Photometric Observations of Planets and of Jupiter's Satellite III, made at the Harvard College-Observatory.

The results given in the following list were obtained with the meridian photometer of this Observatory. The magnitudes assigned to the objects named in the list are those computed for mean opposition from the results of the observations. The successive columns contain the names of the objects, the number of observations and their result in 1880, the corresponding data for 1881-82, the mean of both results, and the mean of the two corresponding values of the average deviation of one observation from the mean. In these last columns, the means are taken with regard to the number of observations in each year.

Object	1880		1881-82		Mean Magn.	Resid.
	No.Obs.	Magn.	No.Obs.	Magn.		
Mars	12	- 1.27	7	- 1.33	- 1.29	0.20
Vesta	12	+ 6.49	10	+ 6.45	+ 6.47	0.22
Jupiter	16	- 1.29	6	- 1.24	- 1.28	0.35
Sat. III	5	+ 4.68	—	—	+ 4.68	0.18
Saturn	18	+ 1.67	12	+ 1.54	+ 1.62	0.31
Uranus	5	+ 5.68	17	+ 5.53	+ 5.56	0.15

As the photometer was constructed with special reference to the observation of fixed stars of the sixth magnitude

or brighter, all planets which present a considerable disk, like Mars, Jupiter, and Saturn, and also objects as faint as Vesta, are not easily observed with the instrument. The residuals given above are accordingly larger than they usually are in the case of fixed stars. Observations differing from the mean value by one magnitude or more have been excluded in the formation of the list. There are six of these observations; one of Mars, with the residual + 1.5; one of Vesta, with the residual - 1.5; three of Jupiter, with the residuals +1.2, +1.7, -1.0; and one of Uranus, with the residual +1.3. The three rejected observations of Jupiter all belong to 1880, and if retained, would make the result for that year -1.19 instead of -1.29.

Three observations of Saturn were made in 1879, near the beginning of the work done with the meridian photometer, and have not been entered in the list. They give the result +2.20, and if they are combined with the rest, the general mean will be +1.67.

In the reduction of the observations, a correction for phase has been applied in the case of Mars only. The correction for the ring of Saturn has been taken from the table given in Zöllner's *Photometrische Untersuchungen*.

Harvard College Observatory,
Cambridge U. S. 1882 March 31.

Edward C. Pickering.

Observations de la comète Wells,

faites avec l'équatorial Brünner de 6 pouces, à l'observatoire de Lyon: (longitude Est de Paris $0^h 9^m 46^s.83$: latitude N. $45^{\circ} 41' 40''$) par M. *Gonnessiat*.

1882	T. m. Lyon	$\Delta\alpha$	$\Delta\delta$	Comp.	α app.	$\log p.A$	δ app.	$\log p.A$	*
Avril 12	$10^h 29^m 54^s$	$+0^m 7^s.33$	$+ 2' 31''.1$	12.10	$18^h 45^m 15^s.22$	9.794 _n	$+49^{\circ} 44' 50''.2$	0.782	1
15	9 31 43	-0 37.58	- 6 29.3	3.3	18 54 48.23	9.781 _n	52 25 50.7	0.782	2
19	10 41 13	+1 44.04	- 3 26.6	11.10	19 10 30.18	9.867 _n	56 19 18.8	0.633	3
»	10 41 13	+1 0.34	- 0 22.8	11.10	19 10 30.59	»	56 19 19.7	»	4
20	9 18 55	+2 24.11	+ 6 15.5	6.6	19 14 44.62	9.867 _n	57 15 53.7	0.678	5
»	9 40 27	-2 36.36	+ 0 7.8	8.8	19 14 48.50	9.841 _n	57 16 43.5	0.753	6
21	9 58 37	-4 23.02	+ 2 21.2	12.12	19 19 39.09	9.867 _n	58 18 24.4	0.712	7
24	9 38 19	-4 34.17	- 3 36.6	6.6	19 36 11.69	9.887 _n	61 23 47.1	0.737	8
27	10 4 40	-2 47.55	+ 5 8.9	3.5	19 57 26.76	9.949 _n	64 34 24.5	0.685	9
29	8 59 45	+1 22.25	- 5 37.6	3.3	20 14 37.83	9.764 _n	66 36 57.5	0.858	10
Mai 2	10 39 25	+4 31.06	+ 6 42.0	6.6	20 49 14.58	0.043 _n	69 40 56.7	0.637	11
3	10 27 7	-2 3.16	- 8 53.3	2.2	21 3 36.74	0.047 _n	70 48 31.0	0.678	12
5	9 22 4	-4 23.77	+ 1 43.7	12.12	21 35 39.25	9.940 _n	72 10 49.2	0.808	13
8	9 32 16	-6 51.45	+ 8 13.0	6.6	22 35 45.53	9.885 _n	74 4 3.9	0.836	14
»	10 7 26	-8 50.10	+ 2 12.0	11.11	22 36 19.20	9.980 _n	74 4 41.1	0.801	15
9	8 54 8	+1 25.47	+ 9 25.9	6.6	22 58 41.09	9.638 _n	74 24 33.7	0.871	16
»	9 54 31	+5 13.52	- 5 16.4	8.8	22 59 40.60	9.902 _n	74 25 7.7	0.832	17
10	9 40 52	-0 12.08	+ 1 42.9	12.12	23 24 22.56	9.788 _n	74 56 54.4	0.855	18
12	11 38 7	+1 11.52	+ 0 52.6	9.9	0 16 52.64	0.003 _n	74 25 33.2	0.792	19
24	10 9 24	-5 4.97	- 1 52.8	6.6	3 34 52.55	9.448	+61 24 26.4	0.943	20