Obervations of Pallas at Windsor. N. S. Wales.

During the present opposition the planet Pallas has attained high south declination and I have, therefore, thought that a few positions when the planet could not so well be seen at northern observatories would be of value. The first observation of January 21st was obtained with the 3 inch transit instrument; all the remaining positions depend on measures with an excellent filar-micrometer on the $4^1/_2$ inch equatorial. Each comparison for R. A. was made over the single transit thread of the position micrometer. The differences of apparent R.A. and N.P.D. have been corrected for refraction, although considering the great altitude at which the planet was observed, these corrections amount only to a very small fraction of a second of arc. The parallax corrections, which have not of course been applied to the apparent places, are based on the horizontal parallaxes of the British Nautical Almanac. The places of the majority of the comparison stars have been taken from the Washington Catalogue of 10658 stars for 1860. In bringing up the places of *a b c d* and *e* the proper motions in the B. A. Catalogue have been adopted. There is obviously something wrong in the catalogued declination of one of the Washington stars, Nr. 2874, 2876. The Catalogue makes the declinations of these two stars almost precisely equal whereas the equatorial observations give the difference of declination as 58″1. There is probably a misprint in the minutes of declination of Nr. 2876, and I have accordingly assumed the declination to be one minute greater.

Apparent Places of Pallas, with the Parallax Corrections.

Date 1879	Windsor Mean Time	Planet — Star		Planet's Apparent		Correction for Parallax in		Nr. of Comp.	Comp. Star
		App. R.A.	App. N.P.D	R.A.	N.P.D.	R.A.	N.P.D.		
Dec. 8	$9^h37^m56^s$	-1^m33^s83	$-12'44''8$	$7^h24^m30^s59$	$120^o29'50''5$	-0^s36	$+1''9$	8	*a*
9	10 23 38	− 1 54.09	− 3 53.9	7 24 10.35	120 38 41.8	−0.32	+ 1.4	8	*a*
14	11 34 15	− 2 26.13	+ 3 18.2	7 22 3.11	121 15 48.6	−0.22	+ 0.7	6	*b*
17	10 53 26	+ 0 18.88	− 1 57.9	7 20 29.24	121 32 25.3	−0.26	+ 0.9	13	*c*
17	12 5 26	− 0 41.62	+ 2 40.2	7 20 27.44	121 32 40.2	−0.16	+ 0.4	7	*d*
20	10 34 30	+ 0 13.37	+ 3 22.4	7 18 41.04	121 44 54.9	−0.27	+ 0.9	13	*e*
20	11 4 14	− 1 30.00	+ 10 35.5	7 18 40.39	121 44 57.5	−0.23	+ 0.7	3	*c*
1880 Jan. 7	10 15 5	+ 1 5.19	+ 4 27.9	7 4 42.93	121 18 40.6	−0.18	+ 0.5	6	*f*
9	9 48 7	− 0 35.56	− 9 59.9	7 3 2.20	121 4 13.5	−0.21	+ 0.6	12	*f*
9	9 49 16	− 0 24.44		7 3 2.14		−0.21		11	*g*
21	10 52 23	− 0 27.91		6 53 29.09		−0.00		3	*h*
21	12 9 33	− 0 30.38	− 2 10.2	6 53 26.62	118 46 31.4	+0.14	+ 0.7	10	*h*

Mean Places of the Stars for the Beginning of the Year, and Apparent Places for the Date of Obervation.

Comp. Star	R.A. Mean	R.A. App.	N.P.D. Mean	N.P.D. App.	Authority.
a	$7^h26^m\ 0^s23$	4^s42	120°42′ 35″9	35″3	Wash. Cat. 1860. Nr. 3066.
a	„	4.44	„	35.7	„
b	7 24 24.93	29.24	121 12 29.3	30.4	B. A. Catalogue 1860. Nr. 2478.
c	7 20 5.98	10.36	121 34 21.5	23.2	Wash. Cat. 1860 Nr. 3015.
c	„	10.39	„	22.0	„ „
d	7 21 4.68	9.06	121 29 58.2	60.0	„ 3027.
e	7 18 23.24	27.67	121 41 30.0	32.5	„ 3000.
f	7 3 35 36	37.74	121 14 10.9	12.7	„ 2876.
f	„	37.76	„	13.4	„ „
g	7 3 24.18	26.58	121 13 12.9	15.4	„ 2874.
h	6 53 54.59	57.00	118 48 35.6	41.6	N. Almanac. 1880

Windsor, N. S. Wales, Feb. 5. 1880. *John Tebbutt.*

Berichtigungen.

A. N. Nr. 2318 S. 222 Z. 18 v. unten statt „C“ lies „l“.
Z. 4 v. unten statt „already lies already„.
S. 223. Für Mai 22 ist $\log r = 0.275478$.
Nach der Ephemeride ist einzuschalten: The brightness on April 6 has been taken as unity.

Literarische Anzeigen.

August Ritter. Anwendungen der mechanischen Wärmetheorie auf kosmologische Probleme. Hannover 1879.

Der Verfasser will aus den Gesetzen der mechanischen Wärmetheorie die Eigenschaften ableiten, welche ein frei im Raume schwebender, seiner eigenen Gravitationswirkung überlassener, Weltkörper besitzen würde, wenn die ganze Masse desselben im gasförmigen Aggregatzustande sich befände, und knüpft daran die Erörterung der Frage: wie weit das Verhalten der wirklich existirenden Weltkörper mit der Annahme eines im Wesentlichen gasförmigen Aggregatzustandes derselben sich würde in Einklang bringen lassen. In dieser Hinsicht werden folgende Probleme behandelt: Atmosphärenhöhe und Erdinneres; Zustandsänderung der Sonne; Abnahme des Sonnenhalbmessers; Gleichgewicht und Schwerpunkt einer verticalen Luftsäule; Zustandsänderung der Erde; Lichtwechsel der veränderlichen Sterne.

A. de Gasparis. Sviluppo in serie della funzione perturbatrice secondo le potenze del tempo. Napoli 1880. *L.*

Kiel Juli 1 1880. Druck von C. F. Mohr.