

After this the Clouds thickened, and covered the Moon till the End of the Eclipse, which was about 8<sup>h</sup>, 30', as near as I could gueſs through the Clouds.

The Night before the Eclipse, *viz.* 20 *December*, at 12<sup>h</sup>, 14', I ſaw the Moon eclipse a Fixed Star, which, I think, is in the Heel of *Caſtor*.

Theſe Two laſt Observations were made with an Eight Foot Telescope, my Watch being rectified to the apparent Time by correſpondent Altitudes of the Sun, taken with the before-mentioned Quadrant for ſeveral Days together, before and after the Eclipse.

I muſt aſk your Pardon for this long Trouble, and am,

S I R,

*Your moſt humble Servant,*

Cambridge in New-  
England, Dec. 30.  
1740.

John Winthrop.

III. *An Account of the Tranſit of Mercury over the Sun, Oct. 25. 1743. in the Morning, obſerved at Mr. Geo. Graham's Houſe in Fleetſtreet.*

*Read Nov. 3. 1743.* **T**HE Beginning could not be ſeen by reaſon of Clouds, but about 8<sup>h</sup>, 45', *Mercury* was ſeen (through a reflecting Telescope Three Foot *Focus*, magnifying about 50 times) about Four or Five of his Diameters within the Sun's Limb.

At Mr. *Short's* Houſe in *Surrey-ftreet*, *Mercury* was ſeen juſt paſt the interior Contact 8<sup>h</sup>, 30', 59'', through

through a reflecting Telescope Two Foot *Focus*, magnifying about 70 times; the Person who observed it says, that the Thread of Light between *Mercury* and the Sun's Limb was so small, as scarcely to amount to the 20th or 30th Part of *Mercury's* Diameter.

*The following Differences of Right Ascension between the Sun's preceding Limb and Mercury, were taken at Mr. Short's House.*

Sun's preceding Limb touched the	}	h.	'	"
Wire at . . . . .		10.	58.	55.
<i>Mercury</i> touched the same Wire at		10.	59.	40.

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Sun's preceding Limb touched the	}			
Wire at . . . . .		11.	48.	4.
<i>Mercury</i> touched the same Wire at .		11.	48.	32.
Sun's subsequent Limb touched the	}			
same Wire at . . . . .		11.	50.	20.

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Sun's preceding Limb touched the	}			
Wire at . . . . .		11.	49.	20.
<i>Mercury</i> touched the same Wire at		11.	49.	46.

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Sun's preceding Limb touched the	}			
Wire at . . . . .		11.	51.	9.
<i>Mercury</i> touched the same Wire at		11.	51.	36.

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Sun's preceding Limb touched the	}			
Wire at . . . . .		12.	1.	33.
<i>Mercury</i> touched the same Wire at		12.	1.	57.

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Mr. *Graham* got an Observation made by a Person in his Neighbourhood, by which it appears, that  
at

at 11<sup>h</sup>, 59', 50", *Mercury* preceded the Sun's Centre 42" in Right Ascension.

The Sky clearing up towards One o'Clock, the following Times were observed at Mr. *Graham's* House with great Accuracy.

	h.	'	"
Last interior Contact at . . . . .	1.	0.	42.
End, or <i>Mercury</i> just leaving the	}	1.	2.
Sun's Limb at . . . . .			

This last Observation agrees to a Second with the same Observation made by Dr. *Bevis* at Mr. *Sisson's* House in the *Strand*.

During the time of these Observations it blew a violent Gale of Wind, so that both Observers and Instruments were somewhat disturbed.

#### IV. *Eclipse of the Moon, Oct. 22. 1743. in the Morning, observed at Mr. Graham's House in Fleetstreet.*

Read Nov. 3.  
1743.

**T**HE Sky was mostly overcast with Clouds, so that the following Observations are the only ones that could be made with any Degree of Certainty.

	h.	'	"
Beginning of the Eclipse about . . . . .	1.	21.	0.
The Shade touched <i>Copernicus</i> about . . . . .	1.	39.	0.
touched <i>Plato</i> about . . . . .	1.	45.	0.
touched <i>Tycho</i> about . . . . .	1.	51.	0.
Total Immersion about . . . . .	2.	17.	0.

V. *Part*