

OBSERVATIONS OF COMET OF JULY AND AUGUST,
1889, TAKEN AT LAUNCESTON, TASMANIA,
LAT. $41^{\circ} 26' 01''$; LONG. $9^{\circ} 48' 31''$ EAST.

By A. B. BIGGS.

The comet was first observed here on 26th July, faintly visible without telescope. Tail about 1deg. in length, its position angle estimated at $140^{\circ} \pm$. Nucleus, sharp and starlike, about 7 mag., surrounded with considerable nebulosity. Position (approximately) R.A., 13hrs. $21\frac{1}{2}$ min. S. Dec. $23^{\circ} 07'$. (This and the position readings given below were merely the readings of the rough home-made circles of the equatorial, and make no pretension to exactness.) The star comparison measures were all taken with a *Bar* Micro-meter, equilateral triangle, and are apparent difference measures only, uncorrected for refraction, etc. Owing to persistent cloudy and unsettled weather, very few opportunities for star measures were afforded. Circle readings for position were taken as often as opportunity offered.

Telescope.—Reflector, $8\frac{1}{2}$ in., silver on glass by Browning.

APPARENT DIFF. R.A. AND N.P.D. COMET FROM STAR.

Date.	L.M. Time.			Diff. R.A.			Diff. N.P.D.			No. of Obser.	Star.	Comet.	Approximate Place of Comet.			
Aug.	h.	m.	s.	m.	s.	m.	s.	m.	s.				R.A.			
													h.	m.	s.	o
2	20	31	13	+0	-18.75	+ 2	15.8	2	b(see below)	2	b(see below)	S.F.	14	24	30	- 5 0
2	21	57	42	+3	-02.5	-14	52.2	1	a(104 Virg.)	1	a(104 Virg.)	N.F.	"			"
3	22	11	09	-1	-06.7	+ 0	-36.8	3	c	3	c	S.P.	14	31	30	- 3 05
3	22	27	25	+0	-20.5	-17	-26.3	3	d	3	d	N.F.	"			"
15	21	55	13	-1	-08.4	+20	-03.3	6	17 Serp.	6	17 Serp.	S.P.	15	31	—	+14 51
17	22	24	23	+1	-52.5	-23	-28.8	1	19 Serp.	1	19 Serp.	N.F.	15	38	—	+16 43
27	19	40	05	-1	-07	+24	-21	3	10 Herculis	3	10 Herculis	S.P.	16	5	—	+23 25½

NOTES AND REFERENCES.—August 2. *a*.—104 Virg. (?) *b*.—About 7 mag., close to a small nebula, "70" (Proctor's Atlas), looking like a detached wisp of the comet. *c*.—A minute star (10.11m.).

August 3.—"*c*" "*d*"—Not identified, each 7m. +

" 17.—Brightness of nucleus, about 8m.

" —Tail estimated about 10' length.

" — " Position angle, $120^{\circ} \pm$

N.B.—The brightest star available always selected, except as to *b*, August 2, on account of proximity to nebula.