

Schreiben des Herrn Professors *Loomis*, Directors der Sternwarte in Hudson, an den Herausgeber.

Sir,

I forward you some cometary observations made at this place, for the *Astronomische Nachrichten*. A variety of other

observations made by myself you will find in the *Transactions of the American Philosophical Society*.

Elias Loomis.

Astronomical Observations made at Hudson's Observatory, United States, Latitude $41^{\circ}14'42''6$ North, and Longitude $5^h25^m39^s5$ West. By *Elias Loomis*.

Hudson Observatory is furnished: 1) with an Equatorial telescope of 66 inches focus and about four inches aperture made by *Simms* in 1837. The circles are 12 inches in diameter reading by verniers, the one to single seconds of time, the other to ten seconds of arc. 2) A transit circle having a telescope of 30 inches focus and nearly three inches aperture made also by *Simms*. The circle is 18 inches diameter graduated to five minutes, with three reading microscopes each measuring single seconds. 3) A clock with a mercurial pendulum by *Molineux*. A particular description of the building, with the instruments and mode of using them is contained in the Trans-

actions of the American Philosophical Society, New Series Vol. 7 p. 43. 47. The Latitude of the Observatory has been determined from 63 culminations of *Polaris*, and 4 of β *Ursae minoris* $41^{\circ}14'42''6$, and the Longitude from 72 corresponding Moon culminations at Greenwich, and others at Cambridge, Oxford and Edinburgh (150 in all) $5^h25^m39^s5$. The Observations from which these results are derived are contained in the *Transactions of the American Philosophical Society*. The following is an abstract of the observations of some recent comets, nearly all of which were made with a circular micrometer attached to the Equatorial.

1. *Encke's Comet*.

The places in columns fifth and sixth are corrected for refraction, parallax and aberration; and the last two columns exhibit the corrections of *Encke's ephemeris* according to the observations.

Date. 1842.	Differences observed.	Sidereal time.	No of obs.	Comet's places.		Corrections of Ephemeris.	
				A. R.	Decl.	A. R.	Decl.
March 28	comet — a = 1^m28^s37	$8^h14^m18^s77$	8	$27^{\circ}33'28''.5$			
	comet — b 44,71	8 17 7,26	7	12,2		+ 21",7	
	a' — comet 8' 58",0	8 14 18,77	8		+ $16^{\circ}53'49''.6$		
	comet — b' 7 25,3	8 17 7,26	7		38,9		— 22",3
March 30	c — comet 1^m39^s00	8 20 5,57	3	29 22 5,7		+ 21,0	
	c' — comet 8' 17",3	8 20 5,57	3		17 8 18,2		— 12,1
March 31	comet — c 1^m58^s23	8 26 30,20	11	30 16 37,8		+ 26,0	
	c' — comet 3' 22",9	8 33 17,74	8		17 13 12,9		— 19,1
April 1	d — comet 4^m22^s58	8 25 17,51	6	31 9 50,2		— 2,9	
	d' — comet 26' 46",6	8 25 17,51	6		17 16 23,2		— 20,1
April 4	comet — e 38",27	8 36 48,57	8	33 44 31,8		+ 11,8	
	comet — e' 19' 28",4	8 36 48,57	8		17 12 10,4		— 22,6
April 5	f — comet 4^m5^s5	8 38 21,26	7	34 31 26,7		— 2,1	
	comet — f' 4' 46",3	8 45 23,43	5		17 5 4,3		— 13,5
April 7	comet — f 1^m30^s8	8 44 14,39	5	35 55 12,8		+ 0,1	
	f' — comet 21' 3",4	8 44 14,39	5		16 39 5,8		— 40,5
April 9	g — comet 3^m32^s37	8 56 17,57	2	36 58 15,4		— 33,4	
	g' — comet 7' 5",7	8 56 17,57	2		15 55 32,1		— 50,4
April 11	h — comet 5^m38^s83	9 3 1,00	3	37 33 42,1		— 70,7	

The following are the apparent Right Ascensions and Declinations of the stars of comparison for the dates of observation.

	Mag.	AR.		Decl.		Mag.	AR.		Decl.
a	7	$1^h48^m44^s29$	a'	+ $17^{\circ}2'43''.4$	e	8	$2^h14^m17^s17$	e'	+ $16^{\circ}52'31''.5$
b	8	1 49 25,72	b'	16 46 2,3	f	6	2 22 9,55	f'	17 0 13,5
c	8	1 59 6,73	c'	17 16 31,1	g	8	2 31 24,88	g'	16 2 42,6
d	7.8	2 9 1,63	d'	17 43 13,0	h	6.7	2 35 51,44	h'	14 38 26,3