

objections taken being ones which  
you allow I think that I am not open to.

In the abstract I also noticed J. J.

Thomson's descriptive scheme as cogent,  
but I strongly deprecate his filling space  
with two independent sets of lines of  
force + and - which were independent  
of each other.

I think the real trouble of any  
theory is still the magnetic effect on

Do you notice Kerr's result (Phil Mag.  
April) that in electric double refraction  
it is <sup>only</sup> light with its electric vector  
parallel to the imposed electric force that  
is affected. That seems of the essence of the  
thing. I suggest that the cause lies in  
the fact that  $\mu$  for the electric force  
is different from  $\mu$  for the light vibration,  
but that would make the effect absent  
when these are the same, which ~~does~~ not  
seem to be the case. Yours are Thomson

London, Apr 4. 94

24/38

ST JOHN'S COLLEGE,  
CAMBRIDGE.

Dear Mr. Gerald

Many thanks for your prompt  
reply. As you say I think there is  
not much left between us except  
matters of philosophy and sentiment.

As regards your animatistics I  
have not much to answer to. I  
should rather have emphasized that  
a proximate (not ultimate) theory  
of electric currents flowing in  
material circuits comes out  
complete in my view, - I say  
not ultimate in the sense that  
an atom of matter is not  
explained along with it. So far

I am content to make sure ground  
by that "postulate"; and there  
afterwards try again to advance  
further.

24/36

By "tangential force" I mean  
(I shall say) tangential component of magnetic  
force: there <sup>must</sup> ~~may~~ of course be  
a normal component as well.

I conceive that I am no  
more bound to explain why electric  
discharge along a cathode from  
atom to atom does not produce  
radiation to sensible amount  
than I am bound to explain  
why a chemical reaction is  
the most ~~does~~ not do so. (rather)  
mean that if the one is a valid  
objection, so is the other.

My trust does not involve deep any  
more than Stokes' "rotation" is a legend  
does so. I prefer for the present to  
leave the rotational elasticity as  
an ultimate property like  
inertia and continuity, because it  
is as simple a conception as one  
is likely to get at: but I quite  
admit that if one tries to explain  
it by molecular properties like  
gyrostatic ones, it requires some head  
of disconcertiveness. ~~But~~ I do not  
admit <sup>your alternative</sup> that a charged point  
has any axis attached to it.

Inferred to Heaviside's attempt  
in the abstract of the paper. A  
certain Sommerfeld has done better  
than Heaviside, but has been  
demolished by Boltzmann, the