

Tage, d. h. vermuthlich 2 Perioden, jede = 107<sup>5</sup>. Sollten 3 Perioden vorhanden sein, so würde jede nahe 72 Tage zählen. Dies Intervall habe ich jedoch ausgeschlossen.

Die Farbe von T war zu keiner Zeit auffällig. Am ersten Tage der Beobachtung 1866 Mai 13 war sie am Sucher ein gewöhnliches Gelb oder Gelbweiss, etwas stärker als in  $\alpha$  Coronae. Seit Mai 14 ward die Farbe dann nur am Refractor bestimmt. Nach meiner Skala war der grösste Werth = 4, also immer nur ein wenig lebhaftes Gelb. So sah ich ihn bis Mai 25. In der

spätern Zeit der nur telescopischen Sichtbarkeit liess sich die Farbe nur schwierig erkennen. Ich bestimmte sie 1867 Mai 25. 1871 April 13, August 16. 1872 März 30, April 16, Mai 6, Mai 9, Mai 29, Juli 29, Aug. 6, Aug. 21, Sept. 19, Sept. 21, Octob. 22. Später habe ich ihn 1873—75 nur wenig auf Farbe geprüft, zuletzt am 14. August 1876, da er sich von den benachbarten kleinen weissgelben Sternen nicht unterschied.

Athen, 1876 Dec. 18.

*J. F. Julius Schmidt.*

### Correction of the Orbit of Una (160).

This planet, which was discovered here by Dr. C. H. F. Peters on the night of Feb. 20 1876, has been observed as far as known at the following places:

Berlin: March 16, 18, 30, 31. April 11, 12, 13, 14, 21, May 9, 10. — Astron. Nachr. 2104.

Clinton: Feb. 24, 25, March 2, 3, 4, 15, 19, April 11, 26, 28. — M SS.

Kopenhagen: March 31, April 18, 19. — Berlin. Circular Nr. 48, M SS.

Leipzig: March 23, 24, May 12. — Astron. Nachr. 2111, Berlin. Circular Nr. 49.

Marseille: Feb. 26, 28, 29. — Bull. Int. 77.

Paris: March 1. — Bull. Int. 67.

Note. The Copenhagen observations, excepting the first published in the Berlin Circular, were received too late to be used in forming the normals; but, as will be seen, the residual errors agree closely with those of the other observations.

By means of the elements computed by Dr. A. Schmidt, from the observations of Clinton Feb. 24, Berlin March 16 and March 31, and communicated in the Berlin Circular Nr. 46, an ephemeris was computed for forming the normal places. In the following table of comparison of observed with computed places, the times are corrected for aberration, and the computed places for parallax.

Place of obs.	1876 Ber. m. t.	$\alpha$ obs.	$\alpha$ comp.	$\delta$ obs.	$\delta$ comp.	comp.—obs.	
						$\alpha$	$\delta$
Clinton	Feb. 24.75439	10 <sup>h</sup> 17 <sup>m</sup> 27 <sup>s</sup> 13	24 <sup>h</sup> 88	+14°28'49"1	50'0	—2 <sup>s</sup> 25	+0'9
"	25.72695	16 33.92	32.01	32 26.0	27.1	—1.91	+1.1
Marseille	26.41862	15 56.27	54.66	34 61.7	58.6	—1.61	—3.1
"	28.35913	14 11.9I	10.44	41 54.0	52.1	—1.47	—1.9
"	29.34027	13 19.97	18.35	45 18.2	13.5	—1.62	—4.7
Paris	Mar. 1.53504	12 16.62	15.30	49 14.9	11.7	—1.32	—3.2
Clinton	2.62141	11 20.12	19.13	52 42.6	41.4	—0.99	—1.2
"	3.63195	10 28.75	27.49	55 55.5	51.7	—1.26	—3.8
"	4.80177	9 29.26	28.14	59 20.5	19.8	—1.12	—0.7
"	15.61332	1 22.47	22.23	+15 24 9.4	4.2	—0.24	—5.2
Berlin	16.54861	0 46.35	46.00	25 31.8	30 6	—0.35	—1.2
"	18.38401	9 59 39.14	38.81	27 59.6	61.8	—0.33	+2.2
Clinton	19.68064	58 54.16	53.83	29 30.5	32.8	—0.33	+2.3
Leipzig	23.40726	56 57.68	57.71	32 35.4	36.8	+0.03	+1.4
Berlin	30.45150	54 13.87	13.56	33 18.2	17.7	—0.31	—0.5
"	30.46449	54 13.29	13.31	33 16.8	17.4	+0.02	+0.6
"	31.42549	53 57.24	56.84	32 52.8	52.4	—0.40	—0.4
"	31.43553	53 56.63	56.67	32 51.0	52.0	+0.04	+1.0
Kopenhagen	31.45654	53 56.25	56.32	32 53.3	51.2	(+0.07)	(—2.1)
Clinton	Apr. 11.60847	52 28.75	28.82	19 17.6	16.0	+0.07	—1.6
Berlin	11.38864	52 28.72	28.73	19 44.6	40.2	+0.01	—4.4

Place of obs.	1876 Ber. m. t.	comp.—obs.		$\delta$ obs.	$\delta$ comp.		
		$\alpha$ obs.	$\alpha$ comp.			$\alpha$	$\delta$
Berlin	Apr. 12.39940	9 <sup>h</sup> 52 <sup>m</sup> 29 <sup>s</sup> 76	29 <sup>s</sup> 70	+15°17'47"5	42"9	—0 <sup>s</sup> 06	—4"6
"	12.41110	52 29.70	29.70	17 43.3	41.5	0.00	—1.8
"	13.39491	52 32.05	32.16	15 40.8	40.2	+0.11	—0.6
"	13.40610	52 32.47	32.18	15 41.9	38.8	—0.29	—3.1
"	14.37429	52 36.45	35.99	13 36.7	33.0	—0.46	—3.7
Kopenhagen	18.41633	53 7.01	6.39	3 40.7	38.0	(—0.62)	(—2.7)
"	19.41532	53 18.07	17.48	0 53.3	54.1	(—0.59)	(+0.8)
Berlin	21.39990	53 44.14	43.64	+14 55 9.3	9.6	—0.50	+0.3
Clinton	26.65330	55 18.71	18.47	37 59.5	57.4	—0.24	—2.1
"	28.68751	56 4.97	4.80	30 33.8	31.6	—0.17	—2.2
Berlin	May 9.41345	10 1 30.95	30.46	+13 44 54.6	52.4	—0.49	—2.2
"	10.40826	2 7.14	7.04	40 8.8	7.4	—0.10	—1.4
Leipzig	12.39448	3 37.79	23.16	28 52.6	141.8	(—14.63)	(+89.2)

The observation of Leipzig May 12, evidently refers not to the planet. From these observations, excepting those noted, four normal places were derived as follows:

Berlin m. t.	AR. 1876.0	Decl. 1876.0
March 1.53504	10 <sup>h</sup> 12 <sup>m</sup> 16 <sup>s</sup> 06	+14°49'12"5
30.45150	9 54 12.79	15 33 17.6
April 12.39940	9 52 28.74	15 17 44.0
28.68751	9 56 3.93	14 30 33.8

The variation of the geocentric distance not giving a satisfactory result, since the middle places are near the stationary point. The elements were derived directly from these four places, the computation being made by Dr. Peters.

Epoch, 1876 Jan. 0.0 Berlin m. t.  
 $M_0 = 77^{\circ}31' 2''4$

$$\left. \begin{aligned} \pi &= 55^{\circ}53'46''9 \\ \Omega &= 9\ 18\ 27.3 \\ i &= 3\ 51\ 18.6 \\ \varphi &= 3\ 34\ 42.5 \\ \mu &= 787''1915 \\ \log a &= 0.4359508 \end{aligned} \right\} \text{Mean Aeq. 1876.0}$$

By recomputing the normal places with these elements it appears that the longitudes and the extreme latitudes (the data used in deriving the orbit) are exactly represented, while the middle latitudes deviate respectively 4"4 and 3"2. Before the time of next opposition I will prepare and send for publication an ephemeris from these elements.

Litchfield Observatory of Hamilton Coll. 9. Jan. 1877.  
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### Schreiben des Herrn E. Stephan an den Herausgeber.

J'ai l'honneur de vous transmettre nos deux premières observations de la planète douteuse rencontrée, à Toulouse, par M. Perrotin, le 10 de ce mois; ainsi que deux observations d'une autre planète également douteuse et située dans la même région. Celle-ci, plus voisine du lieu fixé approximativement, pour Frigga, dans

le Jahrbuch, a été rencontrée à Marseille, par M. Borrelly, le 13 de ce mois.

Nous continuerons à observer assidûment ces deux autres et je vous communiquerai plus tard les résultats ultérieurs.

Observations faites à l'Observatoire de Marseille par M. Borrelly.

Planète (?) Perrotin. Gr. = 12.							
1877	T. M. de Mars.	AR.	L. f. p.	P	L. f. p.	* de	Comp.
Janvier 13	8 <sup>h</sup> 49 <sup>m</sup> 2 <sup>s</sup>	8 <sup>h</sup> 39 <sup>m</sup> 45 <sup>s</sup> 57	—1.615	71°54'29"5	—0.6923	a	
15	8 4 49	8 37 34.28	—1.641	72 0 15.2	—0.7168	a	
Planète (?) Borrelly. Gr. = 11 — 12.							
Janvier 13	12 48 38	9 5 55.11	—2.931	71 37 39.5	—0.5770	b	
15	8 47 29	9 4 38.53	—1.630	71 30 5.3	—0.7023	b	