

Ringmicrometer-Observations of Europa,

taken at 2 South-Parade, Oxford, with the five feet Smythian Telescope from the Hartwell House Observatory,
by *Norman Pogson* Esq. — (Communicated by Dr. *Lee*.)

1858	M. T. Oxford	apparent AR	log. par. $\times \Delta$	apparent Decl.	log. par. $\times \Delta$	Comparisons
Febr. 16	13 ^h 17 ^m 0 ^s	159° 43' 34".2	9,775	+13° 24' 17".8	0,725	4 with <i>e</i>
"	13 49 14	43 20,0	0,129	24 23,4	0,726	5 = <i>e</i>
18	12 44 20	21 57,2	8,679 ⁿ	38 2,2	0,722	6 = <i>d</i>
"	12 56 21	21 50,9	9,524	38 3,1	0,722	6 = <i>d</i>
19	12 57 51	10 40,7	9,679	45 2,7	0,721	6 = <i>e</i>
"	13 14 3	159 10 32,0	9,933	45 8,2	0,722	7 = <i>e</i>
20	13 28 39	158 59 16,5	0,115	52 8,1	0,722	9 = <i>d</i>
"	13 31 37	59 12,2	0,138	52 3,0	0,723	8 = <i>e</i>
21	13 8 6	48 19,4	9,979	58 47,9	0,720	10 = <i>b</i>
"	13 31 29	48 6,9	0,173	+13 58 58,5	0,722	10 = <i>b</i>
22	13 22 40	36 46,4	0,145	+14 5 33,5	0,721	8 = <i>c</i>
"	14 48 49	36 5,4	0,511	5 59,1	0,737	8 = <i>c</i>
24	13 19 2	14 23,4	0,187	19 15,6	0,719	9 = <i>a</i>
"	13 58 1	14 4,5	0,382	19 26,4	0,726	9 = <i>a</i>
25	13 0 21	3 20,7	0,075	25 30,9	0,716	4 = <i>a</i>
"	13 21 40	158 3 0,3	0,230	+14 25 41,4	0,719	4 = <i>a</i>

The estimated magnitudes of Europa were on Febr. 16 = 10,5; on Febr. 18 = 10,0; on Febr. 20 = 10,0 and on Febr. 21 = 10,7. The other three mornings were too moonlight for determinations of magnitude and on the last occasion the distance of the planet from the moon was only 21", rendering the observation one of considerable difficulty. —

Refraction and motion have been taken into account in the reductions as usual. — The chronometer employed was the same as on previous occasions, for the use of which I am indebted to the kindness of the maker, *Ch. Frodsham* Esq. of London. — The following were the adopted positions of the comparison stars:

Reference	Authority	Magnitude	Mean AR 1858	Mean d 1858
<i>a</i>	Weisse X. 549 = 20559 Lal.	8.9	157° 43' 5".6	+14° 41' 17".9
<i>b</i>	Weisse X. 162 = 20651 Lal.	8.9	158 38 17,4	+14 12 46,5
<i>c</i>	Weisse X. 650	9	159 11 47,7	+13 44 28,7
<i>d</i>	Weisse X. 670	9.10	159 31 31,2	+13 53 25,7
<i>e</i>	20748 Lalande	6.7	159 42 3,0	+13 29 48,2

Norman Pogson.

Verbesserte Elemente der Nysa (44), von Herrn Observator *Gussew*.

Aus den Beobachtungen: Wien Juni 9. Berlin Juli 8 u. Aug. 12 habe ich folgendes Elementen-System abgeleitet:

Epoche 1857 Juli 10,0 m. B. Z.

$M = 121^{\circ} 9' 11''.4$) mittl. Aeq.

$\pi = 111 46 36,0$) 1858 Jan. 0,0

$\Omega = 130 54 57,2$

$i = 3 41 56,6$

$\varphi = 8 25 51,6$

$\mu = 936''4700$

$\log \mu = 2,971494$

$\log a = 0,385675$

Daraus ersieht man, dass Nysa, ebenfalls wie Nemausa, keine so starke Excentricität hat, als die erste genäherte

Bahnbestimmung ergab. Die Vergleichung aller vorhandenen Beobachtungen giebt folgende Differenzen:

		Rechnung—Beobachtung	
1857		$\Delta \alpha$	$\Delta \delta$
Juni 8	Wien	—4".4	—
9	"	—2,5	—3".7
13	Bilk	+3,5	—5,2
15	Bonn	+0,2	—4,1
16	"	—0,4	—7,1
16	Kremsm.	(+6'59,0)	(—12'25,5)
17	Bonn	+6,3	—4,1
18	"	+6,0	—6,2
18	Kremsm.	(+7'58,2)	(—13'40,7)