Notes.

- 1877 Aug. 28. Mars out of the field. Parallel lines used for cutting off equal segments of Mars for both position and distance. Definition moderately good.
- Aug. 29. Definition good in the middle of the series.
- Aug. 30. Definition good at intervals.
- Sept. 2. Interrupted by clouds, and unable to secure a determination of the zero of position.
- Sept. 4. At the suggestion of the Director the light of Mars is diminished by placing the planet behind a piece of colored glass. This enables the observer to measure with Mars in the field. Definition good.
- Sept. 9. Both satellites easily seen with Mars behind neutral tint glass. Definition good.
- Sept. 13. Definition very poor.
- Sept. 14. Sky hazy.
- Sept. 16. Definition moderately good.
- 1877 Sept. 18. Position and distance separately observed owing to the faintness of the satellite. The object-glass screened from the direct rays of the moon.
- Sept. 21. Outer satellite visible by oblique vision about 80'' following. The moon is full.
- Sept. 23. Satellites very faint. Measures made with the greatest difficulty.
- Sept. 25. Definition good.
- Sept. 26. Definition good. Unable to measure distance owing to the faintness of the satellites.
- Sept. 30. Distances are approximate and obtained by placing the edge of the smoked glass so that it just extinguishes the satellites apparent disk.
- Oct. 5. Satellite very faint.

Leonard Waldo.

Cambridge, U. S. March 1. 1878.

Miscellaneous Observations of Double Stars made in 1876 at the Observatory of Harvard College.

Communicated by Prof. E. C. Pickering, Director.

The following Double Star Observations were made with the 15-inch Merz Equatorial of this observatory. They were made with an eyepiece giving a power of 400. The observations were all made by myself.

Nr.	Name	α 1870	δ 1870	Epoch 1876	Pos.	Nr. obs.	Dist.	Nr. obs.	Remarks.
1110	α Geminorum	7 ^h 26 ^m	+ 32° 10'	.3763	242° 8	5	5.31	5	
1424	λ Leonis	10.13	+ 20.30	.3243	109.0	5	3.98	5	
1523	ξ Urs. maj.	11.11	+ 32.16	.3982	40.17	5	2.50	5	
1536	ν Leonis	11.17	+ 11.15	.3984	67.23	5	3.99	5	
1670	γ Virginis	12.35	+ 0.44	.3955	159.70	5	4.64	5	
1965	ζ Coronae	15.34	+ 37.4	.6393	326.53	5	5.96	5	
"	"	"	"	.6394	325.53	5	6.84	5	
"	"	"	"	.6558	326.88	5	6.16	5	
2140	α Herculis	17.9	+ 14.32	.6559	119.75	5	5.31	5	
2220	μ Herculis A to $\frac{B+C}{2}$	17.42	+ 27.48	.6986	242.25	5	30.98	5	
	" BC	"	"	.6986			1.8		Estimated
2264	95 Herculis	17.56	+ 21.36	.6643	259.80	5	6.47	5	
2262	τ Ophiuchi	17.56	— 8.11	.6667	243.15	5	1.78	5	
2272	70 Ophiuchi	17.59	+ 2.32	.6640	79.76	5	3.72	5	
	99 Herculis	18.2	+ 30.33	.7024	170		2		Estimated.
2280	100 Herculis	18.3	+ 26.5	.6642	2.50	5	13.91	5	
	26 PXX	20.6	+ 0.29	.6641	207.05	5	3.35	5	
	τ Cygni	21.10	+ 37.30	.8338	168.88	5	1.65	5	
	"	"	"	.8339	165	1	1.60	1	

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