

South Orange N. Jersey January 15th 1878.

From Alfred Mayer

My dear Mr Edison;

Ever since my return home<sup>1</sup> your marvellous invention has so occupied my brain that I can hardly collect my thoughts to carry on my work. Its results are far reaching (in science), its capabilities are immense. I cannot express my admiration of your genius better than by frankly saying that I would rather be the discoverer of your talking machine than to have made the first best<sup>a</sup> discovery of any one who has worked in Acoustics.

Professor Wright of Yale College and I are engaged on a work on Physics.<sup>2</sup> I am senior in the work. It is our desire and ambition to introduce into it all really worthy American work. Heretofore we have depended in our college instruction entirely on foreign works such as Ganot, Dechenel, &c—<sup>3</sup> In Ganot, the work most used in this country the only mention of American work is a<sup>b</sup> short account of one of my discoveries—<sup>4</sup> which I sincerely think is far inferior to many—very many<sup>b</sup>—researches and discoveries of my countrymen.

I am now writing the part of the work on sound and nothing could give me greater pleasure—if it meets with your approbation—than to give a thorough account of your invention in our work on Physics.<sup>5</sup>

I wish to photograph of the instrmt for our engraver, and I also wish several of the records engraved to accompany it.

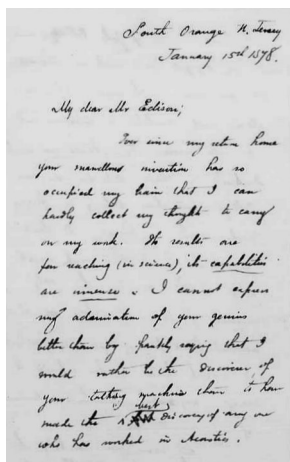
I<sup>b</sup> have devised a method which will, I think, give the elevations and depressions of the traces to  $\frac{1}{10}$  000 in.

To give a thor[ou]gh account of the invention I must experiment with it for, as no one knows better than you, one cannot really understand or appreciate ~~nea~~ a new experiment or apparatus ~~uti un~~<sup>a</sup> until he has drilled his hands & head to perform the experiments. Under the circumstances may I not ask the favor that you will receive from me an order for one of the new cylinder machines now making with the heavy fly wheels.<sup>6</sup> Surely, there is no one in the country who can appreciate your great invention more than I.

I would like the instrmt at as early<sup>b</sup> a day as possible because I want a month or so of experiments before I write about the instrmt in our book. If I can possess one of the instrmts then I can work at it whenever I wish.

I need not say that I shall be happy to see you whenever you will give us the pleasure of seeing you at the Stevens Institute With the highest esteem Yours very respectfully<sup>b</sup>

Alfred M. Mayer<sup>7</sup>



ALS, NjWoe, DF (*TAEM* 18:906). <sup>a</sup>Interlined above. <sup>b</sup>Obscured over-written letters.

1. On 29 December, Edison had invited Mayer and Henry Morton, president of the Stevens Institute of Technology in Hoboken, N.J. (where Mayer was professor of physics), to visit Menlo Park; they most likely visited on 13 or 14 January. Doc. 1156 n. 1; Brown Ayres to TAE, 20 Jan. 1878, DF (*TAEM* 15:187).

2. Mayer had begun the “Experimental Science Series for Beginners” (published by D. Appleton of New York) with a volume on light coauthored with journalist Charles Barnard, but Barnard was unable to continue the partnership. Mayer then joined with Arthur Wright, professor of physics and chemistry at Yale and later director of its Sloane Physical Laboratory, to continue the series. However, Mayer published the second and last volume of the series (on sound) by himself. Mayer 1878b, 5–8; *NCAB* 13:348; *NUC Pre-1956*, s.vv. “Mayer, Alfred Marshall,” and “Wright, Arthur Williams.”

3. Freely edited and adapted translations of various French introductory texts and popular expositions of physics—particularly those of Adolphe Ganot, Augustin Privat-Deschanel, and to a lesser extent, Amédée Guillemin—were widely used in both the United States and the United Kingdom from the 1860s into the twentieth century. See, e.g., Atkinson 1890 and Peck 1866.

4. Ganot described Mayer’s method for illustrating the reciprocal action of magnetic poles by the use of floating magnets. Atkinson 1890, 687.

5. Mayer 1878b; this included an illustrated section on the phonograph in its penultimate chapter, pp. 170–74. Beyond a basic description and explanation of the working of a cylinder tinfoil phonograph, the book contains only a very brief account of Mayer’s examination of the traces recorded on the foil.

6. Doc. 1166.

7. Alfred Mayer (1836–1897) had worked as a machinist, studied chemistry, physics, physiology, and mathematics, and taught at various colleges before organizing the physics program at Stevens Institute in 1871. Mayer was noted for research in several areas of physical science, including photographs of the August 1869 solar eclipse. An essay on his career had recently been included in a *Popular Science Monthly* series featuring the most eminent contemporary European and American scientists. “Sketch of Professor Mayer,” *Pop. Sci. Mo.* 10 (1876–77): 230–33; *DAB* and *DSB*, both s.v. “Mayer, Alfred Marshall.”