OBSERVATIONS OF COMET *c* 1903 (BORRELLY)

1903.	Mt. Hamilton M.T.			Star	No. of Comparisons	Comet—Star		Comet's Apparent		$\log p \Delta$	
						$\Delta\alpha$	$\Delta\delta$	α	δ	α	δ
July	14	9 ^h	41 ^m 28 ^s	1	8, 6 +	36.74	—1' 24".7	20 ^h 00 ^m 3.86	+49° 42' 49".6	<i>n</i> 9.690	<i>n</i> 9.692
	15	10	32 24	2	8, 6 +	15.09	+2 53.0	19 35 40.90	+54 47 21.7	<i>n</i> 9.499	<i>n</i> 0.260
	20	8	11 3	3	8, 6 —	1 ^m 25.06	—4 16.3	16 1 41.04	+68 43 9.2	6.175	<i>n</i> 0.663
	24	11	59 25	4	8, 6 +	14.68	—1 11.5	13 19 12.84	+63 51 22.7	0.018	0.548
Aug.	4	8	35 3	5	8, 6 +	54.56	—5 55.4	11 26 35.17	+47 32 31.3	9.840	0.551
	6	10	0 51	7	8, 6 +	14.53	+4 0.8	11 17 46.51	+45 25 23.3	9.778	0.768
	18	7	53 41	8	10, 6 +	30.29	—5 25.0	10 38 34.42	+34 55 35.3	9.740	0.732
	20	7	42 12	9	8, 6 —	13.98	—4 33.0	10 32 32.29	+33 0 16.4	9.729	0.739
	21	7	50 38	11	8, 6 +	26.50	—6 22.1	10 29 31.00	+31 57 54.0	9.715	0.758

MEAN PLACES FOR 1903.0 OF COMPARISON STARS.

Star	α	Red. to app. place	δ	Red. to app. place	Authority
1	19 ^h 59 ^m 23 ^s .65	+3.47	+49° 44' 00".7	+13".6	A.G. Bonn 13699
2	19 35 22.30	+3.51	+54 44 14.1	+14.6	A.G. Harvard 6114
3	16 3 4.71	+1.39	+68 47 6.7	+18.8	A.G. Christiana 2413
4	13 18 58.46	—0.30	+63 52 23.7	+10.5	A.G. Helsingfors-Gotha 7546
5	11 25 40.51	+0.10	+47 38 28.1	— 1.4	Micrometer comparison with (6)
6	11 25 1.47	+0.10	+47 46 47.0	— 1.4	A.G. Bonn 8072
7	11 17 31.79	+0.19	+45 21 25.0	— 2.5	" " 8009
8	10 38 3.63	+0.50	+35 1 8.1	— 7.8	A.G. Lund 5018
9	10 32 45.71	+0.56	+33 4 57.9	— 8.5	Micrometer comparison with (10)
10	10 32 19.05	+0.56	+33 11 31.7	— 8.5	A.G. Leiden 4236
11	10 29 3.90	+0.60	+32 4 24.9	— 8.8	Micrometer comparison with (12)
12	10 29 2.36	+0.60	+32 10 51.6	— 8.8	A.G. Leiden 4221

These observations, which continue the series published in Bulletin No. 47, were all made with the 12-inch telescope, $\Delta\alpha$ being measured directly with the micrometer. The comet was seen several days after the date of the last observation, but the strong twilight glow made stars of the 8th magnitude invisible in the telescope, and no brighter ones were available for comparison. The comet was looked for in the morn-

ing twilight after it had passed the sun, but could not be seen.

I am indebted to Mr. J. D. Maddrill, Fellow in Astronomy, for recording on several nights, and for efficient assistance in the reductions of these observations, as well as those of comets *b* and *d*, 1902.

R. G. AITKEN.

Nov. 25, 1903.