Letterpress Copy, RU 33, Smithsonian Archives. In a clerk's hand, except for the signature.

1. Henry was the executor of the wills of Alexander Dallas Bache and of Nancy Clarke Fowler Bache. True, *National Academy*, pp. 362,

363.

2. Nancy Bache had died on January 13. She bequeathed \$5,000 of her husband's estate to her nephew Henry Wood Bache (*Henry Papers*, 6:452n), whom the Baches had adopted in the 1840s. He was unemployed and living in Philadelphia at her home when she died. Desk Diary, January 13, 1870; True, *National Academy*, p. 362; Henry to Morton P. Henry, January 18, 1870; Henry to Julius Hilgard, February 4, 1870; both in Private Letterpress, Henry Papers, Smithsonian Archives.

In addition to the bequest of \$5,000, a codicil to the will directed that her home be sold after her death, and that \$5,000 of the proceeds be invested in income-producing securities for Henry Wood Bache, with the principal to go at his death to the National Academy of Sciences (to be added to the Bache Fund). True, *National*

Academy, p. 363.

3. Nancy Bache's will directed that her husband's medals and diplomas, as well as a large photograph of him, be deposited with the academy. True, *National Academy*, p. 363.

4. After Bache's death, Nancy Bache had entrusted her husband's library to Henry to dispose of, preferably by selling to public institutions. She received proceeds from sales prior to her death; afterwards some of the proceeds went to pay her funeral expense and the rest to the Bache Fund. Henry to Edward White, August 5, 1867, RU 33, Smithsonian Archives, Desk Diary, March 18, 1870; Henry to Morton P. Henry, January 18, 1870, and April 4, 1870, Private Letterpress, Henry Papers, Smithsonian Archives.

5. The Annual of the National Academy of Sciences, which had appeared in 1865, 1866, and 1867. True, National Academy, p. 374.

6. Simon Newcomb was investigating the orbit of Uranus. In December, he had given Henry cost estimates for making mathematical computations and preparing tables. The Smithsonian, rather than the Bache Fund, would pay these costs. The work was published as An Investigation of the Orbit of Uranus, with General Tables of Its Motion, 1873, SI Contributions, vol. 19 (Washington, 1874). Newcomb to Henry, December 28, 1869, RU 26, Smithsonian Archives; Smithsonian Report for 1870, p. 18.

138. TO ASA GRAY

Smithsonian Institution March 22nd 1870

My Dear Professor

General Capron has referred your letter of the 19th Febr'y¹ to me, and I am pleased to learn from it that you are disposed to push on the arrangements for finishing the Report on Forest trees.

I have been informed that Dr Engelmann, though a good botanist, is too much occupied with professional business to be able to give much attention to the investigations required for the report.² I learn however that he has completed the study of some classes of Forest trees,³ and what he has done may perhaps be obtained for the work, while his services in preparing other parts might be secured. It appears to me that if you could get some young man of the proper character, who would work under your direction the desired results would be the soonest and best attained, but on this point, as on many others, I defer to your judgement.⁴

I think the work could be made to pay the cost of its production if judiciously put on sale.

I hope you will find time to give this matter the necessary thought as well as to favor us with a visit. The weather for a few days past has been delightful, and we shall in all probability, from this time forth, have such air as Mrs Gray would be benefitted in breathing.

The National Academy meets in this city on the 12th of next month. I have renewed the motion, which was lost two years ago, to have but one session a year, and that in Washington.⁵ The propriety of this was evident at the last meeting in Northampton, where not more that one fourth of the members were present.⁶ The legacy of Dr Bache, amounting in all to about 50,000 dollars, will tend to preserve the existence of the Academy and enable it to accomplish something for science.

You have probably learned that two societies^A have been organized in opposition to the National Academy; one in New York under the name of the National Institute,⁷ and the other in Washington with the title of the American Union Academy of Arts, Literature, and Sciences.⁸ The first was incorporated by the State legislature at Albany, two years ago, but as yet has done nothing more than the making up of a programme of what is intended to be done. I was elected as the president of one of the Academies of which the Institute is composed; but gave no other attention to the matter than that of offering the advice that from the many men of princely fortunes in New-York, a fund of one million dollars should be obtained for scientific research, accompanying this advice with the statement that, without such a motive power, nothing of importance could be accomplished.

The other establishment has lately been organized in Washington. It is composed of the judges of the various courts, lawyers, and other persons not necessarily connected with science. Dr Draper of New-York is the President, and a part of its programme is the uniting of all the scientific and literary societies of the country under it as the great head. Will the American Academy of Arts and Sciences, or the American Philosophical Society, consent to such an arrangement? It has been surmised that this organization has an eye to the Smithsonian funds, after, if not before, I take my departure. Be this as it may, I fear it will be made a political engine, like the old National Institute, I for the advancing of private interests. I was much surprised that Draper consented to accept the Presidency; he was however unjustly left out of the list of the members of the National Academy.

We are much in want of a local society for uniting all the men of science in this city in one organization, and this may perhaps be done

through the National Academy, although the manner of accomplishing the project is not quite clear to my mind.¹³

The Board of Regents, at their last meeting, adopted a resolution ↑declaring↓ that I be requested to take a vacation of six months to visit Europe, for the benefit of my health and the advantage of the Institution, and that two thousand dollars be appropriated to defray the^B expense. ¹⁴ I have not yet definitely concluded to accept this liberal offer, as there are some matters, at present, connected with the Institution, which require my especial attention. I should not think of it, were it not that my daughter Mary, who has been confined to her room for two months, may be benefitted by the voyage. ¹⁵

I am at present very anxious as to the future of the Institution. Though the funds at present are in a very favorable condition, I fear that the income from them will in time be entirely absorbed in local objects; or fall under a political influence. To prevent the latter event, nothing should be asked from Congress, while on the other hand the keeping of the museum and the expenditures on the building are constantly absorbing more and more of our means. Congress allows us four thousand dollars, (\$4,000), annually for keeping the museum, while the actual cost last year was fifteen thousand, ¹⁶ besides the interest on one hundred thousand, the cost of the reconstruction of that part of the building devoted to the museum. The^C whole expenditure on the edifice, since the fire, has been one hundred and forty four thousand dollars, ¹⁷ and before the whole is finished and rendered fire proof, at least seventy five thousand dollars more will be required.

The proper plan is to induce Congress to make a liberal appropriation for a museum worthy of the Nation, and leave the Smithsonian fund to be expended in the more direct method of advancing science. The Regents of the Institution might take charge of such an establishment, and give the present building for the purpose, with the exception of one of the wings which would be abundantly sufficient for the transaction of the Smithsonian business.

With kind regards to Mrs Gray I remain as ever

Yours truly Joseph Henry

Dr A. Gray Cambridge Mass.

Historic Letters, Archives, Gray Herbarium Library, Harvard University.

In a clerk's hand, except for the signature and the inside address. Letterpress copy: Private Letterpress, Henry Papers, Smithsonian Archives. Reply: March 23, 1870, Henry Papers, Smithsonian Archives.

1. Not found.

2. George Engelmann (Henry Papers, 7:593n) was a physician from St. Louis, Missouri, and president of the St. Louis Academy of Science. He had worked with Gray on collecting and studying western flora. Elliott, Dictionary; Charles A. White, "Memoir of George Engelmann," Biographical Memoirs of the National Academy of Sciences, 1902, 4:9.

3. Henry may be referring to one of the papers Engelmann published on pines during the 1860s. During the span of his career, Engelmann also published papers on American oaks and spruces. C. S. Sargent, "Botanical Papers of George Engelmann," Botanical Gazette, 1884, 9:71; William Trelease and Asa Gray, eds., The Botanical Works of the Late George Engelmann (Cambridge, Massachusetts, 1887), p. viii.

4. Gray replied that Engelmann had more time than he and was very efficient with his time. He thought Charles C. Parry, who was employed by the Department of Agriculture, could work with Engelmann on the report. The only way Gray could complete it, given his workload, was for Henry to help Gray get time off from Harvard and help him obtain \$1,500 to \$2,000 annually for a few years from the Department of Agriculture.

Gray had earlier written a letter to Capron, possibly the letter of February 19 mentioned by Henry, advising that the report be done by Engelmann and Parry. Desk Diary, March 3, 1870.

- 5. Henry made the motion at the meeting in January 1868. At the April 1870 meeting, an amendment to Henry's amendment was approved, designating Washington as the location of future meetings but specifying two meetings a year to be held in April and October. Minutes, January 25, 1868 (p. 254), and April 14, 1870 (p. 316), Archives, National Academy of Sciences.
- 6. The meeting in Northampton, Massachusetts, held from August 31 through September 3, 1869, was attended by only thirteen members. Proceedings of the National Academy of Sciences, 1863-1884, 1:73.

7. The National Institute of Letters, Arts and Sciences. See Doc. 105.

8. The correct name was the American Union Academy of Literature, Science, and Art.

9. This academy was organized in Washington on November 1, 1869. Officers included John William Draper of New York University, Joseph Casey, chief justice of the United States Court of Claims in Washington, George W. Samson, president of Columbian College, Thomas W. Bartley, former chief justice of the Supreme Court of Ohio, and A. R. Spofford, head of the Library of Congress. The American Union Academy of Literature, Science, and Art (Washington,

1869), pp. 3, 5.

10. In his reply, Gray ridiculed the notion that the established academies would "come under the guardianship of these paper institutes." Nonetheless, to prevent either of the new academies from taking root, he advised Henry to make Washington the permanent seat of the National Academy and "not only hold all your meetings there but elect in all your men. young and old." He also advised that "those living at a great distance" from Washington and "not in U.S. science" should be made corresponding members. "Then your academy," Gray contended, "will be a welcome associate" of the American Philosophical Society and the American Academy of Arts and Sciences, and "not occupy a position which is somewhat offensive, or would be if its former assumptions could be made realities."

Henry responded that he would "make a move towards bringing about the plan you suggest." Henry to Gray, March 28, 1870, in the same location as this letter.

The most significant motion adopted at the April meeting of the National Academy of Sciences was a resolution offered by Lewis M. Rutherfurd that the president address a memorial to Congress asking for an amendment to the original charter "in such a manner as to remove the restriction to the number of its members" (Minutes, April 15, 1870 [p. 319], Archives, National Academy of Sciences). On May 4, Senator Henry Wilson would introduce a bill to remove the limit on the number of members. The bill passed on July 14. Congressional Globe, 41st Congress, 2d Session, May 4, July 14, 1870, pp. 3207, 5597.

A recommendation for an amendment to allow election of fifty associates was rejected at the meeting. Minutes, April 14, 15, 1870 (pp. 316, 319), Archives, National Academy of Sci-

ences; Desk Diary, April 15, 1870.

11. The National Institute for the Promotion of Science, which had been organized in Washington in 1840. Prior to the establishment of the Smithsonian, supporters of the National Institute had tried to gain control of Smithson's bequest and to make the institute into a national museum. Henry Papers, 6:xxvi.

12. Draper would not be elected to the National Academy until 1877. Henry Papers,

10:297n, 304n.

13. The following month, on the evening before the meeting of the National Academy, Henry made this notation in his diary: "A meeting was held this evening at 71/2 oclock and General Meggs to consider the formation of a scientific society in the city of Washington as an auxiliary to the academy- After much discussion it was resolved to endorse the election of associates and elect as such a sufficient number to hold meetings in Washington." Desk Diary,

April 11, 1870.

14. At the meeting of February 3, on the motion of John Maclean, the regents resolved that Henry be granted three to six months leave to visit Europe "in behalf of the interests of the Smithsonian Institution" (Rhees, Journals, p. 352). According to a later letter of Henry's, Chief Justice Salmon P. Chase "warmly advocated" the proposition, which Henry had been "entirely ignorant" of when it was presented. Henry to William Backhouse Astor, May 27, 1870, Private Letterpress, Henry Papers, Smithsonian Archives.

15. According to Henry's diary, Mary was suffering from an "affection of her throat" (Desk Diary, February 19, 1870). Henry himself had never fully recovered from a severe cold of the

previous summer. Henry to Thomas Sterry Hunt, May 3, 1870, RU 33, Smithsonian Archives.

16. In his annual report for 1869, Henry stated that the \$4,000 appropriation stemmed from the time when the Patent Office maintained the museum in the 1850s. The collections had increased threefold in size since then, while the currency had depreciated "to one-half its former value." Smithsonian Report for 1869, p. 14.

17. This figure is higher than those given in the annual reports of the executive committee. For the years 1865 through 1869, the reports gave a total cost of slightly under \$131,300 (two of the years included the cost of furniture). Henry's figure is also higher than the one given in a report of the executive committee in 1873, which gave the total cost of reconstructing the building after the fire as \$136,000, excluding the cost of furniture. Rhees, Journals, pp. 533, 538, 542, 546, 549, 563.

139. HENRY DESK DIARY

FRIDAY, APRIL 8, 1870.^A

Hazy.^B Cloudy.^C

1 Engaged on an address to the national academy which meets on Tuesday next.

2 Directed that inquiry should be made as to the number of pages in Morgans memoir which is apparently exceeding the number estimated.²

3 Sent yesterday a map and gave ↑a copy his observations↓ to Dr Hayes of arctic notoriety.3 He called in the evening—wished me to use my influence to have the matter of the exploration referred to the academy. This I said I could not do but if the matter were referred to the academy I would appoint a committee which would do justice to the subject. He expressed the opinion that it were better to stop the appropriation than have it expended under Capt Hall⁴—with ↑this↓ I did not concur. Hall called on me to day in great distress on account of the probability that his enterprise would be stopped by the intermedling of Dr Hayes.⁵

Henry Papers, Smithsonian Archives.

1. The president's annual report to the academy. See Doc. 140.

2. The typesetting of Lewis Henry Morgan's six-hundred-page memoir, Systems of Consanguinity and Affinity of the Human Race, was well underway by this time. On the same day as this

entry, where Henry expresses concern about the length of the publication, Henry wrote Morgan to deny his request to add an appendix of about fifty pages on Indian migrations. Morgan to Henry, January 31, 1870, and March 21, 1870, RU 26, Smithsonian Archives; Henry to Morgan,