

as regards ponderomotive force: I  
cannot make up my mind for  
certain how far I must give up  
free magnetism

I am now a disciple of Graham,  
that all matter is made up of  
the same single kind of <sup>ultimate</sup> atoms, +  
that there is no such thing as

disruption discharge, but only convection  
of atoms. But I wish you could  
find me a reason why H+Cl-  
exists, and not also H-Cl+.

I have been reading the  
"Electrician" this week with much  
interest.

I do wish I could get  
hold of you when you are here on  
June 4 and 5. But I am afraid

24/37 ST JOHN'S COLLEGE,  
CAMBRIDGE.

May 25. 1884

Dear Mr. <sup>St. John's</sup> Hall

Many thanks for Rowland's  
very interesting letter which I return  
here with.

I am still of opinion that  
<sup>the question</sup> "whether the gold leaf coating alto-  
gether in the manner of a "perfect  
conductor" or of a perfect non-conductor,  
in his experiment, is quite open.  
This on the following grounds. The  
matter started, or rather was  
reinforced, in my mind by the fact  
that certain German experimenters  
have tried, and got <sup>the</sup> Rowland  
effect: now? did they use continuous

gilding. Again my notion is that the strain constituting dielectricity is not held by the conductor but is rather self-locked in the surrounding medium and only uses the conductor as an abutment. The question is does whirling of the conductor whirl this strain round with it.

Of course it really abuts on (rather free ions) but molecules of the conductor separately; but I think we don't know enough of the mobility of these surface ions which go to forming electric charges to give a definite answer. Maybe we can say that the ordinary

idea of electric oscillations of the Hertzian type. The conductor implies mobility which is almost limitless? 24/37

I have had my M.S. back from the Royal Society for about a fortnight; and I am polishing it occasionally in my spare time. I would like to develop some of the points you indicated; but I am told that the authorities prattle very much at its present length, and so I have promised to try to cut out as much as I add. I am still in the Serbonian bog.

that with the numerous claims  
upon your time, the chances  
of a private citizen like  
myself will go to the wall.

Still if you give me an  
opportunity I will do  
my best to detain you.

Very sincerely yours

Harmon

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