

*List of Nebulæ discovered at the Chamberlin Observatory,
University Park, Colorado. By Herbert A. Howe.*

(Communicated by the Secretaries.)

While observing nebulae and comets with the 20-inch refractor, I have from time to time chanced upon new nebulae, a list of which follows. The positions of all, with one exception, have been micrometrically measured, and are given for 1900.0.

No.	Date.	R.A.			Dec.	Description.
		h	m	s		
1	Jan. 15	0	48	17	+ 5 13.7	eF, S, bet st 12 ^m and 13 ^m
2	15	0	49	32	+ 5 13.9	11 ^m nebulous *. 9 ^m * p 10 ^s , 4'5 n.
3	June 24	0	53	41	+ 0 2.8	vF, cS, R, lbM.
4	July 3	1	21	41	- 4 1.3	12 ^m nebulous *. FD * 2' nf.
5	Jan. 14	4	18	7	-15 53.8	eF, vS. Near N.G.C. 1561-5.
6	Feb. 22	5	27	54	-13 59.9	vF, S. Near N.G.C. 1954 and 1957.
7	11	6	12	14	-21 20.4	eF, pS, f N.G.C. 2207 7 ^s .
8	16	8	14	31	-25 3.4	pB, vS, R, lbM, 6' n of N.G.C. 2566.
9	22	8	21	37	-12 58.5	F, vS, elongated at 90°, 1st of 3.
10	22	8	21	44	-12 58.7	eF, vS, 2nd of 3.
11	22	8	21	45	-12 57.9	vF, vS, 3rd of 3.
12	Mar. 23	8	41	30	-14 59.4	vF, eS, lE.
13	Feb. 23	9	0	58	-18 48.4	F, vS, R, 10' s of N.G.C. 2754, 2757, and 2758.
14	Apr. 25	11	10	32	-13 37.5	eF, S.
15	20	12	45	44±	-13 56	F, S, R, n of 11 ^m *.
16	Oct. 19	21	3	40	-23 17.1	eF, vS, diffic.
17	Sept. 30	21	34	15	-22 52.7	eeF, S, diffic. In field with N.G.C. 7103 and 7104. Another susp. 1' s.
18	Oct. 20	22	7	0	-23 27.1	eF, vS, f N.G.C. 7220 63 ^s .
19	Sept. 27	23	15	30	-22 41.8	eF, eS, nearly stell., 13 ^m ; 9.5 ^m , 5' n.
20	28	23	18	55	-12 24.6	vF, vS, f 9.5 ^m * 1 ^s .
21	Dec. 14	23	29	28	- 5 5.2	nebulous * 10.5 ^m . Possibly close D *. Extended nebulosity susp. at 135° and 315°.
22	Oct. 1	23	46	20	-13 56.2	F, vS, R, bM = * 12.5 ^m .

Notes.

I would like to call the attention of observers with large telescopes to No. 22 of the above list. Its position is near those of N.G.C. 7761 and 7776, neither of which can I find. The position of N.G.C. 7761 was micrometrically observed by its discoverer, and its R.A. (1900.0) is $23^{\text{h}} 44^{\text{m}} 19^{\text{s}}$. The description of No. 22 tallies well with that of N.G.C. 7761, except that there is no $10^{\text{m}} \star 8^{\text{p}}$. N.G.C. 7776 is supposed to follow No. 22 74^{s} , and is described as eF, vS, 1E, gbM.

The following objects were not included in the preceding list, because their positions are not very accurate, and they were all looked for without success in 1897 October. The failure to see them at that time may, however, have been due to their extreme faintness.

Date.	R.A.	Dec.	Description.
	h m s	° ' "	
1894 Dec. 27	0 1 16	-0 38	eF, prob. S.
1895 Aug. 23	0 34 0	+5 25	eF, prob. S. Seen also on Aug. 24.
1895 Aug. 23	0 34 25	+6 4	nebulous \star , prob. vF. Seen also on Aug. 24.
1894 Dec. 3	22 55 25	-8 40	eF, prob. S.

Observations of Comet h 1898 (Perrine-Chofardet) made at the Royal Observatory, Greenwich.

(Communicated by the Astronomer Royal.)

The observations were made with the Sheepshanks equatorial, aperture 6.7 inches, by taking transits over two cross wires at right angles to each other, and each inclined 45° to the parallel of declination. Magnifying power, 55.

Greenwich Mean Solar Time.	Observer.	♠-* R.A. h m s	♠-* N.P.D. ° ' "	Corr. for Refrac- tion.	Log Factor of Parallax.	Log Factor of Parallax.	No. of Comps.	Apparent R.A. h m s	Apparent N.P.D. ° ' "	Comp. Star.
1898. Sept. 21 16 24 14	A. C.	+1 59.33	-0.04	-0.04	9.6115	0.7936	4	10 29 40.60	64 12 14.0	a
21 16 21 6	"	-2 46.70	+0.05	+0.05	9.6116	0.7956	1	10 29 40.49	64 12 0.6	b

The observations are corrected for refraction, but not for parallax. They are also corrected for the error of inclination of the wires and for the motion of the comet.

The initials A. C. are those of Mr. Crommelin.

Comparison Stars.

Star's Name.	Assumed R.A. 1898 ^o . h m s	Assumed N.P.D. 1898 ^o . ° ' "	Authority.
a W.B. (2), X. 501	10 27 39.01	64 20 58.4	Cambridge Astr. Gesell. Catalogue and Paris Catalogue, 1860.
b W.B. (2), X. 594	10 32 24.86	63 59 22.8	" " "

A proper motion of +0.0077 in R.A. has been applied to star a, deduced from comparison with Lalande and Weisse's Bessel.

*Royal Observatory, Greenwich:
1898 Sept. 27.*