Hardwick Parsonage,
Jan. 22/66

My dear young friend,

Tho' the screw is forced pretty tight today, I will slacken it a quarter of a turn for your sake--. The point you have mentioned has several times ~~occupied~~ come across my mind during the last few years. It never occurred to me, however, as to the lunar ellipse - but as to the position of the Solar System - which, it is obvious must be different, at any given moment, as seen, from its real condition. The apparent place, for instance, of a return at the moment of an occultation will be sensibly different from its real position, &c.. I have never once seen this mentioned - although several times I have seen some element or other of a planetary orbit with the addition of "corrected for equation of light" or something of the kind. It appears to me, not on theoretical grounds - I am not $\frac{1}{20}$ deep enough -

bt on theirs of common sense - that this, like a secular inequality, will all right itself - and I suppose the "annus magnus" of the equation will be the rotation of Neptune (not, however, if by virtue of that term all the included periods are then to be complete - if so the grand period would be incalculably long. I sh? think - but surely all would come round.) But how short a Comet - part of whose orbit lies much nearer to the sun than the rest? Its dimensions will be very sensibly affected. in the case of a very long ellipse - & the major axis & periods perceptibly changed from what they w? be found by computation excluding velocity of light. It w? be quite worth while to ask any computer if this has been ever done in long orbits embracing obs. at great distances - e.g. 1811, when the verification 12 months afterwards must have been affected by light passage -

So Donati as observed at its 1st & last ~~effect~~ visibility —
an orbit determined from [illegible] these 2
places, combined with one in perige, uncorrected for —tion of light, ought to
give a different ellipse from one deduced from 3
places near perige. — I should, I own, like
to know about this — & whether this might be
in part the cause of some discrepancies as to
Comets. — The Moon I shd. fancy wd. soon
right itself. —

I hope you have passed a right pleasant vaca-
tion, & enjoyed much the Soirée, which I hear
a good account of. — I fear I never thanked
you for your kind present of the Mathl. Soc. paper.

And now — ut meus est mos — I am go-
ing to give a little trouble — Id est — to ask one or
two questions with the Distinct Understanding that
you are Not to attend to them till you have conveni-
ent leisure. — One is this. —

All the Books, or nearly all, I have seen speak of the Electric
Current between the charcoal (or other) poles of a
great Voltaic Battery, as a dazzling arc of flame.

I never had an opportunity of seeing it but once - but then, tho' the two coke points were ignited to whiteness, there was a mere trace of flame between them - & Slater, whose battery it was, told me it was always so. And so did an intelligent man with whom I once travelled - And Tyndall in his Rede Lecture in- fers the same - speaking of the image of the two points on a screen, but no visible arc of flame. -

Where is the truth? Ground in a well too deep for me. If I knew Tyndall or Gassiot I could soon find out. I have a mind to write to Browning to ascertain it from Gassiot.

- Now for W. 2. I want to know whether the name of the Thermometer Scale Inventor, Reaumur should have an accent or not upon the E - in short whether it should be pronounced Ro-mure or Ray-o-mure. - I have now & then seen the accent, & think it more likely to have been omitted than inserted wrongfully. - These 2 matters touch my Chelt. Lectures in the Spring (D.V.) a course of 12. And another Edit. I am preparing for Cel. Objects -

so you see I shall learn more than enough to do. — I must add this scrap to tell you what good kind Mr. Huggins writes me this morning. —

Last week I got a spectrum observation of Tempel's Comet. The result is interesting, & a short communication on it was read at the R.S. on Thursday last. The nucleus is self luminous & probably of similar composition to the matter of the gaseous nebulæ. The Coma shines by light from another source, & there is reason to suppose that it reflects the sun's light. The paper is for the "Proceedings" — Is not this

Glorious! So old Schröter was right that the self luminos-
ity of the Nucl. altogether – & I believe it'll spread into hea-
there. Mrs Webb's very kind love & so are always

Ryder your friends

Yours Exceedingly

T. W. Webb

Mrs Webb thinks the Dog's head most beautiful but wants to know whether it is your dog's head or anybody else's dog's head!