

Euler to Wettstein
Berlin, 9 April 1753
Letter 283 (2784)

[...] I have learned with a heavy heart of the sad news of the death of our very dear compatriot Professor Wettstein, our dear cousin and at one time very dear tutor. I wish to present at this occasion my heartfelt condolences, in view of the fact that you have just been brushed by afflicting blows to your dear family. God will preserve you after this.

I am much obliged to you Sir, for the piece by Mr. Dobbs that you have sent to me, I am translating it so that I can add it to the papers that we have printed on this subject, which are in addition to Delisle's map, and have an introduction to the Russian officer's letter in German and in French. I did not think it necessary to forward it to you along with the map, and Mr. Formey has assured me since that the French translation of the Russian letters had been inserted into his journal.

I hope that Mr. Dellfuss had a successful trip to India irrespective of how useful he is. Here he was a little too lazy, however without this little fault he would not have lacked for work here.

It never occurred to me to write anything against Mr. Delisle and if your published papers have spoken about it, it was a mistake occasioned by the release of the letter publicly.

As for the system concerning the acceleration of planetary motion, there should not be any opposition in England, in view that Halley was the first to discover it, and that the great Newton has admitted so in reference to the moon. The last issues of the Transactions have placed it out of doubt, and Mr. Mayer from Gottingen has exactly determined this acceleration. However, he has not yet published the details of his presentation; it appears in the second volume of the acts of the Gottingen Academy where he inserted his lunar tables. This calculation of acceleration is the

best and these tables are unquestionably the most accurate that we have had until now, since they do not vary from reality but by one minute whereas Halley's tables differ sometimes by more than 5 minutes. Just recently Mr. Mayer mentioned that he has taken his figures to a new level of perfection, in such a way that the error is no more than 30 seconds. After this round of calculations he could very well receive the longitude prize, it only requires to find the way to observe the distance of a star to the moon at sea so that the error of observation is less than 30" and then one can determine longitude to within a half degree of exactness, which is the standard and for which there is the prize of 20000 pounds sterling. Our good Mr. Bruckner is very far off and I strongly fear that his machine is often off by 10 to 20 degrees so that Parliament has not offered a prize for anything less than one degree in determining the longitude.

The gossip here is that the eternal *Uranography* has finally be completed, if in case this is true and that copies will be sent here, I repeat my incessant demands, with which I have caused you so much trouble that I am ashamed to return to the topic. That is my stock of tobacco is practically finished and that I would like a dozen pounds of tobacco to accompany the *Uranography*.

If I have forgotten to reply to you, Sir, concerning the objection that one has issued against the acceleration of planetary motion, is that this acceleration would be too small so that the astronomical observations can discover them, I only ask that you think of a time when the revolution of the moon was one second longer than it is today, and concede that this second would have escaped the detection of the most mindful observer. But once one thinks that 1000 revolution would require 1000 more time which is 16 minutes and from there 10000 revolutions would require nearly 3 hours more time, one would get the impression that even the most careless astronomer would notice it. For that is precisely the case of what has happened here.

The last number of the Transactions is numbered 494, and in case there are earlier numbers, I request that you send them to us. Since Mr. de Maupertuis' absence there have not been any

elections at the Academy, and upon his return Mr. Collinson will most certainly be proposed, as long as we know that it would please him and that he does not ask how much he will make. Would you please mention that I believe that he will be pleased by this honor.

We had built a factory here, from which we expected to pull gold from our silver, however the person has not yet succeeded, and there are many who believe that he will fail.

A thousand affectionate regards to Baron de Gorgier from Mr. Formey and all our compatriots, and in particular from my family which we offer to you and your wife, I have the honor of remaining with the most respected affections,

The enclosed "Mageron" is by Mr. Finch's brother, and I request that you provide my humble respects to his Lordship.

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