treated and received as good fare as the rebels gave to their own men. He looks well and is apparently a very worthy and promising youth.

Mary Henry Copy, Family Correspondence, Henry Papers, Smithsonian Archives.

1. Not found.

2. The *National Intelligencer* of May 30 reprinted a *New York Commercial Advertiser* piece taken from the *London Times* of May 14 and 15. Referring repeatedly to General Joseph Hooker's criticism of other Union generals, the *Times* reported Hooker's late-April crossing of the Rappahannock above Fredericksburg, part of what the writer termed the "fifth Federal invasion of Virginia." After noting all of the Union army's advantages in troop strength and condition, equipment, transport, and communication, and the benefit of experience from four failed campaigns to capture Richmond, the *Times* raised the possibility of a failure similar to that which followed Ambrose Burnside's crossing of the same river in December. The *Times* piece was written before word reached England of Hooker's defeat at Chancellorsville by Robert E. Lee's smaller Army of Northern Virginia. The battle was fought during the first days of May, and Hooker's forces retreated across the Rappahannock on May 5. Long, *Civil War Day by Day*, pp. 342–349.

3. Henry is referring to the May 28 exhibition of Lt. George H. Felt's signal rockets.

178. TO LOUIS AGASSIZ

Smithsonian Institution, June 10, [1863][A]

My dear Professor

On my return from New York, where I have been on Light House business, I find your letter[1] on my table and am gratified to learn that you are pleased with the specimens from the Arctic region which we have presented to your museum.[2] The collection and distribution of new materials for the advance of Natural History is an important object of the special mission of the Smithsonian Institution while the description and preservation of specimens does not, in my opinion, form an essential part of the general plan of the establishment, and should be devolved on other parties who are willing and able to discharge the duty. The general investigation of subjects of Natural History within the Smithsonian edifice would require a corps of workers, each an authority in a special line, and would thus establish a precedent, the following of which would be demanded for other branches of knowledge and finally require the support of an Academy, the cost of which would far exceed the income of the bequest. The existence of the Smithsonian show museum is due simply to the fact that the Government made the institution the curator of its specimens. Had the exploring expedition[3] never been undertaken, the Institution would not have been obliged to expend more than 30 thousand dollars, instead of 325 thousand on a building.[4] The mere excess of the interest of the latter over that of the former sum,[5] would keep in the field a large number of explorers, who would collect sufficient specimens, in a

few years, to supply all the museums of the world with full illustrations of the products of the American continent. But it is not alone of the original cost of the building I have to complain, but also of the great expense of keeping it in repair and the constant and natural tendency to absorb, in the increase of the specimens, an undue portion of the income. From the experience I have had of the great cost of the moving, arranging, and preserving the specimens, even those of mineralogy, I am more and more convinced of the necessity of restricting the number of statistical objects, and the importance of distributing the duplicate specimens, as rapidly as may be, for the increase and diffusion of knowledge among men.

Since, however, we are, at least for the present, obliged to support a museum, we should study to render it, as far as possible, subservient to the general policy of the Institution, by making such collections as are not usually found in the museums of this country and can be preserved with comparatively small expense. With this view, I am much in favor of collecting all the specimens of ethnology, which can be procured, to illustrate the antiquities of this continent, and to make the best use of the talents and skill of Dr. Matile,[6] in procuring casts of such as we cannot procure of the originals. I have given the Dr. all the facilities the Institution affords for the prosecution of his labor. He sleeps in a room in one of the towers of the Smithsonian building, and is provided with all the tools and materials necessary for his operations. He devotes his long mornings, before nine o'clock, and his evenings, after eight o'clock, most assiduously to his work and has already made a large number of molds, from which indefinite numbers of casts can be produced. In accordance with your suggestion, I have written to Dr. Leidy,[7] as to which of the fossils from the Bad Lands are most worthy of reproduction and I have also conferred with Mr. Lesley, of the American Philosophical Society, in regard to the loan of the Mexican antiquities belonging to that establishment for the purpose of making casts of them.[8] I have not forgotten the proposition, in regard to the exploration of the coal region of Pennsylvania, by Lesquereux[9] and am ready, at any moment, to advance that portion of the expense which may fall to the share of the Institution. I send you, by the mail which carries this communication, an official letter relative to the acceptance for publication of a paper by Mr. Meek,[10] which was examined by you while visiting Washington. I fear Mr. James Hall will not be well pleased to see a paper, in our transactions, on this subject from this source, but the affairs of the Institution cannot be suffered to be influenced by personal prejudice. Whatever may have been the conduct of Mr. Meek in regard to Mr. Hall, I have found him modest, industrious, and reliable. He has spent most of the time, for three years

past, in the Institution without any expense to the Smithsonian fund except for light, heat, and a corner in which to place a cot bed.[11] He has lately, however, made an exploration, in behalf of the Institution, in the green sand region of New Jersey and, this morning, started on an expedition in one of the government vessels, in order to collect specimens along the Potomac. For the expense of these two expeditions, the sum of 150 dollars has been appropriated by the Institution. He brought back from New Jersey a large number of specimens and I doubt not he will reap a rich harvest in his present field of exploration . . . .[12]

To: Prof. Louis Agassiz

Mary Henry Copy, Henry Papers, Smithsonian Archives.

1. Of June 2, 1863 (Office of the Secretary, Incoming Correspondence, RU 26, Smithsonian Archives).

2. The Museum of Comparative Zoology at Harvard. The Smithsonian provided many duplicate specimens to the new museum. Edward Lurie, *Louis Agassiz: A Life in Science* (Chicago, 1960), chapter 6.

3. The Wilkes Expedition, formally known as the United States Exploring Expedition of 1838–1842.

4. The cost of the Smithsonian Building cannot be attributed solely to the institution's need to house the government collections. Although the legislation called for a "suitable building, of plain and durable materials and structure, without unnecessary ornament" (Rhees, *Documents* [1901], *1*:432), Robert Dale Owen and regents representing Washington's interests had successfully pushed for a large and highly ornamented building. Henry had argued against a costly building since his earliest days as secretary. See, for example, *Henry Papers, 6*:599, 604, 608, 612–613.

5. At 6 percent simple interest, the difference would be about $17,700 per year.

6. George Auguste Matile (1807–1881) was a Swiss lawyer who had emigrated to the United States in 1849 and become an American citizen in 1856. He taught history at Princeton in the mid-1850s and then French literature at the University of Pennsylvania. After 1863 he held various government positions in Washington. *Appletons' Cyclopaedia of American Biography* (New York, 1887–1900).

In a letter of June 3, Matile urged Henry to publicize his availability at the Smithsonian as a molder and caster of specimens in the fields of natural history, ethnology, and archaeology. He suggested that Henry mention that he was recommended by Agassiz and had worked for him. He promoted the advantages of sharing casts between collections and pointed out that European museums routinely included molding shops. In his annual report for 1864 (pp. 24–25), Henry mentioned Matile and the molding project. He noted that the work had been suspended but would be resumed as means allowed. Matile to Henry, June 3, 1863, Office of the Secretary, Incoming Correspondence, RU 26, Smithsonian Archives.

7. Letter not found.

8. In the annual report for 1864 (p. 25), Henry mentioned taking molds from the American Philosophical Society's "large collection of specimens of Mexican art, primarily images and masks." A list of molds made by Matile is in a volume labeled "Catalogue U.S. Exploring Expedition" in Box 2, United States Exploring Expedition Collection, 1838–1885, RU 7186, Smithsonian Archives. It includes molds of items from the APS.

9. Leo Lesquereux (1806–1889) had left his native Switzerland during the revolutions of 1848 and settled in the Boston area, where he worked on plant classification for Agassiz. He became the first expert in the United States on fossil plants and particularly on coal plants. His three-volume *Coal Flora of Pennsylvania* (1879–1884) was an outgrowth of his work on the Museum of Comparative Zoology's fossils between 1867 and 1872. *DSB.*

10. Letter not found. The publication is possibly F. B. Meek and F. V. Hayden, *Paleontology of the Upper Missouri,* 1865, SI Contributions, vol. 14 (Washington, 1865), although that was not accepted for publication until May 1864 according to the title page. The referees were Isaac Lea and James D. Dana, not Agassiz. Many of the specimens described had been collected by Hayden during the Warren Expedition; the material was originally intended for publication

in Warren's official report to Congress but was offered to the Smithsonian when Congress failed to publish the report.

11. Meek had actually been living and working in the Smithsonian Building for five years. Doc. 26.

12. According to the *Smithsonian Report for 1863*, p. 39, Meek collected "a complete series of shells to illustrate the tertiary formation of the seaboard of New Jersey and Virginia." The shells were being labeled for distribution to colleges.

179. TO ALEXANDER DALLAS BACHE

Washington June 25th 1863

My Dear B.

At the meeting of the commission last night admiral Davis called up the subject of the telegraph and read a report which he had prepared to be signed. I informed ↑him↓ that I had some doubt as to ↑the↓ practicability of Green's method as applied to all the wants of the Navy and that without actual experience I could not decide whether the method of repetition of signes or of intervals of time was the best.[1] Saxton inclined to the method of intervals,[2] and Davis said that he only intended to recommend Green's method for fog signals, and would rewrite the report to make it clear on that point, before sending it to you for consideration and your signature. Thus limited in its application I think we may recommend Green's method although even for this purpose I doubt whether it is preferable to the method of Babbage.[3]

We have had quite a number of meetings of the commission since you left and have decided a number of propositions the most important of which was one from a friend of Senator Mc.Dougall[4] for a method of constructing frames of ships with hollow tubes of iron.[5] The Senator was present at the meeting of the committee to insure his friend a proper hearing.

I have nothing new in addition to what you have heard from the newspapers. There is considerable solicitude among the less hopeful citizens in regard to an attack on the city through Maryland which has had, as I was informed yesterday, quite an effect on the price of property in the city.[6] I do not attempt to speculate on the future, but strive to do my duty as a Loyal citizen. I was informed by a gentleman on Saturday[7] that one of Halleck's staff told him that Halleck[8] knew nothing of the plans of Hooker—that he was not consulted as to the crossing of the Rappahanock at the time of the affair at chancellorville.[9] The sanitary condition of the city is exceedingly bad the whole atmosphere appears redolent with the effluvia of stables, hospitals, and of the stench of the canal. I am anxious that my family should leave for the north but they are not