

KG
11365
268

M.20

KG 11 365.268

$\frac{L}{50}$

185 optae

KG 11365.268



Catalogue of Bright Nebulae Clusters

Herschel's
Number

R

Dec

Description

13	0° 07' + 16° 23'	B; S; s.l.m
20	0° 16' + 60° 23'	Cluster - compr. 3' diam
X 2315	0° 07' - 40° 10'	v.B; v.L; E 25' long
2327	0° 22' - 34° 12'	v.B; L; 5' long
28	0° 23' + 62° 20'	Cluster 11 th & 12 th mag. 10' diameter
2329	0° 25' - 32° 43'	v.B
34	0° 29' + 84° 24'	Cluster very large 200 * 10 th to 18 th mag.
36	0° 30' + 60° 08'	Cluster large 8' diam * 11 th to 15 th mag.
44	0° 31' + 40° 45'	p.B; v.L; mE = 15' L; 7' br.
46	0° 32' - 14° 49'	B; B; p.s.b.m
50	0° 33' + 40° 20'	Great Nebula in Andromeda
51	0° 33' + 39° 56'	Companion nebula e.B; p.L; s.b.m
52	0° 33' + 60° 52'	Cluster, L, * 9 th to 10 th mag.
* 2345 α 61	0° 39' - 26° 13'	v.L; mE; v.B. - v.v.B; v.v.L 30' long 3' br. *
X 2359	0° 47' - 38° 37'	Cluster v.L. *
X 84, 85, 86, 87	0° 58' + 31° 30'	very large diffused *
2347	0° 39' - 32° 21'	v.B; S * 9 th 5' n.f.
70	0° 42' - 7° 59'	p.B; S
71	0° 42' + 46° 38'	B; S; B. v.g.l.b.m 20"
X 2354 α 74	0° 44' - 27° 30'	Cluster - fine rich B; L * 12 th 16 th *
2355 2354	0° 44' - 32° 08'	Cluster B; L; * 12 th 16 th v.B; L.
117	1° 15' + 8° 39'	v.B p.L 60"
124	1° 18' + 61° 25'	Cluster fine rich 5'
126	1° 22' + 59° 60'	Cluster coarse rich 6'
128	1° 23' - 7° 44'	B 60"
2418	1° 22' - 23° 23'	B.L 3' long

$\Delta 102, 104$ de	$1^h 15^m + 32^s 30$	Δ v L & B map. in a triangle of stars	*
X 142	$1^h 27^m + 14^s 53$	B. L 5'	very faint *
131	$1^h 24 + 29.47$	v. v L	
2422	$1^h 26 - 30.16$	v. B; L	
145	$1^h 32 + 61.02$	Cluster fine Rich	
146	$1^h 33 + 55.00$	Rich loose Cluster	
165	$1^h 44 - 14.34$	v B 40"	
174	$1^h 47 + 36.50$	v v L scattered Cluster	
182	$1^h 50 + 30.34$	B 40"	
183	$1^h 52 - 7.39$	B p L	
207	$2^h 07 + 56.23$	Cluster in Perseus	
212	$2^h 10 + 56.23$	"	
223	$2^h 19 - 1.52$	v B v L 2'	
226	$2^h 20 + 36.22$	B 30"	
2			
242	$2^h 30 + 38.20$	v B E 5'	
248	$2^h 31 + 42.03$	Cluster fine $20 \times 19^h 10^h$ Large	
252	$2^h 33 - 8.59$	B 20"	
X 262	$2^h 34 - 0.44$	v B * 2's f	very faint *
2494	$2^h 36 - 29.44$	B. 90"	
X 264	$2^h 38 - 8.14$	v B L 100"	Faint *
286	$2^h 58 - 16.16$	v B 30"	
2509	$3^h 02 - 21.15$	p B - v L 4'	
X 290	$3^h 03 + 46.36$	Cluster Rich L 5' * 12 ^h 15 ^h	*
2528	$3^h 09 - 41.43$	v B - 8 -	

2522	3.12	-20.62	pB. 2 8'
2527	3.16	-37.57	vB 2 4'
2538	3.21	-32.52	B r
2525	3.23	-34.19	B 2
2546	3.24	-21.26	B 2 2'
2532	3.27	-36.43	vB 3'
x 2535	3.28	-25.30	B 2 2'
2539	3.29	-35.35	vB 2 R
2564	3.30	-36.05	Cluster vB 90"

*pretty Conspicuous **

2566	3.31	-23.34	vB 60"
2569	3.32	-36.02	Cluster vB 2'
2540	3.32	-19.08	vB 2 3'
2541	3.32	-36.09	vB R 40"
2581	3.37	-36.45	B. Cluster probably

30

348	3.37	+52.08	Cluster of 20 * 12 th mag.
-315	4.19	+34.54	B 2 2'

337	4.49	+52.37	very loose Cluster * 10 th to 20 th .
342	4.58	-3.34	B 2 3'

2730	4.59	-38.14	vB 2 5'
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x 2777	5.08	-40.15	Superb Cluster vB. R 4' <i>slightly easy acc</i>
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349	5.2	+16.32	Cluster vL - rich 10 th to 19 th
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357	5.14	+33.14	Cluster coarse 9 th to 15 th
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352	5.17	+35.10	Cluster of 50 * 9 th to 12 th mag
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+ 357	5.24	+21.54	vL 4' long 70" 80" in parallax s R +
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358	5.25	+34.03	Cluster pR-B coarse
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2811	5 ^h 15 ^m - 35 ^m 33	Cluster - 2 scattered * 10 ^h 13 ^h
362	5 ^h 27 - 4 ^h 28	Cluster poor but very splendid
2896	5 ^h 32 - 14 ^m 57	A Cluster or Group
2924	5 ^h 38 - 34 ^m 02	Cluster coarse-loose.
X 368	5 ^h 38 + 0 ^m 00	v 2 5'
369	5 ^h 41 + 32 ^m 30	Cluster v fine 2. * 10 ^h to 15 ^h 500 fills 1 1/2 fields
377	5 ^h 58 + 24 ^m 20	Cluster Large p rich v <u>large</u> 2 or 3 fields
* 379	5 ^h 59 + 14 ^m 00	Cluster 20 or 30 * 10 ^h 11 ^h very faint *
380	6 ^h 01 + 4 ^m 45	Cluster fine p rich
3041	6 ^h 15 - 22 ^m 10	B R 30"
411	6 ^h 40 - 20 ^m 34	Cluster fills field coarse
413	6 ^h 43 + 00 ^m 40	Cluster fine 10'
3085	6 ^h 43 - 35 ^m 49	p B R 30" resolved
415	6 ^h 45 + 18 ^m 15	Cluster p 2 rich 5'
422	6 ^h 52 - 13 ^m 28	Cluster v loose 8 ^h 9 ^h mag * 1
425	6 ^h 53 - 08 ^m 05	Cluster fine v 2 10' to 30'
427	6 ^h 53 + 1 ^m 20	Cluster rich 10' diam large
432	6 ^h 57 + 27 ^m 27	Cluster large straggling
3073	7 ^h 00 - 12 ^m 54	Cluster 7' * 10 ^h 14 ^h
3075	7 ^h 10 - 12 ^m 54	Fine Nebula 12'
440	7 ^h 10 - 15 ^m 20	Cluster rich * 10 ^h
441	7 ^h 12 - 24 ^m 39	Cluster beautiful 8'
3089	7 ^h 29 - 20 ^m 14	Cluster fine rich * 11 ^h 13 ^h
3081	7 ^h 17 - 26 ^m 36	Cluster 5'
3090	7 ^h 29 - 13 ^m 29	Cluster large & rich

X 7.20 +65.57 A suspected object not in G. Cat. after search

3092	7.23	-18.42	Cluster v fine & rich * 10 th fills field
463	7.34	-14.26	3093. Cluster & Planetary Nebula
3094	7.34	-31.15	Cluster of 150 x 1 B. 2.
X 458	7.28	+21.57	Cluster p. Rich 6' * 11 th to 15 th 6° South of Pelage
X 3098	7.34	-23.28	Fine Cluster
3099	7.39	-34.33	Diffused Cluster very L
3102	7.42	-20.53	Cluster 10'
3103	7.46	-38.07	Superb Cluster 20' * 10 th 11 th
3106	7.48	-23.57	Cluster diam 20'
X 480	7.52	-10.20	Cluster v L pretty L. Cluster *
X 499	7.49	-29.36	Cluster L 3' * 12 th More Close to this br *
3114	8.03	-12.19	Cluster diam 5'
496	8.05	-65.15	Cluster superb fills field * 9 th 13 th
503	8.12	-30.08	Cluster fine * 11 th diam 20'
3123	8.15	-29.46	Cluster p Rich 10'
3129	8.26	-22.23	p B - L - 3'
576	8.30	-29.21	Cluster 6' * 11 th - 13 v Large fills field
M4 577	8.30	+20.34	Prosepe M 44
520	8.33	+78.50	v B 30"
526	8.40	+19.41	B
530	8.41	+57.57	B L extensive nebulosity
531	8.41	+12.28	Cluster v L 200 x 1 11 th to 15 th mag.
X 532	8.42	+34.03	v B v L 5' very faint elongated *
X 555	8.59	+60.44	has beam, sun
564	9.07	+4.16	B 2
3147	9.03	-14.8	B 40"

3148	g ^m 5	-23.28	B 4'	
3152	g ^{op}	-35.52	Cluster 8'	Curious Object * 12 ^h 14 ^m
584	g ^m 10	+57.40	vB v m E	
593	g ^m 14	+35.15	B 40"	
* 604	g ^m 23	+22.15	vB v L 3'	p. faint *
622	g ^m 33	+32.35	B v L 2'	
629	g ^m 34	+43.04	vB 50"	
649	g ^m 41	+69.53	v. vB v. v L 4'	
3209	g ^m 57	-26.06	B R 30"	
668	g ^m 57	-6.54	vB. L 3'	
694	10 ^m 02	+44.15	vB L	
3236	10 ^m 27	-26.02	B 3'	
702	10 ^m 14	+67.40	Cluster 10'	20x1 10 ^h -12 ^m mag
711	10 ^m 18	+29.23	vB 40"	
721	10 ^m 23	+29.23	B 30"	
728	10 ^m 28	+22.45	B 35"	
738	10 ^m 34	+23.45	B 40"	
743	10 ^m 35	+12.35	vB L 2'	
749	10 ^m 38	+12.42	vB L 6'	
752	10 ^m 39	+14.54	vB 45"	
757	10 ^m 39	+13.29	vB 50"	
758	10 ^m 39	+13.31	vB 40"	
772	10 ^m 42	+28.53	B 50"	
777	10 ^m 43	+06.45	F v L 3'	
782	10 ^m 43	+34.00	B L	the n/2 of three

782	10.43	+34.00	B 2
786	10.44	+55.13	B E 2'
805	10.51	+29.53	B 2 2'
806	10.51	+14.49	B
810	10.52	+28.52	B 60"
* 818	10.54	+00.43	B 2 4'
831	11.01	+56.35	B 2 2'
* 838	11.05	+53.54	B 4'
843	11.06	+19.03	B 35"
844	11.08	+18.53	Joint small 12"
845	11.08	+18.54	B 35"
846	11.08	+19.04	B 30"
4.08			
847	11.08	+59.43	B
848	11.09	+58.56	B E
852	11.10	+15.00	B 4'
857	11.11	+18.52	B 2 3'
881	11.15	+39.42	B 50"
c			
887	11.14	+44.32	B 2
891	11.18	+19.48	B 40"
894	11.19	+18.09	B 2 2'
945	11.32	+39.31	B 90"
943	11.34	+14.43	B 40"

981	11 ^h 39 ^m	-10 ^s 0'	2 60"
988	11 ^h 40	+24 ^m 58	B 40"
3366	11 ^h 42	-24 ^m 55	B 80"
1002	11 ^h 44	+45 ^m 04	B v2 a superb Nebula
1005	11 ^h 44	+34 ^m 57	v B 90"

3340	11 ^h 46	-13 ^m 07	v B 40"
3341	11 ^h 51	-18 ^m 19	Cluster 2 * 2 16 ^k
1022	11 ^h 47	+44 ^m 42	B 25"
* 1030	11 ^h 49	+57 ^m 20	v B v2 3'
1038	11 ^h 49	+29 ^m 09	B p2 40"

1039	11 ^h 50	—	Same as 1038
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1041	11 ^h 50	+44 ^m 54	B. E.
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3341	11^h 51	-16^m 19	Faint Cluster
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1058	11 ^h 58	+44 ^m 00	v B 40"
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1094	12 ^h 00	+11 ^m 20	B E
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1106	12 ^h 01	+19 ^m 30	B 80"
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1111	12 ^h 02	+34 ^m 22	v B 30'
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1112	12 ^h 02	+14 ^m 00	v B
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1114	12 ^h 02	+57 ^m 26	B 4'
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+1222

1132	12 ^h 05	+16 ^m 52	B v2 10'
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* 1140	12 ^h 06	+34 ^m 09	B
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1144	12 ^h 07	+07 ^m 21	B p2
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1148	12 ^h 07	+14 ^m 06	v B v2 7'
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1159	12 ^h 08	+08 ^m 09	B
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12^h.07 +34^o.00

H 1140-1156-1158

1163 12^h.08 +20^o.22 v. v. 2 vF1168 12^h.09 +30^o.33 vB 60"1171 12^h.10 +29^o.04 vB1173 12^h.10 +18^o.22 B v 2 5'* 1175 12^h.10 +48^o.15 vB v 2 8'1176 12^h.11 +06^o.44 vB 40"1185 12^h.11 +30^o.34 vB v 2 2'1187 12^h.12 +06^o.20 vB v 2 3'1190 12^h.12 +06^o.18 vB four1194 12^h.12 +06^o.20 B1202 12^h.13 +05^o.25 B v 21204 12^h.14 +30^o.57 vB1205 12^h.14 +30^o.10 vB1211 12^h.14 +16^o.45 v 21221 12^h.15 +14^o.36 vB 30"* 1225 12^h.15 +44^o.52 vB 50"1231 12^h.16 -14^o.50 vB 21232 12^h.16 +08^o.16 vB 50"1234 12^h.16 +40^o.20 B 30"* 1237 12^h.16 +13^o.50 vB 1'1242 12^h.17 +16^o.08 vB 2'1252 12^h.17 +34^o.30 v 2 10'* 1253 12^h.17 +13^o.04 vB1258 12^h.18 +32^o.60 vB 2 3'

* 1291	12 ^h 19 ^m +12 ^s 03	B 2	Giant with 3 others	*
* 1294	12 ^h 19 ^m +14 ^s 00	v B		
1295	12^h 19^m +13^s 54			
* 1299	12 ^h 19 ^m +10 ^s 45	v B 30"		
* 1281	12 ^h 20 ^m +45 ^s 02	B v 2 3'	Small pretty faint *	
1282	12 ^h 20 ^m +88 ^s 01	B 2 100"		
1286	12 ^h 20 ^m +07 ^s 30	B 30"		
* 1294	12 ^h 21 ^m +08 ^s 52	v B 2'		*
* 1307	12 ^h 22 ^m +13 ^s 20	v B v 2 3'		*
1307	12 ^h 23 ^m +26 ^s 43	v B 50"		
1308	12 ^h 23 ^m +42 ^s 30	v B v 2		
1312	12 ^h 23 ^m +16 ^s 22	B v 2 8'		
1329	12 ^h 25 ^m +08 ^s 38	v B E		
1339	12 ^h 29 ^m -2 ^s 57	v B E 2'		
1348	12 ^h 29 ^m +13 ^s 30	v B 50"		
1352	12 ^h 29 ^m +28 ^s 54	v B v 2 4'		
1352	12 ^h 28 ^m +26 ^s 56	v 2	an immensely long ray	
1358	12 ^h 28 ^m +12 ^s 13	v 2	double	
1361	12 ^h 28 ^m +08 ^s 11	v B E 2'		
1362	12 ^h 29 ^m +14 ^s 43	Doublet 2 or 3 *	M 91?	
1368	12 ^h 29 ^m +12 ^s 45	v B v 2 5'		
* 3404	12 ^h 30 ^m -25 ^s 49	Cluster 3' x 12 ^h		*
1324	12 ^h 31 ^m +28 ^s 08	v B		
1326	12 ^h 31 ^m -10 ^s 40	v B v E 5'		

1398	12 ^h 31 ^m	11 ^s 0 ^u 4	B 30"
1384	12 ^h 33	08 ^m 15	p.B 30"
1386	12 ^h 33	12 ^m 35	B 20"
1392	12 ^h 34	33 ^m 29	v m E 15' Enormously long
1399	12 ^h 34	03 ^m 38	B 30"
1401	12 ^h 34	04 ^m 38	v B 40"
1408	12 ^h 35	12 ^m 29	v B Double very fine
1409	12 ^h 35	12 ^m 20	v B 30"
1414	12 ^h 36	+33 ^m 08	v L very much elongated
1412	12 ^h 36	+12 ^m 08	v B
1431	12 ^h 39	+14 ^m 42	v L E 4'
3425	12 ^h 40	-2 ^m 44	v B 2'
1436	12 ^h 40	-4 ^m 52	v B L
1432	12 ^h 40	-2 ^m 44	v B
1441	12 ^h 41	+16 ^m 56	v B E
1457	12 ^h 42	+26 ^m 26	v B v L 4'
* 1456	12 ^h 43	+42 ^m 03	v, v B v L 4'
1469	12^h 45	+03^m 02	B 1'
1484	12^h 48	-02^m 32	
1485	12 ^h 48	+28 ^m 56	v L
* 1486	12 ^h 48	+22 ^m 36	B v L v m E 8'
* 1498	12 ^h 57	+15 ^m 06	v B m E
3465	12 ^h 54	-2 ^m 56	v B 90"
1536	13 ^h 00	-14 ^m 32	v B 30"

1542	13 ^h 03 ^m +38 ^s .00	vB vL 4'
*1538	13 ^h 04 ^m +19 ^s .05	Cluster a most beautiful object
3492	13 ^h 12 ^m -35 ^s .45	vB 50"
3493	13 ^h 12 ^m -26 ^s .32	vB
1564	13 ^h 06 ^m +34 ^s .30	B
1569	13 ^h 08 ^m +18 ^s .34	vL 10'
*1540	13 ^h 08 ^m +42 ^s .56	B
*3480	13 ^h 09 ^m -25 ^s .54	B 12"
3501	13 ^h 15 ^m -42 ^s .68	vB. vL 5'
3504	13 ^h 14 ^m -46 ^s .35	Cluster w Centauri vB. vL 20'
*1622	13 ^h 23 ^m +48 ^s .04	vB astonishing object
1650	13 ^h 29 ^m +9 ^s .46	vB vL 3'
*3523	13 ^h 24 ^m -29 ^s .00	vB vL 8' same Rich Spica ^{near} conspicuous
3526	13 ^h 30 ^m -30 ^s .46	vB 2' ^{Nebulous region}
*1663	13 ^h 34 ^m +29 ^s .14	Cluster most superb object
1684	13 ^h 43 ^m +61 ^s .03	vB 40"
1703	13 ^h 44 ^m +06 ^s .05	vB 30"
1713	13 ^h 49 ^m +48 ^s .04	B v m E
*1744	13 ^h 54 ^m +53 ^s .11	E vL 5'
1746	13 ^h 58 ^m +29 ^s .21	Cluster v rich 10' * 12 ^h 18 ^m
1746	14 ^h 11 ^m +34 ^s .14	B
1749	14 ^h 12 ^m +04 ^s .43	B
1783	14 ^h 13 ^m +04 ^s .04	vB
1817	14 ^h 21 ^m +04 ^s .00	B

3526	14 ^m 30	-25 ^o 48	vB 20"
1822	14 ^m 36	+02 ^o 25	L
3582	14 ^m 52	-56 ^o 46	vB S 15"
x 3611	15 ^m 35	-37 ^o 13	Cluster vB 3' * 13-15 th fine object *
1905	15 ^m 00	+20 ^o 12	Double
1909	15 ^m 02	+56 ^o 26	vB 50"
+ 1916	15 ^m 10	+02 ^o 44	Cluster magnificent *
1912	15 ^m 11	+56 ^o 52	
3624	16 ^m 07	-22 ^o 33	Cluster vB 3' * 14 th
x 3637	16 ^m 23	-12 ^o 40	Cluster v rich 5' it diffused *
3628	16 ^m 16	-38 ^o 22	B. 2' Cluster? *
3640	16 ^m 22	-48 ^o 40	vL Diffused
3641	16 ^m 28	-43 ^o 02	Cluster coarse rich * 12 th -11 th
1968	16 ^m 35	+36 ^o 42	Cluster very rich vL 8'
x 1941	16 ^m 38	-51 ^o 38	Cluster very rich vL 10' *
3634	16 ^m 44	-39 ^o 13	Cluster B L 12'
x 1942	16 ^m 48	-03 ^o 50	Cluster superb *
x 3661	16 ^m 50	-29 ^o 57	Cluster vB L 7' *
x 1945	16 ^m 52	-26 ^o 00	Cluster fine *
1977	17 ^m 00	-26 ^o 20	vB 90"
+ 1979	17 ^m 09	-18 ^o 20	3' faint faint *
3665	16 ^m 54	-24 ^o 31	Cluster 2' B
x 1983	17 ^m 26	-03 ^o 08	Cluster vL 10' * very small *
x 3620	17 ^m 04	-29 ^o 15	Cluster B 2' * 15 th faint *
3683	17 ^m 14	-12 ^o 38	Cluster vB 90"
3690	17 ^m 24	-44 ^o 36	Cluster vB 4'
x	17 ^m 12	+43 ^o 30	Bright M. 92 *

3699	14 ^m 29	-32 ^o 06	Cluster Fine L
3702	14 ^m 33	-32 ^o 14	Cluster v L rich 15'
3705	14 ^m 39	-36 ^o 59	Cluster v B 90"
3706	14 ^m 39	-34 ^o 48	Cluster fine rich scattered
3708	14 ^m 40	-34 ^o 34	3' diam - condensed nebulous ^{= M 7?} snags
1990	14 ^m 47	-19 ^o 01	Cluster coarse v rich * 11 ^h 12 ^h
* 3722	14 ^m 53	-24 ^o 14	A noble nebula
1991	14 ^m 52	-23 ^o 01	v L 7'
1993	14 ^m 54	-22 ^o 30	Cluster p rich coarse
* 3725	14 ^m 54	-24 ^o 19	Cluster L & B - fills field <i>very bright *</i>
1995	14 ^m 59	-18 ^o 27	Cluster v coarse
1998	18 ^m 03	-21 ^o 36	Cluster v L v coarse
3736	18 ^m 03	-31 ^o 57	Cluster B 3'
2004	18 ^m 08	-18 ^o 28	Cluster of Milky way
2006	18 ^m 09	-13 ^o 50	no descrip M 16
2007	18 ^m 10	-14 ^o 12	Cluster coarse & poor
2008	18 ^m 11	-16 ^o 18	Horse shoe nebula 7'
3742	18 ^m 13	-30 ^o 26	Cluster v B 4'
* 2010	18 ^m 14	-24 ^o 54	Cluster v & not v B a fine object * 14 ^h 15 ^h *
3747	18 ^m 20	-32 ^o 28	Cluster B 3'
* 2015	18 ^m 26	-24 ^o 01	Cluster magnificent
* 3756	18 ^m 32	-32 ^o 24	Cluster B 3'
* 2019	18 ^m 42	-06 ^o 24	Cluster v beautiful 10'
* 3763	18 ^m 44	-30 ^o 41	v. B 2' Cluster <i>S. R. bright *</i>

3770	18 ^h 48 ^m - 36 ^s 30	not faint	X
2023	18 ^h 49 ^m + 32 ^s 50	neb. in Lyra	
2036	19 ^h 10 ^m + 29 ^s 54	Cluster fine 2 3'	*
2048	19 ^h 35 ^m + 39 ^s 48	Cluster v 2 v rich	*
2056	19 ^h 46 ^m + 18 ^s 20	Cluster v 2 v rich fills field	*
2060	19 ^h 52 ^m + 22 ^s 14	Drumbell	*
2042	19 ^h 20 ^m + 24 ^s 150	2 2 p Rich Cluster	
3798	19 ^h 29 ^m - 31 ^s 21	Cluster p 13. 2 2 7	
2061	19 ^h 53 ^m + 10 ^s 48	Cluster oblong 10' p rich	* 13. 16 ^s very bright X
2063	19 ^h 53 ^m + 53 ^s 40	Cluster small 3' * 12-16	Cometary
2064	19 ^h 56 ^m - 22 ^s 24	2 13 R 2' very small	Sp. Capricorn
2071	20 ^h 05 ^m + 26 ^s 00	Cluster splendid 9 ^s 11 ^s	
2078	20 ^h 18 ^m + 38 ^s 00	Cluster coarse	
2084	20 ^h 31 ^m + 59 ^s 34	v F v 2 a Cluster 1 p. 2 13 16 ^s	Bright X
3834	20 ^h 24 ^m - 22 ^s 33	B 2'	
2088	20 ^h 39 ^m + 30 ^s 04	Great nebularity	
2090	20 ^h 44 ^m - 13 ^s 10	p 13 compressed Cluster M 72	
2092	20 ^h 49 ^m + 31 ^s 03	Great nebularity	
2098	20 ^h 55 ^m - 12 ^s 02	v 13 planetary nebula	
2120	21 ^h 22 ^m + 11 ^s 26	v 13 v 2 Cluster magnificent	*
2124	21 ^h 25 ^m + 50 ^s 50	Cluster fine rich	
22125	21 ^h 25 ^m + 1 ^s 34	Cluster superb	*
2126	21 ^h 26 ^m + 4 ^s 40	Cluster large loose	
2128	21 ^h 31 ^m - 23 ^s 53	Cluster fine	
3911	21 ^h 52 ^m - 32 ^s 48	v 13 40"	
2143	22 ^h 29 ^m + 33 ^s 31	v 13 p 2 90"	
2148	22 ^h 34 ^m + 60 ^s 24	13	
2182	22 ^h 39 ^m + 54 ^s 18	Cluster 2 p rich	

~~2244~~ -
 3963 22.44 - 34.56 B v2 4'
 2216 23.06 + 03.37 2B 2 80"
 2238 23.14 + 60.40 Cluster rich irregular 8'
 2241 23.18 + 41.36 2B Planetary nebula
 4005 23.39 - 31.24 B 2 2'

 2242 23.42 + 67.02 Cluster v2 v Course

1850 June 16th 1850
Tuesday June 16th 1850

Went up to observe, sky clouded over soon after the instrument was put out; waited 1 hour.

Monday June 17th 1850

June 17/18

19.43 -9

W

14.20

18 23

Same by Globe.

Swept from Moon set at
12 P.M. to Orizaba at 3 A.M.
Between Orizaba & Lyra on
the meridian

1° 5' 3" prec the prec x of Cygnus - on the sp 200
from the Cloud

July 4th 1850

Has been entirely Cloudy this Moon up
to this Evg. 4th. In the P.M. at 11 P.M.

July 6th

July 6th 1850

35-Serpentis is brighter than Zeta. or than Epsilon, & nearly equal perhaps quite, to Alpha.

3637. seen, & 1979. 1979 small, round, pretty bright!! 3637. pretty large, pretty conspicuous.

Swept this evg. West of Merid from twilight to 18^h or the Western edge of Milky way

1050 July 8th P.M.

Comet? near 2084?

0 1 " 2557 GR
→ 7^h 35^m 00^s 18^h 25^m 0.8
W 0^h 24^m 39^s

nebulous like a Comet
in the G.R.

An object like a comet between (a little
below) the upper star of Cygnus & Lyra.

Swept to morning dawn very clear
until the latter part of the Eastern sweep
near dawn - when it was very

July 9th Swept West from twilight
a (nebula in G.R.) in Libra very like a comet
which I have no recollection of

Aug. 1st.

Saw 2056

Saw 2126-

Aug. 27 ~~Sigma~~ ~~Pagittarius~~ Star Sigma Pagittarius 2 mag
Saw 2128 - 2124 - 2084.

Aug 26th Swept West of meridian
near twilight but not up to the meridian
left off when the moon rose -
Swept with little care being hurried
by the moon

Aug 27th Swept East of meridian
after dusk - until the moon rose
very clear

Aug 28 Saw 131

Found a cluster of stars about 12 min following star H 3 Cam-
elopardalis

Aug. 29th Found a Comet

Sept 13

γ Aquarii is nearly equal to δ in size

During September swept on most clear nights in the absence of the Moon

Oct 6th Ad Swept from Orion to near morning twilight - very clear & fine
I thought found a very small nebulous object $0^{\circ} 50'$ s.p. the bright star χ Orionis

* 5th map χ Orionis is an error for
* 3rd χ Orionis as appears on reference to the Globe which was used for identifying the stars etc when Comets were being.

χ Orionis

$$1850.0 \quad \alpha = 5^{\circ} 40' 38.6'' - 9^{\circ} 43' 39''$$

$$50' \times 4 = 200' \cos 30^{\circ} \sec 9^{\circ} 43' = 175.5 = \Delta \alpha = -2 \ 55.5$$

$$50' \sin 30^{\circ} = \Delta \delta = 25'$$

$$\text{Nebula } 1850.0 \quad \alpha \quad 5^{\circ} 37' 43.18'' - 10^{\circ} 08' 39''$$

25.00

Sept 9th All Sweep from R Pleiades
to the morning dawn - clouds interrupt
the continuity of the sweeps but
covered most of the ground S of the
Zenith -

Oct 2 Eve

20^h 20

7

20^h 13

1^h 35

18^h 38

Dec-35^o

R 1^h 35^m end read

185
Oct 30 Have swept this fall about as frequently as usual. But we have usually neglected making a record

Oct 29th P.M.

It has been so cloudy for a week or two past that there has not a single opportunity offered for Comet sweeping until this eve.

Swept West of Meridian from the Milky way to the pole & from -10° S Dec. South to the horizon East of Milky way leaving a small space unfilled West of Meridian also swept East of Meridian as far north as Capricorn though somewhat carelessly.

On the west Balcony a cold NW wind caused some annoyance

1850 Oct 30th 1850

Mr Tuttle swept East of the Meridian from 7^h 30^m to 9^h PM all from pole to horizon about to Gemini in the East & the R of Fomalhaut.

Found a nebulous object in S. Dec - 28°
R 0^h 40^m 2

He has a diagram in his memorandum book
Found to be a cluster next night

Oct 31st 1850
Nov 1st PM

Swept over the Eastern sky to the rising of Leo at 1 PM.

There is a nebula or cluster 2° S of the nebula in Orion & following it by 21^h near ^{the place} ~~one~~ marked on the globe.

The Herschel star in the Nebula of Orion was not visible - seeing not good.

185
Nov. 4th P.M.

Swept West of meridi. at 10^h 15^m for 20^m
was stopped by fog & clouds. Arcs of 10" or 20" & above.
a nebulous body 10° m. p. Fornalhaut. (Stars?)

For the past month have kept as good a
look out as the clouds have allowed of. Especially
in the quarter East of the meridian at 8 P.M.
Have not yet had an opportunity to
sweep in the morning after 1 P.M.

Thursday Nov 7th P.M. Swept from
eve twilight to past midnight through the
whole night. But the morning sky was
in part obscured by clouds.

Found a suspicious object a Nebula
See Transit Book for Nov 7th Seen Nov 25
Equatorial visitors clouds new planet & Moon prevented
our finding it on the following eve

Nov 11th A.M. Swept S of Dec +10° & East
of the S of the Head of Leo. Very clear & fine
swept rather hurriedly. Also swept near the
Sun.

Nov 21 Cloudy but swept near Vega &
& of it at intervals. Moon & visitors

Nov. 22nd 1850

24. 22.02 - 28.50

H 2.44

19.18

Swept West of Meridian from early twilight to rising of Moon - Nearly completed the sweep to Meridian. But went over the ground too rapidly for certainty. Shall try it again.

Looked for the Nebulous Object seen Nov 7th. It seemed to be here in that quarter & I could neither see comet? nor star. There.

Found Nov 25th

Nov 25th Swept East of Meridian to past Orion most of it carefully. I did not sweep near the Pole. But Mr Tuttle did.

There was a suspected object say 1^h preceding β Ceti & in same dec - close to a group of stars visible to the naked eye. near two the group.
Not much suspected.

Nov 30th

Swept from Altair to Sirius
~~sweeping~~ Have swept much often
West of Orion than in the m. hours

Dec 9th Swept this morning from 11^h A
to ~~sunlight~~ as far North as the Zenith
Did not stop to recognise the Nebula in
Coma Berenices. Very clear Jan +17

Last week was cloudy so that
no opportunity offered for sweeping after
evening twilight consequently we loose
that region as the C is now 5 days old.

Dec 13th Have tried two or three times
to get another sweep in the morning from
11^h A to 5^h (West) But it clouds up
every morning before day break 2^h or 3^h -

For above with part of a sweep
next eve twilight W. of Milky way must be
looked after -

* ^{Gemini} Dec 14th Add Swept West. from Orion, to ^{Capella}
Leo 5 of Zenith & East in Dawn.
A neb. or clust in R 7^h Dec + 15° between
Procyon & Gemini h 439

* Procyon

Dec. 21st PM 1850

Swept in the evg. later about an hour before moon rise.

Troubled by clouds. & bad focus.

Swept mostly from Pole to 10° S Dec & to Aquila, Lyra, Draco & below Pole.

Dec 24th Swept on both sides. Troubled by haziness of atmosphere & bad focus which I could not adjust to my satisfaction viz side.

Dec 27th a fine night with some haziness in the S. W. Swept pretty thoroughly from evg. twilight to dk of free side of square of Pegasus & over the circumpolar region from N. horizon to rising of Leo & (excepting in both cases near the meridian) E of meridian at 9 PM through Leo then low.

I shall never feel sure I not missing a comet till we get the new plan of a comet seeker & the new dome.

Dec 30th PM 1850

Very cold +6 Swept near the meridian at
7 P.M. haze prevented sweeping far South
Could not sweep All for cloudy.

Jan 2nd A.M. 1851

lg 13..30 -5
E 4..03

A suspected object faint rather large
dist $\frac{1}{13}$ from Arcturus in a line with a Cor. Bor
R $14^h 35^m \pm 2$ Dec $+23^\circ$

From description $\alpha = 14^h 37^m \pm 3^m$ Dec $+23^\circ 00' \pm 30'$

Also a slight suspicion of an object
 4° n(?) Jupiter

Swept this morn. about 30th Common
ing with Jupiter. Merid. E to R of $16''$ then
NE in a line parallel with Merid. to Dec
of 3 part of a Cor. Bor.

Also in twilight near horizon. -

1851

Jan 28th P.M.

A fine night almost the only
one this winter -

Swept from a little before Deneb
to eight East of Merid. from Alt of
Pleiades to Leo. Then West from
 $\frac{1}{2}$ past 9 to ten from Pleiades to Saturn
From 10^h to $11^h \frac{1}{2}$ East again

through Leo.

Has been cloudy very much
of this winter - this Jan

Feb 3rd Since last date have sp
swept on several evenings but since
the moon left the morning sky have
been prevented partly by clouds & partly
by a severe cold from getting up

Have swept before the present
moon up to Leo. Except from Zenith
to pole on East side

But the morning hours have
been sadly neglected -

Feb 8th All 1851

Swept S of equator to 15^h & north
to 50° Alt from twilight excepting
near the pole.

12th All

Swept East of Merid N of Zenith to pole
& 6h circle
& West a little in 3 Dec

There is wanting an area between
Leo & 15^h Alt

1 Feb 17th Swept a little while before
moon rise West Visitors

Feb 18th found lowest power of the
Bowditch Comet seeker = 13 by Dynameter

Feb 18th

quite small, a faint

80° NW of
Capella

GG East

1.21

PD 37° 10'

GG 6.00
HW 1.30R 4^h 33 ± 3
Dec 53° 00 ± 30

Same

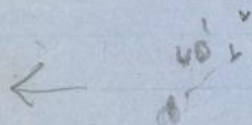
GG 6.08 PD 36° 50'

HW 1.34

Back

Faint small round certain

Swept from Twilight to R of Orion

Feb 20th Swept East & West mostly
EastFeb 22nd Swept West filling up a
vacancy between 4^h & 6^h near the divider at 9 PMAlso East to Jupiter in Virgo to past
Arcturus have swept within the Moon
left pretty much over all the sky to 13^h or 14^hAn object between Orion & Gemini
nearly midway & near a pair of bright stars

Feb 27th AM 1851

Swept from Arcturus to Morning
twilight clear & fine

This completes the sweep from
Sunset to Sunrise

March 3rd Swept from
End of twilight to R of Gemini West of Merid.
Quite clear & very
windy

March 4th Swept East from Gemini
to Leo.

March 24th Cloudy weather & the Moon
have prevented sweeping. most of the time since
the 4th So that I have missed the morning
sweep.

Swept evg. from twilight to R of Cancer.
There was a nebulous object 1° (prec^{isely}?) the brightest
of the two forming the middle pair of the three
pairs in Ursa Major
Another 3° n p the two nebulae in Ursa Major

185
April 1st
1862

Have swept from sunset to midnight
tonight & through night in different quarters
& all the region clear down my twilight.

G.P.B. went
to Europe & never
took up comet-
hunting after war
found one by accident
in 1862

April 22

West Balcony

Swept all along the horizon before
twilight was gone - then commenced
low in the south as possible, and swept in
Declination and in A.R. from the western horizon
up to the meridian.

Regulus being just past the meridian when
sweeping in that declination.

Continued until reached Polaris - found a great
many nebulae which found also on the globe.
Was considerably annoyed by some fugitive clouds
which hovered about in the north.

East balcony

Began to sweep at Polaris and swept in Dec. and
A. all over the eastern heavens. - some clouds in the
horizon which prevented sweeping close down.
There is a zone which has not been examined; namely:
that which passed the meridian while sweeping.

May 2nd

Have swept several times since the 22; but cannot now call to mind the dates and particulars.

Set the alarm to go off at 2 o'clock this morn. did not hear it - awoke up at 40 min past.

commenced sweeping at the pole - swept hastily for fear of dawn - found two or three suspicious objects - one in the Loran - had not time to get the great Telescope on it

Had swept a few degrees below the equator when day-light became too strong.

Four mutton shot across the field of the comet seeks Therm. 32°

May 15

Swept along the western horizon after the sun set. ~~He~~ Could not sweep higher than 10 or 15 deg. owing to thick clouds.

May 16

Commenced sweeping ~~at~~ about 15 deg. south Dec. and swept north as far as Capricorn. At this time the moon rose — give up sweeping any longer.

May 17

Commenced sweeping early at the place where left off last night and swept to the pole. Moved over on the east balcony and began at the pole. Swept from the meridian down to the horizon and as far south as the equator when the moon rose.

May 26

Warm — Wind south — Began
to sweep at the Pole, on the West side of the meridian
Back seeing — Swept as far south as α Ursa
Majoris — Peloneb prevented sweeping any longer.

May 28

West balcony — Clear — Commenced low in
the south to sweep After reaching the
Zenith was much annoyed with clouds; but contin-
ued to sweep omitting now and then a patch
that was covered with a cloud until within ten
degrees of the Pole, when the sky became entirely
absent.

May 30

East Balcony

Swept from

the pole to the Equator

Found a suspicious looking object in Cygnus
not far from the star δ

Could not bring the great Equatoreel to bear
on it, owing to the painter's stage which
prevents turning the dome

Very good seeing. Saw three meteors

June 2nd

Swept from the Equator down
to the horizon

Found a nebulous object in the same field
with Antares — precedes Antares: quite bright
and is not found on the globe

The following diagram shows its position in
respect to some small stars in
the field of the telescope near it

July 17

Have not swept for a long time.
owing in a great measure to the bad weather.
To-night have swept all over the heavens in the
west ~~balcony~~ ^{balcony}

July 19 4^h Pm. Have just received a
note from Henry, saying that Dr.
D'Arrest has discovered a comet in the
constellation of Aries. Can't help it - have
forgot to look these ~~for a long~~ ^{for a long} & while.

July 23/24 Am.

Got up at 1 o'clock, and began with the
Comet Seeker to search for the Comet.
Thin clouds and considerable haze. After
searching for about $\frac{3}{4}$ of an hour, being frequently
interrupted by clouds, haze etc. found it, nearly
in same declination with Saturn, and in little less
R. Quite bright. Think it might be ^{fairly} seen with the
naked eye, if the moon was absent.

July 29

Swept in the west from the meridian down to within about 25° of the horizon, where there was an immense bank of clouds — Found a suspicious looking object in Ursa Min — Several meteors shot across the field.

August 13 Began at Polaris and swept as far as β Draconis the moon being too bright for a thorough examination. Found an object about one degree north of β Draconis which would make a decent comet — There is no nebula in the globe in that place. Cannot look for it with the great Equatorial, because that is fitted for daguerotyping.

B *

xxx

x

x is the object in question

1850ptae
Aug. 14

It being very clear I first directed the comet-seeker to the suspicious object of last evening and behold! it was there - firm as the small star which ~~is~~ near it. It deserves a place on the globe, for it looks too cometic to be passed over by either of us, and we shall be for turning the Great Telescope there to our chagrin.

I think I shall remember it - After having found this object and finished sweeping over the Western sky. That portion below the Equator was swept rather hastily because the moon was in the act of rising. There were some clouds hovering lazily about and consequently that portion of the sky which they covered has not been examined. Two meteors passed through the field.

Alas! unlucky night Aug. 14

Aug. 15

Began to sweep at the pole on East balcony, considerably annoyed by clouds; swept a few degrees below the Equator and the moon rose. Two meteors shot across the field.

August 19

No 268 St. Nach. has arrived and on opening it was surprised to find a circular announcing the discovery of a comet by Brorsen on the first of Aug.

Indeed, must I search the heavens in vain? On the eve of Aug. 14 as will be seen on the preceding page, I swept in that vicinity where the comet was situated, and distinctly recollect of finding an object which I suspected might be a comet, near where this must have been. The case is simply this. I went to the globe and found a nebula marked down near the place, and what is not a little singular the place where I found the nebula on the globe was within the circle where the maker had placed his name and authority. Thinking as it was in such a place there might be some uncertainty about the location of the neb. I give it no more attention, after seeing it ~~not~~ on the globe somewhere near the place. Further than this, I swept hastily because I wished to finish that side before the moon rose. Upon the whole, it is a

gross piece of carelessness on my part.

Having just seen at the comet-seeke and found the comet I am strongly impressed that its countenance is ~~the~~ not new, but resembles the famous neb. of the 14th. I do not care a snap about it, only I think if there was one as

185 Oct 24
large as the full moon, it would steer
clear of me.

The comet appears pretty bright in the Comet Seeker.
Should have taken an observation, but the
Micrometer was off the great Equatorial for Mr. Whipple
who is going to daguerotype the Moon towards morning.

I had begun to comet-see on the East balcony when
I for some reason or other, had occasion to go down
to the computing room and saw the Nachrichten
lying on the table, inside of which was the eisenlen.
I hastened up ~~at~~ stairs and drew the Comet seeker
over on the West balcony and after waiting for
some time for some clouds to move away
I with a mixture of pain and pleasure began
to search for it. In a few minutes it came
into the field of the Comet Seeker.

After this I attempted to sweep for nearly two hours
but my mind was so agitated that it did not
amount to much. Two meteors shot
across the field.

185
August 27th Commenced sweeping in the West, and after finishing that side up pretty thoroughly, removed the comet seeks over on the East balcony.

My eyes had become so fatigued that I was frequently compelled to halt, but notwithstanding all this, pushed forward and succeeded in sweeping over the eastern sky, not however, with that extreme care which I had done the West. Found an object in Lepus which I tried in vain to find in the great Telescopes. It appeared quite faint in the comet seeks, and the ~~near~~ approach ~~day~~ of day soon arrested my search for it with the great Telescopes.

1850
September Saturday Morn. 6th

Got up to observe D'Arrest's comet at 2^h 30^m Am.
The sky being beautifully clear while the
heavens looked exceedingly inviting particularly in
the north East —

Pushed out the comet sector and began
at the pole to sweep — continued sweeping
southward till touched upon an object which I
though might be a comet, though I could not
persuade myself that its appearance merited
an examination with great Telescope.
There is no neb. marked on the globe in that
place — Swept on till a cometish looking
object entered the field a little south of the
segment of Perseus. This looks very much
like a comet, besides there is no neb. marked
down on the globe in that place.

Was very anxious to point the great Telescope
at it — but the approach of day rendered it
otherwise as we must lose D'Arrest's comet which
we had not yet observed, if any more time be
devoted to this. There being no paper
at hand I made a diagram of it on a ~~black~~ ^{block} of
~~board~~ position with four ~~other~~ small stars on
a block of board.

September 10th

Have not had an opportunity to look for the mysterious object of the 6th owing to clouds in the first instance and more recently the moon

September 15

Examined with the comet seeker that place in Perseus where the cometary looking object was situated but did not find it — constellation rather low in the N. East

Sept. 16 Bad seeing — commenced sweeping at Polaris on West balcony Swept as far south as Sagitta — found an object in nearly same dec. of ϵ Lyrae and preceding it by 6^h 7^m — It was quite small but well defined — very bad seeing

1850
Sept-25

Have swept several times since the 16th - but owing to partial derangement caused by being "all over" in the orbit of Brorsens Comet, have not written down the time and places, neither do recollect anything concerning sweeps.

Got up this morning at 2 o'clock - horrible seeing - stuff look as if enveloped in a nebulae. Ext. Therm 31° slight breeze from the north - Zodiacal light, very bright.

Began to sweep in the dec. of Cassiopeia and swept south as far as Mars in const. Gemini - then turned down to the south horizon and swept up to 10 or 12° in dec.

Found an object in Gem. which looked so much like a Comet that in my hasty alignments I actually made it one and became a little flattered with so fine a ~~one~~; but just before turning the great Telescope on it discovered an error in its assigned position which when corrected made it coincide with a comet on the globe.

Comets on the globe are no good.

Left off sweeping in time to observe D'Arrest's Comet which is a fine looking fellow.

5 meteors shot across the field of the Comet seeker.

Sept. 25-

I have succeeded in obtaining approximate Elements of Plossers Comet, and as I have not been fortunate enough to record in these pages the discovery of one, I beg leave to present the Elements of one.

Per. pass. Aug. 26. 56. 161 - - 1857. 6 Mean Lim Green
 Long. Per. - 311. 03. 38 } Mean Equinox
 Asc. Node 215. 30. 45 } 1851. 00
 Inclination 87. 41. 22
 log q. 9. 98876

Motion Direct

Computed from observations made at this observatory on the nights of Aug. 23-26 and 29 not corrected for aberration and Parallax

October 16

To-night is the first which has been favorable for comet seeking since the full moon

Began at the pole swept till found a nebulous looking object near the square in "le Petit Ourse", which is not laid down on the globe - turned the great telescope on it - found it - a fine cluster of stars.

Continued sweeping till reached the southern part of the ~~southern~~ constellation of Cygnus when

Prof. Lovering came in with some ladies to see Saturn & R R R R R which of course destroyed comet seeking for the remainder of the evening.

Saw a great number of meteors

October 16 Am 8-50

At 8 o'clock went down in town to see if Mr. Thomas was telegraphed among the list of passengers on board the American.

To my astonishment found one "Bunch", which I thought must be G. P. B. and came running back here without doing my errands, to tell the news. We were not a little animated at this sudden intelligence and began to prepare for seeing him to-morrow morn.

October 17.

Began to sweep where left off last night -
 on the west-haleony - not very good seeing -
 I swept that side down and went on to the
 East side - began at Polaris swept down to
 Perseus where found a cometary looking object
 which is not on the globe - should have turned
 the great telescope on it if the micrometers
 had been on - am inclined to think that
 this nebula is identical with that of Sept. 6 (see
 preceding pages) for think I recognize some of
 the stars in the field with it - though I have
 lost the piece of board on which I had made a
 diagram of the ^{nebula} comet and adjacent stars.

Swept a few degrees below the equator
 and quit. Continued Vogel's
 Ephemeris of Prosser's comet up to to night and
 searched for it with the Comet-seeker but could
 not find it.

October 20

No Messier's ever swept with greater care and with higher hopes than I have to-night.
 Set at work soon after twilight had gone with a determination to ferret out a comet. — The night ~~is~~ ^{is} exceedingly fine no clouds - no wind an agreeable temperature favoured the search. Began at the pole on the west balcony. Swept over the entire west of the meridian. Found all the Comets on the globe. Pushed over on the East balcony soon about ten o'clock or later perhaps. W.C.B. comes up to look at saturn - we found it - excellent seeing - Saturn seldom looks finer - went down and invited R.F.B. and Miss. Salina to come up and see it. They returned to the dome with me. There is no mistake but the inner bright ring is minutely subdivided into a great number of small rings. The divisions commence on the inside next the inner ring and extend over about two thirds ~~of the length~~ of the inner bright ring. These divisions are quite apparent with a high power. Turned the great telescope on α Andromeda with a high power ~~which~~ ^{but} I don't recollect just the power of the eye piece) we can distinctly see a dark space between the two stars - stars not steady. Twelve o'clock W.C.B. retires - continued sweeping on the East balcony. Before W.C.B. left we looked for Virestra Comet - set the great Telescope according to J.H. Lefschütz's Ephemeris but could not find it. Swept for comets till the moon rose. About 6 P.M. Mr. Whipple came to daguerotype it - had taken one or two when a dense fog came suddenly up from the South - Saw a great number of meteors

Nov. 12 Con

70'clock Quite clear - The heavens look inviting - Do not recollect of having at any time looked for comets since the 20 - Should certainly have looked if there had been an opportunity. Should like very much to look now, but Walker and Coustalis are at Barges and we must go to work exchanging star signals with them - Had a good time at it last night - rather bad arrangement in respect to the stars which we are to observe.

P.S. got 15 minutes to sweep before the moon rose. Begun at Palanis on the west side of the meridian and swept some 25° in Dec. - Found a neb. which precedes a star in Vir Min designated on the globe by H 9 = Melchior No 9, by about 7 min and in nearly the same dec. No neb. in the globe near this - looks some cometish - think I have had the great telescope on it - on some previous search - must be looked after to-morrow night - saw three very bright meteor near Palanis, and one in the field of the comet seeker. Think the neb. which I examined on the eve of ~~Aug~~ Oct. ^{16th} may be the one in question - see spec. fig. It is situated as below in respect to these stars

•+
+

1850 Oct 18
Nov 19

Began to sweep at α Lyra and continued southward till near Antares.

Pushed over on East Balcony - began at Polaris and swept down ~~to the~~ within 12 or 14 degrees of the horizon - south horizon.

Found a nebula near a star marked γ Scorpii which is out on the globe - turned the great telescope on it and found it to be a very thin and almost imperceptible nebula.

Great numbers of small (and some large stars) could be seen in or beyond it.

Nov. 20 2nd P.M.

Most painful news!

A circular in No. 780 Ast. Nach. announces the discovery of a new comet on the 22nd of Oct. by Herrn Brorsen of Lintgenburg and above all it has a tail one degree in length. Later he says it has two, the smallest - as in Bessel's drawing - is to the Sun Zugewandt. This comet he thinks probable is that of Hind's of 1847.

Hope so? and will be off in double quick time. Little singular that it should be so near his first comet of 1851.

Rather think he has been expecting this, and has kept an eye on that region which may have led him to find his first one.

Now Col. Brissen you have monopolized the heavens pretty well this year, and if you succeed so well again, I miss my guess.

Our comet seeker has been rendered a considerably more easy for sweeping by the addition of a new eye diagonal eye-piece, and will hereafter enter the field under more powerful auspices and favourable circumstances.

My sweep on the evening of Nov. 12 did not include the place of the comet - and last night I began to sweep in the dec of γ Lyra. Why I began there I do not know, unless it was to look finding the Comet independently of any one else.

There could not have been any other reason for so doing.

9 P.M. Clouds have broken up considerably - but there is still considerable cirrus.

Left the Comet seeker out on West balcony and swept for the new Comet - could I

not find it although I must have
swept over it. Stars dim & great deal of errors

1857

December 19 Pm.

Ext. Therm. 18 - wind south, and
blows pretty fresh. Some mist in the
horizon. Got the comet seeker out on
the west balcony and began to sweep
at the pole. Had a great deal of difficulty
with the comet seeker - it moves very easy
in Dec. & is very hard in R.
Owing to this I frequently lost my place
in Dec. ~~and~~, consequently some portion
of the heavens remaining to be swept was
left as far as the Equator

December 20 Pm.

Ext. Therm. 24 Strong breeze
from the west. Got the comet seeker
out on East balcony - Began at
the pole - Not so good seeing
as it was last night. Swept down
to the south horizon - rather carelessly

1852 April March 20th 1852-

Swept West after dusk. - 12° N of Orion
3° S of Capricorn 1° free. large.

Swept 3 hours - 10 11 PM
Chs at Eqs.

March 28th

Swept East till 12 PM 3^h or 4^h
Chs at Eqs.

Pulveric Meteors numerous Saw 4-

Mar. 25th Swept till 2^h 30^m Alt of 26th very clear
Swept W in high N. Dec near meridian & E region following 14^h RR.

1852 October 5 Pm

Took the Comet-seeker out on the
West balcony and swept from the Eq. to
the Pole. Telescope moves rather easy in
Dec. - probably have omitted some places
owing to this

Found all the nebulae which are on
the globe celeste.

1853

March 8 Pm Half past 8 o'clock
 went into the dome and out on the
 balcony, where the air felt quite comfortable
 and the heavens looked inviting
 (particularly about the constellation of
 Orion, the other parts being obscured by
 haze) - thought it worth while to
 sweep a "hit" Drew the
 comet-seeker out and directed it at
 random, pretty low down in the west
 horizon, and began to "sweep" up to the
 meridian - Did not proceed far when
 a "nebelflecke" of unusual brilliancy
 came into the field. It had decidedly
 a starry appearance - Went to the globe
 and found nothing there to indicate its
 existence - then down stairs and got
 the Comet-book (this book) and here
 likewise found no mention of it.

However, its starry appearance
 seemed so decided that for a few moments
 it was doubtful whether it was worth
 the "powder" to turn the great Equator on
 it, or not.

Finally it was thought that
 the labor might as well be spent on
 examining it, as in fruitless sweeping.

Comet.

Pulled open the shutters with little ~~any~~ expectation of seeing anything but a fine cluster of stars. Brought the telescope to bear on it, but not the slightest evidence of resolution.

Procul! O! Procul! was the first-thing that suggested itself. Eh bien! measure it! Such an object is worthy of being catalogued; and may save some zealous comet-hunter a great deal of labor hereafter -

Illuminated the wires and at the second passage through the field there was certain evidence of a motion towards the north.

May The above comet was discovered on the sixth of March at the Observatory of the Collegio Romano at Rome by Signor Leechi - and I conclude that "His sore labors never divide the Sunday from the week"

by his having found it on that day. It was also discovered by Prof. Schweizer of Moscow March the 8th and by Dr. Hartwig of Leipzig on the 10th. So it is safe!

Dr. Petersen hat bemerkt "so dass derselbe, soweit bis jetzt bekannt, innerhalb 4 Tage von 4 verschiedenen Astronomen aufgefunden ist."

13 59 08 18

