

JOSEPH HENRY

First Smithsonian Secretary

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The single most important decision confronting the first Smithsonian Board of Regents in 1846 was the selection of the institution's first Secretary. As the Washington, D.C., newspaper the *National Intelligencer* alleged: "There has, perhaps, never been an occasion, in the literary history of our country, when so much depended upon the decision of so small a number of men."

Other contemporary newspapers claimed that "nearly a hundred" individuals had applied for the position, among them politicians, physicians, scientists, and journalists. But by the end of the selection process, the list of viable candidates had been reduced to two men.

One was Francis Markoe, Jr. In his mid-forties, Markoe was a clerk in the Diplomatic Bureau of the State Department, as well as the corresponding secretary of the National Institute for the Promotion of Science, an organization based in Washington and founded with the hope of receiving the Smithson bequest to establish a national museum.

Markoe had a botanical collection and was recognized as a mineralogist of some ability. But his most important qualification for the position of secretary was his extensive political connections. He claimed President James K. Polk, as well as current and former members of Congress and cabinet members, among his supporters. His selection would be a sign that the secretaryship was a post to be awarded on the basis of political patronage.

The other leading candidate was Joseph Henry (1797-1878). Henry's candidacy was based on the proposition that the Secretary of the Smithsonian should be the greatest living American scientist, someone with an international reputation.



Daguerreotype of Henry, ca. late 1840s. National Museum

of American History.

Few would dispute that Henry fit that description. In 1846, he was professor of natural philosophy (physics) at the College of New Jersey (now known as Princeton University). He had published scientific articles on a wide variety of subjects, including electromagnetism, optics, acoustics, astrophysics, molecular forces, and terrestrial magnetism, but his reputation was built primarily on his work in basic and applied electromagnetism.

Among his discoveries in electromagnetism were mutual induction, self-induction, the electromagnetic relay--enabling him to devise the first electromagnetic [telegraph](#) that could be used over long distances--and the concept of the electric transformer. He also invented the first electric motor.

Henry was often

referred to as the scientific successor to Benjamin Franklin. Commentators saw him as assuming the mantle of Franklin in the field of electricity and, to a lesser degree, all physical science. (One of Henry's admirers once sent him a chess set because Franklin played chess.)

Contemporaries also felt that, in the history of American science, only Franklin surpassed Henry. This judgment was echoed by leaders of the British and French scientific communities as well. For example, in 1842, British physicist Michael Faraday told one of Henry's students that "by far the greatest man of science your country has produced since Benjamin Franklin is Professor Henry."

Leading the effort on behalf of Henry was Regent Alexander Dallas Bache, the superintendent of the Coast Survey, a great-grandson of Benjamin Franklin, a graduate of West Point, and former professor of natural philosophy and chemistry at the University of Pennsylvania. He and Henry had been friends since the fall of 1833.

Fortunately for the cause of science in America, Bache was politically well connected. His uncle was vice-president of the United States (and chancellor of the Smithsonian), and one of his brothers-in-law was secretary of the U.S. Treasury. Bache combined a commitment to science with knowledge of the ways of Washington.

At the December 3, 1846, meeting of the Board of Regents, Henry was elected Secretary, with seven of the twelve votes cast. Just prior to the vote, the regents had made it clear what sort of person they wanted by passing the following resolution:

...that the Secretary of the Smithsonian Institution be a man possessing weight of character, and a high grade of talent; and that it is further desirable that he possess eminent scientific and general acquirements; that he be a man capable of advancing science and promoting letters by original research and effort, well qualified to act as a respected channel of communication between the institution and scientific and literary individuals and societies in this and foreign countries; and, in a word, a man worthy to represent before the world of science and of letters the institution over which this Board presides.

Henry's election was seen by observers in the press and in the scientific community as a victory of merit over political favor. A New York paper stated that "no man in the country has all the qualifications for this high trust, in a greater degree than Professor Henry. . . . [I]t has been an election where merit has shone forth preeminently above all the common and much abused forms of recommendation, and asserted its own inherent right to preferment." These were sentiments backed by the entire scientific community in the United States.



Some of Henry's experimental apparatus, including magnets, a battery, relay switches, and insulated coils. Photo by R. H. Rose. Princeton University physics department.

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