

what I have suggested offer Mess^{rs} Penn an Equivalent or Compensation for what they may lose in Quit Rents if the Line last run is established as a Boundary or Dividing Line instead of the true Tangent required. As the more I see the less I am inclined to think it practicable to describe on the Earth to a great Degree of Accuracy the Lines required to be run & am persuaded that the Appointment of so many Commissioners to carry the Articles of Agreement into Execution will much enhance the Expence, Variety of Opinions ever occasioning Delays & increasing Difficulties I cannot but wish His Ldp & the Proprietors of Pennsylvania had found a Gentleman in England whose Mathematical Abilities & Integrity they could have equally relied on, & have engaged him to come hither to direct & superintend the Work, if They had given such a One a Thousand Pounds for his Trouble they would in my opinion have saved Money & the Business would have been finished in much less time than it can be where so many are concerned & to be consulted. Even on the most trivial matter it is a rare Thing to find ten or a Dozen Men exactly of the same Opinion, how then can it be expected that the Commissioners appointed on this occasion to be as it were a Check on each other will always agree with respect to the Mode of prosecuting the Work? To say the Truth there has scarcely been a Meeting either under former Commissions or the present when those who came together did not differ in opinion about what ought to be done or the manner of doing it & I need not tell you how difficult it is for any Person to give up his own opinion out of Compliment to another. The Difficulty there is in running the Tangent Line makes me very apprehensive about that long North Boundary or East & West Line where an Error will be productive of very material Consequences. I observe what D^r Bevis says in favour of his Transit Instrument by which he supposes such a Line may be described with great facility, but I find upon a nice Examination that not one of the Instruments yet sent us is exactly graduated & fitted; & in running so long a Line there will be great room for Errors to creep into the Work. If the Glasses of the Telescopes are not exquisitely ground & fixed it is evident that the Surveyors will deviate, & I find there are scarcely two of several Telescopes which our Surveyors have tried that will answer & represent two distant Objects in precisely the same place & as to that you sent me last year it will not shew two Lines at 300 yards distance from each other equally distinct, but when one appears distinct & clear the other is obscure & indistinct; the Place of the Sun too when they are running makes a Difference viz. whether the Rays fall on the Eastern, the Western, or South Side of the Plumb