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SOME CORRECTIONS TO DREYER'S CATALOGUES OF NEBULAE AND CLUSTERS*

DOROTHY CARLSON

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ABSTRACT

Corrections to Dreyer's catalogues compiled from Mount Wilson plates and other photographic sources; 350 objects are to be dropped from the *New General Catalogue* (Table 1a) and 250 from the two *Index Catalogues* (Table 1b). Positions of 40 objects are corrected (Table 3), and the existence of 23 doubtful ones is confirmed (Table 4).

The Mount Wilson collection of photographs made with the 100-inch and 60-inch reflectors includes about two thousand extragalactic nebulae occurring in Dreyer's *New General Catalogue* and about seven hundred in the *Index Catalogues*, in addition to a considerable number of galactic nebulae and clusters. In the course of identifying and classifying these objects, various lists of corrections to Dreyer's catalogues have been consulted, and a new list has been compiled from the Mount Wilson plates. The publishing of the Mount Wilson list offers an opportunity to bring together the more authentic corrections from all sources.

Experience demonstrates the great reliability of corrections derived from photographs in comparison with those derived from visual observations. Consequently, the corrections included in the present list are, in general, restricted to photographic sources. However, Dreyer's own corrections, assembled for the most part from visual observations, have been freely consulted; and a supplementary list (Table 2) has been formulated containing objects which Dreyer proposed to remove from the catalogues, although no photographic evidence is available for confirmation. The lists of corrections, although extensive, are far from complete, and additions will accumulate for a long time to come.

The sources for the present compilation, together with the symbols by which they are represented in the tables, are as follows:

W Mount Wilson photographs.

L Publications of the Lick Observatory, 13, 1918.

* Contributions from the Mount Wilson Observatory, Carnegie Institution of Washington, No. 626.

- R *Heidelberg Veröffentlichungen*, 9, 1926. Reinmuth attempted to describe the 4445 objects north of Decl. = -26° in John Herschel's general catalogue, as they appeared on camera plates or, occasionally, on plates taken with the 27-inch reflector. Uncertainties, in general, are restricted to small, compact nebulae described as nebulous stars, for which the small scale employed was not entirely satisfactory. The effects are illustrated in Table 4, which contains nebulae not found by Reinmuth but found on Mount Wilson plates in their catalogued positions.
- Hel *Helwan Observatory Bulletins*, Nos. 9, 15, 21, 22, and 30. Reports of a survey of nebulae between Decl. 0° and -45° , made with the Helwan reflector.
- H *Harvard Annals*, 88, No. 1, 1930. A catalogue of 2778 nebulae in the region of the Virgo Cluster; includes a list of 39 identical nebulae and one of 94 missing NGC and IC objects.
- D I Notes following the NGC, *Memoirs R.A.S.*, 49-50, 212, 1888.
- D II Notes and corrections to the NGC (following *First Index Catalogue*), *Memoirs R.A.S.*, 51, 225, 1895.
- D III Notes and corrections to the NGC (following *Second Index Catalogue*), *Memoirs R.A.S.*, 59, 186, 1908.
- D IV Dreyer's own corrections to the NGC resulting from the revision of Sir William Herschel's three catalogues of nebulae, *Memoirs R.A.S.*, 73, 37, 1912-13.

The other symbols in the tables are those used by Dreyer with the addition of "nf," meaning "not found." Tables 1a and 1b contain listed numbers which, on the evidence of photographic plates, should be removed from the *New General Catalogue* and the *Index Catalogues*, respectively. Table 2 is a compilation, from Dreyer's notes, of missing nebulae which have not been checked by photography. Table 3 gives a few corrections to catalogue positions where the errors are more than $5'$; and Table 4, nebulae not found by Reinmuth and other observers, but which have been found on Mount Wilson plates in the catalogued positions.

TABLE 1a

OBJECTS TO BE STRICKEN FROM THE *New General Catalogue*

NGC		NGC	
18	** W	1251	** R
30	** W, R	1269	nf, Hel
46	* R	1270	** W
56	No trace of nebulosity, W. L.	1312	* ? R
	"F. pl, pmE, ph. = neb Wolf	1318	nf, W, Hel
	XIII No. 112; neb Wolf XIII No.	1340	= NGC 1344, W, D III
	111 np 9," R. However, Wolf	1367	= NGC 1371, W
	XIII No. 112 is 1"6 f and 5" s of	1369	nf, W, Hel
	Dreyer position of 56 and is pl	1378	** W, Hel
	(1'7 in diam) instead of eL as	1429	* W
	Herschel has described it.	1436	nf, Hel
82	* W	1442	= NGC 1449, R, D I, D IV
84	* W	1443	nf, W
90	* W	1458	nf vis, Hel
133	** W	1488	** R
136	** W	1551	= NGC 1550, R, D I, D IV
158	nf, W	1724	*** R
160	= NGC 162, W. In NGC. h39 sp	1740	vL Cl, R
	should read h32 sp. NGC 162 is	1759	nf, R, D I, D II
	merely a better position of NGC	1757	= NGC 1794, R, D III
	160 and is listed as such by	1781	nf, R
	Schultz. R mistakes a star for	1908	nf, R
	162.	1909	nf, R
171	nf, W, D IV, R	1927	nf, R, D I
207	"Nothing shown here, but 4' s of	1988	* R, D I
	IC 41 there is a neb, pf, S, E 90°,"	1990	nf, by Curtis on 2 hr. exp. (L, 13),
	Hel		who suggests that Herschel was
313	** R		there misled by the radiance about
358	4 st. 10"-11.5, in parallelogram, R		the bright star, or that he ob-
370	nf, W, R		served the similar nebulosity IC
372	** W, R		434, south of ϵ Ori instead.
408	* W, R		BD +12° 884, no nebulosity, W, R
421	nf, R	2045	No Cl, Hel
531	nf, plate not good, R	2061	"No nebulosity found around
552	= IC 110?, R	2167	BD -6° 1412," Hel
553	= IC 111?, R	2189	nf, R
603	** W, R, D III. Knot in 578	2330	= IC 458?, R, D II, D IV
607	** W, D II, R, Hel	2334	= IC 464?, R, D II, D IV
616	** R	2361	= NGC 2359, Hel
618	nf, R, D I, D II	2386	*** W
674	= NGC 697?, R	2387	* R
728	** R	2390	* W, R
730	* W	2391	nf, W, R
737	** W, D II, R	2404	* W
747	nf, Hel	2471	* R
757	nf, Hel	2492	* R +
760	** W	2515	** R
763	nf, Hel	2542	No nebulosity, W
771	50 Cas, nebulous?, R	2597	nf, R
843	*** R	2643	= IC 2300, R
952	nf, R	2653	gp of st, W
983	nf, R	2703	nf, Hel
1040	= NGC 1053, R	2705	nf, Hel
1059	= NGC 1053, R	2707	nf, Hel
1141	** R	2727	"No nebula in this position which
1142	** R		is near BD -2° 2766," Hel
1210	nf, Hel	2741	nf, W, R
1240	* R		

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* SHOWN TO EXIST AS OBJECTS IN THE PALOMAR
SKY SURVEY PLATES. SEE REVISED N.G.C. CATALOGUE

TABLE 1a—Continued

NGC		NGC	
2786	nf, R	4055	"pF-cF, cS, iR, glbM; in Dreyer's place no pl neb found," R
2810	nf, R	4099	nf, R, D IV
2829	2 neb and *, W	4107	* R, H, D III
2837	nf, Hel	4113	nf, R, D III
2847	gp of st, W	4119	nf, R, H, D III
2879	nf, W, Hel	4139	nf, R
2971	nf, W	4140	nf, R
2984	= IC 5507, R	4153	nf, R
3000	** W, R	4154	* R
3002	** W	4167	= NGC 4163?, R
3004	** W	4208	= NGC 4212, W, R, H, D IV
3063	** R	4209	nf, W, R
3123	nf, R	4223	= NGC 4241, R, H, D IV
3129	nf, R, D I	4228	= NGC 4214, W, R, D I, L
3148	BD +51° 15' 85, R, L	4265	= NGC 4263, W, D III
3174	= NGC 3144, R, D IV	4297	nf, R, H
3194	= NGC 3155, R, D IV	4315	nf, W, H
3210	* R	4317	* R
3218	= NGC 3183, R, D I, D IV	4322	= NGC 4323, W, H
3234	nf, R, D I	4327	nf, H
3284	* R, D IV	4338	= IC 3247?, R
3291	* W	4345	* W
3317	** W, Hel	4344	= NGC 4351, W, H
3342	* R	4357	= NGC 4381, R, D IV
3345	** W, D I, D IV	4364	nf, R
3371	* W, R	4366	= NGC 4370, W
3373	* W, R	4367	nf, H, D III
3397	= NGC 3320, R, D I, D IV	4368	nf, W, R, H
3484	nf, R, D IV	4397	** W, D III, H
3494	nf, W	4398	* W, D III, R, H
3497	= NGC 3528, R, D IV	4407	= NGC 4413, W, H, L
3498	*** R	4409	= NGC 4420, W, h, R
3500	= NGC 3465, R, D IV	4426	** R, D III
3544	= NGC 3571, Hel	4427	
3560	* R	4437	= NGC 4417, W, R
3575	nf, R	4443	* W, D III, R, H
3604	= NGC 3611, R	4447	= NGC 4446, W, H
3616	nf, R, D III	4471	* W, R, H
3632	= NGC 3626, W, R, D IV	4505	= NGC 4496, W
3643	= NGC 3645, W, R	4508	nf, H, R
3647	Nest of nebulae, W	4512	= NGC 4521?, R
3712	* R	4549	nf, R
3730	= NGC 3732, W	4554	nf, H, D III
3760	= NGC 3307, W, R, D I, D II	4560	nf, R, D III
3793	= NGC 3786, W	4577	= NGC 4543?, R
3797	= NGC 3788, W	4582	* R
3804	= NGC 3794, W, R, D IV	4604	nf, Hel
3807	nf, R	4610	= NGC 4470, W, R, D IV
3852	= NGC 3848, R	4624	= NGC 4636?, R
3874	** R	4629	** R
3899	= NGC 3912, R	4637	nf, H; = NGC 4647?, R
3924	nf, R	4664	= NGC 4665, W, D IV, R
3927	nf, R	4667	nf, R, H, D I, D III, L
3939	nf, R	4706	nf, Hel
3950	* W	4729	nf, Hel
3980	= NGC 3977, W	4730	nf, Hel
3984	nf, R, D III	4752	* R
4007	= NGC 4005, W, R, D IV	4756	*** W, L
4028	nf, R	4797	nf, R, D III
4042	= NGC 4032?, R, D II		

TABLE 1a—Continued

NGC		NGC	
4804	= NGC 4802, R, Hel	6749	No Cl, R
* 4882	= NGC 4886, W	6773	No Cl, R
4884	= NGC 4889, W, R	6795	No Cl, R
4910	nf, R	6828	No Cl, R
4913	nf, R, D III	6837	No Cl, R
* 4960	nf, R	6839	No Cl, R
4962	nf, R, D IV	6843	No Cl, R
* 4979	= IC 4198, R, D IV	6847	nf, R, D I
* 5003	nf, R	* R	
5008	nf, R	6873	No Cl, R
5007	* R	6895	nf, R
5106	* R, D I	6901	= IC 5000?, R
* 5111	= NGC 5110, R	6904	No Cl, R
5113	= NGC 5109, R, D I, D IV	6933	** W, R, L
5160	* R, D I	6947	nf vis. (twice), Hel
5200	* R	6952	= NGC 6951, W, D III
5242	nf, W	6965	* W, R, Hel
5268	* R	6966	No Cl, R
* 5310	nf, R	7011	nf, R
5317	= NGC 5371, W, R	7028	nf, R
5390	* R	7043	nf, R
5404	** W, Hel	7071	= NGC 7067?, R
5428	** W, Hel	* R	
5429	** W, Hel	7122	nf, R
5432	** W, Hel	* R	
5435	** W, Hel	7150	nf, R
5407	* W	7101	7 F st, R
* 5527	* R, D I	7186	nf, Hel
5588	* W	7202	nf, R, D I
* 5648	= NGC 5706, R, D IV	7210	No Cl, R
5690	= NGC 5709, R, D IV	7234	nf vis. (twice), Hel
5703	nf, R	7255	** W, L
5704	= NGC 5808, R	7326	** W, L
5819	nf, W, R	7327	** W, R
* 5825	nf, W, D IV	7333	* W
5871	nf, W	7338	* W, R
5877	*** R	7359	nf, W, R
6002	nf, R	7403	nf, W
6040	nf, L	7431	No Cl, R
6064	= NGC 6052, R, D IV	7438	nf, R, L
6125	= NGC 6130, R	7447	* R, D I, D II
* 6199	nf, R	7472	nf, R, D II
6354	4 st, Hel	7477	4 st, R, D II
6430	chain of 4 st, R	* R	
6431	nf, R	7526	3 F st in line, R
* 6466	= NGC 6478, W	7553	nf, R, D I
6481	** W	7560	** W, R
6499	* R, L	7561	* W, R
6550	= NGC 6548, W, D III	7565	* R
6605	No Cl, R	7574	nf, R
6625	No Cl, R	7575	* W, R
6647	No Cl, R	7581	= NGC 7541, W, R
6660	= NGC 6661, W, D II, R	7605	= NGC 7583, R
6682	No Cl, R	7614	nf, R
6724	No Cl, R	7739	nf, R
6728	No Cl, R	7748	nf, L
6737	No Cl, R	7791	** R
		7804	* R, D I, D II
		7815	nf, R

TABLE 15

OBJECTS TO BE STRICKEN FROM THE INDEX CATALOGUES

IC		IC	
35	** W ✓ ok	1710	= NGC 575, R ok
47	= NGC 178, Hel	1712	= NGC 584, W, R
5	nf, Hel	1751	= NGC 741, R
80	= NGC 440, R <i>(Polaris)</i>	1705	= NGC 783, R ok
117	= NGC 558, W	1706	= NGC 785, W, R ok
191	= NGC 704, R	1851	nf, 15 th exp., L ok
280	gp of st, W ok	1871	nf, W ok
324	= NGC 1177, W, R ✓ ok	1983	nf, W
334	= NGC 1331, W, Hel	2040	nf, Hel
339	* W, Hel	2041	nf, Hel
394	nf, W	2048	nf, Hel
487	= NGC 2494, R	2077	= NGC 1668, R — (ok)
532	nf, Hel	2091	gp of F st, W
587	BD — 2334, W	2092	** W
620	= NGC 3312, W	2107	= NGC 1707, R
684	= NGC 3644, W, R	2133	nf, W = NGC 19613 //
680	= NGC 3661, R	2154	** W
765	** W	2173	= NGC 2291, W <i>WRANGE = N2288</i>
788	= NGC 4405, W, H	2219	= NGC 2545, W, R ok
793	= NGC 4445, W, R, H <i>WRANGE</i>	2266	
805	= NGC 4611, W, H ok	2270	
811	= NGC 4603, W	2272	
820	= NGC 4609, R ok	2273	
830	= NGC 4812, R <i>WRANGE</i>	2274	
847	= NGC 4974, R, D III <i>WRANGE = 4974</i>	2275	nf, L. Curtis remarks (L. 13): "I
958	nf, W ok	2276	am unable to identify any of these
973	nf, W	2277	objects. IC 2274 appears to be 3
974	nf, W	2278	small stars almost in contact.
1020	* W ok	2279	Most of the others appear to be
1068	* W ok	2280	simply very faint stars. The re-
1126	= NGC 5952, R	2281	gion was carefully checked."
1148	= NGC 6020, R	2284	
1171	nf, W	2289	
1175	nf, W	2290	
1179	= NGC 6054, W	2291	
1184	** W	2408	* W
1190	nf, W	2410	= NGC 2667, W, R
1282	nf, W	2411	* W
1306	nf, W	2413	= NGC 2704, R, D IV — (ok)
1307	nf, W	2424	nf, Hel
1312	= NGC 6802, R	2425	nf, Hel
1316	= IC 5000; Decl. of 1316 is	2460	nf, W <i>WRANGE = N2827</i>
	wrong, of 5000 correct, W	2500	nf, W <i>WRANGE = IC 5000</i>
1325	= NGC 6927, W, R	2509	* W
1326	= NGC 6928, W	2528	* W
1393	nf, W	2571	= NGC 3223, W, Hel
1441	= NGC 7240, W ✓ <i>WRANGE</i>	2579	= NGC 3251, R, D III ok
1450	* W	2605	nf, W ok
1457	* W	2609	? = NGC 3404, Hel
1511	= NGC 7767, R <i>WRANGE</i>	2610	nf, W = FRANT STAR
1538	nf, W	2611	* W ok
1539	= NGC 70, W, R ok	2658	* W
1547	nf, W = 1546	2659	* W
1550	nf, W, Hel	2662	* W
1558	= NGC 444, R ok	2663	nf, W
1686	= NGC 499, R ok	2664	* W

UGC 00449 = IC 45?
See UGC

TABLE 1b—Continued

IC		IC	
2726	* W	3223	* H ok
2728	* W	3245	nf, a defect on the plate where it was originally found by Frost, H; ** W ok
2731	* W		
2805	* W	3254	= NGC 4336, H
2860	* W	3256	= NGC 4342 = III 95 ok?
2868	= IC 698, W	3260	= NGC 4341 = III 96
2970	*** W		NGC 4343 = III 94 = h 1223.
3009	nf, H ok		No. assigned according to Decl. in which the differences are greater than in R.A., W
3011	= NGC 4124, W, H ok		
3018	nf, may be neb 30' s of Frost's published position for IC 3018, H	3257	nf, W, H ok
3026	* W	3265	* H ok
ok 3027	nf, a defect on the plate where it was originally found by Frost, H	3266	= NGC 4353, H WRANG?
3035	= NGC 4165, W, H ?	3273	= NGC 4356, H ok
3042	= NGC 4178, W, H ok	3279	* H DOUBLE STAR.
3043	nf, H ok	3281	nf, H ok
3048	** W, H ok	3307	* W ₁ = IC 3301, H ok
3050	= NGC 4189, W, H ok	3310	* W, H
3051	= NGC 4193, W, H ok	3318	* W, H ok
3056	nf, may be neb 1' s of Frost's published position for IC 3056, H ok	3319	= NGC 4390, W, H WRANG
SS 3059	nf, W	3320	= NGC 4390, W, H ?
3064	= NGC 4206, W, H ok	3333	* W, H ok
3070	* W, H ok	3339	= NGC 4411, H ?
3071	nf, H ok	3343	nf, H = DOUBLE STAR ok
3072	nf, H ok	3350	* W, H ok
3076	nf, H ok	3352	nf, H ok
3083	nf, H IT EXISTS.	3354	* W, H ok
3085	* W, H	3359	* W; found by H ok
3086	nf, H	3366	nf, W, H IT EXISTS. IT EXISTS.
SS 3087	* W, H NGC 4222 ? ok	3398	* W; found by H ok
3088	* W, H ok	3400	nf, W, H IT EXISTS.
3090	** W, H ok	3404	nf, H ok
3098	= NGC 4235, W, H	3408	* H ok
3102	= NGC 4241, H	3414	= H II 26?, nf NGC 4453 18' 8, R ?
3103	* W, H ok	3417	* W = NGC 4470, H = ?
3113	= NGC 4246, W, H	3420	* W, H ok
3114	nf, H	3423	nf, W, H = ?
3117	nf, H ok	3426	* W, H ok
3123	* H ok	3427	= NGC 4482, W, H ok
3124	* W, H ok	3431	* W; found by H EXISTS
3129	* W, H ok	3438	= NGC 4492, H ok
3130	nf, H ok	3447	* W; found by H EXISTS
3132	= IC 3131, H ? ok	3449	** W ok
3133	nf, H = POSSIBLE CANDIDATE	3459	= NGC 4497, W, H ok
3139	* W, H ok	3455	nf, W
3150	nf, H EXISTS WRANG	3463	** W, H ok
3158	* W, H ok	3464	* W ok
3160	* W, H ok	3477	* W, H ok
3161	** W, H ok	3485	* W, H ok
3162	** W, H ok	3493	nf, H = STAR
3163	= NGC 4286, W ok	3504	nf, W; found by H
3181	gp of 3 st, W, H ok	3510	** W, H ok
3182	gp of 3 st, W, H ok	3531	** W, H ok
3183	* H ok	3538	nf, W
3190	* W, H ok	3544	** W, H ok
3191	nf, H = STAR	3553	** W

TABLE 1b—Continued

IC	
3566	nf, W, H <i>ok</i>
3569	= NGC 4561, W
3572	* W, H <i>ok</i>
3577	* W, H <i>ok</i>
3584	* W, H <i>ok</i>
3588	* W; = NGC 4571, H <i>ok</i>
3594	* W <i>ok</i>
3601	nf, a defect on the plate where it was originally found by Frost, H
3607	* W; found by H <i>EXISTS</i>
3610	nf, W; = IC 3612, H
3647	* W; found by H <i>59 (C)</i>
3648	nf, H
3675	= NGC 4625, W <i>ok</i>
3676	* W, H <i>ok</i>
3688	= NGC 4633, W, H <i>ok</i>
3706	* W <i>ok</i>
3708	= NGC 4654, W, H <i>ok</i>
3712	= IC 3690, W; nf, H
3722	* H
3725	= IC 3721, H
3739	nf, H
3743	* H
3760	= IC 815, H
3764	= IC 816, H: 817
3790	* W, H
3792	nf, W, H
3797	nf, H
3801	nf, W, H
3804	= NGC 4711, R <i>ok</i>
3823	* W <i>WRONG. EXISTS</i>
3901	* W
3964	* W <i>ok</i>
3999	* W, Hel
4015	= NGC 4893, R <i>ok</i>
4016	= NGC 4893, R
4136	nf, Hel
4136	nf, W
4190	nf, W <i>ok</i>

IC	
4192	nf, W <i>ok</i>
4211	* W <i>WRONG. EXISTS.</i>
4338	= NGC 5334, W, Hel
4376	*** Hel - 30°
4412	= NGC 5594, R <i>ok</i>
4471	= NGC 5697, R
4493	= NGC 5747, R
4551	= NGC 5904, R
4586	= NGC 6014, W
4613	= NGC 6106, R
4616	= NGC 6197, R <i>ok</i>
4622	nf, W
4625	= NGC 6240, W, R
4626	nf, W
4643	= NGC 6301, R
4657	nf, W
4700	= NGC 6595, R, Hel
4895	= NGC 6822, W
5029	nf vis, Hel <i>BELOW-28°</i>
5031	nf vis, Hel
5057	* W <i>ok</i>
5058	* W, Hel <i>WRONG. IT IS EQUAL TO N 6965.</i>
5061	*** W, Hel <i>ok</i>
5082	= NGC 7010, R
5127	= NGC 7102, W, R
5153	nf, W
5155	nf, W
5159	* W
5228	= NGC 7302, W, Hel
5251	* W
5260	nf, Hel <i>BELOW - 28°</i>
5264	nf, Hel
5265	= IC 1459, W, Hel
5294	nf, Hel <i>BELOW - 28°</i>
5308	*** Hel
5311	* W
5313	nf, Hel
5306	nf, 2 nd exp., L <i>(NCR)</i>
5386	= NGC 7832, R

TABLE 2

NEBULAE NOTED BY DREYER AS MISSING (NOT INCLUDED
IN TABLES 1a AND 1b)

Dreyer II:						
NGC	846	988	1458	2531	5881	5926
	874	1174	2652	5834	5884	7045
						7157
Dreyer III:						
NGC	58	1575	3704	6465	7157	IC 106
	395	1592	4279	6526	7254	136
	422	1610	4722	6556	7330	165 = N 624
	458	1689	4740	6588	7522	453
	465	2054	4802	6607	7655	468
	644	2203	4817	6608	7730	507
	716	2401	5357	6668	7761	717
	859	2589	6082	6678	7776	823 = ST AR
	866	2674	6205	6762	7813	1115
	885	2757	6294	6797	7829	1227 = NGC 6206
	1205	2809	6328	7021		1243
	1327	3103	6398	7195		1247
	1448	3493	6493	7112		1281
	1523	3522	6450	7134		1300 = NGC 6798
						1463

Dreyer IV:

NGC 1613 = NGC 1611
3110 = 3122

TABLE 3

CORRECTIONS TO DREYER'S POSITIONS

NGC	48	R.A. -7.4*, W, D III	NGC	3307	N.P.D. -4.9, W
	49	R.A. -5.7, W, D III		4044	R.A. -7.9, W, D III
	51	R.A. -5.2, W, D III		4046	11 ^h 55 ^m 0.87 16', W
	150	R.A. +7.2, W, D III		4186	R.A. +9.4, W
	178	R.A. +22.7, W, D III		4301	12 ^h 15 ^m 3.84 40', W
	739	5.9 np NGC 740, W		4392	1.7 p NGC 4389, not f, W
	1188	R.A. +8.9, W, D III		4482	R.A. -6.9, W, D III
	1191	R.A. +5.8, W, D III		4799	12 ^h 49 ^m 2.86 28', L
	1192	R.A. +6.5, W, D III		4840†	NGC correct, W
	1331	10 ^h p NGC 1332, W		5072	1' sf NGC 5077, W
	1359	3 ^h 25 ^m 6.124 6' (1860), W		5072	R.A. -21.5, W
	1373	N.P.D. -5.5, W		5481	R.A. -23.1, W
	1382	R.A. +12.2, W		5666	R.A. -8.1, W, D III
	1394	R.A. +6.6, W, D II		5555	18 ^h 12 ^m 6.72 30', W, D III
	1416†	NGC correct, W		5579§	NGC correct, W
	1422	R.A. -12.5, W, D III		5580§	NGC correct, W
	1455	R.A. -11.5, L		7301	R.A. -26.7, W
	1489	R.A. -8.2, W, D III		7451§	NGC correct, W
	1518	R.A. -14.5, W, D III		IC 148	N.P.D. -19.8, W
	1521	R.A. -14.5, W, D III		346	3 ^h 35 ^m 4.108 44', W, D III
	1640	R.A. +21.5, W, D II		1027	N.P.D. -5.2, W, D III
	1744	R.A. -8.6, W, D III		1254	R.A. -5.3, W
	2653	N.P.D. -10.5, L		2168	N.P.D. -30.7, W
	2977	9 ^h 29 ^m 7.14 30', R		5195	3.4 sst NGC 7242, W
	3143	N.P.D. -4.7, W, D III			

* Value of $\Delta\alpha \cos \delta$; $\Delta\alpha$ = correction to catalogue R.A. reduced to minutes of arc.

† Howe's correction (D III) to NGC not confirmed.

‡ Wolf's correction (D III) to NGC not confirmed.

§ Bigourdan's correction (D III) to NGC not confirmed.

TABLE 4

NEBULAE WHICH HAVE BEEN REPORTED NOT FOUND, BUT WHICH
APPEAR ON MOUNT WILSON PLATES IN CATALOGUE POSITIONS

NGC 373	** R; neb + *, W
1402	? a *, Hel; Sa neb, W
2536	Knot in s arm of NGC 2535?, R; SBc neb, W
2827	= IC 2460?, R; Reinmuth describes the correct neb but it is not = IC 2460, no neb there, W
4320	nf by Frost, D III; SBc neb, W
4465	nf by Schwassman, D III; SBa neb, W
4467	nf by Schwassman, D III; E ₂ neb, W
59 4637	= NGC 4647?, R; nf, H; the S, F neb v close f NGC 4638 was probably the one observed at Birr; Schwassman really measured 4638 instead of 4637; that he records, W
6 4673	neb * 13, R; E ₁ neb, W
4707	doubtful, D III; E ₃ neb, W
4853	neb *, R; neb, W
5373	neb *, R; E ₀ neb, W
5015	v doubtful, R; SBa neb, W
5867	* 14-5, not nebulous, R. Reinmuth observed a star but not the object found by Lord Rosse, which is 1'5 sep of NGC 5866, W
76 6350	neb *, R; E ₁ neb, W
6540	x 3, mag. 14, in line, R; SBa neb, W
6927	identif. doubtful, R; SBa neb, W
95 7345	? neb *, R; SBc neb, W <u>NONE-IDENT</u>
7336	nf, L; SBb neb, W
7340	nf, L; E ₂ neb, W
7353	nf, R; SBc neb, W <u>check Palomar Print</u>
7082	ref pl neb s o', R; SBab neb, Reinmuth refers to a group of stars, W
59 IC 3672	= IC 3609, H; So neb, W

This work has been carried out under the general direction of Dr. Hubble, to whom I am indebted for advice and assistance, sometimes in the search for an elusive photograph and sometimes in settling a difficult question of identity.

CARNEGIE INSTITUTION OF WASHINGTON
MOUNT WILSON OBSERVATORY
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