

# Madras Observations of the new Planet (245) Vera.

A new minor Planet, the 245<sup>th</sup> of the group between Mars and Jupiter, was discovered here on Febr. 6<sup>th</sup>, while engaged in searching for Isis, the approximate ephemeris for which seems to be unusually at fault, as Isis could not be found anywhere near her assigned position, though carefully sought for in December and January as well as at the time of discovery of the new Planet. Owing to the latter being long past opposition — indeed, near its second stationary point — observations made during a single lunation would have been quite insufficient for the calculation of an orbit, and it was therefore more incumbent upon its discoverer to obtain a second series of positions, when the absence of moonlight would again enable it to be seen. It was fortunately refound on March 4<sup>th</sup>, and twenty four positions, extending over an interval of thirty five days, are now available for the orbit determination.

Through the planet being observed both before and

after its stationary point, only three comparison stars were required for reference; each of which was duly observed on five nights with the Madras Meridian Circle. Observations depending upon one comparison star were made with a ring-micrometer and have been corrected for refraction; while those for which two reference stars were employed were taken agreeably to the excellent method known as »Boguslawski's Difference Micrometer«, in which only a single bar is used and no tedious refraction correction is involved.

The very unmistakeable fluctuations in magnitude from night to night are possibly due to axial rotation and unequally reflective portions of the Planet's surface. The same has I believe been noticed with some of the older asteroids.

Presuming upon priority of discovery, I have adopted the name »Vera«, suggested by my wife, for the new Planet (245).

1885	Madras M.T.	Comp.	Mag.	AR. app.	log <i>p.A</i>	PD. app.	log <i>p.A</i>	*
Febr. 6	12 <sup>h</sup> 10 <sup>m</sup> 42 <sup>s</sup> .2	16	12.6	6 <sup>h</sup> 45 <sup>m</sup> 30 <sup>s</sup> .49	9.609	61° 26' 55".0	0.172	<i>a</i>
8	12 1 10.5	16	12.6	6 44 40.42	9.607	61 26 56.5	0.175	<i>a</i>
9	12 14 36.0	15	12.2	6 44 17.78	9.646	61 27 6.4	0.109	<i>a</i>
10	11 40 5.1	16	12.6	6 43 57.13	9.575	61 27 19.2	0.212	<i>a</i>
11	11 32 58.5	14	12.7	6 43 38.04	9.567	61 27 38.1	0.219	<i>a</i>
12	12 42 41.8	20	12.8	6 43 19.41	9.717	61 27 53.3	0.870	<i>ab</i>
13	7 43 44.8	24	13.0	6 43 6.75	9.371 <sub>n</sub>	61 28 14.0	0.321	<i>ab</i>
14	7 42 31.8	8	12.7	6 42 51.60	9.356 <sub>n</sub>	61 28 42.4	0.325	<i>a</i>
14	9 41 16.8	4	—	6 42 50.68	9.031	61 28 42.5	0.364	<i>a</i>
15	11 35 17.8	12	13.0	6 42 36.65	9.615	61 29 10.3	0.161	<i>a</i>
16	7 47 33.5	4	13.3	6 42 27.70	9.281 <sub>n</sub>	61 29 33.8	0.340	<i>a</i>
16	9 57 18.6	6	—	6 42 26.32	9.238	61 29 38.1	0.346	<i>a</i>
17	7 56 37.0	7	13.3	6 42 17.62	9.189 <sub>n</sub>	61 30 9.8	0.352	<i>a</i>
17	11 13 42.7	5	—	6 42 16.39	9.582	61 30 12.4	0.202	<i>a</i>
18	11 43 18.1	26	12.6	6 42 8.12	9.659	61 30 51.2	0.080	<i>ab</i>
19	12 11 36.6	9	12.7	6 42 1.87	9.714	61 31 25.0	0.886	<i>b</i>
20	11 26 19.1	20	12.9	6 41 57.34	9.649	61 32 12.1	0.100	<i>ab</i>
21	11 9 21.6	20	13.3	6 41 54.59	9.611	61 32 56.7	0.164	<i>ab</i>
22	12 8 30.8	20	12.7	6 41 52.95	9.726	61 33 47.5	0.804	<i>ab</i>
Mar. 4	10 12 54.8	7	13.3	6 43 6.38	9.574	61 43 38.3	0.202	<i>b</i>
5	11 2 53.9	6	13.5	6 43 21.81	9.689	61 44 51.0	0.979	<i>b</i>
6	10 30 0.9	15	13.5	6 43 29.54	9.633	61 45 52.8	0.120	<i>b</i>
7	9 56 28.4	10	13.8	6 43 57.74	9.558	61 47 8.2	0.215	<i>b</i>
13	10 30 54.2	16	13.7	6 46 18.96	9.682	61 55 14.4	0.991	<i>c</i>

Meridian Circle Positions of Comparison Stars for 1885.0.

*	Mag.	Mean RA.	Mean PD.	Authority
<i>a</i>	8 <sup>m</sup> .7	6 <sup>h</sup> 42 <sup>m</sup> 3 <sup>s</sup> .42	61° 19' 50".0	By 5 obs. in 1885
<i>b</i>	8.5	6 42 26.37	61 33 10.2	By 5 obs. in 1885
<i>c</i>	9.0	6 49 53.36	62 3 47.7	By 5 obs. in 1885