that though he has plenty, he cannot obtain it, owing to Captain Meigs' business. I wrote to Mr. Walter that he had balanced his books and found that he was \$27,000 behind in the account with the quarry and that Heebner had drawn upon him for \$3,000 lately and he had been obliged to return the draft unpaid, not being able to raise the money.

I find a greater difference in appearance upon the south wing than the north. More marble has been set there, I think. Today the masons on the north wing quit work at noon in consequence of the great heat. It has been a very oppressive day.

I ordered from Cooper and Hewitt of New York the iron beams for the rafters of the two roofs over the Representatives Hall and Senate Hall. There will be, in all, 104 beams of about 22 to 25 feet in length.

It is now after 12 midnight, and I must go to bed.

[SEPT.] 3RD. This is the anniversary of the death of our dear Charles. To take him, death first entered our heart. One month later again he took Vinty. I trust that I have not been insensitive to this bliss of my Heavenly Father. I do not doubt that they were sent in mercy to us. I hope that I have somewhat profited by them. And yet, it is hard to walk uprightly in a heavenly course. I believe that I try to do my duty to man and to God, yet with a full and true faith in His power and goodness, in His knowledge and interest in all that teaches us.

The unseen is so much less present, to my mind that is the sin, that I fear I do not think as much as I should do of Him and His laws in all my actions. I cannot in any of my public acts accuse myself of doing anything for my own profit and advantage. I believe I have had a true desire to carry out the great works committed to me, with a single eye to the good of those employed and to the proper economical use of the public money placed in my hands. I cannot remember that I have dismissed or employed anyone for any other reason than that he was fitted for the employment I have given him.

I have been the object of much obloquy from Mr. Stanton and others whose motives I cannot think honest, and yet I have been able to preserve my temper, and I feel no animosity towards them. I would do them no harm, though I wish they could be persuaded to leave me in peace and cease from slandering me at the next session of Congress or else be deprived of the power to do me harm and obstruct the great work for supplying this city of water which I have been the fortunate means of devising. All this, however, is in the hands of God, and if it seems to Him good that I shall be thus thwarted, I am willing to bear it.

Perhaps it is better that I have an enemy close, watching my steps. It keeps me more careful. The power which is wielded by those who control so much money as passes through my hands is a dangerous one but a \_\_\_\_\_\_\_. If felt unwatched, I might be some day found by myself nibbling. God grant to me and to mine more grateful hearts for all the mercies he still vouchsafes to us. Let us grow daily more sensible of His love and goodness for us and enable us to see His providence in all that happens to us and to trust ourselves entirely to Him. May He grant to me better success with this [than?] the past session of Congress in obtaining the appropriation for the water works. I have an ambition to finish that great work. If I do this, I shall not have lived in vain but will have been the means of doing good in my day and for many future generations.

Our little Louisa 113 is a charming child, quiet and thriving.

[SEPT.] 4. Monday. I have had a very busy day. I appointed this morning Mr. Louis Burkhard overseer laborers in place of Burns, who has left to go into the service of the Mexican Boundary Survey with Major Emory. <sup>114</sup> He had charge of all the laborers with Jones, bricklayers, on the north wing.

Anderson <sup>115</sup> called today, my old classmate at West Point. He wisely left the Army a year or two after graduating and is now the principal owner of the Tredegar Iron Works at Richmond. Has made, it is said, a large fortune.

The day was intensely hot. I went over the extension, up and down the ladder, bathed in perspiration. At the office, it is difficult to write. I had to keep a towel under my wrist. I wrote many letters, some to the north to machine shops, to ask the price of various tools which I need for working the roof of the Capitol. Anderson tells me that he furnishes the cable iron for the Navy, which proves that his iron is good. He offers the merchantable iron of the works, which is of high quality, for 4 cents per pound. If cable iron be ordered, he will furnish it at  $4\frac{1}{2}$  cents.

[SEPT.] 5. I wrote today my monthly reports for August. They have been delayed by my press of business since my return. On the aqueduct, nothing but selling some property. On the Capitol, I have received 1,124,335 bricks in a month and laid 759,689. Received only 2

<sup>113</sup> Louisa R. Meigs (1854–1925?) was the baby of the Meigs family, known as "Loulie."

 $<sup>^{114}\,</sup> William$  H. Emory (1811–1887) was an officer in the Topographical Engineers, who was assigned to run the boundary line between California and Mexico.

<sup>&</sup>lt;sup>115</sup>Joseph Reid Anderson (1813–1892) owned the Tredegar Works, which furnished iron for the Capitol and later became an essential asset of the Confederacy, producing heavy guns during the Civil War.

cargoes of marble with 4,036 cubic feet. Spent \$32,453.24, leaving available for the remainder of the year \$1,138,304.25.

Having received from Lieutenant Charles E. Blunt a letter informing me that he was prepared to take charge of Fort Montgomery, I wrote today resigning the command to him. I have not yet seen the letter, as the papers to go with it are not copied, and I wished also to see General Totten about the effect of the proviso of the law of 1838 which says that no officer shall be taken from his regiment or corps in order to take charge of any work of internal improvement. I fear that a hostile construction of this proviso might make my position as in charge of the Capitol and aqueduct illegal. This is not the desire of either the General or the Secretary.

\* \* \*

[SEPT. 5 CONT.] Mr. Winter came to see me today about the inner jambs of the windows of the principal floor. He says that they never bid for them and considered that as extra work not provided for in the contract and to be paid for at my valuation, that they overlooked them in their bidding. I showed him a drawing number XXIII, clearly referred to in the specifications, which shows the details of the windows and these very jambs. He said they had not had this. I told him he would find in Mr. Provost's possession a tracing of the drawing which he had brought out and showed to me to rule some point about the windowsill. He said the general elevations did not show that and they were guided by this, looking at the time at a small elevation of the east front. I told him that the east and west fronts did not have these inner jambs and showed him upon the north and south elevations these very windows as upon the drawing number XXIII. He acknowledged that he had no case and that they had been got. For he declared that they never had regarded these jambs in their bids.

Peter Cooper and Hewitt offer the very best iron for the roof ties, 5 inches by sub [?] size, as may be needed, to make rolls for 4 inches by 1 inch, at \$90 per ton. Anderson's Tredegar Works offers at \$90 for their iron or \$100 for best cable iron to stand the Navy cable test. Cooper fears that he will not be able to make the long rafters in two pieces each but will try.

Mr. Walter has nearly completed the drawing of the gates for the eastern front. The design is good and magnificent, I think, but I prefer to have the door fill the entire archway. He prefers to have the semicircle filled with glass. He will make a drawing to fill the whole, and then we will decide the question and send the outline to Mr. Crawford

for his design of the ornament of the gates, which I hope he will make equal to the Ghiberti <sup>116</sup> gates at Florence.

[SEPT.] 6TH. Today I dispatched the letters turning over the charge of Fort Montgomery to Lieutenant Blunt. I called at the Engineer Department in the morning to show General Totten the proviso of the law of 1838 forbidding officers being removed from their regiments or companies in order to take charge of civil works of internal improvment, and to suggest the possibility that my being in charge of the aqueduct and Capitol might be strained into a violation of this if I had not also a fort. He said he could give me another fort and would be glad to have my services in charge of it. There are \$5,000 for completion of Fort Madison, Annapolis. This removes all difficulty.

\* \* \*

[SEPT. 6 CONT.] Anderson called this morning. He thinks his iron at \$90 will be good as Cooper and Hewitt's at the same price and that his cable iron will be much superior. I wrote to Cooper and Hewitt to tell them of Anderson's offer and to say that if they would send me specimens of their iron, I would have them tried at the Navy Yard or arsenal. The iron of the large beam is very good. It bears cutting with a chisel and turning back without breaking.

I directed Mr. Thompson <sup>117</sup> to put gas into the office rooms at the Capitol. He says that the common mode of putting in gas is to pay for it at a certain rate per foot for the pipes, independent of size. This, of course, leads to the use of the small pipes. A better way is at so much per foot for each size. He sells the ventilators and registers made by Tuttle and Bailey, New York, at their card price, put up. They buy at a discount of about 30 percent.

[SEPT.] 7. I paid to Rice and Heebner today about \$2,900 for a cargo of marble.

We moved the office this afternoon to the rooms in the southeast corner of the Capitol extension, south wing. I think I shall be much cooler there. It is pleasant to have some rooms finished.

Maples, who is carving the pilaster caps, said to me the other day that it would be a great while before I could make any show in the building, that if it were in London, it would be 20 years' work if all these caps, etc., were carved in marble. I told him I expected to make a show by the next winter after this, and that if it was to take 20 years to carve the caps, I would have them carved after being set up in the

 $<sup>^{116}\</sup>mbox{Lorenzo}$  Ghiberti (1378–1455) was a Florentine sculptor who designed the famous bronze doors for the Baptistry of the cathedral in Florence.

 $<sup>^{\</sup>rm 117}\text{J}.$  W. Thompson and Brothers of Washington was a plumbing and gas fitting company.

rough. He said he believed nothing would stop me if I had made up my mind. Winter I have told that he must make greater speed with the jambs or else he will have to set them up roughed and carve them at leisure, in place. He does not like this but will, I suppose, get gradually used to it.

\* \* \*

[SEPT.] 8. I invented a sash fastener today for windows of the Capitol extension which is better than any of the forms in common use. It is for sashes which have a middle upright bar of the same width as in those we use with 4 lights only to a window. It is made of a brass or plated butt [?] 2 inches square, thus [Sketch] 118

One-half of the hinge is laid into the upper surface of the meeting rail of the lower sash. The other half, when not in use, folds down upon it. When fastening the window, it is opened so as to catch in a notch in a brass plate in the middle sash bar of the upper sash.

\* \* \*

[SEPT. 8 CONT.] A letter from Cooper and Hewitt. They think that their iron is the most tenacious made in America. I have told them to send me a dozen bars as specimens, the same to Anderson, and I will compare them.

[SEPT.] 9. Tonight I have drawn my sash fastener on an enlarged scale, a little improved in its details, and have sent the drawing to Munn and Company, <sup>119</sup> patent agency, to know whether it is worth patenting and patentable. I believe it is the best I have ever seen. I stick the rough sketch in here for reference hereafter. These small articles of universal use are the most profitable patents, I believe. If I can sell 80,000 of these about 25 cents each, making them for 12½ cents, the profits would be \$10,000, something worth having.

I ordered from Anderson today the bars for angle iron for the ridge pole of the Capitol roof. He sent me the report of some proofs of his cables at the Navy Yard, which give a tensile strength of only 38 to 47,000 pounds per square inch. This does not speak so well for his iron as he did himself. I find no strength recorded in the books so low as that. It varies from 93,000 highest to 55,000 lowest.

Tonight it is raining at length, and the spell of the drought is, I hope, broken at length. Such a long and severe one I do not remember, but it is no doubt one of the phases of our climate which returns with pretty regular intervals. The thermometer has been about 89 degrees

 $<sup>^{118}\</sup>mbox{See}$  illustration on page 40.

<sup>&</sup>lt;sup>119</sup>Munn and Company were patent agents in New York City.

today, and it was uncomfortable in my office in the Capitol, though such a breeze blew as to blow the papers off my table when the door was opened. No news from Philadelphia.

\* \* \*

[SEPT. 11] Received the price list of Gage, Warner and Whitney <sup>120</sup> today, and being satisfied with their prices, I ordered from them the tools we need for our shop in order to make the roof of the Capitol. A level, a small planing machine, a circular drilling machine, a bolt cutter, a fan for the fires. I must write to Merrick <sup>121</sup> and ask the price of a Nasmith hammer. I do not know whether it would be worthwhile for this.

I paid Rice and Heebner today about \$4,300 for a cargo of marble.

\* \* \*

[SEPT. 11 CONT.] Our little baby grows more dear to us daily. She is a pretty little one. But every movement almost is a source of anxiety to us. The sad experiences we had with Charles and Vinty make us look with fear upon every sudden movement. When she looks, as babies often do, with a fixed look, or when she clenches her hands, we feel as though a convulsion was coming on.

\* \* \*

[SEPT.] 13. I went to the naval yard today with Anderson to make some inquiries about the proof of his chain cable iron. He was very much disappointed about it, for it gave only one-half of what he supposed it to be. He insisted that the breaking weight was that of the cable bar, while I understood it to be that of the cable. Upon asking Mr. Doer, the prover, he said I was right in my understanding of the matter. Proofs of the cable give a strength of from 37,000 to 47,000 pounds per square inch, while proofs of the iron give about 56,000 pounds as it is directed inward. This indicates that the cable has not twice the strength of the bar, while Doctor Yarr [?] states that repeated trials show that Brunton's[?] have this degree of strength. His links are this shape. [Sketch] Those made at the Washington Navy Yard are thus. [Sketch]

In the first, the parts upon which the stress comes are in right lines and have no disposition to bend. In the second, the first result of a great strain is the pinning link into the first form. In so doing, it bends, which weakens the metal.

<sup>&</sup>lt;sup>120</sup> Gage, Warner and Whitney of Nashua, New Hampshire, manufactured machine tools.

<sup>&</sup>lt;sup>121</sup> Samuel V. Merrick (1801–1870) of Merrick and Sons, Philadelphia, manufactured heavy machinery.

\* \* \*

[SEPT.] 14TH. Mr. Carroll, <sup>122</sup> clerk of the Supreme Court, brought to the office yesterday Mr. Carom of the Manor. He seemed to feel an interest in the building, and I showed him the designs of Crawford for the pediment. He admired them and went with me over the building to see what we were doing. I showed him the American Capitol we have made, which he agreed was a better one than that in the basement of the old building.

This morning I wrote to Mr. Crawford, sending him the tracing of the doors with their surrounding decoration, in order that he may make a design of the doors for us. The doors I wish made of electro [?] bronze deposited upon the model made by the hands of Mr. Crawford, himself. So we will get, I trust, the work of the artist and no copy or repetition in metal by the founder's art.

I wrote also to Minton and Co., <sup>123</sup> Stoke-Upon-Trent, for their price book and sample book of their encaustic tiles. <sup>124</sup> And I asked them also for information as to the effect of the patent process for making mosaic pavements by means of small cubes or pessary of compressed, hard-turned porcelain clay. This process was invented by Prosser, and the working of the patent, I understand, was given to Minton and Co. It was in the English architectural journals a few years ago, but I have seen and heard nothing of it lately. To Godner, <sup>125</sup> another English tilemaker, I also wrote, asking for his book of prices and patterns.

I drew three links with different eyes today, to be made and broken in the proving machine, in order to determine the best form of eye for the links of the tie beams of the roof. The iron for them I ordered from Anderson Tredegar works. I also ordered a duplicate from the Trenton works of Cooper and Hewitt.

I wrote a note to Dahlgren <sup>126</sup> of the Navy Ordnance to call his attention to the shape of the links of chain cables made at the Washington Navy Yard. If Warr's <sup>127</sup> dictionary be reliable, they are not using the best form for strength. Their guns do not possess \_\_\_\_\_\_ the strength of the bolt. This strength, Warr says, the English cables have, and I see no reason why they should not.

\* \* \*

<sup>122</sup> William T. Carroll was clerk of the U.S. Supreme Court, 1826-1863.

 $<sup>^{123}\,\</sup>mathrm{Minton},$  Hollins and Co. of Stoke-Upon-Trent, England, manufactured the colorful encaustic floor tiles used in the Capitol extension.

<sup>124</sup> Encaustic tiles have colored clays baked into the tile, rather than simply a colored glaze laid on top, making them more durable because the pattern would not wear away with use.

<sup>&</sup>lt;sup>125</sup>Godner was an English tile maker in Hereford.

<sup>&</sup>lt;sup>126</sup> John A.B. Dahlgren (1809–1870) served in the Bureau of Ordnance at the Washington Navy Yard starting in 1847; in 1862 he became its chief.

<sup>&</sup>lt;sup>127</sup> George Finden Warr had prepared a supplement to the 4th edition of John Nicholson, *The Operative Mechanic and British Machinist*, which was published in London by H.G. Bohn in 1853.

[SEPT.] 15. I found Mr. [Jonas P.] Ellis, of the firm of William M. Ellis and Brother, at the office this morning. He wanted to get something to do, being a little slack of work at his shop. I gave him the rings and bolts and nuts of the assembly of the diagonal press for the roofs of the extension at 12 cents per pound. There are about 900 bolts of 6 inches in length to make ¾ iron. I had to draw for him an assembly, which took some time.

To Crawford, I dispatched a letter with the tracing of the door and requested him to make a design for the door with entablature of the north wing. This is to match the group over the door of the south wing, which he has already designed.

\* \* \*

[SEPT. 15 CONT.] I went over the two wings today. Both are rising towards the roof. The walls of the south wing are now in the Hall of Reps for  $\frac{2}{3}$  of their length, within 4 feet of the ceiling. The outer walls are still low.

Patent Lime called today to inform me that he could no longer supply me with lime at the rates he promised. I told the clerk who brought the message that Mr. Seeley <sup>128</sup> had given me his word that he would supply at those rates throughout the season and that it was no excuse for breaking his word that he had taken a partner. If he had ruined himself and had not the means of continuing, of course it could not be helped; but his word was solemnly pledged, and I expect him to fulfill it. I must write to Mr. Seeley, who is in New York, and ask him whether he intends thus to forfeit his word. I do not suppose I can get lime from any other person at anything like the same rates, and feel disposed to abandon its use altogether.

We are concreting the attic floors of the north wing. Upon the south wing, Mr. McFarlan has not yet begun this process.

[SEPT.] 16. This morning I went to the Washington Monument to look at the sawing machinery for marble. They use only one height of course, 2 feet; and as the blocks of marble are pretty rough when delivered, they saw them by two saws, which produce the proper height within about 5% of an inch. This cheapens and facilitates the cutting very much. They say that the saws cut about 16 inches per day. Well attended, they could cut a bed of 3 feet wide in two days.

I received a letter from the Providence machinists who made the portable engine for the stone-cutting machine for Eastman, saying that they still had the engine on hand and would be glad to receive orders to ship it. I therefore wrote to them to send it here. It will do for driv-

<sup>&</sup>lt;sup>128</sup> Samuel J. Seeley was with Patent Lime of New York.

ing either our marble-cutting machinery or for the blacksmith's shop. I also ordered from Merrick and Son, Philadelphia, a 500–pound. It is to cost \$800 on board the vessel. It will, they say, prove useful throughout my work and will pay for itself in the forging of the eyes for the roof.

I went to the arsenal. Major Mordecai <sup>129</sup> does not think very well of the Tredegar iron. It does not stand very well as to strength, he thinks. He says the best is the Salisbury, Connecticut, iron. That is where the musket barrels are made. They have sometimes grown careless in the manufacture, and then they have gone elsewhere for their supply. But they always returned after a time to the Salisbury.

\* \* \*

[SEPT. 18] I had a visit today from Anderson and from Mr. Bolter, the engineer of the Merrick Foundry at Philadelphia. He came to see me about the steamhammer. He thinks it a very useful instrument and that it would soon pay for itself; that it would make 20 of the eyes in a day, while a man could make only about 7. They use for this work a form of iron lined with steel. Like a swage. Having punched the hole in the eye, it is laid upon this swage, and a few blows of the hammer drive it into it, cutting off the superfluous parts.

Anderson withdrew his offer for cable iron at \$100 per ton and says he must have 5 cents per pound for it, as he finds that it costs more to make it than he supposed. I shall, I believe, go to Annapolis tomorrow.

Mr. Walter had a letter from Rice today, saying that he wished much to get the returns of a cargo just landed by Tuesday's mail, if possible. He is going to visit the quarry, and if he could not get this money in time, he would be obliged to borrow. I would stay and see to paying this money, which could be gotten ready for tomorrow; but every cargo paid them for some time past has been hurried in this manner, and in every one, owing to this haste, some error has been made or has been deducted just in time. He is always in a hurry. And Mr. Harkness when hurried is apt to make a mistake. So I think it just as well to go and leave them time to make out the account deliberately.

I made a drawing of the bed plates for the roof this morning and sent copies of it to [Poole] and Hunt, Baltimore, to another foundry, Hayward <sup>130</sup> and Co. I also wrote to Briggs and Hall, <sup>131</sup> to Ellis and Brother, and to Schneider and Co. <sup>132</sup> of this city, asking them to offer

<sup>&</sup>lt;sup>129</sup> Alfred Mordecai (1804–1887) was an ordnance expert who commanded the Washington arsenal. <sup>130</sup> Hayward, Bartlett and Co. of Baltimore was an iron foundry that provided cast iron for the Capitol extension, including the iron ceiling in the Hall of Columns.

<sup>131</sup> Briggs, Hall and Co. of Washington was an iron foundry.

<sup>&</sup>lt;sup>132</sup>F. and A. Schneider of Washington was an iron foundry.

for it. There will be 52 bed plates, which will weigh about ½ ton, making some 26 tons in all. The walls of the House are of such a height as to make it important to get these bed plates at an early day. I shall before long be obliged to stop work upon the south wing so far as the brick-laying goes, until the marble catches it. The House walls are within 4 feet of the ceiling.

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[SEPT. 19] I see by the *Star* that this morning one of the large derricks upon the south wing of the Capitol fell. No one hurt. I presume it is one of the contractor's, for I think mine is safely placed.

\* \* \*

[SEPT.] 20TH. The derrick which fell proved, as supposed, to be one of the contractor's. It fell in turning the southeast corner of the south wing. Falling outwards, it did no harm to the building, and fortunately struck no one.

I received offers for the bed plates for the roof today from Baltimore at  $3\frac{1}{2}$  cents and  $3\frac{3}{10}$  cents per pound, including planing the upper surface. The Schneiders, of this city, offer at  $3\frac{1}{2}$  cents, which is a fair price, I suppose. Tredegar offers at 4 cents.

From the New York agents of the encaustic tiles, Miller, Coates and Youle, <sup>133</sup> I received a lithographic sketch of some of the patterns of tiles they have for sale, with prices. They have sent specimens of the tiles themselves.

The hydraulic jack came back today, mended, with a charge of \$3 for mending, \$3 expenses, and an express charge of \$1.87 for bringing it back, making \$7.87 as the cost of getting it repaired.

A part of the north wall of the House of Representatives is at the height of the bed plates of the roof. One of the carved window jambs of the principal floor windows is nearly finished. Several will be done in a week.

I finished tonight a wooden model of the new sash fastener which I propose to patent. I did intend to send it as a model for the Patent Office, but I think I will have one made of iron. My model looks so rough that I fear it will be looked upon at the office as a thing of no value.

I have had several casts made of the parts of the bracket for the windows so as to place the model within the reach of everyone who has carved upon the bracket. There are some good workmen at this work and one or two who are not fit for it.

 $<sup>^{\</sup>rm 133}$  Miller and Coates (also Miller, Coates and Youle) of New York were American agents for the Minton Tile Company.

[SEPT.] 21ST. Ellis and Brother were the lowest bidders for the bed plates of the roof. They took them at 3½ cents. Poole and Hunt of Baltimore bid 3½ cents. Schneider, of this city, offered at 3½; so did Anderson, Delaney and Co. of Richmond. I suppose that considering that there is some planing upon the work, the price at which it is taken is rather low, and that for place casting, a fair price would be about 3½ cents, and that the planing ought to be paid for separately. Yet, I am offered by Anderson wrought iron at 4 cents, the price at which cast iron is offered by some of these bidders. This I do not understand. Ellis was very anxious about it and was several times at my office to hear the result. Resolved.

McFarlan has been getting into a pan, if Williams, the rigger, is to be believed. He says that he was discharged yesterday after being cursed by McFarlan for resenting an offense offered him by an Irishman, that this hod-carrier pushed him as he was attending to his duty and without provocation. And McFarlan called down to him to go off the work, that he was fired. I told him he ought not to have answered back at the moment but to have gone afterwards to the overseer and represented the case, when justice would have been done him. By quarreling and getting into a pan, he only made it impossible that he should remain under McFarlan's superintendence.

He says he will be quite satisfied if the hod-carrier is dismissed, too. His first address to me was to ask if one man had as good a right as another to work upon this Capitol, whether all had a right there. I told him no. He opened his eyes at this. And I told him only those who were hired and did their duty and obeyed orders, etc., had a right to work upon this or any other work, government or private, and that he would find and ought to have known before this that if on a ship or on any work, he could stay only by obeying orders. He seemed to acknowledge the truth of all this but said that the Irishmen put upon him and that he had been called names by them, a damn yellow American. He had borne it for the sake of work and quietness and could not stand being pushed by an Irishman and being cursed by McFarlan, who is a Scotchman. Would I stand being cussed and called a fool? I told him I would be very apt to knock a man down for doing such a thing, but that I should expect to give up my place if I did so to an overseer.

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[SEPT.] 22. Mr. Briggs, of Briggs, Hall and Co., called this morning. Says that he had not got my note inviting proposals for the bed plates until too late. Seemed to suspect some foul play in the post office or elsewhere. Wished to propose.

I sent to Munn and Co., patent agents, today my rough model of the sash fastener with the patent fee of \$30. I hope I may make something out of this patent.

\* \* \*

[SEPT. 22 CONT.] I shall be obliged, for want of work, to discharge some brick masons and a number of laborers tomorrow. The south wing has nearly as much masonry as can be put upon it till marble is carried higher.

I telegraphed to Heebner for certain stones today for which we are waiting. Mr. Winter has returned from New York with some few carvers and says that a number more are to come on in a week or two.

I stopped a cart today carrying away a load of marble blocks cut off from the large stones, some of which contained 2 or 3 cubic feet and were worth \$4 or \$5 each. These had been sold by Matt [?] as spalls. <sup>134</sup> He denies having given away such blocks, having only allowed the small spalls to be taken away. But this abuse grows up from the taking away of the spalls, and I must stop all hauling from the shop except by our own carts. I directed the marble taken away to be sought out and recovered.

\* \* \*

[SEPT. 23] Anderson called in today with his partner, Delaney, to ask whether I had done anything in regard to the trials of iron. I have not, for the specimens have not come.

I made some further study of the roof, which is now pretty well advanced. Ellis and Brother will begin casting the bed plates on Monday. The pattern is finished.

We discharged some 7 or 8 brick masons tonight for want of room on the south wing. There are some 130 stone cutters employed on the Capitol extension. Many new carvers are coming on. Maples, in the pilaster capital shop, complains that they do not come to him, and even those who come on under written contracts with him go within a day or two to the other shop. One of the carvers met with an accident, with a bracket breaking off a piece. He is the man whom I told Winter to look at as unfit to work upon such work. He was anxious to employ him in order to hurry on the work and undertook the responsibility of his failing. I told him today the man must cut no more. He might be employed upon work of less delicacy. Maples has only 3 carvers at work. He says that he wishes me to help him in a battle with the workmen in taking his apprentices to work. He says, also,

<sup>134</sup> Small fragments of stone.

that the work will never be carried through till I take the whole thing into my hands, that the men submit to some things from the contractors for fear that I will do so, as they fear that if in the hands of the government, they will be held to a closer application to their work, and they therefore desire to see it remain as it is. He will, he says, have the caps ready for us by the time we need them. And he agrees with me that it will not be possible in any reasonable time to finish the window jambs, and that it will therefore be necessary to put them up unfinished, to be carved when up.

\* \* \*

[SEPT.] 25. This morning I was informed by Mr. Winter that his stone cutters were on strike. The cause being that there was a doubt the other 2 or 3 men who had been brought on from New York as very skillful carvers, who were engaged at higher pay and might be called artists rather than workmen, were members of the Society of Stone Cutters association. They telegraphed to New York for information in regard to this important matter and in the meantime struck work. They have been idle all day, and as there are 130 of them, at an average pay of \$2.50, they have lost by the strike, thus far, \$325. I understand that a dispatch received this afternoon, too late to go to work, has settled the matter and that the men are not liable to any objections or exceptions, as Winter calls it. This is too great an outrage, to forbid a man to work unless he joins an exclusive society. We have the secret and exclusive society of Know-Nothings, who ostracize all foreigners and all Catholics, and the equally exclusive society of stone cutters, which is composed of 19/20 foreigners and which ostracizes all who do not join it. I presume they will be at work in the morning again.

I paid Rice and Heebner today \$2,943 for a cargo of marble. Gave Mr. Champion a drawing of the assembly of the diagonal braces of the roof, to make one as a trial, to see what will be the best size of iron to use for them.

\* \* \*

[SEPT.] 26. The stone cutters went to work again this morning. A few more such ridiculous and unreasonable strikes will weaken the society very much.

I spent most of the day in calculating the lengths of the parts of the trusses of the roof, and beginning a drawing of the braces for the foundry. Mr. Champion has made two of the assembly rings of the diagonal braces, and I sent an order for iron for them to Anderson.

\* \* \*

[SEPT. 26 CONT.] I have spent this day in hard work, writing letters and paying bills and drawing and calculating all day, from 9 a.m. to 6 p.m. A full 9 hours' work, without intermission for dinner.

[SEPT.] 27. I sent today to New York a model or rather one of my sash fasteners.

Complaints having been made that the marble was exposed to injury on Sundays, I sent to the day watchman today a note to be attentive to it as it is in their beat. McKay did not like the apparent censure and spoke to me about it, asserting that he had always attended to it. I told him I did not mean to find fault with him but that I did not know certainly whether he understood it to be within his beat, and if he did not, I meant to place it there.

Two of the bed plates of the roof have been cast, not yet planed.

The walls of the greater part of the north wing are now 29 feet 9 inches above the floor of the principal story. They are at the height for the springing of the arches.

\* \* \*

[SEPT. 27 CONT.] I have been all day occupied by the ordinary office duty and by drawing the roof braces. In the afternoon, I gave some levels on the north wing.

Monty <sup>135</sup> went with me to the office today, where he amused himself very freely with some encaustic tiles with which he built splendid houses.

[SEPT.] 28. I received today a bill of lading for a portion of the tools ordered for the blacksmith's shop, and sent a check for the amount of \$735.

\* \* \*

[SEPT. 28 CONT.] I completed the drawing of the braces of the roof for the Hall of Representatives, except lettering it.

\* \* \*

[SEPT.] 29. I drew today my pay for September, \$120.50; computation of fuel and quarters, \$29. Making \$149.50 as my pay for the month. I have superintended the work of some 4 or 500 men and the expenditure of a good many thousands of dollars, in which I have saved a good amount—hundreds, I do not doubt. I do not think that in these times I am paid half and ½ as much as I fairly earn.

 $<sup>^{135}\,\</sup>mathrm{Montgomery}$  Meigs (1847–1931) was Meigs' son.

I paid Dr. Miller's bill for services in consultation last year. It amounted to \$49. He was called in to see our dear little boys, but their disease was beyond his skill.

Two of the bed plates of the roof were delivered today, and I completed the drawing of the braces for the roof of the south wing. There are 112 of them. Tomorrow I expect to send tracing of the drawing off to Baltimore to be paid for. I have put upon each my name as designer. I directed the foundries to put their name upon the bed plates as makers.

The marble cutters, Provost, Winter and Co., are behind in their cutting this month, I suspect. They have a large number of window jambs partly done, none finished, and I do not believe that they have done enough to pay wages. They wished to get a payment on account, but I can pay nothing which is not completed. The contract provides for paying for stone cutting and ready to set when the work is ready for it. But no provision is made for payment for unfinished work. Winter says that last month they went behind \$2,000. This will be worse.

A certain number of the caps for the pilasters of the vestibule have been finished, and they want a price fixed for that. Enough have been cut to give a price but not so many as I should like to have to form an opinion from. There is a difference of ten days in the work upon some of them, though they are precisely alike. They have a very large force now at work and some capital workmen. They wanted something also on account of the pilaster caps, none of which is yet finished. I can pay for each the moment it is finished but not before.

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[SEPT. 30] I had to fix today the price of the caps for the vestibules of the basement. They are not large and they cost enormously—about \$244, including the profit and risk, for the pilaster or half cap, \$170 for a quarter cap which goes into the corner.

Winter tells me that they paid out last month \$2,000 more than they received. This month I think they will be still more in advance, as they have a large quantity of work only begun and not much finished. I find that I have \$1,085,000 still in hand, and I urged upon him the importance of pushing on the work. He was apparently surprised at finding that so much was still left. Thought that I must have spent much more, having piled up so much brick and mortar. He promised to take all the good hands who offered themselves.

4 4 4

SEPT. 30 (continued). I wrote also to Heebner, urging more activity and telling him that if I were working the quarry, I should have 500 men at work upon it.

Ellis delivers 2 bed plates per day. He came this morning to look at the drawing of the braces.

The payrolls for the month are made out but not yet summed up. We shall be off on Monday.

\* \* \*

[SEPT. 30 CONT.] I recalculated today the strains upon the parts of my roof and find that with this more exact calculation, I have amply provided for them. I use this form of truss as simplest and best. The rafters and tie beams and inclined ties being of wrought iron and the braces of cast iron. Thus, the strain upon the tie beam is 60,000 pounds; 30 tons in the center and much more at the ends. [Sketch] <sup>136</sup>

\* \* \*

[OCT.] 2nd. Made monthly reports for Fort Montgomery, Fort Madison, Washington aqueduct, and Capitol extension.

\* \* \*

[OCT. 2 CONT.] On the Capitol, there are about 530 men employed here and at the quarries. 140 marble cutters. We received during the month of September 13,765 cubic feet of marble in 7 cargoes, making over 1,100 tons. We received 986,313 bricks and laid in the walls and arches 671,500. Some of the upper tier of arches have been turned. These are the roofing arches covering the attic story.

One of the bed plates for the roof of the Representatives Hall was placed today. Nearly all the walls of the north wing are ready for the attic ceiling arches except where the want of marble has kept down the outer walls. We shall get the attic arches turned this season over all the interior rooms, and I hope to get the roof partly in place.

Expended this last month about \$53,000. My payroll for the Capitol amounts to \$9,235.00. The marble contractors must have a much larger one.

I asked Jones, the master mason, north wing, today at what time he joined me. He said it was in May of 1853. "You have put a great many bricks together since then." "Yes," he says. "You have laid more than twice as many bricks in this season and a half as Charlie Coldman laid at the Treasury in 4 years, and he had more than twice the force employed."

I have now over \$1,000,000 of dollars left.

\* \* \*

 $<sup>^{136}\,\</sup>mathrm{See}$  illustration on page 40.

[OCT. 2 CONT.] I sent out today the drawing of the braces for the roof of the House of Reps. Sent it to Baltimore, to Poole and Hunt, to Hayward, Bartlett and Co., to Richmond, to Anderson, the Tredegar works, to Alexandria, to Jamison, and in this city to Ellis and Brother, to Briggs, Hall and Co., and to the Schneiders. The bed plates thus far delivered by Ellis and Brother are very good casting.

[Oct.] 3. Having left my keys at the office, I could not write my journal last night. This is written on the 4th.

I found that Mr. McFarlan had laid his bed plates too high, and I gave him a set of levels, which took me more time. Occupied by the drawing of the roof.

[Oct.] 4. Mr. Samson, the president of the Boston Verd Antique Marble Co., is here. He is very anxious to supply the marble for one of the stairs of the Capitol.

Mr. Jamison of Alexandria came to look at the drawing of the braces. Mr. Hayward of Baltimore also came in. I promised him to go to Baltimore in the morning, if the day proved fair, to look at his foundry and shop. He says he has just finished some casting for iron houses in New York, being able to compete with that city in making casting. I have been intending to go to Baltimore during the cattle show and will take this opportunity to visit some of the warships.

Captain Dunnington, Chief of the Police of the Capitol, reported to me today that Smith, the watchman employed in the north wing of my police, is in the habit of leaving his post and duty and waylaying persons walking in the grounds and dogging them. And that his conduct last night, as reported by the two members of the Capitol police on duty, was so indecent that he could no longer refrain from reporting it. I requested him to bring them to see me and let me hear their report. If it be as he thinks, I must discharge this fellow. He is a relative of Stanton's, and the fear of giving occasion for the charge of being moved by revenge is preventing me from looking into his conduct so carefully as I might have done. Though when I have come up to look at the police, which has been but seldom, I have found him at his post.

I completed the drawing of the shoes and nearly finished that of the head blocks of the rafters today.

Provost and Winter's bill for the past month was paid today. It amounted to a little more than \$11,000. There is a great quantity of work in an unfinished state in the shops which will be finished in a few weeks more.

Order for the lintels of the windows for the east and west fronts, 42 blocks of marble which had been omitted in the general order.

\* \* \*

[OCT.] 5. I rode this morning to Baltimore by railway to visit the fair of the Mechanics Institute and the cattle show, and also to look at the foundries of Poole and Hunt and of Hayward, Bartlett and Co., to offer for the casting of the roof of the Capitol.

\* \* \*

[OCT. 5 CONT.] The machine shop of Poole and Hunt is well supplied with tools, and it seems to be provided with the means of doing a large business.

At Hayward, Bartlett and Co., I found a large molding shop and a pretty extensive assortment of patterns, some very good architectural patterns and some very good casting. There are casting plates of 2 feet by 14 inches and of a thickness of only ½ inch, precisely the casting for my tiles. I tried their strength by standing upon one of these, found it quite sufficient to bear my weight, the section being thus \\_\_\_\_\_/, like a pan of 1 inch in depth. The metal as shown in a broken one is very close and fine-grained, and it gives sharp edges. I think they will be able to cast anything we may want, if supplied with proper patterns.

Mr. Hayward, at whose insistence partly I had gone up, met me at the cars and went with me to his work shops and everywhere. Carried me home to dine with him. His politeness was of an interested sort, but as my object was to examine his and others' works, it was of the legitimate kind.

They fitted up a corridor in the Custom House in Baltimore which is well done. I returned in the evening, reaching home at 10 p.m., my expedition having cost \$2.10.

\* \* \*

[Oct.] 6. I sent to Munn and Co. \$20 for the fee for making out the papers for my patented sash fastener. I did not sign the papers as they sent them to me but returned them. I think that they have omitted a main part of my invention and claimed what is common and free, jack-knife.

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[OCT. 6 CONT.] Some felon has been defacing and spoiling the marble at the Capitol. Two surbases have been broken day before yesterday. They lay at the east front of the north wing. This was done afternoon of the 4th October.

\* \* \*

[OCT. 8] We began to set the bed plates upon the north wall of the north wing of the Capitol yesterday. So that we have now begun the roof upon both wings.

\* \* \*

[OCT. 8 CONT.] This day is the anniversary of the death of our dear little Vinty. I suppose that in that severe dispensation, God has placed us. It followed very soon after Charles' death. Perhaps the one bereavement would not have been enough. We might have forgotten the promises we made, the resolutions we formed when he lay upon his death bed. Too often are all such promises forgotten. Like death bed repentances which seldom lead to God. Or God sent another blow to remind us that we had bowed down in submission to His will, to try us, perhaps to let us see whether our submission was sincere. I trust His purpose is fulfilled and that no more such adjustments will be necessary for us.

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[OCT.] 9. Today someone comes to show me a plan of a corrugated beam which he claims is made stronger than any one heretofore made by others. He says that he broke down one of Cooper and Hewitt's beams by a weight which his bore without any deflection at all. I told him that was claiming too much, for if a fly lit upon a beam, no matter of what strength, it must bend. The section is like this [sketch]. It is made from pig iron at a low red heat. He is to come this evening and show it to me, and hopes to have it introduced into the Capitol.

The feed pump of the south engine got choked today, much to the discomfiture of Mr. McFarlan, who came to me with his trouble instead of going to work to remedy that, as Jones would have done.

Vincenti has finished the model of the foliage of the front of the door jambs. It is beautiful, far more so than Mr. Walter ever imagined, I believe. I regretted to have to tell him to alter it because he had not placed it regularly. I want to have something of this kind modelled and sent to various foundries to be cast as well as they can, as a test of their ability. I bargained with Ellis and Brother today to make the eyes and loops of the assembling of the diagonal braces of the roof. He is to make them for 75 cents and to allow the cost price for any iron I may furnish him.

\* \* \*

[Oct.] 10. Captain Dunnington with Mr. Ward of the Capitol Police came today to make a charge against watchman Smith of neglecting his duty. They say he is in the habit of leaving his post and going

through the grounds of the Capitol dogging and watching persons walking there. I questioned the foremen, but all agree that he bears a very bad character but cannot testify to any overt acts of neglect. I went, having stayed late, engaged in the investigation of this affair, over to his beat to speak to him about him and let him know the charges made against him. I saw him going out of the gate as I approached, on turning the corner of the east and northeast sides of the north wing. When I reached this corner, he was not in sight. I walked round the building and through it and looked for him for some time, then crossed over the street and sent watchman Duffy to look him up. After some time, Duffy found him sitting near the gate of the eastern park, opposite the rotunda, with some other persons. I told him the charges made against him, that I had been looking for him, and asked where he had been. He denied everything, said he had then been behind the building to follow a boy whose acts were suspicious, and that he had only that moment crossed the esplanade, having watched the boy till he left the platform. Duffy says that he is often away from 7 or 8 p.m. instead of remaining till his tour is out at 10 p.m.

I directed Smith to send his witness, Mr. Knox, in to me in the morning, and also directed Duffy to be there to give me his testimony.

I opened the bids for the braces today. Schneider's is the lowest, 3½ cents per pound. If he can make them good, I shall of course take them.

I wrote out the reports for Capitol and water works last night. They are not quite complete yet, except the water works, which I completed this afternoon.

\* \* \*

[OCT. 10 CONT.] Mr. Samson was in with his talk about marble. Mr. Dean also called to make an offer but kept it to hand in tomorrow, when he will meet Mr. Samson. They both propose the serpentine.

\* \* \*

[OCT. 11] Mr. Samson having offered the granite serpentine and Verd Antique of Roxbury, Vermont, at a less price than any competitor, I gave him the order for about 1,000 feet of it. The price delivered, sawed in slabs of the size ordered, is to be \$4 per cubic foot for the net contents of each slab, the 8 column shafts to be delivered in the round, scabbled to size, for \$250 each. He has hard bargained. I saw Schneider's foundry today. They seem to be able to make good casting, and I told him I would send a copy of the drawing and give him the job but that I should break and reject every casting that was not sound and good.

Watchman Langley says that he believes that Smith goes home before his tour of duty is out and that he is never at his post at the opening of the gates as required by his instructions.

Mr. Walter was at his post today, looking much improved by his rest and recreation. He went to Lee and saw the quarry, which is in fine order.

Winter came to see me this morning in great trouble. He had been waited on by the stone cutters' society, or by a committee of them, to know whose boys were at work in the pilaster carving shop and whose job that was. He put them off till he could study over the matter a little and came to me for advice. I told him what I have said often before, that I thought the rule "Do justice though the heavens fall" was the right one for all our actions, that this dictation by a body of men was intolerable and ought not to be submitted to; that he had seen how I acted when a similar demand was made upon me to discharge some 3 bricklayers who had remained at work during a strike and the foreman of the society. He left me to see Mr. Maples, whose apprentices were the cause of the dispute, and to consider the matter.

I am just now very much dissatisfied with Mr. Fitzpatrick, whose books are not kept with any correctness. Whenever I want anything from the book of application of services, I find the extracts inaccurate.

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[OCT.] 12TH. I spent the day in drawing and in the usual employments. Knox, of the Capitol Police, bears witness to watchman Smith's attention of late. For the last 3 months he says he has been regular in being present when the gates are opened and in staying till they are closed at night. Formerly, he was more inattentive, but for a year past has much improved, and especially during 3 months.

\* \* \*

[OCT. 12 CONT.] The clay model of the console for the eastern doorways is finished and ready to be cast in plaster. It is very beautiful. Very large, and will cost an immense sum to get. I think of sending, by way of trial, a plaster cast of an unridged [?] console to some of the best foundries to see what they can make of it in iron.

I completed my reports for Fort Madison and for the Capitol today. For Fort Madison, I ask \$10,600 for the next fiscal year, which, with \$4,700 now available, will complete the battery. For the Capitol, I ask \$325,000 which, with the \$1,000,000 now on hand, I hope will complete that building. It will complete the appropriation for the amount of the original estimate.

\* \* \*

[Oct. 13] I called in Smith this noon to give him a lecture which I hope will keep him in order for the future. He is a bad man, and I am sorry that he was ever appointed to his place, but he has a large family to support, and I do not like to sink them any deeper into poverty.

By my annual report, it appears that I have spent upon the Capitol extension since the 30th of September, last year, \$449,685.82.

| Now available                 | \$1,082,130.67 |
|-------------------------------|----------------|
| There have been appropriated  |                |
| for the work                  | \$2,350,000.00 |
| Expended to 30 September last | \$1,267,869.33 |

The original estimate was \$2,674,000.00, and I have asked for the service of the next year an appropriation of \$325,000, which will complete the original estimate, and, I hope, the building.

Of men's days worked paid by me besides those paid indirectly from Provost and Winter, contractors, and from Rice and Baird and their contractors, there have been over 66,000 in the year.

There had been received last year, as of 30 September, 75,659 cubic feet of marble, \$109,661.21; this year, 48,968 cubic feet, \$78,518.18. We have now on hand 1,321 blocks containing 35,758 feet. Of this, 695 blocks containing 17,261 cubic feet are worked, ready to be set, and 626 are in the rough, either in the shop in hands of workmen or on the ground unused. These contain 18,476 feet. We have received 9,037,601 bricks, costing \$70,246.29. Laid, south wing, 3,476,218; north wing, 4,441,483; total laid, 7,928,701; and we have remaining on hand for use 1,119,900.

This is a good year's work. I should like to do as much every year. The bed plates for the roof of both wings are being laid upon the interior walls. Much remains to be done to the marble work yet to bring it to the same level. None of the carved window jambs of the main story are yet set, though one or two will be ready within a day or two.

Mr. Walter saw my enemy Stanton in Philadelphia. He says he is rampant and will make the most severe attack he can this winter. He and Provost tried to mollify him, but with no success. Well! Must try to bear the penalty of responsibility and doing my duty, not mind what man can do against me. If God be for me, what can man do against me?

I made some progress in the drawing of the roof details today and sent to Schneider the drawing of the braces which he has contracted to finish at a very low rate, 3½ cents per pound. I find the study and drawing of these things very interesting.

\* \* \*

[Oct. 14] I spent the day in drawing the roof again.

Mr. Winter tells me that he expects a strike on Monday. The society has been to him again, and he promised an answer in writing on Monday. As he expects to insist upon the right to take apprentices in the carving shop, he expects the men to turn out.

\* \* \*

[OCT. 14 CONT.] Hearing of a manufacturer of papier-maché at Roxbury and in Boston, I wrote today to both places to ask for a price list and specimens of the work, with a pattern book if they have one. If they make good patterns, I may be able to use it as decoration for the Capitol.

\* \* \*

[OCT.] 17. I missed my diary yesterday. I was occupied with the drawing of the roof. Mr. Winter replied to the stone cutters that he would insist upon the right to keep the apprentices he now has at work. He tells me that they wish to make Mr. Maples join their society as a journeyman or as a boss. This is certainly a high-handed measure and one in which I do not think they will succeed. I went to the office this morning fully expecting a turn-out. But they are to have a meeting tonight to determine what they will do. I told Winter he must stand by Mr. Maples and insist upon his right to make such a bargain as he chooses with regard to the capitals.

Vincenti today presented to me a project for bringing to this country the carvers he talked of. It is to have leave of absence for 3 months to go to Italy himself and bring them, for this his compensation to be \$5,000, he to pay the expenses of bringing them. I could not help smiling as I read it. Told him that I thought no such trouble was needed; that if he wrote, they would come, I thought; and if they did not, we would get them here in time. And besides, I could not spare him so long, having much for him to do now. If he were away, I should be obliged to get someone in his place, etc. He at once agreed that it was better as it is. I do not believe that this is his own project. It comes into his head from that Greek who is so much with him.

\* \* \*

[OCT. 17 CONT.] After studying my roof, it is provoking to find the \_\_\_\_\_\_ Moran's resistance of materials, which I have just received, a different value for the resistance of wrought iron from those given by our own English authors. He gives 6 to 8,000,000 kilograms per

square meter, which is only about 4,000 pounds per square inch, while Tredgold <sup>137</sup> gives 18,000.

\* \* \*

[OCT. 19] Captain Mordecai called. He is preparing for me some specimens to be broken in the testing machine to determine the real strength of the iron I am using for the roof.

Mr. Walter is finishing up the sections of which he had several on the boards which have been waiting for some small points of design.

The stone cutters have deferred action upon the strike to their next monthly meeting, to give Maples an opportunity to join their society, which I hope he will not be such a fool as to do.

\* \* \*

[Oct. 20] It is one disadvantage of disbursing for the United States that we have to make our disbursements in such a manner as not only to satisfy our own judgment when entrusted with the carrying on of a great work, but we must also make our reasons intelligible to the mind of some stupid clerk in the auditor's office to whom no one would ever dream of giving the management of such a work. He has little brains, sits in judgment upon our work, not with a view to try to understand it but to endeavor with all his acuteness to find some objection to it. And I have to be criticized by Mr. Eveleth, <sup>138</sup> a little, dried-up, red \_\_\_\_\_\_, who is every year growing more acute and more able to find old and forgotten orders and laws to object to accounts.

\* \* \*

[OCT. 20 CONT.] I stayed till after 7 o'clock at the office, calculating the strains upon the different parts of the roof. They are greater than I supposed at first, and I shall be compelled to modify my design.

[OCT.] 21. I called this morning at the engineer office to see Kurtz <sup>139</sup> and Alexander and to consult with them as to my roof. I have studied the forces and strains upon the truss till I have got a little confused and feel doubtful as to one part of it. They could give me no new ideas, however, and I have to make it out myself.

I met Mr. Eveleth of the auditor's office and had some talk with him as to the model of examining the officers' accounts. I think that his clerks take too much upon themselves in this matter and that they

<sup>&</sup>lt;sup>137</sup> Thomas Tredgold (1788–1829) wrote a number of engineering books, including *Practical Essay* on the Strength of Cast Iron and Other Metals (London, 1831).

<sup>&</sup>lt;sup>138</sup> James Eveleth was a clerk in the Engineer Bureau of the War Department.

<sup>&</sup>lt;sup>139</sup> Lieutenant John D. Kurtz was the assistant engineer in the Engineer Bureau of the War Department.

should confine themselves to the figures and to looking for fraud in all these vouchers, while the propriety of the expenditure is to be judged of by the engineer department of the bureau under which he makes his disbursements. This is not their view of the subject.

The children, Monty and Mary, <sup>140</sup> came to the office to claim the fulfillment of my rash promise to take them to the circus today. I went, but it was a severe trial to my patience to leave my work and go to see this tomfoolery. It lost me nearly the whole day. It was so late when we escaped the circus that I came home to dinner, and after dinner, as it was still too late to go to the office again and do anything, I walked out with Lou to see the Chews [?]. We found Robert just preparing to take his young ones to the circus. As his wife was not going, we sat for some time with her and talked of our domestic affairs. I have not for some time had such a quiet chat, and I believe it was quite a relief to me. I have devoted myself so entirely to my duties lately that I feel as if I could never bend to any small talk. Lou complains and says that I have ceased to be of any use or entertainment to my family.

\* \* \*

[Oct.] 23. I was visited by Captain Alexander and by Mr. Maury this morning. They came in at different times, and each stayed so long that I was able to do very little work.

I have received from England a pattern book of Godner's encaustic tiles made at Luckardine [?], Hereford, They are not, I think, very well designed. St. George's Hall, Liverpool, has just been opened. It is a magnificent structure, some 420 feet in length. The style of architecture is Corinthian. The columns 45 feet high and 4 feet 7 inches in diameter. The hall is a room of 169 feet long by 73 feet wide and 110 feet high to the crown of the semicircular arch. The arch is of brick.

Alexander tells me that Stanton told someone who repeated it to him that every time he looked at the Capitol, it made him sick because it was under a military man, that they said it could be built cheaper by a military man. If it could be built for \$2,000,000 by an officer and would cost \$5,000,000 under a civilian, he would remove the officer. I wish he would give me one of the millions, and I would resign and let him have the other 2 millions wasted to his heart's content.

[OCT.] 24. I ordered today the marble for the caps of the vestibules of the principal floor. There are now 196 stone cutters at work, and we have merely 100 carvers. One of the window jambs of the principal floor has been set. It looks well, but I have been compelled to direct

<sup>140</sup> Mary M. Meigs (1843–1930) was Meigs' daughter.

it to be taken down as it is set with a dowel in the lower end and too large a joint at the upper end. This is the first stone cut, and the mistake was made in cutting it, which is the cause of the joint at the upper end being so large.

Winter is very anxious to have all the caps of marble and is disappointed that I have determined to make the caps of the stairways of bronze.

Mr. Davis, Secretary of War, paid us a visit this morning. He went over the work with me, to the top of the wall of the south wing, through the marble-cutting shops, and seemed pleased with what he saw. He said that he thought I would have cause to be proud of the building and that if I succeeded in the acoustic effects, it would be a great triumph.

Doctor Nichols <sup>141</sup> called to find out what number of bricks we lay in a day's work. He is getting fewer than last year, having changed his overseer, and is a good deal exercised about it.

I completed the investigation of the strains upon the parts of the roof truss today and find it necessary to make some slight changes only upon dimensions I had first determined upon. The results are curious and they agree as well as could be expected when arrived at in two such different ways as by the discussion of the partial strains and then by the strains of the whole roof.

\* \* \*

[Oct.] 25. I was interrupted by a visit from Mr. Dufray of the firm of Anderson, Morris and Co.,  $^{142}$  today, so as to be unable to complete the bill for the iron for the roof. Its dimensions are all calculated but not drawn up into tables. They have shipped an iron order, and he wished to have the order for the remainder, which I will be able to send tomorrow. I made a bargain with him for the L iron for the purlins  $^{143}$  at a price of  $4\frac{1}{2}$  cents per pound. He will commence the making of the rolls for this iron, not having them on hand.

While the money thus far spent for the Capitol is \$1,267,000, the wages have amounted to \$380,000. The sums paid Provost and Winter for marble cutting should also be charged to wages, say 180,000, making \$560,000 the sums thus far paid for work, leaving \$700,000 as the cost of the materials.

<sup>&</sup>lt;sup>141</sup> Charles Henry Nichols (1820–1889) was a physician and psychiatrist who was the first superintendent of the Government Hospital for the Insane (now St. Elizabeth's Hospital) in Washington. In the mid-1850s, he supervised the building of the hospital, which was designed in the Collegiate Gothic style by Thomas U. Walter.

<sup>&</sup>lt;sup>142</sup> Anderson, Morris and Co. provided the beams for the dome.

<sup>143</sup> Purlins in a roof are horizontal members that rest on the principal rafters and support the common rafters

This is a fair production. I find that the marble and the work upon it cost about the same sum, while the bricks cost a good deal more than the work of setting them. The work upon the more valuable material thus comes nearer to the labor upon it than in the case of the cheaper material, the bricks.

I wrote today the various dealers in copper to get their prices for rolled copper, intending to order the roof covering. Marshall, Lefferts and Co. <sup>144</sup> of New York offer to corrugate it for me and pack it in boxes for shipment at one cent a pound. I shall be able to make a considerable saving in the roof by using corrugated copper. I believe that the iron purlins may be placed much further apart than for the cast iron tiles. At the same time, the copper, though more costly, will be much reduced in weight.

\* \* \*

[OCT.] 26. I completed today the estimate of the iron needed for the roof trusses of the Representatives Hall. I ordered the iron from Anderson. I also ordered some 14,000 pounds of iron for a set of clamps to go round the building, connecting the window jambs of the principal story together. These clamps will be of 3 feet by 1½ inch iron and will form a complete chain round the whole building by being fastened into each window head. They have 2 more window jambs now ready to set.

Winter came in to expostulate with me as to charging the contractors with the value of the stone spoiled by the workmen. This he thought very hard. I allowed him to patch a piece of surbase which had been injured by the men, provided it was put into a place not upon a portico, so that it would not be seen too near. To do this, it will be necessary to take it when it is already set and replace it by this stone. He thought me very hard upon him in not allowing more piecing.

I came home to dinner today, the first time in many days. Returned after dinner and worked till after 8 p.m.

\* \* \*

[OCT. 26 CONT.] I received today from the Boston Papier Mâché Works some specimens of their work. They are enough to show that with good models, they are capable of making very good ornaments. Some of those sent are very sharp and good; others are of inferior design and execution. Instead of making the ceiling with cast iron foliage, I think it will be well to have for the ornamental parts this material, the frame to be of cast iron. It will be cheaper and lighter than the iron. It can be put in by casting a recess for it, thus [Sketch].

<sup>&</sup>lt;sup>144</sup> Marshall, Lefferts, and Brother of New York were iron merchants.

[Oct.] 27. I stayed at the office tonight till 10 o'clock. At that time I was compelled to leave, as the gates are shut then. I made some progress in my study of the roof covering and drew what I determined upon. I find my gas light bad, either some obstruction in the pipes or the pipes not large enough for the distance the gas is laid. I believe I will have a good, large chandelier put up which will give plenty of light and will be useful in some other part of the building after I have done with it.

\* \* \*

[Oct. 28] Mr. Denham, my chief clerk, who has been very anxious for some time to get off to Boston to pay a visit to some relatives with whom his wife has been staying for some time, today settled his account with me and deposited the balance of the cash in his hands. He had to make up a sum of between 2 and \$300 which he had overpaid to a Mr. Page here. Page is one who owns steamboats and general shops and much other property and is considered a rich man. Yet he took money which was given him by mistake, from putting a decimal point in the wrong place, and thus paying ten times as much as the bill amounted to. He has been called upon repeatedly for restitution and has failed to make it. He showed Mr. Denham, the last time he went after him for it, evidence of having much property, and yet told him that he was pressed for a little money and could not get it; that he had deposited in the Bank of the Metropolis in the past 12 months \$150,000, and yet could not now get from them a little accommodation. He is, I suppose, a speculator and they know it and are afraid to trust him. I am sure that I should be, after the experience I have had with him in regard to this matter.

I wish I could get my friend Vincenti into a bolder style of modelling. He finished today a model of the egg and dart molding for the frieze of the windows; and though I had carried him up to the gallery of the House of Reps to show him the beautiful and bold carving of the same molding there, he did not make it to suit me. I took my penknife and altered one of the eggs myself, till I believe I improved it.

I think that probably Cornelius <sup>145</sup> of Philadelphia will be the best person to make bronze caps for the small pillars of the stairways, and I have seen some very good casting lately in chandeliers from his factory, and the same workmen can doubtless make these caps in the same style. If dead [?] gilt, like much of the gas-fitting work, they would have a beautiful effect. Wrote many letters.

<sup>145</sup> Cornelius and Baker of Philadelphia made metal column capitals for the grand stairways of the Capitol, as well as metal lighting fixtures.

[OCT.] 29. At church this morning, I saw Mrs. Temple, Kate Totten, and the General. They returned during the past week. George Totten <sup>146</sup> and wife, too, have got home and were at church. George looks badly. He has had hemorrhage of the lungs and is not likely to live long. His little wife looks as pretty as ever. Mrs. Temple looks older than when she went away two years since. I told the General I would go up this evening and see them. Kate has been in Italy and has seen, I hope, some of Crawford's work for the pediment.

\* \* \*

[OCT. 29 CONT.] I spent the evening at the Tottens, where they have a large family. Kate has been spending some time with Mrs. Crawford in Italy. She says that Crawford is delighted with the commission for the Capitol, both for its consequence as a recognition of his standing as an artist and that it is a lucrative one. It seems that the execution of a statue in marble is attended with many difficulties and much risk of loss, so many blocks prove defective. Therefore, there is more profit in making these models in plaster than there would be in the completed statues in marble. She says that he seemed much interested to hear about me and was pleased with my letters to him, expressed a high opinion of my knowledge of art, etc. She, of course, being so good a friend of mine, was delighted to fortify all his good opinions. It is natural that he should think well of my taste and judgment, as he has from me the best order he has ever had. His wife has about \$6,000 per year, and they live delightfully. The General has his sister with him, an old maid, I presume. I was merely introduced to her. She sat with Mr. Totten in a corner, and the conversation was left to the General and Kate, Susan and myself.

[OCT.] 30TH. The younger Montgomery came today. He brought with him another tin model of the beam and excused his not keeping his appointment by a necessary call to Boston and then to Cincinnati. He promises now to send tomorrow a small beam for experiment. He still adheres to his assertion that the corrugated beam is stronger than a beam of solid iron of the same length, breadth and depth.

Mr. Walter was obliged to go home today with an attack of illness. August, with his imperfect knowledge of the force and beauty of our words, informed me that Mr. Walter had a bellyache and that he would come back if he got well enough. As he did not return, I suppose he was not relieved in time.

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<sup>&</sup>lt;sup>146</sup>George Totten was General Totten's oldest son. He died in 1857.

[OCT. 30 CONT.] I had a long talk with Winter today. The average time upon the window jambs of the principal story has been about 70 days, which would make them cost the contractors, at \$2.50 per day for the cutting and carving alone, \$175 each. For a pair, \$350, without any profit and without any allowance for tools, for rubbing, setting, trimming the ends, etc. These are, except a change in the foliage, just the jambs, which they contracted to make with all the rest of the window dressing for \$280. It is ruinous. The change which I have made in the style will enable me to pay them enough to save them from the great loss which they would have to suffer.

I asked Winter how they came to make such a bid and who made the estimate. He said that Provost [and] Symington made it and that he went in for it because they were determined not to fail to get the contract. It was succeed or die. They were determined that no foreigner should have it. And whether they made money or not, they were determined to have it. No doubt they felt sure that if their price was too low, Congress would in the end allow them enough to save them. He said, too, that they did not calculate upon such superintendence as they have had, that it has never been the custom to keep mechanics and contractors so close down to the contract and to the work. They have now a large force of men, over 200 marble cutters, which he says he has taken on to hasten the work, and other \_\_\_\_\_\_ which are unprofitable to them.

I feel certainly inclined to give them everything in my power, for they have shown a disposition to do the work well and have obeyed orders lately and given no trouble.

[Oct.] 31. Today, on going to the office, I found Mr. Denham paying off the men. I thought at first that I must be mistaken as to the date, but on asking, I found that this was the last day of October and not the first of November. I wrote to him that I supposed he had misunderstood me, that this paying before the day's work was ended was irregular and improper, that it was paying for what was not yet earned, and that it must cease at once. He had spoken of paying them "tomorrow" and I had made no \_\_\_\_\_\_ about it yesterday when he spoke on it, from not attending to the date and from not thinking for a moment that he would dream of paying before the time. He bore the disappointment \_\_\_\_\_ and paid in the afternoon, leaving some \$800, however, unpaid to men who failed to stay for their money and who will be paid tomorrow.

I examined the reports on the cost of the cutting of the window jambs of the principal story today. They have enriched consoles, elaborately carved, and are very heavy. I got a ladder up to the window of the old building and examined the construction of that. Upon the whole, I concluded that it must be considered as so different from the drawing in design and from the old one in construction as to be within the clause of the contract which requires all work not specifically provided for to be valued by the architect. The number of days spent in cutting each of five of these was about 71. Of these, 12 were spent in roughing out the stone by stone cutters. 59 were by carvers employed in carving the leaves and molding of the consoles. After this is done, there are 7 or 8 days work in rubbing them. And the cost of handling, hauling and setting, to be added to all this, amount, with the tools, to about \$229. And adding 33 percent for profit, risk, breakage, shops, derricks and other incidental expenses, I find that the value of the jamb, complete and set, is \$306, and at that price I have put it. There are 208 of them, which will make their whole cost amount to some \$66,000, a pretty heavy item to be thus fixed in price, on my addition.

The window head has been put at \$116.66 per, its actual cost by observation. This, with the two jambs and the two inside jambs, which cost 12½ each, make for the windows, thus far, \$753, and there will be the cost of the architrave, which has taken 42 days to cut and is not yet finished, to be added. Say, 130. Making the window cost about \$900 for work. Their offer was to do the windows, according to the original design, for \$280, a price far below the value of them and which would have been ruinous to them. The change made in the design has been a great relief to them. And the windows are fully worth the added cost, for they are far more beautiful.

Their bill for October amounts to \$9,700. They have had for a part of the month 200 marble cutters, very few at less than \$2.50 and many at \$2.75, besides laborers and smiths and horses.

My payroll is about \$8,000. Mr. Denham leaves in the morning for his journey north and looks for great enjoyment in the holiday.

\* \* \*

Nov. 1. As I was coming home to dinner today, I met Jones, foreman of the north wing, who told me he had just been sent for to go home, that one of his children was seized with convulsions and was supposed to be dying. He said it was not a sudden attack, as he had been sick for some time. Poor fellow. Illness comes as a stroke of trouble to all conditions.

I find that the condition of the work now is that on the south wing, the roofing arches of two corridors, those on the east and west of the Hall, are turned. All the bed plates on the roof are set on both wings. The gable wall is being carried up above the ceiling of the Hall. 3 window jambs of the principal floor are set. They are very beautiful. On the north wing, these same corridor arches are turned. Two committee

rooms are roofed, one more than half done. The ladies' waiting room is half arched. One-half the west gable is nearly finished. All the bed plates are set. Many of the window piers are up to the height of the jambs of the principal story. None of these jambs are yet set, and the marble work generally is not quite so far advanced as on the south. The machine shop is roofed in, and the machinists are unpacking the tools which have arrived. Among them is the steam hammer and the drill and plane [?] machines.

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Nov. 2. My monthly report shows an expenditure upon the Capitol extension in October of about \$60,000. 201 blocks of marble set. 4 cargoes received containing 7,067 cubic feet. 576,906 bricks received, 543,774 laid. 9,462 days work applied. Force, including the quarry, about 530 men. 3 cargoes of marble on the way. All the bed plates set. Several arches of the roof are turned.

Heebner was at work this morning, coming in at 6 in the morning and leaving again at 8½ a.m. As he left before I got to the work, I did not see him. Mr. Walter did. He came to see the state of the work, and in bad spirits. Mr. Walter thought he left in good spirits, not finding things so bad for him as he supposed.

Nov. 3. I have been this morning to the Navy Yard to look at their proving machine. The principal bars of the roof ought to be proved before being put up, and yet I suppose that where we have a strength 6 times as great as the strain, it would be safe enough to pass each bar after a careful inspection of the welding. The only danger would be the giving away of an imperfect weld. Yet it is customary to subject such works to proof, and I should be liable and censured if I omitted it in this case. The English engineers prove their roofs by putting up 2 trusses and loading them. A precaution very necessary, where they arrange the size of the parts by rule of thumb. But where it is correctly calculated, it is not so necessary. I believe the only danger would be from a flaw in the iron in course of manufacture or in welding.

I saw Dahlgren at the Navy Yard. He is an intelligent observer. I told him of the loss of strength caused by the mode of making chains. He says that if he were to meddle in that department, it would only raise a hornets' nest about his ears, without doing any good. I obtained from Mr. Ducker, the master smith at the yard, some proofs of iron lately made. Some of the Tredegar cable has gone up to 70,000 pounds, and yet, at the same time, the cable made from a bar which gave a specimen breaking only under 66,066 pounds to the square inch broke under a strain of 39,000 pounds to a square inch. This cable of 15/8

inch iron broke under 165,000 pounds. The full strength of the iron in it would be 274,000, showing a loss of 109,000.

This is too great a waste, and it ought to be amended. But the Navy is as jealous of any interference as any close London corporation, and I do not know how to get at it.

I found a schooner at the yard with 25 tons of iron for the roof of the Capitol. This visit to the yard took up most of my day. After dinner, I returned to the office but did not do much.

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[Nov] 4. I went to the engineer office to consult with General Totten this morning about Fort Madison. After some discussion, it was concluded to leave the settlement of the question till I had the maps of the office. I asked the General what he thought as to proving the bars of the roof of the Capitol. He thought that prudence requires it to be done, and as I would like to do it and only hesitated because I doubted the propriety of including the expense, feeling myself sure of the strength of the frame I propose to make, I should do it. While doing this, I should make a machine capable of a force of some 4 to 500 thousand pounds, and will take the opportunity of trying some experiments upon a resistance of stone to pressure when in greater size than ever been heretofore tried. The breaking of the  $1\frac{1}{2}$  inch cubes does not convince me that a much greater than 26,000 pounds to the square inch over a large surface would crush stone thus protected by its surrounding parts. Thus, 26,000 pounds to the square inch crushes a cube of marble, but I do not believe that a steel plate 1 inch would be pressed into a 11/2 inch cube by a weight of only 27,000 pounds. Therefore, I believe that a greater strength is possible by the ordinary building materials—that is, with assigning them from our experiments.

Shortly after reaching the office, the Secretary sent for me. I walked up to the department. He had several things on a memorandum to speak to me about. But the important subject was Mr. Walter's position. He said that he had always thought that my reputation would be injured by Walter's presence; that he would get and, too, assume credit that really belonged to me; that from generosity he had so strongly opposed his wishes in this respect, that he had given way. But now he thought was a time to act, and he thought it necessary for insuring justice being done to me; that I was the architect, responsible for the work. The building under Walter was imperfect and would have been a failure. I had totally changed it in all its most important parts, and to me would appropriately belong the credit of success, while if Walter remained with the title of architect, to him would go, if he could grasp it, the credit which really should be mine. He was earnest in his arguments, told me that he believed I was a better

architect than Walter, urged that I could still have the assistance of good draftsmen, that I could carry on the whole work with him, and that indeed the thing he particularly wished was to change Walter's title, that he was only my assistant and in no way responsible, and therefore he should not be entitled the architect.

In reply, I told him how the designs were made, what part Walter really had in them, that he sketched after we had discussed the general style first together; that I criticized his design, it was modified, then again submitted to me, sometimes many different sketches made before one satisfactory was hit upon; that Walter had designed the outside of the building, which was what the world would look upon, and that to Walter belonged this part of the building; and that while the documents would show what share I had in it and that I could therefore establish my claim, I knew that I should not from the people get all I deserved. Yet, this was irremediable. It resulted from me coming in at a late day, and that I preferred losing some of what was mine to exposing myself to the accusation—unjust, but with some appearance of justice—of having tried to take what was justly another's. Thus, for my own reputation, I thought it better that Walter should remain. I knew he would be governed by no delicacy and would take all the world would allow him, whether he deserved it or not. This was his character and his weakness. I felt, therefore, no tenderness towards him to make me take this view of the subject, but on selfish considerations even, I thought it best for myself that he should remain. Moreover, I thought he had done his duty to the best of his power, that he was very skillful, more so than any other architect that I knew, more so than anyone who would take his place, submissive and willing to be guided by me in all things and the best assistant I could get, best for my own pleasure, best for the success of the work.

The Secretary combatted me for near an hour and finally said that if I thought it would be doing injustice, he did not desire to involve me in anything of that sort, and that made an end of it.

He must feel that he was in a curious condition, urging a man to take a great advantage and being resisted by me. A very different experience from that he must have of politicians applying for office. These gentlemen are in the habit of trying for offices whether qualified or not. For Mr. Davis' kindness towards me and his high estimate of my abilities as an engineer and architect, I am grateful, and still more grateful for his yielding his wishes in this matter to my own.

What would Walter say if he could have heard the whole conversation? He would not feel grateful, for I said pretty frankly what I thought of him, as ungrateful, unjust, disposed to grasp what does not belong to him, forgetful of benefits, etc. And indeed, I have done what I did from no motive of favor to him, but solely in order to do

justice and right, and partly to protect myself from a charge which might, if he were removed without any consent of mine, have a color of truth. Yet, he owed his position to my determination to do right and to my influence with the Secretary.

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[Nov.] 6TH. Finding that the water is to be let off the Croton aqueduct on Thursday, the 9th of November, I have concluded that I must leave here tomorrow in order to be in New York in time to see the inside of the conduit. I therefore sent this morning to the department an order for a journey to visit the quarry and to go to Boston to see the manufactory of papier maché, with a letter to the Secretary explaining to him the reasons for my wishing to go at this time. I did not get an answer in time for today as he was at a cabinet meeting. Campbell sent word that he would give it to him as soon as he came back and send it down. I have determined to go, however, without waiting for an order, trusting to get it sent for me.

I have left with Mr. Walter directions as to the few particular things to be done.

The steam engine arrived from Providence this morning and had been hauled up to the shop before I left this evening. I should like to stay to see it set to work, but if I undertake to do this, there will be something equally interesting to see by the time that is finished, and I should thus never get off at all. The shafting has not arrived yet. I wrote to Gage, Warner and Whitney today to hurry them with it. The steam hammer is nearly set up, and I directed the steam pipe to be put over the boiler of the new engine as soon as possible, so as to get the hammer to work. 25 tons of iron for the roof are at the Navy Yard. I left the drawing of the roof to be copied for the smith shop by August [Schoenborn].

Winter promises to have a great show by the time I come back and to do everything he can, or that he is adequate to do, to carry on the work well and vigorously.

I received from Pitman and Prosser of Cincinnati today a gold pen made, as they advertise, expressly for phonographic writing. This is written with it, and I am much pleased with it. It is fine and flexible and writes pleasantly. If I had the same familiarity with the forms of the phonographic alphabet that I have with the original writing and could thus move my hand with the same rapidity, I should write with more rapidity in this manner. As it is, I do not think I write quite as quickly in phonography as in common hand. But, yet, I improve daily, and in time shall be a good writer.

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[Nov.] 7TH. I left Washington this morning at 6 o'clock. I reached Philadelphia at about 1 p.m. Found nobody at home but Frank, <sup>147</sup> and with him I walked out to Mr. [William B.] Walter's store to see whether his glass works were yet in operation. I found that they had heated their furnace and begun to melt their metal.

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[NOV. 7 CONT.] After dinner, went down to the glass factory in the lower part of the town below the Navy Yard. The furnace used is a blast furnace, the blast entering by two pipes, one below and one above the grate. This seems thoroughly to consume the smoke, of which I could perceive no signs, though it all blew out into the room through the doors of the furnace. Its heat caused the gasses, I suppose, to rise at once to the ventilators in the roof. The establishment is in an old foundry and looks badly enough. But it is a beginning of better things, I hope. Some of the glass is of beautiful color. Quite free from bubbles and worthy of being ground and polished. They also enamel this glass so as to make it opaque, leaving figures stencilled in color. Here are people spending thousands, for they say that 30 to \$50,000 have already gone in this enterprise, and depending for all their knowledge upon an English workman from the factories of Chance, the English glass-makers, who supplied the Crystal Palace. If he dies suddenly or proves unfaithful, their money is gone to ducks and drakes. I told Mr. Walter that I hoped he had a good, smart Yankee to watch this man and learn from him his trade, as he would probably leave him before long. He has not, however, but trusts to him entirely.

\* \* \*

[Nov.] 8. Left Philadelphia at 10 a.m. and reached New York at 2 p.m., by Camden and New Jersey Railway. This is a railway which is said to be governed by Commodore Stockton, 148 who, \_\_\_\_\_\_ the railway, again governs the little State of New Jersey. Be this as it may, it is not a very great speed which by railway occupies, on the lightning line, 4 hours in going 95 miles.

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[Nov. 8 cont.] After dinner, I went to look at Leutze's painting of the battle of Monmouth, or, rather, of Washington at the battle of Monmouth. 149 He is shown upon a bay charger, dashing forward to arrest the retreat of the troops led by Lee, Charles Lee, not Harry of Lee's

<sup>147</sup> Franklin B. Meigs (1829–1881) was Meigs' brother.

<sup>148</sup> Robert Field Stockton (1795-1866), Democrat of New Jersey, served in the Senate, 1851-1853.

<sup>&</sup>lt;sup>149</sup> Emanuel G. Leutze's 1854 painting *Washington Rallying the Troops at the Battle of Monmouth* is now at the University of California Art Museum in Berkeley, California.

Legion. The face shows indignation. It is said that this was the only occasion upon which Washington lost his temper in public and that this day he swore a fearful oath. The figure is noble and commanding. He sits his horse as though he were a centaur, and the long line of peasant soldiers hail with enthusiasm his advent. The picture shows no such painting as that of Landseer. <sup>150</sup> The subject is more noble and is well handled. And though it may be criticized, I prefer to admire and to wish that I had it for the grand stairway of the Capitol extension. The man who could paint that is quite able to paint for the walls of our people's palace. I may be empowered to procure from him some picture worthy of the place and the nation.

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Nov. 8 (continued). I ordered sent to Washington by express some books of ornament which I found in the building of the National Academy. One or two by Julian and some others which are full of valuable matter for our work. I wish I had the skill and knowledge of this Frenchman. These studies are executed with the most beautiful precision; at the same time with grace and ease. They are not in the classic style, which I regret. They will afford examples from which we may gain ideas, and some of them would at once answer for the decoration of the walls of the upper rooms. With them I think I could make out a system of decoration for the extension without Mr. Walter's help. Yet this work is immense, too much for one man to execute with any propriety. One should direct, but it needs several to make the detailed designs and cartoons from which to model the foliage and to paint the walls.

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[On November 9 and 10, Meigs continued his visit to New York, traveling to Ossining to view the Croton aqueduct before returning to New York City.]

[Nov.] 11. This morning I waked and found it raining and so dark that I thought it must be early. After waiting for some time for light, I looked at my watch and found that it was nearly 8 a.m. As I knew that the train of cars in which I had intended to go to Lee left at 8½, I concluded that my only course was to give up going to Lee till my return from Boston and to take a late train for Boston, so as to spend Sunday there. This I did, leaving New York in the 11:30 a.m. train.

Before going, I went to John Street to the store of Mr. Morse, where I did not find him, but his people showed me the drawing of the warming system for the new Blackwells Island Workhouse. The system

<sup>&</sup>lt;sup>150</sup> Sir Edwin Henry Landseer (1802–1873) was an English painter.

is very simple and much cheaper than I had supposed. I am told by Mr. Griffin, chief engineer of the Croton, that the whole contract for these pipes and boilers amounts to only \$9,000 or so. The building is about 650 feet long. The main corridors are open to the roof, several stories high, with galleries by which the cells are reached. A long tunnel under the lower floor, about 6 feet high by 6 feet wide, contains the pipes, of which 8, starting from one cross-head, take the system to the furthest end of the corridor. Each of the 8 is connected by a single bend, with a return by which it carries back the condensed steam, or water, rather. Thus, the path of the steam outwards is about 300 feet; its return about the same. These pipes are laid at an inclination so as to favor the flow of the water back to the boiler. At each end of the corridors are rooms in several stories. These require a different treatment. They are warmed by pipes going around the base of each room. I forgot to mention that the long passage in the floor has a huge air chamber receiving the air through flues in its double walls and emit it from registers in the floor of the corridor. All the steam valves are within reach of the engineer at the boiler. The boilers are tubular, set in brickwork in locomotive, and containing each a number of tubes. They expect, from changes of temperature and expansion, a contraction of 4 or 5 inches in these long pipes, and the pipes are laid loose upon the bars which support them, so as to be free and move. I suggested to them to suspend the rack from staples in the arch above, instead of building it up from below, and thus to allow the necessary motion back and forth without friction. [Sketch]

The above sketch will show general arrangements. The boilers are outside, in a vault below the surface.

After seeing this drawing and the valves now making for my air pipes for the blacksmith's shop, I took a 4th Avenue Railway car at the lower end of the park and rode up to the 26th Street station of the New York and New Haven Railway. Pouring rain. Here I met Mr. [Judson], 151 I believe his name is, the keeper of the Brevoort House. I had some conversation with him about the painting of his rooms, which is the best I have seen, I think. He says there are 140 rooms in the house and no two ceilings are alike. For decoration, they are very well done, indeed. The colors, general hues of gray and blue, \_\_\_\_\_\_ the colors, with a few points of forcible color, which by contrast appear the more valuable. The painter's name is Emmerich Carstens, 152 number 50 First Street, New York. I should

 $<sup>^{151}\</sup>mathrm{Curtis}$  Judson was the proprietor of the Brevoort House, according to Rode's New York City Business Directory, 1854–1855.

<sup>&</sup>lt;sup>152</sup> Emmerich A. Carstens (1823–1902) subsequently oversaw much of the decorative painting in the Capitol, where he worked, 1856–1859 and 1861–1898.

like to get him, or one like him, to design the ceiling and wall painting for the extension. I wish I could employ Leutze by the day to paint upon our walls some historical pictures, but his pride would probably prevent his coming into such an engagement; and I should have all Congress on my back if I were to contract with him for a painting to be hung up. But if we could get him here and buy the paints, the canvas, the oils and brushes and other materials and pay him a reasonable per diem, we could then get pictures wherever they are needed. I think I will write a wire and ask him whether such an arrangement might not be made. The worst of it is that Leutze is such a wild, extravagant fellow that he could not keep quiet and would be talking and making a noise about it, which would bring Congress to interfere.

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[Meigs then traveled on to Boston. The diary discusses the churches he visited on Sunday, November 12.]

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[Nov.] 13. I went through a heavy rain to look at the papier maché at the sales room. The style of the work on sale is bad, such as I could not think of admitting into the Capitol extension, but the manager tells me that they make their molds from plaster or by the electrotype, and by this means they can hardly fail to make a good copy of any design sent to them if it is sent molded in the round, in plaster. I could see that the material is capable of producing very fine work from good designs, well managed.

I did not go to the works, as it rained hard, and the young man who seemed to have the management told me that he had not authority to admit me to any of the rooms where the manufacture is carried on, as they kept their methods secret. The treasurer of the company was not in town. I promised to send them something to try their skill upon. He said the architects in Boston were perfectly satisfied with the manner in which they had worked upon their designs, but he seemed to have a very low opinion of their taste, and justly, I think, if they were satisfied.

\* \* \*

[Meigs left Boston for Pittsfield, Massachusetts, on his way to visit the marble quarry at Lee.]

[Nov.] 14. By this a.m. train at 9:54 for Lee. Found Mr. Heebner at the quarries and with him walked up to his house and then to the quarry.

The quarry is in fine condition, but he has no great quantity of stone ready to send. It is sent off as fast as quarried. He complains that he had difficulty with the railway in getting cars, which detains him. This is true, no doubt, but he ought to pay a higher price if necessary to make them furnish a better supply. It is evident that we shall be out of stone long before the winter is over. I have engaged him to send us some cornice blocks so as to give employment to the carvers. This he promises to do and to send the blocks for the inside caps, vestibules.

Heebner tells me that the contractors for the Charleston Custom House, Larned and others, have been again negotiating with him to get the marble from this place. They offered him an interest in the contract but at such a price that he refused to buy. He offered \$5,000 for ½ of it. They wanted \$12,000. He says some parts of it are at low prices, that there are some good things in it. They get \$7 per superficial foot for the columns, labor and marble. Measuring string measure, following the surface of the flutes. And in addition to this, a certain price per square inch for fluting them; that there is one platform for stairs, which is circular, for which they will get \$1,000, while another of the same size but square will be only \$57. A set of prices no doubt intended to be unintelligible.

The marble for the New York City Hall is not yet decided upon. They are supplying some monuments from the new quarry.

I went to look at the paper mill of Platner and Smith today. They have a Fourdrinier <sup>153</sup> machine which is a wonderful example of ingenuity. The paper sells for 25 cents per pound. The material costs about 8 cents.

Heebner is getting tired of his connection with Rice and would like to have the whole of this contract to himself. This is the true secret of his grumbling and threats to sell out cheap. He wants, I believe, to get it all in his own hands. Indeed, he said as much. And then he could go on better. He has offered for the City Hall marble at \$1.50 per foot, but I am not sure where it is to be delivered.

[Nov.] 15. I went to the quarry this morning to see a large mass of rock thrown down by a sand blast, but the stone hung so that 2 or 3 blasts failed to bring it down, and I had to leave for the cars before they succeeded. Mr. Heebner came down with me, as there is a new stone-cutting machine which he wishes me to see and of which, I suppose, he wishes to have my opinion.

We had a good deal of talk on the way. He told me that he was tired of managing this business with Rice, who has been at the quarry

<sup>&</sup>lt;sup>153</sup> The Fourdrinier machine for making paper was invented in France in 1798 and placed in operation in 1804.

only ½ day for the past year. He could not do as he wished. And upon the whole, he evidently has made up his mind to have Rice out of the affair. He says that while he does not wish it to go forever, the first of January must bring it to a head; that unless Rice thinks more of the quarry than he does, he must go out. And then he will manage his own way. Or Rice must buy him out and get somebody to manage for him. He wishes to give his foremen some share of the profits and thus get them to have a direct interest in the well-doing of the whole concern. This Rice is not willing to do. Moreover, Heebner has lost money during the past year by his marble importations and he feels therefore, I suppose, more willing to devote himself to this quarry. He wants to put up a mill to saw out stone for New York this year, which Rice is not willing to go into. Heebner says that he has capital enough to quarry it all properly, but he is not willing to put it into a concern of which he has not entire control. It will end, I believe, in his being the only contractor.

The North River marble was offered for the City Hall at \$1.00 per cubic foot. The Lefarge [?] Hotel has been for some time stopped for want of marble, Wilson having failed in his contract for that building.

I find here a note from the president of the Humphreyville Copper Company, Mr. Dwight, saying that their agent had called upon me in Washington after I had left that place, and also in New York, without finding me. He desires to know where he can have a few minutes conversation with me. I may perhaps go to New Haven to see him. The roof will be of sufficient importance for me to take that journey to settle the price of the material.

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[Meigs spent the night of November 15 in New York.]

[Nov. 15 cont.] Marble which was \$4.50 and \$5 per cubic foot last year, which is Italian, is now worth only about \$2.50, so that all who have been engaged in the trade have made heavy losses. \$100,000 probably have been lost. It is a curious effect of the European war <sup>154</sup> that, the Black Sea fleet being driven out by the belligerent one, many of those vessels were taken up to send marble from Italy to this country, and thus the market was overstocked. This, too, at a time when the money market was tight and everybody curtailing their expenses. So that the demand was least at the very time when the supply was greatest.

A letter from Walter. Poor Jones has lost his brother. The workmen on the north wing stopped work today for him. Some of [McFarlan's]

 $<sup>^{154}</sup>$  The Crimean War, 1854–1856, pitted Russia against an alliance of Britain, France, and Turkey.

bricklayers have been discharged for want of work. Some of Jones' must soon follow.

3 loads of marble have arrived since I left. The vessel we feared as lost has come to light, having sought shelter under the Delaware breakwater. Among the letters I have received since I have been away is one offering to sell me a share of the Washington Stone Dressing Company.

And now to bed.

[Nov.] 16. At 8 a.m., Mr. Heebner came for me, to go with him to look at the stone-cutting machine. We found 2 of them. Neither was at work, however. The one with which he was so much pleased is one with no single advantage over Eastman's. The frame containing the chisels is driven by a cam or tappet, and they all strike at once. So that the machine is exposed to a much greater shock than Eastman's and requires much more strength. The other is a very heavy machine and is still less advantageous.

We then went to the theater, the Academy of Music. This is said to be the most splendid theater in the world. The decorations are "very rich" and very tasteful, and the architect has certainly shown a good knowledge of the resources of his art. The boxes are supported by wooden columns which are decorated by \_\_\_\_\_\_. The proscenium is ornamented with figures. The front of the lower tier of boxes has a number of small figures of children. There must be some 60 or 70 figures of plaster or carton paper in the house. The execution of all these figures and molding is very good.

I went afterwards to see the makers, Thomas and Brother, West Street, number 41. I found Mr. Thomas <sup>155</sup> at his shop. He is, I believe, French, and he showed me some of the drawing for the academy, tracings furnished him by the architect, which showed great skill in designing ornaments.

I ordered from him a number of pieces of work he had on hand, to be sent to Washington for me as specimens. They are surprisingly cheap and modelled with great taste in very high and bold relief.

Then I went to number 50 First Street to see Mr. Carstens, the decorator of the Brevoort House. I saw some of his designs for walls and for ceilings and asked him whether he would be willing to come to Washington to make designs for the painting of the Capitol, and, when ready, to superintend the painting. He said \$1,200 per annum. I took some of the designs to show Mr. Walter, and after consulting with him, I hope to be able to call him into our service.

<sup>&</sup>lt;sup>155</sup> Ernest or Henri Thomas of Thomas and Brother of New York, ornamental plasterers. In 1856 Meigs placed Ernest Thomas in charge of the ornamental plasterers at the Capitol.

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[Meigs then traveled on to Philadelphia, where he spent the night.]

[Nov. 17] I left Philadelphia at 3 p.m., reached Washington at 9<sup>3</sup>/<sub>4</sub> p.m.

I find all well at home and delighted to welcome me back. It is a great pleasure to find my family all well again, one for which I hope I am thankful.

[Nov.] 18. To the office, where I found them about finishing the first window. I expected to have found at least one of these quite finished, but the frieze was not up when I reached the office, and at night when I left for home, they were just able to get the pediment in place and set it temporarily while bedding it.

I found an accumulation of business, all of which I dispatched in the course of the day. The force of brick masons is much reduced. The gable walls having been completed and all the temporary brickwork that can will be done, except backing up the little marble which can now be set before the severe weather sets in. All this kept me at the office till after the bell rang.

Mr. Walter admired the drawing of Mr. Carstens, and I wrote to him to come on. I expect to give him \$4 per day.

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[Nov.] 20. I went to the Engineer Department to consult with General Totten about the mode of completing Fort Madison. It is determined not to attempt any defilading and to see whether a palace [?] of earth would be got by increasing the thickness of the parapets a little. I have set a young man, a brother of Charles Ober, <sup>156</sup> who is now drawing for General Totten, to work. He is making a copy of the drawing of the roof truss for the smith shop.

I understand there is some difficulty in the carving shop of Maples. The workmen and he do not agree.

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[Nov. 20 cont.] Ober finished today the ink drawing of the roof truss. He draws quite fast but does not know anything about tinting. I set August to work to show him how to do it.

Gage, Warner, and Whitney, in a letter received today, tell me that they have finished and shipped the blower and the shafting for the smith shop.

<sup>&</sup>lt;sup>156</sup> Franklin Ober was a draftsman for the Capitol extension, 1854–1855.

The 7th number of *The American Organ*, a new Know-Nothing paper, published in this city, contains a list of some of the foremen of the Capitol extension and says that 9 out of 11 are foreigners; that it supposes that military men choose foreigners because they can kick and damn them with impunity. This is of a piece with the falsehood and venality of this whole Know-Nothing movement, a great national movement to grab the petty offices of the country, to keep out the Catholics and the Irish from them. And to do this, men are to be found to take all this, to do they know not what. And often to perjure themselves in a court of justice.

It seems that the men have struck against Maples and that those who were at work for him are now being paid by the society the same wages that he paid them. Winter is disposed to give him up, and he came in to see me this afternoon. I promised to meet him and Winter at the Capitol this evening, at dark. But I find that there is a meeting of the vestry of St. John's Church <sup>157</sup> at 6 p.m., which rather interferes with it. I must go to the church and I ought to go to the Capitol, and I have no one here to send with a message.

[Nov.] 22. Anderson came in this morning to ask for the amount of the last bill of lading for iron forwarded by him for the Capitol. I paid that; some \$3,700. He says that since he has been in business, he has never known so hard a time for businessmen, and that this being the case, he asks earlier than he would do otherwise for the money. I told him that I did not like to pay before I got the iron and had it weighed, but that I expected to get more from him and that thus I would have a chance to correct any accidental deficiency in weight.

Mr. Kennedy came to ask what quantity of copper I was likely to need for the roof. Some person interested in the Pittsburgh mills wishes to make another offer.

We concluded to abandon the bracket or console cornice and use a modillion cornice instead. It takes up less of the already too small height of the room, and I think, also, that it has a more dignified appearance than the other, which is too rich, too much like the style of a banquet room or a theater.

Maples and Winter came in to talk about the difficulty with the stone cutters. After considerable discussion, it was concluded between Maples and Winter that the former should send to Philadelphia for his apprentices and endeavor to get men not belonging to the society, that his shop is already a scab shop, as it is called. By this means, we think that he will be able to carry on his work for a time and that

<sup>&</sup>lt;sup>157</sup> Meigs served on the vestry of St. John's Episcopal Church on Lafayette Square.

as the marble runs short, the other workmen will abandon their stand against him and go to work for him.

Rutherford thinks this will not do, that they will never give up until they are starved out. I do not know what will be the result, but it is intolerable that the work should be under the dictation of a body of men who make such shameful demands. The men who have already struck against Maples are not to be taken to work by Winter. They are now receiving wages from the society.

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[Nov. 23] I rode up to the Capitol before going to church today. I met Provost and Winter there and had some talk with them about the society matter, and they begin to be restive under their dictation but say that they do not like to begin a contest at this time, since the society have just reduced the wages to \$2.00 per diem, making a saving to the firm of about \$300 per month. They would prefer adjourning the dispute till March, after Congress returns, and at a time when the wages will be increased again. They say that they have promised Maples to do in this matter whatever he may determine to ask of them. But I suspect that they have said such things to him as to induce him to give up his contract. They desire, in fact, to have the credit of being contractors for these caps themselves and do not wish Maples to divide it with them.

I found the work suspended and took advantage of the stillness to try the effect of the voice in the Hall of the House of Reps. Its walls are up, but its doors are open and no roof is upon it. I think that if a man can make himself heard under these circumstances, with all this door opening left for the dispersion of the voice and no aid from the reflection of the ceiling, there can certainly be no difficulty when we have this opening closed and the ceiling completed. I found that I could talk with Monty the whole length of one side of the Hall without any necessity of raising my voice, and that by an elevation of voice not greater than would naturally be used by any person speaking in public, we could talk from one corner to the other. This, too, while the sound had to pass through a variety of timber which supported the scaffolds.

I took Mr. Walter up to repeat the experiment, with the same result. I found that an echo existed between the two end walls, so that on clapping my hands, I could hear the sound repeated two or three times, not so loud as in the long, unfinished halls of the Smithsonian Institute. But this echo will, of course, be more sensible when the ceiling is in place to confine the sound and prevent its dispersion into the open air.

As we are making much of the ceiling panel perforated, I have determined to avail myself of this in order to obtain the aid to the voice of the resonance of wood. For this purpose, I will put above each of these panels a large wooden plane made of thin boards, like the sounding board of the pianoforte. The sound passing through the opening will set this board, which shall be a plane surface, in vibration; and this, I do not doubt, will considerably assist the voice in strength. It will act both as a reflector and a vibrator and sounding board. Wood is remarkably resonant, and I thought, on my visit to the New York Academy of Music, the wonderful feeling of that immense house with sound from the voices of the singers practicing in the front rooms could only be accounted for by the resonance of the wooden lining of the whole auditorium and indeed of the whole building. This lining of wood I do not like to adopt in our hall as it is so liable to fire. But if we have thus an effective ceiling of wood over a considerable part of the room and a glass one almost as resonant over a great part of the rest of it, we shall, I think, get a considerable advantage from

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[Nov. 24] We have abandoned the bracket cornice proposed by Mr. Walter at first, and adopted for the interior of the House of Reps a proper modillion cornice which is much purer and simpler and more appropriate, I think, to the distinction of the room.

\* \* \*

[On November 24 came the first news report that the naval ship Albany, on which Meigs' brother-in-law Hal Rodgers was serving, had been lost at sea. For some time, the ship had been overdue to arrive in port but had not been heard from, and the family had been growing increasingly concerned. When the first report was not followed by others, hopes rose again.]

[Nov. 26] The Secretary of War sent to me tonight the paragraph of the article in relation to the Capitol extension, with instructions to rewrite it so as to be entirely exact, both as to facts and terms. He says that the style of the work, both in finish and strength, has been of a higher standard than was contemplated when the estimates were made; but the administrative capacity and professional skill of the officer in charge has so kept down the expenditures as to give assurance that the cost will not exceed the estimates made for a cheaper building. I changed this into that it is believed the cost will not exceed the estimates for a plainer building. He promised, also, that the Halls should be ready for occupation at the meeting of the next Congress. I changed this into should be finished during the next session of Congress, and

gave him as the reason that I did not feel quite sure of the ability of the contractors to supply us with marble.

[Nov.] 27. These changes in the article were not made by me last night but this morning.

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[Nov. 27 cont.] Upon showing the part of the Secretary's report to General Totten, I, by his advice, inserted the following words, after saying the Halls would be completed by the meeting of the next Congress: "but the delay in the supply of marble may retard the completion of the outer walls, and the corridors depend thereon, so as to prevent their being occupied so early."

\* \* \*

[Nov. 27 CONT.] The drawing and designs of the ceiling of the Reps Hall make progress. We will be able to send off some drawing to the modeller at New York in a week, I suppose.

Still delayed with our roof by the want of the main shaft of the steam engine. It was shipped from Providence about the 3rd of November.

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[Nov. 28] In the library today, I looked over Gruner's *Ornamental Art* <sup>158</sup> and Digby Wyatt's <sup>159</sup> examples from the great exhibition. Both are the most beautiful specimens of colored lithography. Gruner's book contains some exquisite copies of wall and ceiling decoration from the palaces of Italy. The effect of strong colors upon the walls is most exquisite. Taste in the arrangement of the colors seems to be the necessary thing. The style of the painting of the figures and landscapes seems not to be so important. There are some walls by Giulio Romano, Bernardo Leone and others which are beautiful. I found in these two books pediments and ceilings, painted domes, and crowned arches which will be very useful as giving ideas for our corridors and public rooms.

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[Nov.] 29. Mr. Rice was here this morning. He went round with me to look at the stone condemned and suspended. He wishes to get such of it passed as can be passed, he says, for inside work or for any other part of the work, so as to get some money in order to pay for a debt contracted last spring in order to get the quarry started. He says, too,

<sup>&</sup>lt;sup>158</sup> Ludwig Gruner, Specimens of Ornamental Art, Selected from the Best Models of the Classical Epochs, (London: T. McLean, 1850).

<sup>&</sup>lt;sup>159</sup> Sir Matthew Digby Wyatt (1820–1877), an English architect, was the author of books on fine art and metalwork.

that if they cannot get some money in this way, they will be obliged to discharge the men now employed, for want of means, and thus they will not be able to open the quarry as they could wish and as is necessary for a good season's work next year.

He told Mr. Walter that he had offered Heebner to sell out his share of the contract at his own valuation. I believe they are not making much money. But I do not feel full confidence or, rather, I have no confidence in Rice's statements. He told me that the \$1,600 I sent him the other day was a great relief and that he sent it at once to Heebner, who had written for money. He told Mr. Walter that he had sent to Heebner \$1,000 of it. This loose, inexact way of talking is not consistent with a love of the truth. I think they want money and that there is some negotiation between them for the sale of the contract to Heebner. Indeed, he told me, when at the quarry, that either he or Rice must own the whole before the first of February. And I suppose Rice is pushed for money and would like to have as much paid on the contract before selling out as possible.

I shall be able to take some of this stone for the inside work, for stairs and bases for entree and such things.

Mr. Copeland, <sup>160</sup> the eminent steam engineer, came in to speak to me about the wire rope and sash cord. He warrants it to be more durable than the hemp and in practice, from its superior durability, much cheaper. He says it is now used for the hoisting rope in sugar houses; and in one mine shaft, he put one in over a year since and it is still in use. I told him to send me a table, the prices, sizes, and breaking weights, and I would take one for our derrick.

I was disappointed in his appearance. He looks like a working man but not like a man of high education or for particular talent. As a steam engineer, I presume he is deservedly esteemed, but in any other capacity, I do not believe he can really be very accomplished.

I have today from Thomas and Brother, the makers of carton paper, New York, the specimens ordered when last in New York. They are beautifully executed, and we will use the material extensively.

The architraves of the windows of the principal floor have proved to be very costly. The cutting of the leaves forming the enrichment upon the abacus takes for each abacus from 9 to 10 days. The whole work occupies about 80 days. So that they cost 2 to \$300. I have a report of several and must tomorrow determine the price, which will be much higher than I had supposed. When done, however, they are a beautiful piece of work. And 500 or a thousand years hence, the only remark in reference to them will be not what did they cost but how

<sup>&</sup>lt;sup>160</sup> Charles W. Copeland (1815–1895) of New York was a marine engineer who designed and oversaw construction of steamships.

well they did their work in those days. A more beautiful or a more durable job was never made in marble.

My steam engine has not yet received its shaft, and we are still waiting for it. The engine seems to be a good one, well and compactly arranged.

\* \* \*

[Nov. 30] I made an examination of the marble which has been rejected and which Mr. Rice wishes to have passed for inside work today. I did not get through the whole but found that a large part of it might be taken for inside work such as steps, tiles, scoring off the walls, etc., by having it sawed into slabs. There would be much of it, a great deal of waste. I wrote to Mr. Rice that I had concluded that I could take a large part of it, having found about 140 blocks already, but that I did not think it worth more than \$1.50 per cubic foot, considering the waste which there would be from its not being got out to a bill. I desired him to telegraph me if he accepted this offer; if not, I would take a much smaller part of it at \$1.98.

Our payroll this month amounts to about \$6,999. The contractors must have a very large one, for they have over 300 men at work, about 230 marble cutters. I have a report of the time spent in cutting the architrave for the windows from Mr. Winter. It does not differ from that by Mr. Rutherford in any important degree. Winter's uniform truth in this matter is beginning to give me confidence in him.

\* \* \*

DEC. 1. John Lee came over this morning to tell me that someone who had seen the Secretary's report told him that I was the only officer of the Army directly complimented in it.

The payroll for November amounted to \$6,359.65. Provost, Winter and Company's bill, \$15,982.46. I paid all together this morning \$27,113.17. We have set during the month 89 blocks of stone only, the force having been engaged principally upon the cutting of window jambs and architraves, pediments and other window dressings. One window has been finished and excites general admiration. The expenditures of the month, exclusive of yesterday noted above, were \$39,422.25. We received during the month 585,366 bricks, of which 307,076 were laid in the walls and arches. The rest piled up for Spring

3 cargoes of marble were received besides the one paid for today, containing 56,838 cubic feet. We have 2 invoices of cargoes now on the way.

We have had here an average of 250 men in our employ. The marble contractors have had an average of 300. They have now increased their

force to some 360 men and horses. At the quarries, there are about 70 or 80 men cutting out marble. There are probably 150 men engaged at the brickyards making and hodding bricks to this work. So that I have superintended the work which gives occupation to more than 700 men, a living to some 1,500 or 2,000 persons, including their families. And I have been paid, as I have just drawn my fee for all this, with the disbursement of about \$70,000, the sum of \$163.70.

I have under my direction at this time 6 or 7 persons at \$5.00 per day; the architect at \$4,500 per annum; two draftsmen at \$4 per day, nearly as much as I am paid, myself. There is a draftsman named West who left us for some jealousy some time ago and who is now employed in the Treasury Department as a draftsman only, at \$6.00 per day. And he is required to work only from 9 a.m. till 3 p.m. He has no brains at all but makes a very neat and tasteful drawing.

There is no news from the *Albany*. I had a letter from Mr. Trowbridge <sup>161</sup> today. He is getting anxious and desired me to write to him fully. I wrote, though I had nothing to tell.

[DEC.] 2. Mr. Carstens went to work yesterday. He feels, I see, a little uneasy as yet and does not and will not, until he gets acquainted with us, feel confident in his skill. A man's imagination cannot work freely while he feels restrained by want of knowledge of those for whom and to please whose taste he is trying to invent. Today Mr. Walter has him touching up the tracing made by Mr. Ober which has no spirit to it

Rice, by telegraph today, accepted my offer of \$1.50 per cubic foot for the suspended and rejected marble which I thought suitable for the interior work, provided I could send a check today. I answered his request by telegraph, that I would send a part, but that the whole could not be measured in time. I went with Mr. Harkness and Rutherford until about 80 blocks were inspected and measured and then made up their amount. They measured 2,2401/3 cubic feet, much of the stone of excellent quality, stone that had been suspended or rejected because it was not needed, its place having been filled up because it failed in size or in color. A good deal of it was rejected for having red streaks in it. This will not much injure it for the pediments, arches, scoring of the rooms, etc. We will get a large quantity to cut for the ceilings of the porticoes, stairways, vestibules, and for anta caps 162 in the central corridor of the basement of the south wing. I shall have enough to put up a frame for sawing this marble, and I shall have, I believe, enough marble by this purchase to be able to keep my force

<sup>&</sup>lt;sup>161</sup>Charles C. Trowbridge (1800–1880) was the father of Kate Trowbridge Rodgers.

<sup>&</sup>lt;sup>162</sup> An anta is a pier created by thickening the end of a wall to give the effect of a pilaster, with a capital and base.

of stone cutters at work through the winter. This will be a great advantage to us in expediting the work and keep the men together, while it is no doubt a great help to the contractors in giving them some ready money.

I sent to Mr. Rice today, for the first installment, \$3,360.49. This was the amount of 81 blocks. There are probably 200 blocks, principally of smaller size, yet to be measured and paid for.

We got our steam hammer to work this afternoon. Mr. Champion is delighted with it. It is a 500-pound hammer, and he has never used anything heavier than a 20- or 30-pound sledge hammer before, is already wishing that it was a little heavier. It is a beautiful instrument. It deserves a higher name than tool. These men, who have never used one before today, I found striking blows hard or light, smashing down the iron or just touching it so as hardly to break an egg. They drew out in it, in about an hour this evening, 5 or 6 of the heads for the eyes of the 2 inch by ½ inch suspension rods, a work that would have taken 3 men several hours to do. All hands seemed delighted with it.

The *Star* this evening contains an article upon the work at the Capitol extension which says that I am making an enviable reputation by the manner in which I am pushing this great work.

\* \* \*

[DEC. 2 CONT.] Mr. Kemble today sent me a letter from [John G.] Chapman, the artist from Rome. It is a letter upon art. I have been so busy through the day that I have not had time to read it.

\* \* \*

[DEC. 2 CONT.] . . . We have no tidings of the *Albany*. No more recent arrival from St. Thomas to clear up the doubt as to the vessel which was seen going into that port.

\* \* \*

[Dec. 2 cont.] Lefferts and Co.  $^{163}$  offer to make a set of dies for my copper roof for \$400 and to allow me \$200, though, when my work is done. They would wish to make the frame for me, but that I have begun already, and I do not wish to leave to them the manufacture of it.

Dwight, president of the Humphreyville Copper Co. offers the copper at 30½ cents per pound. The Pittsburgh men are coming here by Monday to try to sell it to me. The president, Mr. Howe, telegraphed today that the railway accident detained him.

 $<sup>^{163}</sup>$  Lefferts and Co., maker of dies to corrugate copper for roofs, appears to be the same company as Marshall, Lefferts and Brother mentioned on pages 134 and 159.

\* \* \*

[DEC.] 4TH. Congress met today, and the President's message was sent in and read. The furious gale is yet blowing, which makes Lou and Mrs. Rodgers, who think of poor Hal, very unhappy. We have no news of the *Albany* yet. The *Princeton* has arrived at Havana. She had no news. Was to sail again in search.

Mr. Howe, Thomas M. Howe, <sup>164</sup> of Pennsylvania, who is interested in the copper rolling mill at Pittsburgh, came with Mr. Kennedy to see me this morning. He offers the copper for the roof at 32 cents per pound, to be made of best Lake Superior copper, which he says is much better and more pure than the foreign copper. I told him, if he did not know, that the laws forbid a Member of Congress having any interest in any contract and that this would have prevented my contracting with him if I had advertised and received proposals to make a contract, but that I considered this to be buying in open market, which I had a right to do. He seemed not to know of this law, and after some time and coming in again, he desired to withdraw his offer, saying that he would let the agent of the company make the offer in his own name.

Mr. Crocker <sup>165</sup> is also a Member of Congress, and Mr. Walter saw him and says he will be in to see me, as I had an offer from him.

I telegraphed to Mr. Rice and sent him by today's mail \$4,709.87 for marble bought in the arrangement made with him at \$1.50. There are probably some \$3,000 more, or perhaps still more than that. Including \$1,600 of stone passed sometime before this visit of his, I have now sent to him \$9,000. This ought to relieve their embarrassments. And the price ought to satisfy them.

I wrote to Marshall, Lefferts and Brother to make the corrugating dies for the new pattern, which they offered to make for \$400, allowing, when the job is over, \$200 for that.

I tried the new hammer today myself and drove a nail nicely into the edge of a one-inch board without damaging the wood. I could crack a walnut with it without cracking the \_\_\_\_\_.

\* \* \*

[Dec. 4 cont.] I went to the Navy Department this morning, at Lou's earnest request, to ask if anything had been heard from the *Princeton* in regard to the *Albany*. There was nothing. I say "earnest request" because my wife seems to think it strange that I do not go often to

<sup>&</sup>lt;sup>164</sup>Thomas M. Howe (1808–1877), Whig of Pennsylvania, served in the House of Representatives, 1851–1855

 $<sup>^{165}</sup>$  Samuel L. Crocker (1804–1883), Whig of Massachusetts, served in the House of Representatives, 1853–1855. He was engaged in copper manufacturing.

the Department to inquire. These women in trouble cannot know or believe that there is no use in such inquiries, that the news will be in the papers before it can be received at the Department. I went, though I do not like to go on such a fool's errand, to satisfy her. It turned out that I carried to the clerk the news that the *Princeton* had arrived in Havana. It is a long time since I have known so windy a day. The designs of the ceiling of the Representatives Hall are nearly finished. We shall have a beautiful ceiling, I believe.

Mr. Walter is about to begin that for the Senate Hall. We had some talk today about the style. It will be like the other, we agreed, a trabeated <sup>166</sup> composition divided into squares by the beams, the difference between it and the House of Representatives being principally in the cornice, which will be of a different design, and the ornaments, which we do not desire to repeat.

[DEC.] 5. Mr. Crocker, Member of Congress from Massachusetts, came today to see about copper. He is one of the firm of Crocker Brothers and Co., of Taunton, Massachusetts, who are one of the largest contractors for copper manufacture in the United States. He says that the \_\_\_\_\_\_ copper is quite as good as the Lake Superior and that theirs will last 150 years. He is an intelligent man and a good businessman. Will make a proposition. But he says that he is tired of working for the government for nothing and that he will put their offer high enough to be sure to make some money if they should get it.

\* \* \*

[DEC. 5 CONT.] Mr. Walter went to Baltimore yesterday and did not return today. I occupied myself with the arrangement of the truss for the roof of the Senate Hall today and made some progress in it. At night I was obliged to leave the office by the irregularity of the gas, caused, I suppose, by the meter being obstructed with ice. Our water pipes at home were frozen last night, as usual. They are carried up in the outer corner of the bathroom, which is of wood, the most exposed part of the whole house, and they freeze with great regularity on the coming of winter.

A letter from Mr. Rice today. He is very grateful for the promptness in sending him the money for stone, which I presume has helped him out of some difficulty. He says Mr. Heebner is in Philadelphia, come on to get a vessel to bring a load of marble, that he will send two more loads, which is all that he can do this season.

Mr. Heebner still thinks the large window heads with yellow streaks will answer for the exterior, and he requests me to keep them till he

<sup>166</sup> Designed with horizontal beams.

can come on and see for himself. I replied that I had taken their size into consideration when I fixed the price of the marble at \$1.50, in making my offer to them for its purchase, that these large blocks went to make up for a great many smaller ones, and that having bought them and paid for them, I could not consent to take them out of the bill and now allow them to go back into their possession.

\* \* \*

[DEC. 5 CONT.] All outdoor work was stopped today in consequence of the cold and wind.

\* \* \*

[DEC.] 6. The cold storm continues. All outdoor work is stopped.

Mr. Crocker came in again today to see the sheet of corrugated copper. I advised him to have the copper cold-rolled, as when prepared this way, it is much stiffer. Mr. Howe also called. He wished to withdraw another letter of his in relation to the copper. He is afraid of committing himself, as a Member of the House of Representatives, bidding for the contract.

Mr. Montgomery came in, also. He wanted me to promise to use his patented beams in the roof. If I would do so, he would put up the machinery for making them forthwith. I declined, as I have done before, telling him that he must show me such experiments as to prove his beams better than the others before I could make any promise, and that I should not wait longer, for my work was now going on, and as I found time, I should prepare the drawing. If he brought me a beam better than the others before I reached that part of the work, I would adopt it if cheaper, not otherwise. He wished to call this evening and show me a plan for a roof which he was sure, after 5 minutes' sight of it, was better, cheaper and more durable than any other.

I told him that if I returned to the office at night, it was to get a little time to work, and that without interruption, and that I could not therefore spare the time, but I should be happy to see him in the morning. He promised to come in the morning, though he did not like it, and was very urgent upon me to admit him this evening. I went back to the office after dinner and stayed till 9 p.m. I spent time upon the calculations of the lengths of the bars for the Senate roof.

[Dec.] 7th. The cold still continues, with high wind, and cold indeed. It was not quite so bitter this morning. The marble cutters, whose work is in the shops, were at work today. While I was out among the marble, looking over that recently measured for the contractors, there came

a violent snowstorm. It did not last many minutes, though it drove us into the house.

I wrote to Gouverneur Kemble today, returning him Mr. Chapman's letter, which I had sent to Senator Pearce and which he had returned, having read with pleasure the entries. I told Mr. Kemble that I was glad to see that Chapman thought, as I did, that by preparing places for pictures and sculpture in the Capitol, we shall be doing a most important service to art, as they would be sure to be filled in time, and that I hoped to so arrange these pictures that they would need no inscription to say we need filling with painting, as plainly as the niches would cry for statues.

\* \* \*

[DEC. 8] I sent to Rice and Heebner a check for about \$271 on account of the suspended stone and paid for the interior work. Mr. Walter showed me a letter from Rice just received. He says that he has paid out already the money which I have lately sent to him and which amounts to about \$12,400. He is now in want of the price of the cargo of the *Benedict*, which is nearly discharged, but not quite.

I made some progress with calculation of the weights and strains of the Senate roof. This will be considerably less than of the House due to the shorter span. Fixed the size of the upper beams of the proving machine, which I concluded to make of wrought iron. Mr. Ober has drawn this much better than I had supposed he could, though he is not a very neat and tasteful draftsman.

I went to the office this evening, but the gas went out, and I had to return without doing any work.

[Dec.] 9th. A Mr. Phillips, who told me that he was a co-editor of the *Union* with Major Donelson, <sup>167</sup> came into the office this morning to ask whether I would use much Italian marble, at the request of someone in New York. He seemed disposed to talk of art, of which, however, I did not think he showed as much knowledge as he tried to. While showing to him the drawing, Mr. Burton Craige of North Carolina, my friend and chairman of the Committee on Public Building, came in. He looks much improved in health and was apparently glad to see me. He says we are to have a hard fight this winter, that the ventilation of the House is being discussed all through the country. By the way, he told me that my notes on ventilation had been published in some of the English political papers as well as in *The Civil* 

<sup>&</sup>lt;sup>167</sup> Andrew Jackson Donelson (1799–1871), who served as private secretary to President Andrew Jackson during his presidency, became editor of the Washington *Union* in 1851.

Engineer and Architects Journal and that they were flatteringly spoken of.

I do not know why he expects a fight this winter. I went with him to look at the House of Representatives Hall. He seemed much pleased when I told him that I had found on a quiet day that I could converse in any part of the room though it had as yet no ceiling.

\* \* \*

[DEC. 9 CONT.] I finished now the arrangement and calculation of the strains and the sizes thus resulting for the different parts of the Senate roof. Mr. Ober will now be able, from these sizes of drawing of the roof, to make the drawing of the Senate roof.

The ceiling of the House is designed and is to be very beautiful, I think. I fixed with Mr. Walter this morning the thickness of the different parts of the cast iron work, the arrangement of the brackets to support the cornice and the manner of uniting and suspending the different parts. What should be of iron and what of carton paper.

Another cargo of marble was finished and paid for today, that of the *Benedict*. Another is still at sea, daily expected, if she has not been lost in the late gales. I should not like to insure her. The examination of the suspended stone has been nearly completed, and I am now waiting till these blocks I have lately paid for can be posted, so that I may be certain not to pay for any which have been paid before.

\* \* \*

[DEC. 9 CONT.] The cold weather still prevents most of the stone cutters from working. My own men are busily engaged in the blacksmith's shop in forging the roof, and at the engine, the two \_\_\_\_\_ in hoisting and piling away bricks for use in the spring near the places where they will be used.

\* \* \*

[DEC.] 11. Mr. Crocker brought in today several Members of the House of Representatives to look at the drawing and plans of the Capitol extension and to look at the building itself. They were evidently generally impressed with doubt about the arrangement of the House of Representatives, and I invited them in the first place, as more easily understood than drawing, to go up with me and look at the Hall itself. This they did, and I took them over the building and showed them the halls and corridors, the stairways, etc., and they were apparently pleased with what they saw. Then into the office, where I showed them the drawing and, among other things, Crawford's photographs of the design for the pediment.

I also showed them the design for the dome; and they, or some of them, jokingly, when I spoke of it as a thing to be done sometime hereafter and as separate from the Capitol extension, asked what it would cost. I told them I had not made any estimate, though supposed \$200,000, and asked why not do it at once. I said if they saw fit to order it, I should be proud and glad to build it myself. "Let's have it done," they cried. But this is a joke and probably will lead to nothing. There were Mr. Flagler <sup>168</sup> of New York; Mr. Washburn, <sup>169</sup> the short one, of Massachusetts, I believe; Mr. Crocker, and 2 or 3 others. 5 or 6 all together.

I gave to Ober the elements of the roof for the Senate today to work up for the details of the House of Representatives. I directed Mr. Champion to make the first tie beam in 3 pieces only, instead of many, as I first designed it, if he can weld it up. Thus it will be a great saving of labor. The day was warm, and I had some masons at work finishing up the northeast corner arch over the principal story of the north wing. I directed, however, that no brick should be laid after noon today, as the wind had come out from the northeast, promising cold tonight. 3 of the corner pilasters of the vestibule of the south wing are now set. They look very well, and this vestibule promises to be a beautiful feature in the building.

The House today, on motion of Mr. Sapp, revived the Select Committee on Military Superintendence, so that we are to have the trouble and annoyance of another investigation. I had some faint hopes that Stanton would leave us alone this winter but it seems not, and I must bear it as patiently as I can. A clear conscience and a good cause, with duties honestly and I believe skillfully performed, will, I trust, sufficiently enable me to defeat him. There is one comfort, that I have so far completed the Halls of Congress, that it will be impossible to change them without a total pulling down and rebuilding.

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[DEC.] 12. A busy day. After some routine business, I did some drawing upon the proving machine. I then went to the lot to examine the blocks of marble which had been passed in the lot and about which there was some doubt. Some of them I found right and passed, but

 $<sup>^{168}\,\</sup>mathrm{Thomas}$  T. Flagler (1811–1897), Whig of New York, served in the House of Representatives, 1853–1857.

<sup>&</sup>lt;sup>169</sup> Probably Israel Washburn, Jr. (1813–1883), Whig then Republican of Maine, who served in the House of Representatives, 1851–1861. Two Washburn brothers were serving in the House of Representatives at the time: Israel and Elihu B. Washburne (who spelled his name with a final "e") (1816–1887), Whig then Republican of Illinois, who served in the House, 1853–1869. On March 4, 1855, they were joined by a third brother, Cadwallader C. Washburn (1818–1882), Republican of Wisconsin, who served in the House, 1855–1861 and 1867–1871.

was interrupted by Major Delafield <sup>170</sup> and Colonel Anderson, who came to see me.

I went with them up to the Capitol, leaving Mr. Rutherford and Mr. Bryan <sup>171</sup> to finish the examination of these blocks of stone. I showed them over the south wing and the marble shop, then showed them the drawing in the office; and at Anderson's invitation, I went with them to dine at the hotel, The Willard's. Mr. Peckham <sup>172</sup> of New York had spoken to Anderson about me and the battle which he says he expects and expressed a desire to know me. As they dined together, Anderson asked me to dine with them and he would introduce me.

I sat next to him and had a good deal of talk upon this subject. He promised to come into the office and look at the plans and at the House of Representatives himself. Mr. Peckham is an intelligent man who fought a gallant fight against the Nebraska bill last winter and, though a Democrat, was dead against the administration upon that point. I believe he is a true man and willing to take the part of right and justice against the venal and unjust. He is a ready speaker and debater, and if he will take mine, will be a very effective champion.

\* \* \*

[DEC. 12 CONT.] We tried our steam hammer today with an anvil face made with a \_\_\_\_\_ die in which to form up, by means of a large, flat hammer face, the eyes of the lower ends of the suspension rods of the roof. They work up well and cheaply. A few blows suffice to force out the hot iron to the full size of the die; and a little \_\_\_\_ in the bottom of the die, indented to make a print as a guide in punching the holes, makes such an impression upon the metal that these are easily punched by a few blows of the punch and sledge hammer.

The British steamer *Clyde* has arrived in New York without any news of the *Albany*, though she brings letters from St. Thomas of the first of December. This cuts off all hope of the vessel seen dismasted in that vicinity being the *Albany*, or at least of her being in that port. There is still a chance of the safety of the vessel, but with each day that passes without news, the favorable chances diminish. I fear we shall never see our dear Hal again. Louisa is in great distress about not having seen the letters from St. Thomas in the *Tribune* and seems to have given up all hope, nearly.

 <sup>&</sup>lt;sup>170</sup> Richard Delafield (1798–1873) was a military engineer in charge of the Atlantic Coast defense,
 1845–1855. From 1856–1861, he served as superintendent of the U.S. Military Academy at West Point.
 <sup>171</sup> William H. Bryan was Meigs' principal assistant on the aqueduct project.

<sup>172</sup> Rufus W. Peckham (1809–1873), Democrat of New York, served in the House of Representatives, 1853–1855

[DEC.] 13. Mr. Dickinson of the House of Representatives, a member of the Select Committee, came in this morning to ask me my wishes in reference to a discharge of the committee from the part of their investigation relating to the Capitol. He said that Mr. Faulkner of Virginia wished to get a majority of the committee to ask the House of Representatives to discharge them. And by his vote he did not wish to place me in any position which I would not like. I told him that the inquiry was to me a great trouble, taking me from my duties and occupying my mind and attention, which had enough without any such distractions to keep them fully employed; and that if it would be considered distinctly an announcement on the part of the committee that they found nothing to hang an inquisition upon, I would like to be relieved from this trouble. But that I thought as they had been revived and had received answers to their questions, they ought to state to the House of Representatives that they were satisfied. And in no case could I consent to appear or have it said that I had asked for an abandonment of the investigation or in any way avoided full inquiry. He said these were his sentiments and he had seen the Secretary of War, who expressed the same feelings for the Department that I did for myself. He concluded that he would vote against the discharge and would hold the committee to a full investigation and report. He is, I believe, a bold man, with a strong sense of justice and determination to uphold the right.

Mr. Montgomery came in again to try to persuade me to give him an order for iron beams of his patterns, and he met with no more success than on his previous attempts. I told him I must see the beam and have the opportunity to try it before I would consent to give anything that would look like entering into an obligation to take them. He wished me to write a note to Senator James <sup>173</sup> to ask of him, saying that James knows him, would bear testimony of his being one who would accomplish what he promised. I told him Senator James was a mechanic and a man of talent, a good politician, much better than I, but that I would not hold my opinion as an engineer to that of Senator James; and that therefore there was no use in writing to him to certify that Mr. Montgomery was likely to do what he promised. I could see for myself that he was a man of ability and thought, but I must judge for myself as to the probability of his success.

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[DEC. 13 CONT.] I ordered today the glass for the skylight of the House of Representatives, about 500 sheets of 54 inches by 30 inches. These are ordered from Mr. William B. Walter of 469 Market Street, Philadel-

<sup>&</sup>lt;sup>173</sup> Charles T. James (1805–1862), Democrat of Rhode Island, served in the Senate, 1851–1857.

phia. I have written, also, to Cooper and Hewitt and to the Tredegar works to know if they will give us the iron at a reduced price, considering the general fall in prices. Cooper and Hewitt offer it at a rate which would make it cost here about 37/8 cents per pound. This is lower than Anderson's. Mr. Howe of Pittsburgh also came in to see me this morning. He is very anxious to furnish the copper for the roof.

Our steam hammer yesterday broke two parts of the valve \_\_\_\_\_, which has deprived us of the use of it today.

Here is a pretty long chronicle of the doing of one day.

[DEC.] 14. News have been received by the *Crescent City* that the captain of the British man-of-war \_\_\_\_\_ at Jamaica had received a letter from the British consul at Carthaginia dated 10th October, announcing that the *Albany* was then in that port, all well. This was 12 days after her sailing from Aspinwall [in Panama, now Colón], and though she has had more than enough time since to write home, it is encouraging, as it seems to show that she was proceeding leisurely, and if she performs the rest of her voyage in the same style, she has been out longer than should be expected.

Messrs. Howe and Crocker were in the office this morning. The former brought me an analysis of the Lake Superior copper and of the Peruvian pig copper, indicating iron in the latter and almost absurd purity of the former.

They told me that they had heard it was the intention of Mr. Faulkner to drop the investigation of the affairs of the Capitol. I told them that I cared not, provided it should be understood that it was done because there was no ground for accusation against me and that I did not feel sure of a fair trial in a case where the accuser is prosecutor and one of the judges did sometime, with a \_\_\_\_\_\_, vote with the other members of the committee.

Heebner is here. He spent some time in the office, and I walked around the work with him and through the marble yard, showing him what I had taken. He seems quite satisfied with my late bargain with Rice, but dissatisfied with Rice himself, and tells me in confidence that he means to have the whole contract or none, for it has not enough money in it for both and he is not supplied with capital by Rice, and he cannot put in his own while he is only a partner. He says the price I have paid them for the stone lately bid is a fair one, and he has no complaint to make about it.

He thinks he can get the blocks for the columns and caps in time next spring. And he will try tomorrow to come to some agreement with me for that purpose, so as to determine whether to use marble there or cast iron, which I have thought of lately, for the sake of saving time.

The piece of Cooper and Hewitt's scrap iron tried today by Champion by working, welding, punching and cutting, proved in his opinion to be the best and toughest and strongest iron we have had. I wrote a note to Mordecai at the Arsenal to have about 3 specimens turned for trial in the weight machine. And I wrote to Cooper and Hewitt to send me the price of such iron.

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[DEC. 15] Mr. Rice has been here today. Came on last night, I suspect, because he did not like to have Heebner here without him. They are suspicious of each other. Heebner wants the whole contract, so as to be able to carry it on in his own way, which I believe would be a better way than the present. They left at 3 p.m. I sent this evening a check to them for \$1,400 for the balance of the marble bought at \$1.50. They wished me to take all that is left on the ground, but I declined to take any more at present.

I told them that I wish to have the columns for the corridor in the basement of the south wing early in the spring, so as to get it finished in time for the meeting of Congress, and that if they would send that marble soon enough, I would make them of that material, which I much prefer, but that if there was to be any delay, I would make them of cast iron.

The setting of the pilasters in the east vestibule of the south wing goes on, but slowly. They are very beautiful when set, however, so much so that I do not like to think of giving up the marble columns for the corridor.

Two pieces of Cooper and Hewitt's iron arrived today for trial. The report has not yet been made.

We have the steam hammer at work again today. It punches and forms up the eyes for the suspension rods beautifully. Makes them so fast that it seems as if the job was too small to have bought the machine for. Without this hammer, it would have been a job heavy enough. So far, we have only made the suspension eyes, which are smaller than those on the tie rods.

I received today the railway receipt for another lathe and a bolt cutter from Gage, Warner and Whitney, Nashua. The shafting and fan shipped by them in November have not yet arrived. I begin to fear some accident to the vessel. The *Fanny Ferm* [?], with marble, has arrived safely. She was out for a long time during the late storms, and fears for her safety were entertained. These gentlemen have been very fortunate in not losing, in all this time, a single vessel.

I nearly finished coloring the drawing of the testing machine levers today. Had a full-sized drawing prepared of the peak and show [?] of the Senate roof truss for the foundries. J. P. Ellis came to ask for it, and I believe they are about to ask an additional price for them. But I forestalled him by saying that iron was coming down and I thought he ought to take them at a reduced price. He brought in his sketch of the ram for the proving machine.

DEC. 16. I went this morning to the Navy Yard to look at the works now going on there.

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[Dec. 16 cont.] I saw their large steam hammer at work. I believe it is a 5,200-weight one. The ease and certainty with which it works are beautiful. They are laying the foundation for one of 5 tons or 12,000 pounds. While they are about it, I wonder they do not make a 10-ton hammer at once. The only difference would be in the cost of the foundation and the first cost of the machine itself. For the waste heat from the furnaces would keep up the steam, and a 10-ton hammer could be made to strike as gentle a blow as one of ½ ton, while the ½-ton or the 5-ton will not strike the blow that can be given by the 10-ton.

Our own little one of 500 pounds is working out our roof eyes with such rapidity that it seems as if our job was too small a one to justify its purchase; while, if I had not bought it and had undertaken to do the work by hand, we would have found it a most difficult and tedious, endless job.

We have had a die of cast iron made like this sketch to put in place of the individual face and the large, flat hammer face to cover the whole of the die. [Sketch] <sup>174</sup>

The center pin is of steel and does not rise to the level of the anvil face. The eyes, which are about 5½ inches wide, after being forged between the common hammer and anvil face, are reheated and laid over this die. A few blows of the hammer spread the material to nearly the full size and indent the center hole. The iron is turned over and the other side treated in the same way, and iron in the center is driven up to the other face of the die and nearly cut out. One more hammer and it is then removed to a punching anvil, and with a hand sledge and punch, the loose center piece is driven out. Once more put into the die, and a few blows finish it. These eyes thus made for the suspension rods are as much alike as dollars or other coins. The saving in time and labor is immense, and the saving in iron is considerable, for

<sup>&</sup>lt;sup>174</sup> See illustration on page 40.

a dozen hits would be needed to do the same work by hand sledging. 55 that had been roughly shanked and rounded under the hammer were yesterday finished in this way by the one hammer.

Cooper and Hewitt's Andover iron sent to be tested is reported by Mr. Champion to be as good as his scrap iron. It bore the bending and welding, drawing, punching and heating in an extraordinary manner. So that he said he could not say which was best, the scrap or the Andover. It is offered at \$85 per ton.

\* \* \*

[DEC. 16 CONT.] I finished today the drawing of the testing machine. It looks quite well. Next week I hope to make the rest of the designs for the roof and to complete the other end of the testing machine. I have not determined which power I shall use, whether a hydraulic jack and lever and two jacks with a lever or a single hydraulic ram. The latter, Mr. Ellis thought, would be much the best, and he wishes to make it for me for \$500, but I believe I can \_\_\_\_\_\_ the lever and my two jacks to get the necessary power much more cheaply.

\* \* \*

DEC. 17. Sunday. At church this morning. Lou is very despondent today. The memory of Hal comes over her and she feels so deeply the loss. All his friends have probably heard that she cannot control herself. Mrs. Rodgers still seems hopeful. Was very much encouraged by the last telegraphic news of the *Albany*'s having been at Carthaginia on the 10th of October. I wrote to Robert Rodgers <sup>175</sup> today in answer to a letter received from him yesterday. I think he has given up all hope.

We have a mild, warm, damp day. If this weather continues, I shall be able to do a good deal of work yet this winter. Vaccinated the baby today.

[DEC.] 18. Monday. This day's papers confirm the intelligence that the *Albany* was at Carthaginia on the 10th of October. This affords a ray of hope.

The morning was warm, but towards night it became cold and the mist and drizzle cleared away. I spent the day in answering some letters and in drawing, principally. I made some changes in the drawing of the roof of the Capitol to prevent the contact between the copper and iron frame. I believe most of the details of this are now worked out. Mr. Ober draws much better than when he came. He, like most mechanical draftsmen like him I have known, does not keep his paper

 $<sup>^{175}\,</sup> Robert$  S. Rodgers (1809–1892) was Louisa Meigs' brother. He was married to Sarah Perry, the daughter of Commodore Matthew C. Perry.

clean. It seems as if the oil of the shop stuck to them all their life. I spoke to him today about it, and I hope there may be some improvement.

I had a letter from Mr. [William B.] Walter of Philadelphia in regard to his glass, but he did not answer one of the questions I [asked?] him, as to the time he might require to make the quantity wanted. I wrote again to him to say in what time he could undertake to furnish it and that if his answer was satisfactory, I would give him the order.

Cooper and Hewitt offer their iron at \$85 per ton, including freight to this place at \$86.50, and either scrap or puddled Andover iron. I have sent the specimens to the Arsenal to be prepared for the proving machine. If the tenacity be as great as the trials of the hammer indicate, I shall probably order the Senate roof from this iron.

I have directed one of the caps for the vestibule columns to be begun. This is the tobacco and corn leaf cap. Mr. Walter had asked me to have them cut from Italian marble, saying that he did not believe they could be made of our Lee marble. I told him that I would at any rate try some of Lee marble, and if we found on trial that this would not do, then it would be time enough to buy Italian.

I think that Heebner will leave the quarry, that he is at variance with Rice, and that he will not remain with him, that Rice will buy the whole from him, and that then we will have trouble. I think myself, from all that Heebner said, that there will be a disruption. But how Rice can buy him out, I do not see, for Rice must know that he cannot carry on the quarry without Heebner's assistance. He knows nothing about quarrying, and he has too many other irons in the fire to attend to this without some such assistance as Heebner's.

They have been writing to Mr. Walter to know whether there is any way in which they can get to spend this winter. They tell me that it will take about \$25,000 spent this winter to make a proper preparation for a good start in the spring; that if they can get this sum, they will be able to do so, but otherwise they say they will continue to be crippled and delayed by the want of money. They wish to get hold of the \$15,000 security retained till the completion of the contract. This is, of course, out of the question. And I told Mr. Walter that I had no relief that I could give them. I hope they will yet make up their matters of difference and raise the money necessary to carry on their work in a proper mode.

I was occupied in the office so completely today that I did not go out into the workshops as usual.

Mr. Denham, my chief clerk, returned today from Boston. He looks quite well, says he has gained 15 pounds of flesh and is quite restored to health, that he was becoming in such a state after leaving here that

he could not think at all. He has certainly had a long absence; but if his former devotion to business had injured his health, he had a right to a release till recovered. He is now examining the books and payrolls made since his absence, to see whether they are all correct.

Tomorrow I hope to complete the design for the roof's installation, leaving only to the draftsman the task of putting the details together. This Mr. Ober can do. I have to color all the drawing, however, myself, for he knows nothing of coloring.

\* \* \*

DEC. 19. I received today, and paid for them, a bill of lading for a bolt cutter and a lathe with 10 sets of taps and dies for cutting screws. These are made by Gage, Warner and Whitney of Nashua, New Hampshire.

Our work on the roof goes on well. I have finished very nearly the details for the roof skylight and its connection with the other parts of the roof. I have concluded to make the tie beams of the Senate roof in 3 pieces each and thus to dispense with such large joints as I have used in the roof of the House of Representatives. This will be a considerable saving.

\* \* \*

[DEC. 19 CONT.] When I went back to the office, Mr. Walter told me that he had had one of the most troublesome men in Congress to see him, Mr. Lyon of New York. That he was very rough in his manners and his conversation. That he said we were going to smother them in the House of Representatives and to shut them out from the light of heaven. The air heated by hot water is enough to kill an ox. He allowed after some time that the windows had some beauty, but he told Mr. Walter that his dome was a botch. He had been rambling all over St. Peter's of Rome, and his own house is heated with hot water, so he considers himself a judge of all matters relating to heat, ventilation, and to art! I presume this must be the Honorable Caleb Lyon 176 of Lyonsdale. A nice gentleman he must be, from Walter's description of him. He is to come again to see us in a day or two, and I shall probably have a chance to see what I can do with him. I heard from Kurtz this morning that Mr. Lyon was very much opposed to all my proceeding at the Capitol extension. Colonel Anderson had told him that he wished to see me and put me on my guard against him.

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<sup>&</sup>lt;sup>176</sup>Caleb Lyon (1822–1875), Independent of New York, served in the House of Representatives, 1853–1855.

[Dec. 19 cont.] I sent 4 specimens of Cooper and Hewitt's iron to the Smithsonian Institute today to be proved. 2 of scrap iron and 2 puddled iron from their own \_\_\_\_\_\_.

[DEC.] 20. I had a visit today from Judge Kane <sup>177</sup> of Philadelphia, Father's friend. He was much pleased with what he saw, complimented me upon the substantial manner in which it is built, admired Crawford's designs for the pediment, etc. Senator Rockwell <sup>178</sup> of Massachusetts came in, as he said, to make my acquaintance. He was brought in by Mr. Crocker. He says he only wants a chance to vote for the aqueduct. I work, when not interrupted, upon the roof of the Senate Hall, \_\_\_\_\_\_ of which I completed.

\* \* \*

[Dec. 20 cont.] The drawings of the ceiling of the House of Representatives are now ready to be sent to New York for modelling.

\* \* \*

[DEC. 21] Mr. Walter tells me that Senator James sent for him this morning to tell him to use his influence with me and have the engines and fans for ventilating the Halls of Congress made by his friends and constituents in Providence, Thurston[, Gardner] and Co., the same firm that made the engine in the blacksmith's shop. They have made this one engine for us, and I think they charged too much for it, so that I do not feel very much disposed to ask them to make another.

James, Mr. Walter says, wishes to have the new dome begun. Walter feels not disposed to encourage this. I told him if they wished it, I should like to have it done, for I wish to have the credit and the pleasure of building this dome. He says that he feels as if all this work was taking brains, and he would not live forever, that we have enough now on hand. For my part, I want to build a great dome, and I hope that this one is the one for me. 100 feet in diameter and 260 feet high. It would be something worth doing.

Mr. Hayward, of the firm of Hayward, Bartlett and Company, of Baltimore, was in the office today. He looked at the drawings of the ceiling of the House of Representatives and was much pleased with them. I finished painting the drawing of the roof, which I have been at work upon for some days.

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<sup>177</sup> John K. Kane (1795–1858) was a judge of the U.S. District Court for the eastern district of Pennsylvania

<sup>&</sup>lt;sup>178</sup> Julius Rockwell (1805–1888), Whig of Massachusetts, served in the House of Representatives, 1843–1851, and in the Senate, 1854–1855.

[DEC. 21 CONT.] Mr. Walter says that we will not be able to build the Capitol for the original estimate now, that the changes in the windows and in the thickness of the marble slabs will increase the cost. I hope, however, to do better than he thinks. We have a large part of the work now done. There is still, however, a great deal of marble to be cut, and the cornice will be very costly.

[DEC.] 22. In forging the eyes for the suspension rods of the roof of the House of Representatives, I find that 3 have been broken by careless working in the die. One is broken off square, another is cracked off through and quite open. This being the case, it makes the more evident the propriety of proving them all in a machine before trusting them. I directed one of the eyes to be planed smooth, that I might have it beaten [?] with an acid to see the direction of the fiber. I expect to find that the working in this way has so arranged the fibers as to give great security against fracture.

The Honorable Mr. Chamberlain of Indiana, a member of the Committee on Public Building of the House of Representatives, came into the office this morning and looked over the plans generally with great admiration. I showed him, also, our roof, with which he seemed interested, and explained to him the mode of calculating the strains upon its parts. He is a good politician, I believe, and a self-made man, but not one of much education.

After dinner, I went back to the office to draw for a while. There is something quite fascinating in this drawing of machinery of these combinations of iron into roofs, and I like to work upon them.

\* \* \*

[DEC. 22 CONT.] My mind is running very much on the subject of the dome for the whole Capitol. I spoke to Mr. Chamberlain about it today, and he seemed not only to admire it much but to be willing to put it in train to be built. I revel in the construction of this work. The mechanical details and process would be just the most agreeable study I could have. I would like to put up a foundry and cast and mold the whole by this work. The cranes and cupolas and planing machines and the other tools necessary for its construction would be a constant source of occupation and delight to me.

[DEC.] 23. Mr. Walter left this evening to make a short visit to Philadelphia and New York. He wishes to rest a little and to see his father, who is ill and infirm. We had some talk about the prospects for an appropriation for the dome. He says that Senator James, who is anxious to have it begun, probably because he hopes that his friends in Providence may get some share of it, said, when he told him jestingly

that if the work was to be done, Captain Meigs would get a shop put up and men employed by the day to do the work here, that that would never do. He told him to tell me the next time he saw me on the subject that we would probably divide the work among several shops, so as to get it done quickly. He said that he would see James on his return from New York after the holidays and correct his error. I must caution him, however, against telling him, as from me, that I have said no such thing, for it will give James, who is not a man to be trusted, a chance to think that I have agreed to do this in order to get his influence for the project, and he will be asking still more than he does now for the job for his Providence friends, Thurston, Gardner and Company.

I believe that in the present state of the trade, the better way to do this work would be to divide it among many. Yet, if all things were going on as they did this summer, I should prefer to put up a cupola and cast the parts of the dome from patterns made by ourselves. Probably we would make our own patterns, in any case, in order to have them of uniform size and workmanship.

The newspapers teem with accounts of the distress among the working classes. I cut one today, relating to the iron trade in Baltimore, from a paper and sent it to Senator Pearce, to make it the text for a discourse upon the propriety of beginning the dome at once. I hope that it will be done by adding some \$100,000 to the appropriation for the extension and a proviso for replacing the present wooden dome by a proper fireproof structure. It is a work that I should delight to build.

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[DEC. 23 CONT.] I drew most of the day upon various details and drawings of the Senate roof. Mr. Fitzpatrick has gone off to get married. He wished me a happy Christmas before his departure. He seemed to feel his situation and walked with a higher step as he thought of his approaching dignity. Poor fellow, I hope his wife has some money to help them live, for his pay is not sufficient to support them in much comfort, and he is not of the stamina, unless I misjudge him, ever to be anything more than a clerk, and a clerk in a low station, too. For he is unkempt and slovenly, though able to write as beautiful a hand as anyone I know.

This is Hal's birthday, poor fellow! Where is he now? The best we can hope for him is that he is cast upon some desolate shore and waiting with his men the coming of some vessel to take them all. It saddens our Christmas to think of him thus. Mrs. Rodgers bears up bravely against her despair. I fear that we will never more see his honest and manly face. His young wife wrote lately to his mother. She writes with

hope but with anxiety. Says that she bases her hope in God and in Him only.

[Dec.] 24th. Sunday, and the day before Christmas.

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[Dec. 24 cont.] On going upstairs last night about  $11\frac{1}{2}$  p.m., I found Louisa at work labelling her modest Christmas presents. Poor Lou, she feels our poverty particularly at this season, for she would like to give, and give liberally, to all her friends.

\* \* \*

[Dec. 24 cont.] We are poor, but I read in the daily papers of so much great distress in the northern states among the working classes that I feel as if we were fortunate in being so well off as we are. For though we can indulge in few luxuries and are obliged to practice a more rigid economy than we have ever found necessary, we yet have everything which is really necessary for life and comfort. I feel the privation less than my wife, for I am daily engaged in occupations which gratify me almost as much as though I were buying a building for myself instead of for the United States. If I can get the appropriation to go on and build this great dome over the rotunda of the Capitol, I should be much pleased and gratified as if it were for myself.

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[Dec. 24 cont.] There are in Baltimore alone, it is said, 1,000 persons thrust out of employment by the depression in the iron business. Upon these depend probabaly 5,000 persons; for, allowing to each 5 as his family, including himself, this would make 5,000 persons who must seek this winter a new mode of support. What misery this promises this winter. I sent the paragraph containing the above statement to Senator Pearce yesterday with a note asking him to move in the matter of beginning the dome. This would offer employment to many men now out of work.

\* \* \*

DEC. 25. Christmas Day. The children waked us up this morning by singing a Christmas hymn.

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[Dec. 25 cont.] I have been looking at drawings of the domes today, being perfectly occupied with the desire to build the dome of the Capitol and to make it more beautiful and graceful than any other. Both St. Peter's and St. Paul's are, I think, ungraceful in their outline, and

I believe I can make a better one than either, though I cannot open the foundation proper to make one of as great span.

This phonography is a most seductive system of writing. I find my-self writing when I have really nothing to write, but seduced by the beauty of the forms and the ease with which the thoughts are put upon paper. The contrast is so great with the slow and laborious method of the old style, when "style" was written "style" [longhand] instead of "style" [in shorthand symbols], when "amount was not replaced" [longhand] by "amount was not replaced" [in shorthand symbols]. If I had learned this when I was a boy, and even when I tried to learn shorthand by Gould's illegible system while I was a cadet, I should have saved a vast deal of labor and have collected in notes and commonplace books a vast deal of knowledge, which I have lost now for want of some such method of recording that which I had learned.

We went over to Henrietta's tonight, where the children had gone earlier to spend their Christmas evening. Bayard and Hen have spent a good deal of money in making the Christmas pleasant to their children. After coming home, Lou and I had a discussion of our affairs, the conclusion of which was that we were very poor. My own pay is about \$1,800, father gives me regularly \$300, and probably irregularly \$200 more, making \$2,500. Mrs. Rodgers pays in—she has the money—at the rate of \$600 for herself and Jerusha's board, making \$3,100. All this goes, without house rent, in supporting and feeding this family. Were we living anywhere in the country upon such an income, we should be rich. Here we have never a dollar to spare or to save. The end of the year is approaching, and I shall not be able to put by one dollar.

DEC. 26. Heebner was at the office today. Talked freely of his affairs with Rice and says that he is determined to leave the marble contract or get Rice to leave it, that he will no longer work with him, that he has lost confidence in him. Rice promised to have plenty of money, as he had sold his market and his bonds in the spring. Upon this promise, Heebner gave him his notes for \$39,000 to raise money upon, <sup>2</sup>/<sub>3</sub> of which, or thereabout, was for Rice's own business accommodation and not for the quarry. The plentiful supply of money never came. He says that he has never received cash to the amount of more than perhaps \$7,000 for the use of the quarry from Rice, but has been obliged always to draw upon Rice, at 60 days, Rice thus getting the use of the money for 60 days for his private purposes, Heebner being obliged to get the notes discounted at Lee. They have had a regular quarry. Rice was to meet him at the quarry and started for that place, but finding it very cold and snowing when he got to Bridgeport, he turned back.

The *Sea Witch* is at the crane, discharging. I have caused Mr. Pampian to repair some of the bolts of the crane, to be charged to the contractors, in order to save time and to have it done at a fair cost to them. For they have been cheated or too fair in all these repairs when done by their agents. Some repairs made some time since, Mr. Walter says, cost them \$60 when it should have cost perhaps \$20.

Heebner left by the 5 p.m. train, saying that he would be back again in a few days.

[Joseph R.] Anderson came in, too. He says the iron business is slack.

I showed him the results of the trials of Cooper and Hewitt's iron, which I received from the Smithsonian only this morning, a few minutes before he came in. He was well pleased to find that his iron proved its superiority and Hewitt's did not go above an average of 54,000 pounds to the square inch, while Tredegar is nearly about 65,000. I gave Anderson an order for 40 tons more of the "L" iron, 3 inches by 2 inches ½ inch, and promised to send him an order for more of the heavy iron for the Senate roof. He said he has not in 16 years known so bad a time for businessmen as the last few weeks. He has had many persons fail to pay him sums due and has saved his credit only by the greatest activity and personal exertion.

I was disappointed in the results of the trial of Trenton Iron, but these results agreeing with those of the same ores and the ores from the same region at the Navy Yard, I can not doubt their correctness, and I have made up my mind that I can do no better than buy Tredegar iron for the Senate roof. The price of the Tredegar is now taking off 5 percent of their former price, only \$86.12 per ton, delivered here, as they guaranty freight not to exceed \$1 per ton.

I spent some time, though much interrupted, in trying to make some progress with a design for the dome. I think the sketch I have made is a better outline than the one Mr. Walter and myself settled upon before, and I wish to have something to do with this design myself. I can make a little greater height and more graceful outline and a very noble and beautiful interior arrangement. I have in the *Parallele des Edifices* most of the domes in the world of any celebrity, and I think mine is better than any one of them. I only wish I had it to begin from the bottom. Then I should get a greater span than anyone. The famous Panthéon of Paris is only of 60 or 70 feet span. The church cost 17 millions of francs, which is \$3,400,000. There are in this church and in many of the other domes great beauties of detail, and the inside effects are generally better than the outside ones, I think. With ours, I hope to have both good.

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[Dec. 26 cont.] I took Anderson to see the steam hammer work and showed him how we made our dies. He was much pleased with the mode in which we arrange and form these eyes in dies. It would save him a great deal in making Ballman's [?] bridges. He has a hammer of 1,500 pounds \_\_\_\_\_\_. Champion wants to take out a patent for these dies.

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[DEC. 27] Father sent me a note from Judge Kane, the father of the Arctic explorer, <sup>179</sup> who was here some days since. I showed him the drawing of the Capitol extension. He is a great friend of my father's. It is he who offered, if I was required to give bonds, to go upon my bond, though he then knew me only as my father's son, never having seen me. I must copy the note, as it is so flattering to me. I do not feel puffed up by it, nor is my own estimate of myself changed by this praise from a gentleman of some distinction. He overestimates my ability, I think. It is as follows:

My dear Doctor:

I returned from Washington on Thursday, after forming there the acquaintance of your son, Captain Meigs, and engrossing too much of his time in examining his plans for the Capitol. He is one of the most striking men it has been my fortune to meet with. He has more breadth of design, capacity of minute detail, and refined artistic taste than I have ever known united in an individual. And I was delighted, as I thought of you, to learn that this was also the judgment of men whose praise is synonymous with merit, but who valued him much more for his scientific attainments and his admirable self-worth.

From all that I could gather among the Members of Congress, his aqueduct scheme is to be successful at the present session.

Very faithfully yours,

J.K. Kane.

Girard Street, 23rd December.

\* \* \*

[DEC. 27 CONT.] I sent to Tredegar Works today an order for the remainder of their iron for the extension of both wings, or rather for the greater part of it. There is still some to be estimated for in those parts of the roofs over the committee rooms for which I have not yet arranged the distribution of the beams.

<sup>&</sup>lt;sup>179</sup> Judge Kane's son, Elisha Kent Kane (1820–1857) led an expedition to the Canadian arctic and Greenland, 1853–1855. In 1856 he published a popular book about his adventures, *Arctic Exploration*.

I met Honorable Mr. Phelps <sup>180</sup> of the Committee on Ways and Means today and asked him why our appropriations are not in the bill. He stated they must have been left out of the estimates. I got a copy of them, however, and sent him a note referring him to the page where he would find them. For the water works, he was not prepared to say that he would give us money. For the extension, he is quite willing to give it.

Making the estimate for the iron took up all my spare time today so that I could not do anything about the dome.

[DEC.] 28. Mr. Stone <sup>181</sup> stopped today to see me about an Italian painter named—I forget. 182 He has been in Mexico lately, painting a church, is from Rome, which place, like all his countrymen, according to their own account, he left for political reasons. Mr. Stone said he had told him that I could not employ him without seeing anything of his work. And he had offered to paint a small piece if I would give him a room, a piece of fresh wall, as a sample of what he could do. After some conversation carried on in bad French on both sides, I gave him the size and shape of the lunette filling the elliptical arch at one end of my office, and he promised to make and send to me a design for an allegorical painting of agriculture, supposing that the room might be occupied by the Committee on Agriculture at some future day. He spoke very confidently of his own skill, said there was no fresco painting in America, only tempera. He said he had a picture to paint for a church and another for a hotel. He said he would be here in March and paint his specimen, but I told him that the determination of these things rested with Congress and that the legislators went away in March, so that if he wished them to see his painting, he had better do it earlier. Upon this, he laughed and said that the church would be there always, Congress would pass, and he would paint this first. He is a lively old man with a very red nose, either from Mexican suns or French brandies. Is an [éléve] of some Roman academy, knows Crawford, the sculptor. Was employed with many other artists in the decoration of the house of the banker Torlonia in Rome, which he says is very splendid, painted in fresco. There was with him another man, a handsome young man, either French or Italian, I did not understand

<sup>&</sup>lt;sup>180</sup> John S. Phelps (1814–1886), Democrat of Missouri, served in the House of Representatives, 1845–1863. He was on the Ways and Means Committee in the Thirty-fourth Congress (1855–1857).

<sup>&</sup>lt;sup>181</sup> Dr. Horatio Stone (1808–1875) was a physician who became a sculptor in Washington. Three of his sculptures are in the U.S. Capitol: Alexander Hamilton, Edward Dickinson Baker, and John Hancock. Stone served with Meigs on the vestry of St. John's Church.

<sup>&</sup>lt;sup>182</sup> This was Meigs' first meeting with the artist Constantino Brumidi (1805–1880), a Roman who immigrated to the United States in 1852. After painting a sample fresco in 1855 as described by Meigs, he continued to decorate the Capitol until his death twenty-five years later. He designed and painted many committee rooms, the first floor hallways in the Senate wing now known as the Brumidi Corridors, *The Apotheosis of Washington* on the canopy of the Rotunda dome, and began the frieze in the Rotunda at the base of the dome.

which, who is a bronze worker. For him, I had nothing. He acted as interpreter for us whenever the painter failed to understand my bad French or I failed to comprehend his, which was about as bad.

If I had not so much else to do, I should study French. I have had more occasion to use it here lately than in all my life before. So many artists come to see me, and I have some artists and other workmen who are French, and I have to talk to them in their broken and imperfect manner.

A Mr. Cooper <sup>183</sup> came to me, with a letter of introduction from Mr. Corcoran to Mr. Walter. As Walter was out of town, he brought me the letter. He is one of the parties engaged in the manufacture of enameled glass, of which specimens were placed in my office sometime since by Mr. Achiver. He is to bring some large pieces as specimens tomorrow morning.

Mr. [William] Bryan was at the office today. I showed him my sketch for a dome and he said, not knowing whether it was pretty or not, that it was tall. The small drawing of Walter's design, which is neatly, skillfully drawn in outline by August, he evidently liked best, though he did not quite say so. He said he knew so little of such things that he did not know whether he liked it or not. I told him that it required a cultivated taste to choose between two designs or to understand in what way one might be better than another.

Mr. Stone, to whom I showed both and also Walter's large drawing of the dome, gave an absolute and decided preference to mine as superior in richness, in grace of form and in fitness. He passes for a man of taste, I hope properly.

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[Dec. 28 cont.] I painted up the part of the large drawing of the roof of the House of Representatives, which was the first drawing on which I began to design these roofs but which seems to be the last to be finished.

Yesterday I wrote to the *Scientific American* a description of the die or swage in which we forge our eyes. Champion is so much pleased with it that he thinks he ought to have a patent. I have sent to the paper a description for them to publish, that the country may have the benefit of it and that we may have the credit of it before some other person claims it and patents it. It is certainly a great economy and will be generally used in all such manufacture. As for the invention, it is no invention but a necessary consequence of the use of a die or swage in the steam hammer for forging this work. I directed Champion to make a former and die of wrought iron in which to finish

<sup>&</sup>lt;sup>183</sup>Cooper and Belcher of New York was a glass staining and enameling company.

these eyes. He thought better to make it of cast iron and to make in the middle a print to mark the place for the hand punch. Thus: [Sketch]

Observing the effect this print of ½ inch in height had upon the iron which it partly loosened, he thought that a higher one would punch it out entirely. The cast iron was then poured out and a steel pin rising nearly to the top of the die inserted. This is the whole thing, and it works beautifully. And to anyone making many iron bridges or many eyes for shop work, it is worth thousands.

I told Champion today again that it was discovered by persons in government employ, working with government tools in a government shop; the expense of the trial, the risk of failure and loss belonging to the United States, and I thought that to the United States belonged the majority of the discovery. If a patent were taken out, the United States might be compelled to pay for what was in effect its own discovery. He assented to the justice of this view, at least so far as this job was concerned, but thought that for the thousand other jobs, both public and private, an inventor had a right to his patent. I told him that the United States was the people of the United States. They had paid for the discovery and to them it belongs. I presume the *Scientific American* will print it, and thus it will be made public and become public property.

I ordered the glass for the House of Representatives skylight today from William B. Walter of Philadelphia. He thought he can make it in about 6 weeks after beginning upon it. Has a job that will take him some 3 weeks now on hand.

DEC. 29. The appropriation for the Capitol extension has passed the House of Representatives in the army bill, where it was put by the Committee on Ways and Means, because it was an appropriation to be expended at the direction of the War Department

I see by the *Globe* of this evening that General Cass <sup>184</sup> stated that he would expect the chairman of the Committee on Finance, Mr. Hunter, when the bill came up for consideration, to state what provision had been made for the ventilation of and hearing in the new chamber. He referred to the expensive experiments made in vain in the new British Houses of Parliament and hoped that better success would result from any experiments that may be tried here. I hope the General is not going to give me any trouble in this matter. I have been in the habit of considering him to be a friend of mine. Not that he

<sup>&</sup>lt;sup>184</sup>Lewis Cass (1782–1866), Democrat of Michigan, served in the Senate, 1845–1848 and 1849–1857. He was the unsuccessful Democratic nominee for president of the U.S. in 1848 and was known as "General Cass" due to his previous military service. He served as secretary of state in the Buchanan administration, 1857–1860.

should leave me to do wrong or without account, but I hope no one has been putting into his head notions against my plans.

I showed Walter today my sketch for the dome. He returned last night and was at the office this morning. He was very decided in his opinion that his is better but offered to have both worked up so that they could be [compared]. It was evident that he is disgusted that I should attempt such a thing as design a dome. He would like to apply to me the rule which he enunciated the other day when speaking of employing a young man who represented himself as an architect. He would not let him design a line. He wishes to have all the credit to himself, and he will always claim all the credit of all the design of the Capitol, plans and all, I suppose, hereafter. The fact is that his designs for the interior are his but little more than they are August's [Schoenborn], for they have been made upon my directions. The arrangement of the rooms is mine. The form of the ceiling is mine. The style of decoration is that which I directed. And the mere details of leaves, etc., are worked up by him as they would have been by August or any other draftsman. He had not a dome in the building. I have introduced many. He thought any pendentive dome could be made where he had not height enough to make a hemisphere. I showed him that very flat elliptical domes might be made upon pendentives. The flowers and leaves are his, but only adopted after having been subjected to my criticism and approval after alteration to make them suit my taste in almost every instance. So that, in fact, the design is quite as much, if not more, mine than his.

As for the very dome which he will call his, it is very different from what he first proposed. He altered and changed in consultation with me. Made 4 or 5 different \_\_\_\_\_\_ at the top of it before he got one which I would approve, and then that, he said, was far the most beautiful. And for its construction he followed my hints. Yet he would never allow that I had the least claim of any merit in this design. I told him when it was finished that it was good, the best I had ever seen, but that it would require much more study and many changes before it would be in form to be built, and to this he agreed. Now I think that the design I have sketched out as a sketch is much better than the other. Whether it will work up as well, I can not tell till I try, and that I wish to do. If better, I shall try to have it built. Even if I am obliged to take my proper share of the credit of its design, he has assumed the whole merit till I am getting tired of it.

Captain Barnard <sup>185</sup> of our Corps is here. I met him at the Interior Department today and took him up to the Capitol and showed him

 $<sup>^{185}</sup>$  John G. Barnard (1815–1882) served in the Corps of Engineers. He was superintendent of the U.S. Military Academy at West Point, 1855–1856.

over the work. He came to spend the evening here. His deafness is a great advantage to him. It makes him seem stupid, but he is a man of great intelligence. He was much interested in looking at the work.

The glass man, Mr. Cooper, was at the office with his glass this morning and took up too much of my time and bored me. He had some beautiful glass, however, and left some specimens.

B. B. French, <sup>186</sup> the Commissioner of Public Building, came in with his brother. I showed him the designs of Crawford. He asked me about making the roof of the Patent Office. He said that he was offered its construction by Janes and Beebe 187 of New York at 7 or 8 cents a pound and asked me whether Ellis could do it. I told him that they could do it, but whether cheaply or no, I did not know; that I had a roof to make and I was making it myself and doing it much cheaper than they could. He said he wished to give it to someone in this city. He would always give them the preference if they could do it as cheap. He would stand up for our citizens. I told him it was well if they did it cheaply but it was not right to give them a preference in price. If they could not make work as cheap as others abroad with the advantage of being on the spot, they ought not to have it. This he agreed to. He is not the right sort of person to have in charge of such important works. And I do not believe that the United States is getting work done as cheaply or as well as it ought. He is no more capable of building this roof as I am doing than of flying.

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[Dec. 29 cont.] I increased the pay of Pampian today for the past month since he has been in charge of the roof, as his duties are now as important as those of any other man on the work, except perhaps Rutherford. I was a little disappointed today at Walter's decided preference for his own dome. And this was foolish, for what else could I expect from him but to prefer his own bantling and to think it very presumptuous in me to offer another?

DEC. 30. I went to see General Cass this morning in order to talk to him about the notice he gave yesterday in regard to my ventilation and acoustics. He was out. I saw Miss Isabella <sup>188</sup> and gave her the note and pamphlet in regard to it, and she promised to speak to him and that he would read it. She says he is a friend to me and has often spoken of me in terms which show that he would not do anything intentionally to embarrass me. Spoke kindly of Hal and the long sus-

<sup>&</sup>lt;sup>186</sup> Benjamin Brown French (1800–1870) served as Commissioner of Public Buildings, 1853–1855 and 1861–1867. He was clerk of the House of Representatives, 1845–1847.

<sup>&</sup>lt;sup>187</sup> Janes, Beebe, and Co. of New York was an iron manufacturing company. It was later called Janes, Fowler, Kirtland and Co. and provided the iron for the dome.

<sup>&</sup>lt;sup>188</sup> Isabella Cass was a daughter of Senator Lewis Cass.

pense to which his friends and wife have been exposed, and was very friendly and pleasant.

I wrote to Mr. Hunter also, sending him a copy of the report, as he would probably have none left, and preparing him to answer if he chooses to do it and is interrogated by Cass. I was at a loss for the origin of the Cass movement, but I hear from Mr. Walter today that [Robert] Mills, the old architect, has been trying to bring out in the Union newspaper an article written with great care by Dmitri, a professor of something, somewhere, and a son-in-law of Mills. Asked the owner, Mr. Nicholson, 189 if he would give his columns for this purpose, and Nicholson promised to do so, saying he would open his columns for his article and have a rejoinder but would go no further. Before it was published, however, Nicholson asked the advice of Mr. James, Senator from Rhode Island, and in Bayard's absence Acting Chairman of the Public Buildings Committee. James told not to publish it and instead wrote an article praising Mr. Walter highly. I suspect this fellow Mills has got someone to go to Cass and fill him with doubts.

By the way, Mr. Crocker was in the office today, and he mentions that his house furnished the copper for the roof of the middle building of the Patent Office when Mills was architect and that they lost nearly the whole sum due for it. The fault he seemed to attribute to Mills, though he would not say precisely how he was chiseled out of it. He wants to supply the copper for the roof. Says he believes the Select Committee will give me no further trouble and will move to discharge from further questions concerning the Capitol, which he says will be a great advantage to me as it will be understood as an acknowledgement that I am unimpeachable.

Gage, Warner and Whitney's bill for shafting exceeds in weight the weight received by 153 pounds. I sent to them today a copy of their bill and of Tate's [?] report of this fact, and asked them to explain it. They have been paid, the agreement with them being to pay upon delivery upon cars, and I paid upon bills of lading of the goods shipped from Boston. I suppose they reached gross weight on the weight of shafts and pulleys after turning. This is the proper weight, however, for the price is 12 cents per pound too much for the gross untrimmed weight of the iron.

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<sup>&</sup>lt;sup>189</sup> Alfred O.P. Nicholson (1808–1876), Democrat of Tennessee, served in the Senate, 1840–1842 and 1859–1861. From 1853 to 1856, he edited the Washington *Union*. In 1861 he was expelled from the Senate for supporting the Confederacy.

[DEC. 30 CONT.] Messrs. Hendricks 190 of Indiana and Houston of Alabama came to the office today, and I showed them the perspective drawing of the building and took them up into the House of Representatives and showed and explained. They seemed pleased and satisfied. While up there, I saw Mr. Davis of Indiana and Jones of Tennessee with Mr. Walter, who was showing them the corridor of the House of Representatives and had been trying the effect of sound in the Hall not under very good circumstances, for the day was not a still one and there was some noise at the time from persons about the building. But they said they had no difficulty in hearing. They all came together and had some joking, asked when the room would be finished. I told them that I had promised the Secretary to have that room finished by the next meeting of Congress. Jones said that was too soon, I could not do it. I told him to wait and see what was possible. Houston said if that was to be the case, he would be a candidate and try to come back again next year.

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DEC. 31ST. Sunday, and the last day of 1854.

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[DEC. 31 CONT.] I have been engaged since the adjournment of Congress last summer in building the Capitol extension. Before that time, I was busy, too, with the waterworks, but the money for that work gave out in the mid-summer, while they were still in session, and no other appropriation being made for that, I was relieved by want of funds from any great occupation with it after July. For the Capitol, I had at my disposal over \$1,000,000, and for the waterworks I had a hundred thousand when the appropriation was first made. But not so much at this date of last year, part of it having been spent in the fall. I have spent in all since last December the sum of (blank).

The Capitol has risen with its interior walls to the height of its roof, and that roof is now being made in the shop, which I have built. The exterior walls are now waiting for the completion of the windows of the 2nd, the principal, story. These windows are very expensive, the [bracing?] of them being very elaborately carved. They cost for the work about \$1,000 each, and the stone costs some \$500 more. I have had about 500 or 600 men employed all the time at the work. And there have been at the quarries; at the brickyards; at the forests from which the lumber, the firewood for the brick, comes; in the boats bringing sand; in the vessels bringing marble and other materials in the

<sup>&</sup>lt;sup>190</sup>Thomas A. Hendricks (1819–1885), Democrat of Indiana, served in the House of Representatives, 1851–1855, in the Senate, 1863–1869, and as vice president of the U.S. in 1885. He was commissioner of the General Land Office, 1855–1859.

factories, the lime and cement; in the machine shops, making machines and cast iron in the foundry and rolling mills making the iron, a vast number of others who have in part, at least, derived their living from this work, and thus have, through my hands, obtained some good. All this money has passed through my hands and has gone from me faithfully and honestly to him to whom it was due. Thus I have been channeled to good and have prevented injustice being done as it is supposed it was done before I took charge of this work.

In all this there is happiness.

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[Dec. 31 cont.] Dear brother Hal, my wife's brother, has not been heard from. I do not now expect that the *Albany*'s crew will ever again return to their country. We do not \_\_\_\_\_\_ to Mrs. Rodgers to give up all hope of her son. And the chance, though possible in the infinite power and providence of God, seems to be past now from among those which would justify hope.

For the next year, I trust that I may have the happiness of being able to resume work upon the aqueduct, and to complete the Halls of Congress, though not the whole building, and to obtain such an appropriation from Congress within a few days as will enable me to begin and finish, before they meet here next year, a dome of iron in the place of the present wooden one, which disfigures the Capitol. Higher by 140 feet, graceful, substantial and lasting as human works can be. This I would like to put up by such machinery and by such means as would make it seem like fairy work. No dome of the magnitude of this has ever been built on a great public building except by years of toil. This one being of iron, I could build with the money in a few short months.

I have learned, since I have been in Washington, among all my other occupations, to write this phonography. I find that I have written these past two pages at the rate of 36 words to the minute, which includes the thought as well as the mere writing. Writing from my son John's dictation this afternoon, leaving out most of the vowels, but not all, and using no phraseograms, I found that I could write about 72 words per minute. This diary is written, then, at a rate which seems deliberate to me while writing it but which is as fast as I can write in my own longhand by pushing the pen with the utmost rapidity in which to put my thoughts very legibly upon paper. And if I were now writing in a hurry, it seems that by leaving out the vowels, though it makes it more slowly legible to me at present, I can write just twice as fast as this.

This comes by the practice of writing in this diary daily, for I have no other except a little occasional practice here in the evening. I suppose that by this time next year, I shall be able to report a pretty rapid speaker if I give any attention to this part of the art. And, at any rate, I shall be able to write in my diary and in my original notes, the latter written at the rate of 100 words per minute, four times as fast as I could write in any way before I began to study phonography.

My clerk, Mr. Fitzpatrick, whom I requested to learn the art, that he might be able to read my letters if written in this way, has not taken upon himself the trouble to study it. He has asked me once, however, in the course of the year, to increase his salary. Had he learned to read and write as I told him and as he might have done by proper employment of the spare times he has in the office, he would have received the increase. As it is, he does not.

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