

#15

Letter from William Francis Magie to Dayton Miller on which text books the new young professor should use in his classes at CSAS. Magie was a professor at Princeton, where Miller had received his doctorate. Magie was a founder of the American Physical Society and its president (1910-1912)

Princeton
Oct. 24 '93

My dear Miller,

It is hard to know just what books to recommend. The best short treatise on thermodynamics is Briot – La Chaleur, but I suppose its being in French will make it unserviceable. Packer's Thermodynamics is very interesting, but it is not conventional enough to serve your turn. Alexander's Thermodynamics is no good. I think you can't do better than read Maxwell, with lectures on Fourier's theory and Thermodynamics treated analytically. In optics, we are almost as badly off. Preston's Light is first rate, but it is pretty large. Still by omissions you can finish it in a term. It may seem too descriptive & too little analytical, but it has all the essentials, & except for its size, it ought to suit you. I think it the best textbook in physics that I have ever seen. I know of no other book on light to recommend. Airy on the Undulatory Theory of Optics would hardly do.. it is too antiquated & does not cover enough ground.

In the end of Fleming's Alternate Current Transformer Vol. I is a full account of the Hertz experiments. If your boys can read German, they can use the volume published by Hertz, in which his papers are collected. Untersuchungen über die Ausbreitung der Elektrischen Kraft: Johann Barth, publisher. You will also find numerous papers on the subject in the Phil. Mag. - & Wiedemann's Annalen. It may be, likely is, that the technical Electrical Journals published translations or large abstracts of Hertz' work.

I am glad you are so well pleased with your work & so comfortably fixed.

Yours sincerely

W. F. Magie