

XX. *Catalogue of a second Thousand of new Nebulæ and Clusters of Stars; with a few introductory Remarks on the Construction of the Heavens.* By William Herschel, L. L. D. F. R. S.

Read June 11, 1789.

BY the continuation of a review of the heavens with my twenty-feet reflector, I am now furnished with a second thousand of new Nebulæ.

These curious objects, not only on account of their number, but also in consideration of their great consequence, as being no less than whole sidereal systems, we may hope, will in future engage the attention of Astronomers. With a view to induce them to undertake the necessary observations, I offer them the following catalogue, which, like my former one, of which it is a continuation, contains a short description of each nebula or cluster of stars, as well as its situation with respect to some known object.

The form of this work, it will be seen, is exactly that of the former part, the classes and numbers being continued, and the same letters used to express, in the shortest way, as many essential features of the objects as could possibly be crowded into so small a compass as that to which I thought it expedient to limit myself.

The method I have taken of *analyzing* the heavens, if I may so express myself, is perhaps the only one by which we can arrive

arrive at a knowledge of their construction. In the prosecution of so extensive an undertaking, it may well be supposed that many things must have been suggested, by the great variety in the order, the size, and the compression of the stars, as they presented themselves to my view, which it will not be improper to communicate.

To begin our investigation according to some order, let us depart from the objects immediately around us to the most remote that our telescopes, of the greatest *power to penetrate into space*, can reach. We shall touch but slightly on things that have already been remarked.

From the earth, considered as a planet, and the moon as its satellite, we pass through the region of the rest of the planets, and their satellites. The similarity between all these bodies is sufficiently striking to allow us to comprehend them under one general definition, of bodies not luminous in themselves, revolving round the sun. The great diminution of light, when reflected from such bodies, especially when they are also at a great distance from the light which illuminates them, precludes all possibility of following them a great way into space. But if we did not know that light diminishes as the squares of the distances encrease, and that moreover in every reflection a very considerable part is intirely lost, the motion of comets, whereby the space through which they run is measured out to us, while on their return from the sun we see them gradually disappear as they advance towards their aphe-
lia, would be sufficient to convince us that bodies shining only with borrowed light can never be seen at any very great distance. This consideration brings us back to the sun, as a resplendent fountain of light, whilst it establishes at the same time beyond a doubt that every star must likewise be a sun,

shining by its own native brightness. Here then we come to the more capital parts of the great construction.

These suns, every one of which is probably of as much consequence to a system of planets, satellites, and comets, as our own sun, are now to be considered, in their turn, as the minute parts of a proportionally greater whole. I need not repeat that by my analysis it appears, that the heavens consist of regions where suns are gathered into separate systems, and that the catalogues I have given comprehend a list of such systems; but may we not hope that our knowledge will not stop short at the bare enumeration of phenomena capable of giving us so much instruction? Why should we be less inquisitive than the natural philosopher, who sometimes, even from an inconsiderable number of specimens of a plant, or an animal, is enabled to present us with the history of its rise, progress, and decay? Let us then compare together, and class some of these numerous sidereal groups, that we may trace the operations of natural causes as far as we can perceive their agency. The most simple form, in which we can view a sidereal system, is that of being globular. This also, very favourably to our design, is that which has presented itself most frequently, and of which I have given the greatest collection.

But, first of all, it will be necessary to explain what is our idea of a cluster of stars, and by what means we have obtained it. For an instance, I shall take the phenomenon which presents itself in many clusters: It is that of a number of lucid spots, of equal lustre, scattered over a circular space, in such a manner as to appear gradually more compressed towards the middle; and which compression, in the clusters to which I allude, is generally carried so far, as, by imperceptible degrees,

to end in a luminous center, of a resolvable blaze of light. To solve this appearance, it may be conjectured, that stars of any given, very unequal magnitudes, may easily be so arranged, in scattered, much extended, irregular rows, as to produce the above described picture; or, that stars, scattered about almost promiscuously within the frustum of a given cone, may be assigned of such properly diversified magnitudes as also to form the same picture. But who, that is acquainted with the doctrine of chances, can seriously maintain such improbable conjectures? To consider this only in a very coarse way, let us suppose a cluster to consist of 5000 stars, and that each of them may be put into one of 5000 given places, and have one of 5000 assigned magnitudes. Then, without extending our calculation any further, we have five and twenty millions of chances, out of which only one will answer the above improbable conjecture, while all the rest are against it. When we now remark that this relates only to the given places within the frustum of a supposed cone, whereas these stars might have been scattered all over the visible space of the heavens; that they might have been scattered, even within the supposed cone, in a million of places different from the assumed ones, the chance of this apparent cluster's not being a real one, will be rendered so highly improbable that it ought to be intirely rejected.

Mr. Michell computes, with respect to the six brightest stars of the Pleiades only, that the odds are near 500000 to 1 that no six stars, out of the number of those which are equal in splendour to the faintest of them, scattered at random in the whole heavens, would be within so small a distance from each other as the Pleiades are*.

* Phil. Transf. vol. LVII, p. 246†

Taking it then for granted that the stars which appear to be gathered together in a group are in reality thus accumulated, I proceed to prove also that they are nearly of an equal magnitude.

The cluster itself, on account of the small angle it subtends to the eye, we must suppose to be very far removed from us. For, were the stars which compose it at the same distance from one another as Sirius is from the sun; and supposing the cluster to be seen under an angle of 10 minutes, and to contain 50 stars in one of its diameters, we should have the mean distance of such stars twelve seconds; and therefore the distance of the cluster from us about seventeen thousand times greater than the distance of Sirius. Now, since the apparent magnitude of these stars is equal, and their distance from us is also equal,—because we may safely neglect the diameter of the cluster, which, if the center be seventeen thousand times the distance of Sirius from us, will give us seventeen thousand and twenty-five for the farthest, and seventeen thousand wanting twenty-five for the nearest star of the cluster;—it follows that we must either give up the idea of a cluster, and recur to the above refuted supposition, or admit the equality of the stars that compose these clusters. It is to be remarked that we do not mean intirely to exclude all variety of size; for the very great distance, and the consequent smallness of the component clustering stars, will not permit us to be extremely precise in the estimation of their magnitudes; though we have certainly seen enough of them to know that they are contained within pretty narrow limits; and do not, perhaps, exceed each other in magnitude more than in some such proportion as one full-grown plant of a certain species may exceed another full-grown plant of the same species.

If we have drawn proper conclusions relating to the size of stars, we may with still greater safety speak of their relative situations, and affirm that in the same distances from the center an equal scattering takes place. If this were not the case, the appearance of a cluster could not be uniformly encreasing in brightness towards the middle, but would appear nebulous in those parts which were more crowded with stars; but, as far as we can distinguish, in the clusters of which we speak, every concentric circle maintains an equal degree of compression, as long as the stars are visible; and when they become too crowded to be distinguished, an equal brightness takes place, at equal distances from the center, which is the most luminous part.

The next step in my argument will be to shew that these clusters are of a globular form. This again we rest on the found doctrine of chances. Here, by way of strength to our argument, we may be allowed to take in all round *nebulæ*, though the reasons we have for believing that they consist of stars have not as yet been entered into. For, what I have to say concerning their spherical figure will equally hold good whether they be groups of stars or not. In my catalogues we have, I suppose, not less than one thousand of these round objects. Now, whatever may be the shape of a group of stars, or of a *Nebula*, which we would introduce instead of the spherical one, such as a cone, an ellipsis, a spheroid, a circle or a cylinder, it will be evident that out of a thousand situations, which the axes of such forms may have, there is but one that can answer the phenomenon for which we want to account; and that is, when those axes are exactly in a line drawn from the object to the place of the observer. Here again we have a million of chances of which all but one are against any other

hypothesis than that which we maintain, and which, for this reason, ought to be admitted.

The last thing to be inferred from the above related appearances is, that these clusters of stars are more condensed towards the center than at the surface. If there should be a group of stars in a spherical form, consisting of such as were equally scattered over all the assigned space, it would not appear to be very gradually more compressed and brighter in the middle; much less would it seem to have a bright nucleus in the center. A spherical cluster of an equal compression within,—for that such there are will be seen hereafter,—may be distinguished by the degrees of brightness which take place in going from the center to the circumference. Thus, when a is the brightness in the center, it will be $\sqrt{a^2 - x^2}$ at any other distance x from the center. Or, putting $a = 1$, and $x =$ any decimal fraction; then, in a table of natural sines, where x is the sine, the brightness at x will be expressed by the cosine. Now, as a gradual encrease of brightness does not agree with the degrees calculated from a supposition of an equal scattering, and as the cluster has been proved to be spherical, it must needs be admitted that there is indeed a greater accumulation towards the center. And thus, from the above-mentioned appearances, we come to know that there are globular clusters of stars nearly equal in size, which are scattered evenly at equal distances from the middle, but with an encreasing accumulation towards the center.

We may now venture to raise a superstructure upon the arguments that have been drawn from the appearance of clusters of stars and nebulae of the form I have been examining, which is that of which I have made mention in my "*Theoreti-*

“*cal view—Formation of Nebulæ—Form I*.*” It is to be remarked that when I wrote the paragraph I refer to, I delineated nature as well as I do now; but, as I there gave only a general sketch, without referring to particular cases, what I then delivered may have been looked upon as little better than hypothetical reasoning, whereas in the present instance this objection is intirely removed, since actual and particular facts are brought to vouch for the truth of every inference.

Having then established that the clusters of stars of the 1st Form, and round nebulæ, are of a spherical figure, I think myself plainly authorized to conclude that they are thus formed by the action of central powers. To manifest the validity of this inference, the figure of the earth may be given as an instance; whose rotundity, setting aside small deviations, the causes of which are well known, is without hesitation allowed to be a phænomenon decisively establishing a centripetal force. Nor do we stand in need of the revolving satellites of Jupiter, Saturn, and the Georgium Sidus, to assure us that the same powers are likewise lodged in the masses of these planets. Their globular figure alone must be admitted as a sufficient argument to render this point uncontrovertible. We also apply this inference with equal propriety to the body of the sun, as well as to that of Mercury, Venus, Mars, and the Moon; as owing their spherical shape to the same cause. And how can we avoid inferring, that the construction of the clusters of stars, and nebulæ likewise, of which we have been speaking, is as evidently owing to central powers?

Besides, the step that I here make in my inference is in fact a very easy one, and such as ought freely to be granted. Have I not already shewn that these clusters cannot have come to

* Phil. Transf. vol. LXXV, p. 214.

their present formation by any random scattering of stars? The doctrine of chance, by exposing the very great odds against such hypotheses, may be said to demonstrate that the stars are thus assembled by some power or other. Then, what do I attempt more than merely to lead the mind to the conditions under which this power is seen to act?

In a case of such consequence I may be permitted to be a little more diffuse, and draw additional arguments from the internal construction of spherical clusters and nebulæ. If we find that there is not only a general form, which, as has been proved, is a sufficient manifestation of a centripetal force, what shall we say when the accumulated condensation, which every where follows a direction towards a center, is even visible to the very eye? Were we not already acquainted with attraction, this gradual condensation would point out a central power, by the remarkable disposition of the stars tending towards a center. In consequence of this visible accumulation, whether it may be owing to attraction only, or whether other powers may assist in the formation, we ought not hesitate to ascribe the effect to such as are *central*; no phænomena being more decisive in that particular, than those of which I am treating.

I am fully aware of the consequences I shall draw upon myself in but mentioning other powers that might contribute to the formation of clusters. A mere hint of this kind, it will be expected, ought not to be given without sufficient foundation; but let it suffice at present to remark that my arguments cannot be affected by my terms: whether I am right to use the plural number,—central powers,—or whether I ought only to say,—the known central force of gravity,—my conclusions will be equally valid. I will however add, that the idea of other

central powers being concerned in the construction of the sidereal heavens, is not one that has only lately occurred to me. Long ago I have entertained a certain theory of diversified central powers of attractions and repulsions; an exposition of which I have even delivered in the years 1780, and 1781, to the Philosophical Society then existing at Bath, in several mathematical papers upon that subject. I shall, however, set aside an explanation of this theory, which would not only exceed the intended limits of this paper, but is moreover not required for what remains at present to be added, and therefore may be given some other time, when I can enter more fully into the subject of the interior construction of sidereal systems.

To return, then, to the case immediately under our present consideration, it will be sufficient that I have abundantly proved that the formation of round clusters of stars and nebulae is either owing to central powers, or at least to one such force as refers to a center.

I shall now extend the weight of my argument, by taking in likewise every cluster of stars or nebula that shews a gradual condensation, or encreasing brightness, towards a center or certain point; whether the outward shape of such clusters or nebulae be round, extended; or of any other given form. What has been said with regard to the doctrine of chance, will of course apply to every cluster, and more especially to the extended and irregular shaped ones, on account of their greater size: It is among these that we find the largest assemblages of stars, and most diffusive nebulosities; and therefore the odds against such assemblages happening without some particular power to gather them, encrease exceedingly with the number of the stars that are taken together. But if the gradual accumulation either of stars or encreasing brightness has before

been admitted as a direction to the seat of power, the same effect will equally point out the same cause in the cases now under consideration. There are besides some additional circumstances in the appearance of extended clusters and nebulae, that very much favour the idea of a power lodged in the brightest part. Although the form of them be not globular, it is plainly to be seen that there is a tendency towards sphericity, by the swell of the dimensions the nearer we draw towards the most luminous place, denoting as it were a course, or tide of stars, setting towards a center. And—if allegorical expressions may be allowed—it should seem as if the stars thus flocking towards the seat of power were stemmed by the crowd of those already assembled, and that while some of them are successful in forcing their predecessors sideways out of their places, others are themselves obliged to take up with lateral situations, while all of them seem equally to strive for a place in the central swelling, and generating spherical figure.

Since then almost all the nebulae and clusters of stars I have seen, the number of which is not less than three and twenty hundred, are more condensed and brighter in the middle; and since, from every form, it is now equally apparent that the central accumulation or brightness must be the result of central powers, we may venture to affirm that this theory is no longer an unfounded hypothesis, but is fully established on grounds which cannot be overturned.

Let us endeavour to make some use of this important view of the constructing cause, which can thus model sidereal systems. Perhaps, by placing before us the very extensive and varied collection of clusters, and nebulae furnished by my catalogues, we may be able to trace the progress of its operation, in the great laboratory of the Universe.

If

If these clusters and nebulæ were all of the same shape, and had the same gradual condensation, we should make but little progress in this inquiry; but, as we find so great a variety in their appearances, we shall be much sooner at a loss how to account for such various phænomena, than be in want of materials upon which to exercise our inquisitive endeavours.

Some of these round clusters consist of stars of a certain magnitude, and given degree of compression, while the whole cluster itself takes up a space of perhaps 10 minutes; others appear to be made up of stars that are much smaller, and much more compressed, when at the same time the cluster itself subtends a much smaller angle, such as 5 minutes. This diminution of the apparent size, and compression of stars, as well as diameter of the cluster to 4, 3, 2 minutes, may very consistently be ascribed to the different distances of these clusters from the place in which we observe them; in all which cases we may admit a general equality of the sizes, and compression of the stars that compose them, to take place. It is also highly probable that a continuation of such decreasing magnitudes, and encreasing compression, will justly account for the appearance of round, easily resolvable, nebulæ; where there is almost a certainty of their being clusters of stars. And no Astronomer can hesitate to go still farther, and extend his surmises by imperceptible steps to other nebulæ, that still preserve the same characteristics, with the only variations of vanishing brightness, and reduction of size.

Other clusters there are that, when they come to be compared with some of the former, seem to contain stars of an equal magnitude, while their compression appears to be considerably different. Here the supposition of their being at different distances will either not explain the apparently greater

compression, or, if admitted to do this, will convey to us a very instructive consequence: which is, that the stars which are thus supposed not to be more compressed than those in the former cluster, but only to appear so on account of their greater distance, must needs be proportionally larger, since they do not appear of less magnitude than the former. As therefore, one or other of these hypotheses must be true, it is not all improbable but that, in some instances, the stars may be more compressed; and in others, of a greater magnitude. This variety of size, in different spherical clusters, I am however inclined to believe, may not go farther than the difference in size, found among the individuals belonging to the same species of plants, or animals, in their different states of age, or vegetation, after they are come to a certain degree of growth. A farther inquiry into the circumstance of the extent, both of condensation and variety of size, that may take place with the stars of different clusters, we shall postpone till other things have been previously discussed.

Let us then continue to turn our view to the power which is moulding the different assortments of stars into spherical clusters. Any force, that acts uninterruptedly, must produce effects proportional to the time of its action. Now, as it has been shewn that the spherical figure of a cluster of stars is owing to central powers, it follows that those clusters which, *ceteris paribus*, are the most compleat in this figure, must have been the longest exposed to the action of these causes. This will admit of various points of views. Suppose for instance that 5000 stars had been once in a certain scattered situation, and that other 5000 equal stars had been in the same situation, then that of the two clusters which had been longest exposed to the action of the modelling power, we suppose,

would be most condensed, and more advanced to the maturity of its figure. An obvious consequence that may be drawn from this consideration is, that we are enabled to judge of the relative age, maturity, or climax of a sidereal system, from the disposition of its component parts; and, making the degrees of brightness in nebulæ stand for the different accumulation of stars in clusters, the same conclusions will extend equally to them all. But we are not to conclude from what has been said that every spherical cluster is of an equal standing in regard to absolute duration, since one that is composed of a thousand stars only, must certainly arrive to the perfection of its form sooner than another, which takes in a range of a million. Youth and age are comparative expressions; and an oak of a certain age may be called very young, while a contemporary shrub is already on the verge of its decay. The method of judging with some assurance of the condition of any sidereal system may perhaps not improperly be drawn from the standard laid down page 218; so that, for instance, a cluster or nebula which is very gradually more compressed and bright towards the middle, may be in the perfection of its growth, when another which approaches to the condition pointed out by a more equal compression, such as the nebulæ I have called *Planetary* seem to present us with, may be looked upon as very aged, and drawing on towards a period of change, or dissolution. This has been before surmised, when, in a former paper, I considered the uncommon degree of compression that must prevail in a nebula to give it a planetary aspect; but the argument, which is now drawn from the powers that have collected the formerly scattered stars to the form we find they have assumed, must greatly corroborate that sentiment.

This

This method of viewing the heavens seems to throw them into a new kind of light. They now are seen to resemble a luxuriant garden, which contains the greatest variety of productions, in different flourishing beds; and one advantage we may at least reap from it is, that we can, as it were, extend the range of our experience to an immense duration. For, to continue the simile I have borrowed from the vegetable kingdom, is it not almost the same thing, whether we live successively to witness the germination, blooming, foliage, fecundity, fading, withering, and corruption of a plant, or whether a vast number of specimens, selected from every stage through which the plant passes in the course of its existence, be brought at once to our view?

WILLIAM HERSCHEL.

Slough near Windfor, May 1, 1789.

First Class. Bright nebulae.

I.	1785	Stars.		M. S.		D.M. Ob	Description.
94	April 28	61 Urfæ	f	0 6	n 2	17 2	cB. pL. E. spnf. vgmbM. 3½ l. 2' b.
95	—	—	f	35 0	n 2	7 2	cB. cL. E. np ff. bM. 4' l. 3' b.
96	May 1	14 Canum	f	5 30	n 1	12 2	vB. cL. mE. sp nf. fmbM. 6' l. 1'½ b.
97	—	—	f	7 58	n 0	47 1	vB. pL. E. nearly mer. gmbM.
98	—	—	f	36 50	f 0	12 1	cB. pL. R. vgmbM.
99	—	27 (γ) Bootis	p	13 46	f 1	46 2	vB. S. R. vsmBM.
100	Sept. 10	41 Ceti	f	13 43	n 0	48 1	cB. pS. R. mbM. See III. 43r.
101	—	67 —	p	17 19	n 0	25 2	cB. pL. E. near. mer. mbM. 5' l.
102	—	—	f	21 37	f 0	13 2	cB. pL. R. mbM.
103	24	14 Delphini	p	16 10	f 0	3 1	vB. L. gmbM. er. beautif. objct.
104	28	93 (Ψ) Aqua	f	1 8	n 0	42 1	cB. cL. E. near. mer. gmbM. F. rays.
105	Oct. 3	47 Ceti	f	26 24	f 0	37 1	cB. pL. iR. mbM.
106	—	89 (π) —	f	38 10	f 1	24 2	cB. cL. iR. bM. 3' dia.
107	6	20 Eridani	f	4 3	f 1	4 2	vB. R. BNM. 1'½ dia.
108	8	111 (ξ) Pisc ^m	p	34 22	f 0	1 1	cB. vL. iR. p. vBft.
109	26	12 Eridani	p	7 17	n 2	54 3	cB. pS. lE. mer. mbM. r. 1'½ l.

I.	1785	Stars.	M.	S.	D.M.	Ob	Description.
110	Nov. 27	9 Ceti	p	44 0	f	0 47	2 cB. cL. 1E. gmbM. iF.
111	—	—	p	43 3	f	0 6	2 cB. cL. iR. gmbM.
112	29	5(γ) Arietis	f	5 48	f	0 17	1 vB. L. R. mbM. not er. 4' dia.
113	Dec. 7	6b(4th σ) Can	f	18 22	n	1 34	2 cB. cL. 1E. iF. mb foll. side.
114	—	18 Leo. min.	p	13 39	f	0 35	1 cB. cL. iF. mbM.
115	—	—	p	5 47	n	1 10	2 cB. pL. 1E. iF. mbM.
116	}	— 37 —	f	11 5	n	1 1	1 { Two; the 1st, cB. cL. 1E; the 2d,
117							
118	—	46 Urfæ	p	3 41	f	1 32	1 cB. cL. iR. mbM.
119	28	31 (1st d) Vir	p	6 0	n	0 55	1 vB. pS.
120	31	30(η) Crateri	p	9 0	n	0 17	1 cB. L. iR. bM. 5' l. 4' b.
1786							
121	Jan. 1	13(n) Virgin	p	18 15	f	0 19	1 vB. cL. 1E. mbM. 3' l. 2' $\frac{1}{2}$ b. bet. 2pBft.
122	Feb. 1	57(μ) Eridani	p	4 0	n	0 22	1 cB. vL. iR. bM. er. 5 or 6' dia.
123	2	60(σ) Virg.	p	52 27	f	0 30	2 cB. S.
124	—	—	p	39 57	f	0 3	2 cB. cL. R.
125	—	—	p	39 12	f	1 6	2 cB. cL. E. mbM.
126	24	108 —	p	0 35	n	1 15	1 cB. mE. par. BN. 8 or 9' l.
127	—	110 —	p	1 47	f	0 23	1 cB. pS. mbM.
128	—	—	f	3 37	f	0 30	1 vB. pL. bM.
129	March 3	26(χ) —	f	9 46	f	0 41	1 v brilliant. iR. vgbmB.
130	—	—	f	26 35	f	0 3	2 vB. 1E. mer. BN. and F. br. 2' h
131	4	14(ϵ) Crate.	f	0 29	n	1 3	1 cB. E. gbM. 5' l. 4' b.
132	19	26 Hydræ	f	1 44	n	0 4	2 cB. pL. 1E. vgbM. 1' $\frac{1}{2}$ diam.
133	25	49(g) Virgin.	p	16 4	n	0 18	1 cB. vS. BN.
134	—	—	p	13 27	n	0 13	1 cB. 7 or 8' l. 3' b.
135	}	27 68(ι) —	p	32 2	n	0 11	2 { Two; both cB. cS. R. mbM.
136							
137	28	41 Lyncis.	f	3 13	n	0 8	1 vB. R. vfmB. chev. 3' dia.
138	—	*1102(e) Hy	f	33 45	n	1 27	1 cB. R. pfmB. * See note.
139	April 17	11(s) Virgin.	f	12 1	f	1 21	2 eB. vBN. r. 6 or 7' dia.
140	—	—	f	39 55	f	0 31	2 cB. pL. mbM.
141	—	—	f	45 50	f	1 32	1 vB. cL. E. np ff.
142	30	37 —	p	6 35	n	0 0	1 cB. pL. iR. gmbM.
143	—	43(δ) Virgin	f	4 55	f	2 7	1 cB. np. pBft. and close to it.
144	—	109 —	p	25 58	n	0 54	1 cB. cL. R. gmbM.
145	}	— —	p	25 14	n	1 27	1 { Two; the p.pB. pL. E. Dist. 3or4'
146							
147	—	43 Ophiuchi	p	8 54	f	1 17	1 vB. R. gmbM. 2' $\frac{1}{2}$ dia.
148	May 1	24(α) Serpen	p	22 26	f	1 16	1 cB. cL. iR. bM.
149	28	40(e) Ophiu	f	0 14	n	1 32	1 cB. pS. 1E. er.
150	—	—	f	27 53	n	0 36	1 cB. R. vgbmB. about 1' $\frac{1}{2}$ dia.
151	Sept. 4	71(ϵ) Piscium	f	21 41	n	1 41	1 cB. cL. R. C. vgbmB. N.
152	—	24(ξ) Arietis	p	16 23	n	0 20	2 vB. vS. R. or 1E. vBN. 1' ff. cft

I.	1786	Stars.	M. S.	D.M.	Ob	Description.	
153	Sept. 20	59 (2d v) Ceti	p 23 16	f 0 6	1	cB. vL. E. sp nf. above 15' l.	
154	21	14 Triang.	f 1 23	n 0 59	2	cB pL. E. np ff. vgbM. 3' l. 2' b.	
155	30	32 Eridani	f 7 49	f 1 1	2	cB. S. gmbM.	
156	Oct. 18	12 (g) Persei	p 1 41	f 1 10	2	cB. mE. 12° sp nf. vBN. near 10' l.	
157	26	90 (v) Piscium	f 28 9	n 0 13	1	cB. cL. E. par. mbM. 7' l. 3' b.	
158	Nov. 26	48 (v) Eridani	p 4 32	f 1 46	2	cB. pL. iR. vgbM.	
159	Dec. 11	20 (π) Cassiope	f 8 30	n 0 33	3	vB. R. vgbM. 1' ½ dia.	
160	29	29 (γ) Virgin	p 6 17	f 2 19	2	vB. cL. E. sp nf. vgbN. F. bran.	
1787							
161	Jan. 14	6 Comæ	f 12 58	f 0 55	1	vB. pL. iR.	
162	—	29 —	f 10 35	n 0 2	1	vB. E. sp nf. Sit in it ½' p. N.	
163	Feb. 22	20 Sextantis	p 8 29	f 0 22	1	{ cB. cL. mE. 45° sp nf. N. 2' l. F. br. 5' l.	
164	Mar. 17	38 Leo. min.	p 2 54	f 0 36	3	cB. E. 30° np ff. mbM. er. 4' l. 2' b.	
165	—	6 Canum	p 15 42	n 0 25	2	{ vB. BN. not M. or 2 joined the n. N.	
166	—	—	p 1 20	n 0 23	2	vB. S. R. mbM.	
167	18	10 (η) Ursa	f 13 43	f 1 40	1	cB. R. BN. 1' ½ dia.	
168	—	34 (μ) —	p 4 9	f 0 6	3	{ cB. R. vgbM. 8' dia. cft. in it, unconnected.	
169	—	6 Canum	p 16 16	n 0 53	1	cB. cL.	
170	—	20 —	f 28 12	n 1 6	2	cB. E. near par. SNM. 2' l.	
171	—	53 (2d v) Boot	p 49 57	n 1 10	2	cB. S. R. r. mbM.	
172	19	31 Leo. min.	f 25 2	f 0 3	1	{ cB. E. sp nf. few ft. in p. 1 in n. unconnected.	
173	—	—	f 86 19	n 0 23	1	vB. R. vgnM. 2' ½ dia.	
174	20	53 (ξ) Ursa	f 46 14	n 0 24	1	cB. E. 5' l. 1' ½ b.	
175	—	13 Canum	p 46 3	n 2 28	1	vB. S. R. mbM.	
176	}	—	p 16 33	n 1 26	1	{ Two. The f. cB. E. mbM. The n. pB. E. sp nf. Both join and form the letter S.	
177							
178	}	April 9	8 —	f 7 36	f 0 12	1	{ Two. The n. vB. vmbM. The f. pB. Their nebul. run together.
179							
180	—	20 —	f 29 9	n 3 15	1	cB. mE. 60° np ff. vBM.	
181	—	—	f 40 13	n 1 11	1	cB. cL. mbM.	
182	11	1 Serpentis	p 17 22	f 0 2	2	cB. pL. iR. mbM.	
183	—	—	p 11 19	n 0 1	2	cB. pL. iR. or lE.	
184	May 7	8 Libræ	p 8 21	f 1 15	1	cB. pL. E. sp nf. mbM.	
185	11	19 (λ) Bootis	f 11 6	n 0 1	2	c or pB. S. R. pmbM.	
186	12	—	p 47 14	n 1 20	2	{ cB. pL. R or lE. vgbM. 3' np. the 5' ft of the <i>Conn. des Temps</i> .	
187	—	—	p 20 15	n 1 14	1	cB. E. 30° sp nf. BN. vgF. branches.	
188	—	38 (2d b) —	p 13 24	n 2 44	2	cB. lE. par. mbM. F. bran. 1' ½ l.	
189	15	24 (g) —	f 3 57	f 0 23	1	cB. cL. E. sp nf. broad.	

I.	1787	Stars.	M. S.	D.M.	Ob	Description.
190	} May 16	*Canum 6m.	f 11 32	f 1 11	1	{ Two. The f. cB. cL. The n. pB. S. dift. $1\frac{1}{2}$. * See note.
191						
192	Oct. 14	3 Lacertæ	p 80 46	n 2 32	3	cB. iF. 3' l. 2' $\frac{1}{2}$ b. Nebulosity.
193	Nov. 12	54 (ϕ) Andro	p 1 26	n 0 54	1	{ Two close together. Both vB. dift. 2'. sp nf. One is 76 of the <i>Conn.</i>
	1788					
194	Jan. 14	56 Urfæ	f 3 19	n 0 5	2	vB. cL. mE. mer. BN. 6' l. 2' b. chev.
195	— 07	—	f 4 49	n 0 2	2	E. vBN. and F. branches.
196	— —	—	f 7 17	n 0 38	2	cB. cL. iF. vgbM. ff. ft.
197	} —	8 Canum	p 3 32	n 0 19	1	{ Two. The f. vB. vL. iE. The n. B. pS. iF. dift. $1\frac{1}{2}$.
198						
199	15	15 Leo. min.	f 32 1	f 0 24	2	cB. mE. sp nf. vgbM. 5' l. 2 or 3' b.
200	} Feb. 5	59 (2d σ) Can	p 4 29	n 0 29	1	v brilliant. mE. sp nf. 8' l. 3' b. beauti.
201			63 (\times) Urfæ	f 0 5	f 0 17	
202	—	—	f 0 47	n 0 4	2	cB. S. 1E.
203	6	59 —	f 7 42	n 0 31	1	cB. cL. R. pBNM.
204	March 9	9 (ι) —	p 16 27	n 2 7	1	cB. vS. 1E. m.
205	—	—	f 22 18	n 3 1	1	{ vB. lbM. chev. bran. m. neb. 6' l. 4' b.
206	—	3 Canum	p 14 39	n 1 35	3	{ cB. E. 45° np ff. 6' l. 4' b. al- most equally B.
207	—	—	p 14 0	f 1 32	3	cB. mE. 70° sp nf. 6 or 7' l. 2' b.
208	—	—	p 9 9	n 1 32	3	cB. mE. sp nf. SBNM. 5' l. 1' b.
209	—	—	p 3 33	f 1 6	2	cB. cL. E. mbM.
210	April 1	60 Urfæ	f 46 0	n 0 9	2	vB. S. 1E. near. par. BN. cF. bran.
211	—	11 Canum	f 5 47	f 1 58	3	cB. S. R. bM. f. vSft.
212	10	60 Urfæ	f 50 50	f 1 58	1	cB. pL. E.
213	27	19 (λ) Bootis	p 110 25	f 1 48	1	{ v brilliant. cL. E. sp nf. difficulty r. has 3 or 4 BN.
214	May 1	17 (κ) —	p 8 26	n 1 56	1	cB. cL. n. ends abruptly. f. vg.
215	5	Neb. II. 757.	p 3 27	f 1 14	1	vB. cL. E. f. 2 ft.

Second class. Faint nebulae.

II.	1785	Stars.	M. S.	D.M.	Ob	Description.
403	April 26	1 Comæ	p 8 50	f 1 21	3	F. cL. iF. lbM.
404	27	5 —	p 11 40	f 0 29	1	pB. pL. R. C. mbM.
405	—	—	p 1 0	f 0 24	2	pB. pL. iF. 1E. bM. p. pcft.
406	—	20 —	p 6 8	f 1 27	1	{ pF. pL. mbM. S neb. joined to it. or lb. in the n.
407	—	—	f 6 44	f 1 35	1	pB. pS. 1E.
408	28	61 Urfæ	f 7 54	n 0 40	2	F. S. R. gbM. near $\frac{1}{2}$ ' dia.
409	May 1	—	f 33 54	n 2 25	2	pB. pL. vgbM. r.
410	—	14 Canum	p 32 8	f 0 14	2	pB. cL. R. frabM. r.

II.	1785	Stars.	M.	S.	D.M.	Ob.	Description.	
411	May	14 Canum	p	24 25	i	0 43	2 pB. pL. R. lbM. 2' np. pBft.	
412	—	—	p	17 8	i	0 28	2 F. S. iE. glbM. er.	
413	—	—	p	0 50	f	0 36	2 pB. S. R. bM. and vF. on the edges.	
414	—	—	f	5 58	n	0 27	1 F. S. iE.	
415	—	—	f	48 34	n	0 15	1 F. S. iF.	
416	—	—	f	58 10	f	1 8	2 pB. pL. iE. mbM.	
417	—	—	f	58 18	f	0 47	1 pB. pL. iE. bM.	
418	—	51 (μ) Bootis	p	69 38	f	1 48	1 pB. iR. mbM.	
419	—	—	p	68 31	f	0 37	1 F. pL.	
420	—	—	p	61 32	f	2 17	1 pB. vS. R. vgmbM.	
421	—	—	p	55 14	f	1 53	1 F. pL. iF.	
422	—	—	p	52 36	i	0 52	1 F. cL. iF. unequally B.	
423	—	—	p	47 57	f	0 37	1 pF. pS. iF. bM.	
424	—	249 (δ) —	f	83 12	n	0 31	1 F. pL. lbM.	
425	—	534 (ω) Serpen	p	4 0	n	0 15	3 F. cS. iR. stellar.	
426	} Aug. 12	1 Aquarii	f	7 50	f	0 12	1	Two. The p. F. S. iR. mbM. The f. vF. vS. lbM. 3 or 4' dist. Place of iF.
427								
428								
429	} —	6 (γ) Piscium	p	2 16	n	1 14	1	Two. The f. pB. mE. par. mbM. 4' l. i' b. The p. vF. cS 3 or 4' dist. and p.
430								
431	Sept. 10	92 (α) Aqua	f	2 0	n	0 9	2 pB. S. iE. par. vgF. NM. i' l.	
432	—	—	f	22 5	n	1 9	4 pB. cL. E. 75° sp nf. 3' l.	
433	—	41 Ceti	p	18 0	f	0 4	1 pB. pL. bM. i. parallelogram. mer.	
434	—	—	p	14 23	n	1 18	1 F. S. iF. bM. r.	
435	—	67 —	p	15 52	f	0 27	1 F. S. iR. bM.	
436	—	—	f	1 45	f	0 14	1 F. pS. iE. f. 2 or 3 uneq. ft.	
437	—	—	f	2 7	f	0 24	1 F. pS. iE.	
438	—	—	f	4 33	n	0 54	2 pB. vL. iF. mbM. r.	
439	—	26 59 (ρ) Pegasi	f	8 34	f	0 30	1 pB. pS. mbM.	
440	—	—	f	9 1	f	0 30	1 pB. pS. bM.	
441	—	—	f	10 1	n	0 10	1 F. S.	
442	Oct. 1	62 (η) Aqua	f	9 4	f	0 5	3 F. S. r. lbM. or f. M.	
443	—	—	f	15 19	f	1 29	2 F. S. iR. lbM. i' $\frac{1}{2}$ f. S. ft.	
444	—	20 Ceti	p	10 20	f	0 24	1 F. pL. lbM.	
445	—	—	p	6 50	f	0 35	1 F. iF. er. i' b.	
446	—	—	p	2 16	f	0 45	2 pB. S. R. mbM. m.	
447	—	34 —	f	1 3	n	2 0	2 { F. S. Two more near it. See III. 592. 593.	
448	} —	43 —	f	3 28	f	0 53	1	{ Two. Both stellar. within i' dist. Nebulosities run together.
449								
450	} —	371 (iF τ) Aqu	f	11 10	n	0 45	2	{ Two Both F. S. iE. different directions. er. 2 or 3' from each other.
451								
452	—	18 Ceti	p	5 33	f	0 59	1 pB. pS. mbM. r. ft. i' $\frac{1}{2}$ dist.	
453	—	563 (α) Aqua	f	13 50	f	1 19	1 F. pL. E. par. r.	

II.	1785	Stars.	M.	S.	D	M.	Ob	Description.		
454	Oct. 5	90 (φ) Aqua	f	3 11	n	1 17	1	F. S. almost stellar.		
455	}	— 17 Eridani	f	11 19	n	0 26	2	{ Two. The p. pB. cL. E. lbM.		
456			f	11 46	n	0 25	2		{ The f. eF. vS. E.	
457			— 61 (ω) —	p	4 31	f	0 2	2	F. cL. lbM.	
458			— 620 —	f	8 52	f	0 46	1	pB. R. bM.	
459			— — —	f	9 14	f	1 4	1	F. R. lbM.	
460	— — —	f	12 7	n	1 6	1	pB. S. lE. mbM. N.			
461	— 8111 (ξ) Pisciu	p	28 48	f	1 32	3	F. pL. iR. vgbM. 1 1/2 dia.			
462	— — — —	p	27 52	f	1 32	2	pB. R. vgbM. 1 1/4 dia.			
463	— — — —	p	26 40	f	1 15	3	F. S. iLE. par. mbM.			
464	— 44 Eridani	p	9 2	n	0 0	1	F. vS. r.			
465	— 982 (δ) Ceti	f	7 12	f	0 34	3	F. pL. iR. lbM.			
466	— — — —	f	7 4	f	0 49	3	pB. cL. iR. mbM.			
467	— 25 7 (b) Piscium	p	4 23	n	1 22	1	pB. pL. iF.			
468	— 26 — — —	f	0 11	f	1 10	1	F. pL. iF. r.			
469	— 26 49 Aquarii	f	5 14	f	0 4	1	F. pS. lE. er. some of the st. visible.			
470	Nov. 22	67 Ceti	f	37 51	f	3 27	2	pB. S. stellar.		
471	— 23	34 Piscium	f	20 53	f	0 55	1	F. iF. lbM.		
472	— 27	18 Ceti	f	2 18	n	1 24	1	F. pS.		
473	— 47 — — —	f	6 3	n	0 54	1	F. S. iF. er. some of the st. visible.			
474	— 72 (ε) — — —	p	9 28	n	0 56	2	pB. pL. lE. lbM.			
475	— 83 (i) — — —	f	24 23	f	0 3	1	pF. pL. iF. bM.			
476	— 28 58 Aquarii	f	2 43	n	0 31	1	F. pL. iR. lbM.			
477	— 70 — — —	p	2 28	f	0 27	1	pB. pL. iR. lbM.			
478	— 17 Ceti	p	10 10	n	0 53	1	pB. L. lE. lbM.			
479	— — — —	p	5 13	n	1 35	1	pB. mE. mer. 2' 1.			
480	— — — —	p	2 34	n	0 34	1	F. pL. lE. lbM.			
481	— 53 (χ) — — —	p	0 24	n	0 23	1	pB. cL. R. 1 1/2 f. Sft.			
482	}	— 55 (1st ε) — — —	f	17 54	n	0 15	1	{ Four. The p. 2, both F. E. S.		
483									{ within 1' dist. par.	
484					f	17 56	n	0 11	1	{ The f. two, both pF. pS. E. about
485									{ 2' dist. and nearly mer.	
486					f	20 13	n	1 5	1	
487	— — — —	f	37 18	f	0 7	1	F. cL. iF. lbM.			
488	— — — —	f	49 13	f	0 50	1	F. S. iF. bM.			
489	— 29 23 (2d θ) Arie	f	8 36	n	0 42	1	F. S. lE. contains 3 st. uncon.			
490	Dec. 7	66 (4 σ) Canc	f	8 10	n	0 54	1	pF. mE. r. 3' 1. 1 1/2 b.		
491	— — — —	p	13 13	f	0 30	1	pB. pL. iF. lbM.			
492	— — — —	f	1 47	n	0 0	1	pB. pL. lE. near. par.			
493	— 37 — — —	f	13 7	n	0 49	1	F. S.			
494	— 46 Urfæ	p	3 47	f	0 36	1	pB. pL. iR.			
495	— 28 3 Leonis	f	3 34	n	0 16	1	F. pL. E. iF.			
496	— 9 (ο) Virgin	f	11 52	f	1 5	1	F.			
497	— 31 (1st δ) — — —	p	14 27	n	1 25	1	pF. vS.			

II.	1785	Stars.		M. S.	D.M.	Ob	Description.
498	Dec. 28	31 (1st d) Vir	p	12 30	n	1 3	1 F. pL.
499	—	—	p	10 55	n	1 18	1 F.
500	—	—	p	7 43	n	1 24	1 vL. er. some ft. visible.
501	30	52 (τ) Ceti	f	4 36	n	1 1	1 F. S. R. vSpBN.
502	—	76 (σ) —	f	29 37	n	0 30	1 F. eS. stellar. p. pBst.
503	—	—	f	31 37	f	0 15	1 pB. S. iF. mbM.
504	—	20 Eridani	p	30 24	n	1 44	1 pB. S. iE. mbM.
505	31	9 Hydræ	f	34 16	f	0 15	1 pB. S. iE. sp nf. fmbM.
506	—	—	f	49 32	f	0 37	1 pB. S. iE. lb ffbM.
507	—	4 (ν) Crater	f	13 25	f	0 3	1 F. S. E.
508	—	30 (η) —	f	4 26	f	0 41	1 pB. S. iE. bM.
509	—	—	f	6 52	n	0 46	1 F. cL. iR. lbM.
510	—	53 Virginis	f	2 58	f	0 25	1 F. iE. $1\frac{1}{2}$ l.
511	—	—	f	3 21	f	0 12	2 pB. pL. R. bM.
512	—	—	f	3 55	f	0 12	2 F. S.
513	—	—	f	4 53	f	0 27	2 pB. pL. iF. mbM.
1786							
514	Jan. 1	49 Eridani	p	0 34	f	1 9	1 F. pL. E. sp nf. 2' l. 1' b.
515	—	—	f	2 57	f	1 33	1 F. or pB. S. bM.
516	—	—	f	21 45	f	1 16	1 F. S. iR. lbM.
517	—	29 (γ) Virgin	f	19 8	n	1 22	2 pB. pL. R. bM.
518	}	2 13 Canum	p	44 34	n	2 49	2 { Two. The p. F. S. E. The f. F. S. E. in a different direction.
519			p	44 31	n	2 51	
520	—	27 7 (η) Hydræ	f	24 25	n	0 7	2 F. S. iE. par. er.
521	—	77 (σ) Leonis	p	3 42	f	1 28	3 F. vS. iF. fmbM. er.
522	30	47 Eridani	f	6 29	f	0 21	1 F. pS. iE. r. 1' sp. Sft.
523	—	—	f	10 15	f	0 17	1 F. vS. iR. bM. almost stellar.
524	Feb. 1	57 (μ) —	p	9 24	n	0 3	1 F. S. iF. lbM. p. 2 Sft.
525	—	—	p	4 5	n	1 27	1 F. pL. iE.
526	—	—	f	0 16	n	0 51	1 F. cS. R. lbM.
527	—	—	f	7 30	n	0 12	2 pB. S.
528	—	—	f	7 40	n	0 12	1 F. S. lbM.
529	—	28 (A) Hydr	p	26 37	n	0 8	1 F. S.
530	—	260 (σ) Virg	p	52 32	n	0 19	1 F. S.
531	—	—	p	47 19	f	1 12	2 pB. pL. E. b. f. M. 3' l.
532	—	—	p	35 12	f	1 28	2 F. pL. lbM.
533	—	64 —	f	26 8	f	1 17	2 F. pl. vlbM. 6 or 7' l. 4' b.
534	—	—	f	34 2	f	0 15	2 pB. vL. glbM.
535	—	24 10 (r) —	f	43 43	f	0 39	1 F. mE. np ff. 2' l. $\frac{3}{4}$ b.
536	—	—	f	48 21	f	0 21	1 pB. mE. mbM. 2' $\frac{1}{2}$ l. 1' b.
537	—	92 —	p	46 53	n	0 43	1 F. pL. iR. er.
538	—	108 —	p	1 8	n	0 59	1 pB. cL. iR.
539	—	110 —	p	2 58	f	0 11	1 pB. cL. iE. gbM.
540	—	—	f	1 11	f	0 53	1 pB. S. mbM.
541	—	—	f	2 31	f	0 28	1 F.

II.	1786	Stars.		M. S.	D.M.	Ob	Description.
542	Feb. 24	110 Virg	f	2 31	n 0 0	1	pB.
543	—	—	f	4 14	f 0 34	1	F.
544	—	—	f	4 52	n 0 27	2	pB. vS.
545	—	—	f	6 51	f 1 39	4	pB. S. iE. lbM.
546	} Mar. 3	6 (b) Leonis	p	6 16	n 1 42	1	} Two. Both F. S. The place in- accurate in RA.
547							
548	—	14 Virginis	p	10 27	f 0 8	1	F. pL. mE. np ff. but near. par.
549	—	26 (x) —	f	17 34	f 0 33	1	pB. vL. iF. lbM.
550	} 4	14 (e) Crate	p	4 13	n 0 35	2	} Two. Both F. S. lbM. cBft. be- tween, but 1 1/2 f. of them.
551							
552	—	21 (θ) —	p	2 24	f 0 2	1	F. pS. iR. f. vSft.
553	—	—	f	11 21	f 1 9	2	pB. pL. iF. gbM. sp. is Sft.
554	18	1 Cancrī	f	4 36	f 0 4	2	pB. pL. er. vgmbM.
555	19	26 Hydræ	f	7 26	n 0 21	2	pB. pL. iR. b. f. M.
556	20	6 (3d b) Crat	p	76 10	f 1 11	3	pB. cL. iR. vgmbM.
557	24	16 (ζ) Hydræ	f	3 21	n 0 22	1	F. mE. unequally B. 3'l. 1'b.
558	25	21 (γ) Virgin	f	10 43	f 0 38	1	F. E. mer. 3'l. f. cBft.
559	—	49 (g) —	p	14 43	n 1 33	1	F. S.
560	—	—	p	13 0	n 0 31	1	pF. pS. iR.
561	—	—	p	3 39	n 0 24	1	pB. pL. R. vgmbM.
562	27	16 (κ) Crater	f	4 56	f 1 54	2	F. S. iR. bM. r.
563	—	68 (i) Virgin	p	29 28	f 0 55	1	pB. iF. bM.
564	28	19 Urfæ	p	3 1	n 0 23	1	pB. S. R. mbM.
565	—	46 Leo. min.	p	5 3	n 0 28	1	pB. cL. iF. lbM.
566	—	* 1102 (e) Hy	f	35 28	n 0 53	1	F. pS. E. * See note.
567	—	—	f	37 17	n 0 51	1	pB. pL. iF. gbM.
568	} Apr. 17	11 (s) Virgin	f	10 14	n 0 34	1	} Four nebulae. They are feat- tered about. The place is that of the last.
569							
570							
571							
572	—	—	f	11 34	f 0 26	1	A nebula.
573	23	—	f	10 18	f 0 26	1	A nebula, cloudy.
574	24	3 Serpēntis	p	40 48	f 0 20	1	F. S. iE. r. p. 2 vct.
575	—	—	p	36 3	n 0 33	1	pB. cL. iR. mbM.
576	—	—	p	21 26	f 0 54	1	F. S. iE. like 2 stellar. joined closely.
577	30	37 Virginis	p	11 22	n 0 4	1	F. S. making a triangle with 2 Bft.
578	—	—	p	2 29	n 0 20	1	F. S.
579	—	109 —	p	26 11	n 2 10	1	pB. cL. E.
580	} —	—	p	16 35	n 1 24	1	} Two. The f. pB. pL. R. gbM. The n. eF. cL. dist. 2'. The place is of i.
581							
582	—	—	p	8 33	n 0 25	1	F. mE. r. 2' 1. 1/4 b. f. 16m. 16'' in time.
583	May 3	14 (1st A) Ser	f	17 48	f 1 2	2	pB. S. E. nearly par. bM.
584	24	5 (g) Ophiuc	f	27 48	n 1 8	1	pB. cL. gbM. er. undoubtedly ft.
585	27	3 Serpēntis	p	5 43	f 1 52	1	F. S. iE. r.
586	28	4 (e) Ophiuc	f	28 13	n 0 57	1	pB. S. iF.

II.	1786	Stars.	M. S.	D.M.	Ob	Description.
587	June 3	61 Ophiuchi	f 0 23	n 0 36	1	F. cL. iF.
588	Sept. 4	24 (ζ) Ariet	p 39 40	f 0 17	2	F. S. iE. r. bM.
589	—	—	p 36 21	n 0 50	2	F. pL. E. b. f. M. 2' sp. cBf.
590	18	2 Piscium	f 2 2	n 0 48	1	F. S. bM.
591	—	88 (γ) Pegasi	p 4 29	n 0 38	1	F. pL. iF. unequally B.
592	—	85 Ceti	p 3 19	n 0 5	1	pB. S. E. bM.
593	20	54 Eridani	p 61 14	n 0 43	1	pB. pS. R. resembling I. 107. but less.
594	—	—	p 55 40	n 0 10	1	pB. vS. R. bM.
595	23	66 Aquarii	p 41 2	f 0 1	2	F. cL. l and iE. nearly par. lbM.
596	30	51 Ceti	f 10 14	n 0 51	1	F. S. bM. 1' f St.
597	—	32 Eridani	p 8 30	f 1 10	2	F. S. E. iF. in a row with some st.
598	Oct. 13	59 (ν) Aqua	f 13 11	f 1 39	1	pB. pL. iR. vgmbM.
599	17	77 Cygni	f 20 15	f 0 6	1	F. pS. E. er.
600	—	10 Androme	f 2 5	f 1 14	2	{ pB. mE. np ff. but near. mer. lbM. r. 5' l. 1' $\frac{1}{2}$ b. also ob. 1784.,
601	—	26 (β) Persei	p 15 16	n 1 14	1	F. S. iF. r.
602	—	—	p 13 38	n 0 34	1	F. pS. iR. lbM.
603	—	—	f 11 27	n 0 35	1	pB. stellar. or pcst. with S. vF. chev.
604	18	59 Androme	p 2 10	f 0 17	1	pB. cL. iE. mbM.
605	—	—	p 0 54	n 0 9	1	pB. S. iF.
606	24	6 Lacertæ	p 17 44	n 2 18	3	F. S. er. or rather a patch of st.
607	—	30 Persei	p 12 50	f 1 44	1	F. cL. E.
608	—	—	p 11 45	n 0 19	1	F. cL. er. some st. visible.
609	26	65 (ι) Piscium	p 1 55	f 0 6	1	pB. S. iR. gbM.
610	—	90 (ν) —	f 24 26	n 1 31	1	F. S. bM. r.
611	—	—	f 27 38	n 0 41	1	F. S. iE.
612	—	10 (α) Triang	p 28 30	f 1 8	1	pB. pL. iE. nearly par. mbM.
613	—	—	p 4 46	f 0 47	1	F. S. iE. par. bM.
614	}	34 (θ) Gemin	p 5 37	f 0 25	1	{ Two. The f. F. S. R. bM. The n. F. cS. R. bM.
615		—	—	—	—	—
616		—	66 (α) —	f 9 32	f 0 11	1
617	Nov. 13	6 (β) Arietis	p 3 55	n 0 56	1	F. cL. vglbM.
618	—	—	p 3 23	n 1 45	1	vS. stellar.
619	—	52 —	p 5 39	f 0 3	1	pB. cL. pmE. mer. r. 1' f. st.
620	Dec. 11	27 (κ) Persei	p 5 48	n 1 31	2	F. S. iR. bM. L. stellar.
621	13	34 Ceti	p 23 45	f 0 34	1	F. E. np ff. lbM. 1' $\frac{1}{2}$ l.
622	20	26 —	f 9 8	f 0 22	1	F. R. bM. er.
623	21	2 (ι) Corvi	p 16 4	f 0 33	2	F. S. E. mer. or few deg. np ff. lb. f. M.
624	29	1 Sextantis	f 8 54	f 1 8	1	F. iE. nearly par. 1' $\frac{1}{2}$ l.
625	—	29 (γ) Virgin	p 17 56	f 1 58	2	pB. mE. 20° sp nf. 2' l.
626	30	77 (σ) Leonis	p 4 44	f 1 30	1	pB. S. iE. mbM.
	1787					
627	Jan. 11	55 (δ) Gemi	f 54 51	f 0 26	3	F. S. iF. iE. sp nf.
628	14	6 Comæ	f 6 36	n 0 38	1	pB. cL. E.
629	—	—	f 13 46	f 0 49	1	F.

II.	1787	Stars.	M.	S.	D.M.	Ob.	Description.
630	Jan. 14	6 Comæ	f	13 20	f	0 56	1 cL.
631	—	—	f	16 3	f	1 31	1 F.
632	—	29 —	p	8 57	n	1 12	1 F. pL. R. vgbM.
633	17	16 (1st ρ) Perſ	p	7 2	f	1 1	1 F. cL. lbM. 4' dia.
634	Feb. 13	33 (η) Cancr	p	12 7	n	0 34	1 F. S. bM.
635	22	21 (θ) Crater	p	13 5	n	1 9	1 F. pS. iR. vgbM.
636	—	65 Virgin	p	43 8	f	0 49	1 F. vL. bM.
637	March 1	44 (δ) —	f	12 41	f	0 36	1 F. cL. iR. lbM. time inaccurate.
638	15	* 11 39 (r) Ce	f	22 49	f	0 12	1 pB. S. lE. fp nf. * See note.
639	17	32 Leo. min.	p	16 31	f	0 11	1 pB. cS. r.
640	—	—	p	16 11	f	0 18	1 F. vS. r. with 300. the same.
641	—	38 —	f	2 41	f	0 36	2 F. vS.
642	—	6 Canum	p	15 18	n	0 30	2 pB. S. E.
643	—	10 —	p	0 37	f	2 11	1 F. pL. gbM. r.
644	—	—	f	2 55	f	1 1	1 pB. S. R. mbM. among scattered st.
645	—	—	f	4 33	f	1 2	1 pB. S. R. mbM.
646	—	17 —	f	12 21	n	0 12	1 pB. L. iF. uneq. B. 3. or 4' dia.
647	—	12 (λ) Coronæ	f	33 4	n	1 27	1 F. S. iE.
648	18	53 (2d γ) Boot	p	55 31	n	1 11	2 pB. pL. lbM.
649	—	—	p	54 11	f	0 13	2 F. S. E. nearly mer. r.
650	—	—	p	16 19.	n	1 13	3 pB. E. BNM. and F. br. 2' l. $\frac{1}{2}$ b.
651	—	—	p	5 42	n	0 51	2 pB. pL. iE. er.
652	—	30 (g) Hercu	p	0 57	f	0 57	1 F. pL. E.
653	19	70 Virginis	p	4 21	n	0 11	1 pB. vS. mbM. just p. pcst.
654	—	9 Serpentis	f	7 56	f	0 28	1 F. E. np ff. $1\frac{1}{2}$ l.
655	—	—	f	15 44	n	0 16	1 F. E. mer. $1\frac{1}{2}$ l.
656	—	—	f	16 59	f	1 17	1 pB. E. np ff. bM. $1\frac{1}{2}$ l.
657	—	28 (β) —	f	8 2	f	0 52	1 F. iF. bM. $1\frac{1}{2}$ dia. between 2Bif.
658	20	44 Lyncis	p	47 39	f	0 23	1 pF. vS. mbM.
659	—	13 Canum	p	18 44	n	1 47	1 F. S. R. just np. V. 42.
660	April 9	8 —	f	7 58	f	0 5	1 pB. pL. R. mbM.
661	—	—	f	9 42	f	0 20	1 pB. vS. stellar. just p. Sft.
662	—	—	f	15 2	n	0 36	1 F. S. R. bM.
663	—	19 —	p	9 58	n	0 56	1 pB. vS. stellar. near and n. Sft.
664	—	—	p	3 47	n	3 13	2 pB. mE. fp nf. near. mer. 5' l. $\frac{3}{4}$ b.
665	—	20 —	f	2 52	n	2 31	1 pB. cS. E. with 300 ft. with burrs.
666	—	—	f	5 24	n	2 30	1 pB. S. iR. mbM.
667	—	—	f	7 35	n	2 42	1 pB. vS. lE. bM.
668	—	—	f	27 51	n	0 51	1 F. E. par. miniature of I. 170.
669	—	—	f	33 20	n	0 41	1 pB. pL. vgbmB.
670	—	—	f	35 10	n	2 37	1 pB. pL.
671	—	—	f	37 51	n	0 35	1 pB. pL. E.
672	—	—	f	43 59	n	0 17	1 pF. pS. bM.
673	—	—	f	66 36	n	1 0	1 F. pL. E. vlbM.
674	—	—	f	71 16	n	0 27	1 pB. E. nearly par. $1\frac{1}{2}$ l. $\frac{1}{2}$ b.

II.	1787.	Stars.		M.	S.		D.M.	Ob	Description.	
675	April 9	20 Canum	f	80	7	n	0	51	1	F. vS.
676	—	—	f	98	12	n	1	42	1	pB. vS. stellar.
677	—	—	f	99	9	n	1	39	1	F. pS. lbM.
678	—	—	f	117	42	n	1	1	1	F. S. r. in a row with 3 ft.
679	} 11	79 (ζ) Virgin	p	4	17	f	1	1	2	{ Two. The p. F. pS. iF. The f. pB. pL. iF. bM.
680			p	4	7	f	1	4	2	
681	—	1 Serpentis	p	19	44	f	0	7	2	pB. pL. iF.
682	—	—	p	16	35	f	0	4	2	pB. cS. lE.
683	—	—	f	0	49	f	0	55	1	pB. pL. R. mbM. ff. cft.
684	—	4 —	p	6	6	n	0	7	1	{ Two. The 2d pB. S. iE. for the 1st see II. 545.
685	15	90 (p) Virgin	p	2	37	f	0	44	2	F. pL. iR. f. and par. with 2Fft.
686	—	—	p	0	37	n	0	4	2	pB. S. mbM.
687	—	102 (1st v) —	p	6	18	f	0	57	2	pB. cL. mE. 20° fp nf.
688	May 11	19 (λ) Bootis	p	30	37	n	0	7	2	F. mE. 15° fp nf. lbM. 4' l. $\frac{3}{4}$ b.
689	12	—	p	47	20	n	0	46	3	pB. pL. R. mbM.
690	—	22 (τ) Hercu	f	7	2	n	2	3	2	F. pL. iF. gbM.
691	15	85 (η) Urfæ	f	15	34	f	0	12	1	pB. pL. E. nearly par. mbM.
692	} —	—	f	19	36	n	1	20	1	{ Two. The p. F. pS. R. vgbM. The f. F. vS. stellar. fmbM. dist. 2' $\frac{1}{2}$.
693			f	19	36	n	1	20	1	
694	—	24 (g) Bootis	p	6	31	n	0	43	1	pF. pS. lE. mbM.
695	—	—	f	1	7	f	0	12	1	pB. cL. iR. vgbM.
696	—	—	f	3	40	n	0	3	1	pB. S. E.
697	16	*C Canu. 6m	f	6	23	f	0	39	1	F. E. par. bM. 1' $\frac{1}{2}$ l. 1' b. *See note.
698	—	—	f	10	0	f	0	58	1	F. S. R. vmbM.
699	—	—	f	13	19	n	0	9	3	F. pL. R. lbM. 1' $\frac{1}{2}$ dia.
700	—	27 (γ) Bootis	f	5	15	n	0	9	1	pF. S. iE.
701	—	25 Herculis	f	17	43	f	0	40	1	pB. pS. E. fp nf. vgbM.
702	Sept. 11	68 (2dg) Aqu	f	4	23	f	1	1	1	{ pF. pL. E. np ff. but near. par. mbM. 1' $\frac{1}{2}$ l.
703	—	*A Ceti 7m	f	4	47	n	1	7	1	F. cL. E. * See note.
704	16	47 Caffiop	f	61	37	n	3	48	2	F. pL. mE. np ff. mbM.
705	Nov. 3	25 Cephei	f	21	6	f	1	35	1	pB. S. iR. er. almost equally B.
706	—	1 (e) Caffiop	f	6	26	n	2	5	2	{ pBM. 2cft. involved in nebulo- sity. 2' l. 1' $\frac{1}{2}$ b.
707	30	19 (ξ) —	p	2	50	f	2	12	1	pB. vL. iR. vgbM. r. 5 or 6 dia.
708	1788	—								
708	Jan. 14	37 Lyncis	f	3	50	f	1	15	1	pB. S. stellar.
709	—	56 Urfæ	p	6	51	f	1	57	2	pB. S. lE. mer. bM.
710	—	27 (γ) Bootis	p	43	42	n	1	51	1	F. S.
711	—	—	p	42	47	n	1	50	1	pB. cL. iF.
712	—	—	p	41	48	n	1	25	1	F. S. R. bM.
713	—	—	p	39	13	n	2	12	2	pB. pL.
714	} —	—	p	39	5	n	2	9	2	{ Two. Both pB. S. R. 2' dist. in the same mer.
715			p	39	5	n	2	9	2	

II.	1788	Stars.		M. S.	D.M.	Ob	Description.
716	Jan. 14	27 (γ) Bootis	p	36 48	n 2 19	2	pB. L. iR. FN. mbM. 4 or 5' dia.
717	15	15 Leo. min.	f	0 58	f 1 58	1	F. pL. iF. lbM.
718	—	45 (ω) Urfæ	p	2 24	n 0 32	2	{ pB. S. IE. the np. corner of a S. trapezium.
719	Feb. 3	32 Lyncis	p	20 34	f 0 16	1	F. pL. iR. bM.
720	—	34 (μ) Urfæ	p	2 13	n 1 29	1	F. vS.
721	—	—	p	1 57	n 1 20	1	F. vS. stellar.
722	—	—	p	1 43	n 1 27	1	F. vS. stellar.
723	—	13 Canum	p	73 0	f 0 22	1	pB. S. IE.
724	—	—	p	65 22	f 0 44	1	F. vS.
725	—	—	p	61 59	f 0 19	1	pB.E. spnf. but nearer mer. mbM. 2' 1
726	5	80 (π) Gemi	f	22 56	n 0 38	1	pF. pL. iR. lbM. r. f. 2 ft. par.
727	—	59 (2σ) Canc	p	13 13	n 1 47	1	pF. pL. iR. r.
728	—	60 Urfæ	p	25 2	n 1 32	2	pB. pL. vgmbM.
729	—	—	p	20 38	f 1 4	2	F. cL. IE. par. lbM.
730	—	—	p	5 27	n 0 14	1	pB. bM. r. 4' 1. 3' b.
731	—	—	p	0 54	n 1 5	2	pB. S. E. sp nf.
732	—	—	f	0 47	f 0 19	1	{ F. S. almost betw. 2sp. ft. chev. touches them.
733	6	59 —	f	20 28	n 0 21	1	pB.mE. mer. pBSN. & vF. br. 4' 1. $\frac{3}{4}$ ' b.
734	9	20 Lyncis	p	14 20	n 0 28	1	F. pL. iF. mbM. ff. a triangle of S. ft.
735	—	—	p	12 44	f 1 37	1	F. stellar.
736	—	—	p	11 9	f 0 3	1	pF. vS. lbM. r.
737	—	63 (χ) Urfæ	p	4 55	f 0 4	2	pF. pS. iR. lbM.
738	—	—	f	2 30	n 0 57	1	pB. pL. R. mbM.
739	—	—	f	2 50	n 0 56	1	F. vS.
740	—	—	f	5 48	n 0 56	1	pF. pS. stellar.
741	—	—	f	17 7	n 0 53	1	pF. S. R. gbM.
742	—	3 Canum	p	1 50	f 1 35	2	F. S. E.
743	—	—	f	5 22	f 0 10	1	F. S.
744	—	—	f	21 50	n 1 27	2	pF. S. er.
745	April 1	Neb. II. 728.	p	35 22	f 0 57	2	pF. pS. E. f. & lp. ft. among ft. not con.
746	8	54 Virginis	p	0 24	f 0 43	1	pB. S. pBN.
747	10	60 Urfæ	f	31 58	f 0 24	1	pB. E. 15 or 20° np ff. 3' l.
748	—	—	f	38 3	n 0 16	1	pB. pL. E. fp. and in a line with 2ft.
749	—	—	f	47 57	f 1 10	2	pB. pL. iF.
750	27	19 (λ) Bootis	p	109 46	f 1 1	1	pF. pL. E. fp nf.
751	—	37 (ξ) —	f	16 12	n 0 25	2	{ Two. The p. cF. cS. The f. pF. pL.
752	—	—	f	16 20	n 0 24	2	{ Both IE. np ff. but nearer par.
753	28	27 (β) Hercul	f	2 50	f 1 42	1	pF. pS. vIE. mbM.
754	29	27 (γ) Bootis	p	11 15	n 1 27	1	pB. pL. R. FN.
755	May 1	23 (θ) —	f	44 59	n 0 31	1	pB. pL. IE.
756	5	Neb. II. 757.	p	11 47	f 3 7	2	pB. pL. iF. r.
757	—	12 (ι) Draco	p	16 38	f 1 56	3	pB. S. iR. or IE. mbM.
758	—	Neb. II. 757.	p	5 28	f 1 31	1	pF. pS. iR.

II.	1788	Stars.	M. S.	D.M. ^{Ob}	Description.
759	May 5	Neb. II. 757.	f 6 6	f 0 42 1	pB. FNM. 8 or 10' l. 2' b.
760	—	—	f 6 29	f 1 37 1	pF. pS. R.
761	—	—	f 24 8	f 0 33 1	pF. pS. iF.
762	—	—	f 24 37	f 0 25 1	pF. pL. E.
763	25	12 (†) Draco	p 13 7	n 0 54 2	pB. mE. nearly mer. 2' l. $\frac{1}{2}$ ' b.
764	—	—	f 13 58	n 0 20 1	pB. S. iR. one p. suspected vF. lE.
765	—	—	f 14 36	f 0 58 1	pF. cS.
766	—	—	f 15 0	n 0 18 1	pB. cL. iE. r.
767	June 6	31 (1st ♄)	p 31 23	n 0 15 1	pB. pL. R. vgmbM.
768	Nov. 4	14 Camelop	p 42 52	n 1 57 1	pB. S. lE. BN. just f. pB. ft.

Third class. Very faint nebulæ.

III.	1785	Stars.	M. S.	D.M. ^{Ob}	Description.					
377	April 26	92 Leonis	f 3 6	f 1 24 2	Two. The n.F.S. lbM. The f.vF. vS. diff. 5' sp. the place of n.					
378			I Comæ	p 10 26		f 0 6 3	vF. vS. lE. er. or S. patch of ft.			
379				p 8 56		f 1 7 2	F. S.			
380				p 7 56		f 1 12 1	vF. R.			
381				2 —		f 1 58	f 0 49 2	Three. The place is of the last or most n. which is vF. S. The other two are sp. cF. vS.		
382						27 93 Leonis	p 2 54		f 0 35 1	vF. vS. r.
383							p 3 10		f 0 27 1	vF. vS. r.
384							p 2 10		f 0 27 1	vF. vS. r.
385				p 1 48			n 0 11 2	vF. pL. iR. lbM. r. 7' nf. cBft.		
386				—		—	f 4 49	n 0 25 1	vF. vS.	
387	p 8 56	f 1 47 1			Suspected.					
388	5 Comæ	—	p 7 54	f 0 9 2	Six nebulæ. The places belong to the three first which are vF. vS. The other three are 10 or 12' more south, but there was not time to take their places. more suspected.					
389			p 7 56	f 0 13 2						
390			p 7 54	f 0 15 2						
391			—	—		f 3 36	n 0 5 2	vF. vL. iR. bM. 6' l. 5' b.		
392						26 —	f 8 12	f 1 33 1	vF. vS. r.	
393							f 31 26	n 1 57 2	vF. pL. lE. r.	
394	28 61 Urfæ	f 25 34	n 2 38 4	vF. vS. stellar. 2' $\frac{1}{2}$ n. Sft.						
395		—	—	f 2 36	f 0 36 1	vF. stellar. with 300 the fame.				
396	May 1			14 Canum	f 19 23	n 0 35 1	Two. Both vF. cS. The place is that of the p. The 2d, 3'nf.			
397		f 20 44	n 0 7 1		Two. Both vF. pS. The place is of the p. The 2d, 5 or 6' nf.					
398		f 25 14	f 0 59 1			vF. vS. lE.				

III.	1785	Stars.	M. S.	D.M.	Ob	Description.
407	} May	149 (δ) Bootis	p 102 40	n 1 37	2	{ Two. Both vF. vS. A star be- tween them about half way.
408		—	p 102 22	n 1 39	1	
409		— 14 Canum	f 30 38	f 0 17	1	vF. pL. R. lbM.
410		—	f 35 6	n 1 1	1	vF. S. 1E. er.
411		—	f 54 30	f 1 8	1	eF. vS.
412		—	f 54 45	n 0 25	1	vF. vS.
413		—	f 58 30	f 0 53	1	vF.
414		— 51 (μ) Bootis	p 70 6	f 0 55	1	vF. mE.
415		—	p 65 4	f 1 57	1	eF. pL.
416		} —	—	p 64 2	f 1 57	1
417	—		p 62 52	f 0 6	1	eF. stellar.
418	—		p 61 4	f 0 42	1	vF. vS. E. er.
419	—		p 54 54	f 0 50	1	vF. S.
420	—	p 49 26	f 0 40	1	vF. vS.	
421	} 249 (δ)	—	p 86 2	n 0 24	1	{ Two. Both eF. stellar. dist. 4 or 5'. nearly mer. The n. faintest.
422		—	p 147 32	n 0 11	1	
423		3	p 101 48	n 1 39	1	vF. vS. in the field with III. 407. 408.
424		—	p 8 48	f 1 42	1	eF. pL. iR.
425		—	f 0 14	n 0 19	1	vF. S. 1E. nearly mer.
426	Aug. 30	17 (ι) Pifcium	f 8 48	f 1 42	1	eF. pL. iR.
427	— 19	—	f 0 14	n 0 19	1	vF. S. 1E. nearly mer.
428	Sept. 10	30	f 14 30	f 0 19	2	vF. S. iF. lbM.
429	— 41	Ceti	p 26 42	n 0 35	1	vF. pS. E.
430	—	—	p 26 54	n 0 44	1	vF. vS.
431	—	Neb. I. 100.	f 0 22	n 0 0	1	{ The 2d of two. eF. S. 5 or 6' dist. from I. 100.
432	— 41	Ceti	f 15 36	n 0 22	1	
433	— 67	—	p 15 39	n 0 59	1	vF. vS.
434	—	—	f 18 40	f 0 42	1	vF. cL. iF. lbM. 4 or 5' l. 2 or 3' b.
435	26	59 (ρ) Pegasi	f 8 42	f 0 20	1	vF. vS.
436	— 32	(2 ϵ) Pifc	f 1 20	f 1 1	1	vF. pL. lbM.
437	27	26	p 7 39	f 0 13	1	eF. vS. er. confirmed by 240.
438	28	93 (2 ψ) Aqua	f 9 22	f 0 15	1	eF. S. stellar. p. 1' $\frac{1}{2}$. pBft.
439	Oct. 1	20 Ceti	p 0 42	f 1 3	2	vF. S. iE.
440	— 38	—	f 1 5	n 0 8	1	vF. vL. requires great attention.
441	— 43	—	f 5 8	f 1 29	1	vF. vS. iE.
442	—	—	f 5 23	f 1 26	1	vF. vS. iE.
443	— 5	17 Eridani	p 17 51	f 0 13	1	vF. vS. confirmed by 240.
444	—	—	p 9 23	n 0 25	1	eF. vS.
445	—	—	p 5 37	f 0 41	1	vF. pS. E.
446	—	—	f 3 4	f 0 3	1	vF. S. between some Sft.
447	— 20	(τ) Orion	f 10 23	n 1 32	2	vF. cL. iR. near a hook of vSft.
448	—	—	f 34 45	f 0 26	3	vF. S. R. r. lbM.
449	— 6	1 (1 ϕ τ) Erid	f 4 8	n 1 34	1	vF. pL. broadly E. lbM.
450	—	—	f 6 30	n 1 56	2	vF. S. 1E.

III.	1785	Stars.	M.	S.	D.M.	Ob	Description.	
451	Oct. 6	20 Eridani	f	2 30	f	0 59	I vF. S. R.	
452	8	52 (π) Aqua	p	30 46	n	1 39	I vF. pL. R. r.	
453	—	10 Orionis	i	5 7	f	0 4	I vF. vS. confirmed 240.	
454	9	60 Ceti	p	27 18	n	0 27	I eF. pL. 240. left doubtful.	
455	—	82 (δ) —	f	4 11	n	1 2	2 vF. vL. lbM. er. 6 or 7' dia.	
456	25	28 (ω) Piscium	f	13 6	f	0 28	I vF. pS. iF.	
457	—	78 (ν) Ceti	p	20 29	n	0 20	I vF. cL. vlbM. m. p. Bft. and joining.	
458	26	49 Aquarii	p	2 52	n	0 6	I vF. S. cr. time inaccurate.	
459	—	56 (1st ν) Ceti	p	7 44	f	1 17	I vF. vS. cr.	
460	—	—	p	2 55	f	1 16	I vF. vS.	
461	27	18 (ϵ) Pis. Au.	f	90 20	n	1 56	I vF. cL. lE. glbM. 4 or 5' l.	
462	Nov. 7	82 (δ) Ceti	f	8 1	f	0 36	I vF. S.	
463	22	25 —	p	12 56	f	0 23	2 vF. pL. iR. r.	
464	—	67 —	p	20 11	n	0 59	I eF. S. found in gaging.	
465	23	46 (ξ) Pegasi	f	11 21	n	0 54	I eF. S. iF. 240 the same.	
466	—	82 —	f	5 54	f	0 15	I vF. S. R. lbM.	
467	27	18 Ceti	p	11 15	n	0 12	I eF. vS. 240 left some doubt.	
468	—	72 (ϵ) —	p	27 13	n	0 43	I vF. E. nearly mer. lbM. 1' $\frac{1}{2}$ l. 1' b.	
469	—	83 (ϵ) —	f	19 27	f	0 30	I vF. stellar. 240 left some doubt.	
470	28	91 Aquarii	p	1 53	f	0 7	I eF. vS. 240 left doubtful.	
471	—	53 (χ) Ceti	p	13 54	n	0 40	I A few Sft. mixed with nebulosity.	
472	—	55 (1st ζ) —	f	41 48	f	0 18	I vF. pL. vlbM. near scattered ft.	
473	29	87 (ω) Pegasi	p	44 53	f	1 26	I eF. cL. some doubt. p. a row of ft.	
474	—	23 (2d θ) Arie	f	7 29	n	0 50	I eF. vS. iR. confir. 240.	
475	—	34 (μ) —	p	1 44	f	0 44	I vF. S. confir. 240.	
476	Dec. 5	34 (ζ) Andro	p	11 14	f	0 23	I vF. vS. stellar. sp. pBft.	
477	—	36 —	p	2 25	n	0 44	I vF. S. R. just p. vFft.	
478	7	20 Leo. min.	f	1 20	n	0 47	I eF. S. left doubtful.	
479	26	2 (ϵ) Can. min	f	26 18	n	0 25	I suspected. eF. vS. lE.	
480	28	9 (ν) Virgin	f	12 46	f	2 5	I vF. L. seen by looking at II. 137.	
481	—	31 (1st d) —	p	17 49	n	1 44	I vF.	
482	—	—	p	15 22	n	1 39	I eF.	
483	—	—	p	12 49	n	1 24	I vF.	
484	—	—	p	11 8	n	1 34	I vF.	
485	30	46 Ceti	p	40 9	f	1 4	2 vF. S. iF. r.	
486	—	76 (σ) —	p	12 32	f	0 52	I vF. vS. iF. better with 240.	
487	—	20 Eridani	p	3 52	n	2 14	I vF. S. E.	
488	31	9 Hydræ	i	38 13	f	0 26	I vF. cL. gvlbM. 3' l. 2' b. p. pBft.	
489	—	53 Virginis	p	18 36	f	0 47	I vF. S. lbM.	
490	1786	Jan. 1	45 Eridani	p	11 41	f	0 42	I vF. vS. lE. better with 240.
491	—	13 (η) Virgin	p	16 10	n	0 35	2 vF. S. R. bM.	
492	—	5 (η) —	f	7 0	f	0 15	2 vF. cL. mE. r.	
493	—	9 (γ) —	p	6 35	n	1 12	2 eF. S. iF.	
494	—	—	f	1 24	n	0 48	2 vF. pS. E.	

III.	1786	Stars.	M. S.	D.M.	Ob	Description.
495	Jan. 2	61 Urfæ	f 58 0	f 0 46	1	eF. S. iF. r.
496	—	—	f 70 52	f 0 3	1	eF. vS. pmE.
497	27	36 Sextantis	f 6 47	n 1 20	2	cF. S. R. vlbM.
498	—	58 (d) Leonis	f 0 43	n 0 1	1	vF. mE.
499	30	39 (A) Erida	p 6 26	n 1 25	1	vF. S. E. er.
500	—	69 (λ) —	p 3 50	f 0 24	1	cF. S. iF. bM.
501	Feb. 1	57 (μ) —	f 4 13	n 0 30	1	vF. vS.
502	—	—	f 6 2	n 0 39	1	vF. S.
503	—	—	f 14 49	f 0 1	1	vF. pL. fp. 2pBf. equil. triang.
504	2	60 (σ) Virg	p 38 27	n 0 34	2	vF. pS.
505	—	64 —	f 16 1	f 0 39	2	vF. vS. R.
506	—	—	f 32 47	n 0 7	1	vF. E. 2' l.
507	—	82 —	p 9 23	f 0 4	1	vF. vS. er. 240 rather confir.
508	—	19 Libræ	p 18 52	f 0 27	1	vF. cL. iE. nearly mer.
509	22	5 (β) Virgin	f 49 54	f 0 35	1	vF. vS.
510	24	55 Orionis	f 1 13	n 0 7	1	eF. E. er. probably a patch of ft.
511	—	110 Virginis	f 3 5	f 0 25	1	vF. R. precedes I. 128. 7 ¹ / ₂ . and is 5' n
512	March 3	17 (β) Cancr	p 14 9	n 0 9	1	vF. S. R. mbM. 240 ditto.
513	—	6 (b) Leonis	f 2 1	n 0 25	1	eF. vS. stellar. 240 verif.
514	—	26 (x) Virgin	f 10 4	f 1 8	2	eF. S. mE.
515	—	—	f 12 19	f 0 26	1	vF. S. E.
516	—	—	f 14 18	f 0 41	1	vF. S.
517	—	—	f 14 43	f 0 48	1	vF. S.
518	19	41 (λ) Hydræ	p 0 28	f 0 5	1	vF. S. R. in the field with λ
519	24	1 Sextantis	f 1 47	n 0 7	1	{ vF. pL. vgvlbM. betw. 2 groups of ft. np. ff.
520	25	27 Hydræ	f 3 9	f 0 51	1	vF. S. E.
521	—	—	f 22 39	f 0 45	1	cF. pS. lE.
522	—	14 (s) Crater	p 34 1	f 2 2	2	cF. pL. iR. lb. near M.
523	—	21 (q) Virgin	f 13 23	f 0 38	1	vF. E. fp nf. 4' l. 3' b.
524	—	—	f 15 14	f 1 59	2	cF. mE. r. 4' l. 3 ¹ / ₄ ' b.
525	—	49 (g) —	p 14 19	n 1 14	1	vF. vS.
526	—	—	p 13 15	n 0 8	1	eF. eS. some little doubt.
527	27	8 Sextantis	p 10 33	f 0 31	3	vF. S. iR. vgbM.
528	—	—	p 9 10	f 1 32	1	vF. S. E. nearly mer.
529	—	16 (v) Crater	p 13 0	f 1 46	1	eF. S.
530	—	—	p 3 32	f 1 30	1	vF. stellar.
531	—	—	p 2 47	f 1 32	1	cF. stellar. vlbM.
532	—	—	f 1 7	f 0 51	1	vF. lE. vlb. about M.
533	—	24 (i) —	f 28 31	f 0 59	1	vF. S. iF. time a little inacc.
534	—	—	f 33 51	f 0 48	1	vF. pL. of uneq. light.
535	—	—	f 40 50	n 0 58	2	vF. pS. iF.
536	—	68 (i) Virgin	p 36 17	f 0 33	1	cF. stellar.
537	—	—	p 34 23	f 0 39	1	vF. vS. iF.
538	—	—	p 31 24	n 0 8	2	eF. S. er.

III.	1786	Stars.	M. S.	D.M.	Ob	Description.	
539	Mar. 27	68 (<i>i</i>) Virgin	p 5 57	f 1	21	1 vF. vS.	
540	28	19 Urfæ	p 15 27	n 1	3	2 vF. S. E. 20° np ff. contains 2vF ft.	
541	—	8 Leo. min.	f 9 41	n 0	50	3 cF. S. iR. gbM. r. 1½ dia.	
542	—	21 —	p 7 55	n 0	8	3 cF. vL. iF. 5' 1.4' b. fp. a double ft.	
543	April 17	11 (<i>s</i>) Virgin	f 37 39	f 1	31	1 eF. pL.	
544	—	—	f 43 12	f 1	23	1 vF. vS.	
545	—	—	f 62 44	f 1	9	1 eF. cS. er.	
546	} 29	64 —	f 36 17	n 1	4	1 { Two. Both vF. vS. r. the place	
547							berw. them. fp nf. but near mer.
548	30	43 (<i>δ</i>) —	p 0 31	f 0	30	1 vF. cS. with 240 IE. near vSft.	
549	—	84 (<i>o</i>) —	f 9 1	f 1	13	1 eF. vS. stellar. confir. 240.	
550	—	109 —	p 5 32	n 1	35	1 vF. S. p. and in a line with 2Bft.	
551	} May 1	31 Bootis	p 23 9	f 0	42	1 { Two. Both eF. vS. The place	
552							is that of the f. dist. 3 or 4'
553	3	50 (<i>σ</i>) Serpen	p 12 7	f 0	15	1 cF. iF. r. 5' 1. 3' b.	
554	27	3 —	p 21 20	f 1	19	1 vF. S. E. np ff. but nearly mer.	
555	June 22	101 Hercul	p 2 55	f 1	28	1 cF. S. IE. iF. r.	
556	Sept. 4	71 (<i>ε</i>) Piscium	f 22 10	n 1	24	1 vF. mE. 75° fp nf. 1½ l.	
557	18	85 Ceti	p 6 18	n 0	52	1 vF. vS. IE. r. 240 the fame.	
558	20	97 Aquarii	p 14 9	f 0	33	1 eF. cL. iR. 5 or 6' dia.	
559	—	54 Eridani	p 65 18	f 0	59	1 3vSft. in a line with vF. nebulosity.	
560	21	45 Androm	f 16 14	f 0	32	1 vF. S. E. among ft.	
561	—	58 —	p 17 32	f 1	34	1 vF. stellar.	
562	} —	—	p 15 22	f 1	48	1 { Four. stellar. unequal. Three in	
563							a row, and the fourth making a
564							rectangle with them. That at
565							the angle is much larger.
566	—	—	p 5 4	n 0	14	2 vF. pL. iR.	
567	—	—	f 2 29	f 0	12	1 vF. S. IE.	
568	30	17 Eridani	p 8 17	n 2	17	1 eF. S. iF. among 3 or 4 ft.	
569	—	—	f 9 13	n 0	27	1 eF. IE. er.	
570	Oct. 17	26 (<i>β</i>) Perfei	p 43 39	n 0	51	1 eF. vS. IE.	
571	—	—	p 42 9	n 0	44	1 eF. stellar. not verified.	
572	} —	—	p 32 26	f 0	11	1 { Two. Both vF. vS. er. dist. 4'	
573							the place between them.
574							{ Two. Both vF. stellar. vlbM. but
575							the f. is the brightest and largest.
576	18	12 Androm	p 24 27	f 1	47	1 vF. S. iR. stellar.	
577	—	53 (<i>τ</i>) —	p 18 55	f 0	8	1 vF. pL. IE. lbM.	
578	—	28 (<i>ω</i>) Perfei	p 2 50	f 1	16	1 vF. vS.	
579	24	17 (<i>i</i>) Andro	p 3 21	n 1	3	1 vF. vS. just f. pBft.	
580	—	30 Perfei	p 20 43	f 1	3	1 suspected. r. some ft. visible.	
581	25	40 Arietis	p 8 24	f 0	18	1 vF. E. iF. time inaccurate.	
582	—	—	p 1 17	f 2	7	1 vF. S. iF.	
583	26	10 (<i>α</i>) Triang	p 18 21	f 0	29	1 vF. vS. E. or 3Fft. with vF. Nebul.	

III.	1786	Stars.	M. S.	D.M.	Obj	Description.
584	Oct. 26	35 Arietis	p 0 41	n 0 50	1	vF. S. bM.
585	Nov. 26	48 (v) Eridani	p 3 33	f 1 2	1	suspected; hazy weather.
586	— — —	— — —	p 3 6	f 0 56	2	{ eF. S. E. nearly par. another suspec. 3' ff. stellar.
587	28	42 (ξ) —	f 2 34	n 0 9	1	vF. S. bM. betw. 2 ft.
588	— — —	— — —	f 7 35	f 1 57	1	vF. S.
589	— — —	— — —	f 10 16	f 1 22	1	vF. cL. iE. nearly par. bM.
590	Dec. 14	8 Leporis	f 9 18	f 0 6	1	eF. stellar. a little doubtful.
591	15	13 (ζ) Eridani	p 4 35	f 0 6	1	eF. stellar. about 1' nf. II. 286.
592	} 20	Neb. II. 447.	p 0 6	f 0 2	1	{ Two. The p. vF. vS. The next eF. eS. and left doubtful.
593						
594						
594	—	26 Ceti	f 18 21	f 0 23	1	vF. mE. bM. 3'½ l. 1'½ b.
595	21	29 —	p 28 42	n 1 17	1	vF. S. some ft. in it.
596	—	44 Hydræ	p 34 21	n 0 50	2	vF. S. lbM. ff. a trapezium of S. ft.
597	24	— — —	p 59 13	n 2 44	1	vF. S. R. vglbM.
598	30	59 (c) Leonis	f 2 40	f 1 19	1	eF. S. iE. not verified.
1787						
599	Jan. 11	55 (δ) Gemini	f 68 4	f 0 12	1	eF. pL. r.
600	14	30 (n) Leonis	p 11 47	f 0 20	1	vF. S. iR.
601	—	— — —	p 11 4	n 0 3	1	vF. cS. iE. er.
602	—	29 Comæ	p 12 7	n 0 6	1	vF. cL. vgbM. f. cBft.
603	—	— — —	p 6 16	n 0 11	1	vF. E. np ff. 2'½ l.
604	17	58 Androm	f 2 45	f 0 21	1	vF. stellar. confir. 240.
605	Feb. 10	9 (1st μ) Canc	p 3 15	n 0 46	1	vF. S. iF.
606	13	10 (2d μ) —	f 11 31	f 1 1	2	vF. S. stellar.
607	—	33 (n) —	p 12 33	n 0 38	1	vF. vS.
608	22	69 (v) —	f 2 5	n 0 33	1	eF. S. R. vlbM.
609	—	21 (θ) Crater	f 2 28	n 0 28	1	vF. vS. R. with 240 gbM.
610	—	65 Virginis	p 33 51	f 0 12	1	cF. pL. E.
611	—	— — —	p 32 29	n 0 50	1	vF. S. no time to verify.
612	March 11	87 (e) Leonis	f 23 23	f 0 57	1	vF. cS. E.
613	—	44 (k) Virgin	p 1 42	n 0 8	1	vF. E. er.
614	—	— — —	f 0 57	f 0 49	1	cF. S. iR.
615	17	38 Leo. min.	p 1 27	f 0 27	2	cF. S. er.
616	—	6 Canum	p 34 40	f 1 1	2	vF. cL. iF. 4' dia. 5' f. ft. 6 ma.
617	—	— — —	p 27 3	f 1 13	2	eF. pL. iR. 1' dia. or more.
618	—	12 —	p 3 8	f 1 31	1	eF. vS.
619	—	17 —	f 11 29	n 0 2	1	vF. S. E. nearly mer.
620	—	— — —	f 26 36	f 0 14	1	cF. E. nearly par. r. ¾ l.
621	—	— — —	f 38 29	f 0 46	1	vF. S. iR. conf. 300.
622	—	12 (λ) Coronæ	f 7 17	f 0 37	1	vF. S. R. discov. in gaging.
623	—	— — —	f 24 7	f 0 19	1	vF. vS. n. 2 ft. 300 confir.
624	—	— — —	f 27 24	f 0 9	1	vF. S. bM. discov. with 300.
625	18	10 (n) Urfæ	p 2 41	f 2 27	1	vF. vS. 300.
626	—	— — —	f 7 14.	f 0 4	2	vF. S. iF. lbM. r..

III.	1787	Stars.		M.	S.		D.M.	Ob	Description.	
627	March 18	43 Lyncis	p	17	50	f	1	2	vF. vS. stellar. 300.	
628	—	—	p	16	48	f	0	9	cF. cS.	
629	}	—	p	15	24	f	0	8	1	Two. Both vF. vS. dist. 3'.
630		—								
631	—	34 (μ) Urfæ	f	3	39	f	1	55	2	vF. S. R. 300.
632	—	47 —	p	2	8	n	0	32	2	cF. vS. IE. mer. gmbM.
633	—	20 Canum	f	1	58	f	0	13	1	vF. S. lbM.
634	—	54 (ϕ) Bootis	p	1	24	f	0	36	1	vF. vS. conf. 300 sp. 2 vBft.
635	}	—	f	6	42	n	0	46	1	Two. The nf. vF. vS. verif. 300.
636		—								
637	—	30 (g) Hercul	p	24	18	f	1	5	1	vF. eS. 300. shewed 2vSft. with nebu.
638	—	—	p	3	33	f	0	59	1	vF. vS.
639	—	—	p	2	53	f	1	24	1	eF. eS.
640	—	—	f	0	54	f	1	5	1	vF. vS.
641	—	—	f	1	10	f	1	16	1	vF. vS.
642	19	70 Virginis	f	1	37	f	0	26	1	vF. S. iF. time l. inaccurate.
643	—	—	f	3	43	n	0	5	1	vF. S. IE. just ff. ft.
644	—	5 (v) Bootis	f	25	41	f	0	44	1	vF. vS. E. confir. 300.
645	—	30 (ζ) —	p	10	16	n	0	17	1	eF. vS. lbM. betw. 2 vFft. 300.
646	—	28 (β) Serpen	f	11	15	n	0	24	1	vF. S. IE.
647	20	44 Lyncis	p	33	11	f	2	16	1	vF. vS. verif. 300.
648	—	13 Canum	p	36	41	n	0	46	1	vF. E. par. 1' l.
649	—	—	f	12	29	n	1	0	1	vF. S. IE.
650	—	—	f	19	54	n	2	18	1	eF. vS.
651	—	—	f	27	11	n	1	11	1	vF. S.
652	—	—	f	29	47	n	0	17	1	eF. vS.
653	—	—	f	62	59	n	1	34	1	vF. pS. E. mer. 300.
654	April 9	19 —	p	7	36	n	0	51	1	vF. vS. lbM.
655	—	—	p	*	26	n	2	57	1	vF. pS. lbM. *forgot, but is 5, 6, or 7'.
656	—	20 —	f	15	21	n	1	15	1	vF. vS. lbM.
657	}	—	f	83	33	n	1	57	1	Two. Both vF. vS. E. in differ. directions. 2 or 3' dist. par. each f. Sft.
658		—								
659	—	—	f	117	16	n	0	18	1	vF. vS. r.
660	—	—	f	119	18	n	1	16	1	eF. cS.
661	—	—	f	125	25	n	0	44	1	eF. S.
662	11	29 (γ) Virgin	f	2	8	n	0	54	1	vF. pL.
663	—	—	f	3	33	n	0	55	1	vF. S. iF.
664	—	—	f	6	6	f	0	14	1	vF. S.
665	15	90 (p) —	p	1	48	n	0	23	2	cF. cL. R. vlbM. r. 5' dia.
666	—	102 (1ftv) —	p	19	18	f	0	55	1	eF. vS.
667	—	—	p	18	53	f	0	33	2	eF. vS. verif. 300. 2d obf. vF. S.
668	—	105 (ϕ) —	p	3	29	f	0	58	1	cF. S. r.
669	May 7	61 —	p	5	42	n	1	30	1	vF.
670	—	—	p	2	45	n	1	46	1	vF.
671	—	8 Libræ	p	9	38	f	1	28	1	cF. S. R. sp and joining 2Sft.

III.	1787	Stars.		M.	S.	D.M.	Ob	Description.
672	May 12	19 (λ) Bootis	p	48	58	n	0 41 3	cF. vS. stellar. 300.
673	—	—	p	38	30	n	2 21 1	cF. S. R. or lE.
674	—	—	p	5	52	n	2 31 1	cF. cS. iR.
675	—	38(2d b) —	p	11	18	n	0 35 1	vF. pS. iF. fp. 2 S. unequal ft.
676	15	24 (g) —	p	16	34	n	0 35 2	cF. cS. lE. nearly par.
677	—	—	p	2	56	f	1 15 1	vF. pS. lE.
678	}	*A Bootis 7m	f	0	3	n	0 3 1	{ Two. The p. vF. vS. The f. eF. eS. * See note.
679			f	0	48	n	0 1 1	
680	—	42 Herculis	p	13	17	n	1 0 2	vF. S. R. lbM. er. near some Sft.
681	16	*C Can ^m 6m.	f	0	44	f	0 15 1	cF. vS. lE. * See note.
682	—	—	f	7	35	f	0 7 1	eF. cS. E. fp. Sft.
683	—	—	f	12	35	f	0 25 1	cF. pL. iF.
684	—	—	f	13	49	n	0 34 1	vF. vS. R.
685	—	27 (γ) Bootis	p	19	48	n	1 6 2	vF. cS. R. fbM.
686	—	—	f	8	42	n	0 18 1	eF. cS. lbM.
687	—	—	f	13	27	n	0 23 1	cF. pS. another fusp. 2'n. 300.
688	—	16(τ) Coronæ	f	7	34	f	0 48 1	vF. cS. iR.
689	—	67 (π) Hercu	p	20	32	f	0 11 1	eF. cL. iE. nearly par.
690	19	10 Libræ	p	4	6	f	0 43 1	vF. cS. iF. lbM.
691	—	—	f	6	51	f	0 59 1	cF. fmbM. stellar.
692	Aug. 12	33 (ι) Aquarii	p	5	23	n	0 38 1	eF. E. np ff. 2'l. 1'b.
693	Sept. 11	41 —	p	11	30	n	0 36 1	eF. vS. 360 confirmed it.
694	Oct. 11	50 (f) Cassio	f	90	22	n	0 30 1	vF. vS. iR. bM.
695	Nov. 3	10 Camelop	p	155	0	n	0 53 1	eF. pL. iF.
696	5	17 (ξ) Cephei	p	16	35	f	0 47 2	vF. S. R. lbM. r. 1'dia.
1788								
697	Jan. 14	67 Urfæ	f	11	9	n	0 40 3	vF. E. np ff. 5'l. 1'b.
698	—	27 (γ) Bootis	p	39	53	n	1 29 2	vF. S.
699	—	—	p	38	20	n	2 8 2	vF. S. iF.
700	Feb. 3	45 (ω) Urfæ	p	14	53	f	1 33 1	cF. L. iE. mb. f. M. 4'l. 2' $\frac{1}{2}$ b.
701	—	—	p	6	6	f	0 1 1	vF. vS. iF.
702	—	13 Canum	p	42	13	f	0 55 1	vF. vS.
703	—	571 (σ) Gemin.	p	10	3	f	0 46 1	vF. vS. perhaps a patch of ft.
704	—	60 Urfæ	p	81	11	f	0 22 1	eF. vS. perhaps a patch of Sft.
705	—	—	p	39	57	f	0 43 1	vF.
706	—	—	p	23	49	n	0 38 2	vF. vS. lE. f. cBft.
707	—	63 (χ) —	f	11	2	n	0 34 2	vF. vS. another fusp. ff. eF. eS.
708	—	659 —	f	30	14	f	0 31 1	vF. vS. in a line with 2 ft. nf fp.
709	March 9	21 Lyncis	f	34	50	n	1 41 1	vF. R. vgbM: 2' $\frac{1}{2}$ dia.
710	—	9 (ι) Urfæ	p	45	51	n	0 49 1	vF. iF. 2' $\frac{1}{2}$ l. 1' $\frac{3}{4}$ b.
711	—	—	p	41	10	n	1 49 1	eF. E. fp nf. 3' $\frac{1}{2}$ l. 2' $\frac{1}{2}$ b.
712	—	—	p	4	49	n	1 6 1	eF. cS. r. p. some Fft.
713	—	—	f	25	7	n	1 15 1	cF. cS. lE.
714	—	—	f	24	58	n	1 11 1	cF. cS. lE.
715	—	63 (χ) —	f	3	26	n	0 39 1	eF. pS.

III.	1787	Stars.		M. S.		D.M.	Ob	Description.
716	March 9	63 (χ) Urfæ	f	5 2	n 2	26	I	vF. vS.
717	—	3 Canum.	p	14 1	n 0	37	I	cF. mE. nearly mer. 5' l.
718	—	—	p	4 6	f 0	51	I	vF. vS.
719	}	—	p	2 47	f 1	31	I	{ Two. Both vF. vS. dist. 1' in the same meridian.
720								
721	—	—	f	32 1	f 1	21	I	vF. S.
722	11	49 (g) Virgin	p	18 9	f 0	21	I	eF. S.
723	April 1	Neb. II. 728.	p	0 25	f 0	2	I	eF. vS.
724	—	81 Virginis	f	1 43	f 2	23	I	cF. vS. iF.
725	10	60 Urfæ	f	39 40	f 1	14	2	eF. cL. iR. lbM. 3' dia.
726	—	—	f	42 45	f 0	34	2	vF. pS. R.
727	12	35 (σ) Hercul	f	16 11	n 0	14	I	cF. S. E. par.
728	13	42 —	f	20 46	n 0	54	I	vF. cS. iR.
729	27	19 (λ) Bootis	p	113 28	f 0	3	I	vF. S.
730	28	27 (β) Hercul	f	4 6	n 0	2	I	eF. vS. E.
731	29	27 (γ) Bootis	p	15 47	n 1	16	I	vF. vS.
732	—	—	p	15 33	n 1	22	I	vF. vS. lE.
733	—	—	p	9 25	n 2	4	I	vF. vS.
734	—	—	p	8 52	n 2	8	I	cF. pS.
735	—	22 (τ) Hercul	f	30 17	f 1	2	I	eF. pS. with 300 iF.
736	30	21 (iF) Libr	f	7 7	n 1	59	I	vF. pL. E. mer. lbM. 300.
737	May 1	23 (θ) Bootis	f	49 59	f 1	46	I	vF. vS. stellar.
738	25	12 (ι) Draco	f	17 8	n 0	44	I	vF. vS.
739	June 2	14 (η) —	p	32 30	n 0	57	I	vF. R. vgbM. er. 3' dia.
740	—	3 15 (A) —	p	10 14	f 3	21	I	cF. pL. iE.
741	—	6 31 (iF) —	p	5 13	f 0	5	I	eF. stellar. with 300 lE. par.
742	July 8	*B Draco 7m.	f	4 25	f 0	27	I	vF. stellar. verif. 300. * See note.
743	30	19 Aquilæ	f	9 24	n 0	26	I	cF. iR. r. 3 or 4' dia.
744	Aug. 2	51 —	p	8 8	n 0	29	I	vF. pL. R. vgbmM.
745	Nov. 1	27 (δ) Cephei	f	26 10	f 1	24	I	vF. pL. iF. er.
746	—	36 Camelop.	f	64 5	f 0	38	I	vF. S. R. lbM.
747	Dec. 3	*22 Cam Hev	p	37 1	f 0	8	I	{ cF. pL. iF. mbM. er. some ft. visible. * See note.

Fourth class. Planetary nebulæ.

Stars with burs, with milky chevelure, with short rays, remarkable shapes, &c.

IV.	1785	Stars.		M. S.		D.M.	Ob	Description.
30	May 1	14 Canum.	p	6 48		0 55	2	Two ft. dist. 3' connected with a vF. narrow nebulosity.
31	Oct. 3	50 Aquarii	f	7 55		0 37	1	F. S. stellar. with pL. chev.
32	5	62 (b) Eridani	f	0 35	n 0	21	2	vB. vS. mbM. like a ft. affected with irregular burs.
33	—	49 (d) Orion	p	2 33	n 0	28	4	A ft. with m. chev. or vBN. with m. nebulosity.

IV.	1785	Stars.		M. S.		D.M.	Ob	Description.
34	Dec. 28	40(2dφ)Orion	f	5 41	f	0 12	2	cB. S. nearly R. like a ft. with L. dia. with 240 like an ill defined planetary neb.
35	31	9 Hydræ	p	8 19	f	0 14	1	A S ft. with a brush sp. FS. it resembles fig. 7. Phil. Transf. Vol. LXXIV. Tab 17.
36	1786 Jan. 1	60 Orionis	p	11 38	f	0 20	3	A ft. affected with vF. extensive m. chev. The ft. not quite central.
37	Feb. 15	28 (ω) Draco	f	20 33	f	2 12	1	A planetary neb. vB. has a disk of about 35" dia. but very ill defined edge. With long attention a vB. well defined R. center becomes visible.
38	24	55 Orionis	f	18 3	n	1 17	2	A cft. affected with vF. m. chev.
39	March 19	2 Navis	p	3 32	f	0 5	1	pB. R. r. within the 46th of the <i>Connoiff. des Temps</i> almost of an equal light throughout 2' dia. no connection with the cluster, which is free from nebulosity.
40	27	68 (ι) Virgin	p	30 45	f	0 18	1	A pBft. with a seeming brush to it np. may be a vS neb. close to it.
41	May 26	14 Sagittarii	p	11 58	f	1 15	1	A double ft. with extensive nebulosity of different intensity. About the double ft. is a black opening resembling the neb. in Orion in miniature.
42	Sept. 30	51 Ceti	f	7 26	n	0 27	1	A ft. about 8 or 9 m. with vF. bran. mer. each branch 1' l.
43	Oct. 17	26 (β) Persei	p	2 48	n	1 54	2	A pBft. with 2 F. branches.
44	Nov. 28	5 Monocero	p	7 16	f	0 2	1	A ft. involved in m. chev.
45	1787 Jan. 17	55 (δ) Gemin	f	9 6	f	1 1	2	A ft. 9 m. with a pB. m. nebulosity. equally dispersed all around. A very remarkable phenomenon.
46	Feb. 22	99 (ι) Virgin	p	4 38	n	0 57	1	pB. almost cB. vS. stellar. like a star with burs.
47	March 11	44 (κ) —	f	1 48	f	0 46	1	pB. stellar. resembles a ft. with a bur all around.
48	18	19 Leo. min	f	6 32	f	0 17	1	A vFft affected with vF. nebulosity. E. sp nf. 1' l. 300.
49	April 15	102 (1ftv) Vir	p	6 9	f	0 52	2	pB. stellar. like a ft. with a S. bur all around.
50	May 12	77 (η) Hercul	p	40 13	f	0 28	1	vB. R. 4' dia. almost equally B. with a F. r. margin.

IV.	1787	Stars.		M.	S.		D.M.	Ob	Description.	
51	Aug. 8	61 (<i>g</i>) Sagitt	p	13	56	n	1	23	2	A cB. S. beautiful planetary nebula; but c. hazy on the edges, of a uniform light; 10 or 15'' dia. perfectly R. I shewed it to M. DE LA LANDE.
52	Nov. 3	4 (<i>d</i>) Cassio	p	4	0	f	1	6	2	A ft. 9 m. with vF. nebulousity of S. extent about it.
53	—	10 Camelop	p	55	42	n	0	11	2	A pB. planetary nebula. near 1' dia. R. of uniform light and pretty well defined. 2 obf. with 360 magnified in proportion; but still pretty abruptly defined, and a little elliptical.
54	1788 Jan. 14	67 Urfæ	f	7	32	f	0	30	1	cB. S. N. with F. chev.
55	Feb. 6	34 Lyncis	p	28	4	n	0	2	2	pB. R. almost of an even light throughout, approaching to planetary, but ill defined and a little fainter on the edges $\frac{3}{4}$ or 1' dia. p. 1' pc ft.
56	—	59 Urfæ	f	25	11	n	0	56	1	cB. iR. cBNM. with extensive chev. 5' dia.
57	June 11	35 (σ) Hercul	f	34	27	f	0	18	2	AvS.F.ft involved in eF. nebulousity.
58	Nov. 25	24 Cephei	f	116	28	n	0	2	1	A ft. 9 m. surrounded with vF. m. nebulousity. The ft. is either double, or not R. Less than 1' dia.

Fifth class. Very large nebulæ.

V.	1785	Stars.		M.	S.		D.M.	Ob	Description.	
25	Nov. 27	18 Ceti	f	1	30	n	1	2	1	Four or five pL. ft. forming a trapezium of about 5' dia. The inclosed space is filled up with faintly terminated m. nebulousity. The ft. seem to have no connexion with the nebulousity.
26	Dec. 7	18 Leo. min.	p	8	7	n	1	1	2	cB. mE. par. 8'1. 3' b.
27	26	15 Monocero	p	0	12	f	0	6	2	Some pBft. 7 or 8' sp. 15th Monce. are involved in eF. m. nebulousity which loses itself imperceptibly.
28	1786 Jan. 1	48 (σ) Orion	f	2	46	n	0	44	2	Remarkable m. nebulousity, divided in 3 or 4 large patches, including a dark space; cannot

V.	1786	Stars.	M.	S.	D.M.	Ob	Description.
							take up less than $\frac{1}{2}$ degree, but I suppose it to be much more extensive.
29		261 Urfæ	f	45 38	f	0 40	1 eF. vL. vlbM. r. 10' l. 8 or 9' b.
30		18 ⁴² } ϵ Orioni	p	0 0	n	0 0	2 The 1st and 2d ϵ Orionis, and the stars about them, are involved in eF. unequally B. m. nebulosity.
		45 }					
31		3144 (ι) —	p	0 0	n	0 0	2 ι Orionis with its neighbouring st. are involved in eF. m. nebulosity to a great extent.
32	Feb.	128 (η) —	p	17 26	f	1 4	2 ϵ B. vL. m. diffused and vanishing. near and ff. Bst.
33		— — —	f	1 26	f	0 7	1 Diffused eF. m. nebulosity. The means of verifying this phenomenon are difficult.
34		— 46 (ϵ) Orionis	p	0 0	n	0 0	1 I am pretty certain ϵ Orionis is involved in unequally diffused m. nebulosity.
35		— 36 (ν) —	f	3 39	f	0 40	4 Diffused m. nebulosity, extending over no less than 10 degrees of PD. and many degrees of RA. It is of very different brightness, and in general extremely F. and difficult to be perceived. Most probably the nebulosities of the 28th, 30, 31, 33, 34, and 38th of this class are connected together, and form an immense stratum of far distant stars, to which must also belong the nebula in Orion.
		56 —	p	2 16	n	0 28	
36	Oct. 17	35 (ι) Andro	p	9 8	f	0 20	2 vF. vL. E. nearly mer. or a little from np ff. about 20' l.
37		2457 Cygni	f	5 1	f	1 1	1 vL. diffused nebulosity. bM. 7 or 8' l. 6' b. and losing itself vg. and imperceptibly.
38	Dec. 20	19 (β) Orion	f	11 9 11 35	n f	1 19 0 52	1 Strongly suspected nebulosity of v. great extent. Not less than $2^{\circ}11'$ of PD. and $26''$ of RA. in time.
39		2111 (β) Crater	p	8 15	f	0 17	2 vF. mE. nearly par. or about 10° sp nf. vgbM. 8' l. 3' b.

V.	1786	Stars.	M. S.	D.M.	Ob	Description.
40	Dec. 21	11 (β) Crater	p 7 49	f	0 26	2 vF. mE. 15° sp nf. vlbM. about $7'1. 4' b.$
41	1787 March 17	6 Canum	p 8 27	f	1 12	1 vB. E. 60° sp nf. $20'l. 2' b.$
42	20	13 ———	p 18 39	n	1 48	1 vB. mE. sp nf. but nearly par. mbM. $16'l.$
43	1788 March 9	3 ———	p 0 38	f	1 41	3 v brilliant. BN. with Fm. bran. np ff. $15'l.$ and to the ff. running into vF. nebulosity extending a great way, the N. is not R.
44	Nov. 1	36 Camelop	f 84 33	n	0 23	2 cB. R. vgbM. BN. 6 or $7'$ dia. with a F. branch extending a great way to the np. side; not less than $\frac{1}{2}$ degree. and to the n. or nf. the nebulosity diffused over a space not less than a whole degree.

Sixth class. Very compressed and rich clusters of stars.

Additional } Cl. Cluster. com. compressed.
abbreviations. } fc. scattered. co. coarsely.

VI.	1785	Stars.	M. S.	D.M.	Ob	Description.
20	Oct. 27	18 (ϵ) Pif. Aulf	f 133 24	n	0 23	2 cB. iR. 8 or $9'$ dia. a great many of the st. visible, so that there can remain no doubt but that it is a Cl. of vS. stars.
21	Dec. 7	25 Gemino	f 2 15	f	1 15	1 A v. rich and v. com. Cl. st. of about $5'$ dia. some of the largest st. are in a row.
22	1786 Feb. 1	31 Monocero	p 30 4	n	1 20	4 A beautiful Cl. of much com. st. confid. rich. 10 or $12'$ dia. C. H. discovered it in 1783.
23	June 27	46 (ν) Sagitt	p 49 15	f	0 42	1 A beautiful Cl. of vS. st. of various sizes. $15'$ dia. very rich.
24	Oct. 17	58 (ν) Cygni	f 15 56	n	1 18	2 A v. com. and v. rich Cl. of eSt. about $6'l. 4' b.$ nearly par.
25	Dec. 11	27 (\ast) Persei	f 5 55	n	2 25	2 A beautiful com. and rich Cl. of S. and L. st. 7 or $8'$ dia. the L. st. arranged in lines like interwoven letters.

VI.	1786	Stars.	M. S.	D.M.	Ob.	Description.
26	Dec. 11	53 (<i>d</i>) Persei	f 13 34	f 1 13	1	A vF. and v. com. Cl. of eS. ft. near 4' dia.
27	27	22 Monocero	p 20 9	n 0 51	1	A v. beautiful Cl. of much com. S. and L. ft. above 20' dia.
28	1787 Jan. 11	75 (<i>l</i>) Orionis	f 21 25	n 1 2	1	A Cl. of e. com. and eS. ft. c. rich. iF. the f. and most com. part R.
29	Oct. 14	3 Lacertæ	p 7 52	n 2 7	1	A com. Cl. of eS. ft.
30	18	7 (<i>g</i>) Cassiop	f 3 10	f 0 46	3	A beautiful Cl. of v. com. Sft. v. rich. C. H. discovered it 1783.
31	Nov. 3	37 (<i>ð</i>) —	f 19 48	n 1 2	1	A beautiful Cl. of pL. ft. near 15' dia. conf. rich.
32	1788 Sept. 21	80 (1st π) Cyg	p 11 26	n 0 28	1	A beautiful Cl. of p. com. ft. 8 or 9' dia. nearly R. c. rich.
33	Nov. 1	7 (χ) Persei	f 1 7	f 0 22	1	A v. beautiful and brilliant Cl. of L. ft. v. rich. the M. contains a vacancy.
34	—	—	f 4 0	f 0 23	1	A v. beautiful, brilliant Cl. of L. ft. iR. v. rich. near $\frac{1}{2}$ degree in dia.
35	26	15 (\ast) Cassiop	p 1 22	f 1 26	1	A S. Cl. of vF. and e. com. ft. about 1' dia. The next step to an er. neb.

Seventh class. Pretty much compressed clusters of large or small stars.

VII.	1785	Stars.	M. S.	D.M.	Ob.	Description.
18	July 17	12 Vulpeculæ	p 7 56	n 0 44	1	An E. Cl. of i. fc. ft. of various sizes. c. rich.
19	30	21 Aquilæ	p 5 49	n 1 55	1	A p. com. Cl. of p. fc. ft. of various sizes, magnitudes, and colours. iF. and unequally com. 12 or 15' dia.
20	Nov. 1	7 Monocero	f 1 3	n 0 35	3	A beautiful Cl. of p. com. and equally fc. ft. 10 or 12' dia.
21	Dec. 26	109 (<i>n</i>) Tauri	p 14 59	n 1 37	1	A Cl. of p. com. ft. with many eS. ft. mixed with them.
22	28	13 Monocero	f 2 48	n 0 21	1	A S. Cl. of p. com. vS. ft.
23	30	31 (<i>n</i>) Canis	f 32 6	f 0 39	1	A com. Cl. of pL. ft. c. rich.
24	1786 Jan. 1	60 Orionis	p 5 9	f 0 9	2	A Cl. of p. com. pS. fc. ft. with many eS. suspec. betw. them 7 or 8' dia.
25	27	8 Monocero	p 11 46	n 0 49	1	A Cl. of p. com. ft. of several sizes. 4 or 5' dia. with extensively straggling ones.

VII.	1786	Stars.		M. S.		D.M.	Ob	Description.	
26	Jan. 30	6 Monocero	f	8 59	n	1	7	1	A Cl. of eS. and pm. com. ft. with a few L. but not rich, in the shape of a hook.
27	Feb. 24	11 —	f	42 13	f	1	21	2	An i. Cl. of eS. ft. c. com. 9 or 10'l. 4 or 5' b. with an extending bran. towards sp. C. H. discov. 1783.
28	Mar. 19	2 Navis	p	8 23	n	0	47	1	A Cl. of pS. ft. p. rich. 15' dia.
29	April 30	5 (ε) Scorpii	p	7 14	n	0	38	1	A Cl. of vS. ft. p. rich 6'l. 4'b. in the form of a parallelogram.
30	May 26	14 Sagittarii	p	1 35	n	0	9	1	A Cl. of pS. fc. ft. above 15' dia.
31	—	—	f	1 29	f	0	25	1	A Cl. of vS. and p. com. ft. c. rich. 2 or 3' dia.
32	Sept. 21	58 Androm	p	10 49	f	0	8	4	A vL. co. fc. Cl. of vL. ft. iR v. rich. takes up $\frac{1}{2}$ degree like a nebulous ft. to the naked eye.
33	Oct. 18	11 (μ) Aurig	f	6 32	n	0	54	1	A Cl. of p. com. pS. Sft. c. rich. contains 1 L. the rest are all of a size.
34	Dec. 11	13 (α) —	f	9 7	n	0	32	1	A Cl. of vF. and vSft. p. com. but not rich. iF. 3' dia.
35	24	70 (ξ) Orionis	f	15 53	f	1	29	1	A Cl. of S. pm. com. ft. with suspected m. nebuloſity.
36	26	18 Monocero	p	3 48	n	1	0	1	A Cl. of v. fc. ft. c. rich. and of great extent.
37	27	77 Orionis	f	12 24	n	0	55	1	A Cl. of v. com. eSft. c. rich. 3 or 4' dia. most com. M.
38	—	22 Monocero	p	7 39	n	1	31	2	A beautiful Cl. of vSft. of several sizes. c. com. and rich M. 10 or 12' dia.
1787									
39	Jan. 17	21 (σ) Aurigæ	f	3 25	f	2	6	1	A p. com. Cl. of Sft. 4' dia.
40	Oct. 14	3 Lacertæ	p	38 31	n	1	35	1	A Cl. of Sft. of several sizes. 3 or 4' dia. p. rich. like a forming one.
41	—	—	f	5 8	n	0	2	2	A S Cl. of ft. p. com. e. rich in vS. ft. The com. part 4 or 5' dia.
42	18	24 (η) Caffio	f	29 41	n	0	26	2	A brilliant Cl. of L. and vS. ft. c. rich.
43	Nov. 3	1 (ε) —	p	11 41	n	1	25	1	A S. Cl. of vSft. c. com. and p. rich.
44	—	—	f	4 34	n	1	8	2	A Cl. of p. com. pLft. c. rich. The ft. arranged chiefly in lines from sp. nf.
45	—	37 (δ) —	p	9 29	f	1	28	2	A S. p. com. Cl. of ft. not rich. iF. like a forming one.
46	—	—	f	17 23	n	1	44	2	A S. Cl. of pL. ft. c. rich.
47	—	10 Camelop	p	55 40	n	1	37	2	A Cl. of ft. p. rich and c. com. 1E. 3 or 4' dia. iF.

VII.	1787	Stars.	M. S.	D.M.	Ob	Description.
48	Nov. 9	32 Cassiop	f 17 1	f 1 40	1	A com. Cl. of some pL. and many vS. ft. iR. 6 or 7' dia.
49	—	45 (ε) —	p 11 8	n 0 20	1	A Cl. of some cL. ft. and many eS. so as hardly to be seen. The Lft. arranged in circular order 3 or 4' dia.
50	1788 Sept. 27	81 (2dπ) Cyg	p 22 13	f 1 14	1	A few Sft. with suspected nebulo- fity. with 300 many vS. ft. inter- mixed with the former, so as to make a Cl.
51	Oct. 19	71 (g) —	p 5 49	f 0 9	1	A p. com. Cl. of pS. ft. c. rich iR. 5 or 6' dia.
52	—	— — —	p 0 42	n 0 34	1	An extensive Cl. of Lft. c. rich above 20' dia.
53	—	73 (ρ) —	f 30 41	n 0 48	2	A L. Cl. of p. com. cLft. above 15' dia. c. rich.
54	Nov. 1	36 Camelop	f 29 1	n 0 16	1	A vF. patch. or S. Cl. of eSft.
55	23	32 (ι) Cephei	f 57 34	n 1 47	3	A Cl. of eS. ft. iF. p. rich and com. contains a vacancy M.

Eighth class. Coarsely scattered clusters of stars.

VIII.	1785	Stars.	M. S.	D.M.	Ob	Description.
41	Dec. 7	98 (k) Tauri	f 12 11	f 0 54	1	A co. Cl. of ft. or projecting point of the m. way.
42	—	125 —	p 1 22	f 0 4	2	A Cl. of co. fc. ft. above 15' dia. The ft. nearly of a size and equally fc.
43	26	109 (n) —	p 15 30	n 1 29	1	A Cl. of v. co. fc. Lft. join. to VII. 21.
44	28	5 (n) Can. min	f 0 38	f 1 54	1	A Cl. of v. co. fc. Lft. form a cross. not rich.
45	31	6 Navis	p 32 48	f 0 1	1	A co. fc. Cl. of ft. not rich.
46	—	— — —	p 10 18	n 0 49	1	A vL. but co. fc. Cl. of ft.
47	—	— — —	p 10 27	n 0 39	1	A Cl. of fc. ft. or the m. way crowd- ed with ft. of equal size and colour.
48	1786 Jan. 1	78 Orionis	f 10 59	f 1 9	1	A Cl. of v. fc. ft. of various sizes. above ½ degree of extent.
49	3	*BGemi. 6m	p 33 23	n 0 35	1	A Cl. of co. fc. Lft. not rich. *See note
50	27	8 Monocero	f 10 58	n 0 49	2	A Cl. of ft. arranged in a broad row. 25' 1.6 or 8' b. not v. com. but p. rich.
51	Feb. 23	11 —	f 25 25	f 0 1	1	A Cl. of v. fc. ft.
52	Mar. 19	2 Navis	p 12 16	n 1 32	1	A Cl. of vL. co. fc. ft. not rich.
53	June 27	46 (v) Sagitta	p 82 10	f 1 4	1	A Cl. of fc. Sft. 8' dia. not v. rich.

VIII.	1786	Stars.	M. S.	D.M.	Ob	Description.
54	June 27	46 (ν) Sagittæ	p 71 19	f 0 25	1	A co. fc. Cl. of cLft. The place is that of a S. triangle.
55	— — — — —	— — — — —	p 64 17	f 0 23	1	A co. fc. Cl. of Lft.
56	Oct. 17	37 (γ) Cygni	f 0 53	n 0 32	1	A S. Cl. of co. fc. ft. of various sizes. E. like a forming one.
57	— 58 (ν) — — —	— — — — —	f 8 47	n 0 20	1	A Cl. of co. fc. pS. ft. of several sizes. not rich.
58	24 57 — — — — —	— — — — —	f 3 19	n 0 16	2	A Cl. of pL. fc. ft. not v. rich.
59	— 59 Persei	— — — — —	f 7 59	n 0 21	1	A Cl. of co. fc. pL. ft. not v. rich.
60	Nov. 26	19 Monocero	p 5 3	f 0 23	1	A Cl. of pL. fc. ft. not v. rich. may be a projecting point of the m. way.
1787						
61	Jan. 17	21 (σ) Aurigæ	p 16 38	f 0 30	1	A Cl. of co. fc. Lft. iF. not rich. like a forming one.
62	Sept. 19	35 (γ) Cephei	p 4 43	f 4 50	2	A Cl. of co. fc. Lft. not rich, but the β , are brilliant. one 7 m.
63	Oct. 16	21 (ζ) — — —	f 1 21	f 0 56	1	A S. Cl. of pL. ft.
64	Nov. 3	27 (γ) Cassiopæ	f 11 12	n 0 53	2	A forming cluster of p. com. ft. C. H. disc. 1783.
65	— 37 (δ) — — —	— — — — —	f 17 56	n 0 29	2	A S. Cl. of Sft. not v. rich. C. H. 1783.
66	— 45 (ϵ) — — —	— — — — —	f 47 9	f 1 58	2	A Cl. of co. fc. cLft. 8 or 10' dia. one 7 m, near M.
67	9 17 (ξ) Cephei	— — — — —	p 10 0	f 2 0	1	A Cl. of co. fc. L. and S. ft. 7' dia. like a forming one.
68	12 41 Aurigæ	— — — — —	p 8 57	n 1 9	1	A S. Cl. of fc. ft. not rich one. 7 m. towards the n. but this does not seem connected with the Cl.
69	Dec. 3	18 Andromæ	p 8 59	f 1 20	1	A Cl. of co. fc. pL. ft. one 8 m. in the ff. part.
1788						
70	Feb. 3	41 (ν) Persei	f 46 17	n 1 28	1	A Cl. of co. fc. Lft. p. rich above 20' dia.
71	March 4	58 Aurigæ	p 1 22	f 0 44	1	A Cl. of co. fc. pL. ft. p. rich the place is that of a double ft. of the 3d class.
72	July 30	62 Serpentis	p 27 26	n 0 6	3	A Cl. of co. fc. Lft. C. H. 1783.
73	— 59 (ξ) Aquilæ	— — — — —	p 4 2	f 0 34	1	A Cl. of co. fc. ft. with one pBft. M.
74	Sept. 21	80 (1st π) Cyg	p 34 12	f 0 12	1	A Cl. of co. fc. Lft. not rich 6' dia.
75	26	3 Lacertæ	p 7 29	f 2 21	2	A Cl. of co. fc. Lft. lE. sp nf. 16' l.
76	27	59 (1st ρ) Cyg	p 4 1	f 0 7	1	A ft. 6 m. surrounded by many cft. forming a brilliant fc. Cl. the Lft. not M. but f.
77	Nov. 1	27 (δ) Cephei	f 17 23	f 0 22	2	A Cl. of co. fc. ft. 8' dia. C. H. 1787.
78	26	15 (κ) Cassio	f 10 56	f 1 8	2	A Cl. of v. co. fc. Lft. take up 15 or 20'. C. H. disc. 1784.

Notes to some nebulæ and clusters of stars.

- I. 138. The number refers to DE LA CAILLE's southern catalogue in the *Cœlum Australe Stelliferum*.
- I. 190. A star of the sixth magnitude, not contained in any catalogue. I have called it C Canum Venaticorum. It follows FL. 17. Can. Ven. 37' 34'' in time, and is $0^{\circ} 2'$ more south than that star.
- II. 566. See the note to I. 138.
638. See the note to I. 138.
697. See the note to I. 190.
703. A star of the 7th magnitude, not contained in any catalogue. I called it A Ceti. Not having settled its place, I can only give it in a coarse way. RA. about 0 h. 31' 37'', PD. about $94^{\circ} 22'$.
- III. 678. A star of the 7th magnitude, not contained in any catalogue. I have called it A Bootis. It follows FL. 39 Bootis 6' 56'' in time, and is $0^{\circ} 55'$ more north.
681. See the note to I. 190.
742. A star of the 7th magnitude, not contained in any catalogue. I have called it B Draconis. Its place very coarsely is RA. 18 h. 47'. PD. $41^{\circ} \frac{3}{4}$.
747. See Mr. WOLLASTON's general catalogue. Zone 20° .
- VIII. 49. A star of the 6th magnitude, not contained in any catalogue. I have called it B Geminorum. Not having settled its place, I can only give it in a coarse way, RA. about 6 h. 52' 4''. PD. about $55^{\circ} 17'$.

P. S. The planet Saturn has a *sixth satellite* revolving round it in about 32 hours, 48 minutes. Its orbit lies exactly in the plane of the Ring, and within that of the first satellite. An account of its discovery with the forty-foot reflector, and a more accurate determination of its revolution and distance from the planet will be presented to the Royal Society at their next Meetings.

WILLIAM HERSCHEL.

