



B, fixed arc.
 A & C, mounted on
 the bar, & the bar
 turns on the fixed
 centre t.

13/2

8 Upper Hornsey Rise. N.
 1894, Nov^r 17.

Dear Genl

Thank you for the references, which are
 of special use to me at present.

Mr. Common proposes to make a heliostat
 for the observing the eclipse of 1896, and I want
 to contrive a continuous movement to take the
 place of the sliding movement of one-mirror
 heliostats. I have already made one design, of
 wh^{ch} I am having a model made, and which I
 think wd really answer. It is based on the fact that
 if a circle rolls on the inside of another of double the
 diameter, each point on the circumference of the smaller
 circle will travel along a diameter of the larger. A is
 the smaller circle, B the ^{when fixed} larger, & to effect the rolling
 motion the ~~an~~ auxiliary wheel C is introduced, a
 band passes from m to n, another band from n round
 C in the screw direction & on to p. x is a lever
~~for~~ for completing the only adjustment wh^{ch} is necessary.
 s, a point on the circ^e of A (directly opposite q), is pulled
 by a tolerably strong spring in ~~the~~ towards r, a fixed point.
 q is the point that traverses in a straight line horizontally,
 and the spring wh^{ch} keeps all taut may be strong because s
 moves

not that he has done original work: and I hardly expect he will: it does not seem to be his line: but that his text books are of quite a different character from common text books on account of his learnedness if I may so call it — his full and intelligent study of the original memoirs of the best investigators, instead of having their work, as most of us only have it, as represented by others. This, which gives their special instructiveness to his text books, and which seems to me the special scientific merit of the man, wd not perhaps be any more exhibited by delaying. Besides, I have seen Abney, who I know has a high opinion of him, and who will I believe give active help in supporting his candidature.

There remains J. Mallet Puxer, about whom Joly wrote to me. I entirely agree with ~~him~~ ^{Joly} that he is a man who (so far as an outsider can judge) ought before this to have been put forward. But of course I do not feel myself competent to take the initiative. Wd it not be well to see Cunningham & see whether he wd ~~bestir~~ ^{bestir} himself about it. In regard, too, to standing, he takes precedence of all our candidates; so much so that I wd think this in itself a reason for not postponing him, wherever else is postponed. And as to whether any shall be postponed, it is altogether a question of what is best for ~~the~~ each man himself. I enclose 3 proposal forms, ^{wh. I already have} and copies of the list of candidates for this year which I thought ~~it~~ might help in be a useful guide in filling them up; and I can get another of the proposal forms, if you decide that it is the most judicious course to send them all forward.

The way I have come across that heliostat question, is by happening to have been put by the R.S. on the joint ^{Eclipse} Com^{tee} of the Royal & R. Astron^l Societies; and when Mr. Common proposed his design I thought it possible it might be improved on, so the Com^{tee} put off their decision for a month to give me time to mature what I had in my mind.

Give each of the children a kiss from me, if they can know whom who I am, and give Harriette my love.

Your affectionate Uncle
G. Houston Stoney.

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moves in a vertical line & therefore the work to be done against the spring is only ^{as it were} a differential. This will make the motion of g a very unimpeded one, and ~~this~~ the strength of the spring keeping all taut, the length w^l can be given to all the bearings & the places where they are situated, added to the possibility of getting bands that are practically unstretchable, ~~wd~~ I think result in an arrangement ~~wd~~ ^{& steadiness} ~~wd~~ work with the requisite astronomical accuracy. The whole arrangement may be mounted between guides, so as to be shifted to correspond with the part of sky under observation, in w^l case the motion of g to be provided by it need only be such as ~~wd~~ provide for from one to two hours' observation. I am really very much pleased with the prospect of its being successful, and if it is, it will certainly reduce the cost of the heliostat by a third, if not more, & produce a better instrument.

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As to our candidates. After I told you I intended to write to you the next day, I better thought me that it might be well to consult Boys about Wilson whom he knows personally. I expected to see him at the RS on Thursday, but he was not there; so I must endeavour to see or write to him within the next few days. As to the prudence of putting up Wilson this year I ~~wd~~ think ~~it~~ it important to know whether Boys ~~wd~~ help it forward. About him and Trouton, my impression is that the longer we wait, the better their position will be, & since they are both every year bringing out fresh original work, so that it ~~wd~~ do no harm to put their being proposed off if you think it desirable. But Preston seems to me to stand in a different position. His claim is not that