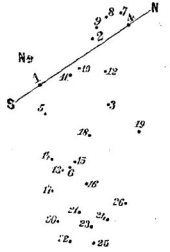
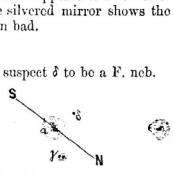
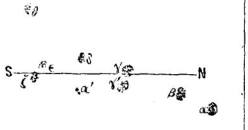
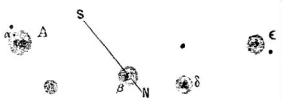
SELECTED OBSERVATIONS OF NEBULÆ.

Number in Herschel's Catalogue.	Number of times observed.	Description.
1	2	Nov. 4, 1850. Some stars seen in it, it is vF. Nothing further remarkable.
2	1	Sept. 18, 1857. 2 neb. nearly in line p. and f; about 14′ apart; the p. one is of irregular outline; F; bM. The f. one is S; R; pB; bM.
4	1	Oct. 23, 1857. E. n. and s; B nucleus.
6	6	Oct. 12, 1855. E. n. and s; has a central nucleus and a * on edge, nf. the nucleus.
13	7	Resolvability not quite certain, irreg; R; nucleus.
15	6	Oct. 7, 1855. There are 6 or 8 *s of about 14–15 mag. and several smaller ones; I counted 7 knots, the 3 northern of which are the brightest; sketched. See fig. 1, [Plate XXV.
16	1	Sept. 19, 1857. S; R. or nearly so; and bM.
17	2	Oct. 26, 1854. Several S; F. neb. visible at once in finder. 17 is R. and bM.
21	9	Spirality suspected, but more evidence wanting. Dec. 12, 1851. Nucleus; R. Oct. 22, 1857. I suspect outlying F. nebulosity, especially p. and f.
23, 25	2	Nov. 4, 1850. 23 is R; and S. 25 has nucleus, and is E; 3 others near.
26	1	Dec. 6, 1850. R; F. nucleus; 40″ br.
29	4	Aug. 21, 1852. Involves some *s, one of about 12th or 13th magnitude, E; vF.
30	1	Dec. 9, 1854. R; pL; bM.
32	2	Sept. 18, 1857. S; d. neb.; the n. one is E, sp, nf; bM.
35	5	Sept. 1849. r; L; and rather F. Oct. 7, 1855. 3 *s in it.
37	2	Nov. 24, 1854. Not L; R; bM; a B. * close sp; r?
40	2	Dec. 6, 1850. sbM; another 18′ distant.
42	2	Nov. 24, 1854. R; bM.
44	9	Oct. 16, 1855. vL; mE. np. by sf; sharp nucleus, for some distance round which, the neb. is B, and then *suddenly* decreases; there is a B. * up. the nucleus; and another involved in sf. end; another in p. border. Nov. 2, 1850. Spirality suspected.
45	1	Oct. 16, 1854. E. n. and s; many *s involved.
46	1	Dec. 7, 1857. s. of it is another neb.; E. nearly n. and s; 46 has B. centre; mE. n. and s, arms vF.
47	4	Nov. 3, 1855. Oval, and I think r; and has a * at np. edge.

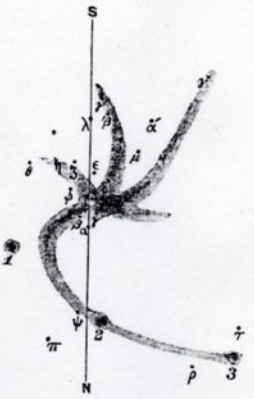
Drawing not complete. The following are measures of some of the *s involved:—

		Pos.	Dist.
Dec. 18, 1851.	1.13	248°	6′ 13″
	1.14	243	5 14
	1.15	260	5 51
	1.16	260	7 42
	1.17	241	7 30
	1.18	280	4 22
	1.19	301	7 35
Dec. 22, 1851.	6.20	219	3 46
	6.21	246	3 6
	6.22	234	5 1
	6.23	258	4 46
	6.24	271	4 20
	6.25	252	5 40
	6.26	295	4 34
Oct. 25, 1851.	1.N	83	2 2
	1.2	6	4 54
	1.3	309	5 1
Oct. 28, 1851.	1.4	1	7 25
	1.5	211	1 57
	1.6	254	6 13
Nov. 24, 1851.	1.7	8	7 32
	1.8	12	6 40
	1.9	11	5 46
	1.10	349	3 0
	1.11	345	2 10
	1.12	338	4 43



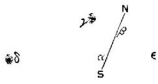
Number in Herschel's Catalogue.	Number of times observed.	Description.
53	1	Sept. 19, 1857. S; R; vF; bM.
54	2	Nov. 22, 1854. pB; vS; R.
59	3	Dec. 22, 1848. 3 neb. in line, 2 of them "novæ." Oct. 23, 1856. 1st is R; pB; bM; and has nucleus; 2nd bM; E, * involved; 3rd F; lE; bM.
60	1	Nov. 22, 1854. S; R; bM.
65	3	Sept. 18, 1857. S; pB. disc, in vF. haze of mottled neby.
69, 70	7	Oct. 3, 1856. 69 is S; B; R; with B. nucleus; 70 is F; E. and patchy. I sometimes thought it was formed of two knots involved in F. neby; there appears to be a nebulous connexion between them all. Nov. 15, 1857. The silvered mirror shows the object brighter than before, but no new details; definition bad.
71	7	Suspect spirality; light unequal.
72	3	Oct. 26, 1854. a F. object with two nuclei.
78, 79	4	Nov. 29, 1850. α is vlbM; β has stellar point or nucleus. I suspect δ to be a F. neb. Pos. Dist. $\alpha\beta$ 219° 5′ 35″ $\alpha\gamma$ 315 1 8 $\alpha\delta$ 81 0 44  Nov. 3, 1855. 3 neb. nearly in line, sp, nf; β is bM. and lE. p. and f; α is R; bM; with a d. * np, and is the largest of the 3; ε is S; F; R; δ is a *.
80	1	Oct. 3, 1856. pL; not vF. Its brightest part is a line running diagonally, and there is a knot at either end; believed to be a spiral.
84, 85, 86	4	Nov. 4, 1850. Pos. Dist. $\alpha\beta$ 169° 2′ 19″ $\beta\gamma$ 160 4 22 $\gamma\gamma'$ 201 0 34 $\gamma\delta$ 157 3 19 $\gamma\varepsilon$ 176 5 32 $\varepsilon\zeta$ 199 1 41 $\delta\varepsilon$[a] 79 4 55 
87	3	Oct. 26, 1854. A d. neb., both S; R; bM.
89	8	A cl. with much unresolved neby.
90	1	bM.
91, 92	1	3 neb. in a triangle.
96	6	Oct. 26, 1854. Lenticular n. and s. Thought I saw a * at times in centre (1½-inch single lens); a lp. this is another vF. ray, np, sf, and which has no nucleus. Oct. 16, 1855. vF; E. n. and s; has nucleus; * in n. end. Nov. 3, 1855. mE; pB. nucleus, and * in n. end; np. this neb. is a * of the 9th mag., and about the same distance p. this * is another neb. vF; mE. Dec. 7, 1855. Seen as before; comp. neb. verified. Oct. 23, 1856. F. ray has nucleus and a * in n. end. Sept. 18, 1857. E. n. and s; another vF. ray p, which is E. np. sf.
98	1	vF; R; S.
99	1	Oct. 3, 1856. S; F; R; bM; has nucleus.
103	3	Is n. of the 3rd of a group of 4 *s in line; 3 "novæ" near. Pos. Dist. Dec. 6, 1850. $A\beta$ 28° 7′ 36″ Dec. 7, 1850. $\beta\delta$ 40 4 6 $\beta\varepsilon$ 81 9 19 $A\beta$ 30 7 43 
104	1	Oct. 23, 1856. 6 neb., all visible at once in finder eyepiece; 2 of them E., the others S; R; bM.
105	1	Dec. 11, 1854. vmE; bM (speculum dewed).
106, 108	8	A variety of new nebulæ found, but observations too voluminous to transcribe.
112	6	Sketch made, but no interesting details. Nov. 30, 1850. vF, and p. a quadruple *. Oct. 23, 1851. 3 *s f. neb.; light unequal. Sept. 16, 1852. 2′ diameter; several *s in it; probably a F. cl.

[a] This should be, I think, $\beta\zeta$. A S. d. neb. suspected below at α'.

Number in Herschel's Catalogue.	Number of times observed.	Description.
113, 114, 115	2	Both have nuclei; "nova" near. Nov. 16, 1857. 113 is E. p. and f; ✱ closely sp; 114 is R, with ragged edge and bM; "nova;" S; R; bM.
121	1	Oct. 3, 1826. The p. one is a pB. S. disc in F. outlying neby. The f. one is R; bM.
116	1	Dec. 18, 1851. s. end of neb. is like a brush or broom with a split. 
118, 120	2	4 neb. found, 2 have nuclei. 118 is S; R; 120 has 2 ✱s on np. edge; E. p. and f.
119	1	Dec. 9, 1854. pL; pB; bM to a nucleus.
123	2	Sept. 18, 1857. Rough sketch made; mE. np, sf; a F. triple ✱ f.
128	3	Nov. 28, 1856. L; B; mE; B. nucleus. "Nova" f.
131	27	Nov. 29, 1850. $\alpha\beta$ Pos. 215° Dist. 0′ 51″; $\alpha\gamma$ 163 0 56; $\alpha\delta$ 160 2 56; $\alpha\varepsilon$ 178 3 07; $\alpha\zeta$ 192 3 44; $\alpha\eta$ 206 4 14; $\alpha\vartheta$ 224 4 58; Dec. 27, 1850. $\alpha\mu$ 147 5 34; $\alpha\lambda$ 179 5 56; $\alpha\varkappa$ 201 5 42; $\mu\nu$ 143 6 28; $\alpha 1$ 287 4 30; $\alpha\pi$ 341 6 45; Jan. 2, 1851. $\alpha 2$ 5 5 18; $\alpha\psi$ 357 4 42; $\alpha 3$ 51 11 0; $\alpha\rho$ 38 9 50; $\alpha\tau$ 58 11 16; Dec. 23, 1851. $\alpha\omega$ 161 5 20; $\alpha\alpha'$ 149 6 53; $\alpha\beta'$ 172 6 32; $\alpha\gamma'$ 174 7 18; $\alpha\phi$ 205 2 22.  For previous observations see Transactions, Part II. 1850. Sept. 13, 1850. Large spiral full of knots; to nf. is a S. neb. B, which on a very good night might appear attached to spiral, than which it is brighter. Oct. 11, 1850. Spiral arrangement not clearly seen. Nov. 27, 1850. Arms of spiral scarcely seen; fog. Nov. 30, 1850. Spiral form very indistinct; wind very high from s. Oct. 22, 1851. Viewed for drawing, I should not have seen the spiral arrangement had I not observed it before. Oct. 25, 1851. Neby. extends for several minutes all round, perhaps for half a degree in radius. Oct. 29, 1851. Observed for drawing. Dec. 14, 1851. Sketched. Dec. 26, 1851. Drawn. Dec. 7, 1855. This neb. reaches in length through at least a field and a half of finder eyepiece. Mr. Stoney's drawing leaves out a great deal of the neby. about the centre, and ✱ suspected to left of centre of the trapezium of ✱s, perhaps others also. Nov. 15, 1857. There are 3 ✱s about the principal nucleus. Dec. 7, 1857. Carefully observed, with a view to a new sketch. Dec. 18, 1857. Carefully observed, and my sketch proceeded with. See fig. 10, Plate XXVI.
132	1	Nov. 28, 1856. B; S; R. nucleus, a ✱ p. and another n.
Nova.		Nov. 29, 1850. A S. neb. or cl. with 3 ✱s in it. $\mathcal{R}$ 1^h 26^m. N.P.D. 60° 35′.
134, 135	2	Oct. 26, 1854. Both S; R; B.
136		Sought for four times; not found.
142	8	Dec. 13, 1848. Rough sketch made. Spiral? Dec. 14, 1848. Confirmed last night's observation; feel confident it is a spiral. Oct. 24, 1851. Centre formed of ✱s; easily seen to be such; several ✱s through the neb. 
143	1	Oct. 3, 1856. vS; F; R; bM; had a ✱ close to n. edge.
147	2	Nov. 30, 1856. S; R; bM. to a nucleus.

Number in Herschel's Catalogue.	Number of times observed.	Description.
148	1	Dec. 11, 1854. S; R; bM. to a nucleus.
149	3	Nov. 30, 1856. Nucleus; E. np, sf.
150	6	A B. ray, with * in s. edge, a little f. the nucleus.
151	2	Oct. 3, 1856. Long; vF; vlbM. A B. * in p. edge.
156	3	Oct. 7, 1850. Light rather equable, a minute * in the p. part. Nov. 24, 1851. E; a * of 10th mag. nf. Sketched. Nov. 28, 1856. I see *s sparkling in it at times. See [fig. 2, Plate XXV.
157, 159	4	A group of 5 nch.; others near.
161	2	Oval; * in n. edge.
162		Looked for 8 times. Dec. 18, 1848. Found * 7th or 8th mag. in place, but saw no nebulous atmosphere.
163	1	No nucleus. R; pF; bM.
164	1	Dec. 11, 1854. vB. nucleus.
165	1	Nov. 29, 1856. More E. than Herschel describes it; vbM.
169	1	A group of 5. Oct. 11, 1850.

	Pos.	Dist.
$\alpha\beta$	12°	0′ 30″
$\alpha\gamma$	46	1 19
$\alpha\delta$	118	3 20
$\alpha\varepsilon$	296	1 59



172, 173	1	Nov. 24, 1854. d. nch.; the p. one is pB; R; bM. The f. one is smaller and fainter, and lbM.
175	1	Oct. 11, 1850. d. nch.; about 18′ nf. (169); nf. is a 3rd F. nch.

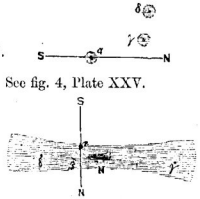
Pos.	Dist.
171°	0′ 25″

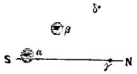
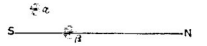
181	7	Branches suspected several times, but not distinctly seen. Has a comp. nch. 5′ or 6′ s.
182	2	Oct. 23, 1857. S; pB; R; bM.
183	2	Dec. 7, 1850. Nucleus E. np, sf.
188	1	Nov. 30, 1856. S; F; R; lbM.
190	1	Nov. 22, 1854. ceF; E; no nucleus. A * 10th mag. p: several S. *s near.
193	2	Dec. 18, 1856. bM. to a nucleus. E. sp, nf; S. * in s. end.
194	1	Some *s in it.
195	2	Nov. 30, 1856. E. sp, nf; a F. * follows closely; there is another F. * in n. edge.
197	4	Dec. 23, 1851. I suspect a F. appendage f; a d. * f.
198	1	Nov. 24, 1854. vF; mE; almost lenticular.
199, 200, 201, 202	2	Nov. 29, 1856. All are S; R; bM.
205	1	Nov. 28, 1856. S; R; lbM; a * in centre.
207, 212		Sept. 13, 1850. Between the 2 cls. there is a red * nearer the 2nd, and 2 more red *s f. 2nd cl. of 8th or 9th mag.
208, 210	14	Nov. 3, 1855. A dark space running along s. side of nucleus of 210, and (Nov. 5, 1850) * in sf. extremity; r. Both have S. comp. nebs. s; 208 is E; * close f. centre.
212	1	No description.
213	2	Nov. 30, 1856. vS; ceF; R; vlbM.
215	2	Oct. 29, 1851. Nucleus; 5′ n. of d*.
216	1	Sept. 17, 1852. * in edge; perhaps like a snowdrop.
217	4	Sept. 14, 1850. Oval; mbM; pB; 50″ by 70″.
218	7	Dec. 27, 1850. Pos. of chink 19°.

Dec. 26, 1851.

	Pos.	Dist.
$\alpha\beta$	44°	1′ 57″
$\alpha\gamma$	198	4 38
$\alpha\delta$	199	5 48
$\alpha\varepsilon$	211	2 38
ray	23	10 29

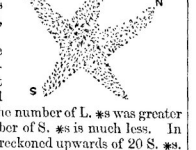
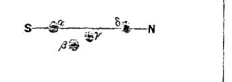
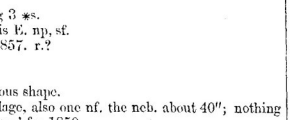
219	1	Nov. 28, 1856. d. nch.; components unite at p. end. The s. one is L, E, and gbM. The n. one is more E. and fainter, and also bM.
221	2	Oct. 23, 1857. L. but eF; mottled; *s in it, especially one closely n. of centre.

Number in Herschel's Catalogue.	Number of times observed.	Description.
222	1	Sept. 14, 1850. 3′ by 50″; rather F. dash of light; a conspicuous * nf. the M. outside edge.
223, 224	2	Nov. 29, 1856. 223 is pL; B; vbM; R? It seems to have some F. *mottled* neby. about it. 224 is vF; pL; vlbM.
226	3	Oct. 16, 1855. Oval; no nucleus; light pretty equable; major axis np, sf; clearly r. I can at moments see some of its *s. A B. * at s. edge.
229	1	Nothing particular.
230	2	Nov. 24, 1851. Brightest part near p. edge; E. nnf. ssp; d. * n, to which neb. does not reach. 
231, 233, 234, 237	2	Oct. 11, 1850.   Another about 12′ sf.
		Pos. Dist.
		αβ 83° 3′ 43″
		αγ 22 1 59
		αδ 40 2 31
232	9	Oct. 12, 1855. Sketched; r. See fig. 3, Plate XXV.
238	3	Dec. 12, 1848. bM. nearly to nucleus.
241	8	Sketched twice, Dec. 11, 1854, and Nov. 23, 1857. See fig. 4, Plate XXV.
		Pos. Dist.
242	8	Dec. 27, 1850. αN 73° 0′ 54″
		αγ 81 3 19
		αβ 331 0 29
		αδ 282 1 39
		Sketched four times. See fig. 5, Plate XXV. 
244	1	Nov. 28, 1856. Patchy; pL; mbM.
246	2	Spirality suspected; E; gbM.
247	1	vS; R; F; bM.
254	1	gbM.
255	4	Dec. 27, 1856. r; has 3 *s in edge, and I think I see one just p. the nucleus.
256	1	E.
257	6	Jan. 2, 1851. 5 knots; the p. one is d. neb. Dec. 26, 1851. A ruddy * of 10th mag. p. 16′.
258	4	Nov. 30, 1850. A F. dash of light nearly p. and f; the n. edge is the best defined.
262	12	Sketched 4. Dec. 22, 1848. A blue spiral. Jan. 14, 1849. Spiral. Oct. 29, 1851. The central part is flatter on the f. side. Nov. 24, 1851. The central part is, I am nearly quite sure, spiral, sketched. Jan. 13, 1852. Spiral form of centre seen. Nov. 29, 1856. Details of drawing seen very well. Jan. 10, 1858. I can see nothing more than is given in the sketch, which appears to me correct, though perhaps it defines too well the edges of the B. central disc. See fig. 6, Plate XXV.
263	1	Dec. 7, 1850. R. nucleus.
264	6	Nov. 23, 1848. A curious object with dark spaces. Oct. 10, 1850. r. Oct. 16, 1855. Fine oval neb; has nucleus; light mottled; sometimes I thought I saw a dark bay n. of nucleus; certainly the neb. is brighter along the n. and nf. side than in the part intervening between that and the nucleus. Dec. 6, 1855. Previous suspicion as to direction and existence of dark streak confirmed; the nucleus and n. edge of neb. both seem r.
265	2	Jan. 7, 1849. F. patch, 2 *s perhaps, p. middle.
266	3	Jan. 14, 1849. vF; lE.
269	1	Very badly seen.
271	3	d., with another knot near.
273	2	Dec. 7, 1857. F; S; R; lbM.
275	6	Appendage suspected; E. n. and s; bM.
276	2	Dec. 7, 1857. vS; R; F; a S.* close sp.
277	3	Dec. 9, 1857. pB; oval; has a B. central nucleus; about 4′ n. is a F. E. neb. containing *s.
279	1	Dec. 11, 1854. Has a B. * sp. the nucleus.
280	3	Badly seen.
282	5	Oct. 10, 1850. BM; r.
285	6	Nov. 29, 1851. E. p. and f; bM.
286	8	Oct. 30, 1851. E. p. and f; bM; between this neb. and 282 there are very few *s.
287		cl.

Number in Herschel's Catalogue.	Number of times observed.	Description.
288	1	S; R; vF; bM.
289	3	Dec. 8, 1850. Double; γ * of 9th mag; α is 289, and has a F. nucleus; β "nova." Pos. / Dist. $\alpha\gamma$ 2° 2′ 53″; $\gamma\beta$ 152 2 08; $\gamma\delta$ 103 1 54. 
290	5	Nov. 23, 1848. Coarse, cl. strongly honey-combed. Would probably look annular with eccentric cychole if it were far enough to be a neb. Nov. 21, 1851. The honey-combed appearance is caused by the disposition of the brighter *s; no spiral arrangement.
292	3	Jan. 17, 1855. r. Nov. 28, 1856. Edge ragged.
293	4	Dec. 16, 1848. A multitude of nebs. knots in the neighbourhood, principally p; counted 15; many more. Dec. 8, 1855. One of them F; has a * close sf. and looks like a snowdrop.
294, 295	1	Nov. 24, 1854. Two S. R. neb.; both bM.
296	5	Dec. 19, 1848. gbM; E. sp. nf.
297, 298	10	2 "novæ." Oct. 10, 1850. Pos. / Dist. $\beta\alpha$ 143° 1′ 35″; $\beta\gamma$ 11 6 1.  Nov. 2, 1850. Another 8′ n. of γ.
299	2	Dec. 16, 1854. vF; lbM. to a nuc.; mE. np, sf.
301		Scattered cl.
302, 303	4	302, r. 303, mottled.
304	1	Jan. 17, 1855. d. neb.; both vS. and bM.
305, 306, 307	8	Dec. 26, 1856. The p. one is vF. and light mottled. Oct. 7, 1850. 1st appears divided, and preceding part has a minute *. Jan. 22, 1851. f. the 3rd; 14′ is "nova."
308	1	Oct. 31, 1856. A fine d. * in a loose cl.
309	2	Oct. 26, 1854. S; R; bM.
310		Cluster.
311	9	Sketched five times. Jan. 13, 1852. New spiral of an annular form round the *, which is central. Brightest part is sf. the *; spirality is vF; but I have no doubt of its existence. Oct. 7, 1855. Annular, but with a break in s. side of annulus, or perhaps spiral. Oct. 31, 1856. I feel certain of a dark space nearly p. the central *, but the shape of the whole is only conjectural; there is a * plain np. the neb. Dec. 7, 1857. Not vF, and the break in the s. side of the ring of neb. quite easily seen; *between* this ring and the central * is not black, but filled with more F. neby. Jan. 9, 1858. Observed for a sketch; last observation correct as to shape; the brightest part is sf, and the next brightest is on the opposite side, and with ½-inch single lens the whole annulus has a mottled look. Jan. 13, 1858. The whole edge was ragged and irregular, and the whole neb. much mottled. See fig. 7, Plate XXV.
313	2	Dec. 16, 1854. vF; S; R; lbM.
315	16	Sketched five times. Jan. 2, 1851. Dark space sf. neb.; though I did not see the F. neby. beyond the channel, I conjecture that it exists and fades off imperceptibly, somewhat like the drawing. Jan. 22, 1851. Observations of Jan. 2nd confirmed; F. neby. seen; B. part r. Nov. 29, 1851. Last season's observations confirmed as to shape. Dec. 22, 1851. Previous observations confirmed. Jan. 13, 1852. ε is d; ζ is the angle of the brightest part. See fig. 8, Plate XXV. Pos. / Dist. $\alpha\beta$ 57° 0′ 55″; $\alpha\gamma$ 204 3 50; $\alpha\delta$ 199 4 1; $\alpha\varepsilon$ 315 2 23; $\alpha\zeta$ 223 1 42. 

Number in Herschel's Catalogue.	Number of times observed.	Description.
316 317 318	7	Dec. 5, 1850. α and γ are bM; γ is about 10′ nf. α, and has a brush-like elongation (see 242) at each end. Pos. Dist. Oct. 7, 1850. $\alpha\beta$ 77° 0′ 56″ Dec. 5, 1850. $\alpha\beta$ 75 0 58 
319	2	3 "novæ" near.
321	3	Oct. 26, 1854. Has a * at n. extremity; E. np. by sf; Herschel's d. * nf. is triple. Jan. 15, 1855. The conspicuous * involved in n. end of neb. has a F. comp; nf. itself very distinct with $1\frac{1}{2}$-inch single lens.
320 322	1	3 neb. nearly in a line; one "nova"; 1st pL; F; R; 2nd pF; R; 3rd dull nucleus.
327	10	Sketched twice. Appears to be a spiral, but evidence not quite satisfactory. See fig. 9,
331	1	Nov. 29, 1856. 2 *s near edge; vS; irreg. R. [Plate XXV.
334	6	4 neb. (3 "novæ"); one of them is E.
336	6	Jan. 13, 1858. B. centre; F. neby. stretches out a long way, involving a minute * p.
338	·	Oct. 26, 1854. A group of a few *s.
339	1	2 nebs. knots.
340	2	"nova" near.
343		Looked for seven times. Not found.
347	15	Dec. 11, 1850. A S. comp. p. and a d. * n. Jan. 10, 1858. Looks like a F. haze enveloping 3 *s.
349		Large loose cl.
352	2	Close d. neb.
354		Dec. 28, 1856. Neat little cl; its centre consists of about 40 or 50 *s; the outlying *s are arranged in curved branches.
355	5	Nov. 29, 1848. Saw a multitude of *s and some unresolved neb.
356		Looked for four times; not found, but nights bad.
357	19	Sketch not quite satisfactory. Pos. Dist. Nov. 29, 1851. $\gamma\delta$ 351° 0′ 47″[a] $\gamma\zeta$ 52 2 10 $\gamma\eta$ 40 2 16 $\gamma\theta$ 70 2 53 $\gamma\varepsilon$ 110 3 19 $\gamma\iota$ 104 3 37 Jan. 12, 1852. $\delta\gamma$ 348° 1′ 36″. 
358		Coarse cl.
359	1	Dec. 28, 1856. Looks like a * in vF. neb. atmosphere. lE. p. and f.
360	43	(Neb. of Orion.) Account of detailed observations postponed, as in 50 and 357.
361	11	Observations recorded in the 'Transactions' for 1850 fully confirmed.
363	6	Nov. 30, 1850. The luminous appearance extends about 15′ all round the *.
365	3	Oct. 23, 1851. r: I strongly suspect it is annular.
368	8	Feb. 9, 1852. Spiral arrangement sufficiently seen to confirm former observations. Jan. 9, 1856. Appears in finder a B. oval neb., with n. and nf. edges brightest and best defined, and sp. edge fading away gradually; with higher power there is seen a decided darkness at and between the *s, and I can confirm previous observations as to the curve formed by the brightest part of neb. Dec. 26, 1856. Nebulosity easily traced as in preceding sketch. 
370	1	Jan. 21, 1857. r? suspect * in centre.
373	3	Nov. 30, 1850. Same appearance as ε Orionis, but very much fainter.
375		Jan. 17, 1855. A pretty close cl. of S. *s, followed by four or five B. *s.
378 381 383	7	Dec. 11, 1850. I saw no nebs. round 378; sf. about 20′ is a triple *, the middle one of which is pretty strongly nebs.; about 36′ f. (a little n.) is a d. *, whose brighter component is nebs.; 65′ f. 378 is a S. neb. with nucleus or stellar point.
384	1	No description.
385	2	A few B. *s; scattered.
389		Dec. 28, 1856. Very loose cl.

[a] Note by observer: "I have reason to believe that the distance of $\gamma\delta$ is incorrect."

Number in Herschel's Catalogue.	Number of times observed.	Description.
390		Jan. 20, 1857. A close irregular cl. of vS. ⁎s; figure as sketched, one ⁎ rather brighter than the rest; forms as it were a nucleus, round which the others are grouped, but principally np. side of it. 
393	15	Sketched three times. Feb. 28, 1850. S. ⁎ near a L. one; the L. ⁎ f. the neb. has a comp; this, No. 393, is an enormous neby, which I traced f. and n. of it to a great distance, some degrees. It narrows at times to a band across the finding-eyepiece of about 6′ or 8′. I fancied the number of L. ⁎s was greater in it than in the neighbourhood; I am certain the number of S. ⁎s is much less. In a small space, taken at random in its neighbourhood, I reckoned upwards of 20 S. ⁎s. In a similar space in it, taken at random, but 3. See fig. 11, Plate XXVII.
399	11	Feb. 22, 1851. 2 ⁎s in p. part of the neb. Nothing additional to what is in the 'Transactions' for 1850.
401	9	No neby. found, and only a few ⁎s arranged in pairs; no cl. Has there been a change here?
403		R; with rays.
404		Jan. 10, 1856. S. cl. of S. ⁎s; oblong nearly p. and f.
406, 407	12	The southern one has nucleus.
408	1	
409, 410	7	Dec. 8, 1850. 5 nebulous knots. 
		Pos. Dist.
		$\alpha\gamma$ 344° 2′ 32″
		$\alpha\beta$ 323 1 46
		$\alpha\delta$ 3 5 08
		$\alpha\varepsilon$ 30 6 11
411		Nov. 25, 1851. A coarse B. cl.
413		Jan. 20, 1857. Pretty cl. of pB. ⁎s; centre nearly R.
415		Jan. 8, 1851. A poor cl.
421	6	Nov. 23, 1851. v. close d. neb. below 4 ⁎s. See fig. 12, Plate XXVII.
425		Feb. 13, 1852. Coarse cl.
424, 426	3	Both bM.
427		v. loose cl.
428	2	Feb. 1, 1856. vF. fan-shaped neb. involving 3 ⁎s.
430	2	Jan. 31, 1851. Several knots around; 430 is E. np, sf.
431	2	Jan. 18, 1855. S. ⁎ in s. edge. Jan. 25, 1857. r.?
434	10	⁎ in f. edge; r.
439		Jan. 9, 1856. Loose cl; irreg; R.
443		Jan. 30, 1856. About 25 or 30 ⁎s of a curious shape.
444	15	Nov. 23, 1851. S. ⁎ in f. end of np. appendage, also one nf. the neb. about 40″; nothing additional to description in 'Transactions' for 1850.
446, 447, 448, 449	5	Feb. 26, 1851. 
		Pos. Dist.
		$\alpha\beta$[a] 222° 3′ 41″
		$\beta\gamma$ 282 5 37
		$\delta\varepsilon$ 291 3 49
		$\varepsilon\zeta$ 267 6 47
450	25	Although 21 observations have been made since the sketch appeared in the 'Transactions' of 1850, nothing additional has been discovered, except that the outer luminous ring is of unequal brightness.
453	1	Jan. 21, 1857. S. ⁎ close to n. edge.
454		Neat little cl. of vS. ⁎s. It looks in finder like a r. neb.
456	11	Edge filamentous; r; vlbM.
457	5	Edge filamentous; r; looks like a globular cl.
458	1	No description.
464	16	Dec. 8, 1850. Dark space more eccentric than in the drawing in the 'Transactions' for 1850. The larger of the 2 ⁎s is in the dark space, the other s. of it in the neb; a 3rd ⁎ close nf.
465	1	Jan. 11, 1856. pF; bM; lE?

[a] α, β, γ and δ, ε, ζ are distinct figures.

Number in Herschel's Catalogue.	Number of times observed.	Description.
468	5	A group of 6 ✻s; no neby.
469, 470	1	Feb. 20, 1851. A great many knots; reckoned 10 in a line nearly p. and f.
471	1	Jan. 9, 1856. d. neb.
473	1	Feb. 1, 1856. F. ray, with pB. nucleus; np. this is another neb. vF; E; with ✻ near nucleus.
476	2	Jan. 12, 1855. A F. ✻ p. and a nebulous knot f.
477	1	Another near, both F. S.
478	16	Jan. 20, 1855. I see 2 ✻s in p. edge with ½-inch single lens. The smaller component of a double ✻ touches f. edge; light mottled. On several occasions spirality suspected, and rough sketch made.
480	Frequently.	Several observers have fancied that the ✻s exhibit some approach to a spiral arrangement, with cellular centre. No unresolved neby.
481	1	Jan. 20, 1857. ✻ in n. edge; centre r?
482	1	Nucleus; vF; R.
483, 484	3	Jan. 31, 1851. 2 others near 483. Feb. 26, 1851. αβ Pos. 242° Dist. 2′ 48″ αγ 319 5 36
486	3	Feb. 16, 1855. L; vF; lE; light mottled; suspect dark spaces round the centre; F. stellar point or nucleus; several ✻s in edge and in it. Rough sketch made.
487	1	Jan. 25, 1857. Light mottled; B. ✻ n; a F. ✻ close nf. edge.
489	10	Feb. 14, 1857. Certainly a ✻ in centre or nucleus, and neby. projecting to sp. side, but eF. Mar. 10, 1858. (Definition very good.) Nucleus stellar; the brightest part of the neb. looks r. It is pL. and mottled; suspected spiral.
491	15	Sketched 6 times. Spiral. Jan. 29, 1856. Very well seen; previous observations confirmed. I have no doubt the neb. is a spiral. The f. half of neb. is the more difficult to see well. Mar. 10, 1858. Well seen; the whole neb. looks vB. and sparkling; part is clearly r; my former conjectures as to its shape confirmed. I used the highest single lenses. Mar. 11, 1858. (Definition very good.) Observed with same results as on last night.
492	6	But never well seen.
494	1	Jan. 20, 1857. vF; E; nearly n. and s; has a sharp pB. nucleus.
495	2	Feb. 28, 1851. Centre r; E. n. and s.
496		Jan. 31, 1851. Coarse cl; lanes and openings without any ✻s whatever.
497	4	In the centre of a triangle formed by 3 minute ✻s; nucleus.
498	2	Feb. 22, 1857. 2 ✻s on np. edge; S; F; R; bM.
499	3	Nucleus; F. ✻ in p. edge; S; vF; R.
504	2	r; ✻ in f. edge.
505	10	Jan. 27, 1852. r. Feb. 9, 1855. Centre suddenly B; irreg. R.
506	4	Jan. 17, 1855. Centre suddenly B. with outlying F. neby, which involves a ✻ nnf.
507, 508	3	Feb. 9, 1850. A fine object; 3 neb. forming a triangle; one B, another pB; the third the last degree of faintness.
510	1	4 neb. here. The f. one is E. and has nuc; the others are S. and F.
512	5	Jan. 10, 1856. Not vS. but vvF. and flickering. Feb. 1, 1856. Nucleus and ✻ close to s. side of it, and two very indistinct branches of neby. From the tenour of the observations no doubt it is a spiral; the twist of the branches fully confirmed.
513	9	Nov. 30, 1850. S. ✻ in its nf. edge, perhaps not connected with the neb. The neb. had a brush-like appearance. Feb. 1, 1851. Dark space f. the ✻ between neb. and ✻, like the "snowdrop" neb. (see fig. 10, 'Transactions' for 1850).
514	20	Dark space suspected in centre, but never fully confirmed. Remarkable for extreme paucity of ✻s in neighbourhood.
518	11	Nucleus surrounded with L. F. neby.
519	6	Jan. 30, 1856. 4 ✻s in vF. neby.
521	1	Feb. 23, 1857. E; np; sf; mbM.
522	4	Light *not* equable; stellar nucleus?; ✻ in n. edge.
526, 527	3	Feb. 9, 1855. Very close, almost touching. 526 is mbM; 527 is smaller, and lbM. Sketched.
529	7	March 9, 1852. c. close; d. neb. Jan. 20, 1857. These two are equal in size, and enveloped in F. haze of neby.

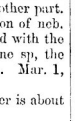
Number in Herschel's Catalogue.	Number of times observed.	Description.
530	7	B. nucleus, surrounded by very extensive neby.
531		Coarse cl.
532	7	Dec. 29, 1851. vL. lenticular ray, slightly concavo towards np. direction; gvmbM; perhaps 10′ long. March 1, 1854. Uncertain whether nucleus is stellar. Query, parallel dark lines exterior to nucleus as in Andromeda. March 8, 1858. * on np. edge is d.
533	1	March 11, 1858. 4 neb. here, nearly in line p. and f.
535	9	d. neb. surrounded with F. neby.
536	6	6 knots in the immediate neighbourhood, two of which have * in their edges.
537	2	* with fan-shaped neb, very like Herschel's fig. A 2nd F. star involved in the neby.
538	1	March 1, 1856. F. bM.
540	8	r; d. * in s. extremity; nucleus.
542	1	Feb. 19, 1855. vvF. nucleus; r.
549	1	Feb. 18, 1855. d. neb.
550	1	March 12, 1852. An amorphous mass of neby. of uneven character; E. p. and f.
551	3	Jan. 20, 1857. lE. p. and f; and vlbM.
553	4	Feb. 16, 1858. Nucleus; pB; E. nearly n. and s.
555	3	Dec. 29, 1851. A B. ray like 242.
556, 559, 561	2	4 neb, one of them vvF. and one E.
557	1	Feb. 23, 1857. vF; lE; lbM.
562	4	vF. ray; np, sf.
563	7	Feb. 16, 1858. Mottled, and suspect spiral; r. March 11, 1858. B. * close f.
564	2	March 26, 1851. vbM.
566, 567	1	March 13, 1850. A third, and eF. neb. found.
569	2	lE.
574	1	Jan. 8, 1851. * in edge; R; S.
575	2	Feb. 9, 1855. 2 neb. found; both F. and lbM.
580	2	March 15, 1855. E. nearly n. and s.; has a * touching its nf. edge, and is mbM.
581, 582	5	There are here 15 knots. The positions of six of them were taken.

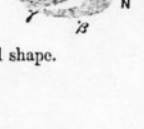
		Pos.	Dist.
March 26, 1851.	$\alpha\beta$	226°	0′ 25″
	$\alpha\gamma$	237	1 12
	$\alpha\delta$	263	5 9
	$\alpha\varepsilon$	125	4 13
	$\varepsilon\zeta$	120	8 8
March 14, 1850.	$\alpha\beta$	235	about 0 30
	$\beta\gamma$	245	about 0 45

584	5	The neb. involves one of Herschel's *s.
587	1	Mar. 15, 1855. Has a F. knot close np.
588	1	Nucleus.
589, 591	4	3 found; 2 of them E. and lbM.
592	2	*s in its edges, and suddenly condensed in the centre.
593	5	Feb. 14, 1855. Stellar points in outlying F. neby, especially two, which I can plainly see with the ½-inch single lens; sbM.
594	1	Mar. 9, 1858. E. neb. between 2 *s.
597, 598	3	Feb. 22, 1857. Fine d. neb, both mbM. and both E, especially the f. one, which seems to have a bend at α. Query, a vF. neb. at β? Mar. 18, 1857. All the particulars of my last observation fully confirmed. "Nova" at β seen.
600	3	Feb. 19, 1855. pF; R; bM. to nucleus.
604	24	(18 times since 1850.) Nothing additional, except 3 *s as in diagram. Mar. 9, 1858. Very well seen; central nucleus looks r. A * suspected at α, and one or more in the F. neby. at β; and a * seen at times quite steadily at γ. I employed the inch and ½-inch single lenses. March 11, 1858. Seen as well as on last observation. I have now verified the 3 *s which I then noticed.
610	4	Mar. 24, 1857. Much mottled. Mar. 11, 1858. Has a d. * in it.

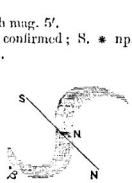
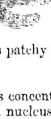
Number in Herschel's Catalogue.	Number of times observed.	Description.
613	1	Feb. 18, 1855. vF; R; mottled?; * in n. edge.
622, 624, 627	8	Feb. 1, 1856. 622 has nucleus, and is mE; its light is very unequal, and I suspect one dark lane running throughout its length; s. of nucleus.
626	2	Jan. 30, 1856. pL; vF; R; vgbM.
630	1	Mar. 5, 1851. S; lE; vgbM.
634, 636	4	Feb. 19, 1855. The p. one is d; its comp. being immediately p. it, and lE. sp. by nf.
635, 637	2	Mar. 9, 1852. n. one has a mottled appearance.
638	1	Jan. 25, 1851. r; 5 "novæ" near the most distant 11′.
639	10	Jan. 24, 1851. r; a S. * near the middle, and another f. lenticular. Mar. 20, 1851. Patch and * in p. end. At 54° 46′ N.P.D., 9h 36′ R ± A scarlet * of 18th mag.
640, 641	1	Several knots near.
642	1	3 "novæ" near.
644, 647	2	Feb. 26, 1851. p. one eF.
650	2	psbM.
652	2	Mar. 10, 1852. L. thin F. ray.
656	4	Mar. 15, 1855. Appendage to sp. edge, or rather a twist in that end towards the north.
657	12	vF; seems to have a split in f. end.
659	2	Nucleus or * in M.
660	1	Nucleus or * in M; light mottled; a S. * nf.
661	1	Mar. 21, 1854. ceF. with B. centre; E, principally on f. side.
663	3	Jan. 10, 1856. Lent.; vbM; has a * np. Query, a break in the neb. just p. the nucleus?
665	1	Mar. 18, 1857. Found here a * with vF. neby. nf. it.
667	3	Mar. 24, 1857. pF; S; R; bM.
668	6	Mar. 11, 1848. Fine ray, with vB. nucleus.
671	6	Mar. 12, 1852. E. p. and f.
675	4	S. * sp. edge.
677	1	Mar. 30, 1854. vF.
678	1	Mar. 27, 1854. 3 neb; the p. one vS. About 4′ f. is a S. lent. ray running nf, sp, and s. of this latter is another neb. about 5′ distant; R; both r.
682	8	Jan. 16, 1850. A F. spiral. Mar. 20, 1854. A F. * immediately f.; spiral left-handed; very faintly seen; night bad.
684, 685	5	685 seems like 393, but instead of the * having an approach to a nucleus. Jan. 30, 1856. About 5′ sp. 684 is a vvF. ray, extending n. and s. 684 has a B. central nucleus, with a sensible disk.
688	4	Suspected spiral.
689	7	Spiral. Feb. 1, 1856. The neby. connecting the three principal knots is vvF, but no doubt of its existence. Sketch made. See fig. 13, Plate XXVII.
692, 693	10	March 15, 1850. 4 neb. here. α is 692, and β is 693. Pos. Dist. αβ 51° 5′ 50″ αγ 302 5 10 αδ 217 10 47 αβ 53 5 52 According to Herschel, the distance from 692 to 693 is 4′; this should be carefully looked after. Mar. 22, 1857. Sketched; α and γ r; nucleus of δ appears eccentric. See fig. 14, Plate XXVII.
695	5	March 3, 1850. Probably a F. spiral. March 24, 1857. * in f. end; dark spaces throughout its length.
696, 699, 700	1	Feb. 16, 1855. They form an obtuse-angled triangle; the p. one is accompanied by 2 minute *s, one n. and the other nf; the next has also a minute * as a comp. nf.
698	1	vF.

Number in Herschel's Catalogue.	Number of times observed.	Description.
705	1	March 3, 1851. d. *, with neb. to n.
706		Looked for 5 times; not found.
710	5	March 11, 1858. 2 F. patches of neby. (of which one has nucleus); they form with a * an obtuse-angled triangle, the intervening space being filled with F. neby. of a mottled character.
711	4	Feb. 18, 1852. pB; bM; E. sp, nf.
713	1	bM.
714	2	March 20, 1854. Dark spaces suspected. Feb. 9, 1855. Has a suddenly B. centre; vmE.
718	1	Has a * closely sff.
719	2	Rather lenticular.
720	2	March 18, 1857. sp. edge is F, and not so sharp as the rest.
721	2	March 18, 1852. R; nucleus.
724	6	March 8, 1858. There is a B. streak, in which I certainly see *s sparkling, projecting a little from the edge of neb; the neb. is much mottled, and has a stellar nucl.
727	1	March 11, 1858. F; R; bM.
728	5	Jan. 10, 1856. I think the nucleus is not quite central.
731	12	March 5, 1848. Spiral arrangement well seen. March 11, 1848. Very cold; very windy; air steady; definition excellent; mirror bore a power of 700 with great precision; telescope as steady as a rock, although wind so high. Nebula well resolved into * points. Saw a broad band at the bottom distinctly, and 2 at the top. March 28, 1848. Resolved by a power of 300, although night hazy. March 17, 1849. Like cl. in Hercules; dark spaces in B. part.
732	1	Between 2 *s, one of which seemed connected with the nebulæ.
735	1	Nucleus or * in centre; S; R.
737	4	March 18, 1857. Mottled; suspect 2nd nucleus.
739	8	Jan. 27, 1852. vF. spiral with B. centre; S. * sf. centre involved; two others f.
743, 749	14	Both have B. L. centres enveloped in F. neby; much mottled. 743 sketched roughly twice. 749 sketched roughly four times. They are both represented as spirals, though the details are vF.
748, 751, 753, 754	3	Mar. 23, 1851. The triple neb. is probably a spiral; dark spaces in it.
750	4	Feb. 1, 1856. lE; pB; mbM.
755	3	Feb. 23, 1857. mE. n. and s; bM.
756	3	B. streak through it suspected.
757, 758, 761	3	March 17, 1849. 757 vB; L; R. 758 vB; R. 761 E; pB.
765, 766	9	Feb. 9, 1855. 765 is, I think, a spiral, with *left-handed* twist; immediately f. is 766, which is B. and well-defined. I suspect F. neby, extending from 765 and running up through the other nebulæ. Feb. 14, 1855. Seen as before. In 765 the curve to the left is brightest near its extremity. Feb. 16, 1855. Certainly F. neby. extends between the two, as before suspected. Jan. 10, 1856. Nothing to add to former observations. Mar. 19, 1857. Observed to compare sketch. See fig. 15, Plate XXVII.
768	1	Nucleus.
772	1	Another neb. n. 3′ dist.
773, 775	7	Both mottled.
774	1	Sharp nucleus; * in nf. edge.
777	3	Mar. 29, 1856. A * in s. edge, and a F. one in f. edge; 2 knots in n. edge. I think it r.
778, 779, 782	3	Feb. 9, 1855. Three in a line; the middle one is vB. and lenticular, and has the larger * of a d. * involved in f. end.
783	1	vF; lbM.
785, 787	3	Mar. 5, 1851. At sp. edge of 787 a ring suspected, within which a dark band, then B. part. Mar. 30, 1856. 785 is E. sp. by nf, and its brightest part is nearest the p. end; also a * in nf. edge. 787 is very curious. A R. bright nucleus, which is eccentric, and a dark curved passage sp. the nucleus, as in sketch. The neby. outside this dark place runs up perhaps to the streak marked α, which is vF, but of its existence I have no doubt. 

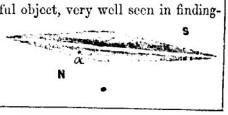
Number in Herschel's Catalogue.	Number of times observed.	Description.
786	1	Stellar pt. or nucleus E.
788	6	Jan. 1850. Probably very remarkable; bad night. Feb. 1, 1851. f. division the brighter. Mar. 3, 1851. p. division pretty well seen. Mar. 8, 1856. nE; certainly dark spaces on each side of nucleus, but not well seen; that on f. side is the more distinct. Sketched roughly 3 times.
789	1	Jan. 21, 1855. pL; considerably E; BM, but no nucleus.
790 } 791 }	2	Mar. 28, 1856. About 3′ apart; both F. and of nearly equable light. The n. one is a long narrow ray np, sf; the other is oval sp, nf.
793	1	A S. comp. dist. about 5′ or 6′.
804	3	April 9, 1852. I suspect a dark curved passage sp. centre. Mar. 15, 1855. Light mottled; I suspect a knot in p. and one in f. edge. Has a spiral appearance.
805	6	Mar. 12, 1855. Has a sharp B. R. nucleus in a disc of F. mottled neby.
806	2	Mar. 17, 1855. Oval: major axis nearly p. and f; nucleus vB.
810 } 815 }	4	Feb. 22, 1857. mE; B. nucleus; arms F; patchy. Mar. 23, 1857. pL; nucleus vB, and has a sensible disc; arms vF. and patchy. 815 is F, nearly R, lbM.
811	1	R; gbM.
812	1	Query, is there a F. ring round it?
813	5	Mar. 1, 1854. Query, an oval spiral?
814	2	April 13, 1852. Neb. does not appear to reach the *.
818	4	Very like H. 2172. See figure. Mar. 29, 1856. The nucleus projects into the space along sp. edge; outside this dark space there is F. neby, which I see joining the neb. at n. A F. * at the opposite extremity.
831	3	April 3, 1851. Light mottled; vBM; knot in p. branch.
838	42	April 13, 1850. But one * seen. Feb. 1, 1851. 2nd * not seen; sky milky. March 3, 1851. 2nd * not seen; sky milky. March 5, 1851. 2nd * not seen. March 7, 1851. 2nd * not seen. April 3, 1851. 1st * only seen. Jan. 27, 1852. Only one * seen. March 12, 1852. Only one * seen. March 13, 1852. Only one * seen. March 20, 1854. 2nd * not seen, nor any of the F. details. March 30, 1856. 2nd * not seen, nor minute details. March 24, 1857. 2nd * not visible. March 8, 1858. 2nd * not visible, nor minute details. N.B. The 2nd * has not been seen since March 9, 1850.
840	5	March 17, 1855. mE. p. and f; vB. centre; the n. edge of central part seems sharpest, and outside it again I think there is F. neby; * in f. edge. A rough sketch represents it like 2172.
841	3	Suspected spiral, but a vF. object.
843 } 844 } 845 } 846 }	4	844 is a B. nebulous disc in a F. oval neby.
847	1	Mar. 19, 1852. E. np, sf; vB. centre.
848	3	Feb. 18, 1852. vbM; lE.
849	1	Mar. 29, 1856. S; pB; R; mbM.
851	1	"Nova" near; both are S; F; lbM; and 851 has nucleus.
854	10	Mar. 31, 1848. Curious neb. with B. nucleus at left; a little above and towards the right is a streak; spiral; resolved very well about the nucleus, but no other part. From the right, and apparently springing from the nucleus, a vF. portion of neb. extends for nearly 15′, gradually melting away. Apr. 3, 1848. Observed with the same results as on March 31st. April 17, 1849. 2 *s near nucleus, one sp, the other sf. it. Feb. 25, 1854. Suspect dark spaces on either side of nucleus. Mar. 1, 1854. Neb. mottled; p. observation confirmed.
856	2	2 neb. found; the p. one has a sudden vB. nucleus, and is lE. np, sf; the other is about 15′ f; S; R; pF; vbM.
857	4	Suspected darkness on either side of nucleus; E. See fig. 16, Plate XXVII.
858	4	Apr. 15, 1852. R. disc, BM, with vF. neby. round it of mottled character; probably it will be seen as spiral on a fine night. Mar. 30, 1856. Spiral with, I think, two arms, thus: these arms are broken and of unequal light; there are B. patches at α, β, and γ respectively; a F. * p. at δ. Apr. 6, 1856. Seen as spiral. The f. branch comes down past the other, doubtless over it as at α, and seems to originate from the p. side of nucleus. Mar. 24, 1857. The spiral arms are coF, but there is no doubt of their existence as described in previous observations. 

Number in Herschel's Catalogue.	Number of times observed.	Description.
859	2	Apr. 1, 1848. pB; very long.
860	1	Apr. 9, 1852. I see nothing but a F. neb. 60″ near some *s of 8th and 9th mag.
865	1	bM.
866, 869	1	Apr. 13, 1852. Large neb. is BM. It has a knot in sp. end, and a dark curved passage on p. and n. sides of centre; spiral. Small neb. f. has a S. * immediately s. of it.
875	6	Sketched 4 times. Feb. 19, 1855. 3 *s in it; there is a mass of neby. f. the brightest part, with condensed portions through it. Disposed in curves? The F. ray extends many minutes s, gradually fading away. Mar. 17, 1855. There seems to be a knot at p. extremity, in which the neb. terminates in that direction, and immediately s. of this knot is a little dark bay. The branch running f. from this curves round towards centre. See figure.
879	1	Apr. 16, 1852. F. brush; night bad.
881	1	Nucleus.
882	2	Mar. 22, 1857. mE. sp, nf. and bM.
887	2	Mar. 17, 1849. Dark space f. centre strongly suspected.
891, 893, 894, 898	4	Mar. 26, 1856. Of this group 894 is the largest and brightest; its light is patchy.
895	2	Mar. 28, 1856. Irreg; R, edge ragged; sbM; nucleus.
896	2	Jan. 27, 1852. Neb. divided into two parts, and F. appendage np. Apr. 15, 1852. Black line across; comp. scarcely visible.
897	3	Feb. 22, 1857. lE. sp, nf; gbM. to F. nucleus.
901	1	Mar. 23, 1857. F; E. np, sf; lbM.
903	1	E; vbM.
908, 911	3	Jan. 27, 1852. 908 mottled, with S. * involved; sp. it is a coarse d. *. 911 is irreg, with B. * in s. edge, and having dark lanes through it.
910	13	Mar. 30, 1856. Examined attentively for a long time; it appears to be of the shape annexed, which exaggerates; there can be no doubt of the bend upwards at α, and of the darkness about the nucleus; S. * at β. Apr. 6, 1856. Seen pretty much as before; the upward bend at α is at a right angle. The p. branch reaches as far as γ; and I suspect a S. * there. Mar. 8, 1858. This night is not as good as some on which I observed this object last year, but I can confirm my previous observations as to its general shape. 
918	1	Mar. 3, 1851. E; in the meridian vlbM. Another brush-like 20′ np.
923	1	Mar. 22, 1857. vS; R.
925	2	There is an appendage, perhaps an independent neb; r?
930	3	Between 4 *s, in the shape of a trapezium.
931, 932, 933	1	Feb. 24, 1852. 2 rays, forming an angle of about 100°; the s. one has a nucleus, and there is a knot at the n. extremity of the other.
939, 940	3	2 "novæ" near, probably a 3rd. 933 and 940 are E, the others R.
936	2	Apr. 1, 1848. A tolerably B. neb. with a smaller one f.
943	5	Spiral. Apr. 18, 1851. BM; F. neby. all round of a mottled character, knot or appendage in p. part. Apr. 10, 1852. Spiral? gbM. Mar. 1, 1854. Spiral arrangement; sky milky.
945	1	Apr. 11, 1850. Several *s near it, but few others in neighbourhood.
946	3	Mar. 8, 1858. S; lE. and pF.
947, 950, 951, 953	2	All are S, R, and lbM.
948	1	bM.
959	1	Mar. 3, 1851. S; lenticular.
960	1	Feb. 17, 1855. A large number of pB. nebs. knots; I counted 8, probably there are more.
967, 968, 969	1	Mar. 28, 1856. The p. one is E. p. and f; the others are R; bM.

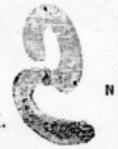
Number in Herschel's Catalogue.	Number of times observed.	Description.
971	1	Mar. 29, 1856. Neat little ray np, sf; bM.
973	1	
978	1	Mar. 13, 1852. Oval; F. nucl; another F; S; 5′ nf.
980	1	Jan. 27, 1852. gbM; R; S.
981	2	April 13, 1855. Dull nucleus; edge ragged.
982	4	April 15, 1852. Spiral probably; knot in s. edge, and a * outside p. edge; another S. neb. 3′ sf, having * immediately n. of it. April 16, 1852. Spiral; last night's observation confirmed; the spiral branch seems to start from the s. edge and go round the f. and n. sides as far as the * p. April 19, 1857. A * np. and a * in s. edge. Seen thus:—The spiral branch is B. and easily distinguished at sp. edge (α); as it extends to f. edge it grows fainter, and I can trace it no further than β. The central neb. is vB, and has a B. nucleus. The S. neb. sf. is BM. and a lE. Apr. 20, 1857. Examined with 1-inch and ½-inch single lenses; last night's observation is correct. 
983 984	1	S. * p. 983 about 1′.
985	1	Mar. 27, 1854. vF; r?
988	2	Feb. 24, 1852. lE. n. and s; bM.
992	2	Mar. 7, 1851. E; bM; nucleus.
994	1	5′ long.
1002	3	Mar. 17, 1849. Suspect it to be a spiral; though twe saw at moments ring round nucleus. Apr. 21, 1851. Spiral of the faintest class; the M. is pB, but the branches vF; conjectured form thus  Apr. 17, 1855, or thus  .
1005	3	Apr. 11, 1850. Fine neb, but very bad night.
1006	1	vg. vlbM.
1008	2	* in nf. side; vF; E; B. nucleus.
1009	2	Apr. 13, 1852. Oval; gbM.
1011	4	Mar. 3, 1851. Lenticular; mottled. Mar. 30, 1856. mE. sp, nf; B. nucleus; very much mottled; the larger half of neb. lies to s. side of nucleus. A B. streak running obliquely through the nucleus, and another B. patch to s. end. Apr. 6, 1856. I see two patches in s. end, also a *. Apr. 19, 1857. Sketched. See fig. 17, Plate XXVII.
1014 1015	1	Apr. 14, 1852. The s. one is E; the n. one has 2 *s involved.
1017	1	Mar. 27, 1854. Filamentous; r; * near centre.
1018	3	Jan. 10, 1856. pB. nucleus in a L. mottled disc of F. neby. Irregularly R. Another nf.
1022	1	Jan. 27, 1852. Long ray; gbM.
1030	2	Apr. 15, 1852. The neby. p. centre is mottled.
1029 1031	1	The p. one is S. and the f. one vB.
1033	4	3 "novæ"; one is S. and R, the others are E.
1038	4	Mar. 27, 1856. mE. n. and s; smbM. to a B. nucleus; a d. * involved in n. extremity; a B. * further distant n.
1040	1	Apr. 13, 1852. mE. sp, nf; * p. a S. R. neb. about 7′ np. it.
1041	1	Mar. 17, 1849. Roughly sketched; E, with a split or opening in the direction of major axis, and a * a little f. centre.
1043	5	Mar. 30, 1854, F; spiral? another neb. np. or nearly n; vF. about 5′ distant. Apr. 6, 1855. Query, of this form?  Its light is certainly patchy, and the neb. is lE. nearly p. and f; np. this object is another F. R. neb. with stellar centre. Apr. 13, 1855. Suspected shape as before, stellar centre. Apr. 16, 1855. My previous conjecture as to shape is rather confirmed by Mr. J. Stoney, who saw the p. branch turned off sharply to s. (nearly at a right angle), whereas the f. bend is not so sharp; but this latter branch reaches further round and is rather fainter. The whole object is vF. Mar. 27, 1856. Last year's observations fully confirmed.
1045	1	Apr. 26, 1851. Bicentral appearance is very indistinct; the light is mottled; E. ssp. and nnf.

Number in Herschel's Catalogue.	Number of times observed.	Description.
1048	2	Mar. 29, 1856. pL; B; mbM; r.
1049	1	Mar. 15, 1855. pF; R; lbM, but no nucleus.
1051	1	Apr. 18, 1851. S. * involved in f. part of it, preceded a * of 9th mag. 5′.
1052, 1053	3	Jan. 27, 1852. Spiral. Apr. 9, 1852. Previous observations confirmed; S. * np. it. Apr. 14, 1852. Drawing made. See fig. 18, Plate XXVII.
1058	1	Apr. 10, 1852. glbM; F. neby. round it; S. * south.
1061	4	Apr. 27, 1851. Spiral; I suspect the f. branch extends to α. * suspected at ρ.  Pos. Dist. Nα 61° 2′ 50″ Nβ 256 2 19 Nγ 228 3 17 Nδ 15 3 53 Apr. 29, 1851. Observed for drawing. May 3, 1851. Viewed in twilight; drawn. Apr. 19, 1857. The p. branch seems the brighter rather of the two, and more suddenly curved than the f. one, and both of them look not quite so sharp as given in the drawing. See fig. 19, Plate XXVII.
1062, 1063, 1064	1	Badly seen.
1066	2	Mar. 12, 1850. Broad equable band; several conspicuous *s in it, especially near ends.
1081	1	Apr. 16, 1852. vS. * p. and a little n. of centre; I suspect another in n. branch; gbM.
1084	1	Apr. 16, 1852. Nucleus.
1085	5	Apr. 13, 1852. Brightest part a little eccentric; * p. is involved. I suspect (Mr. B. Stoney) a dark curved passage on s. of centre, probably new spiral. Mar. 30, 1856. I have little doubt this is a spiral, either *s  , which I rather believe, or  , a S. * p. Apr. 6, 1856. I think spiral with one branch; a B. part at α, and I suspect a * there. Mar. 24, 1857. Nothing to add to previous observations, which, however, I can fully confirm. Apr. 19, 1857. Observed.
1088, 1091	2	Apr. 21, 1851. 1st vF; 6′ ssp 2nd; 2nd vB. and mE; a d. * 5′ nf, whose smaller component is blue.
1092	3	Apr. 1855. Two neb. about 14′ distant, 45° nf. Is the s. one of this shape, with a wedge-shaped division running downwards? The other neb. is lE. np. by sf; has nucleus, and is the larger and brighter of the two. Mar. 29, 1856. Last observation confirmed as to the shape of the s. one; the north one is, I think, a spiral of this shape; the branches vF. 
1094	2	Feb. 26, 1851. A long ray, much resembling 242.
1105	4	April 13, 1855. pB; R; bM, but no nucleus.
1106	2	April 1, 1848. A very close cl. of faintish *s, preceded by a S. neb.
1107	2	March 9, 1850. A long ray with mottled light.
1108	3	April 17, 1855. Has a B. R. nucleus, surrounded by much F. neby, which is patchy and involves a B. *.
1110	1	April 13, 1850. E. np, sf; 88″ by 50″.
1111, 1113	4	April 26, 1851. 1111 has a B. R. centre, with nucleus; then two dark spaces concentric, with nucleus; and outside these F. neby, as in figure. (δ) 1113 has F. nucleus, or stellar point. αN 175° 2′ 25″ αβ 183 0 58 αγ 204 3 01 αδ 66 3 47 April 28, 1851. Previous observation rather confirmed; the dark spaces certainly exist, but I cannot be sure that appendages are not part of spiral branches. April 15, 1852. Last year's observation confirmed as to dark curved spaces p. and f. centre, and F. neby. outside them again. See fig. 20, Plate XXVII. 

Number in Herschel's Catalogue.	Number of times observed.	Description.
1117	3	April 25, 1854. R; has nucleus; * involved f. nucleus.
1119	1	Feb. 17, 1855. vB; R; bM; has 2 S. *s p.
1120 1121 1122 1124	1	Jan. 28, 1849. Observed in haze.
1128	1	Apr. 6, 1856. F; bM; a B. * in sf. edge and a patch in np. end. Neb. is fully 4′ long.
1129 1136	2	Feb. 26, 1851. The larger is vlbM; perhaps not R; S. one r.
1131	3	March 17, 1855. L. R; nucleus; * in nf. edge; mottled.
1132	1	March 9, 1850. A ray; diminution of light in neighbourhood of nucleus; edges parallel; night bad; remarkable object.
1140	3	April 6, 1855. Very like a distant cl.
1144	1	April 14, 1852. The brightest part in advance of the centre; vS. * n.
1146	6	March 8, 1856. Irreg. shaped neb. with nucleus eccentric, and a knot or appendage at f. end. March 27, 1856. There are 4 knots or *s in the neb, besides the B. patch to sf. side of nucleus.
1147	1	March 6, 1851. S. lenticular ray; B. nucleus.
1148	1	No description.
1149	1	March 15, 1849. Lenticular, with split in direction of major axis.
1155	1	No description.
1156 1158	1	April 6, 1855. Both are R; pB; bM.
1160	1	April 18, 1855. pF; L.
1162	2	April 25, 1854. E. p. and f; bM.
1167	1	March 9, 1850. Great ray; night bad.
1168	2	April 10, 1852. Has E. appearance np, sf; F. neby. all round it.
1171	1	March 13, 1852. E. p. and f; nucleus.
1173	7	See the 'Transactions' for 1850.
1175	4	April 20, 1857. A vL. B. E. neb; much mottled. The f. edges are comparatively sharp and well defined, but in the p. and n. edge there is a great inequality of light; nucleus E; vB. part to n. of nucleus.
1176 1180	1	April 16, 1852. gvbM; the f. one is much fainter.
1178 1183 1187 1189 1190 1194 1201	1	Apr. 13, 1852. The three or four brightest are E; gbM.
1179	1	No description.
1185	2	April 10, 1852. L; E. p. and f; arms F; * involved in p, and another * in f. arm, but a little further from centre.
1186 1188	2	April 26, 1849. 3 in line; the f. one vF, the other two R; pB. nuclei.
1195	1	April 10, 1852. F. knot at end of p. branch.
1197 1200	1	April 14, 1852. 1st E. * in np. extremity; 2nd F, almost planetary; another vF. and thin ray about 30′ f.
1196 1202	5	Sketched 4 times. March 1, 1851. 1196 is bM, and has a vF. comp.; 1202 is a spiral, B. centre, and 2 knots. There is another neb. 10′ nf. About 84° 34′ N.P.D., and $12^h\ 25^m$ R.A. There is a scarlet * 10m. and a F. E. neb. 10′ s. of it, with *s in it. See fig. 21, Plate XXVII. April 9, 1852. Last year's observations confirmed.
1204	2	March 15, 1855. pL; mbM. to a sharp nucleus; mE. p. and f.
1209	1	April 24, 1854. Lenticular nnf. by ssp; F; vlbM (night bad).
1211	1	March 9, 1850. Spiral; a F. neb. f; roughly sketched.
1212 1221	1	Feb. 17, 1855. 1212 is B, R, and smbM. 1221 is vB; mE. sp, nf, with a suddenly B. centre.
1225	3	April 13, 1855. vB. globular centre; E. p. and f.

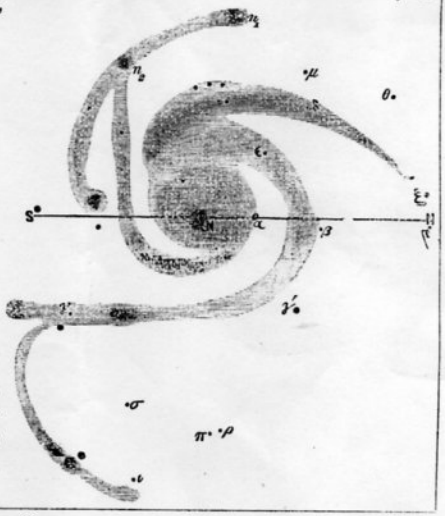
Number in Herschel's Catalogue.	Number of times observed.	Description.
1231	1	April 10, 1852. Not R.
1232, 1236	1	March 6, 1851. vbM; edges fade off. 1236 is vF.
1237, 1250	3	March 13, 1852. 6 knots, one E. March 1, 1854. One has dark spaces about the nucleus. March 15, 1850. 12 knots examined.
1239	1	No description.
1240	1	April 24, 1854. R; B. nucleus; outline somewhat irregular.
1242, 1251	1	March 6, 1851. Both BM; B. * involved in 1st; 2nd is E.
1245	4	March 30, 1856. pB; E; nucleus. A B. streak runs up through the nucleus, growing broader at p. end; on either side of this I suspect dark spaces, and outside them again F. nebby, especially to s. side of nucleus. April 19, 1857. Much E; instead of a nucleus it has a vB. narrow central streak; to the left of this I suspect a darkness; then outside this more F. nebby, as in sketch. See fig. 22, Plate XXVII.
1252	2	April 17, 1855. There are here 4 neb; the 3 f. ones seem to be involved in a mass of F. nebby.
1253	1	April 15, 1852. gvmbM; oval. Another 14′ sp; also vB.
1258	4	Sketched 3 times. April 12, 1849. Uncertain whether a d. nucleus, or nucleus and *; neb. decidedly darker in middle, following the nucleus, and rather brighter outside this. March 7, 1856. d. nucleus, or nucleus and *, which are eccentric, being nearer the sp. side; light uneven and patchy; suspect a darkness nf. the nucleus. March 8, 1856. Last night's observation confirmed. March 18, 1857. Seen as in the rough sketch subjoined; a * close sp. nucleus. 
1262	1	Feb. 16, 1855. E. sp, nf.
1271	1	April 25, 1854. L; svmbM. to a nucleus; pmE. p. and f.
1274, 1275	1	April 13, 1849. Found in this set 11 knots, of which 6 are 1203, 1237, 1244, 1253, 1274, and 1275; the remainder are "novæ," one of these latter being hollow in middle; probably a ring seen obliquely; a F. * n. of its middle; seen best with single lens. Remarkable object.
1280	2	March 26, 1856. E; B. nucleus; F. extremities.
1281	1	March 17, 1849. 3 nuclei, or 2 nuclei and *, and F. neb. outlying.
1282	1	April 11, 1852. gbM; oval; E. n. and s.
1286	1	April 18, 1855. Like a distant cl; vB. nucleus.
1294	1	Feb. 26, 1851. 4 found.
1296, 1298, 1301		April 10, 1852. 1301 is vgvbM. 1298 is smaller, and much the same character.
1306, 1308	4	Sketched twice. March 28, 1856. A rough sketch made; suspect spirality in the n. one; the large neb. has an appendage n. of nucleus and a little f. it. March 24, 1857. Examined to confirm drawing, which I think is pretty accurate. See fig. 23, Plate XXVII.
1309, 1315	2	A d. neb.
1312	2	March 9, 1850. Another spiral; dark spaces, especially one sf. nucleus.
1332	1	
1333	1	April 22, 1854. E. n. and s; nucleus vB; light uneven.
1337	2	April 19, 1855. Seen by myself, as represented (see fig. 24, Plate XXVIII.). Mr. Stoney, who was with me, did not see the F. curve at p. extremity, which therefore needs verification. I myself felt pretty certain of it. March 29, 1856. Seen as last year; sketched. See fig. 24, Plate XXVIII.
1343, 1348	1	April 16, 1852. gvbM; 2 others, both E. about 20′ s. of 1348.
1345	3	Feb. 19, 1855. E. p. and f? B. nucleus.
1352	2	April 11, 1852. A vL. ray; gbM; some *s involved.
1357	3	Roughly sketched twice. April 17, 1855. A beautiful object, very well seen in finding-eyepiece; the whole neb. (taking into account the appendage) is much broader at nucleus than elsewhere, narrowing off suddenly, and the nucleus projects forward into the dark space; and immediately opposite this the F. 

Number in Herschel's Catalogue.	Number of times observed.	Description.
		appendage is broadest and brightest. The ray is 12′ or 14′ long, and there is a F. * at α (Mr. Stoney was with me). April 6, 1856. 15′ long, perhaps even longer; the * opposite the nucleus is about two-thirds the breadth of the neb. distant.
1358 } 1359 }	2	April 14, 1852. A curious d. neb; some other nebs. p.
1362	3	March 19, 1857. R; bM; L. but F; * involved in p. edge.
1363		Looked for twice; not found. Query, Is this 1358 and 1359?
1368	3	May 3, 1851. gmbM; lE. sp, nf; edges fade off very gradually.
1382	2	April 24, 1854. pB; has nucleus; E; F. ray f. April 25, 1854. Seen as last night, also the F. ray f; about 50′ p. is a B, R, pL. neb. f. a B. *.
1385 } 1392 }	6	Sketched 3 times. April 10, 1855. Somewhat curved, like 2205. The s. branch is patchy, having 2 B. spots (see fig. 25. Plate XXVIII.); the n. branch is much the brighter. A S. * p. the neb. About 6′ or 7′ n. of 1385 and a little f. is 1392, not so F. as Herschel describes it; the brightest part seems eccentric, being nearer the nf. edge. From this B. part I suspect a curve round n. to sp. April 13, 1855. Seen as before. March 8, 1856. The comp. n. (1392) I suspect, as before, to be a F. spiral. March 27, 1856. Better seen than on any previous occasion; the F. branch to the left extends round as far as the p. extremity of the B. branch. The comp. neb. suspected to have a twist in it, as before; sketched.
1386	2	April 11, 1852. gvbM; E. np, sf.
1397		See the 'Transactions' for 1850.
1402	1	March 1, 1854. d. neb; F. nebv. connects them.
1403	2	April 22, 1854. A remarkable object; spiral?
1408	2	April 5, 1851. L; vB; comp. neb. pB.
1409	1	March 7, 1856. lE. nearly p. and f.
1411	1	Feb. 26, 1851. p. part is broadened out; light unequal; night bad.
1414 } 1415 }	3	April 26, 1851. Herschel's two neb. form one, the joining part in middle F, and vF. production of neb, as in sketch. April 9, 1852. Last year's observation confirmed; like a caterpillar on a leaf. April 20, 1857. I can confirm former observations in every particular, and think there are two additional **s in f. part. See fig. 26.
1431	3	Spiral? [Plate XXVIII.
1436	1	April 13, 1852. gvmbM; S. * involved in f. part.
1437	1	April 15, 1852. gvmbM; oval.
1441	8	Feb. 16, 1855. vB. ray; a dark band across on each side of nucleus, separating it from the extremities. Feb. 17, 1855. Sketched. Feb. 19, 1855. The dark spaces which are visible in finder are not black, but only portions of fainter nebv. April 6, 1855. Seen as before; dark lines very plain in finder. April 16, 1855. My sketch exaggerates the dark lines; they should be broader, and not so well defined. Mr. Stoney remarked a second dark line across the n. branch near its extremity. Mar. 7, 1856. Observed. Mar. 18, 1857. Dark spaces far apart, and not absolutely dark; suspect a dark space to right-hand side of nucleus. See fig. 27, Plate XXVIII.
1451	4	March 9, 1850. Another spiral; another neb. 15′ p. Feb. 26, 1851. Spiral; 2 arms, and some **s in f. arm; centre is B. 12′ p. and a little s. is another neb, E; and 30′ nf. is a 3rd, E. n. and s. April 15, 1858. vL. and vB. The centre itself is like an E. neb, with nucleus; this centre is enveloped in an irreg. ring or rings of nebulous light, as in the accompanying rude sketch, which does not contain all the details. sp. this object there is a S. neb. E. np, sf. and very patchy, and I suspect it to have a F. nucleus. May 3, 1858. I saw all the details in last observation, except that there was only one * visible s. of nucleus instead of two, but this is not quite so good a night. The surrounding ring of nebv. is of irreg. shape; it curves gently at δ, but bends more sharply at γ, where it is brightest. The centre seems to reach up to and blend with the nebv. at δ. 
1456	5	April 9, 1852. Spiral; bears great resemblance to 1111. April 14, 1852. F. nebv; 2′ radius extends all round, in which I think I see traces of spirality which exist certainly in the central part (Note by Mr. B. Stoney). A good night and speculum in good order would probably show this object distinctly. April 13, 1855. vlE. p. and f; dark ring round the nucleus; then B. ring exterior to this. The annulus, however, is not perfect, but broken up and patchy, and the object will probably turn out to be a spiral. There is much F. outlying nebv. March 8, 1856. Annular at first look, but ring not perfect; centre vB.

Number in Herschel's Catalogue.	Number of times observed.	Description.
1460	1	April 25, 1854. mE.
1462	3	March 7, 1851. gvmbM.
1466	2	March 7, 1851. 8′ long; R; centre vB.
1475	3	March 1, 1851. Nucleus 2′ s. of * of 10th mag. At $\mathcal{R}$ 12^{h}43^m and N.P.D. 60° 20′; "nova," with nucleus; E.
1486	11	March 11, 1848. Curious circular-shaped neb, with a dark and large spot at one side, around which is a close cl. of well-defined little *s. May 4, 1851. E. nearly p. and f. Herschel's dark space is a curved passage, extending from p. round the f. side of the nucleus by the n.
1498	3	Feb. 16, 1855. L. B. ray; nucleus oval and vB; there is a * involved in n. edge, a little preceding the nucleus.
1499	1	Apr. 17, 1855. vF; mE. sp. nf; has a plainly seen * at n. end, and either a * or what looks more like a B. little knot involved in s. end.
1500	1	Numerous neb. around.
1509	4	Apr. 18, 1855. Looks sometimes like 838 when badly seen, with a B. E. patch in centre and dark spots on each side of this; sometimes dark ring is seen all the way round, but blackest to right and left. The neby. round it is mottled. In looking for this I found at about $\mathcal{R}$. 12^h 48$\frac{1}{2}^m$, and a little n. of this set a F. d. neb. E. at right angles to each other. Mar. 29, 1856. Last year's observation correct; * in sf. edge; sketched. Apr. 24, 1857. Long and carefully examined; the B. centre is E. in the direction of * on edge, and on either side of centre there certainly exist dark spaces, as before remarked, giving it the look of 838; yet sometimes I thought I saw it with a break in the outer annulus.
1515	1	Mar. 24, 1857. vvF; lbM; vlE. np, sf.
1525	1	Apr. 27, 1854. vF; R.
1536	1	Apr. 18, 1855. Like a distant cl; 2 B. *s involved.
1547	3	Mar. 12, 1852. B. lenticular ray with E. centre. May 3, 1858. Sketched; like 2172 and 1357.
1549	3	May 3, 1856. gbM; B. nucleus; B. * in np. end. April 15, 1858. Very much mottled.
1551	1	Apr. 22, 1854. E. p. and f; bM.
1556	1	Spiral?
1558		cl.
1559	3	Mar. 12, 1852. Light equable; E. sp, nf.
1562	1	Mar. 24, 1857. vF; lbM; lE.
1564	2	Mar. 1, 1851. vB. centre; has an appendage parallel to major axis.
1569		cl.
1570	3	Spiral? darkness sf. nucleus.
1576, 1577, 1578	3	A group of 4.
1580	2	Apr. 25, 1854. R; bM; between 2 *s.
1589	7	Sketched three times. Apr. 29, 1856. The B. centre is E. but not in the direction of the neb. The whole neb. is much mottled. Apr. 15, 1858. I can add nothing to my drawing and observations of last year, which are fully confirmed. See fig. 28,
1599, 1600	2	Apr. 13, 1855. Both are S; R; pB; bM. Apr. 17, 1855. There is a 3rd vF. neb. nearly n. of the f. one of these two. [Plate XXVIII.
1604, 1605	2	Mar. 28, 1856. 1604 is lE; pB; has nucleus; and a * at np. end; 1605 is R; vF; and its light equable.
1622	19	Carefully observed since drawing published in the 'Transactions' for 1850. The outer nucleus unquestionably spiral, with a twist to the left; thus 
1626	2	Apr. 19, 1855. Oval; bM; * np. May 3, 1856. About 5′ nf. it is a vF. nebs. knot.
1638, 1639, 1643	2	May 3, 1856. 1638 is E; nearly p. and f; bM; 1639 is S; R; bM; 1643 is the largest; pB; R. and gbM; nucleus, round which I suspect dark spaces.
1647	1	Apr. 19, 1855. Not L; gbM. to a nucleus; mottled.
1650	3	Apr. 19, 1855. L; pb; B. nucleus; seen as in sketch, but not certain whether the lower branch joins the nucleus, or is only the continuation of the upper curve. Mar. 21, 1856. The p. arm *does* appear to originate from the nucleus, which is vB. and oval-shaped. Mar. 30, 1856. Seen as before. See fig. 29, Plate XXVIII. 
1658	3	Mar. 28, 1856. F. ray n. and s; no nucleus; light; equable.
1659	2	Mar. 24, 1857. S; vF; nearly R; brightest part is on sp. side of centre.

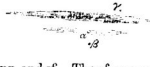
Number in Herschel's Catalogue.	Number of times observed.	Description.
1663		Splendid cl.
1664	3	Mar. 27, 1856. pL; pB; R; sbM; about 2′ or 3′ f. is a S. F. neb.
1668	1	May 3, 1850. A single B. * at n, and a d. * at s. end of this neb. Another neb; R; bM; sp.
1669	1	Apr. 11, 1852. A vF. amorphous-looking neb; S. * in s. edge.
1672	1	Mar. 1, 1851. * or nucleus in np. edge; 2nd vF; 3′ s; both E. p. and f.
1676, 1679, 1680	2	All F.
1695	1	May 15, 1854. vF. in twilight; lbM.
1697	2	Feb. 19, 1855. mE. p. and f; L; pB; gbM. Mar. 24, 1857. Found here 3 neb. in a line sp, nf; all of them are bM.
1703	1	Apr. 14, 1852. gbM; L. vF. neb. 14′ s. of 1703; also a S, F, E. neb. 15′ p. and 2′ n. of 1703.
1711	4	Mar. 28, 1856. S; bM; dull nucleus; lE.
1713	6	Apr. 24, 1854. Centre pB; oval n. and s, and among several *s; I thought the n. end the broader, and suspected a dark space p. the nucleus. May 1, 1854. Singular object; the main body of neb. has a B. nucleus, and is E. n. and s; the southern end bends back suddenly at a sharp angle, and extends np. past the neb, ending in a B. R. patch or nucleus; 3 *s around the neb. Apr. 17, 1855. Mr. STONEY saw the p. branch extend *round* the s. end of the main neb. and continue on to n, when after a second turn it joined the nucleus. See fig. 30, Plate XXVIII.
1714	3	Feb. 19, 1855. pB; R; bM. to a nucleus.
1715, 1716	1	Mar. 9, 1851. 3 found; all S; F; R.
1734, 1735	5	Apr. 18, 1855. The n. one is spiral?; 3 *s in it; to myself it appeared to have a single branch running from below the nucleus round the n. and f. edges. Mr. STONEY suspects two branches. May 10, 1855. n. one suspected spiral as before; the s. one is, I think, lE. n. and s, and the * between the two neb. is d.? Mar. 29, 1856. Suspect n. one as before; it is a very difficult object, and requires a fine night. Apr. 24, 1857. Last observation fully confirmed as to spirality of the n. one. I still think it has but one branch. The * between the 2 neb. is d. 
1741, 1742	3	Mar. 28, 1856. 1741 is S; R; bM; pB; 1742 is S. ray nf, sp, and has a * of 12th mag. at its s. extremity.
1743	1	Mar. 17, 1855. mE. p. and f; nucleus. Query, a knot in p. branch.
1744	8	Sketched 3 times. Mar. 1, 1851. Large spiral; faintish; several arms and knots; 14′ across at least. See fig. 35, Plate XXIX.

		Pos.	Dist.
April 27, 1851.	αN	195°	1′ 22″
	$\alpha\beta$	345	1 50
	$\alpha\gamma$	273	3 31
	$\alpha\delta$	74	3 1
	$\alpha\varepsilon$	74	1 38
	αn_1	99	5 37
	αn_2	135	5 2
	$\alpha\zeta$	10	5 19
	$\alpha\eta$	358	5 33
	$\alpha\theta$	44	5 1
May 3, 1851.	$\alpha\iota$	240	8 34
	$\alpha\kappa$	118	3 34
	$\alpha\lambda$	112	3 29
	$\alpha\mu$	72	4 0
	$\alpha\nu$	211	6 31
	$\gamma\varrho$	263	2 56
	$\gamma\sigma$	220	3 47



1745	1	Mar. 29, 1856. Has a nucleus; light very patchy; 3 *s in edge; vF. Query, spiral, with a right-handed twist? About 4′ f. is a S. pB. E. knot.

Number in Herschel's Catalogue.	Number of times observed.	Description.
1746		Close, rather F. cl.
1754	2	Mar. 27, 1856. S; bM; mE. np, sf.
1755	1	Mar. 9, 1851. E.
1757	1	Mar. 29, 1856. 2 neb. 3′ apart; n. one vS; bM; the other a ray p. and f; nucleus.
1762	2	Apr. 13, 1850. 3 knots near.
1764	1	Apr. 19, 1855. Long narrow ray, with a S, R, vF. neb. sf. About 15′ np. of 1764 is another vF; and about 6′ p. and 1′ n. of this last is another ccF.
1766	2	Apr. 13, 1852. bM; S. * s. of it. Mar. 30, 1856. E. nearly n. and s; S. * sf; B. nucleus.
1768 1769	1	Mar. 1, 1851. 1768 S; F; E; 1769, nucleus.
1770	1	Mar. 6, 1851. Another 5′ p, and another 10′ sp; vF.
1771	5	Apr. 10, 1852. Either a d. neb, or 2 knots of one neb.
1773	2	Apr. 29, 1856. mE; not F; lbM; major axis sp, nf.
1774	1	May 10, 1858. S; irreg; R.
1776		Frequently observed; nothing certain.
1778 1779	4	"Nova" near; 1st E, 2nd bM, 3rd vF.
1782 1783	4	May 12, 1850. 1782 pB; L; gbM. 1783 vB; R; nucleus. Another L. F. ray about 16′ nf. 1783.
1788		
1789 1791	2	Only two found; both S; R; bM.
1790	1	May 15, 1854. pL; vF; lbM.
1792 1793	2	Both F.
1797	2	Mar. 28, 1856. R; pB. Its brightest part is nearest f. edge, and forms a curve round n.
1799	2	Mar. 29, 1856. pL; lE. n. and s.
1804	2	Mar. 1, 1851. d; bM; two others F.
1805	1	Mar. 28, 1856. Long narrow ray; F; bM.
1813	2	Apr. 13, 1852. vgvlbM; filamentary appearance of the branches quite apparent. Though unmistakeably a cl, yet on a very bad night it would be seen as a neb.
1815	1	Apr. 17, 1855. E. sp. nf; nucleus.
1817	1	A B. d. neb.
1818	1	Apr. 19, 1849. r?
1820	2	Apr. 9, 1852. S; bM.
1825	1	Mar. 6, 1851. vlbM; S. * f.
1829	1	Mar. 1, 1851. Nucleus; lE.
1833	1	Apr. 14, 1852. R; vlbM.
1835	1	Mar. 29, 1856. pL; gbM; * in f. edge; between this * and the centre the neb. seemed black.
1840	2	May 10, 1858. lE; vF. and flickering.
1842	2	Apr. 11, 1850. Narrow ray; bad night.
1843	1	Apr. 26, 1851. Within trapezium of 4 or 5 *s; lE. n. and s; vlbM.
1844 1845	1	Apr. 13, 1855. The p. one is lE. p. and f, and is the larger of the two. The other is S; R; pF. and bM.
1848	2	Apr. 11, 1850. E. Central part seems unsymmetrically placed with respect to general fig. of neb. Apr. 13, 1850. 3 "novæ" near; one of them mottled, and * in s. border.
1851	3	Apr. 16, 1858. S; B; with B. sharp nucleus, and * involved n. of nucleus; 2 "novæ" near.
1861 1864 1865	1	Apr. 16, 1855. 1861 is a narrow ray; 1864 is S. and R; 1865 is quadruple, and suspected to be one neb. connected by F. neby.
1854	6	Nucleus; dark ring suspected, like 450, but no conclusive evidence.
1857 1863	3	Apr. 7, 1851. Light mottled; another f. about 12′, and a little s; E; bM. Apr. 13, 1852. Spirality suspected.
1870	2	r; lbM.
1872	2	May 10, 1855. pB; R; nucleus; E; mottled.
1873	2	May 15, 1854. pB; S; R; bM.
1874	2	Apr. 25, 1848. E; * at each end.
1879	2	May 14, 1855. vF; nucleus or * in centre.
1880	2	May 16, 1855. 2 neb, with 3 B. *s in the neighbourhood. Both F. and E.

Number in Herschel's Catalogue.	Number of times observed.	Description.
1881	3	May 12, 1858. Close d. neb.
1883	1	May 14, 1851. pL; mE. ssp, nnf; has nucleus.
1885	3	May 12, 1858. Rather a B. ray; bM. and mottled. Its p. arm is brighter than the f. one. A F. neb. about 2′ p.
1890	3	May 1, 1854. F; pL; no nucleus; mottled.
1891, 1893, 1895	2	Apr. 3, 1854. 3 neb. in line, and another S. neb. near the f. one.
1892	3	May 1, 1854. Has a curved form between 2 ⁎s, and in contact with them; there is a 3rd smaller ⁎ close to the neb. on np. side.
1894	4	Mar. 1, 1851. B. in centre; E.
1898	2	Apr. 6, 1851. E. p. and f; r. Another vF; 3′ f.
1901	1	Apr. 19, 1849. 6 neb. found.
1903	1	May 3, 1851. E.
1904	1	Mar. 17, 1855. The atmosphere seems to exist.
1905	6	Apr. 28, 1848. Think the distance between the 2 neb. greater than in H's drawing. Apr. 11, 1850. The 2 neb. not in a line, and a F. connexion suspected. Apr. 17, 1855. These 2 neb. are not in a line but parallel; the distance between is considerable, but F. nebuy. suspected connecting them; they have a very hazy look, and the edges are not well defined. May 14, 1855. Seen as on last time. May 8, 1861. Sketched; axis not parallel, but inclined at an angle of about 16°. Fig. 31, [Plate XXVIII.
1907	3	May 3, 1856. A B. S. ray sp, nf; has nucleus.
1908	2	May 16, 1855. Looks R. pB; mbM; nucleus.
1909	8	Apr. 13, 1850. vB; oval; E. np, sf; ⁎ in np. end. "Nova" near; vS.
1910	2	Apr. 13, 1855. mE. n. and s; centre vB; extremities F.
1911, 1912	2	Apr. 25, 1849. 1911 vS; ⁎ close to right. 1912 rather F; vS. ⁎ involved. "Nova" f. and vF.
1913	1	2 "novæ" f, apparently connected.
1914	2	Nucleus, and E.
1915	3	May 23, 1854. 2 neb. close together, n. and s.
1916		A superb cl.
1917	5	Apr. 13, 1850. Very remarkable ray, 12′ or 15′ long; α, β, γ, and δ are ⁎s, of which α is F; a long split precedes the nucleus. 
1919	2	Spiral?
		About 15h 12m R, 33° 55′ N.P.D. } A pair of new neb, about 15′ asunder, np. and sf. The sf. one a pB. ray, the other F. and S, but neatly placed at one angle of a triangle of F. ⁎s.
1920	2	Apr. 28, 1851. vlbM; E. p. and f.
1923	4	Mar. 17, 1855. S; R; bM.
1924, 1925	1	Apr. 11, 1850. Elegant little d. neb.
1926	2	May 3, 1856. pF; R; bM.
1927	1	Apr. 13, 1852. 3 neb; 2 pB, the 3rd S; E; F; 15′ sp. 1927.
1928	2	Mar. 17, 1855. E. np, sf; bM; not vF.
1929	3	F. dash of light.
1930	1	Apr. 3, 1854. R; B. nucleus.
1931	2	Apr. 13, 1855. Has a ragged edge and mottled look; about 6′ or 7′ nf. there is another.
1934	6	May 6, 1850. 

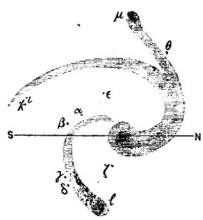
	Pos.	Dist.
AB	288°	7′ 53″
BC	299	6 28
CD	283	8 23

Suspect (A) to be a spiral, to be re-examined on a fine night. (B) a B. condensed oval neb. (C) vF. ray. (D) eelF; S. neb. May 14, 1850. (A) Dark spaces round on either side of nucleus, seen at moments; also a dark line running along the sf. edge, splitting off a part of neb, which has a B. knot to s, also some ill-defined dark space at n. end. Apr. 5, 1851. (A) spiral; a good deal of dark space round the nucleus, branches perhaps like 604.

Number in Herschel's Catalogue.	Number of times observed.	Description.
1936 1937	2	May 23, 1854. d. neb; both pB; R, and mbM.
1938	3	Mar. 9, 1851. BM; S. neb. p.
1939	1	May 30, 1851. Lenticular ray; bM; 4 *s close s.
1942 1943	4	May 14, 1855. Both S; R; lbM; S. * closely nf. the s. one.
1946	11	May 5, 1850. Strongly suspected to be annular neb. with * near the centre. Apr. 5, 1851. Like 450; dark ring plainer seen on p. part of neb; very S. * n; about $\frac{3}{5}$ diameter of neb. off. The f. part of dark ring a little broader than the p. part. May 3, 1851. Distance between nucleus and S. * May 3, 1851. Dist. 0′ 26″; 0 32; 0 31 May 4, 1851. Pos. 7° Dist. 0′ 25″; 5 0 28; 7 0 28 May 29, 1851. The S. * scarcely seen; dark ring not at all. Apr. 3, 1854. The dark ring round nucleus seen pretty well; also the minute * n. of neb. See fig. 32, Plate XXVIII.
1947	2	May 22, 1854. vL; F; oval.
1950	1	vvF.
1952	1	vF; vlbM.
1953	1	Apr. 7, 1851. eF; 2 or 3 *s in edge.
1958	1	May 26, 1849. 2 new neb; one eF, the other S; 1958 R; bM.
1960 1962 1963	2	Another near.
1964	1	Apr. 19, 1855. S; F; R; bM. Another neb. 4′ nf.
1968		cl. in Hercules. May 6, 1850. Seems to have a dark streak across the B. part a little above the centre. Apr. 6, 1851. Dark lanes seen which bear some resemblance to those in Neb. Andr. Apr. 27, 1851. Sketch made; dark spaces seen through mist. May 3, 1851. Sketched. May 26, 1851. Sketched. Apr. 17, 1855. The dark lanes are quite discernible in the finder eyepiece; they do not meet in the centre of the cl, but to sff. of it (see fig. 33, Plate XXVIII.).
1969	2	Apr. 19, 1855. The nucleus is nearest the p. edge, and light mottled.
1970	8	May 5, 1850. Intense blue centre fading off to some distance all around; S. *s to nf, to which neb. nearly extends. May 12, 1850. I fancied once or twice there were projections p. and f. (N.B. The existence of these not satisfactorily proved.)
1971		cl; in finder eyepiece the branches have a slight spiral appearance.
1972		cl; May 30, 1851. A dark lane above the centre quite across, or rather the upper one-sixth of cluster is much fainter than the rest.
1979		cl; June 3, 1851. The outline not R; on s. side is an outlying portion separated from the chief portion by a dark passage.
1981	2	May 31, 1851. I suspect annular, but twilight leaves me quite uncertain; n. edge is the brightest. June 3, 1851. Annular, n. edge is the brightest.
1983		cl; *s S. and very close together.
1989	1	May 29, 1851. Seen in twilight; looked very like a * of 9th mag.
2019		cl.
2023	11	Never well seen on account of twilight. Nothing additional since 1844, except a pB. * sf. middle.
2036		cl.
2037	5	Aug. 28, 1850. Annular or perhaps spiral, and * distinctly seen in dark part. The dark space is undoubtedly irregular in its form. Aug. 24, 1851. Annular; centre very suddenly darker than the rest of the neb; vS. * in np. edge of central part.
2042		cl.
2043	2	Aug. 1, 1851. 4 *s in neb, and 2 more on p. edge.
2045	3	On very bad nights.
2046		cl.
2047	7	Aug. 31, 1850. Centre rather dark. Aug. 1, 1851. The dark part is a little np. middle.

Number in Herschel's Catalogue.	Number of times observed.	Description.
2049		cl.
2050	6	Aug. 28, 1850. A very remarkable object, perhaps analogous to H. 450. The ring is not easily seen, but there can be no mistake about it; under the central * there is a darkness. Aug. 22, 1851. sE. np, sf.
2060	13	Places of principal stars laid down, and a new drawing made. First observation Aug. 10, 1850, and last, Aug. 30, 1851. See end of Catalogue, and fig. 43, Plate XXXI.
2064		cl.
2071		cl.
2072	8	Aug. 23, 1851. Fine annular neb. like that in Lyra; R; the dark space is sE. p. and f; * easily seen in np. edge, others suspected. Aug. 19, 1855. There is a conspicuous * on the inner edge of the ring at np. side, and another fainter near this on the outer side. I believe the whole of this corner of the annulus is r, and can see the *s sparkling near the two already described.
2075	11	Roughly sketched five times. Aug. 10, 1850. * or B. nucleus nf. the middle. A dark curved line p. this plainly seen, which at moments I fancied went round the sf. part. Sept. 9, 1852. This planetary neb. is a beautiful little spiral. Aug. 12, 1855. I think spiral, of the shape annexed. Aug. 16, 1855. The night bears ½-inch single lens *well*. There is a group of 4 minute *s p. the neb. Sept. 6, 1856. The details in my sketch of last year seem correct. I can trace the spirality distinctly. See fig. 34, Plate XXVIII. 
2079 2080	1	2079 vF; E; 2080 vF; S; R.
2081		cl.
2084	8	Sept. 6, 1850. New spiral, with three branches, of which two terminate in knots, as in sketch; a fourth branch suspected. Sept. 8, 1850. Examined and drawing made.

		Pos.	Dist.
Sept. 9, 1850.	cμ	87°	4′ 10″
	cl	263	2 47
	cα	158	1 41
	cθ	67	3 34
	cγ	221	2 21
Aug. 21, 1851.	αc	325	1 36
	αβ	213	0 33
Aug. 23, 1851.	αγ	257	2 08
	αδ	261	2 27
	αζ	302	2 03
	αl	281	3 26
	αλ	37	3 46
	αε	47	1 04
	αμ	67	3 46
	αι	162	1 56
	αx	169	2 14



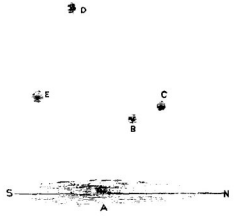
F. branch (D) p. centre seen. Sept. 6, 1855. The two f. branches A and B unite in one before meeting the nucleus. I certainly see a fourth branch D, which seems to join C in the same way before reaching the nucleus. Of the four, those which terminate in knots are the brightest. B is fainter, and D much fainter still. See fig. 36, Plate XXX.

2086	1	Aug. 21, 1857. R; vS; lbM.
2087 2089	2	Aug. 27, 1857. A group of 5 neb; many *s among them.
2088	10	Aug. 5, 1851. The nebula resembles the Milky Way, and is full of dark uneven rifts or lanes. The p. edge is the brightest, and the M. is darker than the edges. Sept. 6, 1856. There are portions of its p. edge clearly r.
2090		cl.
2092	3	Aug. 5, 1851. Resembles the neb. 2088, though on a much larger scale; the dark spaces have a rounder or more sack-like appearance, especially at the chief bend, where the neb. is also the brightest. It has several outlying portions of flocculent nebу, especially at s. end. Sept. 3, 1855. General shape that of Herschel's figure, but several dark bays in it, and many more *s seen in and about it.

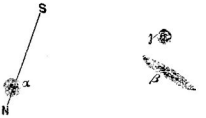
Number in Herschel's Catalogue.	Number of times observed.	Description.
2095	1	Aug. 27, 1857. eF; vlbM; no nucleus; E. n. and s.
2097	1	Sept. 5, 1850. R; bM.
2098	11	Since published in the 'Transactions' for 1850.
2099	6	Aug. 19, 1855. The neb. has 3 knots in it; a drawing taken. Sept. 3, 1855. Seen as before, and sketch compared. Sept. 6, 1855. Observed. Sept. 6, 1856. Details as in sketch confirmed. It is vB. See fig. 37, Plate XXX.
2102	3	Sept. 29, 1850. 2′ long; E; nucleus.
2106	1	
2109	1	Aug. 27, 1857. vvF; irreg. R.
2110		cl.
2112	3	Sept. 3, 1856. bM; edges indistinct; a * in nf. edge.
2120		cl.
2121	2	vF; lE. nearly n. and s.
2122		No definite cl, but sky thickly studded with stars.
2125		cl.
2127		Loose cl.
2128		cl.
2130		A red * of about 12th mag. in a scattered cl.
2132	6	Sept. 18, 1857. Centre r; mottled; * in edge.
2133		Searched for four times; not found.
2135	2	vF.
2139	11	Form not distinctly made out. See fig. 38, Plate XXX.
2142	1	Not well seen.
2143	5	Never well seen, being very low.
2146	2	E; lbM.
2149	14	Sept. 16, 1854. There can hardly be a doubt that this neb. is a cl.
2150	4	Oct. 23, 1857. lE. sp, nf.
2151	2	Sept. 20, 1857. There is a twist in the neb, but it is so F. that I cannot make out its shape.
2152	1	vF; lbM.
2154		A poor loose cl, with red * of 9th mag.
2156, 2158	1	First has * in nf. edge, and is bM; the other is R; no nucleus.
2157		cl.
2160	4	S; nucleus; forms a quadrilateral with 3 *s; F. outlying neby. extensive.
2162	1	bM; E. p. and f.
2163		cl.
2164	2	Oct. 23, 1857. A vF. ray.
2165	6	About 24′ p. and 10′ n. is another vF; E. np, sf; 80″ long, 10″ broad. 2165 has a sharp nucleus, and is S.
2166	2	vF; pL.
2167	5	Oct. 2, 1856. * in centre; mottled; and * or knot in sp. edge.
2168	2	Oct. 7, 1855. E. n. and s; a vF. * nf. centre; centre B; extremities vF.
2172	17	The sketch conveys accurately the results of these observations. There are 5 knots near. See fig. 39, Plate XXX.

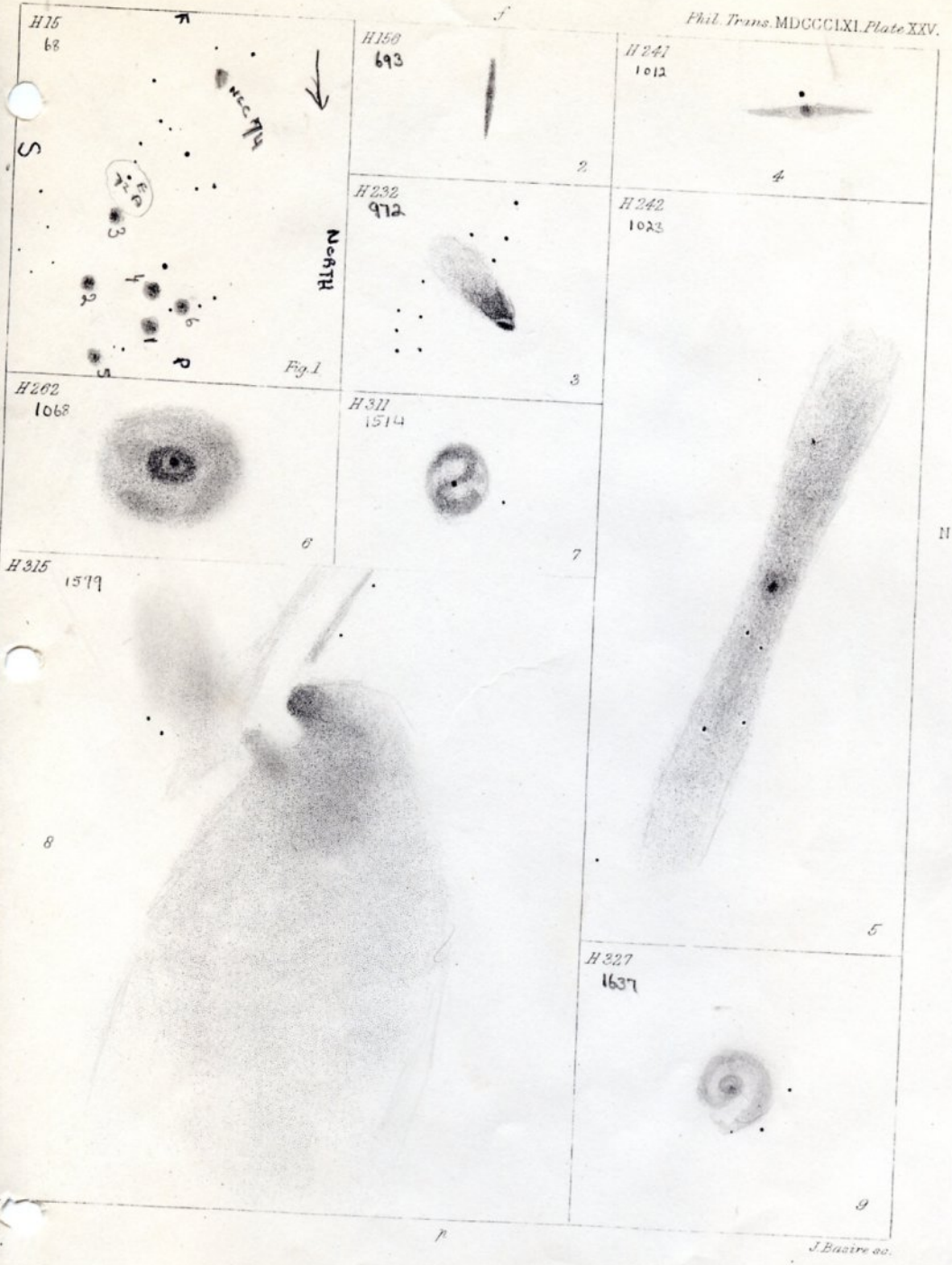
Sept. 12, 1849.

AB	62°	63°
AC	51	
BC	23	21
BD	116	
AD	96	98
BE	163	
AE	119	123
DE	243	
Direction of A....		174



Number in Herschel's Catalogue.	Number of times observed.	Description.
2173 } 2175 }	9	Oct. 7, 1850. Upper neb. is equable in light, and is much the fainter. Sept. 1849. Position of B 91° Position of A 159 Oct. 7, 1850. AB 97° Dist. 5′ 23″ A 157 B 91
2176	2	Sept. 20, 1857. Narrow ray sp, nf; vvF.
2178	1	Planetary?
2179	2	S; R; bM; nucleus.
2180	1	vvF.
2181	1	F; S. 7 knots found.
2183 } 2184 }	4	Nov. 27, 1850. Pos. Dist. $\alpha\beta$ 235° 5′ 29″ $\alpha\delta$ 73 5 44 $\alpha\gamma$ 18 5 41
2185	3	Oct. 7, 1855. S; R; pB; mbM.
2186	3	Aug. 30, 1851. E. np, sf; light uneven.
2189	4	A group of 4 neb.
2191	1	No description.
2195	3	A group of 3 involved in vF. neby. Each has a nucleus. Pos. Dist. Sept. 29, 1850. $\beta\alpha$ 178° 2197 } 2198 } 2 $\beta\alpha$ 178 1′ 35″ $\beta\alpha$ 176 1 34 $\beta\alpha$ 175 1 34 The last two observations probably most correct. Position of axis of β 225° Position of axis of α 160
2199	3	Sept. 16, 1854. * in np. edge. * seen in centre of nucleus?
2200	2	F; bM.
2201	2	Aug. 24, 1851. * p. the nucleus; E. np, sf.
2205	5	Since 1850. Nothing further. Nov. 26, 1850. Pos. Dist. $\beta\alpha$ 23° 1′ 46″
2206	2	Looks like a * seen in haze.
2208	1	vF; several *s involved.
2209	1	Mottled; * in np. edge.
2210	1	S; lE. p. and f.
2214	3	Nucleus.
2215 } 2216 }	2	Oct. 9, 1850. Pos. 223°. Dist. 2′ 52″.
2218 } 2219 }	3	Nov. 2, 1850. 4 neb. in the field.
2220	1	Nucleus.
2221	1	R; pL.
2222 } 2223 }	1	Both R, and have nuclei.
2224	3	Sept. 16, 1852. Involves a vS. * to nf. Another neb. 6′ p. and 1′ n. of it.
2226	2	Oct. 8, 1855. Outline irreg; pB.
2227	1	R.
2228	5	Like 242. Oct. 11, 1850. Much E. from np. to sf; gbM. to nucleus. Sept. 18, 1852. S. * p. nucleus, and on edge of neby.
2230 } 2231 }	1	Aug. 30, 1851. Another neb. f. 2231 about 12′, which is E. p. and f.
2232	7	Oct. 3, 1856. sf. edge is the brighter, and the more sharply defined.

Number in Herschel's Catalogue.	Number of times observed.	Description.
2236		3 or 4 conspicuous ∗s in it; not in a line between Herschel's two ∗s, the p. one of which is d.
2237	2	S; vF; R.
2241	16	Since the publication in the 'Transactions' for 1850. The outlying portions in the published sketch are parts of spiral branches. Figure 40, Plate XXX. represents it as seen on a very fine night (Sept. 16, 1852), with a freshly polished speculum which defined very sharply. Oct. 2, 1856. All the details in Mr. Stoney's drawing very well seen. Oct. 16, 1857. The spiral arms and the ∗ in centre distinctly seen.
2242		Oct. 23, 1857. R; pB; nucleus; another 6′ s; S; vF.
2245	12	Sketched 4 times. Nov. 5, 1850. I saw two knots and a dark space between them. I think the neb. is connected above the dark space. Nov. 27, 1850. 2 knots seen nearly n. and s, and a dark space between. Aug. 24, 1851. 2 knots and a dark space between, connected above by neby, as in sketch. Sept. 26, 1854. Certainly a spiral; some ∗s at moments visible. Oct. 17, 1854. Spirality distinctly seen. I thought the coil doubled in upon itself more closely than shown in Mr. Stoney's drawing, and that the central knot had a stellar nucleus. The whole neb. looked sparkling, though I could not see its separate ∗s. Nov. 22, 1854. Central nucleus stellar. The outer edge of the coil, just where it joins the external nucleus, seems brighter than the rest. Oct. 15, 1855. Seen to be spiral, as before. See fig. 41, Plate XXX.
2248	2	Oct. 8, 1855. eF; mottled and irreg. outline.
2250		Looked for 4 times; not found.
2257	1	Nov. 4, 1850. Nucleus; a F. neb. f. about 2′.
2258	1	Oct. 17, 1854. R; pB; mbM.
2260	1	Nov. 13, 1854. E; bM; a F. ∗ p.
2261	4	Oct. 24, 1857. Edge ragged; F. nucleus.
2262	3	Oct. 24, 1857. pB; R; mbM.
2264	6	Oct. 7, 1855. A F. suspicion of a dark ring round the B. centre.
2267	1	Nov. 17, 1854. lE. n. and s.
2268	5	Nov. 22, 1854. pL; R. A ∗ precedes the nucleus (1-inch single lens); sp. this object there is a vS. E. neb.
2271	4	Aug. 24, 1851. A ∗ with a S. neb. in contact.
2273	1	Oct. 12, 1855. A ∗ p. touches the neb. A little np. is another neb. vvF.
2274, 2275	15	3 neb. found Nov. 5, 1850. Pos. / Dist. $\alpha\beta$ 114° 5′ 30″; $\alpha\gamma$ 128 5 34; β 84 1 44 
2278, 2279, 2280, 2281	2	All R; gbM.
2282	3	bM.
2284		cl.
2290	6	Oct. 31, 1855. pL; pB; has a F. but pretty sharp nucleus; edges ragged.
2291	2	pB; pmE.
2297	13	Oct. 12, 1855. pL; B; E; gmbM. A decided dark lane runs through it in the direction of its major axis. The neb. is rather narrower in the middle of its length, and spreads out laterally towards its extremities, fading away very gradually. Nov. 3, 1855. Seen as before; dark streak through centre quite plain. Sept. 9, 1856. Seen very well; dark lane through centre quite plain, especially with highest single lens. Oct. 3, 1856. I think I see right-hand side of centre to be composed of ∗s. It is brighter than the opposite side. See fig. 42, Plate XXX.
2299	2	Oct. 17, 1854. R; pB; bM. to a nucleus.
2300	11	Sept. 10, 1849. 2 S. ∗s near M. Oct. 7, 1855. No nucleus; 2 ∗s seen steadily. The centre of neb. looks darker than the rest. Oct. 8, 1855. There certainly exists a dark bay in the centre of the neb. between the two ∗s.
2301	1	Aug. 24, 1851. A S. lenticular neb.


H15
68
S
NORTH
Fig. 1
H156
693
2
H232
972
3
H241
1012
4
H242
1023
N
5
H262
1068
6
H311
1514
7
H315
1579
8
H327
1637
9

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598

Fig. 10

H 393 3245

Fig. 11

H 421 2316

12

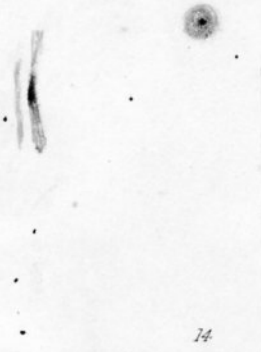
H 663 3184

13

H 765 & 766 3395 3396

15

H 692 3190



14

H 857 3427

16

H 1011 3453

17

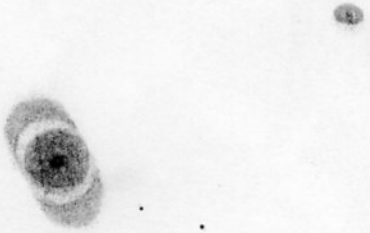
H 1052 & 1053 4038 4039

18

H 1061 4051

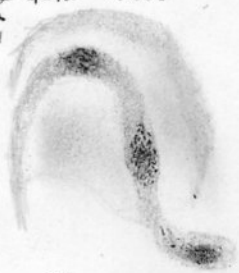
19

H 1111 & 1113 4151 4156



20

H 1196 ~~4445~~ 4303 M 61



21

H 1245 4389

22

H 1306 & 1308 4485 4490

23

N

J. Basire sc.

H 1337 4536

N. Fig 24

H 1385 4618

25

H 1464 & 15 4656 4657

26

H 1441 4710

27

H 1589 5112

28

H 1650 5248

29

H 1713 5378

30

H 1946 6058

32

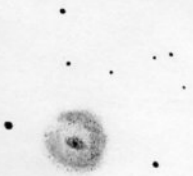
H 1905 5859 & 5857

31

H 1968 6205

33

H 2075 6705



34

J. Basire sc.

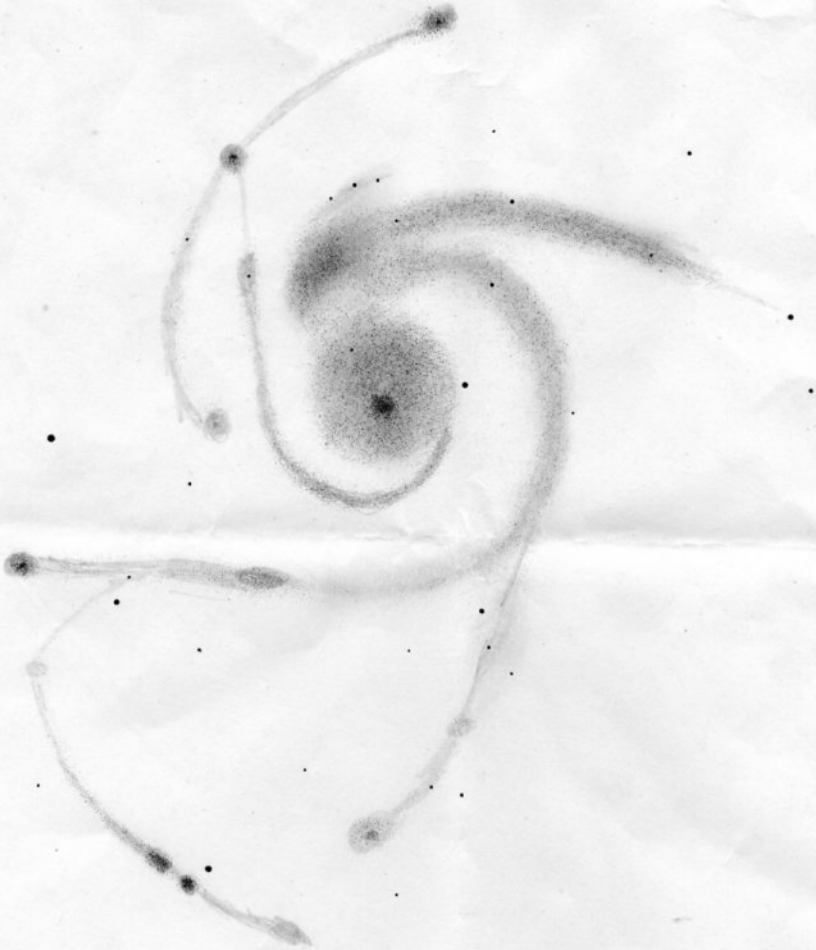


Fig. 35

J. Basire sc.

H 2084 6946

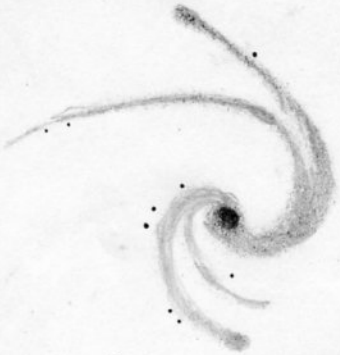
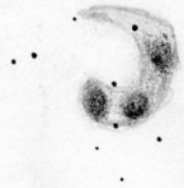


Fig 36

H 2049 7002

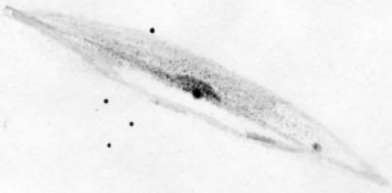


37

H 2139 7177

38

H 2172 7331



39

H 2241 7662

40

H 2245 7678

41

H 2297 7814

42

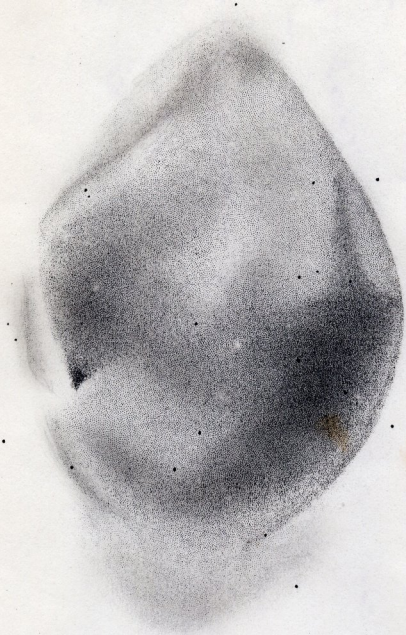


Fig. 43