Observations of (3) Juno and (4) Vesta at the Oppositions of 1887.

The accompanying observations were made with the filar micrometer on the 8 inch equatorial. The differential measures are corrected for refraction and the places of the planets for parallax. By comparison with the ephemerides in the Nautical Almanac by means of first differences the mean tabular corrections are as follows (Obs.—Calc.):

$$\begin{aligned} (3) \text{ Juno } \Delta \text{RA.} &= +14^{\text{s}}.00 \quad \Delta \text{NPD.} = -34^{\text{s}}.7 \\ (4) \text{ Vesta } &= +1.23 \quad = +6.5 \end{aligned}$$

1887	Winds. M.T.	Δ RA.	Δ NPD.	Cp.	Geoc. RA.	Geoc. NPD.	Red. ad l. app.	*
(3) Juno.								
Oct. 14	9 ^h 15 ^m 36 ^s	+ 2 ^m 7 ^s .63	— 5' 51".5	15	1 ^h 43 ^m 58 ^s .84	93° 22' 26".9	+2 ^s .84 —14".5	1
15	10 7 47	+ 1 57.01	— 4 33.8	15	1 43 19.39	93 36 3.1	+2.84 —14.5	2
16	9 50 26	+ 3 0.99	+ 4 49.6	12	1 42 41.35	93 48 51.0	+2.85 —14.5	3
16	9 50 26	+ 0 43.26	—	12	1 42 41.12	—	+2.85 —	4

(4) Vesta.								
March 25	12 49 31	+ 6 27.43	+13 12.8	10	14 14 19.42	90 31 59.3	+1.21 + 4.8	5
April 2	11 53 6	+ 7 18.85	+13 26.1	8	14 9 23.23	89 44 38.8	+1.33 + 5.1	6
2	11 53 6	+ 7 29.17	—	8	14 9 23.01	—	+1.34 —	7
9	10 26 37	—10 1.09	— 1 21.4	6	14 3 55.04	89 4 29.1	+1.40 + 4.7	8
10	9 23 47	—10 50.20	— 6 38.8	4	14 3 5.87	88 59 11.7	+1.41 + 4.7	8
19	9 13 18	+ 4 10.94	— 9 12.4	15	13 54 54.46	88 14 43.0	+1.49 + 5.0	9
21	9 40 38	— 2 25.03	— 1 19.8	15	13 53 0.83	88 6 19.7	+1.51 + 4.8	10
27	11 20 55	— 8 33.65	— 8 39.9	8	13 47 21.62	87 45 59.3	+1.54 + 4.4	11
28	9 29 34	+ 3 40.53	— 4 45.1	4	13 46 31.27	87 43 32.4	+1.52 + 4.7	12
May 1	9 14 53	+ 1 1.58	—11 20.7	15	13 43 52.33	87 36 56.7	+1.53 + 4.6	12

Mean Places of the Comparison Stars for 1887.0.

*	RA. 1887.0	NPD. 1887.0	Authority	*	RA. 1887.0	NPD. 1887.0	Authority
1	1 ^h 41 ^m 48 ^s .69	93° 28' 28".6	Y. 833, Gl. 388	7	14 ^h 1 ^m 52 ^s .66	—	Lam ₁ 4278, Sj. 5032
2	1 41 19.77	93 40 47.2	Y. 830, Gl. 386	8	14 13 54.97	89° 5' 41".8	Lam ₁ 4342, Sj. 5094, Arm. 1664
3	1 39 37.76	93 44 11.7	Gl. 381	9	13 50 42.31	88 23 46.2	Lm ₁ 4212, 7yr. 1616, Gl. 3474
4	1 41 55.26	—	Y. 835	10	13 55 24.58	88 7 30.5	Lam ₁ 4237, Gl. 3488
5	14 7 50.90	90 18 38.0	Lam ₁ 4313, Sj. 5066, Gl. 3526	11	13 55 53.74	87 54 30.6	Naut. Alm. 1887
6	14 2 3.21	89 31 3.7	Lam ₁ 4280, Gl. 3507, Arm. 1640	12	13 42 49.41	87 48 8.6	Lam ₁ 4170, Sj. 4929, Gl. 3445

Windsor, N. S. Wales, 1888 March 1.

John Tebbutt.

Beobachtungen des Planeten (80) Sappho.

(Schreiben des Herrn Dr. Knorre, Observator der Sternwarte in Berlin, an den Herausgeber.)

Auf den Wunsch des Herrn Robert Bryant erlaube ich mir, Ihnen die folgenden beiden Beobachtungen des Planeten (80) Sappho zur Publication in den A. N. zu senden:

Datum	M. Z. Berlin	$\Delta\alpha$	$\Delta\delta$	Vgl.	α app.	$\log p.\Delta$	δ app.	$\log p.\Delta$	Red. ad l. app.	*
1887										
Jan. 17	8 ^h 8 ^m 13 ^s	—1 ^m 30 ^s .28	— 1' 33".6	12.4	6 ^h 55 ^m 33 ^s .29	9.413 _n	+ 9° 9' 36".8	0.801	+0 ^s .95 —10".6	1
1888										
April 15	11 48 4	+1 12.14	+ 0 44.5	12.3	13 17 26.41	8.146	—11 58 53.5	0.903	+1.32 — 6.0	2

Mittlere Oerter der Vergleichsterne für den Anfang der Beobachtungsjahre.

*	α	δ	Autorität
1	6 ^h 57 ^m 2 ^s .62	+ 9° 11' 21".0	Gl. 1734
2	13 16 12.95	—11 59 32.0	1/2 (Sj. 4786 + Cord. GC. 18196)

Berlin 1888 Mai 2.

V. Knorre.