XII. *Fifth and Sixth Catalogues of the Comparative Brightness of the Stars—in Continuation of those Printed in the 'Philosophical Transactions of the Royal Society' for* 1796–99.

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In the 86th, 87th, and 89th volumes of the 'Philosophical Transactions of the Royal Society'—for 1796, 1797, and 1799—there appeared a series of four papers by Sir William (then Dr.) Herschel containing the description and results of observations made by him of the "Comparative Lustres of Stars" visible to the naked eye in northern latitudes. They were arranged in six "Catalogues," of which four were actually published, as above. Apparently two more were to have followed, containing the remaining constellations. The annexed Tables show the distribution of the constellations among the six Catalogues.

It is not known what prevented the completion of the design at the time. Drafts of the intended Fifth and Sixth Catalogues exist among Sir William's papers, prepared, as the previous four had been, by Miss Caroline Herschel, by abstraction from the body of his observations of various kinds, entitled "Abstract of Sweeps and Reviews."

Circumstances which it is unnecessary to detail have now led to the revision (and correction where called for) of these drafts and to their publication in the following pages, in the same form as those in the earlier volumes. To save reference to the latter, the following extract will explain the symbols used to denote relative brightness. These are more fully described and illustrated in the pages immediately preceding those from which the extract is made, viz., pp. 187–9 of vol. 86.

"*Introductory Remarks and Explanations of the Arrangement and Characters "used in the following Catalogue.*

"This Catalogue contains nine constellations, which are arranged in alphabetical "order. I have called the present collection the first catalogue. The rest of the

" constellations, which are pretty far advanced, will be given in successive small " catalogues as soon as time will permit to complete them.

" Each page is divided into four columns, the first of which gives the number of " the stars in the British catalogue of Mr. FLAMSTEED, as they stand arranged in the " edition of 1725.

" The second column contains the letters which have been affixed to the stars.

" The third column gives the magnitude assigned to the stars by FLAMSTEED in the " British catalogue; and

" The fourth contains my determination of the comparative brightness of each star, " by a reference to proper standards.

" All numbers used in the fourth column refer to the stars of the same constellation " in which they occur, except when they are marked by the name of some other " constellation; and in that case the alteration so introduced extends only to the " single number which is marked, and which then refers to the constellation affixed " to the number.

" The numbers at the head of the notes, which will be found at the end of the " catalogue, refer to the stars in the same constellation to which the notes belong. " . . . . . "

" *Simple Characters.*

" ' The least perceptible difference less bright.
" . Equality.
" , The least perceptible difference more bright.
" – A very small difference more bright.
" –, A small difference more bright.
" – – A considerable difference more bright.
" – – – Any great difference more bright in general.

" *Compound Characters, expressing the Wavering of Star Light.*

" ⁝ From the least perceptible difference less bright to equality.
" ; From equality to the least perceptible difference more bright.
" ⁻ From a very small difference more bright, to the least perceptible difference.
" =, From –, to – &c.
" ⁝ The wavering expressed by the passing of the light from a state of the least " perceptible difference less bright to equality, and to the least perceptible difference " more bright.
" ⁻ The wavering expressed by the changes from – to , and to . or from . to , and " to – "

Distribution of Constellations in Catalogues.

Constellation.		Catalogue Number.	Number of stars in constellation.
An	Andromeda	III.	66
Aq	Aquarius	I.	108
Al	Aquila	I.	71
Ar	Aries	II.	66
Au	Auriga	IV.	66
Bo	Bootes.	III.	54
Cm	Camelopardalus	V.	58
Cc	Cancer	III.	83
Cv	Canes venatici	VI.	25
Ca	Canis major	II.	31
Ci	Canis minor	II.	14
Cp	Capricornus	I.	51
Cs	Cassiopeia.	II.	55
Cn	Centaurus.	III.	5
Ce	Cepheus	III.	35
Ct	Cetus	II.	97
Co	Coma Berenices	VI	43
Cb	Corona borealis	III.	21
Cr	Corvus.	II.	9
Cy	Cygnus.	I.	81
Dl	Delphinus.	I.	18
Dr	Draco	IV.	80
Eq	Equuleus	I.	10
Er	Eridanus	II.	69
Gm	Gemini.	II.	85
Hr	Hercules	I.	113
Hy	Hydra	V.	60
HC	Hydra et Crater	V.	31
Lc	Lacerta	III.	16
La	Leo major.	II.	95
Li	Leo minor.	V.	53
Lp	Lepus	III.	19
Lb	Libra	VI.	51
Lu	Lupus	VI.	5
Lx	Lynx	IV.	45
Ly	Lyra	IV.	21
Mn	Monoceros	IV.	31
Na	Navis	III.	22
Or	Orion	III.	78
Pg	Pegasus	I.	89
Pr	Perseus	IV.	59
Ps	Pisces	V.	113
Pa	Piscis austrinus	VI.	24
	Sagitta.	I.	18
Sr	Sagittarius	V.	65
Sc	Scorpio.	VI.	35
Ss	Serpens	VI.	64
St	Serpentarius	VI.	74
Sx	Sextans	IV.	41
Ta	Taurus.	IV.	141
Tr	Triangulum	IV.	16
Ua	Ursa major	VI.	87
Ui	Ursa minor	V.	24
Vr	Virgo	VI.	110
Vl	Vulpecula.	V.	35

Number of Stars Catalogued.

	Number of stars.		Number of stars.
Catalogue I.		**Catalogue IV.**	
Aquarius	108	Auriga	66
Aquila	71	Draco	80
Capricornus	51	Lynx	45
Cygnus	81	Lyra	21
Delphinus	18	Monoceros	31
Equuleus	10	Perseus	59
Hercules	113	Sextans	41
Pegasus	89	Taurus	141
Sagitta	18	Triangulum	16
Catalogue II.		**Catalogue V.**	
Aries	66	Camelopardalus	58
Canis major	31	Hydra	60
Canis minor	14	Hydra et Crater	31
Cassiopeia	55	Leo minor	53
Cetus	97	Pisces	113
Corvus	9	Sagittarius	65
Eridanus	69	Ursa minor	24
Gemini	85	Vulpecula	35
Leo	95		
Catalogue III.		**Catalogue VI.**	
Andromeda	66	Canes venatici	25
Bootes	54	Coma Berenices	43
Cancer	83	Libra	51
Centaurus	5	Lupus	5
Cepheus	35	Piscis austrinus	24
Corona borealis	21	Scorpio	35
Lacerta	16	Serpens	64
Lepus	19	Serpentarius	74
Navis	22	Ursa major	87
Orion	78	Virgo	110

CATALOGUE V.

A Fifth Catalogue of the Comparative Brightness of the Stars.

Lustre of the Stars in Camelopardalus.			
1		6	3 . 1
2		5	2 . 3 7 – 2
3		6	2 . 3 . 1
4		6	7 –, 4 , 5
5		6	4 , 5 – 8
6		6	8 , 6
7		5	7 , 9 Aur 7 – 2 7 –, 8 7 –, 4
8		7	7 –, 8 5 – 8 , 6
9		4.5	10 , 9
10		5.4	33 Aur ; 10 10 , 9
11		5	11 , 9 Aur
12		6	9 Aur –, 12
13		4.5	Does not exist
14		5	17 , 14 , 19
15		6	30 Aur (32) , 15
16		6	16 . 30 Aur (32)
17		6	31 , 17 , 30 17 , 14
18		6	24 ; 18
19		6	14 , 19
20		7	22 . 20
21		6.7	30 , 21 . 23
22		7.8	24 , 22 . 20 28 . 22
23		6	21 . 23
24		6	26 . 24 , 22 20 ; 18
25		7.8	25 . 34
26		5.6	26 . 24
27		5.6	Does not exist

Lustre of the Stars in Camelopardalus—continued.

28		6.7	29 , 28 . 22
29		5.6	29 , 28
30		6	31 – 30 17 , 30 , 31
31		5	30 Aur (32) – 31 – 30 31 , 17 37 , 31 –, 38
32		5	32 – – 33 16 . 30 Aur (32) , 15 30 Aur (32) – 31 42 . 30 Aur (32)
33		7	32 – – 33 . 34
34		6	33 . 34 25 . 34 34 ; 35
35		5.6	34 ; 35
36		6	42 , 36
37		5.6	37 , 31 37 , 40
38		7	31 –, 38
39		6.7	40 – 39
40		6.7	37 , 40 – 39
41		7	8 Lyn , 41 – 10 Lyn
42		4.5	43 ; 42 . 30 Aur (32) 43 , 42 , 36
43		4.5	43 ; 42 43 , 42
44		6	46 ; 44 ¯, 45
45		7	44 ¯, 45
46		7	47 , 46 ; 44
47		6	18 Lyn –, 47 , 46
48		6	56 – 48
49		5	51 , 49
50		6	27 Lyn – 50
51		5	55 –, 51 , 49
52		5	58 – 52 – 54
53		6	53 , 56 57 . 53
54		6	52 – 54
55		5	55 –, 51

Lustre of the Stars in Camelopardalus—continued.			
56		6	29 Lyn – 56 58 , 56 53 , 56 56 – 48
57		5	58 . 57 57 . 53
58		5	29 Lyn , 58 , 56 58 . 57 58 – 52
Lustre of the Stars in Hydra.			
1		4	1 , 2
2		4	1 , 2 – 10
3		6	15 ; 3 – 17
4	δ	4	22 , 4 . 7 4 . 12 35 ; 4 , 31
5	σ	5	7 , 5 13 . 5 , 18
6		6	9 . 6
7	η	4	4 . 7 , 5 7 , 13
8		6	
9		6	22 . 9 . 6
10		5	2 – 10
11	ϵ	4	16 –, 11 16 –, 11 – 22 4 Crat . 11 11 , 4 Crat
12		6	4 . 12
13	ρ	5	7 , 13 . 5
14		5.6	18 . 14
15		6	15 ; 3
16	ζ	4	16 –, 11 17 Leo –, 16 –, 11
17		6	3 – 17
18	ω	6	5 , 18 . 14
19		6	19 – 20 27 – 19 – 20 23 ; 19 , 21
20		6	19 – 20 . 24 19 – 20
21		6	19 , 21
22	θ	4	11 – 22 , 4 22 . 9
23		6	23 ; 19

Lustre of the Stars in Hydra—continued.

24		6	20 . 24 – 29 24 – 25
25		6	24 – 25
26		6	27 – 26
27		6	27 – 19 27 – 26
28	A	6	28 . 33
29		6	24 – 29
30	α	2	46 Or – 30 – 53 Or
31	τ^1	5	4 , 31 ; 32
32	τ^2	5	31 ; 32 15 Sext – 32 32 – 30 Sext
33		6	28 . 33
34		6	27 . 34 –, 36
35	ι	4	35 ; 4 35 , 15 Sext – 32
36		6	34 –, 36
37		6	37 . 34
38	κ	4.5	40 ⁻, 38
39	υ^1	5	41 –, 39 –, 40
40	υ^2	5	39 –, 40 ⁻, 38
41	λ	4	41 –, 39 4 Crat –, 41
42	μ	4	2 Crat – – 42 . 43 42 , 7 Crat
43	ϕ^1	5	42 . 43 . 1 Crat 1 Crat –, 43 1 Crat – – 43
44		6	44 , 3 Crat
45	ψ	6	8 Corvi – 45
46	γ	3	7 Corvi =, 46 46 ⁻, 49
47		6	47 – 48
48		6	47 – 48
49	π	4	46 ⁻, 49 49 – 20 Lib
50		6	52 , 50 50 –, 1 Lib
51		5	51 , 52

Lustre of the Stars in Hydra—continued.			
52		5	51 , 52 , 50
53		6	58 . 53 , 56 4 Lib . 56 54 – 4 Lib
54		5.6	54 , 58 6 Lib – 54 – 4 Lib
55		6	57 . 55 . 59 57 –, 55 –, 3 Lib 12 Lib , 55 –, 3 Lib
56		6	53 , 56 . 57 4 Lib . 56 . 57
57		7	56 . 57 . 55 56 . 57 –, 55
58		5	54 , 58 . 53 6 Lib – 54
59		6	55 . 59 – 60
60		6·7	59 – 60
Lustre of the Stars in Hydra et Crater.			
1	ϕ^2	6	43 Hy . 1 3 . 1 –, 43 Hy 1 – – 43 Hy 2 –, 1 3 , 1
2	ϕ^3	5	2 – – 42 Hy 2 –, 3 2 –, 1 2 – 3
3	b^1	6	2 –, 3 . 1 3 , 13 44 Hy , 3 2 – 3 , 1 3 , 6
4	ν	4	4 . 11 Hy 4 – 12 4 ; 9 Corvi 4 –, 12 4 –, 41 Hy 11 Hy , 4
5	b^2	6	6 , 5
6	b^3	6	3 , 6 , 5 13 – 6
7	α	4	42 Hy , 7 15 , 7 . 11
8	ι	6	10 – 8
9	χ	5	9 , 10
10		6	9 , 10 – 8
11	β^1	3.4	7 . 11
12	δ	4	4 – 12 – 15 4 –, 12 12 –, 15
13	λ	5.6	3 , 13 13 – 6 27 , 13 , 30
14	ϵ	4	21 – 14 – 24
15	γ	4	12 – 15 12 –, 15 , 7
16	κ	5	24 – 16
17		6	19 –, 17 , 18 31 . 17 . 29

Lustre of the Stars in Hydra et Crater—continued.			
18		6	17 , 18 – 26 28 , 18
19	ξ	4	19 –, 17
20		6	26 ¯, 20 , 23 25 . 20
21	θ	4	21 – 14
22		7	23 . 22
23		6	20 , 23 23 . 22
24	ι	5	14 – 24 – 16
25	o.	5	25 . 20
26		6	18 – 26 ¯, 20
27	ζ	4	27 , 13
28	β	4	28 , 18
29		6	17 . 29
30	η	4	13 , 30 . 31
31		5.6	30 . 31 . 17

Lustre of the Stars in Leo minor.			
1		7	1 , 4 5 , 1
2		6	3 . 2
3		6	4 – 3 . 2 3 . 6
4		7	1 , 4 – 3
5		7	5 , 1
6		6	3 . 6
7		6	8 , 7 19 Ursæ maj , 7
8		5	8 , 7 11 . 8 8 – 19 Ursæ maj
9		6	9 Leonis maj , 9 . 13 Leonis maj
10		4.5	39 Lyncis –, 10 –, 11
11	(No letters are given in this constellation)	6	10 –, 11 . 8 11 – 13
12		5	13 . 12

Lustre of the Stars in Leo minor—continued.			
13		6	11 – 13 . 12
14		6	42 Lyncis – – 14
15		6	15 . 42 Lyncis
16		6	17 , 16
17		6	19 – – 17 , 16
18		6	20 – – 18
19		5.6	19 – – 17
20		6	21 – – 20 – – 18
21		5	31 ; 21 – – 20
22	(No letters are given in this constellation)	6.7	24 – 22
23		5.6	23 –, 24
24		6	23 –, 24 – 22
25		6	47 , 25
26		6	27 – 26 . 29
27		6	28 . 27 – 26
28		6	30 – 28 . 27
29		6	26 . 29
30		5.4	30 – 28
31		5	31 ; 21
32		6	38 , 32
33		4.5	42 , 33
34		4.5	34 –, 36 34 – 35
35		5.6	34 – 35 , 36
36		6	34 –, 36 35 , 36
37		3	37 – 42
38		6	38 , 32
39		6	40 – 39
40		6	41 –, 40 – 39 40 – 44

Lustre of the Stars in Leo minor—continued.

(No letters are given in this constellation)

41		5	41 –, 40 41 – 53 41 – 52 Leonis maj
42		4.5	37 – 42 , 33 42 , 44
43		6	44 , 43 – – 45 44 ; 43 – 45
44		6	40 – 44 , 43 42 , 44 ; 43
45		6	43 – – 45 43 – 45
46		4.5	36 Leonis maj – 46 , 24 Leonis maj
47		6	46 Leonis maj – 47 47 , 25 46 Ursæ maj –, 47
48		6	48 , 50
49		6	51 Leonis maj – – 49
50		6	48 , 50 50 , 52
51		6	52 , 51 52 , 51
52		5.6	53 – – 52 , 51 50 , 52 , 51
53		5·6	41 – 53 – – 52

Lustre of the Stars in Pisces.

1		7	2 . 1 – 3
2		6	5 , 2 . 1
3		6	1 – 3
4	β	5	4 , 5
5	A	6	4 , 5 , 2 7 . 5
6	γ	4	6 ¯, 28
7	b	5.6	10 , 7 . 5 7 – 16 19 . 7 7 – 32 7 ; 34
8	κ^1	5	9 – – 8
9	κ^2	7.6	9 – – 8
10	θ	5	10 , 7 18 . 10
11		6	14 , 11 , 12
12		6	11 , 12 , 13
13		6	12 , 13

Lustre of the Stars in Pisces—continued.			
14		6	14 , 11
15		6	16 – 15
16		6	7 – 16 – 15
17	ι	6	28 , 17 17 , 18
18	λ	5	17 , 18 . 10
19		5	19 . 7
20		5.6	27 , 20 , 24
21		6	21 . 22
22		6	21 . 22 – 25
23		6	23 – 83 Pegasi
24		6	20 , 24
25		6	22 – 25
26		6	28 – – 26
27		5	29 . 27 , 20
28	ω	5	6 ¯, 28 – – 26 28 , 17
29		5	30 – 29 . 27
30		5	33 . 30 – 29
31	ζ^1	6	32 , 31
32	ζ^2	5·6	7 – 32 , 31
33		4	33 . 30
34		6	7 ; 34
35		6	41 , 35 , 36 35 , 51
36		6	35 , 36 , 38
37		6	39 , 37 42 , 37 43 ¯, 37
38		7	36 , 38 – 45
39		6	40 ; 39 40 ; 39 , 37
40		6	40 ; 39 40 ; 39
41	*d*	6	41 , 35

Lustre of the Stars in Pisces—continued.			
42		6	43 . 42 , 37 42 ; 43
43		6	43 . 42 44 , 43 42 ; 43 ¯, 37
44		6	44 , 43 44 – 10 Ceti
45		6	38 – 45
46		6	52 –, 46
47		6	47 . 52 47 – 48
48		6	47 – 48 . 49 48 –, 49
49		6	48 . 49 , 53 48 –, 49
50		6	See note at foot as to this number and 55
51		6	35 , 51
52		6	47 . 52 –, 46 56 , 52 , 54 See footnote
53		7	49 , 53
54		6	56 ¯, 54 52 , 54 ¯, 61 54 , 59
55		6	See note at foot
56		6	56 ¯, 54 56 , 52 See footnote
57		6	58 ; 57 58 ; 57
58		7	58 ; 57 64 – 58 ; 57
59		6	54 , 59 , 61 66 . 59 66 – 59 – 61
60		6	62 . 60
61		7	54 ¯, 61 59 , 61 59 – 61
62		6	63 –, 62 . 60
63	δ	4	63 –, 62
64		6	64 – 58 64 – 66
65	i	6	65 . 68
66		6	64 – 66 . 59 66 – 59
67	k	6	68 , 67
68	h	6	65 . 68 , 67
69	σ^1	5	83 , 69 . 82

Lustre of the Stars in Pisces—continued.			
70		6	Does not exist 71 – – – 70
71	ϵ	4	71 –, 86 71 – – – 70
72		6	81 , 72 – 75 72 , 87
73		6	77 , 73 , 88
74	ψ	5	74 , 84
75		6	72 – 75
76	σ^2	5	78 . 76
77		6	80 – 77 , 73
78		6	82 – 78 . 76
79	ψ^2	6	84 – 79 ; 81
80	e	5	80 – 77
81	ψ^3	6	79 ; 81 , 72
82	g	6	69 . 82 – 78
83	τ	5	83 , 69 83 ; 90
84	χ	5	74 , 84 – 79
85	ϕ	5	90 . 85
86	ζ	4	71 –, 86 86 , 89
87		7	72 , 87
88		6.7	73 , 88
89	f	6	86 , 89
90	υ	5	83 ; 90 – 91 90 , 95 90 . 85
91	l	6	90 – 91 95 , 91
92		7	97 , 92
93	ρ	5	93 . 94
94		5	93 . 94 – 97 94 , 107
95		7	90 , 95 , 91 96 , 95
96		6.7	96 , 95
97		6.7	94 – 97 , 92

Lustre of the Stars in Pisces—continued.

98	μ	5	51 Ceti (106) , 98 106 – 98
99	η	4	99 , 5 Arietis 2 Trianguli – 99 – 5 Arietis
100		6	102 –, 100 101 , 100 101 – 100 , 104
101		6	101 –, 104 105 , 101 , 103 102 – 101 , 100 102 – 101 – 100 101 . 105
102	π	5	102 –, 100 102 – 101 107 , 102 – 109 102 – 101
103		8.7	101 , 103 105 , 103 , 104
104		6.7	101 –, 104 100 , 104 103 , 104
105		6.7	105 , 101 101 . 105 , 103
106	ν	5	110 – 106 , 98 110 – 106 – 98 111 , 106 –, 112
107		6.7	107 , 102 94 , 107 – – 109
108		6	Does not exist
109		8	102 – 109 107 – – 109
110	o	5	110 – 51 Ceti (106) 5 Arietis –, 110 110 – 106
111	ξ	6	111 , 106
112		6.7	106 –, 112
113	α	3	113 , 5 Arietis

[NOTE to 50, 52, 55, 56.—The following entries occur : January 1, 1796, "Either 50 or 52 is wanting. By 46 it is 52 that is wanting" . . . . "56 is wanting." On the same date are comparisons involving 50 and 55, to which asterisks are affixed, referring to a footnote, *in W. H.'s hand* and obviously of later date, "* As it appears by Index that 50 and 55 have no observation, put 52 and 56 for them." In drawing up Catalogue V, C. L. H. has evidently done this, adding, however, "does not exist" opposite 50 and 55, which is, perhaps, hardly warranted. With this exception, the same substitutions have been made in this Abstract—though the reason is not clear.—J. H.]

[108 is shown to be (by an error of FLAMSTEED'S, transferred to the Atlas) the same as 109, but 3° out of place.]

Lustre of the Stars in Sagittarius.

1		6	33 Scorpii , 1
2		6	2 , 52 Ophiuchi
3	p	6	51 Ophiuchi – 3

Lustre of the Stars in Sagittarius—continued.			
4	b	6.7	7 . 4 ♑ 9
5	i	7	5 , 7 5 . 12
6		7	54 Ophiuchi – 6 . 8
7	a	6	5 , 7 . 4 12 , 7
8		7	6 . 8 8 does not exist
9		7	4 ♑ 9
10	γ	3	19 ♎ ♑ 10
11		7	Does not exist
12		7	5 . 12 , 7
13	μ^1	4	27 , 13 , 40 39 – 13 ♎ ♑ 15 13 –, 21
14		7	15 , 14 . 16
15	μ^2	6	13 ♎ ♑ 15 , 14 21 ♑ 15
16		7	14 . 16 – 17
17		7	16 – 17
18		7	
19	δ	3	38 . 19 , 27 22 ♑ 19 ; 20 19 ♎ ♑ 10
20	ϵ	3	19 ; 20
21		6	21 ♑ 15 13 –, 21
22	λ	4	41 . 22 , 38 22 ♑ 19
23		7	25 – 23
24		7	24 –, 26
25		7	26 , 25 25 – 23
26		6	24 –, 26 , 25
27	ϕ	5	19 , 27 , 40 27 , 36 27 , 13
28		7	28 – 31
29		6	36 , 29 , 33
30		6	33 , 30 . 31 31 , 30
31		6	30 . 31 28 – 31 , 30

Lustre of the Stars in Sagittarius—continued.			
32	ν^1	5	32 ; 35
33		6	35 – 33 , 30 29 , 33
34	σ	4.3	34 —— 41 34 – – 41 50 Aquilæ , 34 . 33 Capricorni
35	ν^2		32 ; 35 35 – 33
36	ξ^1		27 , 36 , 39 37 —— 36 36 , 29 36 , 39
37	ξ^2	6	37 —— 36
38	ζ	3	22 , 38 . 19
39	o	4	36 , 39 36 , 39 39 . 44 39 – 13
40	τ	4	27 , 40 13 , 40
41	π	4	34 —— 41 . 22 34 – – 41
42	ψ	5	42 , 49
43	d	6	46 – 43 ¯, 45
44	ρ^1	5	39 . 44 –, 46
45	ρ^2	6	43 ¯, 45 50 ; 45
46	υ	6	44 –, 46 – 43
47	χ^1	5	47 —— 48 47 ; 49
48	χ^2	5	47 —— 48
49	χ^3	6	47 ; 49 42 , 49
50		6	50 ; 45
51	h^1	6	52 – 51 51 , 53 . 53
52	h^2	6	52 – 51
53		6	51 , 53 . 53
54	e^1	6	55 ; 54 . 61
55	e^2	6	55 ; 54
56	f	6	56 –, 57
57		6	56 –, 57
58	ω	5	62, 58 . 60
59	b	5	60 , 59

Lustre of the Stars in Sagittarius—continued.			
60	a	5	58 . 60 , 59
61	g	6	54 . 61
62	c	6	62 , 58
63		6	63 – 64
64		6	63 – 64, 65
65		6	64 , 65
Lustre of the Stars in Ursa minor.			
1	α	3	7 ; 1 – 14 Draconis 1 , 7 α (1) – β (7) Polaris (1) ⁝ 7 1 , 7 1 – 7 1 – 7 1 – 7 α (50) Ursæ maj ¯ 1 ¯ 7 1 , 7
2		6	Is wanting
3		6	4 –, 3
4	b	5	5 – 4 4 –, 3
5	a	4	22 – 5 – 4
6		7	11 – – 6 9 – 6
7	β	3	7 ; 1 1 , 7 , γ (33) Draconis 1 – 7 50 Ursæ maj , 7 50 Ursæ maj ⁝ 7 1 ⁝ 7 7 , 50 Ursæ maj 1 , 7 1 – 7 1 – 7 50 Ursæ maj ⁝ 7 1 – 7 1 ¯ 7 79 Ursæ maj ⁝ 7 7 – 64 Ursæ maj 7 – 33 Draconis 1 , 7
8		6	
9		7	9 – 6 9 , 10
10		7	9 , 10 , 14 14 . 10
11		5	13 – – 11 – – 12 11 – – 6
12		7	11 – – 12 12 . 8 . 8
13	γ	3	13 – – 11
14		7	10 , 14 14 . 10
15	θ	5	16 – 15 16 –, 15 15 – – 18
16	ζ	4	16 – 15 16 –, 15
17		7	19 – 17 , 20
18		6	15 – – 18

Lustre of the Stars in Ursa minor—continued.			
19		5	21 , 19 . 20 21 , 19 – 17
20		6	21 – 20 19 . 20 17 , 20
21	η	5	21 – 20 21 , 19 21 , 19
22	ϵ	4	22 – 5
23	δ	3	23 –, 24
24		6.7	23 –, 24

Lustre of the Stars in Vulpecula.			
1		5	1 – 1 Sagittæ 1 – 2 1 –, 2
2		6	1 – 2 , 1 Sagittæ 1 –, 2 , 1 Sagittæ
3		6	6 – 3 , 3 Cygni 3 – – 3 Cygni 3 – – 3 Cygni
4		6	9 , 4 . 5
5		6	4 . 5 , 7
6		4	6 – – 8 6 – 3
7		5	9 – 7 5 , 7
8		6	6 – – 8 8 . 3 Cygni 8 . 3 Cygni
9		6	5 Sagittæ – 9 , 8 Sagittæ 9 – 7 9 , 4 9 – 10 14 – 9
10		6	9 – 10 , 13 10 – – 11 13 – – 10 10 , 14
11			10 – – 11
12		5	13 – 12 –, 14
13		6	10 , 13 13 – 12 13 – – 10 16 , 13 . 17
14		5	14 – 9 12 –, 14 10 , 14
15		4.5	15 , 23
16		5	16 , 13
17		4.5	13 . 17 17 . 22
18		6.5	19 . 18 , 20
19		6	19 . 18
20		5.6	18 , 20

Lustre of the Stars in Vulpecula—continued.			
21		5.6	23 , 21 –, 24
22		5	17 . 22
23		4.5	15 , 23 , 21
24		5	21 –, 24 24 . 25
25		6	24 . 25
26		6	27 , 26
27		5	27 , 26
28		6	29 . 28 . 32
29		5	31 , 29 . 28
30		6	32 . 30
31	*r*	6	31 , 29
32	*q*	5	28 . 32 . 30 35 . 32
33		6	33 – 34
34		6	33 – 34
35		6	35 . 32

NOTES.

[N.B.—A long dash between two notes or remarks under the same number indicates that they are disconnected, and occur at an interval of time—of days or months even—in the course of the "reviews." The only connecting link is the number of the star to which they refer.—J. H.]

Notes to Camelopardalus.

8 Is not in the place where it is marked in Atlas: the RA should be + to make it agree with a star that is thereabout, or − to make it agree with another. Either of them will be 7 −, 8.——The star following 7 and 8, observed by FLAMSTEED, p. 286, is in its place, but is much less than 6m. I should call it 8m.

9 Has no time in FLAMSTEED'S observation. It seems to be placed in Atlas considerably too late, so as perhaps to require a correction $-10'$ in time.

13 Does not exist.——13 does not exist. My double star VI, 35, is 9 Aurigæ.

17 The time in FLAMSTEED'S observation is marked "*circiter*," but I find that my viewing instrument cannot, for want of other near stars, determine whether it is properly placed in the Atlas and catalogue.

27 Does not exist. FLAMSTEED never observed it.——27 28 There is an observation by FLAMSTEED, p. 286, on a star S. of 28, but it does not exist, nor 27.——27 is wanting. A star observed by FLAMSTEED, p. 286, is not in the place where it should be. 27 was never observed by FLAMSTEED.

32 Is the same with 30 Aurigæ.——The stars 32 33 34, as I have called them, Oct. 30, are small stars nearly in a line, but I doubt whether my 32 is FLAMSTEED'S star. The Atlas does not give it as it is in the heavens.——The star taken for 32 Cam. is a small star between 33 and 30 Aurigæ, not given in any catalogue.

35 Has no time, but seems to be very properly placed in Atlas and catalogue.

39 My instrument will not determine its place. It is without time in FLAMSTEED'S observation.

42 A star observed by FLAMSTEED, p. 288, who calls it 4m, preceding 42 and 43 is in its place.

45 and 46 By FLAMSTEED'S observations should have their PD reversed, but in the heavens they seem to stand as they are placed in Atlas and catalogue.

49 I cannot determine the time of 49, which FLAMSTEED'S observations have ::

52 54 58 − 52 − 54 but I am not quite sure of 52 and 54. There are so many small stars, that it is not possible without fixed instruments to ascertain them positively.——54 in FLAMSTEED'S observations by *strias* (screws) requires PD$-2°$, but it is not possible to ascertain its place positively.

Notes to Hydra.

8 There is but one star, which if it be 31 Monocerotis, then 8 is not there. FLAMSTEED never observed it.

36 Is not in the place where it is marked in Atlas. The time in FLAMSTEED'S observations is marked : :

43 Is hardly visible in my small telescope.——1 Crateris – – 43 . Dec. 15, 1795, it is 43 Hydræ . 1 Crateris, but now (Jan. 26, 1797) it is 1 Crateris – – 43 Hydræ. I suppose 43 to be changeable.

Notes to Hydra et Crater.

1 See note to 43 Hydræ, above.

22 I cannot see 22 in the place where FLAMSTEED has given it, but 1° above is a star which I suppose is it ; calling that, therefore, 22, it is 23 . 22.

Notes to Leo minor.

12 Near 12 is a star observed by FLAMSTEED, p. 438. 12 wants a correction + in RA.

17 Requires −10′ in PD.

22 Is not to be seen. 23 –, 24 – 22. There is a star pointed out by 23 and 24 which may be 22, but then its situation is faulty about 30′, being too far from 28.

32 The star north of 32 observed by FLAMSTEED, p. 220, is in the place.

41 54 54, β Leonis, and the star in Leo minor's tail-end, 41 Leo minor, are in succession of magnitude.

49 Is a very small star, and a much larger between 49 and 60 Leonis major is not down in catalogue and Atlas.

Notes to Pisces.

1 Which has the time "*circiter*" in FLAMSTEED seems to be placed in Atlas and in the catalogue a little later than it should be ; perhaps 5′ or 6′ of space.

40 ; 39 A larger star than either is 1° 4′ towards α Androm. If this was mistaken for 39 perhaps it might give rise to the supposition of the loss of 40.——40 is not lost.

48 Has no time. In the heavens it seems to be nearly in the place where the catalogue gives it. ——48 –, 49. The observation 48 . 49, Jan. 1, 1796, is probably owing to a mistake of the star, as there is one nearly equal to 48 near it which is not in FLAMSTEED'S catalogue nor Atlas.

50 52 56 Either 50 or 52 is wanting. By 46 it is 52 that is wanting; 56 is wanting. [Note by W. H.: "As it appears by Index that 50 and 55 have no observations, put 52 and 56 for them."]

59 FLAMSTEED has no observation of 59, but there is a star in the place where the catalogue gives it.

70 Does not exist.——70 is a very small star. FLAMSTEED observed it, p. 406.

71 Is so small that it may, perhaps, not be FLAMSTEED'S star, but there is no other.

72 A star between 72 and 78, observed by FLAMSTEED, pp. 149, 180, is in its place. It is = 72 nearly.

104 Is 8° lower than 1 Arietis (which does not exist) is marked; perhaps it was by mistake placed 8° more north and called 1 Arietis.

108 Does not exist, or is invisible.——There is a large star $1\frac{1}{4}°$ from 6 Arietis and $2\frac{3}{4}$ from 107, not in Atlas.——108 does not exist. 109 is just 3° south of it and is, perhaps, the same. On p. 332 of FLAMSTEED'S observations the number is cast up 3° wrong, which has produced 108 Pisc. The observation belongs to 109.

Notes to Sagittarius.

1 FLAMSTEED has no observation of 1, but there is a star exactly in the place where 1 is marked in the Atlas.

8 Does not exist. There is a small star at rectangles to 17 15 13 towards the place where 8 is marked in the Atlas, but it is much too near 13 to be 8.

11 Does not exist.

12 The RA of 12 requires a correction of about 1° minus, for in the place where 12 is marked in Atlas is no star, but 1° before there is one which answers to it.

14 The star observed by FLAMSTEED, p. 171, is in its place; it is $1\frac{1}{2}°$ S. of 14.

18 I see many small stars north of 19, but cannot see 18 south of it.——18 is not in the place assigned by FLAMSTEED'S catalogue, but about 1° more in RA is a star which is probably the one intended. It was observed by FLAMSTEED, p. 115.

23 24 The star between 25 and 26 north of them observed by FLAMSTEED, p. 374, is in its place. 23 does not exist. There is a star that answers pretty well to 23. It is a little farther from 25 than it is laid down in Atlas. 24 should be nearer to 25 than in Atlas. The observation of FLAMSTEED, p. 532, gives it right.

53 Is double, and I cannot say which is FLAMSTEED'S star.

Notes to Ursa minor.

1 α appears uncommonly bright.——The pole star seems to be decreased, or β is increased. The place of the moon may possibly influence appearances——α, β The night is not favourable.——Very clear. $\alpha - \beta$.

2 Is not as in Atlas, or rather it exists not.——FLAMSTEED observed a star, pp. 213, 214, 215, which has been misplaced and called 2 Ursa minor. It should be 2° further from 1, and it is in the place where it was observed.

4 By FLAMSTEED'S observation the RA of 4 should be $-3°\ 50'$ in time; but without a fixed instrument I cannot perceive that 4 is misplaced, being so near the pole.

8 Either exists not, or is at least not in the place marked in Atlas.——8 is

misplaced in Atlas: there are two small stars about 1° from 7 towards 15: one of them is probably 8. They are equal, 12 . 8 . 8.

10 14 There is a larger star than either 10 or 14, between but following these two, which is not in FLAMSTEED.

12 Appears two small for 7m. It is 8 or 9m. FLAMSTEED has no observation of 12.

14 Has no time in FLAMSTEED'S observation, but it seems to be placed very justly in the Atlas.

15 Requires PD – 10′.

16 19 There is a large star between 16 and 19 not in FLAMSTEED. The mistake of Sept. 14, 1795, is owing to the large above-mentioned star.

18 There are seven stars about the place of 18.——FLAMSTEED has no observation of 18.

19 . 20 Sept. 14, 1795, I suppose this to be a mistake of the star.

24 Requires + 10′ or $2\frac{1}{2}°$ in RA.

Notes to Vulpecula.

Vulpecula in Atlas is laid down so confusedly and erroneously that it is impossible to ascertain the stars without a fixed instrument.

2 Is misplaced. It requires a correction of $\frac{3}{4}°$ minus in RA and 30′ + in PD.

3 The observation of Sept. 17, 1795, 6 – 3 , 3 Cygni does not agree with this 3 – – 3 Cygni [*i.e.*, of this date, Nov. 3, 1795].——Nov. 15, 1795, 3 – – 3 Cygni.

7 Requires a correction, – near $\frac{3}{4}°$ in RA.

11 10 – – 11, but 11 is very small and FLAMSTEED has no observation of it. I suppose therefore that this is not the star which is given in Atlas and catalogue.—— 11 is forgot in Atlas.

13 9 – 10 , 13, Sept. 17, 1795, but 13 is further from 10 and nearer to 14 than it is marked in Atlas.

12 Is placed too far north in Atlas—at least 15′ by 12 Sagittæ.——Large star in the breast near 14 – 9.

13 The expression 10 , 13, Sept. 17, 1795, cannot be right; it is 13 – – 10.—— Dec. 4, 1796, I have my doubts about the expression 10 , 13 used Sept. 17, 1795. I could hardly mistake the star 10 as [? and] there is none in the neighbourhood that exceeds 13.

14 A large star in Atlas preceding 14 is not in the heavens, nor do I know how it comes into the Atlas, as FLAMSTEED has it nowhere. This constellation must be reviewed again, when it is higher.

16 A considerable star near 16.

24 25 A star larger than either, north of 24, observed by FLAMSTEED, p. 64, is in ts place.

31 32 Are contrary in magnitude to what they are in Atlas.

CATALOGUE VI.

A Sixth Catalogue of the Comparative Brightness of the Stars.

Lustre of the Stars in Canes venatici.			
1		6	5 – – 1 , 7
2		5	10 . 2
3		6	3 , 7
4		6	9 . 4
5		6	5 – – 1 8 ⁻, 5 , 14
6		5	8 –, 6 , 10
7		7	1 , 7 3 , 7 –, 11
8		4.5	25 – 8 8 ⁻, 5 8 ⁻, 6
9		6.7	10 , 9 . 4
10		6	10 , 9 6 , 10 . 2
11		6	7 –, 11 Note
12		2.3	
13		4.5	41 Com Ber , 13 (= 37 Com Ber)
14		5	5 , 14
15		6.5	15 . 17
16		6	17 – 16
17		6	15 . 17 – 16
18		6	19 – 18
19		7	23 . 19 – 18 Note
20		6	20 – 23
21		6	24 – 21
22		6	Does not exist
23		7	20 – 23 . 19
24		5.6	24 – 21
25		5	25 – 8 Note

Lustre of the Stars in Coma Berenices.			
1		7	2 . 1 , 3
2		6	5 , 2 . 1
3		6	1 , 3
4		6	13 , 4
5		6	5 , 2 Note
6		5	6 , 11
7	*h*	4.5	14 . 7 –, 8 7 – 20 24 . 7
8		7	7 –, 8 20 , 8 25 , 8
9		6	9 . 10
10		6	9 . 10
11		4.5	6 , 11
12	*e*	5	15 , 12 . 16
13	*f*	4.5	17 . 13 , 4
14	*b*	4.5	16 . 14 . 17 14 . 7
15	*c*	4.5	15 , 12
16	*a*	4.5	12 . 16 . 14
17	∂	4.5	14 . 17 . 13
18		5	21 , 18 – – 22 18 . 26
19		6	Does not exist
20		6	7 – 20 , 8
21	*g*	5	23 – 21 , 18
22		7	18 – – 22
23	*k*	4	23 – 21
24		5	24 . 7 24 ⩵ , 27
25		6	25 , 8
26		5	18 . 26
27		5	24 ⩵ , 27 , 29 27 , 36
28		6	29 – 28

Lustre of the Stars in Coma Berenices—continued.			
29		5	27 , 29 – 28 Is the same with 36 Virginis
30		6	31 , 30
31		4.5	41 . 31 , 30
32		7	38 , 32 . 33
33		7	32 . 33
34		5	Does not exist
35		4.5	35 – – 39 Note
36		5	27 , 36 – 38
37		5.6	41 , 37 or 13 Can venat
38		6	36 – 38, 32
39		5	35 – – 39 39 , 40
40		6	39 . 40
41		5.4	43 –, 41 . 31 42 –, 41 41 , 37 Note
42		4.5	5 Boot , 42 , 4 Boot 43 , 42 –, 41 Note
43		5.4	43 –, 41 43 , 42

Lustre of the Stars in Libra.			
1		5.6	Does not exist See note
2		7	2 – 96 Virginis Note
3		6	55 Hyd –, 3 55 Hyd – $\bar{\ }$, 3 . 14
4		6	54 Hyd – 4 4 . 56 Hyd 4 is 53 Hyd
5		6	5 . 18 5 . 10
6		5	45 . 6 . 7 6 – 54 Hyd 6 is 58 Hyd
7	μ	5	6 . 7 . 21 7 , 19 7 – – 15
8		6	24 – 8 – 25
9	α	2	27 , 9 – 20 27 . 9 – 20 27 –, 9
10		6	5 – 10
11		6	105 Virg – 11

Lustre of the Stars in Libra—continued.			
12		6	12 , 55 Hyd
13	ξ^1	6	15 , 13 ; 18
14		6	3 . 14 23 , 14
15	ξ^2	6	7 – – 15 , 13
16		5.6	16 , 105 Virginis
17		7	18 . 17
18		6	13 ; 18 . 17 5 . 18 19 . 18
19	δ	4.5	44 . 19 . 43 31 , 19 7 , 19 19 . 18
20	γ	3	20 , 40 20 , 51 49 Hyd – 20 – 38
21	ν^1	5	7 . 21 . 41 21 –, 22 21 – 26
22	ν^2	6	21 –, 22 26 , 22
23		7	23 , 14 Note
24	ι^1	4.3	48 , 24 , 37 24 – 8
25	ι^2	6	8 – 25 25 , 28
26		6	21 – 26 , 22
27	β	2	27 , 9 27 . 9 27 –, 9 27 , 24 Serpentis Note
28		6	25 , 28
29	o^1	7	32 , 29 . 34
30	o^2	6	33 , 30
31	ϵ	4	37 , 31 . 35 37 , 31 , 19 37 . 31
32	ζ^1	6	32 , 34 32 , 29
33	ζ^2	7	35 – 33 , 30
34	ζ^3	6	32 , 34 . 35 29 . 34
35	ζ^4	4	31 . 35 . 44 34 . 35 – 33
36		6	40 –, 36
37		6	24 , 37 , 31 37 , 31 37 . 31 Note
38	γ	3.4	39 . 38 . 51 51 , 38 , 46 20 – 38 51 . 38 38 –, 46
39		4	40 , 39 . 38 46 . 39 , 40 39 ; 40

Lustre of the Stars in Libra—continued.			
40		4	20 , 40 , 39 39 , 40 39 ; 40 –, 36
41		6	21 . 41 47 , 41
42		6	1 Scorp – 42 – 4 Scorp
43	κ	4	19 . 43 . 45 43 , 45
44	η	4	35 . 44 . 19 48 , 44 48 , 44 44 , 49
45	λ	4	43 . 45 . 6 45 – 47 43 , 45 ; 47
46	θ	4	51 . 46 , 48 88 , 46 . 39 46 , 48 46 – 48 38 –, 46 –, 48
47		6	45 – 47 45 ; 47 , 41
48	ψ	4	46 , 48 , 24 48 , 15 Scorp 46 , 48 , 44 46 – 48 , 44 46 –, 48 – – 49
49		6	48 – – 49 44 , 49
50		6	42 Serpii – 50 50 – 43 Serpentis
51	ξ	4.5	38 . 51 . 46 20 , 51 , 38 51 . 38
Lustre of the Stars in Lupus.			
1		5	5 , 1
2	δ	5.6	2 , 5
3	γ	5.6	5 –, 3 , 4
4		5.6	3 , 4
5	λ	5	5 –, 3 2 , 5 , 1
Lustre of the Stars in Piscis austrinus.			
1		5	See Note
2		6	
3		6	
4		4.5	
5		6	
6		6	
7		6	

Lustre of the Stars in Piscis austrinus—continued.			
8		4.5	41 Cap –, 8
9	ι	4	10 – 9
10	θ	4	10 – 9
11		6	13 , 11
12	η	5	12 – 14 12 – 16
13		6	14 –, 13 , 11
14	μ	4	14 . 15 14 – 15 12 – 14 –, 13
15		5.6	14 . 15 14 – 15
16	λ	4.5	12 – 16
17	β	3	17 – 22
18	ϵ	3.4	88 Aquar – 18 . 86 Aquar Note
19		5	23 –, 19 , 21 20 – 19
20		6	20 – 19
21		6	19 , 21
22	γ	5	22 . 23 17 – 22
23	δ	5	22 . 23 –, 19
24	α	1	8 Peg , 24 , 44 Peg 44 Peg is 19 Aquar Note
Lustre of the Stars in Scorpius.			
1	b	6	2 , 1 – 3 1 – 42 Libræ
2	A^1	5	5 – 2 –, 3 2 – 4 2 , 1
3	A^2	7	2 –, 3 4 , 3 1 – 3
4		6	2 – 4 , 3 42 Lib – 4
5	ρ	4	5 – 2
6	π	3	8 –, 6 23 , 6 , 20
7	δ	3	21 – 7 , 8 7 – 8 7 ; 8 8 . 7
8	β	2	7 , 8 – 20 7 – 8 7 ; 8 8 . 7 7 ; 8 –, 6

Lustre of the Stars in Scorpius—continued.

9	ω^1	5	9 – 10 14 , 9 ⁻ 10 14 . 9 , 10
10	ω^2	5	9 – 10 9 ⁻ 10 9 , 10
11		6	19 – 11 17 , 11
12	o^1	6	13 – 12
13	o^2	6	13 – 12
14	ν	4	14 , 9 14 , 26 14 . 9
15	χ	5	15 , 16
16		6	15 , 16 . 18 Note
17		6	17 , 11
18		4	16 . 18
19		6	19 – 11 22 , 19 24 , 19
20	σ	5	6 , 20
21	α	1	21 , 50 Cyg α Cyg – – 21 –, α Ophiuchi Note
22		5.6	22 , 19 22 = ⁻ 25
23	τ	4	23 , 6 42 Oph , 23
24		6	24 , 19
25		6	22 = ⁻ 25 Note
26	ϵ	3	14 , 26 – – – 27 26 , 9 Oph Note
27		6	26 – – – 27 9 Oph – –, 27
28		6	33 , 28
29		6	30 . 29 , 31 29 , 38 Oph (= 31)
30		6	30 . 29
31		6.7	29 , 31 29 , 38 Oph (= 31)
32		6	33 . 32 32 – 50 Oph
33		7	33 , 1 Sagitt 33 . 32 33 , 28
34	υ	4	35 –, 34
35		3	35 –, 34

Lustre of the Stars in Serpens.			
1		7	4 , . 1 , 2
2		7	1 , 2
3		6.7	3 , 5
4		6	6 , 4 . 1 4 –, 8 4 . 11
5		6	5 , 10 3 , 5
6		6	10 – 6 , 4 6 . 16
7		7	9 – 7
8		7	4 –, 8
9		6	20 , 9 – 7
10		6	10 – 34 5 , 10 – 6
11		6	4 . 11 – 14 25 – 11
12	τ^1	7	12 , 17
13	δ	3	13 –, 27 13 . 37
14	A^1	6	11 – 14
15		6	22 – 15
16		7	6 . 16
17		6.7	19 –, 17 12 , 17 Note
18	τ^2	6	41 , 18
19	τ^3	6	19 –, 17 26 – 19 – 29
20	χ	6	20 , 9
21	ι	5	35 , 21 – – 22 21 –, 44
22		6	21 – – 22 – 15
23	ψ	6	34 , 23
24	α	2	27 Lib , 24 , 27 Herc
25	A^2	6	25 – 36 25 – 11
26		6	26 – 19 26 , 31
27	λ	4	13 –, 27
28	β	3	28 , 37 28 , 41

Lustre of the Stars in Serpens—continued.			
29		5.6	19 – 29
30		6	36 – 30 50 , 30
31	ν	6	26 , 31 ; 39
32	μ	4	32 – 37
33		6	Does not exist
34	ω	6	34 , 23 10 – 34
35	κ	4	35 , 21
36	b	6	25 – 36 – 30 36 , 50
37	ϵ	3	37 . 10 Oph 32 – 37 28 . 37 – 41 13 . 37
38	ρ	4.3	44 , 38
39		6	31 ; 39
40		7	46 – 40 . 45
41	γ	3	10 Oph – 41 37 – 41 28 , 41 , 18
42		6	Does not exist Note
43		6	50 Lib – 43
44	π	4	21 –, 44 , 38
45		6	40 . 45
46		6	46 – 40 46 –, 47
47		6	46 –, 47
48		6	8 Herc ; 48 48 –, 49
49		6	48 –, 49
50	σ	5	36 , 50 , 30
51		6	51 , 25 Oph
52		6	
53	ν	4	
54		6	47 Oph – – 54
55	ξ	4	
56	o	5	56 –, 57 Oph

Lustre of the Stars in Serpens—continued.			
57	ζ	3	57 – 69 Oph 57 –, 69 Oph
58	η	3	58 – 64 Oph
59	∂	6	59 –, 61
60	o	6	61 . 60 60 –, 47 Oph
61	e	6	59 –, 61 . 60
62		6	64 – 62
63	θ	3	
64		6	64 – 62 Note
Lustre of the Stars in Serpentarius (or Ophiuchus).			
1	δ	3	35 . 1 , 13 35 , 1 . 13 60 – 1 1 – 13
2	ϵ	3.4	13 , 2 13 – 2 – 10
3	ν	5	3 , : : 18 Lib Note
4	ψ	5	4 – 5 8 ¯, 4 ¯, 7
5	g	5	4 – 5 – 9
6		6	Does not exist
7	χ	6	4 ¯, 7
8	ϕ	4	8 ¯, 4
9	ω	5	26 Scorpii , 9 – –, 27 Scorpii 5 – 9
10	λ	4	37 Serpentis . 10 – 41 Serpentis 2 – 10
11		6	21 , 11
12		6	19 , 12
13	ζ	3	1 , 13 1 , 13 13 , 2 13 – 2 1 – 13 Note
14		6	21 , 14 , 19
15		6	
16		6	19 . 16
17		6	Is 43 Herculis
18		6.7	22 . 18

Lustre of the Stars in Serpentarius (or Ophiuchus)—continued.			
19		6	14 , 19 . 16 19 , 12
20		5.6	
21		6	21 , 14 21 , 11
22		7	22 . 28 22 . 18
23		6	
24		7	24 – 26
25	ι	4	51 Serpentis , 25
26		6	26 –, 28 24 – 26 Note
27	κ	4	[A number of comparisons of 27 with α (64) Herculis have been printed in the 2nd of these papers on the "Lustre of the Stars"—*see* 'Phil. Trans.,' 1796, p. 492—and it is needless to repeat them here. There are others, of 27 with δ (65) Herc. and with 60 (β) Serpentarii. The former may be represented by 27 ; δ Herc and δ Herc ; 27. For the latter, see below, line 60.—J. H.]
28		6	26 –, 28 . 31 22 . 28
29		6	
30		6	Note
31		6	28 . 31
32		6	32 , 33
33		6	32 , 33 , 34
34		6	33 , 34
35	η	3	35 . 1 35 , 1
36	A	6.5	44 , 36 , 51
37		6	66 Herc , 37 66 Herc – 37
38		6·7	29 Scorp , 38 (or 31 Scorpii)
39		6	39 ; 51
40	ρ	4	
41		6	
42	θ	4.3	42 – 50 Lib 42 , 23 Scorp
43		4.5	

Lustre of the Stars in Serpentarius (or Ophiuchus)—continued.

44	B	5.4	44 –, 51 44 , 36
45		6	
46		6	Does not exist Note
47		6	60 Serpentis –, 47 – – 54 Serpentis
48		6	Does not exist
49	σ	5	67 – 49
50		7	32 Scorp – 50
51	e	6	51 – 3 Sagitt 44 –, 51 39 ; 51 36 , 51
52		6	2 Sagitt , 52 58 – 52 ; 2 Sagitt
53		6	
54		6	54 , 56
55	α	2	55 , α Coronæ 55 – – 60 55 , 5 Coronæ 55 – 33 Drac α Cygni – – – 55 – α Coronæ α Scorp –, 55 ⁻ α Coronæ
56		6	54 , 56
57	μ	4	56 Serpentis –, 57 Note
58	D	6	58 – 52
59		6	Does not exist
60	β	3	60 – α Herc (3 times) 60 ⁻ α Herc (3 times) 60 . 27 (β) Herc 60 , β Herc (twice) 55 – – 60 60 , 17 Aquilæ 60 – 1 60 ⁻ 27 60 . 27 27 , 60 60 – – 62 Note
61		6	66 , 61
62	γ	3	60 – – 62 , 67 72 ⁻ 62 72 ⁻ 62 62 ⁻ 72 72 , 62 72 – 62 –, 71 64 – 62
63		5	
64	ν	4	58 Serpentis – 64 – 62
65		6	65 – 6 Sagittarii
66	n	4.5	68 , 66 , 61 66 , 73
67	o	4	62 , 67 , 70 67 – 49 72 ; 67
68	k	4	70 , 68 , 66

Lustre of the Stars in Serpentarius (or Ophiuchus)—continued.			
69	τ	5	57 Serpentis – 69 57 Serpentis –, 69
70	p	4	67 , 70 , 68
71	S	6	72 – 71 72 –, 71 62 –, 71
72	S	6	72 – 71 72 –, 71 72 ⁻, 62 72 ⁻, 62 62 ⁻, 72 ; 67 72 , 62 Note
73	q	6	74 , 73 66 , 73
74	r	6	74 , 73

Lustre of the Stars in Ursa major.			
1	o	4.5	1 –, 23 1 , 69
2	A	5	3 , 2 , 4 2 , 5
3	π^1	5	3 , 2 14 , 3
4	π^2	6	2 , 4 . 6 5 , 4
5		5	2 , 5 , 4
6		5	4 . 6
7	b	6	7 is lost
8	ρ	5	13 . 8 , 11
9	ι	4	9 – 25
10	n	4	39 Lyncis , 10
11	σ^1	5	8 , 11
12	κ	4	41 Lyncis – 12 , 39 Lyn 33 – 12
13	σ^2	5	13 . 8
14	τ	5	14 , 3 14 , 16 24 – 14
15	f	5	15 , 18 15 – 24 30 . 15 –, 18
16	o	5	14 , 16 16 – –, 20
17		5	18 – 17
18	e	5	15 , 18 – 17 26 –, 18 15 –, 18 –, 31
19		6	8 Leo min – 19 , 7 Leo min
20		7	16 – –, 20 Does not exist Note

Lustre of the Stars in Ursa major—continued.

21		6	Does not exist Note
22		7	27 – 22
23	h	4	1 –, 23 . 29
24	∂	4.5	24 – 14 15 – 24
25	θ	3.4	25 . 41 Lync 9 – 25 – 69
26		5.6	30 –, 26 –, 18
27		6	27 – 22
28		5	Does not exist
29	ν	4	23 . 29 29 – – 45 Lyncis
30	ϕ	5	30 –, 26 30 . 15
31		6	18 –, 31
32		5	32 . 38
33	λ	3.4	34 –, 33 – 12 52 –, 33 – 63
34	μ	3	34 –, 33 34 – 52 Note
35		6	
36		5	36 – 37 45 – 36
37		5	36 – 37 –, 39 37 , 44
38		5	
39		6	37 –, 39 , 43 39 , 42
40		6	41 –, 40
41		6.7	43 – 41 –, 40
42		5·6	39 , 42
43		6	39 , 43 – 41
44		6	37 , 44 . 45
45	ω	4.5	44 . 45 – 36 45 – 55
46		6	46 –, 47 Leo min
47		6	47 . 49

Lustre of the Stars in Ursa major—continued.

48	β	2	50 – – 48 79 – 48 . 64 79 –, 48 . 64 48 ⁻, 64 (twice) 64 ; 48 48 – 64 (3 times)
49		6	47 . 49 – 51
50	α	1.2	50 – 77 (5 times) 50 – – 48 50 ⁻, 77 (twice) 50 ; 77 50 ⁝ 77 50 ⁞ 77 77 , 50 85 ⁞ 50 ⁞ 77 50 , β Urs min 50 ⁝ β Urs min 50 ⁝ 7 (β) Urs min Note
51		7	49 – 51
52	ψ	3.4	34 – 52 –, 33
53	ξ	4	63 – 53
54	ν	4	54 – 63
55		5	45 – 55 55 – 67
56		6	56 –, 59 57 . 56
57		6	57 . 56 67 – 57
58		6	59 , 58 58 . 60
59		6	56 –, 59 , 58 61 . 59 , 62
60		6	65 , 60 58 . 60
61		6	61 . 59
62		6	59 , 62
63	χ	4	33 – 63 54 – 63 – 53
64	γ	2	48 . 64 –, 69 48 , 64 = = ⁻ δ or 69 48 ⁻, 64 7 Urs min – 64 64 ; 48 48 –, 64 48 – 64 (3 times)
65		7	65 , 60
66		6	71 . 66 70 . 66
67		6	55 – 67 – 57
68		7	70 – – 68 73 – 68 . 72
69	δ	2.3	69 –, 70 69 – 74 1 , 69 64 –, 69 64 = = ⁻ 69 25 – 69
70		6	69 –, 70 – – 68 75 . 70 . 71 74 , 70 . 75 70 ⁻, 71 70 . 66
71		7	70 . 71 . 73 71 . 66 70 ⁻, 71 . 73
72		7	73 –, 72 73 – 72 68 . 72

Lustre of the Stars in Ursa major—continued.

73		6	71 . 73 –, 72 71 . 73 – 72 73 – 68
74		6	69 – 74 , 75 74 , 70 76 – 74 76 . 74
75		6	74 , 75 . 70 70 . 75 Note
76		6	76 . 76 – 74 Note
77	ϵ	3	77 , 85 50 – 77 (3 times) 50 ¯; 77 ; 85 50 ; 77 (3 times) 50 –, 77 50 ⁝ 77 – 79 50 ⁝ 77 77 , 50 77 ¯; 85 77 – 79 1 Urs min . 77
78		6	78 ; 80 Note
79	ζ	3	85 , 79 – 48 79 ⁝ 7 Urs min 77 – 79 –, 48
80	g	5	83 , 80 , 81 80 , 83 78 ; 80
81		5.6	80 , 81 84 , 81 . 86 83 , 81 . 84
82		6	86 . 82 Note
83		6	87 – 83 , 80 83 , 84 80 , 83 , 81
84		6	83 , 84 , 81 81 . 84 . 86
85	η	3	77 , 85 , 79 77 ; 85 , 79 85 ⁝ 50 77 ; 85
86		6	81 . 86 84 . 86 . 82 Note
87		5	87 – 83 87 – 8 Draconis

Lustre of the Stars in Virgo.

1	ω	6	4 – 1 2 , 1 2 – 1 , 4
2	$^1\xi$	5	8 – 2 – 4 4 – 2 , 1 2 – 11 2 – 1 8 , 2
3	ν	5	9 – 3 – 8 9 – 3 – 8 9 , 3 – 8
4	$^2\xi$	6	2 – 4 – 1 4 – 2 1 , 4 – 6
5	β	3	43 , 5 – 15 43 , 5 – 15
6	A	6	43 – 6 . 109 4 – 6 7 , 6 12 ; 6
7	b	5.6	8 – 7 7 . 13 7 , 6 7 –, 10 7 – 11 7 , 13
8	π	5	3 – 8 – 2 3 – 8 – 7 9 – 8 , 16 3 – 8 , 2 8 – 16 51 ; 8 – 78
9	o	5	9 – 3 9 – 3 9 – 8 9 , 3
10	r	6	12 – 10 7 –, 10 11 , 10 10 – 17

Lustre of the Stars in Virgo—continued.

11	*s*	6	2 – 11 – 12 7 – 11 , 10
12	*f*	6.7	11 – 12 – 10 . 12 . 17 12 ; 6
13	*n*	6	7 . 13 7 , 13 – 14
14		6	13 – 14
15	η	3	5 – 15 15 – 51 15 – 93 109 . 15 , 107 5 – 15
16	o	4.3	8 , 16 8 – 16
17		6	12 . 17 10 – 17
18		6	Does not exist Note
19		6	Does not exist Note
20		6	27 . 20 27 . 20
21	*q*	6	26 – 21 , 25
22		6	27 . 22 31 . 22 Does not exist Note
23		6	Does not exist Note
24		6	Does not exist Note
25	*f*	6	21 , 25 –, 28 Note
26	χ	5	26 – 21
27		6	33 , 27 27 . 22 27 . 20 30 – – 27 . 20 33 , 27 – – 42 (see note) 41 , 27
28		6	25 –, 28
29	γ	3	47 – 29 – 79 67 – 29 . 47 29 , 47
30	ρ	5	30 – 32 30 – – 27 30 , 32
31	∂^1	6	32 – 31 – 33 32 , 31 32 . 31 32 , 31
32	∂^2	6	30 – 32 – 31 32 , 31 30 , 32 . 31 32 , 31 See note
33		6.7	31 – 33 33 , 27 33 – 34 33 , 27
34		6	33 – 34 36 , 34 , 41
35		6	37 , 35
36		6	36 , 34
37		6	37 , 35

Lustre of the Stars in Virgo—continued.			
38		6	48 . 38
39		6	40 – 39 40 – – 39
40	ψ	5	40 – 39 40 – – 39
41		6	34 , 41 , 27
42		6	27 – – 42 Note
43	δ	3	79 – 43 79 , 43 , 5 79 . 43 – 6 47 –, 43 , 5 79 – 43
44	k	6	46 . 44 , 48
45		6	Does not exist Note
46		6	46 . 44
47	ϵ	3	67 – 47 – 29 29 . 47 – 79 29 , 47 –, 43
48		6	44 , 48 . 38
49	g	5	49 –, 50 49 –, 50
50		6	49 –, 50 , 52 50 , 52 49 –, 50 – – 56
51	θ	4	15 – 51 – 74 51 ; 8
52		6	50 , 52 . 62 Does not exist Note
53		4.5	53 , 61 61 – 53 , 55
54		6	61 , 54 61 –, 54 73 . 54 57 – 54 57 – 54
55		6	55 . 57 61 – 55 . 57 55 . 57 53 , 55 . 57
56		6	58 . 56 56 , 58 50 – – 56
57		6	55 . 57 – 61 55 . 57 55 . 57 – 54 55 . 57 – 54
58		6	62 . 58 . 56 56 , 58 Note
59	e	6.7	60 , 59 , 64 70 – 59 , 71
60	σ	5	84 – 60 – 78 60 – 64 60 , 59
61		4.5	61 , 69 57 – 61 , 54 53 , 61 –, 54 61 – 55 61 – 53 Note
62		6	62 . 58 52 . 62
63		6	69 , 63
64		6	60 – 64 59 , 64
65		6	74 – 65 . 66

Lustre of the Stars in Virgo—continued.			
66		6.7	65 . 66 , 72 66 , 80
67	α	1	67 – 47 β Gem , α Virg . α Leon 67 – 29 67 ⁻, –, 32 Leon Note
68	ι	4	69 –, 68 , 75
69		5.6	69 –, 68 61 ⁻, 69 ⁻, 63
70		6	70 – 59
71		6	59 , 71 Note
72	l^1	6	80 – 72 66 , 72 . 80 76 –, 72 – 77 80 , 72 82 – 72 – –, 77
73		6	73 . 54
74	l^2	6	51 – 74 – 80 74 – 65 74 –, 82
75		6	68 , 75
76	h	6	82 . 76 –, 72 76 – 80
77		7	72 – 77 , 81 72 – –, 77 . 81
78		6	60 – 78 8 – 78 –, 84
79	ζ	6	29 – 79 – 43 79 , 43 47 – 79 . 43 79 – 43
80	l^3	6	74 – 80 – 72 72 . 80 76 – 80 66 , 80 , 72
81		6	77 , 81 77 . 81 . 88 Note
82	m	6	74 –, 82 . 76 82 - 72
83		6	89 , 83 , 87 Note
84	o	6	93 – 84 – 60 78 –, 84
85		6	87 , 85 86 , 85
86		6	87 . 86 , 85
87		6	83 , 87 , 85 87 . 86
88		6	81 . 88 Note
89		5.6	89 , 83
90	p	6	93 – – 90 , 92
91		6	Does not exist
92		6	93 – 92 90 , 92
93	τ	5	15 – 93 – 84 93 – 92 107 . 93 . 99 93 – – 90

Lustre of the Stars in Virgo—continued.			
94		6	95 , 94 – 97 94 , 96
95		6	98 –, 95 , 94
96		5	94 , 96 , 97 2 Lib – 96
97		6	94 – 97 96 , 97
98	κ	4	99 – 98 . 100 98 –, 95 98 , 100 98 ; 110
99	ι	4	93 . 99 – 98 107 –, 99 Note
100	λ	4	98 . 100 98 , 100 110 ; 100
101		6	20 Bootis –, 101 Note
102	υ^1	5	105 – 102 –, 103 102 – 104
103	υ^2	5	102 –, 103 106 , 103
104		6	102 – 104 . 106 104 , 108
105	ϕ	4	105 – 102 16 Lib , 105 – 11 Lib
106		6	104 . 106 , 103
107	μ	4	15 , 107 . 93 107 –, 99 109 – 107
108		6	104 , 108
109		4	6 , 109 . 15 109 – 107
110		6	98 ; 110 ; 100

Notes to Canes venatici.

July 22, 1797. 11 There are two stars about the place of 11 nearly alike in brightness.

13 Is 37 Comæ Berenices.

19 A considerable star sp 19 is omitted: much larger than 18.

22 Does not exist. It was never observed by FLAMSTEED.

25 Is misplaced: the PD should be +10°. It is not in the place where the catalogue has it, but is 10° more south. 25 – 8 A star observed by FLAMSTEED, p. 228, is in its place about $\frac{3}{4}$° or 1° north of this 25, and a little preceding it is * , 14.

A star observed by FLAMSTEED, p. 225, from 64 Ursæ towards 54 Ursæ is in its place. It is 1 ¯, *

Notes to Coma Berenices.

5 December 27, 1786. I looked for 5 Comæ, but could not find it.

19 April 19, 1797. 19 does not exist. FLAMSTEED never observed it.

29 Is the same with 36 Virginis.

34 Does not exist, nor did FLAMSTEED observe it.

35 39 A star between 35 and 39 observed by FLAMSTEED, p. 165, is in its place. It is 39 =, *

41 A star near 41 observed by FLAMSTEED, p. 165, is in its place. A star south following 41 observed by FLAMSTEED, p. 165, is in its place. It is 41 – – *

42 A star south of 42 observed by FLAMSTEED, p. 164, is in its place. Calling it in general * it will be 38 , *

Notes to Libra.

1 Does not exist: there is a star of a considerable magnitude near 50 Hydræ, but the place does not agree with 1——1 is not in the place where it is marked in Atlas, but there is a star which FLAMSTEED observed, p. 166, which is probably 1. It is RA−30′ and PD+2° and is in its place. I shall call it 1 and it is 50 Hydræ –, 1

2 There are two about the place of 2, but I suppose the largest, and nearest to 98 Virginis, to be FLAMSTEED'S star. It agrees best with the place.

23 Is not in the place where Atlas gives it, nor did FLAMSTEED observe it there. He has a star, p. 531, which is 1° 26′ more in RA. This is probably 23, and it is 23 , 14 and is in its place.

27 Does not seem larger than 9, at least not very decidedly, and so as to be denoted 27 , 9, but 9 has a small star near it, not visible to the naked eye, which increases its lustre; but in my glass it is evident that 27 is a little brighter than 9.

37 North of 37 is a star nearly as large as 37, but 37 is a very little larger in the finder.——FLAMSTEED'S star observed, p. 45, north of 37 is in its place 37 – *

Note to Piscis austrinus.

September 22, 1795. This constellation, on account of its low situation, can be of no use for comparative magnitudes. The opportunities of observing it must be so scarce that no discoveries of changes can be made in it. I can see no other star with the naked eye but those I have equated [viz., 24 and 18. The observations of other stars of this constellation were made two years later.—J. H.].

Notes to Scorpius.

16 Should be about 3 or 4 minutes nearer to 15. FLAMSTEED'S observation, p. 197, leaves the ZD doubtful.

21 Is of a very brilliant ruddy light.——Is of a pale garnet colour: it seems to be the most coloured of all the large stars. Its low situation probably contributes to it.

25 Either does not exist or is misplaced. There is a star about 4° from 23 and $2\frac{3}{4}°$ from 22, which may be the star if misplaced. In that case the RA of 25 should be $-1°$ and it will be $22 = \overline{\ }, 25$. Several stars of Serpentarius are so small that 25 may exist.

26 Being low it may be larger than 14, for I make no allowance in my observations.

Notes to Serpens.

17 There are two of 17 but little different in brightness. I have taken the brightest of them.

33 Does not exist. FLAMSTEED never observed it.

42 Does not exist. The place where it should be, according to the catalogue, cannot be mistaken. FLAMSTEED never observed it. 50 Libræ not far from it is in its place.

θ (63) = l Aquilæ and less than λ Aquilæ.

64 Is the largest of two.

Notes to Serpentarius (Ophiuchus).

3 (υ) is misplaced in Atlas 1°. It should be about +1° in RA. A star $\frac{3}{4}°$ north of it, observed by FLAMSTEED, pp. 442, 443, is in its place.

6 Does not exist. FLAMSTEED never observed it.

13 3° np 13 is a star not marked in FLAMSTEED = 20.

26 28 26 has another near it larger than 28.

30 Seems not to be rightly placed.

38 31 Scorpii is 38.

46 A larger star than 46 is just by, but not marked in Atlas.——46 does not exist.

48 Does not exist. FLAMSTEED never observed either of them.

57 A large star np 57 observed by FLAMSTEED, p. 442, is in its place. It is 57 *

59 Does not exist. FLAMSTEED never observed it.

60 I suspect 27 Herculis to be changeable, for it is now 60 . 27 Herc, or even 27 Herc , 60. There is great difference in the weather.

72 Is much too large for 6m.

Notes to Ursa major.

20 There is a very small star about the place of 20, which I can hardly take for one of FLAMSTEED'S. It is 16 – –, 20.——20 does not exist in the place where it is marked in the Atlas. There is no star but of the 9th mag. within a degree of the place.

21 I think does not exist. There is a star not far from the place where the Atlas has it, but it is much too small.——21 does not exist. I cannot mistake the place.

34 The star south of 34 observed by FLAMSTEED, p. 439, is in the place.

35 Is not as laid down in Atlas.

50 α (Oct. 25, 1795) Appears unusually large $8^{h.}\ 20^{m.}$. When I saw it at $6^{h.}$ I thought so immediately. I suspect it to be changeable, or rather am pretty sure it is so. It is as large as β Ursæ minoris, but that is so much higher that no fair comparison can be made between them.

Oct. 26, 1795. 50 is not so bright as last night.

Oct. 28, 1795. It is much less than it was Oct. 26. The place of the moon may possibly influence appearances.

Nov. 28, 1795. It would not be proper to compare α Urs. maj. with ϵ and η, as they are much lower, but α seems to be remarkably bright.

75 Has no time in FLAMSTEED'S observations and is misplaced in Atlas. It is but very little following 74, being almost in the same RA with it.

76 There are two of 76, at a distance of nearly $\frac{3}{4}°$ from each other.

77 June 25, 1796, 77 is very bright. July 21, 1796, 77 is decreased.

78 Is missing; at least is not as marked in Atlas.——78 has no time. In the observation of FLAMSTEED in the Atlas, it is placed about 20′ of a degree too far East.

82 Is missing.

86 The place of 86 is not right in Atlas by many minutes, perhaps 15′.

Notes to Virgo.

18 Is lost.——18 does not exist, or is reduced to 9m at least.——18 does not exist.

19 Is lost; or, as there are 4 or 5 stars about its place, if it is among them, it is at least reduced to the 10th mag.——19 exists not, or is less than 9m. There are 3 or 4 stars near the place, but extremely small.——19 does not exist, or is at least 9m or

10m.——19 exists not, but there is a star sp 20 about the same distance as 19 is marked np.

22 Is in its place and 7m.——22 23 are both either 7 or 7.8 mag.——22 does not exist. The observation 31 , 22, April 9, 1796, can not be right. I mistook very probably a star sf 32 and 31 instead of np, as there is such a one.——22 and 23 do not exist. FLAMSTEED has no observation of them. There is a pretty considerable star near the place of 22.——23 is not to be seen. There is no star that can be taken for it.——23 does not exist. There is no star that can be taken for it.

24 is lost. There is no small star to represent it.——24 does not exist. There is no star that can be taken for it.——24 does not exist. FLAMSTEED has no observation of it.

25 By FLAMSTEED'S observations requires −19′ in RA and by the heavens it does the same.

42 Does not exist. There is no star nearer than 1° of any size to the place of 42 given in Atlas. FLAMSTEED never observed this star. The star estimated April 9, 1796, 27 – – 42 is one of these small stars nearest the place, which is rather larger than 2 or 3 others thereabout.

45 I cannot see 45. There is no star so large as 10 or 11m near the place of 45. ——45 does not exist. FLAMSTEED never observed it.

52 Does not exist. There is a very small star not far from the place. FLAMSTEED has no observation of 52.

58 The PD of 58 should be +11′.——58 by FLAMSTEED'S observations requires +11′ in PD and by the heavens it does the same.

56 58 They are very small stars. 58 is double in my finder. There are two other stars situated like 56 and 58 in Atlas, which were probably taken for them, May 2, 1796, when they were estimated 58 . 56. Not knowing then that 58 wants a correction of PD+11′, occasioned the mistake.

61 There seems to be a change in the brightness of 61 since last night.

67 Is of a sparkling bluish white colour: a beautiful star.

71 A star following 71 observed by FLAMSTEED, p. 194, 478 [*sic*] is in its place *. 71 59 , *. 71.

77 . 81 . 88 The three last are very small stars. About the place of 88 there are two nearly equal. I cannot determine which is FLAMSTEED'S star.

83 The RA of 83 should be +22′ by FLAMSTEED'S observations, and it requires the same by the heavens.

91 Does not exist.

99 The star nf 99 observed by FLAMSTEED, p. 41, is in its place. It is 108 – – *

101 Is misplaced in the British Catalogue: it should be +1° in PD. Then it is 20 Bootis –, 101.