EPHEMERIS OF COMET *d* 1904 (GIACOBINI)

An observation secured on the night of January 28, 1905, indicates that Comet *d* 1904 (Giacobini) is following very closely the orbit given in Bulletin Number 67. I have therefore extended the ephemeris to April 3, 1905, as below. Judging from the comet's appearance on January 28, it will soon pass beyond the reach of all but the most powerful telescopes.

EPHEMERIS FOR GREENWICH MEAN MIDNIGHT.

1905	True α	True δ	$\log r$	$\log \Delta$	Br.
March	6.5	21 ^h 29 ^m 40 ^s +62° 33' 1	0.3824	0.4067	0.56
	8.5	40 07 62 54.8			
	10.5	21 50 31 63 14.4	0.3877	0.4159	0.52
	12.5	22 00 50 32.1			
	14.5	11 02 63 47.9	0.3930	0.4253	0.49
	16.5	21 07 64 01.9			
	18.5	31 04 14.3	0.3983	0.4347	0.46
	20.5	40 52 25.1			
	22.5	50 30 34.4	0.4037	0.4442	0.43
	24.5	22 59 57 42.5			
	26.5	23 09 13 49.3	0.4090	0.4536	0.40
	28.5	18 18 55.0			
	30.5	27 11 64 59.7	0.4143	0.4629	0.37
April	1.5	35 52 65 03.5			
	3.5	23 44 21 +65 06.5	0.4196	0.4720	0.34

Brightness December 20, 1904 = 1.0.

R. G. AITKEN.

February 10, 1905.

OBSERVATIONS OF COMET *e* 1904 (BORRELLY)

Mt. Hamilton M.T.			Star	No. of Comparisons	Comet-Star		Comet's Apparent			$\log p \Delta$	
					$\Delta\alpha$	$\Delta\delta$	α	δ		α	δ
1904	December	31	8 ^h 04 ^m 36 ^s	2	10, 10	+10 ^s 92	+1' 17 ^{''} 9	1 ^h 16 ^m 32 ^s 58	— 8° 07' 02 ^{''} 1	9.251	0.791
1905	January	1	7 05 19	3	10, 8	—23.35	+0 51.6	1 17 47.82	— 7 19 55.5	8.809	0.789
		2	6 32 17	5	10, 10	—25.89	—2 16.9	1 19 06.81	— 6 32 02.2	7.299	0.783
		7	7 25 52	7	12, 6	+ 9.62	+1 31.8	1 26 19.56	— 2 26 40.6	9.133	0.747
		17	8 07 30	9	10, 6	+14.86	+2 44.7	1 42 46.87	+ 5 26 37.1	9.464	0.678
		27	8 41 39	11	10, 8	— 9.16	—5 26.2	2 01 49.91	+12 49 10.4	9.542	0.614
February		3	7 50 16	12	12, 6	+25.55	+3 32.4	2 16 34.9	+17 34 06.	9.476	0.528
		7	8 33 31	14	10, 8	—34.95	—4 33.2	2 25 40.98	+20 09 33.9	9.578	0.534

MEAN PLACES OF COMPARISON STARS FOR 1904.0 AND 1905.0.

Star	α 1904.0	Red. to app. place	δ 1904.0	Red. to app. place	Authority
1	1 ^h 14 ^m 07 ^s 15	+2 ^s 85	— 8° 12' 37 ^{''} 8	+ 9 ^{''} 8	BD.—8°227. Two observ. in Vienna A.G. Zones.
2	1 16 18.81	+2.85	— 8 08 29.8	+ 9.8	Micrometer comparison with (1).
					α 1905.0 δ 1905.0
3	1 18 11.31	—0.14	— 7 20 38.0	— 9.1	Micrometer comparison with (4).
4	1 19 03.07	—0.14	— 7 20 19.2	— 9.1	BD.—7°222. Two observ. in Vienna A.G. Zones.
5	1 19 32.83	—0.13	— 6 29 36.4	— 8.9	Micrometer comparison with (6).
6	1 19 57.66	—0.13	— 6 28 41.0	— 8.9	BD.—6°268. Two observ. in Vienna A.G. Zones.
7	1 26 10.04	—0.10	— 2 28 04.4	— 8.0	München Neue Annalen II:419.
8	1 41 32.98	—0.08	+ 5 28 41.4	— 6.5	A.G. Leipzig II. 668.
9	1 42 32.09	—0.08	+ 5 23 58.9	— 6.5	Micrometer comparison with (8).
10	2 01 21.95	—0.05	+13 00 31.4	— 5.2	A.G. Leipzig I. 625.
11	2 01 59.12	—0.05	+12 54 41.8	— 5.2	Micrometer comparison with (10).
12	2 16 09.4	+0.02	+17 30 38.	— 4.6	BD.+ 17°349, micrometer comparison with (13).*
13	2 19 22.29	+0.01	+17 28 06.9	— 4.4	A.G. Berlin A. 666.
14	2 26 15.91	+0.02	+20 14 11.1	— 4.0	" " 689.

February 10, 1905.

R. G. AITKEN.

* The micrometer comparison is weak.