

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. Parker'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 & Thermodynamics treated analytically.

In Optics we are almost as badly off. Preston's Light is first rate, but it is pretty large. Still by omission 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 text-book 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