

COMET *e* 1894 (SWIFT).

This comet, discovered by EDWARD SWIFT Nov. 20, was observed by BARNARD at the Lick Observatory on the three days immediately following. These observations are given in detail in this number, page 151.

The comet was very faint, and estimated by Prof. BARNARD as not so bright as a 13^m star.

No other observations seem to have been made in the United States with the exception of one made by Father SEARLE, at the Catholic University of Washington. He found difficulty in detecting it, his telescope having but nine inches aperture, but obtained the following observation.

1894 Greenwich M.T.	*	No. Comp.	Δa	$\Delta \delta$	a	δ	$\log p\Delta$ for a	$\log p\Delta$ for δ
Nov. 28 12 ^h 1 ^m 18 ^s	1	4	+4 ^m 26.98	+11 ['] 45.9	22 ^h 40 ^m 55.20	-10 [°] 28 ['] 47.0	8.949	0.824
12 1 18	2	4	+3 ^m 25.84	+10 ['] 27.2	22 40 55.49	-10 28 48.3	8.949	0.824

Mean Places for 1894.0 of Comparison-Stars.

*	a	Red. to app. place	δ	Red. to app. place	Authority
1	22 ^h 36 ^m 25.24	+2.98	-10 [°] 40 ['] 46.2	+13.3	Lalande 44373 (Yarnall)
2	22 37 26.67	+2.98	-10 39 28.8	+13.3	65 <i>Aquarii</i> (Newcomb)

The following parabolic elements computed by LEUSCHNER from BARNARD's observations were received by telegraph from California, Nov. 29.

$$\begin{aligned} T' &= 1894 \text{ Oct. } 4.90 \\ \omega &= 291^{\circ} 48' \\ \Omega &= 43 \quad 4 \\ i &= 3 \quad 16 \\ \log q &= 0.1674 \end{aligned}$$

A finding-ephemeris, derived from these by Father SEARLE, was at once distributed among American astronomers by Mr. RITCHIE.

Greenwich M.T.	a	δ	Brightn.
Dec. 2.5	22 ^h 53 ^m 36 ^s	-8 [°] 58 [']	0.70
6.5	23 4 20	-7 40	
10.5	23 14 48	-6 23	
14.5	23 25 0	-5 8	0.51

The correction indicated by SEARLE's observation was about -1^m.6 in a , and -12' in δ .

The indications suggest an orbit belonging to the same group with the comets 1585, 1844 I, 1886 VII, etc.

The positions of Nov. 21, 23, 28 presented the peculiar case that they are in a great circle, and the geocentric angle

between sun and comet is not far from 90°. This great circle Father SEARLE found to be inclined to the equator by 27° 47' 40", having its node at 0° 46' 33".

From these observations Dr. CHANDLER has determined an approximate parabola for providing a finding-ephemeris.

ELEMENTS.

$$\begin{aligned} T &= 1894 \text{ Oct. } 25.1111 \text{ Greenw. M.T.} \\ \omega &= 306^{\circ} 23' 28.7 \\ \Omega &= 44 \quad 50 \quad 42.9 \\ i &= 3 \quad 10 \quad 13.0 \\ \log q &= 0.18237 \end{aligned} \quad \left. \begin{array}{l} \\ \\ \\ \end{array} \right\} \text{App. Equin.}$$

$$O-C, \Delta \lambda \cos \beta = +7''.0, \Delta \beta = -4''.8$$

EPHEMERIS FOR GREENWICH MIDNIGHT.

	a	δ	$\log \Delta$	Brightn.
Dec. 14.5	23 ^h 26 ^m 29 ^s	-4 [°] 55.7	0.1464	0.61
18.5	37 25	3 33.9	0.1610	0.55
22.5	48 10	2 13.6	0.1754	0.51
26.5	23 58 44	-0 54.7	0.1903	0.46
30.5	0 9 8	+0 22.5	0.2052	0.41

The comet is doubtless of short period, and since its apparition will be brief, observations are much needed.

CORRIGENDUM.

No. 330, p. 141, col. 2, maximum brightness of χ Cygni, for 4^m.9 put 4^m.3.

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