PUBLICATIONS

OF THE

ASTRONOMICAL LABORATORY

AT GRONINGEN.

EDITED BY PROF. J. C. KAPTEYN,
DIRECTOR OF THE LABORATORY.

No. 14. THE PROPER MOTIONS OF THE HYADES, DERIVED FROM PLATES PREPARED BY PROF. ANDERS DONNER, MEASURED AND DISCUSSED BY PROF. J. C. KAPTEYN AND W. DE SITTER Sc. D.

GRONINGEN. — HOITSEMA BROTHERS. — 1904.

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ERRATA.

Page 31,	Nr. 16,	column	$\frac{6}{T}(n'-n'_0)$ for —o	read o
„ 31,	„ 44,	columns	$\frac{6}{T}(n_0-n)$, n' and $\frac{6}{T}(n'-n'_0)$	add :
„ 34,	„ 17,	„	$\frac{6}{T}(n'-n'_0)$,	add :
„ 41,	„ 11,	„	n, $\frac{6}{T}(n_0-n)$, n' and $\frac{6}{T}(n'-n'_0)$	dele :
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„ 58,	„ 9,	„	Nr. for 9	read 9/12
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„ 66,	„ 67,	„	m''_δ for —66	read —63
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„ 71,	„ 9, 10 and 11,	column	m''_δ	add :

PREFACE.

As stated in the title, the present publication represents the joint labour of Prof. ANDERS DONNER, of Dr. DE SITTER and myself. The part belonging to each of us, however, is by no means an equal one

Whereas my own part merely consisted in drawing up the plan, supervising the measurement of the smaller part of the plates and discussing some details of the methods of reduction with DE SITTER, the taking of the photographs was wholly done by Prof. DONNER and his staff, whilst DE SITTER superintended the measuring of the greater part of the plates and charged himself with the whole of the discussions and the writing of the paper.

I have nothing to add to the work of DE SITTER. Only a few considerations of a more or less general character, based on the results brought out by his discussion, may find place in this preface.

The main objects I had in view in planning the work were:

1st to find out whether the method, which fairly realised what had been expected for the parallaxes (see Publ. Nos. **1** and **10**), would not also allow of a wholesale determination of accurate proper motions and what would be the conditions for obtaining the richest harvest of results, in a short time and with the least expenditure of labour;

2nd to find out all the members of the physical group of the Hyades. The knowledge of these members, which seems not uninteresting in itself, was indispensable for a satisfactory derivation of the parallax of the group from measurements made, long ago, at the laboratory, of a series of plates furnished also by Prof. DONNER.

As to the main conditions of success for future work in this line.

In my opinion we have to consider as such:

a. The duration of the exposure is of course to be chosen in accordance with the particular work contemplated. It must be so long however that the number of well measurable stars becomes considerable. In my judgment this condition is even more important for the proper motions than for the parallaxes (see Publ. **1**, p. 21). Even apart from considerations based on the exigencies of the reductions (see p. 13), we ought not to forget that too great faintness of one of the six images of a star, practically spoils the results to be derived from that star. Moreover the prob. errors for the faintest images are considerably higher than for the denser ones. I think it will be well in future to place the lower limit for the number of stars on any one plate at about a hundred.

b. The interval between the two epochs of exposure need not be shortened for fear that the plates will not keep good.

With a good choice of plates and great care in their preservation it seems probable that the undeveloped plates will be little altered even after the lapse of a dozen years. For the present plates the interval has been 4 resp. 5 years. Not a single plate had to be rejected on account of defects attributable to alterations of the plates during this time.

This very satisfactory result is due to the extreme care taken by Prof. DONNER, who, immediately after the first exposures enclosed the plates in tin cases which were soldered up, wrapped up in black paper and placed in a dark cupboard, where they remained till the time they were again required.

If the interval is very long, it may be safe all the same, to enclose some undeveloped plates with the negatives and to develop a couple of these at regular intervals in order to ascertain the state of their preservation.

c. The exposures at the two epochs are to be made on the meridian or at least in the same hour angle.

For p. m. plates this condition is infinitely easier to be fulfilled than for parallax-plates, because it will not require work at inconvenient hours. It ought therefore to be adhered to as strictly as possible.

The importance of the point appears from the considerations already set forth for the parallaxes in Publ. **1** pp. 67—69.

d. The exposures of the two epochs ought to be made distinguishable on the plates by an additional very short exposure. This point is of course not essential but it is extremely convenient and a powerful safeguard against mistakes. This precaution was taken for all the plates discussed in the following pages.

e. The plates are to be measured in two positions for the elimination of personal error. A single pointing on each image, in both the positions of the plates, is amply sufficient (see Publ. **1** p. 83).

In some of these respects the plates discussed in this paper are somewhat deficient. It could hardly be otherwise in an orienting investigation. The interval between the two epochs of exposure was originally planned at 7 years, in the hope that, with such an interval, p. m. would be obtained comparable in point of accuracy with the p. m. of the Bradley stars in Auwers's reduction. According to DE SITTER's discussion (p. 19) this aim would have been amply reached; it has even now been reached for those stars which are contained on more than 3 plates. The shortening of the interval from 7 to 4 resp. 5 years was only made because of our fear that the undeveloped plates would not stand a much longer preservation.

As to the number of stars too our plates do not realise good conditions. In planning the work it was thought that a relatively short exposure would be desirable because of the great brightness of so many members of the Hyades-group. Too great an intensity of the images is certainly a drawback, still however, experience has now taught us, that lack of stars is far more serious.

Notwithstanding these disadvantages the final results of the investigation appear to be fairly satisfactory, only the computations have cost far too great an amount of labour.

The accuracy really obtained will perhaps appear in its best light, if we compare our results with what might have been obtained by other methods. This comparison will at the same time be an answer to the question frequently put: why not take a separate plate at each of the two epochs? If a reseau is copied on the plates, may not any distortion of the film be as well eliminated as by making the two exposures on one and the same plate, and consequently developing them at the same time?

The measuring of the plates for the *Carte du ciel* gave the following prob. err. derived from a comparison of one coordinate of the same star measured on different plates: in *Potsdam* (Phot. Himmelskarte I, p. XXIII)

$$R_\xi = R_\eta = \pm\, 0''160$$

in *Paris* (Cat. Phot. p. [7]) $\pm\, 0.160.$

In Paris the coordinates of which the prob. err. is given rest on the measurement of *two* images. Each coordinate required 8 pointings (for star and reseau lines together). In Potsdam but a single image has been measured requiring (star + reseau) 6 pointings for each coordinate.

If, therefore, in order to obtain proper motions, the plates are repeated after some time, the change in one of the coordinates will be determined, both at Potsdam and at Paris with a prob. err. of

$$\pm\, 0''160 \sqrt{2} = \pm\, 0''226 \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (a)$$

at the cost of 16 (Paris) or 12 (Potsdam) pointings.

Using the method of the present publication we have the same prob. err. in what is denoted on page 9 by ϱ_0 or $\varrho_1 \sqrt{10}$. On page 18 the definitive value of ϱ_1 is found to be $0''0270$.

Therefore

$$\varrho_0 = \pm\, 0''086 \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (b)$$

This prob. err. is obtained at the cost of 12 pointings in all (in the two positions of the plate together).

The value (*b*) includes the reduction to a fundamental system, the value (*a*) does *not* include such a reduction. To be perfectly comparable the first ought therefore to be somewhat increased. But even if we neglect this consideration, the comparison proves, that the use of our method has diminished the prob. error 2.63 times, or in other words: that the results obtained by one of our plates has the weight of those obtainable by 7 pairs of plates obtained in the usual way. The telescopes which have been used are nearly identical in all cases. According to p. 18 the results obtained with the parallax plates are even somewhat better still.*)

At the same time the labour of measuring one of our plates is rather smaller than that of measuring a pair of *carte du ciel* plates; the guarantee against systematic error is far greater, the labour of computation enormously smaller.

On the other hand we have to take into account, that our plates have demanded

*) Light is thrown on some at least of the causes of the enormous difference here shown, by the investigations of *Bergstrand* (Vet. Ak. Förh. Stockh. 1900); *Bohlin* (Bull. Astr. 17, p. 321); *Mönnichmeyer* (A. N. Nos. 3869—70); *Ludendorff* (ib. No. 3886).

6 exposures against 4 on the Paris plates and 2 on those of Potsdam. This small disadvantage is however in great part balanced by the necessity, in the latter case, of impressing the reseau and by the doubled labour of developement. It certainly would leave a balance in favour of our method, if we had contented ourselves with measuring the plates only in one position, as has been done in Paris and Potsdam.

I conclude that, in order to reach a given degree of accuray, the total labour to be expended if we use the method of the present paper is, *at the very least*, seven times smaller than it would be by using plates taken in the usual way.

In the meantime, for reasons already given, the following pages fail to show to advantage the ease and rapidity of the computations. On page 13 DE SITTER sketches out a plan for the reductions which will enormously simplify the reductions and may be applied as soon as all the plates contain numerous stars. It supposes, however, that, as in the present instance, a considerable number of contiguous areas are included in the investigation. In many instances the end to be gained will require the reduction of the plates singly.

In order to show how, even in such a case, we will be able to work economically, without sacrifice of accuracy, suppose we wish to investigate the distribution of the proper motions of very faint stars, an important work to which Prof. COMSTOCK but very recently directed the attention (Astr. Journ. Vol. 24 p 43).

The faintness of the objects will demand long exposures and it will be desirable to reduce the work to the smallest number of plates possible.

If for instance the work planned is to comprise 100 plates, we will evidently get a better insight in the distrubution of the proper motions, by 100 plates, covering as many areas distributed at regular intervals over the whole of an hemisphere, than by, say, 11 areas, each covered by 9 plates.

For such single plates the prob. err. (b) does no longer hold. The reason is as follows:

The distances v measured directly on the plates, divided by T (the difference of the epochs), furnish at once the proper motions by the application of corrections, which, if for reasons presently to be given, we leave out of consideration the quadratic terms, are of the form (see p. 10).

$$a + bx + cy = v_1 \qquad (c).$$

If by ϱ_μ we denote the prob. err. of the proper motion in a determined coordinate, by ϱ_v and ϱ_{v_1} the prob. err. of the quantities v and v_1, we will have:

$$\varrho_\mu = \sqrt{\left(\frac{\varrho_v}{T}\right)^2 + \varrho_{v_1}{}^2} \qquad (d).$$

To get at a reliable estimate of the value of ϱ_μ we have to determine ϱ_v and ϱ_{v_1}.

The former quantity can be obtained with sufficient approximation in the following way:

In Publ. 1 p. 82 we derived:

True error of pointing in measuring the distance of two triple images
$\pm$ 0″065 (p. e.).

This prob. error was obtained by comparing measurements of different images, contained, however, on the same plate.

To represent what would have been obtained, had the images been on different plates, it must probably be slightly increased; it must again be somewhat increased to represent the precision of the observations contained in this publication, which is (see p. 18) slightly inferior to that of the parallax plates. We may therefore take $\pm 0''065$ as a lower limit.

The value (*b*)

$$\pm 0''086 ,$$

on the other hand, must be an upper limit, because it is based on comparisons of different plates and *includes* the reduction to a fundamental system.

Consequently we cannot greatly err if we adopt

$$\varrho_v = \pm 0''075 \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (e).$$

It is more difficult to get an estimate of ϱ_{v_1} which depends on the standard proper motions.

To get an insight in the conditions of the problem and to be sure not to overestimate the accuray attainable, I will suppose that we take into account no other meridian observations than those contained in the A.G.C., together with a redetermination of, say, 12 stars for each plate.

On an area of four square degrees (which we suppose covered by one plate) the A.G.C. has, in the mean, 24 stars. There will thus generally be ample choice.

The different zones of the A.G.C. have been observed at somewhat different epochs. We assume our areas chosen in regions where the mean epoch is about 1875 and will admit as the epoch of reobservation the year 1915.

If moreover we adopt $\pm 0''40$ as the prob. error of each coordinate *), both in the A.G.C. and in the redetermination, then we will obtain standard proper motions having a prob. err. of

$$\pm \frac{0''40 \sqrt{2}}{40} = \pm 0''014 \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (f).$$

Now let the standard stars be distributed on the plate somewhat according to this ideal scheme:

	x	y	
1 star	+ 45′	+ 45′	
1 ,,	0	+ 45	
1 ,,	− 45	+ 45	
1 ,,	+ 45	0	
4 stars	0	0	(*g*)
1 star	− 45	0	
1 ,,	+ 45	− 45	
1 ,,	0	− 45	
1 ,,	− 45	− 45	

*) In making this estimate I have supposed the areas chosen as much as possible in the regions for which the A.G.C. is most reliable.

then by the aid of the prob. err. (e) and (f) we can compute the prob. err. of the determination of the constants a, b, c, from the observations.

Taking

$$T = 10 \text{ years} \quad \ldots\ldots\ldots\ldots \quad (h)$$

I find

$$\left.\begin{aligned} \varrho_a &= \pm\, 0''0046 \\ \varrho_b &= \pm\, 0.000\,145 \\ \varrho_c &= \pm\, 0\,000\,145 \end{aligned}\right\} \quad \ldots\ldots\ldots\ldots \quad (i)$$

From (c) we have

$$\varrho_{v_1}{}^2 = \varrho_a{}^2 + x^2\varrho_b{}^2 + y^2\varrho_c{}^2$$

so that, if $R = \sqrt{x^2 + y^2}$ = distance from centre of plate,

$$\varrho_{v_1}{}^2 = (0.''0046)^2 + (0.000\,145\ R)^2 \quad \ldots\ldots\ldots \quad (k)$$

Substituting the values (e) and (k) in (d)
we finally get:

R	ϱ_μ	ϱ_μ'
0′	0″0088	0″0109
10	.0089	.0110
20	.0093	.0113
30	.0098	.0118
40	.0105	.0124
50	.0114	.0131
60	.0124	.0140

. . . . (l)

For values of R below 30′ the prob. err. are thus seen to vary but little; we may adopt the mean value

$$\pm\, 0''0095 \quad \ldots\ldots\ldots\ldots\ldots \quad (m).$$

A good plan would therefore be:

a. To determine the constants a, b, c, of the plates with the aid of 12 standard stars, the proper motions of which we suppose to have a prob. error of ± 0″014 in each coordinate;

b. With the exception of these stars, to restrict the measures to stars within 30′ from the centre of the plate.

If the epochs are taken 10 years apart, then we will obtain proper motions for all the stars measured, in no way inferior to the proper motions given by Auwers for the stars which have been observed by Bradley 3 times in each coordinate (see p. 19).

It remains to show that, with such a plan, there can be no serious objection to the omission of the quadratic terms.

For the stars within 30′ from the centre of the plate, the *mean* distance from that centre is 20′.

At this distance the maximum value of the whole correction

$$dx^2 + exy + fy^2 \quad \ldots\ldots\ldots\ldots \quad (n)$$

is

$$200\,[d+f+\sqrt{e^2+(d-f)^2}]\quad . \; . \; . \; . \; . \; . \; . \; . \; . \quad (o)$$

In the present paper the quadratic terms were found to be most considerable for the declinations of group A.

For this group we get with the values of p. 12, according to (o): greatest correction for quadratic terms

$$0''0022.$$

The value of this correction will be inversely proportional to the number of years between the epochs. For a difference of epoch of 10 years instead of 4½, we would thus find the above amount diminished to

$$0''0010,$$

which is quite a vanishing quantity for proper motions, the prob. err. of which is 0″0095.

Of more importance is the *indirect* effect of the quadratic terms, *viz.* the effect their omission has on the determination of the constants a, b, c and through these on the corrections (c) for the bulk of the stars.

Take an ideal set of standard stars in such positions as (g). The equations of condition for the determination of the constants will be:

$$\begin{array}{llllll}
a + 45b + 45c + 2025d + 2025e + 2025f & = x_{\text{stand.}} - x_{\text{meas.}} & = n_1 \\
a + 45c + 2025f & = \quad " & = n_2 \\
a - 45b + 45c + 2025d - 2025e + 2025f & = \quad " & = n_3 \\
a + 45b + 2025d & = \quad " & = n_4 \\
2a & = \quad " & = n_5 \\
a - 45b + 2025d & = \quad " & = n_6 \\
a + 45b - 45c + 2025d - 2025e + 2025f & = \quad " & = n_7 \\
a - 45c + 2025f & = \quad " & = n_8 \\
a - 45b - 45c + 2025d + 2025e + 2025f & = \quad " & = n_9
\end{array}$$

from which, by least squares, we find at once that:

(a) Whether we neglect the quadratic terms or not we will get the same values of b and c.

Of course this would not rigorously hold with a less ideal distribution of the standard stars. Still it must be easy to keep the effect of the quadratic terms on b and c quite insignificant.

(b) The value of a is changed by the amount

$$1012\,(d+f).$$

The indirect effect of the omission of the quadratic terms will therefore be, that, after the reduction, all the measured proper motions of a plate will require, in each coordinate, a constant correction. For the declinations of group A this correction would reach the value of

$$0''0100$$

which is equivalent to

$$0''0045$$

for an interval of 10 years between the epochs. Such a quantity is no longer to be considered as insensible. As it is a constant for the whole plate, however, it must not be too difficult to get rid of it.

(*a*) We might determine the constant *a* only from the 4 standards near the centre of the plate (which will mean in practice within 30′ from that centre). In this way the difficulty would at once be got over. — The prob. errors will however increase in this way; in fact we will find the values ρ_μ' instead of ρ_μ (*l*) To a great extent we might already compensate this loss of accuray by deriving the proper motions of *these four* standard stars from *all* the available meridian observations. I estimate that the ρ_μ would thus be found somewhat mid-way between the values ρ_μ and ρ'_μ of table (*l*).

(*b*) I think, however, that, even without this expedient, we need not lose appreciably in accurracy at all, because it seems probable that, as soon as all the photographs are taken in the meridian, the difference:

value of *a* from all the 12 standards *minus* same quantity for the 4 standards near centre, will be constant for a series of consecutive plates or at least will only sensibly vary with the declination.

This being so we will get a reliable determination of this difference from a series of consecutive plates and will thus be enabled to correct the value of *a* found by the 12 standards of any one plate.

The difficulties in the way of a plan for obtaining ample and accurate data for the proper motions of very faint stars, are, therefore, by no means very deterring.

With a hundred plates for each hemisphere, on each of which 40 or 50 stars would be measured, together with two or three meridian observations of 12 stars for each plate, we might have, in the lapse of a dozen years, as good materials for the discussion of the proper motions of the stars of the 10^{th} to the 14^{th} magnitude, as we have now for the stars as bright as 5^{th} or 6^{th} magnitude. For the stars of magnitude 7—9, the work of Ristenpart promises to furnish all that is wanted; our standards would already go a long way.

For the study of the structure of the stellar system such data would be of inestimable value.

Groningen, May 1904. J. C. KAPTEIJN.

N°. 14. PROPER MOTIONS OF THE HYADES.

1. *The plates.* For the purpose of determining the proper motions and parallaxes of the stars in the region of the Hyades twelve areas were chosen of which the coordinates will be given in Table 2. Of these areas photographs were taken at the observatory at Helsingfors. Those taken for the determination of the proper motions are discussed here, those giving the parallaxes will be treated in a subsequent number of these Publications.

The proper motion plates were exposed on two dates, at the same time of the year, with an interval of four or five years. Of each area two plates were taken. One series of plates, denoted in Prof. DONNER's lists by the letters A to H, were exposed in 1895 and 1899. Another series distinguished by the roman numerals I to XVI, were exposed in 1896 and 1901. In both cases three exposures were taken at each date, while at the later date a short exposure was added to avoid all possibility of mistake as regards the chronological order of the exposures.

The details of the exposures are given in Table 1. The meaning of the abbreviations in the column „Observer" is a follows:

D = Donner	S = Sundmann
Dr = Dreijer	W = Wessell
F = Furuhjelm.	

The sidereal time of the middle of the exposure is given in the columns headed *a*, *b*, *c* and *d*, the last named giving the time of the shorter control-exposure which was mentioned just now. All exposures were taken in Position I of the telescope. A diaphragm was nearly always used before the object-glass leaving only the central portion free. The duration of the exposures always was 20 minutes, with the exception of those cases where no diaphragm was used, when the duration was 8 min. These latter exposures are marked with an asterisk (*) in the columns *a*, *b* and *c*. All other cases where the duration differs from 20 min. are mentioned in the column „Remarks". The duration of the control-exposure *d* was always 20 seconds, with one or two exceptions mentioned in the remarks. These contain moreover all the observer's notes, translated from the lists forwarded by Prof. DONNER, and in addition such notes about the duration and the time of the exposures as could find no room in the body of the table. The letters *a*, *b*, *c*, *d* refer to the corresponding exposures. All plates are by SCHLEUSSNER on plate glass. The development was done by oxalate of iron for 10 min. in the case of the plates A to H, and 15 min. for plates I to XVI.

TABLE I. LIST OF EXPOSURES.

Plate.	Area.	Date and Nr. in ledgers.	Observer.	Reading of ocul. tube.	Temp. Réam. Extern.	Temp. Réam. Tube.	Barometer.	Images.	Sid. time at mid-exposure a	b (hours as in colⁿ. a.)	c	d	Remarks.
					°	°	mm.		h m s	m s	m s	m s	
A	9	1895 Mar. 22 Nr. 3	D.	29.2	— 6.7	— 5.2	743.3	2	9 18 52				
		Mar. 23 Nr. 1	Dr.	29.2	— 5.1	— 3.5	748.4	1	8	37 22	58 8		c: Obsr. D.
		1899 Mar. 5 Nr. 1	Dr.	29.4	— 8.8	— 7.4	748.0	1-2	6-7 28 45	51 5	12 1	22 42	b: Obsr. D. d: 30ˢ.
B	3	1895 Mar. 29 Nr. 1	Dr.	29.2	— 0.4	+ 0.9	754.7	2-3	*8-9 53 9	*1 48	*10 34		Strong E. wind. c: Obsr. D.
		1899 Mar. 6 Nr. 2	D.	29.4	—10.8	— 9.2	750.7	2	8-9 46 31	*6 8	*17 8	*22 56	b: Obsr. W.
C	11	1895 Mar. 23 Nr. 2	Dr.	29.2	— 6.1	— 4.5	748.4	1-3	9 25 11				
		Mar. 29 Nr. 3	D.	29.2	— 1.2	+ 0.2	754.7	2-3	9-10	*57 24	*5 59		
		1899 Mar. 5 Nr. 2	D.	29.4	— 9.8	— 8.4	748.2	2	7-8 43 53	4 47	26 50	37 44	d: 30ˢ.
D	8	1895 Jan. 28 Nr. 2	S.	29.2	— 8.9	— 7.4	762.1	1	5 28 59	48 11			b: 13ᵐ 30ˢ, Obsr. D, hazy.
		Jan. 29 Nr. 2	S.	29.2	—10.6	— 8.9	778.7	1	4		49 45		
		1899 Mar. 7 Nr. 1	W.	29.4	— 9.5	— 8.1	759.0	1	6-7 52 10	8 54	27 8	37 50	b: 12ᵐ, Obsr. D.
E	6	1895 Mar. 29 Nr. 2	Dr.	29.2	— 0.8	+ 0.6	754.5	2-3	*9 24 45	*33 36	*42 52		a: Obsr. D.
		1899 Mar. 7 Nr. 3	D.	29.4	—10.5	— 8.8	759.0	1-2	*8-9 58 3	*6 39	*15 5	*21 35	Mistake in guiding star, rejected. a: Obsr. W.
F	4	1895 Feb. 22 Nr. 3	Dr.	29.2	—12.8	—10.9	759.3	3-4	7 10 59				
		Mar. 22 Nr. 2	D.	29.2	— 5.8	— 4.4	743.5	2	8	30 17	51 37		c: Obsr. Dr. } Plate fogged.
		1899 Mar. 8 Nr. 1	D.	29.4	—11.6	—10.2	754.9	2-3	7-8 28 28	49 31	10 13	20 42	b: Obsr. W.
G	2	1895 Jan. 29 Nr. 4	S.	29.2	—11.5	— 9.8	779.2	1	7 41 58				
		Feb. 22 Nr. 2	Dr.	29.2	—12.0	— 9.8	759 4	3-4	6	19 54	41 29		c: Obsr. D. } Plate fogged.
		1899 Mar. 8 Nr. 2	W.	29.4	—11.9	—10.5	754.8	2-3	8-9 42 21	3 10	24 2	35 1	b: Obsr. D.
H	1	1895 Jan. 29 Nr. 3	D.	29.2	—11.0	— 8.9	778.9	1	5-6 21 55	44 54	6 25		b: Obsr. S, tube moves in δ. c: clock stopped a moment.
		1899 Mar. 7 Nr. 2	D.	29.4	—10.2	— 8.3	759.0	1	7-8 56 34	17 35	38 18	48 56	Horizon hazy. b: Obsr. W.
I	1	1896 Jan. 11 Nr. 3	D.	29.2	— 6.2	— 3.8	759.4	1-3	6-7 30 20	50 54	11 24		Light E. Wind. After end of obⁿˢ. sky was found couvered by light haze.
		1901 Jan. 17 Nr. 5	Dr.	28.2	— 3.6	— 2.2	760.8	1	7-8 18 1	38 34	59 14	9 46	
II	2	1896 Feb. 10 Nr. 1	S.	29.2	— 0.7	+ 0.4	745.3	1	4-5 44 44	15 29	26 21		b: Obsr. D.
		1901 Jan. 14 Nr. 2	Dr.	28.2	— 5.8	— 4.6	770.9		5-7 47 21	28 15	49 14	0 34	A little hazy.
III	3	1896 Feb. 1 Nr. 1	S.	29.2	— 5.8	— 4.0	765.8	2	3 3 56	25 38	46 56		b: Obsr. Dr.
		1901 Jan. 13 Nr. 4	Dr.	28.2	— 2.5	— 1.3	766.6	2	4-5 9 54	31 8	52 18	3 23	
IV	4	1896 Jan. 20 Nr. 8	Dr.	29.2	— 6.5	— 4.7	765.6	1	7-8 45 3	5 44	26 28		b: Obsr. D.
		1901 Jan. 13 Nr. 6	D.	28.2	— 3.0	— 1 6	767.6		7-8 37 26	57 46	17 57	28 27	a: haze in beginning. c: accidentally knocked against tube.
V	5	1896 Jan. 15 Nr. 1	D.	29.2	— 5.8	— 4.3	744.5	1-3	1-2 54 53	16 17	36 55		b: Obsr. Dr.
		1901 Jan. 18 Nr. 2	F.	28.2	— 3.7	— 2.0	759.9		3-4 18 45	40 51	2 28	14 5	

TABLE I. LIST OF EXPOSURES. — *Continued.*

Plate.	Area.	Date and Nr. in ledgers.	Observer.	Reading of ocul. tube.	Temp. Réam. Extern.	Temp. Réam. Tube.	Barometer.	Images.	Sid. time at mid-exposure. *a*	*b* (hours as in col^n. *a*)	*c* (hours as in col^n. *a*)	*d* (hours as in col^n. *a*)	Remarks.
					°	°	mm		h m s	m s	m s	m s	
VI	5	1896 Feb. 10 Nr. 2	D.	29.2	—0.9	+0.3	745.4	1-3	5-6 55 36	17 25	37 56		Strong wind since middle of *b*. *b*: Obsr. S.
		1901 Jan. 13 Nr. 2	Dr.	28.2	—1.6	—1.1	766.2	2	2 0 21	23 21	46 20	58 25	Wind.
VII	6	1896 Feb. 1 Nr. 2	Dr.	29.2	—7.0	—5.1	766.2	2	4-5 22 29	45 3	5 49		*b*: Obsr. S.
		1901 Jan. 13 Nr. 5	D.	28.2	—2.9	—1.5	767.3	2	6-7 16 9	36 41	57 7	7 41	Shortly afterwards haze was noticed, which soon disappeared again.
VIII	7	1896 Jan. 15 Nr. 2	Dr.	29.2	—6.1	—4.7	744.7		3 11 35	32 13	53 6		Haze in town below, Perhaps atmosphere not entirely transparent, faint stars however well visible in finder. *b*: Obsr. D.
		1901 Jan. 18 Nr. 3	F.	28.2	—4.6	—2.8	760.1		4-5 46 51	8 58	32 40	44 0	*ā*: clock stopped 3^m.
IX	7	1896 Feb. 11 Nr. 1	D.	29.2	—1.5	—1.1	746.0		5 14 26	35 10	55 44		*b*: Obsr. S.
		1901 Jan. 15 Nr. 2	F.	28.2	—5.0	—3.6	764.6		2-3 27 57	58 14	29 36	43 39	*b*: clouds passing.
X	8	1896 Jan. 11 Nr. 1	Dr.	29.2	—2.2	—0.2	753.6	1-3	2-3 56 38	19 11	41 17		Strong N.W. wind, now and then clouds, especially during *b*. *b*: Obsr. D.
		1901 Jan. 17 Nr. 4	Dr.	28.2	—2.7	—1.4	760.8	1	6 2 12	22 49	43 22	54 26	
XI	9	1896 Jan. 20 Nr. 7	D.	29.2	—6.0	—4.7	765.0	1	6-7 34 47	55 40	16 14		*b*: Obsr. Dr.
		1901 Jan. 16 Nr. 5	Dr.	28.2	—2.9	—1.7	757.9	1-2	6-7 28 29	48 56	9 20	19 55	
XII	10	1896 Jan. 15 Nr. 4	Dr.	29.2	—8.4	—6.6	744.7	1	6-7 49 25	10 6	31 0		*b*: Obsr. D.
		1901 Jan. 17 Nr. 2	F.	28.2	—1.5	—0.2	760.5		2-3 53 18	17 8	42 24	?	Without Diaphragm. Clock stopped now and then. Strong haze in town below, here quite clear. *c*: 17^m. *d*: time not noted.
XIII	10	1896 Jan. 11 Nr. 2	D.	29.2	—2.7	—0.8	755.4	1-3	4 9 26	30 14	51 29		Small clouds. *b*: Obsr. Dr.
		1901 Jan. 17 Nr. 3	F.	28.2	—2.1	—0.8	760.6	1	4-5 23 28	46 42	8 31	20 59	
XIV	11	1896 Feb. 11 Nr. 2	S.	29.2	—1.7	—1.2	745.6		6 22 6	37 36			*b*: 10^m stopped by sudden cloud.
		Feb. 13 Nr. 1	Dr.	29.2	—7.1	—6.0	746.4		4		58 16		Probably extremely fine haze
		1901 Jan. 16 Nr. 4	Dr.	28.2	—2.8	—1.5	757.9	1-2	5 13 29	29 48	48 8	59 13	*a*: Obsr. D. *b*: 10^m.
XV	12	1896 Jan. 15 Nr. 3	D.	29.2	—6.9	—5.3	744.7	1	4 22 28	43 55	20 31		*b*: Obsr. Dr. *c*: 6^h.
		1901 Jan. 18 Nr. 4	D.	28.2	—4.6	—3.8	760.2	1	6-7 41 2	1 49	21 33		Light wind. *c*: 18^m, stopped by haze.
XVI	12	1896 Feb. 14 Nr. 1	Dr.	29.2	—11.4	—9.5	758.8	3-1	5-6 39 2	59 40	20 34		Strong N.wind. *b*: Obsr.D.
		1901 Jan. 16 Nr. 2	D.	28.2	—2.4	—1.6	757.7	1	1 51 59	50 11	10 40	21 20	Now and then a little wind. During *b* defn. 2, sky not quite clear, afterwards defn. 1, clear. *b*, *c* and *d*: 3^h-4^h.

Table 2 gives the centres of the areas for 1900.0 and the names of the guiding stars. The sixth column gives the interval in years between the two exposures on each plate. The seventh and eigth columns contain the hour-angles, the ninth and tenth the zenith-distances at the two exposures. The eleventh column contains the number of stars which was actually measured on each plate, while in the last column are given various remarks referring to the quality of the images a seen in the microscope, and other details of the measures. In these remarks the individual images are referred to by their designations in position I of the plate (see below).

TABLE 2. CENTRES OF AREAS ETC.

Area.	A.R. 1900.	Decl. 1900.	Guiding Star.	Plate.	Interval.	T_1	T_2	ζ_1	ζ_2	Nr. of Stars.	Remarks.
	h m s	° ′			y	h	h	°	°		
1	4 14 30	+15 2.0	Bradley 586	H	4.10	+1.5	+4.1	48	64	27	
				I	5.01	+2.6	+3.4	53	59	53	
2	15 30	13 45.0	Bradley 587	G	4.04	+2.6	+4.8	54	68		Not meas^{d}. Images too bad and too few stars.
				II	4.93	+0.9	+2.1	48	51	28	
3	16 30	16 2.0	BD. 16°.587	B	3.94	+4.8	+4.8	68	68	12	Rejected.
				III	4.95	—0.8	+0.2	45	44	38	Images 1 much fainter than 2.
4	18 30	15 2.0	BD. 14°.690	F	3.96	+3.9	+3.5	61	59	15	Rejected. Images 1 very diffused.
				IV	4.98	+3.8	+3.3	61	58	68	
5	18 30	17 2.0	Bradley 597	V	5.01	—2.0	—0.6	48	44	73	
				VI	4.92	+2.0	—1.9	48	48	81	Images 1 fainter than 2. Measured with two wires.
6	20 30	16 2.0	Bradley 603	F	3.94	+5.2	+4.6	71	67		Not meas^{d}. Mistake in guiding star.
				VII	4.95	+0.4	+2.3	44	51	81	Images 1 fainter than 2.
7	22 30	15 2.0	BD. 14°.701	VIII	5.01	—0.8	+0.8	46	46	85	
				IX	4.93	+1.2	—1.4	47	48	38	
8	24 30	16 2.0	Bradley 619	D	4.10	+1.0	+2.7	46	53	55	
				X	5.01	—1.1	+2.0	46	49	71	
9	26 30	15 2.0	Bradley 622	A	3.95	+4.5	+2.4	66	52	37	
				XI	4.99	+2.5	+2.4	52	52	62	
10	28 30	16 2.0	Bradley 625	XII	5.00	+2.7	—1.2	53	47	57	Images *2c* and *d* overlap for bright stars.
				XIII	5.01	0.0	+0.3	44	44	79	
11	30 30	15 2.0	BD. 14°.726	C	3.93	+5.4	+3.6	77	59	12	Rejected. Images *1b* and *1c* extremely faint.
				XIV	4.93	+1.5	+1.0	48	46	38	Images *1b*, *1c*, and *2b* fainter than others.
12	32 30	16 2.0	Bradley 638	XV	5.01	+1.3	+2.5	47	52	57	Image *2c* too faint. Measured only *a* and *b*.
				XVI	4.92	+1.5	—1.2	48	47	57	

2. *The measures.* The plates were measured by T. W. DE VRIES in four positions. In position I of the plate the arrangement of the images as seen in the microscope is as follows:

	South			
	1	2		
Following	•	•	*a*	*Preceding*
	•	•	*b*	
	•	•	*c*	
		•	*d*	
	North			

The images 1*a*, 1*b*, 1*c* in this position of the plate therefore correspond to the exposures *a*, *b* and *c* at the first epoch and 2*a*, 2*b*, 2*c* and 2*d* to the corresponding exposures at the second epoch. In position II the plate is rotated through 180° from pos. I. Pos. III is 90° different from. pos. I. The aspect of the images is then the following:

		Following				
		1	2	3		
		•	•	•	*a*	
North						*South*
	•	•	•	•	*b*	
		Preceding				

Position IV is again 180° different from Pos. III. We have thus the following identities:

I1*a* = II2*c* = III*a*3 = IV*b*1
I1*b* = II2*b* = III*a*2 = IV*b*2
I1*c* = II2*a* = III*a*1 = IV*b*3
I2*a* = II1*c* = III*b*3 = IV*a*1
I2*b* = II1*b* = III*b*2 = IV*a*2
I2*c* = II1*a* = III*b*1 = IV*a*3

One pointing was made on each image in each position of the plate. The readings of the screwhead increase as the wire moves from left to right, as seen in the microscope. After applying the necessary corrections, which will be derived in the following articles, we have therefore

$p = \mathrm{I}2 - \mathrm{I}1 = \mathrm{II}2 - \mathrm{II}1 = -$ *p.m. in* α *during interval* (*a. gr. c.*)
$p' = \mathrm{III}a - \mathrm{III}b = \mathrm{IV}a - \mathrm{IV}b =$ *p.m. in* δ „ „ .

Every star, that was at all measurable, was measured, many faint and diffused images being included that had better been rejected. The consequence is that an unproportionally large number of observations are marked by the sign of uncertainty (:).

The dates on which the measures were made and the rotation numbers of the stars measured on each date are given in Table 3. The measures of the plates B, C and F, which were finally rejected, are not included.

TABLE 3. DATES OF MEASURES AND RUNS.

Date.	Pos.	Stars	Run.
PLATE A.			
1899			r
Aug. 2	I	1—10	10.073
,, 3	I	15—37	10.059
,, 3	II	1—12	
,, 7	II	13—37	10.057
,, 7	III	1—15	10.063
,, 8	III	16—37	10.065
,, 8	I	11—14	
,, 8	IV	1—30	10.062
,, 9	IV	31—37	10.062
PLATE D.			
Aug. 10	I	1—19	10.069
,, 11	I	20—55	10.059
,, 12	II	1—55	10.065
,, 14	III	1—10	
,, 16	III	11—55	10.062 [1]
,, 16	IV	1—24	
,, 17	IV	25—55	10.062 [2]
PLATE H.			
Aug. 21	I	1—9	10.064
,, 22	I	10—30	10.065
,, 22	II	1—24	
,, 26	II	25—30	
,, 26	III	1—30	10.063 [3]
,, 26	IV	1—6	
,, 28	IV	7—30	10.067
PLATE I.			
1901			
Aug. 24	I	1—20	10.107
,, 26	I	21—58	10.105
,, 26	II	1—24	10.104
,, 27	II	25—58	10.103
,, 27	III	1—11	10.100
,, 29	III	12—58	10.097
,, 29	IV	1—5	
,, 30	IV	6—58	10.096 [4]

Date.	Pos.	Stars	Run.
PLATE II.			
1901			r
Aug. 31	I	2—31	10.100
,, 31	II	2—31	10.096
Sept. 2	III	2—31	10.102
,, 2	IV	2—31	10.097
PLATE III.			
Sept. 3	I	1—39	10.106 [5]
,, 3	II	1—8	
,, 4	II	9—39	10.073
,, 4	III	1—39	10.097
,, 5	IV	1—39	10.095
PLATE IV.			
Sept. 6	I	1—65	10.103 [6]
,, 7	I	66—74	
,, 7	II	1—22	10.106
,, 9	II	23—74	10.102 [7]
,, 9	III	1—22	10.104
,, 10	III	23—74	10.101
,, 10	IV	1—16	
,, 11	IV	17—74	10.103 [8]
PLATE VI.			
Sept. 12	I	1—49	10.105 [9]
,, 13	I	50—96	10.106
,, 13	II	1—43	10.104
,, 14	II	44—96	10.108
,, 14	III	1—11	
,, 16	III	12—84	10.100
,, 17	III	85—96	10.102
,, 17	IV	1—71	10.105
,, 18	IV	72—96	10.100

Date.	Pos.	Stars	Run.
PLATE V.			
1901			r
Sept. 18	I	3—53	10.106
,, 19	I	54—91	10.107
,, 19	II	3—69	10.102
,, 20	II	70—91	10.101
,, 25	III	3—82	10.101
,, 26	III	83—91	10.104
,, 26	IV	3—78	10.101
,, 27	IV	79—91	10.100
PLATE VII.			
Sept. 28	I	1—32	10.101
,, 30	I	33—85	10.098 [10]
Oct. 1	II	1—12	
,, 2	II	13—32	
,, 3	II	33—85	10.105 [11]
,, 3	III	1—7	
,, 4	III	8—74	10.110
,, 5	III	75—85	10.104
,, 5	IV	1—57	10.103
,, 7	IV	58—85	10.109
PLATE VIII.			
Oct. 8	I	2—73	10.102 [12]
,, 9	I	74—112	10.103
,, 9	II	2—41	
,, 10	II	42—112	10.106
,, 10	III	2—6	
,, 11	III	7—92	10.105 [13]
,, 12	III	93—112	10.105
,, 12	IV	2—71	10.100
,, 14	IV	72—112	10.106
PLATE IX.			
Oct. 14	I	3—61	
,, 15	I	62—109	10.104
,, 15	II	3—109	10.104
,, 16	III	3—109	10.107
,, 16	IV	3—62	
,, 17	IV	67—109	10.101

1) Mean of $10.^{r}060$ and $10.^{r}064$
2) ,, ,, 10.064 ,, 10.060
3) ,, ,, 10.061 ,, 10.065
4) ,, ,, 10.099 ,, 10.094

5) Mean of $10.^{r}108$ and $10.^{r}104$
6) ,, ,, 10.107 ,, 10.099
7) ,, ,, 10.103 ,, 10.102
8) ,, ,, 10.102 ,, 10.105
9) ,, ,, 10.105 ,, 10.105

10) Mean of $10.^{r}098$ and $10.^{r}099$
11) ,, ,, 10.102 ,, 10.108
12) ,, ,, 10.102 ,, 10.103
13) ,, ,, 10.104 ,, 10.106

TABLE 3. DATES OF MEASURES AND RUNS. — *Continued.*

PLATE X.

Date.	Pos.	Stars.	Run.
1901 Oct. 18	I	1—65	10.106
„ 19	I	66—81	10.104
„ 19	II	1—55	
„ 21	II	56—81	
„ 21	III	1—38	10.105
„ 22	III	40—81	10.110
„ 22	IV	1—22	
„ 23	IV	23—81	10.101

PLATE XI.

Date.	Pos.	Stars.	Run.
Oct. 24	I	1—50	10.106
„ 25	I	51—67	
„ 25	II	1—33	10.110
„ 26	II	34—67	10.110
„ 26	III	1—6	
„ 28	III	7—67	10.107
„ 29	IV	1—37	10.103
„ 30	IV	38—57	
„ 31	IV	58—67	10.107

PLATE XII.

Date.	Pos.	Stars.	Run.
Nov. 1	I	2—72	10.101
„ 2	I	73—84	10.104
„ 2	II	2—53	
„ 5	II	54—84	10.106
„ 5	III	2—38	
„ 18	III	39—68	10.108
„ 19	III	69—84	10.106
„ 19	IV	2—59	
„ 20	IV	60—84	10.110

PLATE XIII.

Date.	Pos.	Stars.	Run.
1901 Nov. 20	I	1—31	
„ 21	I	32—91	10.108
„ 22	II	1—47	10.110
„ 26	II	48—59	
1902 Apr. 1	II	60—74	
„ 2	II	75—91	10.101
„ 23	III	1—50	10.110
„ 24	III	51—91	
„ 24	IV	1—47	10.105
„ 25	IV	48—91	10.105

PLATE XIV.

Date.	Pos.	Stars.	Run.
Apr. 26	I	1—20	10.112
„ 28	I	21—42	10.105
„ 28	II	1—42	10.100
„ 29	III	1—42	10.100
„ 29	IV	1—34	
„ 30	IV	35—42	10.108

PLATE XVI.

Date.	Pos.	Stars.	Run.
1902 Apr. 30	I	1—24	
May 1	I	25—36	
„ 7	I	37—68	10.099
„ 7	II	1—26	
„ 9	II	27—42	
„ 10	II	44—68	10.093
„ 10	III	1—19	
„ 12	III	20—68	10.103
„ 12	IV	1—45	
„ 13	IV	46—68	10.105

PLATE XV.

Date.	Pos.	Stars.	Run.
May 13	I	1—54	
„ 14	I	57—68	
„ 14	II	1—68	10.100
„ 14	III	1—50	
„ 15	III	51—68	
„ 15	IV	1—68	10.107

To determine the run of the screw the interval between two adjoining divisions on the scale was measured at each sitting. In 1899 the divisions 269 and 270 were used for this purpose, in 1901 and 1902 the divisions 300 and 301. No corrections for run have been applied. It will be seen that in every case the deviations of the individual values from their mean is well within the probable error of measurement, with the single exception of the measure of run belonging to the measures of plate III in pos. II on the morning of 1901 Sept. 4. Since however the measure in the afternoon of the same date (appertaining to pos III of the same plate) shows nothing extraordinary it is not probable that this large deviation is real. Moreover the run was not determined for the measures of pos II on Sept. 3. If therefore it is wished to apply a correction some assumption must necessarily be made as to this run. If we assume it to be the same as that for pos. I on the same date, and if we consider the abnormal value of Sept. 4 to be real, then the resulting difference in scale value, in the mean of the two positions, between the stars 1 to 8 and 9 to 39 will be + 0.r016, which would cause a difference of — 0."027 in the final proper motions in right ascension. The mean residuals given by the actual proper motions (derived without applying any correction for run) of the stars 1 to 8 is + 0."001[5] against — 0."002[5] for the stars 9 to 39, giving a difference of + 0."004 instead of — 0."027. The abnormal value of Sept. 4 is therefore undoubtedly erroneous, and it has been ignored.

The distances on the plate between the two sets of images belonging to the two epochs are very large, in many cases exceeding 10 revolutions (1 minute of arc). In one case (Plate VI) they are too large (about 18 rev.) to be directly measurable. Advantage was then taken of the circumstance that there are two wires in the microscope, which move together and are separated by about 5 revolutions. One of these was pointed on the images 1 and the other on the images 2, thus reducing the distance actually measured by the screw to about 13 rev.

The tables I at the end of this paper contain the measures. The first column gives the rotation number of the stars on the plate. The second column contains the number of the star in the general catalogue of resulting proper motions (Table III). The third column gives the estimated brightness of the image. The meaning of the letters in this column is the same as in Publ. **1** and **10**. The fourth and fifth columns contain the coordinates on the plate. The sixth and seventh columns give the measured distances p in the positions I and II. Each of these is, of course, the mean of the distances given by the three pairs of images a, b and c. The eighth column gives the mean $n = \frac{1}{2}(p_{\rm I} + p_{\rm II})$.

Similarly the distances p' measured in the positions III and IV, together with their mean n' are given in the eleventh, twelfth and thirteenth columns of the Tables I.

3. *Preliminary reduction.* In order to have smaller numbers to deal with in the final reductions, three linear constants were determined for each plate from a few suitably chosen stars by the formulae

$$a_0 + b_0 x + c_0 y = n$$
$$a'_0 + b'_0 x + c'_0 y = n',$$

where x and y are the coordinates expressed in minutes of arc, and the constants will, of course, be found expressed in revolutions, since n and n' are so expressed. The constants are given in table 4. The quantities:

$$n_0 = a_0 + b_0 x + c_0 y$$
$$n'_0 = a'_0 + b'_0 x + c'_0 y$$

are given in the ninth and fourteenth columns of the Table I.

TABLE 4. APPROXIMATE LINEAR CONSTANTS.

Plate.	a_0	b_0	c_0	a'_0	b'_0	c'_0	$\frac{6}{T}$
	r	r	r	r	r	r	
A	+ 7.875	—0.00543	—0.01877	—0.055	—0.00786	+0.00798	1.52
D	+ 8.106	— .00111	— .01350	+0.554	— .01652	+ .00055	1.46
H	+ 7.858	+ .00060	— .00951	+0.476	— .01745	— .00269	1.46
I	+13.750	+ .00078	— .01880	+0.588	— .02120	— .00169	1.20
II	+ 9.994	— .00174	— .01460	+1.479	— .01780	— .00240	1.22
III	+14.606	.00000	— .02140	—1.961	— .02240	— .00059	1.21
IV	+14.051	— .00067	— .01960	—2.182	— .01870	+ .00025	1.21
V	+ 9.877	— .00069	— .01760	+0.421	— .02040	+ .00079	1.20
VI	+13.305	+ .00091	— .01850	+1.912	— .01420	— .00033	1.22
VII	+11.342	— .00069	— .01690	—2.117	— .01970	— $.00098^5$	1.21
VIII	+ 8.491	+ .00005	— .01450	+0.694	— .01650	— .00011	1.20
IX	+ 9.871	+ .00057	— .02440	+0.303	— .02110	— .00076	1.22
X	+ 9.380	+ .00084	— .01690	+0.630	— .02110	— $.00056^5$	1.20
XI	+12.438	— .00014	— .02190	+0.127	— .02030	+ $.00017^5$	1.20
XII	+10.567	— .00163	— .02290	+0.282	— .01860	+ .00240	1.20
XIII	+15.012	+ .00051	— .02080	+0.658	— .02210	+ .00004	1.20
XIV	+10.143	— $.00012^5$	— .02180	+1.287	— .02100	— .00014	1.22
XV	+ 9.462	+ .00103	— .01820	+0.246	— .02120	— .00128	1.20
XVI	+10.331	— .00064	— .02280	+1.252	— .01920	+ .00060	1.22

The differences $n - n_0$ were multiplied by 6 to reduce them to seconds of arc, and divided by the intervals T to give the approximate yearly proper motions. The quantities

$$\frac{6}{T}(n_0 - n) \text{ and } \frac{6}{T}(n' - n'_0)$$

are given in the tenth and fifteenth columns of Table I.

These quantities were then combined to one mean for every two plates of the same area. Plates containing less than twenty stars were rejected. The plates A, D and H were supposed to have a weight 4 and the plates I to XVI a weight 5 in accordance with the respective intervals *). The tables II at the end of the paper give for each area the quantities $\frac{6}{T}(n_0 - n)$ and $\frac{6}{T}(n' - n'_0)$ for the two individual plates and the means which are denoted by v and v'. In most cases naturally a number of stars occur only on one of the two plates of an area. These are provisionally ignored, and only those stars which occur on both plates are considered as belonging to the area. The other, „additional" stars will be treated separately (see art. 7).

We denote by ϱ_1 the probable error corresponding to the weight unity and by ϱ_0 the p.e. of a distance measured on the plate (3 images, 2 positions) i.e. of one of the quantities n or n'. In order to get convenient small numbers for

*) These weights were adopted by mistake instead of 16 and 25. The effect on the resulting p. m. is negligible. If the correct weights had been adopted, the weight p_v for Group A (see next page) would have been 4.1 instead of 4.05.

the weights we adopt $\varrho^2_0 = 10\varrho^2_1$. The provisionally adopted value of ϱ_0 is

$\varrho_0 = \pm 0.''075$ which corresponds to $\varrho_1 = \pm 0.''023^5$

The areas can be divided into three groups according to the different combinations of plates from one of the two series with different intervals of time between the two exposures. It will be seen from the manner in which the means v and v' have been formed, that their prob. errors and weights will be as follows:

Group	A,	(one plate from each series)	Areas 1, 8, 9	: $\varrho^2_v = \frac{2}{81}\varrho^2_0$, $p_v = 4.05$
„	B_1	(one plate from second series)	„ 2, 3, 4, 6, 11	: $\varrho^2_v = \frac{1}{25}\varrho^2_0$, $p_v = 2.5$
„	B_2	(two plates from second series)	„ 5, 7, 10, 12	: $\varrho^2_v = \frac{1}{50}\varrho^2_0$, $p_v = 5.0$

4. *Plan of further reductions.* The means v and v' are now exclusively used for the derivation of the proper motions of the stars of the areas. The final proper motions are supposed to be given by the formulae:

$$\left.\begin{aligned} v_1 &= a + bx + cy + dx^2 + exy + fy^2 \\ v'_1 &= a' + b'x + c'y + d'x^2 + e'xy + f'y^2 \\ m''_\alpha &= v - v_1 \\ m''_\delta &= v' - v'_1 \end{aligned}\right\} \quad \ldots\ldots\ldots \quad (1)$$

where the twelve constants $a, b, c \ldots\ldots a', b' \ldots\ldots$ must be determined for each area separately. For the determination of these 144 unknowns we have the following conditions:

a. For those stars of which the proper motion is known, the formulae (1) must reproduce this proper motion. This gives for each star two equations of condition, viz: one for the p.m. in R.A. and one for the p.m. in declination. The weight of these equations is

$$p_n = \frac{p_v\, p_\mu}{p_v + p_\mu}.$$

These weights are given in the tables II under the heading p_n. For the derivation of the standard proper motions and the weights p_μ see the next article.

b. Every star which occurs on two areas must give the same p.m. on each. This gives for each star an equation of condition, involving the six constants $a, b, \ldots\ldots$ for the p.m. in R.A. of the one area and the same constants for the other area, and a similar equation for the p.m. in declination. The weight of these equations is

$$p_c = \frac{p_{v_1}\, p_{v_2}}{p_{v_1} + p_{v_2}}.$$

where the values of p_{v_1} and p_{v_2} are the weights of the quantities v on the two overlapping areas.

The coefficients of the equations of condition are, of course, the same for the p.m. in right ascension and in declination, only the absolute terms differ in the two cases. The weights p_v are also the same for both, and since also the weights p_μ were assumed to be the same for R.A. and decl., the left hand members of the normal equations will also be the same.

5. *Standard proper motions.* The work of deriving the necessary standard proper motions from the catalogues was carried out by Mr. WEERSMA, and is contained in Nr. **13** of these Publications. The proper motions as there given are referred to the provisional system of the Fundamental Catalogue of the Astronomische Gesellschaft. As is well known this system is, as far as the proper motions are concerned, identical to that of AUWERS' BRADLEY. AUWERS' final corrections to the preliminary system (A.N. 3927—29) were not yet published when the computations were made.

Since Mr. WEERSMA had not yet computed his weights at the time when they were required for the computation of the coefficients of the normal equations, theoretical weights were computed by the formula

$$p_\mu = \Sigma(pt^2) - \frac{\{\Sigma(pt)\}^2}{\Sigma p}.$$

The weights p were assigned in close accordance with AUWERS' tables of weights in A.N. 3615—6, and with the relative weights adopted by Mr. WEERSMA. The weights were reduced to our scale ($\varrho_1 = \pm 0.''0235$) and the mean of the weight of the right-ascensions and the declinations was taken for both. The weights actually used do also depend on the number of observations, for which also the mean of R.A. and decl. was taken. By this proceeding the proper motions in right ascension have as a rule received too high a weight, and those in declination too small. The weights p_μ can however be altered to a large extent, without sensibly affecting the value of p_n which is alone important for the present work, and consequently the fact that the weights were not always exactly correct cannot have influenced the result in the least. That the assigned weights are sensibly correct in the mean of right-ascension and declination, will be shown in art. ~~9~~ 10. To the positions derived from the heliometer-triangulation by WIRTZ (A.N. 3818—9) a weight 0.025 was assigned, in accordance with the p. e. given by WIRTZ, instead of infinity as adopted by Mr. WEERSMA. No proper motions were derived by Mr. WEERSMA in the cases where the weight so derived was smaller than 2.4. The proper motions taken from the Fundamental Catalogue of the A.G. have received a weight 100. The weights actually adopted are given in the last column of Table III at the end of this paper*). The standard proper motions as they were actually used are given in the tables II under the headings μ''_α and μ''_δ. These may differ in a few cases by one or two units of the last decimal place from those finally adopted by Mr. WEERSMA and published in Publ. **13**. The latter are contained in Table III.

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*) The weights as given in Publ. **13** must be multiplied by 2 to reduce them to the scale of this paper. A comparison of the weights given in Publ. **13** with those here used will show some rather large deviations, especially in the case of the smaller weights, but on the whole the agreement is as good as could be expected.

6. *Formation and solution of normal equations.* The number of standard proper motions is too small to allow six constants to be determined for each area with sufficient accuracy. All exposures were taken in the same season of the year and generally the two exposures on the same plate were taken at nearly the same hour-angle. At least some of the causes which tend to make the quadratic terms large, must therefore be the same for all plates of one series *). Accordingly the quadratic terms were assumed to be the same for all areas belonging to the same group, the groups B_1 and B_2 being reckoned for one.

This reduces the number of unknowns to 42 for the right-ascensions and as much for the declinations.

Normal equations were formed from the equations of condition (see art 4) and these were solved by a process of successive approximations. The unknowns were divided into 14 sets of three each, viz. two sets of quadratic constants, one for each of the groups A and B, and 12 sets of linear constants, one for each area. In the normal equations of each set the terms containing the other unknowns were transferred to the right hand members, and a solution was made, giving the unknowns in terms of these right hand members. As a first approximation the other unknowns were neglected in the right hand members, in the second approximation the values of the unknowns found by the first were used to correct the right hand members and this process was continued as often as necessary. The convergence of the approximation was very slow, which is chiefly due to the fact that the equations of condition derived from comparisons of different areas are far more numerous than those derived from the standard proper motions, and consequently the terms in the normal equations of each set containing the unknowns belonging to the other set are not so small as compared with those containing the unknowns of the set itself, as would be desirable for a rapid approximation. Advantage could however be taken of a tendency of the successive approximations to oscillate about the true value which in many cases became apparent already in the early approximations, and a satisfactory solution was ultimately reached. The final values of the quadratic constants are (the coordinates x and y being expressed in minutes of arc):

	Group A.	Group B.		Group A.	Group B.
d	— 0.″0000 0039	— 0.″0000 0225	d'	— 0.″0000 0397	— 0.″0000 0044⁵
e	— 0. 0000 0242	— 0. 0000 0331	e'	— 0. 0000 0156	— 0. 0000 0314
f	— 0. 0000 0033	+ 0. 0000 0064	f'	— 0. 0000 0508	— 0. 0000 0439

*) The differential refraction and aberration of the second order were neglected. Their effect on the final proper motions for stars in the extreme corners of the plate would in no case exceed 0.″010 and generally would be below 0.″005. Moreover it is of the same sign for nearly all plates, and the mean effect is therefore included in the quadratic terms which are common to all plates of one series. The small deviations of the values for the individual areas from the mean are of an accidental character and are perfectly negligible compared with the ordinary errors of observation.

The measures give, of course, proper motions in the directions parallel to the declination circle and the great circle perpendicular to it through the centre of the area. The corrections necessary to reduce these to proper motions in Decl. and R.A. are, for the declination of our areas, absolutely negligible.

The linear constants for the different areas are given in table 5.

TABLE 5. LINEAR CONSTANTS.

Area	a	b	c	a'	b'	c'
	"	"	"	"	"	"
1	+0.004	−0.00004	0.00000	+0.060	−0.00016	−0.00042
2	− .037	− .00343	+ .00140	+ .038	− .00014	+ .00221
3	− .030	− .00030	+ .00011	+ .016	+ .00034	+ .00083
4	+ .037	− .00031	− .00060	+ .040	− .00053	+ .00020
5	+ .002	+ .00057	+ .00044	+ .057	+ .00037	− .00011
6	− .016	− .00112	+ .00002	+ .050	− .00002	+ .00027
7	+ .005	+ .00025	− .00021	+ .023	− .00008	+ .00005
8	− .018	+ .00046	+ .00107	+ .005	− .00035	− .00032
9	− .059	− .00030	− .00110	+ .022	− .00062	+ .00037
10	− .029	+ .00086	+ .00156	+ .012	− .00002	− .00033
11	+ .003	+ .00074	− .00025	+ .026	+ .00025	+ .00048
12	− .010	− .00020	+ .00021	+ .026	− .00024	+ .00012

It may be remarked here that this rigorous solution, which has cost an amount of time and labour wholly out of proportion to the other parts of the work, could probably have been avoided, or at least greatly simplified, if the plates had contained more stars. With an ideal set of plates the conditions would be something like the following. There would be many stars on each plate, and the plates would be sensibly homogeneous, the limit of measurability being nearly the same for all. Then as a first approximation we could treat each plate (or each area if more than one plate were taken of the same area) on its own merits, deriving six constants by means of which we would get the proper motion of each star relatively to the mean of all the stars measured in the area. Such stars as were known to have exceptional proper motions or for which a first rough reduction with three constants (which is always necessary to get convenient small numbers) gave conclusive evidence of large motion, would naturally be excluded in deriving the constants. To the constants thus derived corrections must then be applied to reduce all areas to one system. On the assumption that the plates are rich and homogeneous these corrections will certainly be very small. To derive them, all stars common to any two areas may be used. If all the plates are so rich that we can afford to neglect from the beginning such stars as do not occur on all plates within whose limits they fall, then the common stars can be combined to one or a few suitably chosen means for every two overlapping areas, without affecting the rigour of the solution, and the equations determining the corrections to the constants would become very simple and could be solved with very little labour. Thus all the proper motions would be reduced to one consistent system. The whole system could then be adjusted to coincide with some standard system by means of the stars of which the proper motion referred to the standard system is known. In the present case a similar course was excluded from the beginning owing to the small number of stars and the want of homogeneity of the plates, and it was unavoidable to form an equation of condition for every star and to solve all the equations at once. The formal rigour which is thus obtained is no equivalent for the great increase in labour which is involved by this solution. Moreover it is more imaginary than real, since some stars were afterwards rejected, others were remeasured and various corrections were applied (see art. 12) which, if absolute rigour were required, would have to be carried through the whole solution. Of course the resulting constants would not appreciably be altered thereby, and the constants actually used are sufficiently exact for all practical purposes, but the formal rigour is destroyed.

7. *Additional stars.* It now remains to derive the constants for those „additional" stars which were left out of account in the discussion of the areas because they occur on only one of the two plates. They are all contained on plates of the second series, so the quadratic terms of group B must be adopted. To derive the linear terms the same method was not used throughout. In most cases the constants were derived from those stars of the plate in question which also occur on the other plate of the same area, by means of the proper motions as given by the area. For area 8 (plate X) the constants *a* and *a'* derived in this way were afterwards slightly corrected by means of the proper motions given for the additional stars themselves by all the other areas on which they occur. For area 10 (plate XIII) those additional stars of which standard proper motions are known were also used for the determination of the constants. For plate VI (area 5), where all additional stars are on the south half of the plate, the constants were derived from all stars on this half of the plate by means of the

TABLE 6. LINEAR CONSTANTS FOR ADDITIONAL STARS.

Area	Plate	*a*	*b*	*c*	*a'*	*b'*	*c'*
		"	"	"	"	"	"
1	I	+0.017	+0.00003	−0.00030	+0.057	+0.00016	+0.00016
5	V	+ .025			+ .074		
	VI	+ .039	+ .00041	+ .00168	+ .031	+ .00063	− .00136
7	VIII	+ .003	− .00055	− .00011	+ .046	− .00016	− .00049
8	X	− .014	+ .00032	+ .00105	+ .009	− .00028	− .00058
9	XI	− .041	+ .00022	− .00170	+ .027	− .00006	+ .00011
10	XIII	− .018	+ .00080	+ .00166	+ .022	− .00002	− .00021

proper motions given by all areas on which they occur. For area 7 (plate VIII) the constants were determined in the same way from the additional stars only. The star Nr. 65 of plate V (area 5) which is the only one on that plate not belonging to the area, was reduced by means of six surrounding stars. The finally adopted linear constants for the additional stars are given in Table 6.

The quantities

$$v_1 = a + bx + cy + dx^2 + exy + fy^2$$
$$v'_1 = a' + b'x + c'y + d'x^2 + e'xy + f'y^2$$

are given in the tables II both for the stars of the area and the additional stars. There can be no difficulty in distinguishing the additional stars from the others, since for the former either the fifth and eleventh or the sixth and twelfth columns are unoccupied, while for the stars of the area all those columns are filled in. The proper motions are found by the formulae

$$m''_\alpha = v - v_1 \qquad m''_\delta = v' - v'_1$$

for stars of the area, and

$$m''_\alpha = \frac{6}{T}(n_0 - n) - v_1 \qquad m''_\delta = \frac{6}{T}(n' - n'_0) - v'_1$$

for the additional stars. They are given in the tenth and sixteenth columns of Table II. Rejected values are enclosed in square brackets.

8. *Final proper motions.* The proper motions so derived are given in Table III. The proper motions in right ascension are given on the left hand page and those in declination on the right hand page. A colon (:) here as elsewhere denotes that the measures were considered to be subject to particular uncertainty. Rejected values are inclosed in square brackets. The reason of the rejection is in all cases extreme faintness or other defects of the images. No stars were rejected for discordance alone. The „additional" stars are distinguished from those belonging to the areas by a prefixed asterisk (*). The sign × following the proper motion signifies that the distance of the star from the centre of the plate exceeds 60′, the sign × that it exceeds 70′. A preliminary investigation showed that up to a distance of 60′ the accuracy of the measures is sensibly homogeneous, and that the stars at distances between 60′ and 70′ were only entitled to a weight $\frac{3}{4}$ and those at distances exceeding 70′ to a weight $\frac{1}{2}$ as compared with those in the central portion of the plate. For convenience's sake 0.8 and 0.4 were substituted for $\frac{3}{4}$ and $\frac{1}{2}$. The weights of the proper motions are thus as follows (for the areas 1, 8 and 9 4.0 was substituted for 4.05):

TABLE 7. WEIGHTS.

Area and mark before the p.m.		Marks following the p.m.		
		no mark	×	×
no mark	Areas 1, 8, 9	4.0	3.2	1.6
no mark	Areas 2, 3, 4, 6, 11	2.5	2.0	1.0
no mark	Areas 5, 7, 10, 12	5.0	4.0	2.0
*	All areas	2.5	2.0	1.0

To the means formed in accordance with these weights the corrections depending on the brightness given in the columns headed Δm were added. The derivation of these corrections will be explained in artt. 12 and 13. The final proper motions are given in the columns headed m''_α and m''_δ. The proper motions in right ascension are also given expressed in seconds of time in the last column of the left hand page. The column headed prob. error on the right hand page gives the probable error of the final proper motions in R.A. and declination corresponding to the weights assigned according to table 8. The probable error of weight unity is assumed to be ± 0."0.27, as derived in art. 10.

For the standard stars the final adopted proper motion is the weighted mean of that derived from the plates and that found by Mr. WEERSMA. These means are given in table IV. The weights p_μ were used both for R.A. and declination, though in accordance with the results reached in art. 10 it should be increased by about 3/4 of its value for the proper motions in declination to be directly comparable to the assumed weights of the p.m. derived from the plates. The only cases in which this fact can have had any appreciable effect on the resulting proper motions are those where the weight p_μ is small. On comparison with the weights given in Publ. **13** it will be seen however that nearly all small weights are given much smaller by Mr. WEERSMA than here adopted, and therefore in these cases also the resulting proper motion would certainly not be improved by increasing the weight p_μ.

For the stars occuring in the Fund. Cat. of the A.G. AUWERS's corrected values (A.N. 3927—9) within the old system were used, and for star 163 the correct proper motion as given by AUWERS was substituted for the one erroneously adopted by WEERSMA.

The probable errors correspond to a p.e. of ± 0."027 for weight unity. For the p.m. in declination the real p.e. will in most cases be slightly smaller than those stated in the table.

9. *General Catalogue. Explanation of Table III.* Most of the columns of the general catalogue of the proper motions, given in Table III, are sufficiently explained by their headings. A few remarks must however be made about the following columns.

Left hand page. Nr. B.D. An asterisk signifies that the star occurs in the Bonn Durchmusterung not in the zone of the same declination, but in the adjacent zone.

R.A. and Decl. 1855. These were derived from the coordinates measured on the plate in the following manner. For stars occurring in the Ast. Ges. Catalogues the places taken from that source were adopted, after reduction to 1855. From these stars constants were derived for each area, taking due account of the change in orientation due to precession, and the R.A. and decl. of every star was computed by these constants. The coordinates as given in the table are taken from that area on which the star is nearest to the centre.

Phot mag. These were derived from the estimated brightness by a graphical process. It appeared that the mean magnitudes from the B D. for each class of brightness fell into a very smooth curve, when plotted so that to the interval between each class corresponds an equal interval of the abscissae. The curve was supposed to be the same for all areas but a constant correction was derived for each. The figures given in the table are the mean of all the areas on which the star occurs. For magnitudes brighter than 7.0 the decimals were dropped. It is believed that systematically these magnitudes will be certainly reliable to the last decimal place given. They are, of course, referred to the system of the B.D., which according to Mr. WEERSMA's investigation (Publ. **13**, page 14) coincides with that of the HARVARD Photometric Revision of the D.M. for the region of our plates. For individual stars the magnitudes may be inexact to the amount of about ⅓ of a magnitude for stars in the neighbourhood of 9.0 and a whole magnitude or more for very bright stars. The magnitudes fainter thans 9.4 depend, of course, on an extrapolation of the scale of the B D.

A. G. C. Rotation number of the star in the Catalogues of the Astronomische Gesellschaft. The Berlin zone (15°—20°) is referred to by B, the Leipzig zone (10°—15°) by L.

The other columns on this page are explained in arts. 8 and 12.

Right hand page. The first columns, up to the one headed prob. error, are explained in arts. 8, 12 and 13.

Catalogues. These columns contain the proper motions of the stars as given by the most recent independent determination of it, which has come to my knowledge. The proper motions printed in ordinary type (and without an asterisk to the p.m. in R.A.) are taken from AUWERS' BRADLEY. Those printed in italics are from AUWERS' Berlin zone of the Astr. Ges. Cat. Those printed in heavy type are from the Fund. Catalogue of the A.G. The corrections given by AUWERS A.N. 3927—9 *within the old (preliminary) system* have been applied. Proper motions taken from other sources are printed in ordinary type but an asterisk is added in the column μ^s_α and the authority is given at the bottom of the page. An asterisk in the column μ''_δ denotes that the p.m. from another independent authority is also given at the bottom of the page, or that there is a note regarding the p.m.

Publ. **13**. The proper motions are given as printed in Publ. **13**. These may sometime differ by one or two units of the last decimal place from those actually used, which are given in Table II. The weights p_μ are those actually used (see art. 5). The p.e. corresponding to weight unity is $\pm$ 0.″027 = $\pm$ 0.ˢ0018 for the p.m. in R.A. and $\pm$ 0.″020 for the p.m. in decl. These probable errors for unit weight were however derived from the comparison with the p.m. given by the plates, and are only rather rough approximations. Since Mr. WEERSMA also made no independent investigation of the p. e. of his proper motions, it seemed better to give the weights alone and not to convert them into probable errors.

10. *Accidental errors.* For the derivation of the probable error of weight unity two kinds of residuals were formed, viz:

$$\delta m = \text{p.m. from one area} - \text{mean of all areas}$$

$$\delta\mu = \text{p.m. from one area} - \text{standard p.m.}$$

The probable errors corresponding to the weight unity were derived from these residuals for each area separately, taking due account of the weights of the different quantities combining to form each residual. The resulting p.e. are, taking the mean of all areas:

from δm	p.m. in R A.	$\varrho_1 = \pm$ 0.″0277
	p.m. in decl.	$\varrho_1 = \pm$ 0.0263
from $\delta\mu$	p.m. in R.A.	$\varrho_1 = \pm$ 0.0280
	p.m. in decl.	$\varrho_1 = \pm$ 0.0224.

The values derived from the residuals δm for the p.m. in right ascension and declination are in perfect agreement.

We will adopt as the definitive probable error corresponding to the weight unity

$$\varrho_1 = \pm 0''0270.$$

The originally adopted value was $\varrho_1 = \pm$ 0.″0235. From the discussion of the parallax-plates contained in Nrs. **1** and **10** of these Publications we find for the prob. error of one parallax from one plate with one image, reduced to the normal parallax-factor 4, $\varrho'_1 = \pm$ 0.″050. Since the parallax depends on the difference of two measured distances, the p.e. of one measured distance for a plate with three images is $\varrho_0 = \frac{4}{\sqrt{2}\,.\,\sqrt{3}} \cdot \varrho'_1 = \pm$ 0.″0817, which corresponds to

$$\varrho_1 = \pm 0.''0258.$$

The measures on these plates are thus slightly less accurate than those on the average parallax plates and of about the same accuracy as those on the first measured parallax plate (that of the region around BD. + 35° . 4013, discussed in Publ. **1**). This is easily explained by the fact that on the first parallax-plate every star that was visible has been measured (see Publ. **1**, page 84), while on the other parallax-plates (those discussed in Publ. **10**) extremely faint and diffused images were not measured. On the proper motion plates also many extremely faint stars were measured, which had, perhaps, better been rejected *).

For the standard proper motions the probable error corresponding to weight unity is $\varrho_1 = \pm$ 0.″0235, according to AUWERS's tables of weights in A.N. 3615—6. This is the mean value for the right-ascensions and declinations. From Mr. WEERSMA's weights as given in Publ. **13** we find for the ratio of the weights of the proper

*) The p. e. of weight unity derived from the stars of the classes ff and f alone is $\pm$ 0.″034.

motions in declination and R.A. $p_\delta : p_\alpha = 1.74$. We must therefore have

$$\varrho_1(\mu_\alpha) = \pm 0.''027 \qquad \varrho_1(\mu_\delta) = \pm 0.''020.$$

Since on the average the weight of the standard proper motions is about twice that of the final p.m. derived from the plates the probable error of weight unity derived from the residuals $\delta\mu$ will be

$$\varrho^2{}_1(\delta\mu) = \tfrac{2}{3}\varrho^2{}_1(m) + \tfrac{1}{3}\varrho^2{}_1(\mu).$$

Using the values just derived we find for the probable errors derived from the residuals $\delta\mu$ the following theoretical values:

$$\text{for p.m. in R.A.} \qquad \varrho_1 = \pm 0.027^5$$
$$\text{for p.m. in decl.} \qquad \varrho_1 = \pm 0.024$$

which agree tolerably well with those derived directly from the residuals.

According to AUWERS's tables of weights in A.N. 3615—6 the p.e. of a proper motion depending on three observations by BRADLEY and three in the Greenwich 1864 Catalogue would be ± 0.″013 in R.A. and ± 0.″007 in decl, or ± 0.″010 in the mean. To attain the same accuracy from plates similar to those discussed here, one plate with 9 years interval between the two epochs would be necessary, or two plates with 6 years or 3 plates with 5 years interval. Of the 395 proper motions determined in this paper (from the plates alone) 145 have probable errors of ± 0.″010 or smaller.

11. *Systematic errors depending on the position on the plate.* An entirely satisfactory investigation of these errors cannot be undertaken owing to the small number of stars. The means of the residuals δm for nine parts of the plate are given in Table 8, together with the number of stars on which each mean depends. The nine parts of the plate are defined as follows:

I $\begin{cases} x < -20' \\ y < -20' \end{cases}$	IV $\begin{cases} -20' < x < +20' \\ y < -20' \end{cases}$	VII $\begin{cases} x > +20' \\ y < -20' \end{cases}$
II $\begin{cases} x < -20' \\ -20' < y < +20' \end{cases}$	V $\begin{cases} -20' < x < +20' \\ -20' < y < +20' \end{cases}$	VIII $\begin{cases} x > +20' \\ -20' < y < +20' \end{cases}$
III $\begin{cases} x < -20' \\ y > +20' \end{cases}$	VI $\begin{cases} -20' < x < +20' \\ y > +20' \end{cases}$	IX $\begin{cases} x > +20' \\ y > +20' \end{cases}$

The areas 1, 2, 5, 11 and 12 are only partially covered by other areas and are therefore not available for this discussion.

In no case are the means larger than can be explained by the accidental errors of observation. In Area 4 the means for m''_α for the parts I, IV and VII, i.e. the southern third part of the plate, are all rather strongly negative. This is however an isolated case, and can throw no doubt on the systematic correctness of the whole.

In some cases the means could perhaps be brought down somewhat by computing quadratic terms for each area separately instead of assuming them to be the same for all plates of one series. On the whole the means are however so small and so free from any systematic distribution of signs, that they can safely be considered as a proof that the deviations of the true quadratic terms of

TABLE 8. MEAN RESIDUALS FOR DIFFERENT PARTS OF PLATE.

Part of Plate.	Area 3			Area 4.			Area 6.			Area 7.			Area 8.			Area 9.			Area 10.		
	$\delta m''_\alpha$	$\delta m''_\delta$	Nr.	$\delta m''_\alpha$	$\delta m''_\delta$	Nr.	$\delta m''_\alpha$	$\delta m''_\delta$	Nr.	$\delta m''_\alpha$	$\delta m''_\delta$	Nr.	$\delta m''_\alpha$	$\delta m''_\delta$	Nr.	$\delta m''_\alpha$	δm_δ	Nr.	$\delta m''_\alpha$	$\delta m''_\delta$	Nr.
	″	″		″	″		″	″		″	″		″	″		″	″		″	″	
I	+.008	.000	3	—.010	—.003	6	+.006	+.011	7	+.019	+.003	3	+.012	+.006	3	+.004	—.008	5	—.004	—.007	4
II	— 5	0	3	— 1	+ 3	6	— 2	+ 13	5	— 10	+ 5	3	— 1	+ 9	7	+ 1	— 8	3	+ 13	— 9	4
III	— 25	— 26	1	+ 3	— 13	3	+ 5	— 6	8	— 20	— 7	2	0	+ 2	5	+ 1	+ 10	7	+ 2	0	4
IV	— 17	— 18	2	— 22	— 3	10	— 2	— 6	9	+ 4	0	5	— 5	+ 2	6	+ 13	— 9	2	+ 4	+ 10	5
V	— 2	— 27	2	+ 10	— 17	6	+ 4	— 13	6	+ 5	— 2	6	0	— 1	7	+ 11	+ 4	2	0	— 7	10
VI	— 2	— 5	8	+ 7	+ 1	5	— 2	0	11	+ 1	— 7	4	+ 4	— 5	6	— 2	+ 4	8	+ 4	— 8	4
VII	+ 13	+ 1	7	— 4	— 6	6	+ 8	0	4	— 9	+ 6	4	+ 9	— 5	3	— 12	+ 3	1	— 9	+ 6	4
VIII	— 1	+ 11	4	+ 1	+ 2	12	— 18	+ 1	11	— 9	— 3	2	— 1	+ 11	7	+ 2	— 5	3	— 4	+ 8	9
IX	— 12	+ 1	5	+ 6	+ 3	5	— 4	+ 3	6	0	— 7	9	+ 16	+ 7	4	— 11	— 8	4	— 9	— 5	3

each area from the mean of the series are well within the limits of uncertainty with which separate constants could have been determined.

12. *Systematic corrections depending on brightness for individual areas.* The means of the residuals δm for each separate class of brigtness were formed for each area. In several cases these means show a strong systematic tendency, thus proving the existence of systematic errors depending on the brightness. For all cases where a reliable correction could be at all determined the resulting corrections are given below in Table 9. For the areas not contained in Table 9 there was either sufficient evidence of the absence of systematic error, or the number of stars was too small to determine it, and the correction was assumed to be zero. For the additional stars of area 10 (plate XIII) no systematic tendency was apparent in the residuals of faint and moderately bright stars, but the very bright stars show extremely large deviations. The bright images on this plate are all more or less misformed. All stars of the classes *bbb* and *bbbb* have ultimately been rejected on this plate. The corrections taken from Table 9 were applied to the proper motions of the separate areas as given in the Table III. The resulting correction to the mean of all areas is, for the proper motions in R.A., given in the column headed Δm on the left hand page of Table III.

These corrections reduce all proper motions to one consistent system. Within this system there may still be a systematic error depending on the brightness, and common to all the plates. Such an error actually exists for the proper motions in declination and will be derived in the next article. The column Δm on the right hand page of Table III contains the sum of that correction and the mean for all areas of the corrections derived in this article.

TABLE 9. CORRECTIONS FOR BRIGHTNESS.

Brightness.	Area 3. $\Delta m''_\alpha$	Area 3. $\Delta m''_\delta$	Area 4. $\Delta m''_\alpha$	Area 4. $\Delta m''_\delta$	Area 6. $\Delta m''_\alpha$	Area 7. $\Delta m''_\delta$	Area 8. $\Delta m''_\alpha$	Area 8. $\Delta m''_\delta$	Area 9. $\Delta m''_\alpha$	Area 9. $\Delta m''_\delta$	Area 11. $\Delta m''_\alpha$	Area 11. $\Delta m''_\delta$	Area 12. $\Delta m''_\alpha$	Area 12. $\Delta m''_\delta$	Additional Stars. Area 7. $\Delta m''_\alpha$	Additional Stars. Area 8. $\Delta m''_\delta$	Additional Stars. Area 9. $\Delta m''_\alpha$	Additional Stars. Area 9. $\Delta m''_\delta$
	″	″	″	″	″	″	″	″	″	″	″	″	″	″	″		″	
ff	+.005	+.004	+.004	+.004	+.007	—.005	—.013	—.008	—.006	+.008	+.006	+.010	—.009	—.003	—.002	Same as for area.	+.006	Same as for area.
f	+ 5	+ 4	+ 3	+ 3	+ 6	— 4	— 12	— 6	— 6	+ 7	+ 5	+ 8	— 7	— 2	0		+ 6	
bf	+ 3	+ 4	+ 1	+ 1	+ 4	— 3	— 8	— 4	— 4	+ 5	+ 3	+ 6	— 4	— 1	+ 2		+ 4	
b	— 1	+ 2	0	0	+ 2	0	— 3	— 3	— 2	+ 2	0	+ 2	— 1	+ 1	+ 4		+ 2	
bb	— 6	— 1	— 2	— 5	— 1	+ 1	+ 4	— 2	+ 2	— 2	— 4	— 4	+ 2	+ 3				
bbb	— 10	— 4	— 4	— 8	— 4	+ 6	+ 8	— 1	+ 5	— 7	— 8	— 9	+ 6	+ 6				
bbbb	— 13	— 6	— 6	— 10	— 7	+ 8	+ 10	0	+ 8	— 13	— 12	— 13	+ 10	+ 9				

13. *Reduction to system of Publication* **9**, *Distribution of proper motions, Systematic corrections depending on magnitude common to all plates.* All our proper motions are now reduced to one homogeneous system, which coincides with that of the Fundamental Catalogue of the A.G., or, which for the proper motions is the same thing, with AUWERS' BRADLEY. In Nr. **9** of these Publications Prof. KAPTEYN states the corrections to be applied to the proper motions on the system of AUWERS' BRADLEY to reduce them to the system which is there explained, and which practically coincides with NEWCOMB's system. For our areas we find from these formulae

$$\left.\begin{aligned} \Delta\mu_\alpha &= +\,0.^s00144 = +\,0.''0207 \\ \Delta\mu_\delta &= -\,0.''0009 \end{aligned}\right\} \quad \ldots\ldots\ldots \quad (1)$$

These corrections must be applied to all the proper motions as given in this paper and in Publ. **13**.

The parallactic motion corresponding to the mean magnitude of our stars ($9.^m2$) can be taken from Prof. KAPTEYN's table in A.N. 3487. We find:

$$\text{mean mag. } 9.2 \left\{\begin{aligned} &\text{in R.A. } +\,0.''0070 \\ &\text{in Decl. } -\,0.\ 0102 \end{aligned}\right\} \quad \ldots\ldots\ldots \quad (2)$$

Adding to the motion thus found the corrections (1) with reversed sign, we get

$$\left.\begin{aligned} &\text{in R.A. } -\,0.''0137 \\ &\text{in Decl. } -\,0.\ 0093 \end{aligned}\right\} \quad \ldots\ldots\ldots \quad (3)$$

Apart from the group of the Hyades the actual proper motions in the system of Publ. **9** must be symmetrically distributed with regard to the values (2). The proper motions as given in this paper (*i. e.* referred to the system AUWERS' BRADLEY) must therefore be symmetrically distributed with regard to the values (3). The proper motion of the group of the Hyades is (see art. 14):

$$\left.\begin{aligned} &\text{in R.A. } +\,0.''090 \\ &\text{in Decl. } -\,0.\ 025 \end{aligned}\right\} \quad \ldots\ldots\ldots \quad (4)$$

A symmetrical curve with this maximum must thus be superposed on the frequency curve of the other stars. The actual distribution of the proper motions in right ascension is given in Table 10. The smooth curve given in the third column is derived from the superposition of two curves which were both made to fulfil the conditions that they shall be symmetrical and have their maxima at the values (3) and (4) respectively. The curves were determined purely empiricaly, subject to these conditions, and no equations were derived for them. In particular no regard whatever was taken to the actual distribution of the stars of the group of the Hyades, as derived in the next article, nor to their number, in drawing the curve of table 10.

TABLE 10. DISTRIBUTION OF PROPER MOTIONS IN RIGHT-ASCENSION.

Limits.	Actual number.	Smooth curve.	Diff.	Limits.	Actual number.	Smooth curve.	Diff.
″				″			
—0.020	42½	37	+ 5½	—0.020	25	34	— 9
— .010	31	35	— 4	—0.030	34	30	+ 4
.000	35	31	+ 4	—0.040	28½	23	+ 5½
+ .010	24½	23	+ 1½	— .050	16	17	— 1
+ .020	12½	17	— 4½	— .060	9½	12	— 2½
+ .030	16	13	+ 3	— .070	9	8	+ 1
+ .040	8½	9 + 1	— 1½	— .080	3½	6	— 2½
+ .050	14	6 + 3	+ 5	— .090	5	4	+ 1
+ .060	7½	4 + 6	— 2½	— .100	3½	4	— ½
+ .070	14	4 + 9	+ 1	— .110	3	3	0
+ .080	12½	3 + 11	— 1½	— .120	3	3	0
+ .090	13½	3 + 11	— ½	— .130	2	2	0
+ .100	8	2 + 9	— 3	— .140	0	1	— 1
+ .110	6½	1 + 6	— ½	— .150			
+ .120	4	3	+ 1	Total	395	335 + 60	0
+ .130	2	1	+ 1				
+ .140	1	0	+ 1				
+ .150							

The representation of the actual distribution by the symmetrical curve having the theoretical maximum is very satisfactory. This proves that the final proper motions in right-ascension have no systematic error beyond that of the system of the Fundamental Catalogue on which they are based.

The frequency curves were also derived for different classes of brightness. The numbers of proper motions between the same limits as are used in Table 10 were counted, and a curve was drawn through them by hand, without any reference to the theoretical maximum nor even to symmetry. The curves are all fairly symmetrical, allowing for the group of the Hyades, and the positions of the maxima agree sufficiently well with the theoretical values, which are derived in exactly the same way as the value (3), as will be seen from the following summary:

Phot. mag. *limits.*	*mean.*	*Number.*	*Maximum* *from curve.*	*theoretical.*
9.0 and brighter	7.6	116	— 0.″007	— 0.″0085
9.1—9.7	9.5	154	— 0. 016	— 0. 0144
9.8 and fainter	10.0	125	— 0. 013	— 0. 0154

This shows conclusively that there is no systematic error in the proper motions in R.A., depending on the brightness, or at least that such an error, if it exists, cannot exceed one or two thousandths of a second of arc.

A similar discussion was also carried out with the proper motions in declination Owing to the fact that the proper motion of the group of the Hyades differs not enough from the paralactic motion to be well separable, without exactly coinciding with it, it was impossible to undertake this discussion before the stars belonging to the group were known and could be removed. Accordingly the discussion contained in the following article was first carried out, and the stars belonging to the group were left out of account. It appeared that the remaining stars gave sensibly symmetrical frequency curves, but the maximum coincided with the theoretical maximum only for the bright stars, and was displaced towards the negative proper motions in the curves given by the stars of mag. 9.1—9.7 and still more displaced in the same direction for the faintest stars. There is thus evidence of a systematic error depending on the magnitude. To derive this error, and to determine how it varies with the magnitude, similar curves were also constructed for other intermediate groups of magnitudes, (*e.g.* 8.0—9.4, mean mag 8.9), and the residuals $\delta\mu$ were also arranged in order of magnitude. From a careful discussion of all the data thus obtained the following systematic corrections were derived.

Phot. mag.	*Δm* ″
9.0 and brighter	0.000
9.1	+0.001
9.5	+ 8
9.9	+ 15
10.0 and fainter	+ 16

The effect of these corrections, added to the differential corrections derived in the preceding article, is given in the column headed *Δm* on the right hand page of Table III.

After the application of these corrections the agreement between theoretical and actual maximum is as follows:

Phot. mag. *limits.*	*mean.*	*Number.*	*Maximum* *from curve.*	*theoretical.*
9.0 and brighter	7.6	116	—0.″018	—0.0168
9.1—9.7	9.5	154	—0.008	—0.0083
9.8 and fainter	10.0	125	—0.005	—0.0068

It is thus apparent that with the corrected magnitudes no displacement of the maximum exists beyond that due to the difference of parallactic motion for different magnitudes, and a curve with the theoretical maximum will represent the observed frequencies very closely.

14. *The group of the Hyades.* As has already been mentioned the discussions contained in this article were first carried out with the values of the p.m. in declination not corrected for the systematic error depending on the magnitude, which is common to all areas, only the differential corrections derived in art. 12 being applied. It was then repeated with the final values. Owing to the small number of faint stars belonging to the group the resulting proper motion of the group was not altered appreciably. The second discussion alone is here given. The proper motion of the group was first assumed to be

(1) . . . . { in R.A. +0.″090; in decl. —0.030 }

and the mean was taken of the proper motions of all stars of which the sum of the squares of the deviations of the actual proper motions in R.A. and decl. from the values (1) was below a certain limit, a constant margin being allowed for both coordinates. Two different limits were thus established, viz:

a: maximum deviation ± 0.″025, margin ± 0.″010
b: „ „ ± 0. 021, „ ± 0. 004

The proper motions as given by the plates alone were used and means were taken without reference to the weights. The resulting means were

Phot. mag.	*Limits a.*	*Nr.*	*Limits b.*	*Nr.*
6.0 and brighter	+ 0.″088 — 0. 022	26	+ 0.″089 — 0. 023	25
7.0—8.9	+ 0. 092 — 0. 038	18	+ 0. 093 — 0. 031	13
9.0 and fainter	+ 0. 084 — 0. 029	18	+ 0. 078 — 0. 030	7
All stars	+ 0. 088 — 0. 029	63	+ 0. 088 — 0. 025	47

The agreement between the means for different magnitudes is another proof of the absence of systematic error depending on the magnitude.

The proper motions of Table IV were then used instead of those of Table III for standard stars, and the assumed proper motion in decl. was changed from — 0.″030 to — 0.″026. We then got the following results:

	μ''_α	μ''_δ	*Nr.*
Limits a, no weights applied	+ 0.″0893	— 0.″0266	64
Limits b, „ „ „	+ 0.0889	— 0.0265	49
Limits b, weighted mean	+ 0.0905	— 0.0246	49

The adopted final proper motion of the group is

$$\left.\begin{array}{ll}\text{in R.A.} & +\,0.''0900 = +\,0.^s00624 \\ \text{in Decl.} & -\,0.\;0250\end{array}\right\} \quad \ldots\ldots\ldots \quad (2)$$

When reduced to the system of Publication **9** this becomes

$$\left.\begin{array}{ll}\text{in R.A.} & +\,0.''1107 = +\,0.^s00767 \\ \text{in Decl.} & -\,0.\;0259\end{array}\right\} \quad \ldots\ldots\ldots \quad (3)$$

The value (3) is equivalent to a total proper motion of

$$0.''1137 \quad \text{in pos. angle} \quad 103.^\circ17 \quad \ldots\ldots \quad (4)$$

The uncertainty of the final value of the proper motion of the group of the Hyades may be estimated as not more than one or two thousandths of a second of arc in both coordinates.

The stars which with more or less probability belong to the group are collected in Table V at the end of this paper. All the stars given as „very probable" almost certainly belong to the group. Also of those given as „doubtful" a few doubtlessly really belong to the group. It is naturally impossible to decide with certainty for every individual star whether it belongs to the group or not, since it may accidentally have the exact proper motion of the group, and still not belong to it, and on the other hand a star belonging to the group may, owing to exceptionally large errors of observation have a tabular proper motion widely different from that of the group. The difficulty is increased by the fact that the proper motion in declination of the group is so little different from the parallactic motion, so that the decision is in most cases practically based on the proper motion in right ascension alone.

In drawing up the Table V it has been supposed that internal motions within the group may exist to an amount of about $\pm$ 0.″007 in both coordinates. This deviation from the mean motion of the group is thus always allowed. For proper motions deviating more than this quantity from the adopted mean motion the probable error has been considered. The final decision depends partly on judgment. As a rule, for the stars whose membership of the group is considered „very probable" the square root of the sum of the squares of the deviations of the p. m. in R.A. and decl. from that of the group, after allowing for internal motion, is smaller than the probable error, and for those given under the heading „probable" smaller than twice the probable error of the motion in one coordinate.

The probability of the existence of internal motions was established as follows. According to Table 10 the total number of stars composing the group must be about sixty. Therefore if no internal motions existed, we should expect to find 30 stars whose proper motion in R.A. deviates less than its p. e. from + 0.″090, belonging to the group, and in addition to these a certain number

4

of other stars, which accidentally have proper motions of this amount. This latter number can be derived from the curve represented in Table 10. If however internal motions do exist to an amount of say $\pm 0.''005$ then we should find 30 stars belonging to the group (and a certain number of others) between the limits $+0.''090 \pm (\varrho + 0.''005)$. Similarly the theoretical number of stars whose p. m. differs less than $\pm 2\varrho$ and $\pm 3\varrho$ from the p. m. of the group can be derived for different hypotheses as to the internal motion. We found the following comparison between actual and theoretical numbers of proper motions between different limits.

Limits.	No internal motion.			Internal motion $\pm 0.''005$.			Internal motion $\pm 0.''010$.		
	Actual number.	Theoretical number.	Diff.	Actual number.	Theoretical number.	Diff.	Actual number.	Theoretical number.	Diff.
$\pm \rho$	26	33	− 7	37	35	+ 2	52	36	+ 16
$\pm 2\rho$	44	56	− 12	56	57	− 1	65	59	+ 6
$\pm 3\rho$	59	65	− 6	71	67	+ 4	77	69	+ 8

It appears from this comparison that the existence of internal motions in R.A. to the amount of $\pm 0.''005$ must be assumed in order to bring the actual and theoretical numbers into agreement *).

A similar discussion of the proper motions in declination gave $\pm 0.''008$ for the probable amount of the internal motions.

The actual distribution of the proper motions of the stars included in Table V confirms the existence of internal motions. The distribution of the deviations of the tabular proper motions from the adopted motion of the group for those stars which have a probable error not exceeding $\pm 0.''010$ is given in Table 11. The average probable error of these stars is $\pm 0.''006$, and the theoretical distribution of residuals corresponding to this probable error (i. e. the distribution that would take place if all deviations were due solely to errors of observation) is also given in the table.

The differences between the actual and theoretical numbers, though not large, are in the direction that must be expected if real internal motions exist. It must also be remembered that of stars having large internal motions and small probable errors an undue proportion would be excluded from table 11, since their membership of the group would be considered as „doubtful" although they really belonged to it, and on the other hand stars with proper motions closely agreeing to that of the group are included in the table, whether they belong to

*) All stars with p. m. outside certain very wide limits in R.A. and Decl. were excluded before the number of residuals between the given limits were counted. This circumstance has been taken into account in deriving the theoretical numbers.

the group or not. If no internal motions existed the deviations of the actual from the theoretical numbers would thus be in the opposite direction to that shown in Table 11. Our conclusion must thus be that internal motions most

TABLE 11. DISTRIBUTION OF RESIDUALS OF STARS BELONGING TO THE GROUP OF THE HYADES.

Limits.	Actual number.			Theoretical number.
	μ''_α	μ''_δ	Mean	
< ± 0.″005	16	20½	18¼	18.4
± 0.″005– 0.″010	12	7	9½	13.4
± 0.″010—0. 015	9	6	7½	7.3
± 0. 015—0. 020	2½	6	4¼	2.9
± 0. 020—0. 025	2½	3½	3	0.8
± 0. 025—0. 030	0	0	0	0.2
± 0. 030—0. 035	1	0	½	0.0

probably do exist, but we are unable from the material at hand to determine their amount. All that can be said is that probably they do, on the average, not reach ± 0.″010 in each coordinate.

The weighted mean of the proper motions contained in the first division of Table V is

$$+ 0.''0908 \qquad - 0.''0250$$

and the weighted mean of the first and second division together is

$$+ 0.''0896 \qquad - 0.''0255.$$

These means are in very satisfactory agreement with the adopted proper motion of the group.

15. *Other remarkable proper motions.*

The curve representing the distribution of the proper motions in Right-ascension is sensibly symmetrical (see table 10). The number of large proper motions (exceeding ± 0.″100) is relatively great, both for the positive and the negative end of the curve. The proper motions in declination of the stars having these large poper motions in right-ascension show nothing remarkable, and as a rule are small. It is not probable that these stars from a group, though it is not impossible that some of them may be physically connected. There is no reason to enumerate these stars separately, the reader can easily look them up in the general catalogue.

The curve of the distribution of the proper motions in declination does not show an analogous phenomenon. The maximum is higher than for the case of the right-ascensions and the numbers decrease rapidly on both sides of it. The number of large proper motions is smaller than in the case of the right-ascensions. The following five stars have exceptionally large proper motions in declination, falling far outside the limits of the regular frequency curve. The star Nr. 341 is Aldebaran.

TABLE 12. REMARKABLE PROPER MOTIONS.

Nr. Gen. Cat.	R.A. 1855	Decl. 1855	Phot. mag.	μ''_α	μ^s_α	μ''_δ	prob. error
	4h m s	+° ′	m	″	s	″	″
26	11 15.0	15 17.4	10.0	− 0.035	− 0.0024	− 0.167	± 0.017
29	34.6	13 55.6	8.0	+ 0.068	+ 0.0047	− 0.231	11
57	13 27.2	14 25.1	9.0	− 0.079	− 0.0054	− 0.188	9
119	15 58.9	15 12.1	9.9	+ 0.075	+ 0.0052	− 0.177	12
341	26 36.3	16 12.8	4	+ 0.051	+ 0.0035	− 0.180	2

TABLES.

TABLE I. Measures and preliminary reductions of individual plates. For explanation see articles 2 and 3.

TABLE II. Further reduction of areas and additional stars. For explanation see articles 4, 5 and 7.

TABLE III. General Catalogue of proper motions. For explanation see articles 5, 8, 9, 12 and 13.

TABLE IV. Final proper motions of standard stars. For explanation see article 8.

TABLE V. Proper motions of stars belonging to the group of the Hyades. For explanation see article 14.

Table I. PLATE A.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
1	222	bbb	− 54.8	− 32.8	8.757	8.797	8.777	8.789	+ 0.018	+ 0.114	+ 0.099	+ 0.106	+ 0.113	− 0.010
2	220	bf	− 55.2	− 11.9	8.394	8.387	8.390	8.399	+ 14	+ 0.268	+ 0.238	+ 0.253	+ 0.284	− 47
3	224	bbbb	− 52.7	+ 40.6	7.386	7.379	7.382	7.399	+ 26	+ 0.775	+ 0.777	+ 0.776	+ 0.683	+ 140
4	227	bbbb	− 51.4	+ 35.1	7.471	7.480	7.475	7.495	+ 30	+ 0.643	+ 0.600	+ 0.622	+ 0.629	− 10
5	225	f	− 53.0	− 13 2	8.557	8.478	8.518	8.411	− 163	+ 0.258	+ 0.287	+ 0.272	+ 0.256	+ 24
6	230	bb	− 49.0	+ 28.0	8.716	8.753	8 734	8.666	− 103	+ 0.130	+ 0.107	+ 0.118	+ 0.107	+ 17
8	233	bbb	− 46.7	+ 52.5	7.077	7.072	7.074 :	7 144	+ 106 :	+ 0.785	+ 0.809	+ 0.797 :	+ 0.731	+ 100 :
9	245	bbb	− 29.9	+ 21.3	7.632	7.598	7.615	7 638	+ 35	+ 0 405	+ 0.381	+ 0 393	+ 0.349	+ 67
10	244	f	− 30.9	+ 53.3	7.083	7.083	7.083 :	7 043	− 61 :	+ 0.679	+ 0.702	+ 0.690 :	+ 0.613	+ 117 :
11	251	bbbb	− 24.1	+ 54.8	6.992	6.983	6.988	6.978	− 15	+ 0 637	+ 0.592	+ 0.614	+ 0 571	+ 65
12	249	ff	− 26.0	+ 5.5	7 881	7.882	7.882	7.913	+ 47	+ 0.199	+ 0.175	+ 0.187	+ 0.193	− 9
13	248	bf	− 26.1	− 40.3	8.801	8.798	8.800	8.774	− 40	− 0 244	− 0.253	− 0.248	− 0.172	− 116
14	246	b	− 29.1	− 58 6	9.121	9.160	9.140	9.133	− 11	− 0 348	− 0.362	− 0.355	− 0 295	− 91
15	254	b	− 23.2	− 30.1	8.599	8 598	8.598	8.566	− 49	− 0.127	− 0.115	− 0.121	− 0.113	− 12
16	264	bf	− 19.0	− 5.8	8.099	8.091	8.095	8.087	− 12	+ 0.082	+ 0.042	+ 0.062	+ 0.048	+ 21
17	255	bbb	− 22.6	+ 24.6	7.508	7.572	7.540	7.537	− 5	+ 0.357	+ 0.328	+ 0 342	+ 0.318	+ 36
18	253	bf	− 23.6	+ 27.1	7.419	7.411	7.415	7.495	+ 122	+ 0.382	+ 0.379	+ 0 380	+ 0.346	+ 52
19	265	f	− 18.6	+ 29.9	7.428	7.439	7.434	7.415	− 29	+ 0.328	+ 0.344	+ 0.336	+ 0.330	+ 9
20	258	bbb	− 21.0	+ 52.0	6.999	7.020	7.010	7.013	+ 5	+ 0.556	+ 0.529	+ 0.542	+ 0.525	+ 26
21	273	bb	− 12.4	+ 32.2	7.402	7.420	7.411	7.338	− 111	+ 0.345	+ 0.319	+ 0.332	+ 0.299	+ 50
22	269	bb	− 15.3	− 10.5	8.186	8.145	8.166	8.155	− 17	− 0.017	− 0.043	− 0.030	− 0.019	− 17
23	271	bb	− 14.1	− 35.5	8.638	8.680	8 659	8.618	− 62	− 0.241	− 0.251	− 0.246	− 0.227	− 29
24	281	b	− 5.9	− 36.2	8 640	8.621	8.630	8.587	− 65	− 0.347	− 0.365	− 0.356	− 0.298	− 88
25	275	ff	− 9.0	− 34.5	8.606	8.562	8.584	8.572	− 18	− 0.289	− 0.322	− 0.306	− 0.259	− 71
26	280	f	− 6.0	+ 21.4	7.550	7.533	7.542	7.507	− 53	+ 0.172	+ 0.157	+ 0.164	+ 0.163	− 2
27	282	bbb	− 5.1	+ 34.4	7.241	7 234	7.238	7.257	+ 29	+ 0.274	+ 0.295	+ 0.284	+ 0.260	+ 36
28	295	bf	+ 8.8	+ 43.8	6.995	6.992	6.994	7.005	+ 17	+ 0.192	+ 0.163	+ 0.178	+ 0 226	− 73
29	297	b-bb	+ 11.2	+ 32.6	7.190	7.199	7.194	7.202	+ 12	+ 0.097	+ 0.103	+ 0.100	+ 0.117	− 26
30	301	b-bb	+ 17.6	+ 41.2	7.116	7.140	7.128	7.005	− 187	+ 0.146	+ 0.137	+ 0.142	+ 0.136	+ 9
31	310	bb	+ 20.6	+ 41.4	7.027	7.057	7.042	6.986	− 85	+ 0.072	+ 0.033	+ 0.052	+ 0.113	− 93
32	315	bbb	+ 24.4	− 25.8	8.269	8.290	8 280	8.227	− 81	− 0.465	− 0.511	− 0.488	− 0.452	− 55
33	317	b	+ 26.0	− 6.6	7.870	7.852	7.861	7.858	− 5	− 0.324	− 0.329	− 0.326	− 0.312	− 21
34	324	ff	+ 33.5	+ 33.4	7.088	7.086	7.087	7.066	− 32	− 0.058	− 0.072	− 0.065	− 0.052	− 20
35	325	bb	+ 34.5	+ 14.0	7.441	7.433	7.437	7 425	− 18	− 0.242	− 0.285	− 0.264	− 0.213	− 78
36	320	bf	+ 31.0	− 17.9	8.040	8.034	8.037	8.043	+ 9	− 0.487	− 0.473	− 0.480	− 0.441	− 59
37	337	bb	+ 48.2	+ 52.7	6.729	6.774	6.752 :	6.624	− 195 :	− 0.087	− 0.118	− 0.102 :	− 0.012	− 137 :

PLATE D.

			′	′	r	r	r	r	″	r	r	r	r	″
1	163	bbb	− 56.4	− 45.8	8.742	8.798	8.770 :	8.787	+ 0.025 :	+ 1.470	+ 1.407	+ 1.438 :	+ 1.462	− 0.035 :
2	164	ff	− 55.9	− 14.9	8 382	8.400	8.391	8.369	− 32	+ 1.431	+ 1.433	+ 1.432	+ 1.468	− 53
3	173	bb	− 50.5	+ 52.2	7.498	7.491	7.494 :	7.458	− 53 :	+ 1.438	+ 1.406	+ 1.422 :	+ 1.417	+ 7 :
4	169	bb	− 52.2	+ 34.1	7.643	7.643	7.643 :	7.704	+ 89 :	+ 1.418	+ 1.392	+ 1.405 :	+ 4.435	− 44 :
5	177	bb	− 48.5	+ 27.8	7.744	7.720	7.732 :	7.785	+ 77 :	+ 1.351	+ 1.318	+ 1.334 :	+ 1.370	− 53 :

PLATE D. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
6	171	ff	−51.4	+13.6	8.026	7.974	8.000	7.979	−0.031	+1.454	+1.363	+1.408	+1.410	−0.003
7	170	bbb	−52.8	−40.1	8.672	8.703	8.688	8.706	+26	+1.478	+1.433	+1.456	+1.404	+76
8	182	bb	−45.8	+44.8	7.562	7.580	7.571	7.552	−28	+1.330	+1.316	+1.323	+1.336	−19
9	197	f	−39.2	+13.7	7.970	7.994	7.982	7.965	−25	+1.174	+1.166	+1.170	+1.209	−57
10	206	b-bb	−34.6	−41.8	8.683	8.683	8.683	8.708	+36	+1.112	+1.092	+1.102	+1.103	−1
11	207	ff	−34.4	−15.2	8.359	8.392	8.376	8.349	−39	+1.070	+1.043	+1.056	+1.114	−85
12	208	f	−33.6	+26.6	7.762	7.774	7.768	7.784	+23	+1.053	+1.077	+1.065	+1.124	−86
13	217	b	−24.0	+1.0	8.164	8.158	8.161	8.119	−61	+0.914	+0.892	+0.903	+0.951	−70
14	227	bbb	−19.4	−24.7	8.410	8.503	8.456	8.461	+7	+0.880	+0.821	+0.850	+0.860	−15
15	224	bbb	−20.7	−19.2	8.358	8.381	8.370	8.388	+26	+0.934	+0.917	+0.926	+0.885	+60
16	221	bb	−22.6	+4.6	8.118	8.098	8.108	8.069	−57	+0.936	+0.925	+0.930	+0.930	−0
17	228	bb	−18.0	+60.3	7.208	7.268	7.238:	7.312	+108:	+0.855	+0.837	+0.846:	+0.884	−55:
18	236	ff	−13.0	+23.4	7.797	7.801	7.799	7.804	+7	+0.787	+0.762	+0.774	+0.782	−12
19	229	ff	−16.9	+0.4	8.047	8.049	8.048	8.120	+105	+0.847	+0.808	+0.828	+0.833	−7
20	233	bb	−14.7	−7.3	8.175	8.167	8.171	8.221	+73	+0.783	+0.766	+0.774	+0.793	−28
21	238	ff	−7.2	−2.2	8.090	8.056	8.073	8.144	+104	+0.633	+0.598	+0.616	+0.672	−82
22	239	ff	−6.6	+10.6	8.002	8.011	8.006	7.970	−53	+0.664	+0.651	+0.658	+0.669	−16
23	237	ff	−8.2	+17.0	7.940	7.917	7.928	7.885	−63	+0.682	+0.638	+0.660	+0.698	−55
24	240	ff	−4.0	+49.7	7.395	7.421	7.408	7.439	+45	+0.672	+0.680	+0.676	+0.647	+42
25	241	bf	−2.5	+48.0	7.491	7.499	7.495	7.461	−50	+0.611	+0.612	+0.612	+0.621	−13
26	242	bf	−1.0	+23.7	7.747	7.723	7.735	7.787	+76	+0.521	+0.515	+0.518	+0.584	−96
27	243	ff	−0.0	+6.4	8.003	8.009	8.006	8.020	+20	+0.559	+0.545	+0.552	+0.558	−9
28	245	bbb	+2.1	−38.5	8.617	8.617	8.617	8.624	+10	+0.546	+0.523	+0.534	+0.498	+53
29	244	b	+1.2	−6.5	8.189	8.201	8.195	8.193	−3	+0.527	+0.517	+0.522	+0.530	−12
30	251	bbb	+7.9	−5.0	8.129	8.155	8.142	8.165	+34	+0.447	+0.408	+0.428	+0.421	+10
31	258	bb	+11.1	−7.8	8.184	8.151	8.168	8.199	+45	+0.370	+0.332	+0.351	+0.367	−23
32	253	bf	+8.5	−32.8	8.474	8.488	8.481	8.540	+86	+0.368	+0.362	+0.365	+0.396	−45
33	255	bbb	+9.4	−35.2	8.543	8.550	8.546	8.571	+36	+0.394	+0.373	+0.384	+0.380	+6
34	265	bf	+13.4	−29.9	8.471	8.471	8.471	8.495	+35	+0.341	+0.320	+0.330	+0.317	+19
36	268	ff	+16.7	+34.4	7.603	7.585	7.594	7.623	+42	+0.279	+0.250	+0.264	+0.297	−48
37	270	bf	+18.0	+59.8	7.221	7.189	7.205:	7.279	+108:	+0.347	+0.364	+0.356:	+0.290	+95:
38	277	ff	+24.3	+32.5	7.603	7.592	7.598	7.640	+61	+0.176	+0.135	+0.156	+0.171	−22
39	274	ff	+20.6	−9.6	8.200	8.221	8.210	8.213	+4	+0.246	+0.217	+0.232	+0.209	+34
40	273	bb	+19.7	−27.7	8.486	8.503	8.494	8.458	−53	+0.180	+0.155	+0.168	+0.214	−67
41	280	f	+26.1	−38.4	8.555	8.550	8.552	8.595	+63	+0.067	+0.051	+0.059	+0.102	−63
42	282	bbb	+27.0	−25.4	8.426	8.399	8.412	8.419	+10	+0.110	+0.072	+0.093	+0.094	−1
43	278	f	+25.2	+40.2	7.544	7.550	7.547	7.535	−18	+0.154	+0.107	+0.130	+0.160	−44
44	279	b	+25.2	+56.1	7.300	7.309	7.304:	7.321	+25	+0.191	+0.138	+0.164	+0.165	−1
45	290	b	+33.9	+19.6	7.781	7.795	7.788	7.803	+22	+0.013	−0.010	+0.002	+0.005	−4
46	295	b	+40.9	−16.0	8.177	8.228	8.202	8.277	+110	−0.175	−0.193	−0.184	−0.131	−77
47	297	b	+43.2	−27.2	8.298	8.363	8.330	8.425	+139	−0.224	−0.249	−0.236	−0.175	−89
48	301	b	+49.7	−18.6	8.283	8.303	8.293	8.302	+13	−0.307	−0.339	−0.323	−0.277	−67
49	310	b-bb	+52.6	−18.4	8.246	8.281	8.264	8.296	+47	−0.375	−0.390	−0.382	−0.325	−83
51	309	bbb	+52.2	+3.2	8.052	8.007	8.030	8.005	−36	−0.360	−0.381	−0.370	−0.306	−93
52	303	f	+50.0	+11.3	7.868	7.855	7.862	7.897	+51	−0.278	−0.290	−0.284	−0.266	−26
53	302	f	+49.7	+14.8	7.799	7.818	7.808	7.851	+63	−0.269	−0.296	−0.282	−0.259	−34
54	313	bf	+51.8	+29.7	7.519	7.506	7.512:	7.648	+199:	−0.314	−0.303	−0.308:	−0.286	−41:
55	316	bf	+57.7	+28.3	7.553	7.621	7.587:	7.660	+107:	−0.400	−0.410	−0.405:	−0.384	−31:

PLATE H.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
1	1	bbb	— 61.2	+ 5.4	7.732	7.734	7.733	7.770	+0.054	+ 1.543	+ 1.533	+ 1.538	+ 1.529	+ 0.013
2	10	ff	— 42.3	— 12.6	7 870	7.921	7.896	7.953	+ 83	+ 1.281	+ 1.242	+ 1.262	+ 1.248	+ 20
3	7	ff	— 44.6	+ 20.4	7.635	7.641	7.638	7 637	— 1	+ 1.264	+ 1.246	+ 1.255	+ 1.199	+ 82
4	6	bbb	— 46.2	+ 54.3	7.263	7.353	7.308:	7.314	+ 9:	+ 1.148	+ 1.098	+ 1.123:	+ 1.136	— 19:
5	17	bf	— 24 5	— 17.8	8.019	7.988	8.004	8.012	+ 12	+ 0.903	+ 0.902	+ 0.902	+ 0.952	— 73
6	20	f	— 22.6	— 45.3	8.326	8.308	8.317	8.275	— 61	+ 1.051	+ 1.026	+ 1.038	+ 0.993	+ 66
7	18	f	— 23.1	+ 25 0	7.594	7.622	7.608	7.606	— 3	+ 0.869	+ 0.862	+ 0.866	+ 0.812	+ 79
8	22	ff	— 15.7	— 13.1	8 011	7.993	8.002	7 974	— 41	+ 0 844	+ 0.851	+ 0.848	+ 0.785	+ 92
9	27	b	— 5.6	— 36.9	8.248	8 236	8.242	8.206	— 53	+ 0.734	+ 0.724	+ 0.729	+ 0.673	+ 82
10	28	bbb	— 3.1	+ 19.4	7 608	7.678	7.643	7.672	+ 42	+ 0.511	+ 0.478	+ 0.494	+ 0.478	+ 23
11	33	f	+ 0.1	— 17.6	8.011	8.038	8.024	8.025	+ 1	+ 0.489	+ 0.516	+ 0.502	+ 0.521	— 28
12	32	b	— 0.4	— 25.8	8.144	8 151	8.148	8.103	— 66	+ 0.580	+ 0.590	+ 0.585	+ 0.552	+ 48
13	29	bb	— 3.0	— 61.6	8.436	8 421	8.428:	8.442	+ 20:	+ 0.601	+ 0.626	+ 0.614:	+ 0.694	— 117:
14	35	f	+ 3.9	+ 23.9	7.625	7.649	7.637	7 633	— 6	+ 0.271	+ 0.249	+ 0.260	+ 0.344	— 123
15	38	bbb	+ 9.0	— 12.4	7.958	7.966	7.962	7.981	+ 28	+ 0.372	+ 0.348	+ 0.360	+ 0.352	+ 12
16	41	f	+ 12.4	— 40.9	8.279	8.265	8.272	8.254	— 26	+ 0.407	+ 0.423	+ 0.415	+ 0.370	+ 66
17	43	f	+ 13.4	— 9.0	8 007	8.009	8.008	7.950	— 82	+ 0.282	+ 0.288	+ 0.285	+ 0.266	+ 28
18	42	bf	+ 13.1	+ 38.0	7.518	7.510	7.514	7.505	— 13	+ 0.189	+ 0.170	+ 0.180	+ 0.146	+ 50
19	55	bf	+ 23.0	— 28.0	8.055	8 062	8.058	8.138	+ 117	+ 0.179	+ 0.159	+ 0.169	+ 0.150	+ 28
20	57	bf	+ 24.3	— 31.9	8.261	8.270	8.266	8.176	— 131	+ 0.047	+ 0.076	+ 0.062	+ 0.138	— 111
21	56	bbb	+ 23 6	— 53.5	8.376	8.361	8.368	8.381	+ 19	+ 0.291	+ 0.274	+ 0.282	+ 0.208	+ 108
22	63	f	+ 28.6	+ 29.1	7.585	7 609	7.597	7.598	+ 1	— 0.163	— 0.135	— 0.149	— 0.101	— 70
24	65	ff	+ 32.0	— 12.6	7 924:	7.965:	7.944	7 997	+ 77:	— 0.010:	— 0.034:	— 0.022:	— 0.048	+ 38:
25	76	b	+ 38.7	— 23.3	8.152	8.142	8.147	8.103	— 64	— 0.128	— 0.131	— 0.130	— 0.136	+ 9
26	77	bb	+ 39 9	— 14.5	7.977	7.992	7.984	8.020	+ 53	— 0.195	— 0.236	— 0.216	— 0.181	— 51
28	94	b	+ 51.9	— 37.5	8.257	8.221	8.239	8.246	+ 10	— 0.342	— 0.323	— 0.332	— 0.329	— 4
30	120	bbb	+ 61.6	— 32.1	8.183	8.225	8.204	8.200	— 6	— 0.516	— 0.502	— 0.509	— 0.514	+ 7

PLATE I.

			′	′	r	r	r	r	″	r	r	r	r	″
1	1	bbb	— 61.6	+ 5.6	13.466	13.464	13.465:	13.597	+0.158:	+ 1.184	+ 1.926	+ 1.905:	+ 1.885	+ 0.024:
2	2	bf	— 58.9	+ 30.6	13.132	13.094	13.113:	13.129	+ 19:	+ 1.759	+ 1.745	+ 1.752:	+ 1.785	— 40:
3	3	bf	— 54.3	+ 58.8	12.579	12.524	12.552:	12.603	+ 61:	+ 1.657	+ 1.609	+ 1.633:	+ 1.640	— 8:
4	4	f	— 51.0	+ 33 0	13.121	13.080	13.100:	13.090	— 12:	+ 1.575	+ 1.654	+ 1.614:	+ 1.613	+ 1:
5	5	f	— 49.5	+ 26.3	13.222	13.184	13.203:	13.217	+ 17:	+ 1.590	+ 1.563	+ 1.576:	+ 1.593	— 20:
6	8	f	— 45.1	— 56.5	14.821	14.776	14 798:	14.777	— 25:	+ 1.744	+ 1.708	+ 1.726:	+ 1.639	+ 104:
7	9	f	— 43.4	— 23.9	14 260	14.207	14.234:	14.165	— 83:	+ 1.563	+ 1.552	+ 1.558:	+ 1.548	+ 12:
8	10	bf	— 42.6	— 12.4	13.904	13 897	13.900	13.950	+ 60	+ 1.472	+ 1.486	+ 1.479	+ 1.512	— 40
9	7	bf	— 44 9	+ 20.6	13.341	13.295	13.318	13 328	+ 12	+ 1.519	+ 1.529	+ 1.524	+ 1.505	+ 23
10	6	bbb	— 46.6	+ 54.6	12.673	12.672	12.672:	12.688	+ 19:	+ 1.521	+ 1.518	+ 1.520:	+ 1.484	+ 43:

PLATE I. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
11	11	f	— 35.9	— 62.4	14.970	14.954	14.962:	14.895	—0.080:	+ 1.458	+ 1.489	+ 1.474:	+ 1.454	+ 0.024:
12	15	f	— 24.9	+ 54.1	12.701	12.689	12.695:	12.714	+ 23:	+ 1.098	+ 1.075	+ 1.086:	+ 1.025	+ 73:
13	16	bf	— 25.0	+ 47.1	12.701	12.766	12.734:	12.845	+ 133:	+ 1.069	+ 1.061	+ 1.065:	+ 1.038	+ 32:
14	14	ff	— 29.3	— 3.2	13.880	13.836	13.858	13.787	— 85	+ 1.235	+ 1.223	+ 1.229	+ 1.214	+ 18
15	17	b	— 24.8	— 17.6	14.015	14.018	14.016	14.062	+ 55	+ 1.097	+ 1.083	+ 1.090	+ 1.144	— 65
16	19	ff	— 23.0	— 46.5	14.557	14.494	14.526:	14.606	+ 96:	+ 1.133	+ 1.149	+ 1.141:	+ 1.155	— 17:
17	20	b	— 23.0	— 45.0	14.544	14.588	14.566	14.578	+ 14	+ 1.168	+ 1.204	+ 1.186	+ 1.152	+ 41
18	18	bf	— 23.4	+ 25.1	13.292	13.262	13.277	13.260	— 20	+ 1.111	+ 1.081	+ 1.096	+ 1.042	+ 65
19	22	f	— 16.0	— 13.0	13.991	13.993	13.992	13.982	— 12	+ 1.014	+ 0.997	+ 1.006	+ 0.949	+ 68
20	23	ff	— 15.9	— 13.1	14.064	14.079	14.072	13.984	— 106	+ 0.944	+ 0.945	+ 0.944	+ 0.947	— 4
21	27	bb	— 6.0	— 36.7	14.432	14.468	14.450	14.435	— 18	+ 0.808	+ 0.790	+ 0.799	+ 0.777	+ 26
23	26	ff	— 7.7	+ 20.6	13.343	13.411	13.377	13.357	— 24	+ 0.594	+ 0.629	+ 0.612	+ 0.716	— 125
24	28	bbb	— 3.4	+ 19.6	13.244	13.330	13.287	13.379	+ 110	+ 0.677	+ 0.669	+ 0.673	+ 0.627	+ 55
25	33	bf	— 0.2	— 17.4	14.084	14.074	14.079	14.077	— 2	+ 0.573	+ 0.541	+ 0.557	+ 0.621	— 77
26	32	b	— 0.8	— 25.6	14.285	14.287	14.286	14.230	— 67	+ 0.637	+ 0.626	+ 0.632	+ 0.648	— 19
27	29	bb	— 3.4	— 61.4	14.817	14.853	14.835:	14.901	+ 79:	+ 0.577	+ 0.589	+ 0.583	+ 0.764	— 217
28	35	f-bf	+ 3.6	+ 24.0	13.306	13.277	13.292	13.302	+ 12	+ 0.433	+ 0.426	+ 0.430	+ 0.471	— 49
29	40	ff	+ 10.4	— 1.5	13.801	13.788	13.794	13.786	— 10	+ 0.362	+ 0.395	+ 0.378	+ 0.371	+ 8
30	38	bbb	+ 8.7	— 12.3	13.871	13.894	13.882	13.988	+ 127	+ 0.445	+ 0.474	+ 0.460	+ 0.425	+ 42
31	37	ff	+ 7.8	— 28.1	14.363	14.369	14.366	14.284	— 98	+ 0.478	+ 0.477	+ 0.478	+ 0.470	+ 10
32	41	bf	+ 12.0	— 40.7	14.555	14.581	14.568	14.524	— 53	+ 0.393	+ 0.389	+ 0.391	+ 0.403	— 14
33	46	ff	+ 17.0	— 33.0	14.420	14.422	14.421	14.383	— 46	+ 0.289	+ 0.313	+ 0.301	+ 0.284	+ 20
34	43	bf	+ 13.1	— 8.8	13.972	13.942	13.957	13.925	— 38	+ 0.344	+ 0.324	+ 0.334	+ 0.325	+ 11
35	42	b	+ 12.8	+ 38.1	13.076	13.056	13.066	13 044	— 26	+ 0.285	+ 0.262	+ 0.274	+ 0.253	+ 25
36	55	b	+ 22.7	— 27.8	14.185	14.174	14.180	14.291	+ 133	+ 0.151	+ 0.131	+ 0.141	+ 0.154	— 14
37	57	b	+ 24.0	— 31.8	14.404	14.377	14.390	14.367	— 28	+ 0.017	+ 0.009	+ 0.013	+ 0.133	— 144
38	48	f	+ 18.9	— 47.2	14.690	14.658	14.674	14.652	— 26	+ 0.284	+ 0.321	+ 0.302	+ 0.267	+ 42
39	56	bbb	+ 23.2	— 53.3	14.640	14.641	14.640	14.770	+ 156	+ 0.153	+ 0.184	+ 0.168	+ 0.186	+ 22
40	60	ff	+ 27.0	— 32.4	14.455	14.444	14.450:	14.380	— 84:	+ 0.016	+ 0.058	+ 0.037:	+ 0.071	+ 41:
41	63	b	+ 28.3	+ 29.3	13.257	13.249	13.253	13.221	— 38	— 0.011	— 0.009	— 0.010	— 0.062	+ 62
42	68	f	+ 33.5	— 3.0	13.837	13.831	13.834	13.832	— 2	— 0.096	— 0.102	— 0.099	— 0.117	+ 22
43	65	bf	+ 31.7	— 12.4	14.030	13.984	14.007	14.008	+ 1	— 0.085	— 0.096	— 0.090	-- 0.063	— 32
44	69	f	+ 33.8	— 20.8	14.194	14.164	14.179	14.167	— 14	— 0.064	— 0.066	— 0.065	— 0.094	+ 35
45	81	bf	+ 40.5	— 62.6	14.930	14.921	14.926:	14.959	+ 40:	— 0.162	— 0.172	— 0.167:	— 0.065	— 122:
46	76	b	+ 38.4	— 23.1	14.221	14 223	14.222	14.214	— 10	— 0.162	— 0.178	— 0.170	— 0.187	+ 20
47	77	bb	+ 39.6	— 14.3	13.969	13.956	13.962	14.050	+ 106	— 0.242	— 0.206	— 0.224	— 0.228	+ 5
48	82	f	+ 42.3	— 21.9	14.147	14.175	14.161	14.195	+ 41	— 0.234	— 0.255	— 0.244	— 0.272	+ 34
49	94	b	+ 51.6	— 37.3	14.410	14.392	14.401:	14.491	+ 108:	— 0.455	— 0.461	— 0.458:	— 0.443	— 18:
50	90	f	+ 49.0	— 1.2	13.878	13.866	13.872:	13.811	— 73:	— 0.419	— 0.388	— 0.404:	— 0.449	+ 54:
53	104	f	+ 56.2	+ 28.6	13.221	13.262	13.242:	13.256	+ 17:	— 0.536	— 0.552	— 0.544:	— 0.651	+ 128:
54	106	bf	+ 57.2	+ 18.2	13.565	13.535	13.550:	13.453	— 116:	— 0.666	— 0.618	— 0.642:	— 0.656	+ 17:
55	112	bf	+ 58.5	+ 16.1	13.537	13.567	13.552:	13.493	— 71:	— 0.652	— 0.672	— 0.662:	— 0.679	+ 20:
58	120	bbb	+ 61.2	— 32.0	14.265	14.246	14.256:	14.400	+ 173:	— 0.621	— 0.604	— 0.612:	— 0.655	+ 52:

PLATE II.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
2	13	bb	−47.4	−11.6	10.143	10.112	10.128	10.245	+0.143	+2.407	+2.484	+2.446	+2.350	+0.117
5	24	b	−29.8	+10.3	9.828	9.784	9.806	9.896	+ 110	+2.033	+2.049	+2.041	+1.984	+ 70
6	25	bb	−26.3	-18.2^5	10.308	10.287	10.298	10.306	+ 10	+2.036	+1.989	+2.012	+1.991	+ 26
7	29	b-bb	−18.0	+15.4	9.712	9.700	9.706	9.800	+ 115	+1.617	+1.623	+1.620	+1.762	− 173
8	27	b	−20.6	+40.1	9.437	9.386	9.412	9.445	+ 40	+1.862	+1.859	+1.860	+1.750	+ 134
9	32	b	−15.4	+51.2	9.267	9.238	9.252	9.273	+ 26	+1.702	+1.696	+1.699	+1.630	+ 84
10	34	bbb	−14.8	$+0.7^5$	9.864	9.909	9.886	10.008	+ 149	+1.753	+1.740	+1.746	+1.740	+ 7
11	31	b-bb	−16.6	−56.3	10.922	10.889	10.906	10.845	− 74	+1.940	+1.865	+1.902	+1.909	− 9
12	39	bf	− 5.9	−27.0	10.542	10.520	10.531	10.398	− 162	+1.656	+1.631	+1.644	+1.649	− 6
13	41	f	− 2.6	+36.1	9.484	9.497	9.490:	9.472	− 22:	+1.480	+1.482	+1.481:	+1.438	+ 52:
14	44	bbb	− 1.3	− 9.4	10.104	10.088	10.096	10.133	+ 45	+1.531	+1.520	+1.526	+1.525	+ 1
15	50	f	+ 5.1	−21.1	10.324	10.336	10.330:	10.293	− 45:	+1.455	+1.396	+1.426:	+1.439	− 16:
16	55	bf	+ 8.1	+49.1	9.175	9.139	9.157:	9.263	+ 129:	+1.234	+1.214	+1.224:	+1.217	+ 9:
17	57	bf	+ 9.4	+45.1	9.384	9.373	9.378:	9.320	− 71:	+1.135	+1.173	+1.154:	+1.204	− 61
18	56	bbb	+ 8.6	+23.5	9.628	9.621	9.624	9.636	+ 15	+1.318	+1.303	+1.310	+1.270	+ 49
19	59	bb	$+11.9^5$	−26.1	10.483	10.493	10.488	10.354	− 163	+1.360	+1.379	+1.370	+1.328	+ 51
20	64	bbb	$+15.8^5$	+ 3.6	9.922	9.952	9.937	9.913	− 29	+1.212	+1.196	+1.204	+1.189	+ 18
21	76	b	+23.8	+53.7	9.277	9.241	9.259	9.169	− 110	+1.003	+0.968	+0.986	+0.926	+ 73
22	75	bf	+23.5	− 4.9	10.067	10.074	10.070	10.023	− 57	+1.029	+1.027	+1.028	+1.073	− 55
23	81	bf	+25.9	+14.1	9.739	9.730	9.734:	9.743	+ 11:	+0.978	+0.978	+0.978:	+0.984	− 7:
24	101	bf	+40.8	-18.9^5	10.390	10.434	10.412:	10.200	− 259:	+0.861	+0.849	+0.855:	+0.799	+ 68:
25	100	bb	+40.0	−11.1	10.268	10.238	10.253	10.089	− 200	+0.787	+0.806	+0.796	+0.794	+ 2
26	94	b	+37.0	$+39.4^5$	9.402	9.420	9.411	9.355	− 68	+0.778	+0.778	+0.778	+0.725	+ 65
27	120	bb	+46.6	+44.9	9.302	9.326	9.314	9.257	− 70	+0.651	+0.625	+0.638	+0.542	+ 117
28	110	b	+43.1	$+24.0^5$	9.708	9.696	9.702	9.569	− 162	+0.723	+0.704	+0.714	+0.654	+ 73
29	118	bb	+46.1	-62.4^5	11.055	10.992	11.024:	10.825	− 243:	+0.779	+0.793	+0.786:	+0.808	− 27:
30	134	b	+54.2	−15.3	10.434	10.387	10.410	10.123	− 350	+0.639	+0.622	+0.630	+0.550	+ 98
31	126	bf	+50.6	− 0.9	10.084	10.060	10.072:	9.919	− 187:	+0.640	+0.646	+0.643:	+0.580	+ 77:

PLATE III.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
1	12	b	−63.2	+38.3	13.740	13.762	13.751:	13.786	+0.042:	−0.537	−0.586	−0.562:	−0.567	−0.006:
2	16	bf	−53.4	-13.2^5	14.823	14.876	14.850:	14.888	+ 46:	−0.760	−0.793	−0.776:	−0.757	− 23:
3	15	f	−53.3	-6.2^5	14.730	14.720	14.725:	14.739	+ 17:	−0.771	−0.781	−0.776:	−0.763	− 16:
4	18	f	−51.9	−35.2	15.422:	15.371	15.396:	15.359	− 45:	−0.794	−0.771	−0.782:	−0.777	− 6:
5	21	ff	−45.6	+39.7	13.803:	13.760	13.782:	13.756	− 31:	−0.959	−0.976	−0.968:	−0.963	− 6:
6	28	bbb	−31.9	−40.9	15.402	15.448	15.425	15.481	+ 68	−1.270	−1.322	−1.296	−1.222	− 90
7	30	bb	−30.5	+13.0	14.245	14.246	14.246	14.328	+ 99	−1.289	−1.261	−1.275	−1.286	+ 13
8	35	f	−24.9	−36.3	15.411	15.386	15.398	15.383	− 18	−1.492	−1.477	−1.484	−1.382	− 123
9	36	f	-21.3^5	+37.1	13.841	13.825	13.833	13.812	− 25	−1.496	−1.469	−1.482	−1.504	+ 27
10	42	bf	−15.6	−22.3	15.115	15.122	15.118	15.083	− 42	−1.695	−1.665	−1.680	−1.599	− 98

PLATE III. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
11	51	b-bb	− 7.0	+ 30.1	13.970	14.008	13.989	13.962	−0.033	− 1.863	− 1.869	− 1.866	− 1.822	− 0.053
12	54	b	− 5.4^5	+ 48.5	13.614	13.625	13.620	13.568	− 63	− 1.859	− 1.861	− 1.860	− 1.868	+ 10
13	61	f	− 0.5	+ 40.1	13.781	13.762	13.772	13.748	− 29	− 1.994	− 2.015	− 2.004	− 1.974	− 36
14	63	bf	− 0.1	− 31.1	15.363	15.355	15.359	15.272	− 105	− 1.961	− 1.957	− 1.959	− 1.941	− 22
15	66	ff	+ 4.0	+ 45.1^5	13.630	13.666	13.648:	13.639	− 11:	− 2.073	− 2.056	− 2.064:	− 2.077	+ 16:
16	67	f	+ 4.9	+ 56.7	13.442	13.518:	13.480:	13.393	− 105:	− 2.135	− 2.083	− 2.109:	− 2.104	− 6:
17	74	bb	+ 10.0	+ 29.5	13.873	13.881	13.877	13.975	+ 119	− 2.178	− 2.207	− 2.192	− 2.202	+ 12
18	72	f	+ 6.7	+ 6.2	14.519	14.515	14.517	14.473	− 53	− 2.133	− 2.109	− 2.121	− 2.115	− 7
19	85	ff	+ 16.9	+ 10.8	14.416	14.466	14.441:	14.375	− 80:	− 2.357	− 2.306	− 2.332:	− 2.346	+ 17:
20	86	bf	+ 17.9	+ 37.6	13.811	13.819	13.815	13.801	− 17	− 2.363	− 2.383	− 2.373	− 2.384	+ 13
21	93	f	+ 22.0	+ 45.0^5	13.734:	13.683	13.708:	13.643	− 79:	− 2.534	− 2.554	− 2.544:	− 2.480	− 77:
22	87	bbb	+ 19.8^5	+ 28.8	13.909	13.922	13.916	13.990	+ 90	− 2.396	− 2.380	− 2.388	− 2.422	+ 41
23	89	bb	+ 20.5	+ 19.9	14.203	14.179	14.191	14.180	− 13	− 2.426	− 2.406	− 2.416	− 2.432	+ 19
24	95	ff	+ 24.1	− 21.0	15.053	15.057	15.055:	15.055	0:	− 2.527	− 2.478	− 2.502:	− 2.489	− 16:
25	91	ff	+ 20.5	− 32.1^5	15.312	15.267	15.290:	15.295	+ 6:	− 2.434	− 2.419	− 2.426:	− 2.401	− 30:
26	112	f	+ 30.0^5	− 44.3^5	15.559	15.546	15.552	15.556	+ 5	− 2.651	− 2.650	− 2.650	− 2.607	− 52
27	106	f	+ 28.8	− 42.3	15.574	15.557	15.566	15.511	− 67	− 2.614	− 2.583	− 2.598	− 2.581	− 21
28	104	f	+ 27.9	− 32.0	15.357	15.292	15.324	15.291	− 40	− 2.594	− 2.607	− 2.600	− 2.567	− 40
29	97	f	+ 25.2	− 21.7	15.088	15.095	15.092	15.070	− 27	− 2.516	− 2.513	− 2.514	− 2.512	− 2
30	117	ff	+ 32.3	+ 47.4	13.656	13.595	13.626	13.592	− 41	− 2.762	− 2.746	− 2.754	− 2.713	− 50
31	122	bbb	+ 33.4	+ 47.0^5	13.548	13.544	13.546	13.600	+ 65	− 2.688	− 2.677	− 2.682	− 2.737	+ 67
32	123	bb	+ 34.9	+ 35.5	13.783	13.766	13.774	13.846	+ 87	− 2.746	− 2.748	− 2.747	− 2.764	+ 21
33	116	bb	+ 32.1	+ 6.3	14.442	14.464	14.453	14.471	+ 22	− 2.679	− 2.681	− 2.680	− 2.684	+ 5
34	114	bb	+ 31.6	+ 4.9^5	14.434	14.480	14.457	14.499	+ 51	− 2.705	− 2.701	− 2.703	− 2.672	− 38
35	133	ff	+ 40.3	− 16.6	15.009	15.005	15.007:	14.961	− 56:	− 2.838	− 2.812	− 2.825:	− 2.854	+ 35:
36	136	ff	+ 42.5	+ 41.5^5	13.705	13.777	13.741	13.716	− 30	− 2.975	− 2.951	− 2.963	− 2.937	− 31
37	150	bbb	+ 52.2	− 21.0^5	15.013	14.978	14.994	15.056	+ 75	− 3.147	− 3.135	− 3.141	− 3.118	− 28
39	153	bf	+ 53.4	+ 21.9^5	14.184	14.239	14.212:	14.136	− 92:	− 3.305	− 3.277	− 3.291:	− 3.170	− 146:

PLATE IV.

			′	′	r	r	r	r	″	r	r	r	r	″
1	28	bbb	− 61.2^5	+ 19.5	13.544:	13.634:	13.589:	13.710	+0.146:	− 0.937	− 0.958	− 0.948:	− 1.033	+ 0.103:
2	32	b	− 58.9	− 25.7^5	14.605	14.599	14.602:	14.597	− 6:	− 1.125	− 1.098	− 1.112:	− 1.088	− 29:
3	33	bf	− 58.2^5	− 17.6	14.419	14.418	14.418:	14.435	+ 21:	− 1.209	− 1.149	− 1.179:	− 1.098	− 98:
4	35	f	− 54.3	+ 23.9^5	13.607	13.585	13.596:	13.617	+ 25:	− 1.208	− 1.192	− 1.200:	− 1.161	− 47:
5	38	bbb	− 49.3	− 12.4	14.177	14.230	14.204	14.327	+ 149	− 1.242	− 1.258	− 1.250	− 1.263	+ 16
6	41	f	− 46.0	− 40.9	14.895	14.837	14.866:	14.884	+ 22:	− 1.317	− 1.312	− 1.314:	− 1.332	+ 22:
7	43	f	− 44.9	− 9.0	14.250	14.171	14.210	14.257	+ 57	− 1.348	− 1.317	− 1.332	− 1.344	+ 15
8	42	b	− 44.9^5	+ 37.9^5	13.304	13.357	13.330	13.336	+ 7	− 1.337	− 1.330	− 1.334	− 1.330	− 5
9	55	b	− 35.3	− 28.0	14.527	14.512	14.520	14.624	+ 126	− 1.570	− 1.592	− 1.581	− 1.529	− 63
10	56	bbb	− 34.9	− 53.6	15.023	15.004	15.014	15.125	+ 134	− 1.538	− 1.552	− 1.545	− 1.543	− 2

PLATE IV. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p′ Pos. III	p′ Pos. IV	n′	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
11	57	b	− 34.0	− 32.0	14.749	14.702	14.726	14.700	−0.031	− 1.656	− 1.678	− 1.667	− 1.554	−0.137
12	55	bf	− 35.3	− 28.0	14.531	14.510	14.520	14.624	+ 126	− 1.598	− 1.608	− 1.603	− 1.529	− 90
13	63	bf	− 29.5	+ 29.0^5	13.496	13.477	13.486	13.503	+ 21	− 1.572	− 1.600	− 1.586	− 1.623	+ 45
14	68	f	− 24.4	− 3.3	14.164	14.137	14.150	14.132	− 22	− 1.734	− 1.742	− 1.738	− 1.727	− 13
15	65	f-bf	− 26.3	− 12.8	14.313	14.278	14.296	14.320	+ 29	− 1.668	− 1.676	− 1.672	− 1.693	+ 25
16	69	f	− 24.2^5	− 21.1	14.459	14.465	14.462	14.481	+ 23	− 1.717	− 1.684	− 1.700	− 1.754	+ 41
17	81	bf	− 17.6	− 62.9^5	15.207	15.179	15.193:	15.298	+ 127:	− 1.956	− 1.914	− 1.935:	− 1.869	− 80:
18	76	b	− 19.6	− 23.4	14.530	14.530	14.530	14.523	− 8	− 1.804	− 1.834	− 1.819	− 1.821	+ 2
19	77	bb	− 18.4	− 14.6	14.227	14.220	14.224	14.349	+ 151	− 1.850	− 1.833	− 1.842	− 1.842	0
20	82	f	− 15.6^5	− 22.2	14.490	14.462	14.476	14.496	+ 24	− 1.873	− 1.861	− 1.867	− 1.896	+ 35
21	94	b	− 6.5	− 37.7^5	14.697	14.710	14.704	14.796	+ 111	− 2.082	− 2.091	− 2.086	− 2.070	− 19
22	90	f	− 9.0	− 1.6^5	14.099	14.076	14.088	14.088	0	− 2.030	− 2.011	− 2.020	− 2.014	− 7
23	91	f	− 8.9	+ 27.9^5	13.430	13.378	13.404	13.508	+ 126	− 1.963	− 1.977	− 1.970	− 2.009	+ 47
24	95	ff	− 5.3	+ 39.1	13.270	13.251	13.260:	13.289	+ 35:	− 2.182	− 2.132	− 2.157:	− 2.073	− 102:
25	97	f	− 4.1	+ 38.5	13.266	13.285	13.276	13.299	+ 28	− 2.110	− 2.103	− 2.106	− 2.095	− 13
26	104	f-bf	− 1.5^5	+ 28.1	13.516	13.506	13.511	13.501	− 12	− 2.146	− 2.098	− 2.122	− 2.145	+ 28
27	96	ff	− 4.8	+ 20.0^5	13.661	13.666	13.664	13.662	− 2	− 2.045	− 2.079	− 2.062	− 2.087	+ 30
28	106	bf	− 0.6	+ 17.8^5	13.690	13.693	13.692	13.702	+ 12	− 2.168	− 2.164	− 2.166	− 2.166	0
29	111	ff	− 0.3	− 37.8	14.853	14.861	14.857	14.792	− 79	− 2.228	− 2.221	− 2.224	− 2.186	− 46
30	110	b	− 0.4	− 53.1	15.112	15.084	15.098	15.092	− 7	− 2.196	− 2.195	− 2.196	− 2.188	− 10
31	124	bf-b	+ 5.6^5	− 35.1	14.746	14.748	14.747	14.735	− 15	− 2.319	− 2.328	− 2.324	− 2.296	− 34
32	120	b	+ 3.1	− 32.3	14.581	14.582	14.582	14.682	+ 121	− 2.265	− 2.215	− 2.240	− 2.248	+ 10
33	125	f	+ 6.1^5	− 13.1	14.335	14.309	14.322	14.304	− 22	− 2.298	− 2.280	− 2.289	− 2.301	+ 15
34	119	f	+ 3.0	+ 14.8	13.667	13.661	13.664	13.759	+ 115	− 2.388	− 2.372	− 2.380	− 2.234	− 177
35	112	f-bf	+ 0.6	+ 15.8	13.703	13.708	13.706	13.744	+ 42	− 2.222	− 2.194	− 2.208	− 2.189	− 23
36	133	f	+ 11.0	+ 43.5	13.160	13.150	13.155	13.191	+ 44	− 2.365	− 2.376	− 2.370	− 2.377	+ 8
37	132	f	+ 10.4	+ 28.1	13.520	13.495	13.508	13.493	− 18	− 2.369	− 2.365	− 2.367	− 2.369	+ 2
38	131	b-bf	+ 9.8	− 51.1	15.064	15.056	15.060	15.046	− 17	− 2.379	− 2.360	− 2.370	− 2.378	+ 10
40	140	f	+ 17.1	− 15.8	14.428	14.407	14.418	14.350	− 82	− 2.538	− 2.538	− 2.538	− 2.506	− 39
42	150	bb	+ 22.9	+ 38.9^5	13.159	13.161	13.160	13.272	+ 136	− 2.594	− 2.542	− 2.568	− 2.600	+ 39
43	149	f-bf	+ 22.8	+ 21.0	13.641	13.649	13.645	13.624	− 25	− 2.600	− 2.550	− 2.575	− 2.603	+ 34
44	148	f-bf	+ 21.7	+ 14.9	13.719	13.726	13.722	13.744	+ 27	− 2.586	− 2.583	− 2.584	− 2.584	0
45	151	ff	+ 23.2	− 7.0	14.202	14.180	14.191	14.172	− 23	− 2.589	− 2.622	− 2.606	− 2.618	+ 15
46	146	ff	+ 20.0^5	− 11.8^5	14.313	14.293	14.303	14.269	− 41	− 2.576	− 2.545	− 2.560	− 2.559	− 1
49	142	f	+ 18.8	− 40.6	14.865	14.865	14.865	14.834	− 38	− 2.555	− 2.557	− 2.556	− 2.544	− 15
50	144	b	+ 19.2	− 41.6	14.883	14.873	14.878	14.853	− 30	− 2.559	− 2.558	− 2.558	− 2.552	− 7
51	163	bb	+ 30.1	+ 14.0	13.627	13.652	13.640	13.757	+ 142	− 2.698	− 2.719	− 2.708	− 2.741	+ 40
52	156	ff	+ 25.0	+ 19.6^5	13.671	13.700	13.686	13.650	− 44	− 2.603	− 2.633	− 2.618	− 2.645	+ 33
53	159	bf-b	+ 26.5	+ 27.9	13.472	13.468	13.470	13.486	+ 19	− 2.754	− 2.727	− 2.740	− 2.671	− 83
55	164	bf-b	+ 30.3	+ 44.8^5	13.114	13.123	13.118	13.153	+ 42	− 2.732	− 2.714	− 2.723	− 2.737	+ 17
56	170	bbb	+ 33.6	+ 19.6^5	13.561	13.590	13.576	13.644	+ 82	− 2.777	− 2.825	− 2.801	− 2.805	+ 6
57	172	ff	+ 34.8	+ 17.7	13.725	13.672	13.698	13.681	− 21	− 2.931	− 2.942	− 2.936	− 2.829	− 129
58	168	f	+ 32.1	− 20.0	14.480	14.471	14.476	14.421	− 67	− 2.875	− 2.835	− 2.855	− 2.787	− 82
59	176	ff	+ 36.6	− 40.4	14.835	14.773	14.804	14.820	+ 19	− 2.973	− 2.958	− 2.966	− 2.876	− 109
60	181	b	+ 39.4	− 64.4	15.342	15.332	15.337:	15.287	− 60:	− 2.908	− 2.890	− 2.899:	− 2.935	+ 44:
61	179	bbb	+ 38.3	− 34.6^5	14.669	14.673	14.671	14.703	+ 39	− 2.911	− 2.938	− 2.924	− 2.907	− 21
62	180	f-bf	+ 39.0	+ 7.0	13.838	13.867	13.852	13.888	+ 44	− 2.995	− 2.978	− 2.986	− 2.909	− 93
63	190	f	+ 43.9	+ 5.0	13.826	13.847	13.836	13.924	+ 106	− 3.013	− 2.999	− 3.006	− 3.002	− 5
64	193	f	+ 45.8	− 28.8^5	14.601	14.598	14.600	14.584	− 19	− 3.146	− 3.117	− 3.132	− 3.045	− 105
65	195	ff	+ 46.0	− 36.8	14.838	14.873	14.856	14.741	− 139	− 3.077	− 3.054	− 3.066	− 3.051	− 18

PLATE IV. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
66	209	f	+ 52.7^{5}	− 30.4	14.687	14.640	14.664	14.612	−0.063	− 3.185	− 3.216	− 3.200	− 3.177	−0.028
67	205	f	+ 51.1	+ 4.7	13.854	13.857	13.856	13.925	+ 83	− 3.153	− 3.134	− 3.144	− 3.137	− 8
68	211	bf	+ 54.4	+ 8.5	13.877	13.879	13.878:	13.847	− 38:	− 3.211	− 3.228	− 3.220	− 3.197	− 28
69	206	bb	+ 51.8	+ 18.1	13.564	13.563	13.564	13.661	+ 117	− 3.119	− 3.139	− 3.129	− 3.146	+ 21
70	207	bf	+ 51.8	+ 44.6	13.177	13.193	13.185:	13.142	− 52:	− 3.201	− 3.202	− 3.202:	− 3.140	− 75:
71	213	b-bf	+ 56.1	− 8.1	14.234	14.242	14.238	14.172	− 80	− 3.251	− 3.219	− 3.235	− 3.233	− 2
72	212	b	+ 55.4^{5}	− 52.2	14.945	14.976	14.960:	15.037	+ 93:	− 3.268	− 3.273	− 3.270:	− 3.231	− 47:
73	222	bbb	+ 64.0	− 32.7	14.506	14.543	14.524	14.649	+ 151	− 3.370	− 3.401	− 3.386	− 3.387	+ 1
74	220	b	+ 63.5	− 11.9	14.244	14.197	14.220:	14.241	+ 25:	− 3.387	− 3.392	− 3.390:	− 3.372	− 22:

Nrs. 9 ond 12 are the same star, which was accidentally measured twice.

PLATE V.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
3	36	bf	− 49.6	− 22.7	10.330	10.297	10.314	10.311	−0.004	+ 1.376	+ 1.395	+ 1.386	+ 1.415	−0.035
6	45	ff	− 41.1	+ 27.8	9.411	9.376	9.394	9.416	+ 26	+ 1.238	+ 1.228	+ 1.233	+ 1.281	− 58
8	47	bb	− 37.8^{5}	+ 58.1	8.835	8.871	8.853:	8.880	+ 32:	+ 1.222	+ 1.217	+ 1.220:	+ 1.238	− 22:
9	49	b	− 36.6	+ 16.7	9.642	9.628	9.635	9.608	− 32	+ 1.148	+ 1.133	+ 1.140	+ 1.181	− 49
10	51	bb	− 35.3	− 29.7	10.417	10.401	10.409	10.424	+ 18	+ 1.052	+ 1.035	+ 1.044	+ 1.118	− 89
11	54	b	− 33.6	− 11.4	10.098	10.117	10.108	10.101	− 8	+ 1.047	+ 1.033	+ 1.040	+ 1.097	− 68
12	53	f	− 33.6	− 8.7	10.092	10.075	10.084	10.053	− 37	+ 1.113	+ 1.113	+ 1.113	+ 1.099	+ 17
13	52	bf	− 34.7	+ 4.2	9.811	9.820	9.816	9.827	+ 13	+ 1.129	+ 1.095	+ 1.112	+ 1.132	− 24
14	58	ff	− 30.0	+ 3.8	9.814	9.800	9.807	9.831	+ 29	+ 1.052	+ 1.050	+ 1.051	+ 1.036	+ 18
16	62	b	− 28.0	+ 38.0	9.216	9.228	9.222	9.227	+ 6	+ 1.032	+ 1.008	+ 1.020	+ 1.022	− 2
17	67	bf-b	− 23.3	− 3.2	9.966	9.974	9.970	9.949	− 25	+ 0.897	+ 0.888	+ 0.892	+ 0.893	− 1
18	66	bf	− 24.2	− 14.7^{5}	10.196	10.203	10.200	10.154	− 55	+ 0.963	+ 0.922	+ 0.942	+ 0.903	+ 47
19	61	bf	− 28.7	− 19.7^{5}	10.291	10.274	10.282	10.245	− 44	+ 1.009	+ 0.995	+ 1.002	+ 0.990	+ 14
21	74	bb	− 18.1	− 30.4	10.346	10.335	10.340	10.425	+ 102	+ 0.760	+ 0.759	+ 0.760	+ 0.766	− 7
23	73	b-bb	− 18.5	+ 3.5^{5}	9.843	9.835	9.839	9.827	− 14	+ 0.793	+ 0.752	+ 0.772	+ 0.801	− 35
24	71	ff	− 21.6	+ 11.0	9.713	9.679	9.696	9.698	+ 2	+ 0.866	+ 0.858	+ 0.862	+ 0.871	− 11
25	70	ff	− 22.3	+ 12.6	9.633	9.627	9.630	9.670	+ 48	+ 0.868	+ 0.887	+ 0.878	+ 0.886	− 10
26	80	ff	− 15.6^{5}	+ 24.3	9.478	9.435	9.456	9.460	+ 5	+ 0.785	+ 0.797	+ 0.791	+ 0.758	+ 40
27	83	ff	− 12.3	+ 21.3	9.514	9.525	9.520	9.511	− 11	+ 0.652	+ 0.676	+ 0.664	+ 0.689	− 30
28	79	bbb	− 15.7	+ 14.8	9.580	9.548	9.564	9.628	+ 77	+ 0.771	+ 0.757	+ 0.764	+ 0.753	+ 13
29	78	f-ff	− 16.4	+ 8.7	9.728	9.735	9.732	9.735	− 4	+ 0.764	+ 0.770	+ 0.767	+ 0.763	+ 5
30	84	ff	− 11.5	− 6.0	10.006	10.002	10.004	9.991	− 16	+ 0.659	+ 0.647	+ 0.653	+ 0.651	+ 2
33	87	bbb	− 8.4	− 31.1	10.364	10.384	10.374	10.432	+ 70	+ 0.604	+ 0.552	+ 0.578	+ 0.567	+ 13
34	92	ff	− 7.1^{5}	− 27.6	10.411	10.427	10.419	10.368	− 61	+ 0.568	+ 0.564	+ 0.566	+ 0.546	+ 24
35	86	b-bf	− 10.4	− 22.3	10.313	10.294	10.304	10.276	− 34	+ 0.646	+ 0.646	+ 0.646	+ 0.615	+ 37
36	93	bf	− 6.2	− 14.9	10.155	10.159	10.157	10.143	− 17	+ 0.500	+ 0.512	+ 0.506	+ 0.535	− 35
37	88	ff	− 8.1^{5}	− 2.6	9.946	9.944	9.945	9.929	− 19	+ 0.577	+ 0.580	+ 0.578	+ 0.586	− 10
38	99	f	− 2.3	+ 25.1^{5}	9.473	9.463	9.468	9.435	− 40	+ 0.335	+ 0.502	+ 0.518	+ 0.488	+ 36
39	105	b-bf	+ 0.4	+ 15.6	9.617	9.597	9.607	9.602	− 6	+ 0.401	+ 0.409	+ 0.405	+ 0.425	− 24
40	103	f	− 0.4	+ 12.4	9.689	9.671	9.680	9.659	− 25	+ 0.438	+ 0.457	+ 0.448	+ 0.439	+ 11

PLATE V. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			'	'	r	r	r	r	"	r	r	r	r	"
41	102	f	− 0.7	− 4.3	9.990	9.996	9.993	9.953	−0.048	+ 0.449	+ 0.453	+ 0.451	+ 0.432	+ 0.023
42	98	f	− 2.7	− 5.6^{5}	10.007	10.014	10.010	9.978	− 38	+ 0.491	+ 0.485	+ 0.488	+ 0.472	+ 19
43	108	ff	+ 0.8	− 23.9	10.313	10.295	10.304	10.297	− 8	+ 0.422	+ 0.418	+ 0.420	+ 0.386	+ 41
46	109	ff	+ 1.1	− 26.9^{5}	10.415	10.406	10.410	10.351	− 71	+ 0.348	+ 0.369	+ 0.358	+ 0.378	− 24
47	123	bb	+ 6.6	− 24.5	10.221	10.223	10.222	10.303	+ 97	+ 0.296	+ 0.263	+ 0.280	+ 0.267	+ 16
48	122	bb	+ 5.1	− 12.9	10.020	10.006	10.013	10.100	+ 104	+ 0.317	+ 0.313	+ 0.315	+ 0.307	+ 10
49	117	f-bf	+ 4.1	− 12.6	10.104	10.079	10.092	10.096	+ 5	+ 0.277	+ 0.276	+ 0.276	+ 0.327	− 61
50	107	bbb	+ 1.0	+ 9.0	9.622	9.670	9.646	9.718	+ 86	+ 0.485	+ 0.417	+ 0.451	+ 0.408	+ 52
51	121	f-bf	+ 5.1	+ 10.7	9.705	9.706	9.706	9.685	− 25	+ 0.336	+ 0.347	+ 0.342	+ 0.325	+ 20
52	115	f	+ 3.6	+ 15.5	9.611	9.596	9.604	9.602	− 2	+ 0.413	+ 0.405	+ 0.409	+ 0.360	+ 59
53	113	bf	+ 3.3^{5}	+ 42.6	9.038	9.055	9.046	9.125	+ 95	+ 0.373	+ 0.369	+ 0.371	+ 0.386	− 18
54	130	bf	+ 10.0	+ 44.4	9.065	9.060	9.062	9.089	+ 32	+ 0.252	+ 0.248	+ 0.250	+ 0.252	− 2
55	128	bf-b	+ 9.4	+ 21.3	9.526	9.501	9.514	9.495	− 23	+ 0.230	+ 0.212	+ 0.221	+ 0.246	− 30
56	129	f-bf	+ 9.4	− 14.0^{5}	10.193	10.168	10.180	10.116	− 77	+ 0.150	+ 0.162	+ 0.156	+ 0.218	− 74
57	127	ff	+ 9.0	− 19.4	10.227	10.204	10.216	10.212	− 5	+ 0.235	+ 0.252	+ 0.244	+ 0.223	+ 25
58	136	bf	+ 14.2^{5}	− 18.5	10.148	10.145	10.146	10.193	+ 56	+ 0.119	+ 0.126	+ 0.122	+ 0.117	+ 6
59	138	ff	+ 16.9^{5}	− 1.9	9.923	9.955	9.939	9.898	− 49	+ 0.136	+ 0.133	+ 0.134	+ 0.073	+ 73
60	135	ff	+ 13.9	+ 7.4	9.771	9.762	9.766	9.737	− 35	+ 0.179	+ 0.166	+ 0.172	+ 0.143	+ 35
61	139	f	+ 18.0	+ 24.2^{5}	9.390	9.401	9.396	9.439	+ 52	+ 0.004	+ 0.017	+ 0.010	+ 0.073	− 76
62	141	b	+ 19.8^{5}	+ 40.2^{5}	9.135	9.148	9.142	9.155	+ 16	+ 0.074	+ 0.077	+ 0.076	+ 0.049	+ 32
63	143	bbbb	+ 20.6	+ 38.3	9.108	9.068	9.088	9.189	+ 121	+ 0.127	+ 0.084	+ 0.106	+ 0.031	+ 90
65	147	ff	+ 21.9	+ 34.4	9.223	9.236	9.230	9.257	+ 32	+ 0.037	+ 0.041	+ 0.039	+ 0.001	+ 46
68	153	b	+ 25.2	− 38.1	10.558	10.548	10.553	10.531	− 26	− 0.151	− 0.158	− 0.154	− 0.123	− 37
69	154	bf	+ 25.2	− 37.0	10.542	10.557	10.550	10.511	− 47	− 0.089	− 0.091	− 0.090	− 0.122	+ 38
70	162	ff	+ 30.9	− 30.5	10.495	10.492	10.494	10.393	− 121	− 0.214	− 0.141	− 0.178	− 0.233	+ 66
71	161	f	+ 30.6	− 27.7	10.397	10.407	10.402	10.344	− 70	− 0.174	− 0.174	− 0.174	− 0.225	+ 61
72	160	bf	+ 29.5	− 24.5	10.282	10.269	10.276	10.288	+ 14	− 0.143	− 0.135	− 0.139	− 0.200	+ 73
73	157	bb	+ 26.8	+ 9.4^{5}	9.637	9.667	9.652	9.693	+ 49	− 0.053	− 0.061	− 0.057	− 0.119	+ 74
74	152	b	+ 24.9	+ 43.7	9.000	9.012	9.006	9.091	+ 102	− 0.031	− 0.036	− 0.034	− 0.053	+ 23
75	166	ff	+ 32.0	+ 42.3	9.154	9.150	9.152	9.111	− 49	− 0.211	− 0.192	− 0.202	− 0.199	− 4
77	173	bb	+ 36.1	− 8.0^{5}	9.999	10.028	10.014	9.993	− 25	− 0.300	− 0.264	− 0.282	− 0.321	+ 47
78	167	ff	+ 32.3	− 24.6	10.370	10.346	10.358	10.288	− 84	− 0.216	− 0.177	− 0.196	− 0.257	+ 73
79	169	bb	+ 34.5	− 26.1^{5}	10.220	10.239	10.230	10.314	+ 101	− 0.316	− 0.321	− 0.318	− 0.304	− 17
81	177	b-bb	+ 38.4	− 32.5	10.346	10.324	10.335	10.422	+ 104	− 0.366	− 0.386	− 0.376	− 0.388	+ 14
82	182	b-bb	+ 40.9	− 15.5	10.097	10.097	10.097	10.122	+ 30	− 0.426	− 0.416	− 0.421	− 0.425	+ 5
83	175	f	+ 37.5	− 7.4	9.999	10.005	10.002	9.981	− 25	− 0.299	− 0.298	− 0.298	− 0.350	+ 62
84	174	f	+ 37.3	+ 15.9	9.598	9.617	9.608	9.571	− 44	− 0.277	− 0.300	− 0.288	− 0.327	+ 47
85	188	b	+ 43.5^{5}	+ 55.5	8.872	8.889	8.880	8.870	− 12	− 0.444	− 0.453	− 0.448:	− 0.424	− 29:
86	186	bbb	+ 43.4	+ 55.3	8.853	8.814	8.834	8.874	+ 48	− 0.342	− 0.377	− 0.360:	− 0.420	+ 72:
87	192	f-bf	+ 45.0	+ 33.6	9.242	9.284	9.263	9.255	− 10	− 0.431	− 0.454	− 0.442	− 0.471	+ 35
88	185	f	+ 42.9^{5}	+ 31.7^{5}	9.280	9.323	9.302	9.287	− 18	− 0.373	− 0.377	− 0.375	− 0.431	+ 67
89	199	f-ff	+ 49.0	+ 7.5	9.787	9.731	9.759	9.711	− 58	− 0.494	− 0.538	− 0.516	− 0.573	+ 68
91	208	bf	+ 53.2	− 33.6	10.407	10.393	10.400	10.431	+ 37	− 0.740	− 0.700	− 0.720	− 0.690	− 36

PLATE VI.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
1	30	bbb	− 58.9	− 46.8	14.106	14.092	14.099:	14.117	+ 0.022:	+ 2.783	+ 2.783	+ 2.783:	+ 2.764	+ 0.023:
3	36	bf	− 49.6	− 22.7	13.721	13.681	13.701	13.680	− 26	+ 2.633	+ 2.628	+ 2.630	+ 2.624	+ 7
6	45	ff	− 41.4	+ 27.8	12.790	12.733	12.762:	12.753	− 11:	+ 2.422	+ 2.498	+ 2.460:	+ 2.487	− 33:
8	47	bb	− 37.8^5	+ 58.1	12.193	12.233	12.213	12.195	− 22	+ 2.496	+ 2.465	+ 2.480	+ 2.430	+ 61
9	49	b	− 36.6	+ 16.7	12.991	12.958	12.974	12.963	− 13	+ 2.445	+ 2.432	+ 2.438	+ 2.426	+ 15
10	51	bb	− 35.3	− 29.7	13.843	13.844	13.844	13.822	− 27	+ 2.370	+ 2.354	+ 2.362	+ 2.423	− 74
11	54	b	− 33.6	− 11.4	13.535	13.504	13.520	13.485	− 43	+ 2.425	+ 2.427	+ 2.426	+ 2.393	+ 40
12	53	f	− 33.6	− 8.7	13.462	13.466	13.464	13.435	− 35	+ 2.412	+ 2.418	+ 2.415	+ 2.392	+ 28
13	52	bf	− 34.7	+ 4.2	13.237	13.204	13.220	13.195	− 31	+ 2.420	+ 2.419	+ 2.420	+ 2.404	+ 20
14	58	ff	− 30.0	+ 3.8	13.171	13.130	13.150	13.208	+ 71	+ 2.260	+ 2.347	+ 2.304:	+ 2.337	− 40:
16	62	b	− 28.0	+ 38.0	12.598	12.589	12.594	12.576	− 22	+ 2.298	+ 2.297	+ 2.298	+ 2.297	+ 1
17	67	bf-b	− 23.3	− 3.2	13.365	13.367	13.366	13.343	− 28	+ 2.281	+ 2.260	+ 2.270	+ 2.244	+ 32
18	66	bf	− 24.2	− 14.7^5	13.554	13.536	13.545	13.557	+ 15	+ 2.333	+ 2.350	+ 2.342	+ 2.261	+ 99
19	61	bf	− 28.7	− 19.7^5	13.704	13.649	13.676	13.645	− 38	+ 2.335	+ 2.328	+ 2.332	+ 2.327	+ 6
20	72	ff	− 21.6	− 53.7	14.385	14.341	14.363	14.278	− 104	+ 2.325	+ 2.344	+ 2.334	+ 2.237	+ 118
21	74	bb	− 18.1	− 30.4	13.761	13.751	13.756	13.851	+ 116	+ 2.203	+ 2.200	+ 2.202	+ 2.179	+ 28
23	73	b-bb	− 18.5	+ 3.5^5	13.225	13.205	13.215	13.221	+ 7	+ 2.151	+ 2.155	+ 2.153	+ 2.174	− 26
24	71	ff	− 21.6	+ 11.0	13.148	13.077	13.112	13.081	− 38	+ 2.258	+ 2.275	+ 2.266	+ 2.215	+ 62
25	70	ff	− 22.3	+ 12.6	13.040	13.054	13.047	13.052	+ 6	+ 2.232	+ 2.201	+ 2.216	+ 2.225	− 11
26	80	ff	− 15.6^5	+ 24.3	12.849	12.842	12.846	12.841	− 6	+ 2.179	+ 2.215	+ 2.197	+ 2.126	+ 87
27	83	ff	− 12.3	+ 21.3	12.863	12.878	12.870	12.900	+ 37	+ 2.081	+ 2.113	+ 2.097	+ 2.080	+ 21
28	79	bbb	− 15.7	+ 14.8	12.959	12.949	12.954	13.017	+ 77	+ 2.151	+ 2.125	+ 2.138	+ 2.130	+ 10
29	78	f-ff	− 16.4	+ 8.7	13.186	13.163	13.174	13.129	− 55	+ 2.151	+ 2.158	+ 2.154	+ 2.142	+ 15
30	84	ff	− 11.5	− 6.0	13.393	13.410	13.402	13.406	+ 5	+ 2.125	+ 2.141	+ 2.133	+ 2.077	+ 68
32	89	bb	− 7.7	− 40.0^5	14.082	14.075	14.078	14.038	− 49	+ 2.078	+ 2.039	+ 2.058	+ 2.034	+ 29
33	87	bbb	− 8.4	− 31.1	13.858	13.798	13.828	13.872	+ 54	+ 2.059	+ 2.032	+ 2.046	+ 2.041	+ 6
34	92	ff	− 7.1^5	− 27.6	13.840	13.830	13.835	13.809	− 32	+ 2.068	+ 2.087	+ 2.078	+ 2.023	+ 67
35	86	b-bf	− 10.4	− 22.3	13.704	13.721	13.712	13.709	− 4	+ 2.144	+ 2.135	+ 2.140	+ 2.067	+ 89
36	93	bf	− 6.2	− 14.9	13.561	13.565	13.563	13.575	+ 15	+ 1.995	+ 1.989	+ 1.992	+ 2.005	− 16
37	88	ff	− 8.1^5	− 2.6	13.342	13.390	13.366:	13.346	− 24:	+ 2.003	+ 2.066	+ 2.034:	+ 2.029	+ 6:
38	99	f	− 2.3	+ 25.1^5	12.862	12.830	12.846	12.837	− 11	+ 1.981	+ 2.003	+ 1.992	+ 1.936	+ 68
39	105	b-bf	+ 0.4	+ 15.6	13.033	13.044	13.038	13.016	− 27	+ 1.932	+ 1.946	+ 1.939	+ 1.901	+ 46
40	103	f	− 0.4	+ 12.4	13.093	13.044	13.068	13.076	+ 10	+ 1.917	+ 1.921	+ 1.919	+ 1.914	+ 6
41	102	f	− 0.7	− 4.3	13.377	13.386	13.382	13.384	+ 2	+ 1.929	+ 1.936	+ 1.932	+ 1.924	+ 10
42	98	f	− 2.7	− 5.6^5	13.410	13.383	13.396	13.407	+ 13	+ 2.002	+ 1.991	+ 1.996	+ 1.952	+ 54
43	108	ff	+ 0.8	− 23.9	13.788	13.778	13.783	13.748	− 43	+ 1.926	+ 1.931	+ 1.928	+ 1.909	+ 23
44	114	bb	+ 3.2	− 55.0	14.256	14.273	14.264	14.326	+ 76	+ 1.927	+ 1.925	+ 1.926	+ 1.885	+ 50
45	116	bb	+ 3.7	− 53.6^5	14.320	14.325	14.322	14.300	− 27	+ 1.918	+ 1.909	+ 1.914	+ 1.877	+ 45
46	109	ff	+ 1.1	− 26.9^5	13.900	13.860	13.880	13.806	− 90	+ 1.948	+ 1.943	+ 1.946	+ 1.905	+ 50
47	123	bb	+ 6.6	− 24.5	13.676	13.693	13.684	13.764	+ 98	+ 1.855	+ 1.826	+ 1.840	+ 1.826	+ 17
48	122	bb	+ 5.1	− 12.9	13.468	13.486	13.477	13.549	+ 88	+ 1.880	+ 1.895	+ 1.888	+ 1.844	+ 54
49	117	f-bf	+ 4.1	− 12.6	13.535	13.516	13.526	13.542	+ 20	+ 1.822	+ 1.847	+ 1.834	+ 1.868	− 41
50	107	bbb	+ 1.0	+ 9.0	13.080	13.036	13.068	13.140	+ 88	+ 1.899	+ 1.909	+ 1.904	+ 1.895	+ 11
51	121	f-bf	+ 5.1	+ 10.7	13.140	13.109	13.124	13.112	− 15	+ 1.842	+ 1.828	+ 1.835	+ 1.836	− 1
52	115	f	+ 3.6	+ 15.5	13.030	13.020	13.025	13.021	− 5	+ 1.882	+ 1.874	+ 1.878	+ 1.856	+ 27
53	113	bf	+ 3.3^5	+ 42.6	12.423	12.426	12.424	12.520	+ 117	+ 1.820	+ 1.829	+ 1.824	+ 1.850	− 32
54	130	bf	+ 10.0	+ 44.4	12.477	12.476	12.476	12.493	+ 21	+ 1.787	+ 1.770	+ 1.778	+ 1.755	+ 28
55	128	bf-b	+ 9.4	+ 21.3	12.949	12.916	12.932	12.920	− 15	+ 1.794	+ 1.787	+ 1.790	+ 1.772	+ 22
56	129	f-bf	+ 9.4	− 14.0^5	13.642	13.624	13.633	13.573	− 73	+ 1.740	+ 1.741	+ 1.740	+ 1.784	− 54
57	127	ff	+ 9.0	− 19.4	13.706	13.652	13.679:	13.672	− 9:	+ 1.870	+ 1.868	+ 1.869	+ 1.790	+ 96

PLATE VI. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
58	136	bf	+ 14.2^5	− 18.5	13.605	13.600	13.602	13.660	+0.071	+ 1.713	+ 1.741	+ 1.727	+ 1.716	+ 0.013
59	138	ff	+ 16.9^5	− 1.9	13.377	13.356	13.366	13.356	− 12	+ 1.717	+ 1.714	+ 1.716	+ 1.672	+ 54
60	135	ff	+ 13.9	+ 7.4	13.212	13.200	13.206	13.181	− 30	+ 1.771	+ 1.772	+ 1.772	+ 1.713	+ 72
61	139	f	+ 18.0	+ 24.2^5	12.804	12.780	12.792	12.873	+ 99	+ 1.594	+ 1.638	+ 1.616	+ 1.648	− 39
62	141	b	+ 19.8^5	+ 40.2^5	12.543	12.583	12.563	12.579	+ 20	+ 1.623	+ 1.632	+ 1.628	+ 1.618	+ 12
63	143	bbbb	+ 20.6	+ 38.3	12.503	12.565	12.534	12.615	+ 99	+ 1.586	+ 1.544	+ 1.565	+ 1.606	− 50
67	155	b-bf	+ 25.7	− 42.8^5	14.143	14.144	14.144	14.120	− 29	+ 1.586	+ 1.586	+ 1.586	+ 1.561	+ 30
68	153	b	+ 25.2	− 38.1	14.052	14.026	14.039	14.033	− 7	+ 1.564	+ 1.571	+ 1.568	+ 1.567	+ 1
69	154	bf	+ 25.2	− 37.0	14.025	14.015	14.020	14.012	− 10	+ 1.585	+ 1.609	+ 1.597	+ 1.566	+ 38
70	162	ff	+ 30.9	− 30.5	13.996	13.942	13.969	13.897	− 88	+ 1.576	+ 1.612	+ 1.594	+ 1.483	+ 135
71	161	f	+ 30.6	− 27.7	13.828	13.842	13.835	13.845	+ 12	+ 1.594	+ 1.544	+ 1.569	+ 1.486	+ 101
72	160	bf	+ 29.5	− 24.5	13.791	13.782	13.786	13.785	− 1	+ 1.510	+ 1.518	+ 1.514	+ 1.501	+ 16
73	157	bb	+ 26.8	+ 9.4^5	13.104	13.109	13.106	13.155	+ 60	+ 1.545	+ 1.563	+ 1.554	+ 1.528	+ 32
74	152	b	+ 24.9	+ 43.7	12.427	12.428	12.428	12.520	+ 112	+ 1.521	+ 1.552	+ 1.536	+ 1.543	− 9
75	166	ff	+ 32.0	+ 42.3	12.525	12.543	12.534	12.551	+ 21	+ 1.421	+ 1.434	+ 1.428	+ 1.444	− 20
77	173	bb	+ 36.1	− 8.0^5	13.477	13.500	13.488	13.486	− 2	+ 1.445	+ 1.461	+ 1.453	+ 1.402	+ 62
78	167	ff	+ 32.3	− 24.6	13.864	13.803	13.834:	13.789	− 55:	+ 1.549	+ 1.526	+ 1.538:	+ 1.461	+ 94:
79	169	bb	+ 34.5	− 26.1^5	13.725	13.732	13.728	13.821	+ 113	+ 1.431	+ 1.420	+ 1.426	+ 1.431	− 6
80	171	bf-b	+ 35.5	− 46.6	14.247	14.254	14.250	14.199	− 62	+ 1.468	+ 1.519	+ 1.494	+ 1.424	+ 85
81	177	b-bb	+ 38.4	− 32.5	13.871	13.840	13.856	13.941	+ 104	+ 1.422	+ 1.409	+ 1.416	+ 1.378	+ 46
82	182	b-bb	+ 40.9	− 15.5	13.585	13.580	13.582	13.629	+ 57	+ 1.330	+ 1.342	+ 1.336	+ 1.336	0
83	175	f	+ 37.5	− 7.4	13.560	13.491	13.526	13.476	− 61	+ 1.380	+ 1.401	+ 1.390	+ 1.382	+ 10
84	174	f	+ 37.3	+ 15.9	13.076	13.089	13.082	13.045	− 45	+ 1.340	+ 1.374	+ 1.357	+ 1.377	− 24
85	188	b	+ 43.5^5	+ 55.5	12.334	12.308	12.321:	12.318	− 4:	+ 1.270	+ 1.228	+ 1.249:	+ 1.275	− 32:
86	186	bbb	+ 43.4	+ 55.3	12.322	12.282	12.302:	12.322	+ 24:	+ 1.278	+ 1.277	+ 1.278:	+ 1.278	0:
87	192	f-bf	+ 45.0	+ 33.6	12.805	12.768	12.786	12.726	− 73	+ 1.211	+ 1.224	+ 1.218	+ 1.262	− 54
88	185	f	+ 42.9^5	+ 31.7^5	12.814	12.718	12.766	12.756	− 12	+ 1.313	+ 1.304	+ 1.308	+ 1.790	+ 22
89	199	f-ff	+ 49.0	+ 7.5	13.209	13.203	13.206	13.211	+ 6	+ 1.179	+ 1.240	+ 1.210	+ 1.214	− 5
90	197	bf	+ 47.8	− 46.5	14.319	14.265	14.292	14.209	− 101	+ 1.264	+ 1.281	+ 1.272	+ 1.246	+ 32
91	208	bf	+ 53.2	− 33.6	14.000	13.951	13.976	13.976	0	+ 1.202	+ 1.219	+ 1.210	+ 1.168	+ 51
96	221	bbb	+ 64.3^5	− 55.5	14.371	14.400	14.386:	14.391	+ 6:	+ 1.128	+ 1.124	+ 1.126:	+ 1.016	+ 134:

PLATE VII.

			′	′	r	r	r	r	″	r	r	r	r	″
1	63	bf	− 58.6	− 31.0	11.921	11.883	11.902:	11.906	+ 0.005:	− 0.881	− 0.914	− 0.898:	− 0.932	+ 0.041:
2	74	bb	− 48.0	+ 29.6	10.758	10.739	10.748:	10.875	+ 154:	− 1.200	− 1.182	− 1.191:	− 1.200	+ 11:
3	72	ff	− 51.6	+ 6.3	11.246	11.237	11.242:	11.272	+ 36:	− 1.033	− 1.073	− 1.053:	− 1.106	+ 64:
4	85	ff	− 41.4	+ 10.9	11.207	11.209	11.208:	11.185	− 28:	− 1.200	− 1.242	− 1.221:	− 1.312	+ 110:
5	93	f	− 36.0^5	+ 45.0^5	10.564	10.568	10.566:	10.607	+ 50:	− 1.479	− 1.508	− 1.494:	− 1.452	− 51:
6	86	bf	− 40.2	+ 37.6^5	10.715	10.733	10.724:	10.735	+ 13:	− 1.304	− 1.335	− 1.320:	− 1.362	+ 51:
7	87	bbb	− 38.3	+ 28.8	10.772	10.798	10.785	10.881	+ 116	− 1.373	− 1.352	− 1.362	− 1.390	+ 34
8	89	bb	− 37.6	+ 19.9	11.011	11.039	11.025	11.032	+ 8	− 1.393	− 1.358	− 1.376	− 1.396	+ 24
9	106	bf	− 29.8	− 42.3	12.018	12.079	12.048	12.078	+ 36	− 1.460	− 1.437	− 1.448	− 1.488	+ 48
10	104	f-bf	− 30.6	− 32.0	11.923	11.902	11.912	11.904	− 10	− 1.498	− 1.499	− 1.498	− 1.483	− 18

PLATE VII. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
11	97	f-bf	− 33.3	− 21.6	11.740	11.716	11.728:	11.730	+ 0.002:	− 1.454	− 1.460	− 1.457:	− 1.440	− 0.021:
12	95	ff	− 34.4	− 21.0	11.732	11.699	11.716	11.721	+ 6	− 1.423	− 1.395	− 1.409	− 1.418	+ 11
13	108	ff	− 29.1	+ 36.0	10.755	10.672	10.714:	10.754	+ 48:	− 1.621:	− 1.546:	− 1.584:	− 1.579	− 6:
14	122	bbb	− 24.7	+ 47.0	10.452	10.460	10.456	10.565	+ 132	− 1.644	− 1.657	− 1.650	− 1.676	+ 31
15	123	bb	− 23.3	+ 35.4	10.670	10.651	10.660	10.760	+ 121	− 1.693	− 1.684	− 1.688	− 1.693	+ 6
16	116	bb	− 26.2	+ 6.3	11.181	11.181	11.181	11.254	+ 88	− 1.612	− 1.592	− 1.602	− 1.607	+ 6
17	114	bb	− 26.6^5	+ 4.9	11.209	11.207	11.208	11.277	+ 83	− 1.579	− 1.579	− 1.579	− 1.598	+ 23
18	112	f-bf	− 28.5	− 44.4	12.080	12.076	12.078	12.112	+ 41	− 1.501	− 1.458	− 1.480	− 1.512	+ 39
19	119	f	− 26.3	− 45.4	12.092	12.059	12.076:	12.128	+ 63:	− 1.712	− 1.638	− 1.675:	− 1.554	− 146:
20	132	f	− 18.7	− 32.0	11.913	11.950	11.932:	11.896	− 44:	− 1.720	− 1.730	− 1.725:	− 1.718	− 8:
21	133	bf	− 18.1	− 16.7	11.580	11.572	11.576	11.636	+ 73	− 1.724	− 1.737	− 1.730	− 1.744	+ 17
22	129	f	− 20.4	+ 45.9	10.618	10.617	10.618:	10.580	− 46:	− 1.813	− 1.821	− 1.817:	− 1.760	− 69:
23	136	f	− 15.6	+ 41.4	10.618	10.616	10.617	10.653	+ 44	− 1.810	− 1.867	− 1.838	− 1.851	+ 16
24	137	ff	− 15.1	− 18.6	11.707	11.711	11.709	11.666	− 52	− 1.829	− 1.841	− 1.835	− 1.802	− 40
25	148	f-bf	− 7.4	− 45.3	12.098	12.133	12.116	12.113	− 4	− 1.984	− 1.922	− 1.953	− 1.926	− 33
26	149	f-bf	− 6.4	− 39.2	12.064	12.035	12.050	12.008	− 51	− 1.947	− 1.939	− 1.943	− 1.952	+ 11
27	150	bbb	− 6.2	− 21.2	11.595	11.610	11.602	11.704	+ 123	− 1.951	− 1.964	− 1.958	− 1.974	+ 19
28	145	f	− 9.0^5	− 1.9	11.394	11.401	11.398	11.380	− 22	− 1.954	− 1.975	− 1.964	− 1.938	− 31
29	160	bf	− 0.4	+ 35.4	10.744	10.769	10.756	10.744	− 15	− 2.178	− 2.140	− 2.159	− 2.144	− 18
30	161	bf	+ 0.6	+ 32.2	10.856	10.835	10.846	10.798	− 58	− 2.145	− 2.140	− 2.142	− 2.161	+ 23
31	162	ff	+ 1.0	+ 29.4	10.837	10.858	10.848	10.844	− 5	− 2.105	− 2.143	− 2.124	− 2.166	+ 51
32	154	bf-b	− 4.7	+ 22.9	10.989	10.989	10.989	10.958	− 38	− 2.035	− 2.036	− 2.036	− 2.047	+ 13
33	153	b	− 4.8	+ 21.8	11.022	10.996	11.009	10.977	− 39	− 2.055	− 2.052	− 2.054	− 2.043	− 13
34	155	b	− 4.3	+ 17.0	11.080	11.092	11.086	11.058	− 34	− 2.055	− 2.046	− 2.050	− 2.051	+ 1
35	164	b	+ 1.2	− 15.4	11.571	11.613	11.592	11.601	+ 11	− 2.127	− 2.125	− 2.126	− 2.126	0
36	158	ff	− 2.7	− 17.5^5	11.686	11.713	11.700	11.641	− 71	− 2.038	− 2.064	− 2.051	− 2.047	− 5
37	159	b	− 2.6	− 32.3	11.927	11.925	11.926	11.890	− 44	− 2.100	− 2.134	− 2.117	− 2.036	− 98
38	163	bb	+ 0.9	− 46.2^5	12.046	12.061	12.054	12.122	+ 82	− 2.091	− 2.110	− 2.100	− 2.095	− 6
39	172	ff	+ 5.6	− 42.5	12.043	12.132	12.088	12.056	− 39	− 2.147	− 2.145	− 2.146	− 2.185	+ 47
40	170	bbb	+ 4.5	− 40.6	11.959	11.951	11.955	12.025	+ 85	− 2.197	− 2.171	− 2.184	− 2.166	− 22
42	165	ff	+ 1.6	+ 7.9^5	11.277	11.238	11.258	11.207	− 62	− 2.138	− 2.149	− 2.144	− 2.157	+ 16
43	171	bf	+ 5.6	+ 13.2	11.172	11.142	11.156	11.115	− 50	− 2.250	− 2.242	− 2.246	− 2.240	− 7
44	169	b-bb	+ 4.7	+ 33.7	10.714	10.720	10.717	10.769	+ 63	− 2.202	− 2.232	− 2.217	− 2.243	+ 31
45	167	ff	+ 2.4	+ 35.3	10.767	10.802	10.784:	10.743	− 50:	− 2.177	− 2.217	− 2.197:	− 2.199	+ 2:
46	173	bb	+ 6.3	+ 51.8	10.509	10.538	10.524	10.463	− 74	− 2.248	− 2.253	− 2.250	− 2.292	+ 51
47	175	ff	+ 7.6	+ 52.4	10.520	10.526	10.523	10.451	− 87	− 2.291	− 2.315	− 2.303	− 2.319	+ 19
48	182	bb	+ 11.1	+ 44.3^5	10.601	10.610	10.606	10.584	− 27	− 2.402	− 2.389	− 2.396	− 2.380	− 19
49	177	bb	+ 8.4	+ 27.3	10.825	10.829	10.827	10.875	+ 58	− 2.276	− 2.267	− 2.272	− 2.309	+ 45
51	178	ff	+ 8.4	− 16.9	11.602	11.621	11.612:	11.622	+ 12:	− 2.255	− 2.274	− 2.264:	− 2.265	+ 1:
52	180	bf	+ 9.9	− 53.2	12.257	12.272	12.264	12.234	− 36	− 2.293	− 2.278	− 2.286	− 2.260	− 31
53	198	f	+ 18.9	− 18.1	11.676	11.670	11.673	11.635	− 46	− 2.413	− 2.408	− 2.410	− 2.471	+ 74
55	189	ff	+ 13.6	+ 6.7	11.115	11.149	11.132:	11.220	+ 106:	− 2.408	− 2.411	− 2.410:	− 2.392	− 22:
56	197	b	+ 17.8	+ 13.2	11.160	11.176	11.168	11.107	− 74	− 2.478	− 2.489	− 2.484	− 2.477	− 8
57	194	f	+ 16.9	+ 19.1	11.085	11.084	11.084	11.007	− 93	− 2.483	− 2.449	− 2.466	− 2.469	+ 4
58	208	b	+ 23.3	+ 26.2^5	10.939	10.899	10.919	10.883	− 44	− 2.654	− 2.673	− 2.664	− 2.602	− 75
59	201	f	+ 19.7	+ 23.3	10.986	10.964	10.975	10.934	− 50	− 2.509	− 2.516	− 2.512	− 2.528	+ 19
60	203	ff	+ 20.1	+ 19.1	11.031	11.052	11.042:	11.005	− 45:	− 2.510	− 2.518	− 2.514:	− 2.532	+ 22:
61	202	ff	+ 19.8	− 6.6	11.565	11.547	11.556	11.440	− 140	− 2.511	− 2.506	− 2.508	− 2.501	− 8
62	207	bf	+ 22.7	− 15.6^5	11.653	11.638	11.646	11.590	− 68	− 2.567	− 2.532	− 2.550	− 2.549	− 1
63	210	f	+ 23.8	− 17.8^5	11.695	11.670	11.682	11.627	− 67	− 2.515	− 2.520	− 2.518	− 2.568	+ 60

PLATE VII. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
64	200	f-ff	+ 19.5	— 34.2	11.997	12.023	12.010	11.907	—0.125	— 2.416	— 2.376	— 2.396	— 2.467	+ 0.086
65	206	bb	+ 22.6	— 42.1	12.030	11.986	12.008	12.037	+ 35	— 2.518	— 2.497	— 2.508	— 2.521	+ 16
66	211	bf	+ 25.2	— 51.8	12.273	12.286	12.280	12.200	— 87	— 2.523	— 2.531	— 2.527	— 2.562	+ 42
67	215	f	+ 30.4	+ 11.0	11.075	11.100	11.088	11.135	+ 57	— 2.742	— 2.761	— 2.752	— 2.727	— 30
68	214	f	+ 29.5	+ 39.0	10.783	10.726	10.754	10.663	— 110	— 2.757	— 2.721	— 2.739	— 2.736	— 4
69	221	bbb	+ 34.4	+ 4.2	11.302	11.313	11.308	11.247	— 74	— 2.735	— 2.737	— 2.736	— 2.799	+ 76
70	217	b	+ 33.0	+ 0.8	11.387	11.385	11.386	11.305	— 98	— 2.736	— 2.714	— 2.725	— 2.768	+ 52
71	224	bbb	+ 36.5	— 19.6	11.559	11.618	11.588	11.648	+ 73	— 2.829	— 2.797	— 2.813	— 2.817	+ 5
72	227	bbbb	+ 37.8^{5}	— 25.0	11.641	11.676	11.658	11.738	+ 97	— 2.820	— 2.838	— 2.829	— 2.837	+ 10
73	233	bb	+ 42.4	— 7.6	11.357	11.381	11.369	11.441	+ 87	— 2.937	— 2.946	— 2.942	— 2.945	+ 4
74	229	f	+ 40.1	+ 0.1^{5}	11.349	11.288	11.318	11.311	— 8	— 2.892	— 2.868	— 2.880	— 2.907	+ 33
75	231	ff	+ 41.3	+ 5.8	11.300	11.268	11.284	11.216	— 82	— 2.881	— 2.895	— 2.888	— 2.937	+ 59
76	228	bb	+ 38.8	+ 60.0^{5}	10.222	10.243	10.232:	10.301	+ 83:	— 2.931	— 2.910	— 2.920:	— 2.940	+ 24:
77	236	f	+ 43.9	+ 23.1	11.040	11.034	11.037	10.922	— 139	— 2.962	— 2.981	— 2.972	— 3.005	+ 40
79	238	bf	+ 49.9	— 2.4	11.410	11.421	11.416	11.349	— 81	— 3.081	— 3.075	— 3.078	— 3.098	+ 24
80	239	bf	+ 50.3	+ 10.4	11.232	11.217	11.224	11.131	— 113	— 3.138	— 3.110	— 3.124	— 3.118	— 7
81	241	b-bb	+ 54.4	+ 47.9	10.621	10.682	10.652:	10.494	— 191:	— 3.181	— 3.159	— 3.170:	— 3.236	+ 80:
82	242	b-bb	+ 55.9	+ 23.4	10.891	10.910	10.900:	10.908	+ 10:	— 3.232	— 3.186	— 3.209:	— 3.241	+ 39:
84	244	bb	+ 58.3	— 6.8	11.503	11.530	11.516:	11.417	— 120:	— 3.201	— 3.215	— 3.208:	— 3.259	+ 62:
85	245	bbb	+ 59.4	— 38.8	11.930	11.976	11.953	11.957	+ 5	— 3.245	— 3.243	— 3.244	— 3.249	+ 6

PLATE VIII.

			′	′	r	r	r	r	″	r	r	r	r	″
2	110	b	— 58.3	— 54.1	9.299	9.297	9.298:	9.272	—0.031:	+ 1.654	+ 1.679	+ 1.666:	+ 1.660	+ 0.007:
3	120	bb	— 54.6	— 33.3	8.907	8.890	8.898:	8.971	+ 88:	+ 1.597	+ 1.567	+ 1.582:	+ 1.599	— 20:
4	119	ff	— 54.6	+ 13.8	8.270	8.230	8.250:	8.288	+ 46:	+ 1.551	+ 1.528	+ 1.540:	+ 1.593	— 64:
5	112	f-bf	— 56.9	+ 14.8	8.298	8.299	8.298:	8.273	— 30:	+ 1.689	+ 1.676	+ 1.683:	+ 1.631	+ 62:
6	106	f-bf	— 58.1	+ 16.9	8.229	8.250	8.240:	8.243	+ 4:	+ 1.655	+ 1.673	+ 1.664:	+ 1.651	+ 16:
7	104	f	— 59.0	+ 27.2	8.114	8.068	8.091:	8.094	+ 4:	+ 1.736	+ 1.687	+ 1.712:	+ 1.665	+ 56:
9	124	bf	— 52.1	— 36.1	9.045	9.064	9.054:	9.011	— 52:	+ 1.560	+ 1.547	+ 1.554:	+ 1.558	— 5:
10	131	bf	— 48.1	— 52.1	9.298	9.240	9.269:	9.243	— 31:	+ 1.557	+ 1.548	+ 1.552:	+ 1.494	+ 70:
12	133	ff	— 46.4	+ 42.5	7.852	7.827	7.840:	7.873	+ 40:	+ 1.442	+ 1.424	+ 1.433:	+ 1.455	— 26:
13	148	bf	— 35.9	+ 13.9	8.278	8.262	8.270:	8.287	+ 20:	+ 1.303	+ 1.302	+ 1.302:	+ 1.284	+ 22:
14	146	ff	— 37.7	— 12.8	8.666	8.667	8.666:	8.675	+ 11:	+ 1.399	+ 1.351	+ 1.375:	+ 1.317	+ 70:
15	140	f	— 40.6	— 16.8	8.775	8.753	8.764:	8.733	— 37:	+ 1.365	+ 1.390	+ 1.378:	+ 1.366	+ 14:
18	142	f	— 39.1	— 41.6	9.142	9.133	9.138:	9.092	— 55:	+ 1.334	+ 1.364	+ 1.349:	+ 1.344	+ 6:
19	144	b	— 38.7	— 42.6	9.175	9.167	9.171:	9.107	— 77:	+ 1.343	+ 1.317	+ 1.330:	+ 1.338	— 10:
20	151	ff	— 34.4	— 8.0	8.665	8.604	8.634:	8.605	— 35:	+ 1.298	+ 1.307	+ 1.302:	+ 1.263	+ 47:
21	149	f-bf	— 34.7	+ 20.0	8.210	8.184	8.197	8.199	+ 2	+ 1.258	+ 1.264	+ 1.261	+ 1.265	— 4
22	159	bf	— 31.0	+ 26.8^{5}	8.137	8.138	8.138	8.100	— 46	+ 1.142	+ 1.129	+ 1.136	+ 1.203	— 80
23	150	bb	— 34.5	+ 37.9	7.852	7.824	7.838	7.939	+ 121	+ 1.236	+ 1.235	+ 1.236	+ 1.259	— 28
24	164	bf	— 27.1	+ 43.8	7.828	7.832	7.830:	7.855	+ 30:	+ 1.161	+ 1.145	+ 1.153:	+ 1.136	+ 20:
25	170	bbb	— 24.0	+ 18.6	8.156	8.188	8.172	8.220	+ 58	+ 1.123	+ 1.083	+ 1.103:	+ 1.088	+ 18:

PLATE VIII. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
26	163	b-bb	− 27.5	+ 12.9	8.229	8.212	8.220	8.303	+ 0.100	+ 1.148	+ 1.137	+ 1.142	+ 0.147	− 0.006
27	168	f	− 25.7	− 21.1	8.760	8.753	8.756	8.796	+ 48	+ 1.133	+ 1.105	+ 1.019	+ 0.120	− 1
28	176	f	− 21.2	− 41.4	9.068	9.087	9.078	9.090	+ 14	+ 1.056	+ 1.060	+ 1.058	+ 1.049	+ 11
29	179	bb	− 19.6	− 35.8	9.011	9.033	9.022	9.009	− 16	+ 0.971	+ 0.997	+ 0.984	+ 1.021	− 44
31	180	f-bf	− 18.6	+ 5 9	8.386	8.380	8.383	8.404	+ 25	+ 0.955	+ 0.966	+ 0.960	+ 1.000	− 48
32	172	ff	− 22.8	+ 16.6	8.265	8.250	8.258	8.249	− 11	+ 1.095	+ 1.100	+ 1.098	+ 1.068	+ 36
33	183	ff	-17.4^{5}	+ 18.7	8.212	8.191	8.202	8.219	+ 20	+ 0.921	+ 0.994	+ 0.958	+ 0.979	− 25
36	191	ff	− 13.7	+ 14.8	8.303	8.313	8.308:	8.275	− 40:	+ 0.959	+ 0.913	+ 0.936:	+ 0.918	+ 22:
37	184	ff	− 16.0	$+7.6^{5}$	8.396	8.351	8.374	8.380	+ 7	+ 0.924	+ 0.927	+ 0.926	+ 0.957	− 37
38	190	f	− 13.8	$+3.9^{5}$	8.389	8.388	8.388	8.432	+ 53	+ 0.925	+ 0.938	+ 0.932	+ 0.922	+ 12
39	187	ff	− 15.1	+ 3.9	8.498	8.419	8.458	8.433	− 30	+ 0.960	+ 0.904	+ 0.932:	+ 0.943	− 13:
41	193	f-bf	-12.0^{5}	− 30.0	8.954	8.935	8.944	8.925	− 23	+ 0.911	+ 0.892	+ 0.902	+ 0.895	+ 8
42	195	f	− 11.8	-37.9^{5}	9.020	9.040	9.030	9.041	+ 13	+ 0.866	+ 0.900	+ 0.883	+ 0.893	− 12
43	204	f	− 7.7	-62.9^{5}	9.351	9.349	9.350:	9.405	+ 66:	+ 0.824	+ 0.825	+ 0.824:	+ 0.828	− 5:
45	196	ff	− 11.3	− 3.9	8.544	8.557	8.550	8.547	− 4	+ 0.948	+ 0.871	+ 0.910	+ 0.880	+ 36
46	205	f	− 6.5	+ 3.5	8.378	8.361	8.370	8.440	+ 84	+ 0.762	+ 0.778	+ 0.770	+ 0.801	− 37
48	206	b	− 5.8	+ 17.0	8.136	8.171	8.154	8.245	+ 109	+ 0.788	+ 0.770	+ 0.779	+ 0.788	− 11
49	200	ff	− 8.9	+ 24.9	8.106	8.119	8.112	8.130	+ 22	+ 0.812	+ 0.802	+ 0.807	+ 0.838	− 37
51	198	ff	− 9.5	+ 41.0	7.865	7.867	7.866:	7.897	+ 37:	+ 0.907	+ 0.876	+ 0.892:	+ 0.846	+ 55:
52	207	bf	− 5.6	+ 43.4	7.839	7.838	7.838	7.862	+ 29	+ 0.781	+ 0.772	+ 0.776	+ 0.781	− 6
53	210	f	− 4.6	+ 41.2	7.893	7.908	7.900	7.894	− 7	+ 0.751	+ 0.789	+ 0.770	+ 0.765	+ 6
54	211	f-bf	− 3.3	+ 7.3	8.415	8.395	8.405	8.386	− 23	+ 0.758	+ 0.749	+ 0.754	+ 0.747	+ 8
55	213	bf	− 1.5	− 9.2	8.715	8.713	8.714	8.624	− 108	+ 0.751	+ 0.723	+ 0.737	+ 0.720	+ 20
56	209	bf	− 5.0	− 31.6	9.001	8.981	8.991	8.949	− 50	+ 0.794	+ 0.779	+ 0.786	+ 0.781	+ 6
58	212	b	− 2.5	− 53.4	9.201	9.210	9.206:	9.265	+ 71:	+ 0.725	+ 0.717	+ 0.721:	+ 0.741	− 24:
59	216	f	+ 2.1	-55.0^{5}	9.303	9.333	9.318:	9.289	− 35:	+ 0.687	+ 0.700	+ 0.694:	+ 0.665	+ 35:
61	222	bb	+ 6.1	-33.9^{5}	8.892	8.909	8.900	8.984	+ 101	+ 0.570	+ 0.570	+ 0.570	+ 0.597	− 32
62	220	b	+ 5.8	− 13.1	8.641	8.649	8.645	8.681	+ 43	+ 0.561	+ 0.544	+ 0.552	+ 0.599	− 56
63	218	ff	+ 4.9	− 6.0	8.646	8.643	8.644:	8.578	− 79	+ 0.620	+ 0.614	+ 0.617:	+ 0.614	+ 4:
65	219	ff	+ 5.4	+ 0.1	8.564	8.534	8.549	8.490	− 71:	+ 0.676	+ 0.669	+ 0.672	+ 0.605	+ 80
67	217	b	+ 4.7	$+59.8^{5}$	7.612	7.609	7.610:	7.624	+ 17:	+ 0.599	+ 0.606	+ 0.602:	+ 0.609	− 8:
68	224	bbb	+ 8.1	+ 39.5	7.806	7.844	7.825	7.918	+ 112	+ 0.526	+ 0.495	+ 0.510	+ 0.556	− 55
69	227	bbb	+ 9.4	+ 34.0	7.949	7.869	7.909	7.998	+ 107	+ 0.554	+ 0.481	+ 0.518	+ 0.535	− 20
71	226	f	+ 9.0	− 7.8	8.601	8.589	8.595	8.604	+ 11	+ 0.561	+ 0.548	+ 0.554	+ 0.547	+ 8
72	225	bf	$+8.0^{5}$	− 14.4	8.704	8.707	8.706	8.700	− 7	+ 0.554	+ 0.511	+ 0.532	+ 0.564	− 38
73	230	b-bb	+ 12.0	− 29.1	8.911	8.943	8.927	8.914	− 16	+ 0.518	+ 0.503	+ 0.510	+ 0.499	+ 13
75	223	ff	+ 6.9	− 49.2	9.285	9.263	9.274	9.204	− 84	+ 0.599	+ 0.603	+ 0.601	+ 0.586	+ 18
77	235	bf	+ 15.1	− 42.9	9.233	9.222	9.228	9.114	− 137	+ 0.398	+ 0.397	+ 0.398	+ 0.450	− 62
78	232	ff	+ 13.4	− 26.9	8.958	8.926	8.942:	8.882	− 72:	+ 0.491	+ 0.510	+ 0.500:	+ 0.476	+ 29:
79	234	f	+ 14.2	-7.8^{5}	8.602	8.601	8.602	8.605	+ 4	+ 0.461	+ 0.477	+ 0.469	+ 0.461	+ 10
80	233	bb	+ 14.1	+ 51.4	7.631	7.636	7.634	7.747	+ 136	+ 0.435	+ 0.406	+ 0.420	+ 0.455	− 42
84	244	b	+ 30.0	+ 52.2	7.744	7.740	7.742:	7.736	− 7:	+ 0.226	+ 0.198	+ 0.212:	+ 0.193	+ 23:
85	245	bb	+ 31.0	+ 20.2	8.094	8.112	8.103	8.200	+ 116	+ 0.165	+ 0.157	+ 0.161	+ 0.180	− 24
86	249	bf	+ 35.0	+ 4.4	8.459	8.430	8.444	8.429	− 18	+ 0.143	+ 0.160	+ 0.152	+ 0.116	+ 43
87	248	b	+ 34.9	− 41.4	9.088	9.095	9.092:	9.094	+ 2:	+ 0.115	+ 0.103	+ 0.109:	+ 0.123	− 17:
88	247	bf	+ 34.6	− 56.0	9.378	9.365	9.372:	9.305	− 80:	+ 0.165	+ 0.156	+ 0.160:	+ 0.129	+ 37:
89	246	bb	+ 32.0	− 59.8	9.308	9.356	9.332:	9.360	+ 34:	+ 0.114	+ 0.126	+ 0.120:	+ 0.173	− 64:
92	254	b	$+37.8^{5}$	-31.1^{5}	8.952	8.965	8.958:	8.945	− 16:	+ 0.074	+ 0.061	+ 0.068:	+ 0.073	− 6:
93	262	ff	+ 40.6	− 10.0	8.697	8.660	8.678:	8.638	− 48:	+ 0.035	+ 0.053	+ 0.044:	+ 0.025	+ 23:
94	264	b	$+41.9^{5}$	− 6.9	8.575	8.600	8.588:	8.593	+ 6:	+ 0.074	− 0.017	+ 0.028:	+ 0.002	+ 31:

PLATE VIII. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
97	255	bb	+ 38.3	+ 23.6	8.049	8.048	8.048	8.151	+0.124	+ 0.026	+ 0.057	+ 0.042	+ 0.059	— 0.020
98	253	b	+ 37.3	+ 26.1	7.999	8.025	8.012	8.115	+ 124	+ 0.049	+ 0.039	+ 0.044	+ 0.076	— 38
99	265	b	+ 42.2	+ 28.9	8.068	8.057	8.062	8.074	+ 14	— 0.024	— 0.034	— 0.029	— 0.005	— 29
100	258	bbb	+ 39.9	+ 51.0^5	7.643	7.623	7.633	7.753	+ 144	— 0.023	— 0.014	— 0.018	+ 0.030	— 58
101	251	bbb	+ 36.6	+ 53.8	7.605	7.571	7.588	7.713	+ 150	+ 0.052	+ 0.060	+ 0.056	+ 0.084	— 34
102	273	bb	+ 48.5	+ 31.1	8.079	8.039	8.059	8.042	— 20	— 0.143	— 0.127	— 0.135	— 0.110	— 30
103	269	bb	+ 45.6	— 11.6	8.623	8.621	8.622:	8.661	+ 47:	— 0.124	— 0.118	— 0.121:	— 0.057	— 77:
104	271	bb	+ 46.9	— 36.6	9.012	8.976	8.994:	9.024	+ 36:	— 0.091	— 0.103	— 0.097:	— 0.076	— 25:
109	282	bbb	+ 55.7	+ 33.4	7.911	7.930	7.920:	8.010	+ 108:	— 0.267	— 0.265	— 0.266	— 0.229	— 44
110	280	bf	+ 55.0	+ 20.4	8.211	8.214	8.212:	8.198	— 17:	— 0.192	— 0.171	— 0.182:	— 0.216	+ 41:
112	281	b	+ 55.1	— 37.2	9.108	9.082	9.095:	9.033	— 74:	— 0.178	— 0.193	— 0.186:	— 0.211	+ 30:

PLATE IX.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
3	120	bb	— 54.6	— 33.3	10.583	10.557	10.570:	10.653	+0.101:	+ 1.438	+ 1.457:	+ 1.448:	+ 1.480	— 0.038:
9	124	bf	— 52.1	— 36.1	10.744	10.734	10.739:	10.722	— 21:	+ 1.472	+ 1.461:	+ 1.466:	+ 1.429	+ 45:
13	148	bf	— 35.9	+ 13.9	9.461	9.500	9.480	9.512	+ 39	+ 1.083	+ 1.038	+ 1.060	+ 1.049	+ 13
19	144	b	— 38.7	— 42.6	10.893	10.878	10.886:	10.888	+ 2:	+ 1.171	+ 1.134	+ 1.152:	+ 1.152	0:
22	159	bf	— 31.0	+ 26.8^5	9.245	9.279	9.262	9.199	— 77	+ 0.846	+ 0.817	+ 0.832	+ 0.937	— 126
23	150	bb	— 34.5	+ 37.9	8.885	8.866	8.876:	8.926	+ 61:	+ 1.006	+ 0.998	+ 1.002:	+ 1.002	0:
25	170	bbb	— 24.0	+ 18.6	9.374	9.395	9.384	9.403	+ 23	+ 0.830	+ 0.784	+ 0.807	+ 0.795	+ 14
26	163	b-bb	— 27.5	+ 12.9	9.522	9.488	9.505	9.540	+ 43	+ 0.875	+ 0.875	+ 0.875	+ 0.873	+ 2
29	179	bb	— 19.6	— 35.8	10.772	10.769	10.770	10.734	— 44	+ 0.730	+ 0.743	+ 0.736	+ 0.744	— 10
31	180	f-bf	— 18.6	+ 5.9	9.635	9.690	9.662	9.716	+ 66	+ 0.642	+ 0.608	+ 0.625	+ 0.691	— 79
48	206	b	— 5.8	+ 17.0	9.389	9.384	9.386	9.453	+ 82	+ 0.411	+ 0.418	+ 0.414	+ 0.412	+ 2
54	211	f-bf	— 3.3	+ 7.3	9.717	9.739	9.728:	9.691	— 45:	+ 0.395	+ 0.377	+ 0.386:	+ 0.367	+ 23:
55	213	bf	— 1.5	— 9.2	10.178	10.195	10.186	10.094	— 112	+ 0.455	+ 0.385	+ 0.420	+ 0.342	+ 94
58	212	b	— 2.5	— 53.4	11.073	11.079	11.076:	11.173	+ 118:	+ 0.427	+ 0.381	+ 0.404:	+ 0.396	+ 10:
61	222	bb	+ 6.1	— 33.9^5	10.614	10.626	10.620	10.704	+ 102	+ 0.189	+ 0.183	+ 0.186	+ 0.200	— 17
62	220	b	+ 5.8	— 13.1	10.187	10.164	10.176	10.194	+ 22	+ 0.170	+ 0.146	+ 0.158	+ 0.191	— 40
67	217	b	+ 4.7	+ 59.8^5	8.452	8.428	8.440:	8.415	— 30:	+ 0.150	+ 0.125	+ 0.138:	+ 0.159	— 25:
68	224	bbb	+ 8.1	+ 39.5	8.819	8.849	8.834	8.912	+ 95	+ 0.130	+ 0.103	+ 0.116	+ 0.102	+ 17
69	227	bbb	+ 9.4	+ 34.0	9.047	9.012	9.030	9.046	+ 20	+ 0.110	+ 0.103	+ 0.106	+ 0.079	+ 32
72	225	bf	+ 8.0^5	— 14.4	10.251	10.248	10.250	10.227	— 28	+ 0.156	+ 0.116	+ 0.136	+ 0.145	— 11
73	230	b-bb	+ 12.0	— 29.1	10.646	10.613	10.630	10.588	— 51	+ 0.070	+ 0.060	+ 0.065	+ 0.072	— 8
77	235	bf	+ 15.1	— 42.9	10.942	10.991	10.966	10.927	— 48	+ 0.018	— 0.017	0.000	+ 0.016	— 19
80	233	bb	+ 14.1	+ 51.4	8.533	8.558	8.546	8.625	+ 96	— 0.021	— 0.034	— 0.028	— 0.034	+ 7
84	244	b	+ 30.0	+ 52.2	8.638	8.620	8.629:	8.614	— 18:	— 0.325	— 0.384	— 0.354:	— 0.370	+ 19:
85	245	bb	+ 31.0	+ 20.2	9.317	9.306	9.312	9.396	+ 102	— 0.365	— 0.405	— 0.385	— 0.366	— 23
87	248	b	+ 34.9	— 41.4	10.868	10.897	10.882:	10.901	+ 23:	— 0.430	— 0.452	— 0.441:	— 0.402	— 47:
89	246	bb	+ 32.0	— 59.8	11.323	11.295	11.309:	11.348	+ 48:	— 0.394	— 0.390	— 0.392:	— 0.327	— 78:
92	254	b	+ 37.8^5	— 31.1^5	10.663	10.651	10.657	10.654	— 4	— 0.465	— 0.424	— 0.444	— 0.471	+ 32
94	264	b	+ 41.9^5	— 6.9	10.021	10.065	10.043	10.063	+ 24	— 0.587	— 0.608	— 0.598	— 0.578	— 24
97	255	bb	+ 38.3	+ 23.6	9.251	9.248	9.250	9.317	+ 82	— 0.512	— 0.515	— 0.514	— 0.523	+ 11

PLATE IX. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
98	253	b	+ 37.3	+ 26.1	9.153	9.172	9.162	9.255	+0.113	− 0.474	− 0.495	− 0.484	− 0.504	+0.024
99	265	b	+ 42.2	+ 28.9	9.178	9.174	9.176	9.190	+ 17	− 0.628	− 0.610	− 0.619	− 0.609	− 12
100	258	bbb	+ 39.9	$+ 51.0^5$	8.579	8.567	8.573	8.650	+ 94	− 0.560	− 0.617	− 0.588	− 0.578	− 12
101	251	bbb	+ 36.6	+ 53.8	8.520	8.481	8.500	8.579	+ 96	− 0.506	− 0.502	− 0.504	− 0.510	+ 7
102	273	bb	+ 48.5	+ 31.1	9.167	9.175	9.171:	9.140	− 38:	− 0.702	− 0.731	− 0.716:	− 0.744	+ 34:
103	269	bb	+ 45.6	− 11.6	10.147	10.133	10.140:	10.180	+ 49:	− 0.675	− 0.674	− 0.674:	− 0.650	− 29:
104	271	bb	+ 46.9	− 36.6	10.745	10.771	10.758:	10.791	+ 40:	− 0.666	− 0.641	− 0.654:	− 0.659	+ 6:
109	282	bbb	+ 55.7	+ 33.4	9.022	9.042	9.032:	9.088	+ 68:	− 0.901	− 0.902	− 0.902:	− 0.897	− 6:

PLATE X.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
1	163	b-bb	− 56.6	$- 45.9^5$	10.111	10.113	10.112:	10.110	−0.002:	+ 1.870	+ 1.841	+ 1.856:	+ 1.850	+0.007:
2	164	f	− 56.1	− 15.1	9.670	9.610	9.640:	9.588	− 62:	+ 1.839	+ 1.850	+ 1.844:	+ 1.823	+ 25:
3	173	b-bb	− 50.8	+ 52.1	8.422	8.474	8.448:	8.457	+ 11:	+ 1.633	+ 1.629	+ 1.631:	+ 1.673	− 50:
4	169	b-bb	− 52.5	+ 34.0	8.681	8.676	8.678:	8.761	+ 100:	+ 1.671	+ 1.666	+ 1.668:	+ 1.719	− 61:
5	177	b	− 48.8	+ 27.6	8.784	8.789	8.786:	8.873	+ 104:	+ 1.602	+ 1.591	+ 1.596:	+ 1.644	− 58:
6	171	f	$- 51.6^5$	+ 13.5	9.177	9.118	9.148:	9.109	− 47:	+ 1.750	+ 1.779	+ 1.764:	+ 1.711	+ 64:
7	170	bbb	− 53.0	− 40.2	10.023	10.088	10.052	10.015	− 44	+ 1.759	+ 1.723	+ 1.741	+ 1.771	− 36
8	182	b-bb	$- 46.0^5$	+ 44.6	8.556	8.581	8.568:	8.587	+ 23:	+ 1.488	+ 1.506	+ 1.497:	+ 1.576	− 95:
10	197	f-bf	− 39.5	+ 13.5	9.184	9.175	9.180	9.119	− 73	+ 1.448	+ 1.461	+ 1.454	+ 1.455	− 1
13	206	bb	− 34.9	− 41.9	10.044	10.039	10.042	10.059	+ 20	+ 1.397	+ 1.399	+ 1.398	+ 1.390	+ 10
14	210	ff	− 33.6	− 17.6	9.660	9.628	9.644:	9.649	+ 6:	+ 1.360	+ 1.358	+ 1.359:	+ 1.349	+ 12:
15	207	f	− 34.6	− 15.4	9.640	9.586	9.613	9.611	− 2	+ 1.369	+ 1.398	+ 1.384	+ 1.369	+ 18
16	208	f-bf	− 33.9	$+ 26.4^5$	8.936	8.891	8.913	8.906	− 8	+ 1.248	+ 1.264	+ 1.256	+ 1.330	− 89
17	214	f	− 27.6	+ 39.2	8.678	8.674	8.676	8.695	+ 23	+ 1.176	+ 1.162	+ 1.169	+ 1.190	− 25
19	217	b	− 24.3	$+ 0.9^5$	9.362	9.382	9.372	9.343	− 35	+ 1.156	+ 1.141	+ 1.148	+ 1.142	+ 7
20	227	bbbb	− 19.6	− 24.9	9.766	9.804	9.785:	9.785	0:	+ 1.075	+ 1.038	+ 1.056:	+ 1.058	− 2:
21	224	bbb	− 20.9	$- 19.3^5$	9.706	9.685	9.696	9.690	− 7	+ 1.114	+ 1.065	+ 1.090	+ 1.082	+ 10
22	221	bb	− 22.9	+ 4.4	9.337	9.320	9.328	9.287	− 49	+ 1.109	+ 1.093	+ 1.101	+ 1.111	− 12
23	228	b-bb	− 18.3	$+ 60.1^5$	8.249	8.250	8.250:	8.348	+ 118:	+ 0.925	+ 0.902	+ 0.914:	+ 0.982	− 82:
25	236	f	$- 13.3^5$	+ 23.2	8.942	8.962	8.952	8.977	+ 30	+ 0.876	+ 0.898	+ 0.887	+ 0.900	− 16
26	231	ff	− 16.0	+ 6.0	9.261	9.232	9.246:	9.266	+ 24:	+ 0.942	+ 0.981	+ 0.962:	+ 0.965	− 4:
27	229	ff	$- 17.0^5$	$+ 0.2^5$	9.330	9.316	9.323	9.363	+ 48	+ 0.967	+ 0.989	+ 0.978	+ 0.989	− 13
28	233	bb	− 14.9	− 7.5	9.410	9.398	9.404	9.494	+ 108	+ 0.952	+ 0.947	+ 0.950	+ 0.948	+ 2
29	238	f	$- 7.4^5$	$- 2.2^5$	9.361	9.349	9.355	9.411	+ 67	+ 0.801	+ 0.785	+ 0.793	+ 0.787	+ 7
30	239	f	− 6.9	+ 10.5	9.230	9.183	9.206	9.197	− 11	+ 0.760	+ 0.799	+ 0.780	+ 0.770	+ 12
31	237	f	− 8.5	+ 16.9	9.107	9.077	9.092	9.087	− 6	+ 0.821	+ 0.811	+ 0.816	+ 0.799	+ 20
32	240	f-bf	− 4.2	+ 49.5	8.499	8.500	8.500:	8.539	+ 47:	+ 0.653	+ 0.660	+ 0.656:	+ 0.691	− 42:
33	241	b	− 2.8	+ 48.0	8.615	8.608	8.612:	8.567	− 54:	+ 0.656	+ 0.642	+ 0.649:	+ 0.662	− 16:
35	242	b	− 1.3	+ 23.5	8.917	8.944	8.930	8.982	+ 62	+ 0.627	+ 0.617	+ 0.622	+ 0.644	− 26
36	243	f-bf	− 0.3	+ 6.2	9.293	9.272	9.282	9.275	− 8	+ 0.635	+ 0.629	+ 0.632	+ 0.632	0
37	249	f	+ 6.0	− 54.5	10.318	10.326	10.322	10.306	− 19	+ 0.525	+ 0.535	+ 0.530	+ 0.534	− 5
38	245	bb	$+ 1.9^5$	− 38.7	10.002	10.004	10.003	10.036	+ 40	+ 0.571	+ 0.586	+ 0.579	+ 0.610	− 37
40	244	bf-b	$+ 0.9^5$	− 6.7	9.490	9.535	9.512	9.494	− 22	+ 0.667	+ 0.648	+ 0.658	+ 0.613	+ 54
41	259	f	+ 11.1	$+ 51.2^5$	8.475	8.499	8.487:	8.524	44:	+ 0.346	+ 0.408	+ 0.377:	+ 0.367	+ 12:
42	256	ff	+ 10.5	+ 17.0	9.054	9.048	9.051	9.102	61	+ 0.397	+ 0.384	+ 0.390	+ 0.398	− 10

PLATE X. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
43	252	f-ff	+ 8.1	+ 9.0	9.283	9.236	9.260	9.235	− 0.030	+ 0.478	+ 0.509	+ 0.494	+ 0.454	+ 0.048
45	251	bbb	+ 7.6	− 5.1	9.453	9.418	9.436	9.472	+ 43	+ 0.443	+ 0.420	+ 0.432	+ 0.473	− 49
46	258	bb	+ 10.9	− 7.9	9.467	9.494	9.480	9.523	+ 52	+ 0.388	+ 0.410	+ 0.399	+ 0.404	− 6
47	257	ff	+ 10.6	− 9.5	9.544	9.553	9.548	9.550	+ 2	+ 0.417	+ 0.425	+ 0.421	+ 0.411	+ 12
48	253	b	+ 8.2	− 32.9	9.895	9.900	9.898	9.943	+ 54	+ 0.493	+ 0.475	+ 0.484	+ 0.476	+ 10
49	255	bbb	+ 9.2	− 35.3	9.925	9.973	9.949	9.985	+ 43	+ 0.399	+ 0.439	+ 0.419	+ 0.456	− 47
50	265	bf-b	+ 13.1	− 30.0	9.914	9.895	9.904	9.898	− 7	+ 0.372	+ 0.357	+ 0.364	+ 0.371	− 8
51	266	f	+ 15.3^5	+ 24.8	9.012	8.987	9.000	8.974	− 31	+ 0.229	+ 0.241	+ 0.235	+ 0.291	− 67
52	267	f	+ 15.9	+ 29.3	8.871	8.863	8.867	8.898	+ 37	+ 0.248	+ 0.275	+ 0.262	+ 0.278	− 19
53	268	f-bf	+ 16.4	+ 34.2	8.824	8.807	8.816	8.816	0	+ 0.248	+ 0.255	+ 0.252	+ 0.265	− 16
54	270	b	+ 17.7	+ 59.7	8.344	8.390	8.367:	8.386	+ 23:	+ 0.110	+ 0.159	+ 0.134:	+ 0.223	− 107:
55	277	bf	+ 24.0^5	+ 32.3	8.843	8.836	8.840	8.854	+ 17	+ 0.082	+ 0.132	+ 0.107	+ 0.106	+ 1
56	274	f-bf	+ 20.3	− 9.7	9.604	9 581	9.592	9.561	− 37	+ 0.225	+ 0.230	+ 0.228	+ 0.207	+ 25
58	273	b	+ 19.4^5	− 27.8^5	9.904	9.942	9.923	9.866	− 68	+ 0.226	+ 0.200	+ 0.213	+ 0.237	− 29
59	280	bf	+ 25.9	− 38 5	10.042	10.044	10.043	10.053	+ 12	+ 0.086	+ 0.096	+ 0.091	+ 0.106	− 18
60	282	bb	+ 26.7	− 25.5	9.770	9.775	9.772	9.833	+ 73	+ 0.058	+ 0.043	+ 0.050	+ 0.081	− 37
61	287	ff	+ 29.4	+ 7.1	9.306	9.295	9.300	9.285	− 18	+ 0.027	+ 0.085	+ 0.056	+ 0.006	+ 60
63	278	bf	+ 24.9^5	+ 40.0	8.720	8.717	8.718	8.725	+ 8	+ 0.052	+ 0.052	+ 0.052	+ 0.079	− 32
64	285	ff	+ 29.0^5	+ 42.9	8.648	8.652	8.650:	8.679	+ 35:	− 0.019	− 0.020	− 0.020:	− 0.006	− 17:
65	279	b	+ 25.0	+ 56.0	8.417	8.479	8.448:	8.455	+ 8:	+ 0.046	+ 0.037	+ 0.042:	+ 0.070	− 34:
66	290	b	+ 33.6	+ 19.5	9.089	9.138	9.114	9.078	− 43	− 0.070	− 0.085	− 0.078	− 0.090	+ 14
67	288	f	+ 32.6	+ 3.7	9.355	9.328	9.342	9.344	+ 2	− 0.125	− 0.105	− 0.115	− 0.060	− 66
68	295	b	+ 40.6	− 16.1	9.622	9.622	9.622	9.686	+ 77	− 0.241	− 0.258	− 0.250	− 0.218	− 38
69	294	f	+ 39.4	+ 3.9	9.378	9.346	9.362	9.347	− 18	− 0.182	− 0.168	− 0.175	− 0.203	+ 34
70	300	f	+ 48.5	+ 32.1^5	8.916	8.857	8.886:	8.877	− 11:	− 0.405	− 0.411	− 0.408	− 0.411	+ 4:
71	298	ff	+ 43.1	+ 22.7	9.094	9.069	9.082	9.032	− 60	− 0 338	− 0.250	− 0.294	− 0.292	− 2
72	297	b	+ 43.0	− 27.3	9.835	9.813	9.824	9.877	+ 64	− 0.267	− 0.295	− 0.281	− 0.262	− 23
73	301	b	+ 49.4	− 18.8	9.744	9.734	9.739	9.739	0	− 0.391	− 0.420	− 0.406	− 0.401	− 6
74	310	b	+ 52.4	− 18.5^5	9.701	9.724	9.712:	9.738	+ 31:	− 0.503	− 0.504	− 0.504:	− 0.466	− 46:
75	311	bf	+ 52.9	− 3.6	9.506	9.470	9.488	9.485	− 4	− 0.474	− 0.476	− 0.475	− 0.486	+ 13
76	309	bb	+ 52.0^5	+ 3.1	9.371	9.376	9.374	9.372	− 2	− 0.515	− 0.482	− 0.498	− 0.469	− 35
77	303	bf-b	+ 49.7	+ 11.1	9.234	9.229	9.232	9.234	+ 2	− 0.452	− 0.447	− 0.450	− 0.425	− 30
78	302	b	+ 49.5	+ 14.7	9.139	9.145	9.142	9.174	+ 38	− 0.399	− 0.402	− 0.400	− 0.422	+ 26
79	314	f-bf	+ 54.0	+ 15.5	9.179	9.117	9.148	9.163	+ 18	− 0.469	− 0.478	− 0.474	− 0.518	+ 53
80	313	bf-b	+ 51.5	+ 29.5	8.825	8.833	8.829:	8.924	+ 114:	− 0.469	− 0.517	− 0.493:	− 0.474	− 23:
81	316	b	+ 57.5	+ 28.1^5	8.953	8.910	8.932:	8.951	+ 23:	− 0.594	− 0.616	− 0.605:	− 0.599	− 7:

PLATE XI.

			′	′	r	r	r	r	r	r	r	r	r	″
1	224	bbb	− 49.5	+ 40.9	11.611	11.601	11.606	11.549	− 0.068	+ 1.186	+ 1.159	+ 1.172	+ 1.139	+ 0.040
2	227	bbbb	− 48.1^5	+ 35.3^5	11.690	11.682	11.686	11.670	− 19	+ 1.161	+ 1.121	+ 1.141	+ 1.111	+ 36
3	220	b	− 52.0	− 11.7	12.739	12.727	12.733:	12.701	− 38:	+ 1.142	+ 1.163	+ 1.152:	+ 1.181	− 35:
4	225	bf	− 49.8	− 13.1	12.731	12.752	12.742:	12.732	− 12:	+ 1.152	+ 1.129	+ 1.140:	+ 1.136	+ 5:
5	222	bbb	− 51.7	− 32.6	13.117	13.103	13.110	13.159	+ 59	+ 1.142	+ 1.135	+ 1.138	+ 1.170	− 38

PLATE XI. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
6	235	bf	— 42.8	— 41.6	13.473	13.456	13.464:	13.355	—0.131:	+ 0.966	+ 0.964	+ 0.965:	+ 0.989	— 0.029:
7	230	bb	— 45.9	— 27.9	13.130	13.079	13.104	13.056	— 58	+ 1.037	+ 1.051	+ 1.044	+ 1.054	— 12
8	234	ff	— 43.5	— 6.5	12.643	12.618	12.630	12.586	— 45	+ 1.000	+ 0.987	+ 0.994	+ 1.009	— 18
9	233	bb	— 43.5	+ 52.7	11.323	11.306	11.314:	11.290	— 29:	+ 1.008	+ 0.993	+ 1.000:	+ 1.019	— 23:
10	244	b	— 27.6	+ 53.5	11.339	11.359	11.349:	11.270	— 95:	+ 0.724	+ 0.731	+ 0.728:	+ 0.696	+ 38:
11	245	bbb	— 26.6	+ 21.5	11.978	11.964	11.971	11.971	0	+ 0.675	+ 0.706	+ 0.690	+ 0.671	+ 23
12	247	bf	— 23.4	— 54.8	13.649	13.615	13.632:	13.641	+ 11:	+ 0.584	+ 0.560	+ 0.572:	+ 0.592	— 24:
13	246	b	— 26.0	— 58.5	13.658	13.657	13.658:	13.723	+ 78:	+ 0.600	+ 0.586	+ 0.593:	+ 0.645	— 62:
14	261	f	— 17.5	— 49.0	13.534	13.544	13.539	13.514	— 30	+ 0.449	+ 0.412	+ 0.430	+ 0.473	— 52
15	250	ff	— 21.7	— 46.2	13.429	13.349	13.389:	13.453	+ 77:	+ 0.530	+ 0.559	+ 0.544:	+ 0.560	— 19:
16	248	bf-b	— 23.0	— 40.1	13.311	13.328	13.320	13.319	— 1	+ 0.538	+ 0.564	+ 0.551	+ 0.587	— 43
17	254	b	— 20.1	— 30.0	13.080	13.058	13.069	13.098	+ 35	+ 0.507	+ 0.519	+ 0.513	+ 0.530	— 20
18	249	f	— 22.7	+ 5.7	12.352	12.321	12.336	12.316	— 24	+ 0.551	+ 0.580	+ 0.566	+ 0.589	— 28
19	260	ff	— 17.8	+ 18.4	12.068	12.067	12.068	12.038	— 36	+ 0.481	+ 0.459	+ 0.470	+ 0.491	— 25
20	255	bbb	— 19.4	+ 24.9	11.882	11.861	11.872	11.896	+ 29	+ 0.572	+ 0.581	+ 0.576	+ 0.525	+ 61
21	253	bf	— 20.4	+ 27.3	11.830	11.828	11.829	11.843	+ 17	+ 0.535	+ 0.529	+ 0.532	+ 0.546	— 17
22	258	bb	— 17.7	+ 52.3	11.329	11.319	11.324:	11.296	— 34:	+ 0.485	+ 0.518	+ 0.502:	+ 0.495	+ 8:
23	251	bbb	— 20.9	+ 55.0	11.252	11.262	11.257	11.237	— 24	+ 0.600	+ 0.580	+ 0.590	+ 0.561	+ 35
24	265	bf	— 15.4	+ 30.1	11.830	11.822	11.826	11.781	— 54	+ 0.447	+ 0.439	+ 0.443	+ 0.445	— 2
25	264	bf	— 15.9	— 5.6	12.574	12.572	12.573	12.563	— 12	+ 0.445	+ 0.451	+ 0.448	+ 0.449	— 1
26	262	ff	— 17.3	— 8.8	12.653	12.635	12.644:	12.633	— 13:	+ 0.483	+ 0.486	+ 0.484:	+ 0.476	+ 10:
27	269	b	-12.1^5	— 10.4	12.658	12.662	12.660	12.668	+ 10	+ 0.337	+ 0.353	+ 0.345	+ 0.373	— 34
28	263	f	— 16.1	-55.1^5	13.643	13.592	13.618	13.649	+ 37	+ 0.481	+ 0.444	+ 0.462	+ 0.442	+ 24
29	272	f-bf	— 10.1	— 55.0	13.654	13.626	13.640	13.643	+ 4	+ 0.329	+ 0.277	+ 0.302	+ 0.322	— 24
30	276	f	— 5.2	— 40.3	13.270	13.258	13.264	13.322	+ 70	+ 0.194	+ 0.187	+ 0.190	+ 0.226	— 43
31	271	b-bb	— 11.0	— 35.4	13.194	13.157	13.176	13.214	+ 46	+ 0.320	+ 0.328	+ 0.324	+ 0.344	— 24
32	275	bf	— 5.9	— 34.4	13.257	13.223	13.240	13.192	— 58	+ 0.213	+ 0.232	+ 0.222	+ 0.241	— 23
33	273	b-bb	— 9.1	$+32.3^5$	11.815	11.830	11.822	11.729	— 112	+ 0.323	+ 0.316	+ 0.320	+ 0.318	+ 2
34	274	f	— 8.2	+ 50.4	11.442	11.419	11.430:	11.335	— 114:	+ 0.327	+ 0.329	+ 0.328:	+ 0.302	+ 31:
35	282	bbb	— 1.9	+ 34.6	11.678	11.669	11.674	11.680	+ 7	+ 0.197	+ 0.200	+ 0.198	+ 0.172	+ 31
37	280	bf	-2.7^5	+ 21.6	12.022	12.021	12.022	11.965	— 68	+ 0.163	+ 0.159	+ 0.161	+ 0.188	— 32
38	283	ff	— 1.5	+ 13.4	12.099	12.106	12.102	12.145	+ 52	+ 0.123	+ 0.151	+ 0.137	+ 0.159	— 26
39	284	ff	— 0.4	— 35.8	13.151	13.177	13.164	13.222	+ 70	+ 0.052	+ 0.042	+ 0.047	+ 0.129	— 98
40	281	b	— 2.8	— 36.1	13.202	13.204	13.203	13.229	+ 31	+ 0.147	+ 0.155	+ 0.151	+ 0.178	— 32
41	276	bf	— 5.2	— 40.3	13.293	13.293	13.293	13.324	+ 37	+ 0.169	+ 0.168	+ 0.168	+ 0.226	— 70
42	292	f-ff	+ 6.6	+ 16.4	12.128	12.115	12.122	12.078	— 53	— 0.001	+ 0.006	+ 0.002	— 0.004	+ 7
43	295	b	+ 12.0	+ 44.0	11.469	11.489	11.479	11.472	— 8	— 0.114	— 0.125	— 0.120	— 0.109	— 13
47	296	f	+ 13.5	+ 22.8	12.023	12.020	12.022	11.937	— 102	— 0.158	— 0.171	— 0.164	— 0.143	— 25
48	297	b	$+14.4^5$	+ 32.8	11.701	11.713	11.707	11.718	+ 13	— 0.171	— 0.153	— 0.162	— 0.159	— 4
49	311	bf	+ 24.4	+ 56.5	11.379	11.293	11.336:	11.198	— 166:	— 0.405	— 0.393	— 0.399:	— 0.358	— 49:
50	310	b	+ 23.8	+ 41.5	11.562	11.542	11.552	11.526	— 31	— 0.395	— 0.384	— 0.390	— 0.349	— 49
51	301	b	$+20.8^5$	+ 41.4	11.596	11.618	11.607	11.528	— 95	— 0.271	— 0.298	— 0.284	— 0.288	+ 5
52	307	f	+ 23.1	— 1.5	12.506	12.461	12.484	12.468	— 19	— 0.382	— 0.333	— 0.358	— 0.342	— 19
53	299	f	$+19.8^5$	— 4.9	12.597	12.577	12.587	12.542	— 54	— 0.328	— 0.287	— 0.308	— 0.276	— 38
54	312	f	+ 24.4	— 27.4	13.083	13.018	13.050	13.035	— 18	— 0.348	— 0.308	— 0.328	— 0.373	+ 54
55	308	f-bf	+ 23.1	— 40.0	13.337	13.337	13.337	13.311	— 31	— 0.342	— 0.334	— 0.338	— 0.349	+ 13
56	315	bbb	+ 27.6	— 25.7	12.895	12.922	12.908	12.997	+ 107	— 0.415	— 0.425	— 0.420	— 0.437	+ 20
57	317	b	+ 29.1	-6.4^5	12.521	12.515	12.518	12.574	+ 67	— 0.504	— 0.515	— 0.510	— 0.465	— 54
58	323	f	+ 36.4	-7.1^5	12.685	12.630	12.658	12.591	— 80	— 0.646	— 0.643	— 0.644	— 0.613	— 37
59	320	bf	+ 34.2	— 17.8	12.786	12.776	12.781	12.823	+ 50	— 0.581	— 0.558	— 0.570	— 0.570	0

PLATE XI. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
60	326	ff	+ 38.8	− 13.6	12.741	12.728	12.734	12.730	− 0.005	− 0.606	− 0.605	− 0.606	− 0.663	+ 0.068
61	325	b	+ 37.8	+ 14.1^5	12.109	12.086	12.098	12.122	+ 29	− 0.629	− 0.672	− 0.650	− 0.638	− 14
62	324	bf	+ 36.8	+ 33.6	11.721	11.701	11.711	11.697	− 16	− 0.658	− 0.611	− 0.634	− 0.614	− 24
63	332	f	+ 45.5	+ 15.2	12.176	12.132	12.154	12.099	− 66	− 0.760	− 0.779	− 0.770	− 0.794	+ 29
64	338	f	+ 52.3	+ 2.3	12.491	12.500	12.496:	12.381	− 138:	− 1.008	− 0.957	− 0.982:	− 0.935	− 56:
65	334	f	+ 50.6	+ 28.2	11.862	11.848	11.855	11.813	− 50	− 0.886	− 0.938	− 0.912	− 0.895	− 20
66	337	b-bb	+ 51.5	+ 52.8^5	11.402	11.364	11.383:	11.275	− 130:	− 0.917	− 0.914	− 0.916:	− 0.909	− 8:
67	343	b	+ 59.4	+ 25.2	11.884	11.841	11.862:	11.878	+ 19:	− 1.096	− 1.102	− 1.099:	− 1.075	− 29:

Nrs. 30 and 41 are the same star, which was accidentally measured twice.

PLATE XII.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
2	244	b	− 56.5^5	− 6.6	10.872	10.863	10.868:	10.810	− 0.070:	+ 1.374	+ 1.341	+ 1.358:	+ 1.319	+ 0.047:
4	242	b	− 58.6	+ 23.6	10.093	10.088	10.090:	10.123	+ 40:	+ 1.409	+ 1.404	+ 1.406:	+ 1.429	− 28:
6	253	bf	− 49.4	− 32.9	11.417	11.406	11.412:	11.401	− 13:	+ 1.100	+ 1.109	+ 1.104:	+ 1.122	− 22:
8	265	bf	− 44.5	− 30.0	11.415	11.389	11.402:	11.327	− 90:	+ 1.028	+ 0.980	+ 1.004:	+ 1.038	− 41:
17	274	f	− 37.2	− 9.7^5	10.943	10.930	10.936	10.852	− 101	+ 0.951	+ 0.966	+ 0.958	+ 0.950	+ 10
18	273	b-bb	− 38.1^5	− 27.8	11.379	11.342	11.360	11.266	− 113	+ 0.902	+ 0.890	+ 0.896	+ 0.926	− 36
19	280	f-bf	− 31.8	− 38.6	11.556	11.572	11.569	11.503	− 79	+ 0.777	+ 0.795	+ 0.786	+ 0.780	+ 7
21	277	f-bf	− 33.3	+ 32.3	9.946	9.950	9.948	9.881	− 85	+ 0.986	+ 0.980	+ 0.983	+ 0.979	+ 5
22	278	f-bf	− 32.4	+ 40.0	9.708	9.748	9.728:	9.704	− 29:	+ 0.949	+ 0.930	+ 0.940:	+ 0.981	− 49:
23	279	b	− 32.1^5	+ 55.9	9.367	9.351	9.359:	9.339	− 24:	+ 1.080	+ 1.004	+ 1.042:	+ 1.015	+ 32:
27	290	bf	− 23.8	+ 19.4	10.181	10.155	10.168	10.162	− 7	+ 0.778	+ 0.774	+ 0.776	+ 0.772	+ 5
28	287	ff	− 28.0	+ 7.1	10.476	10.463	10.470	10.450	− 24	+ 0.844	+ 0.845	+ 0.844	+ 0.820	+ 29
29	289	ff	− 24.9	+ 3.6	10.499	10.480	10.490	10.526	+ 43	+ 0.784	+ 0.760	+ 0.772	+ 0.754	+ 22
31	294	f	− 18.0	+ 3.8	10.512	10.544	10.528	10.509	− 23	+ 0.584	+ 0.611	+ 0.598	+ 0.626	− 34
35	298	ff	− 14.3	+ 22.5	10.116	10.096	10.106	10.075	− 37	+ 0.575	+ 0.599	+ 0.587	+ 0.602	− 18
36	295	bf	− 17.0	− 16.2	10.921	10.866	10.894	10.966	+ 86	+ 0.535	+ 0.525	+ 0.530	+ 0.559	− 35
37	297	b-bf	− 14.6	− 27.4	11.202	11.182	11.192	11.218	+ 31	+ 0.490	+ 0.474	+ 0.482	+ 0.488	− 7
38	296	ff	− 15.5	− 37.4	11.564	11.489	11.526	11.448	− 94	+ 0.491	+ 0.512	+ 0.502	+ 0.480	+ 26
39	301	b-bf	− 8.1	− 18.9	11.038	11.075	11.056	11.013	− 52	+ 0.369	+ 0.389	+ 0.379	+ 0.388	− 11
40	310	b-bf	− 5.2	− 18.7^5	11.003	10.985	10.994	11.006	+ 14	+ 0.324	+ 0.299	+ 0.312	+ 0.334	− 26
42	303	bf	− 7.7	+ 11.0	10.355	10.343	10.349	10.328	− 25	+ 0.444	+ 0.427	+ 0.436	+ 0.451	− 18
43	302	bf	− 8.0	+ 14.5	10.258	10.239	10.248	10.248	0	+ 0.463	+ 0.454	+ 0.458	+ 0.466	− 10
45	306	bf	− 5.9	+ 29.3	9.822	9.808	9.815	9.906	+ 109	+ 0.455	+ 0.429	+ 0.442	+ 0.462	− 24
46	300	f	− 8.8	+ 32.0	9.846	9.835	9.840	9.848	+ 10	+ 0.492	+ 0.498	+ 0.495	+ 0.523	− 34
48	316	b-bf	− 0.1	+ 28.0	9.970	9.967	9.968	9.926	− 50	+ 0.337	+ 0.330	+ 0.334	+ 0.347	− 16
49	314	f	− 3.5	+ 15.4	10.270	10.224	10.247	10.220	− 32	+ 0.364	+ 0.372	+ 0.369	+ 0.384	− 18
50	311	f	− 4.6	− 3.8	10.707	10.662	10.684	10.661	− 28	+ 0.355	+ 0.383	+ 0.369	+ 0.359	+ 12
51	319	ff	+ 4.6	− 21.9	11.128	11.170	11.149	11.062	− 104	+ 0.118	+ 0.188	+ 0.153	+ 0.143	+ 12
52	318	f	+ 4.1	+ 46.9^5	9.523	9.508	9.516	9.484	− 38	+ 0.319	+ 0.316	+ 0.318	+ 0.319	− 1
53	321	f	+ 6.8	+ 14.8^5	10.267	10.259	10.263	10.217	− 55	+ 0.176	+ 0.180	+ 0.178	+ 0.192	− 17
54	322	f-bf	+ 7.0	+ 14.5	10.308	10.234	10.271	10.224	− 56	+ 0.184	+ 0.190	+ 0.187	+ 0.187	0
55	327	ff	+ 10.9	+ 13.6	10.259	10.241	10.250	10.238	− 14	+ 0.046	+ 0.078	+ 0.062	+ 0.112	− 60
56	328	ff	+ 10.9	+ 13.5^5	10.256	10.259	10.258	10.238	− 24	+ 0.103	+ 0.116	+ 0.110	+ 0.112	− 2
57	324	bf	+ 7.7^5	− 26.7^5	11.135	11.131	11.133	11.168	+ 42	+ 0.075	+ 0.090	+ 0.082	+ 0.073	+ 11
58	325	b	+ 8.7	− 46.1	11.596	11.584	11.590	11.609	+ 23	+ 0.030	+ 0.025	+ 0.028	+ 0.009	+ 23

PLATE XII. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			'	'	r	r	r	r	"	r	r	r	r	"
59	332	ff	+ 16.4	− 45.0	11.622	11.631	11.626	11.570	− 0.067	− 0.102	− 0.075	− 0.088	− 0.131	+ 0.052
60	331	f	+ 16.0^5	+ 12.1	10.322	10.289	10.306	10.264	− 50	− 0.026	− 0.014	− 0.020	+ 0.013	− 40
61	329	b	+ 13.5	+ 43.6	9.584	9.584	9.584	9.547	− 44	+ 0.064	+ 0.046	+ 0.055	+ 0.136	− 97
63	336	bf-b	+ 22.2	+ 48.3	9.428	9.429	9.428	9.425	− 4	− 0.039	− 0.042	− 0.040	− 0.015	− 30
64	335	bf	+ 21.8	+ 41.8	9.549	9.549	9.549	9.574	+ 30	− 0.041	− 0.003	− 0.022	− 0.023	+ 1
65	333	f	+ 21.6	+ 13.1	10.253	10.243	10.248	10.232	− 19	− 0.062	− 0.056	− 0.059	− 0.089	+ 36
66	339	ff	+ 23.7	− 3.2	10.577	10.594	10.586	10.601	+ 18	− 0.147	− 0.145	− 0.146	− 0.167	+ 25
67	337	b	+ 22.5	− 7.5	10.751	10.711	10.731	10.702	− 35	− 0.139	− 0.159	− 0.149	− 0.154	+ 6
68	334	f	+ 21.5	− 32.1	11.333	11.336	11.334	11.267	− 80	− 0.141	− 0.154	− 0.147	− 0.195	+ 58
69	343	b-bf	+ 30.3	− 35.1	11.296	11.304	11.300	11.322	+ 26	− 0.348	− 0.364	− 0.356	− 0.366	+ 12
70	340	f-bf	+ 26.3	+ 8.9	10.391	10.362	10.376	10.320	− 67	− 0.161	− 0.181	− 0.171	− 0.186	+ 18
72	342	ff	+ 28.4	+ 16.4	10.114	10.069	10.092	10.145	+ 64	− 0.209	− 0.193	− 0.201	− 0.207	+ 7
73	349	b	+ 36.6	+ 31.2	9.863	9.854	9.858	9.793	− 78	− 0.315	− 0.326	− 0.320	− 0.323	+ 4
74	348	bf	+ 36.1	+ 3.9^5	10.470	10.453	10.462	10.416	− 55	− 0.396	− 0.392	− 0.394	− 0.379	− 18
75	347	bf	+ 36.0	− 5.1	10.689	10.683	10.686	10.624	− 74	− 0.430	− 0.434	− 0.432	− 0.400	− 38
79	354	f	+ 40.2	− 31.7	11.262	11.276	11.269	11.227	− 50	− 0.487	− 0.519	− 0.503	− 0.542	+ 47
80	350	bf	+ 38.2	− 25.0^5	11.161	11.170	11.166	11.077	− 107	− 0.464	− 0.456	− 0.460	− 0.489	+ 35
82	351	f	+ 38.3	+ 0.8	10.537	10.555	10.546	10.487	− 71	− 0.431	− 0.431	− 0.431	− 0.428	− 4
83	355	ff	+ 40.8	+ 14.8^5	10.206	10.172	10.189	10.161	− 34	− 0.462	− 0.415	− 0.438	− 0.441	+ 4
84	358	b	+ 45.9	− 19.4^5	10.943	10.907	10.925:	10.936	+ 13:	− 0.709	− 0.719	− 0.714:	− 0.619	− 114:

PLATE XIII.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			'	'	r	r	r	r	"	r	r	r	r	"
1	245	bbb	− 55.7	− 38.6	15.825	15.787	15.806:	15.787	− 0.023:	+ 1.875	+ 1.898	+ 1.886:	+ 1.887	− 0.001:
2	244	b	− 56.5^5	− 6.6	15.166	15.183	15.174:	15.120	− 65:	+ 1.953	+ 1.910	+ 1.932:	+ 1.909	+ 28:
4	242	b	− 58.6	+ 23.6	14.421	14.471	14.446:	14.491	+ 54:	+ 1.947	+ 1.946	+ 1.946:	+ 1.954	− 10:
5	251	bbb	− 49.9	− 5.1	15.082	15.057	15.070:	15.093	+ 28:	+ 1.866	+ 1.796	+ 1.831	+ 1.761	+ 84
6	253	bf	− 49.4	− 32.9	15.687	15.667	15.677:	15.671	− 7:	+ 1.729	+ 1.727	+ 1.728:	+ 1.749	− 25:
7	255	bbb	− 48.4	− 35.3	15.774	15.738	15.756	15.721	− 42	+ 1.723	+ 1.740	+ 1.732	+ 1.727	+ 6
8	265	bf	− 44.5	− 30.0	15.697	15.687	15.692:	15.613	− 95:	+ 1.605	+ 1.588	+ 1.596:	+ 1.640	− 53:
10	258	bb	− 46.7	− 7.9	15.108	15.085	15.096	15.152	+ 67	+ 1.705	+ 1.670	+ 1.688	+ 1.690	− 2
11	256	ff	− 46.9	+ 17.0	14.721	14.692	14.706	14.634	− 86	+ 1.722	+ 1.712	+ 1.717	+ 1.695	+ 26
12	266	ff	− 42.0	+ 24.8	14.516	14.497	14.506	14.475	− 37	+ 1.519	+ 1.524	+ 1.522	+ 1.587	− 78
15	270	b	− 39.5	+ 59.7	13.695	13.747	13.721:	13.750	+ 35:	+ 1.520	+ 1.522	+ 1.521:	+ 1.533	− 14:
16	268	f	− 40.9	+ 34.2^5	14.315	14.309	14.312:	14.280	− 38:	+ 1.560	+ 1.583	+ 1.572:	+ 1.563	+ 11:
17	274	f	− 37.2	− 9.7^5	15.245	15.254	15.250	15.197	− 64	+ 1.487	+ 1.504	+ 1.496	+ 1.480	+ 19
18	273	b-bb	− 38.1^5	− 27.8	15.639	15.644	15.642	15.571	− 85	+ 1.489	+ 1.471	+ 1.480	+ 1.501	− 25
19	280	f bf	− 31.8	− 38.6	15.870	15.864	15.867	15.799	− 82	+ 1.362	+ 1.346	+ 1.354	+ 1.359	− 6
20	282	bb	− 30.9	− 25.6	15.490	15.509	15.500	15.528	+ 34	+ 1.354	+ 1.330	+ 1.342	+ 1.340	+ 2
21	277	f-bf	− 33.3	+ 32.3	14.295	14.285	14.290	14.323	+ 40	+ 1.385	+ 1.395	+ 1.390	+ 1.395	− 6
22	278	f-bf	− 32.4	+ 40.0	14.167	14.168	14.168	14.163	− 6	+ 1.381	+ 1.401	+ 1.391	+ 1.376	+ 18
23	279	b	− 32.1^5	+ 55.9	13.794	13.801	13.798:	13.833	+ 42:	+ 1.359	+ 1.356	+ 1.358:	+ 1.372	− 17:
24	288	f-fb	− 24.7^5	+ 60.0	13.751	13.695	13.723:	13.751	+ 34:	+ 1.186	+ 1.214	+ 1.200:	+ 1.208	− 10:

PLATE XIII. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
27	290	bf	− 23.8	+ 19.4	14.590	14.585	14.588	14.596	+0.010	+ 1.199	+ 1.196	+ 1.198	+ 1.185	+ 0.016
28	287	ff	− 28.0	+ 7.1	14.874	14.862	14.868	14.850	− 22	+ 1.282	+ 1.276	+ 1.279	+ 1.277	+ 2
29	289	ff	− 24.9	+ 3.6	14.945	14.966	14.956	14.924	− 38	+ 1.192	+ 1.198	+ 1.195	+ 1.208	− 16
30	286	fff	− 28.6	− 27.0	15.661	15.650	15.656	15.559	− 116	+ 1.346	+ 1.391	+ 1.368	+ 1.289	+ 95
31	294	f	− 18.0	+ 3.8	14.980	14.983	14.982	14.924	− 70	+ 1.062	+ 1.065	+ 1.064	+ 1.056	+ 10
33	293	ff	− 20.8	+ 37.6	14.237	14.198	14.218	14.215	− 4	+ 1.122	+ 1.159	+ 1.140	+ 1.110	+ 36
34	291	ff	− 23.3	+ 42.6	14.140	14.100	14.120	14.114	− 7	+ 1.207	+ 1.211	+ 1.209	+ 1.175	+ 41
35	298	ff	− 14.3	+ 22.5	14.519	14.516	14.518	14.537	+ 23	+ 0.975	+ 0.973	+ 0.974	+ 0.975	− 1
36	295	bf	− 17.0	− 16.2	15.317	15.307	15.312	15.340	+ 34	+ 1.007	+ 1.010	+ 1.008	+ 1.033	− 30
37	297	b-bf	− 14.6	− 27.4	15.593	15.558	15.576	15.575	− 1	+ 0.970	+ 0.981	+ 0.976	+ 0.980	− 5
38	296	ff	− 15.5	− 37.4	15.848	15.852	15.850	15.782	− 82	+ 1.037	+ 1.036	+ 1.036	+ 0.999	+ 44
39	301	b-bf	− 8.1	− 18.9	15.481	15.431	15.456	15.401	− 66	+ 0.839	+ 0.820	+ 0.830	+ 0.836	− 7
40	310	b-bf	− 5.2	− 18.7^5	15.413	15.398	15.406	15.400	− 7	+ 0.851	+ 0.738	+ 0.794	+ 0.772	+ 26
41	309	b-bb	− 5.4	+ 2.9^5	14.955	15.002	14.978	14.947	− 37	+ 0.839	+ 0.827	+ 0.833	+ 0.777	+ 67
42	303	bf	− 7.7	+ 11.0	14.841	14.829	14.835	14.779	− 67	+ 0.826	+ 0.819	+ 0.822	+ 0.828	− 7
43	302	bf	− 8.0	+ 14.5	14.671	14.706	14.688	14.706	+ 22	+ 0.815	+ 0.823	+ 0.819	+ 0.836	− 20
44	304	fff	− 7.5	+ 25.6	14.478	14.495	14.486	14.476	− 12	+ 0.800	+ 0.802	+ 0.801	+ 0.825	− 29
45	306	bf	− 5.9	+ 29.3	14.319	14.345	14.332	14.400	+ 82	+ 0.767	+ 0.766	+ 0.766	+ 0.789	− 28
46	300	f	− 8.8	+ 32.0	14.340	14.359	14.350	14.342	− 10	+ 0.848	+ 0.854	+ 0.851	+ 0.853	− 2
47	305	fff	− 6.4	+ 34.1^5	14.353	14.339	14.346	14.298	− 58	+ 0.809	+ 0.840	+ 0.824	+ 0.800	+ 29
48	316	b-bf	+ 0.1	+ 28.0	14.417	14.412	14.414	14.430	+ 19	+ 0.670	+ 0.651	+ 0.660	+ 0.657	+ 4
49	314	f	− 3.5	+ 15.4	14.706	14.729	14.717	14.690	− 32	+ 0.740	+ 0.754	+ 0.747	+ 0.736	+ 13
50	311	f	− 4.6	− 3.8	15.124	15.114	15.119	15.089	− 36	+ 0.786	+ 0.781	+ 0.784	+ 0.760	+ 29
51	319	ff	+ 4.6	− 21.9	15.587	15.547	15.567	15.470	− 116	+ 0.564	+ 0.590	+ 0.577	+ 0.555	+ 26
52	318	f	+ 4.1	+ 46.9^5	14.012	14.017	14.014	14.036	+ 26	+ 0.575	+ 0.573	+ 0.574	+ 0.569	+ 6
53	321	f	+ 6.8	+ 14.8^5	14.716	14.687	14.702	14.707	+ 6	+ 0.496	+ 0.511	+ 0.504	+ 0.509	− 6
54	322	f-bf	+ 7.0	+ 14.5	14.738	14.768	14.753	14.714	− 47	+ 0.511	+ 0.523	+ 0.517	+ 0.504	+ 16
55	327	ff	+ 10.9	+ 13.6	14.785	14.776	14.780	14.735	− 54	+ 0.459	+ 0.397	+ 0.428	+ 0.418	+ 12
56	328	ff	+ 10.9	+ 13.5^5	14.742	14.723	14.732	14.735	+ 4	+ 0.405	+ 0.386	+ 0.396	+ 0.418	− 26
57	324	bf	+ 7.7^5	− 26.7^5	15.550	15.561	15.556	15.573	+ 20	+ 0.503	+ 0.496	+ 0.500	+ 0.485	+ 18
58	325	b	+ 8.7	− 46.1	15.960	15.982	15.971	15.975	+ 5	+ 0.446	+ 0.433	+ 0.440	+ 0.464	− 29
59	332	ff	+ 16.4	− 45.0	16.034	16.026	16.030	15.956	− 89	+ 0.298	+ 0.328	+ 0.313	+ 0.294	+ 23
60	331	f	+ 16.0^5	+ 12.1	14.801	14.785	14.793	14.768	− 30	+ 0.280	+ 0.275	+ 0.278	+ 0.304	− 31
61	329	b	+ 13.5	+ 43.6	14.102	14.116	14.109	14.112	+ 4	+ 0.302	+ 0.296	+ 0.299	+ 0.362	− 76
62	330	b	+ 14.2	+ 55.9	13.809	13.831	13.820:	13.856	+ 43:	+ 0.331	+ 0.317	+ 0.324	+ 0.346	− 26
63	336	bf-b	+ 22.2	+ 48.3	13.946	13.961	13.954	14.018	+ 77	+ 0.166	+ 0.167	+ 0.166	+ 0.169	− 4
64	335	bf	+ 21.8	+ 41.8	14.088	14.086	14.087	14.154	+ 80	+ 0.153	+ 0.153	+ 0.153	+ 0.178	− 30
65	333	f	+ 21.6	+ 13.1	14.742	14.761	14.752	14.751	− 1	+ 0.187	+ 0.187	+ 0.187	+ 0.182	+ 6
66	339	ff	+ 23.7	− 3.2	15.110	15.097	15.104	15.091	− 16	+ 0.133	+ 0.149	+ 0.141	+ 0.134	+ 8
67	337	b	+ 22.5	− 7.5	15.174	15.176	15.175	15.179	+ 5	+ 0.130	+ 0.144	+ 0.137	+ 0.161	− 29
68	334	f	+ 21.5	− 32.1	15.746	15.724	15.735	15.691	− 53	+ 0.192	+ 0.201	+ 0.196	+ 0.182	+ 17
69	343	b-bf	+ 30.3	− 35.1	15.718	15.705	15.716	15.757	+ 49	− 0.035	− 0.026	− 0.030	− 0.013	− 20
70	340	f-bf	+ 26.3	+ 8.9	14.859	14.844	14.852	14.840	− 14	+ 0.083	+ 0.077	+ 0.080	+ 0.077	+ 4
71	341	bbbb	+ 27.4	+ 14.8	14.704	14.660	14.682:	14.718	+ 43:	+ 0.049	+ 0.016	+ 0.032:	+ 0.051	− 23:
72	342	ff	+ 28.4	+ 16.4	14.619	14.606	14.612	14.685	+ 88	+ 0.046	+ 0.054	+ 0.050	+ 0.029	+ 25
73	349	b	+ 36.6	+ 31.2	14.369	14.381	14.375	14.382	+ 8	− 0.158	− 0.178	− 0.168	− 0.150	− 22
74	348	bf	+ 36.1	+ 3.9^5	14.932	14.954	14.943	14.947	+ 5	− 0.135	− 0.131	− 0.133	− 0.140	+ 8
75	347	bf	+ 36.0	− 5.1	15.133	15.120	15.126	15.136	+ 12	− 0.149	− 0.174	− 0.162	− 0.138	− 29
76	344	fff	+ 31.8^5	− 12.9	15.267	15.306	15.286	15.296	+ 12	− 0.054	− 0.080	− 0.067	− 0.046	− 25
77	345	fff	+ 32.1	− 13.2	15.334	15.320	15.327	15.303	− 29	− 0.000	− 0.026	− 0.013	− 0.052	+ 47

PLATE XIII. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
78	357	b-bb	+ 42.7	− 60.3	16.305	16.310	16.308:	16.288	−0.024:	− 0.312	− 0.301	− 0.306:	− 0.288	− 0.022:
79	354	f	+ 40.2	− 31.7	15.755	15.750	15.752	15.692	− 72	− 0.223	− 0.218	− 0.220	− 0.231	+ 13
80	350	bf	+ 38.2	-25.0^5	15.593	15.584	15.588	15.551	− 44	− 0.169	− 0.155	− 0.162	− 0.187	+ 30
81	352	bb	+ 38.7	-23.8^5	15.475	15.483	15.479	15.527	+ 58	− 0.201	− 0.212	− 0.206	− 0.198	− 10
82	351	f	+ 38.3	+ 0.8	15.036	15.016	15.026	15.015	− 13	− 0.173	− 0.176	− 0.174	− 0.188	+ 17
83	355	ff	+ 40.8	$+14.8^5$	14.714	14.740	14.727	14.725	− 2	− 0.224	− 0.235	− 0.230	− 0.243	+ 16
84	358	b	+ 45.9	-19.4^5	15.366	15.380	15.373	15.439	+ 79	− 0.441	− 0.480	− 0.460	− 0.357	− 124
85	360	ff	+ 49.3	− 25.0	15.577	15.634	15.606	15.557	− 59	− 0.438	− 0.452	− 0.445	− 0.433	− 14
86	363	ff	+ 50.4	− 22.3	15.523	15.520	15.522	15.502	− 24	− 0.421	− 0.449	− 0.435	− 0.457	+ 26
87	371	bbb	+ 59.9	− 13.7	15.306	15.307	15.306	15.328	+ 26	− 0.662	− 0.645	− 0.654	− 0.667	+ 16
88	369	bf	+ 58.2	− 35.6	15.808	15.771	15.790:	15.782	− 10:	− 0.651	− 0.634	− 0.642:	− 0.629	− 16:
91	372	bf	+ 62.0	+ 20.4	14.606	14.613	14.610:	14.620	12:	− 0.677	− 0.667	− 0.672:	− 0.711	+ 47:

PLATE XIV.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
1	282	bbb	− 61.6	+ 34.9	9.346	9.358	9.352:	9.390	+0.046:	+ 2.559	+ 2.611	+ 2.585:	+ 2.576	+ 0.011:
2	295	b	− 47.6	+ 44.3	9.134	9.158	9.146:	9.183	+ 45:	+ 2.304	+ 2.288	+ 2.296:	+ 2.281	+ 18:
3	297	b	− 45.3	+ 33.0	9.350	9.348	9.349	9.430	+ 99	+ 2.242	+ 2.240	+ 2.241	+ 2.233	+ 10
4	310	b-bb	− 35.8	+ 41.7	9.211	9.213	9.212	9.239	+ 33	+ 2.006	+ 2.024	+ 2.015	+ 2.032	− 21
5	301	b	− 38.8	+ 41.6	9.281	9.257	9.269	9.241	− 34	+ 2.085	+ 2.074	+ 2.080	+ 2.096	− 20
7	315	bbb	− 32.4	− 25.4	10.666	10.621	10.644:	10.701	+ 70:	+ 1.913	+ 1.999	+ 1.956	+ 1.971	− 18
8	317	bf-b	− 30.7	− 6.3	10.214	10.205	10.210	10.284	+ 90	+ 1.928	+ 1.960	+ 1.944	+ 1.933	+ 13
9	323	f	− 23.5	− 7.1	10.344	10.317	10.330	10.301	− 35	+ 1.685	+ 1.710	+ 1.698	+ 1.782	− 102
10	320	bf	− 25.6	− 17.6	10.517	10.475	10.496	10.530	+ 41	+ 1.805	+ 1.840	+ 1.822	+ 1.827	− 6
11	325	b	− 22.0	+ 14.3	9.754	9.740	9.747	9.834	+ 106	+ 1.723	+ 1.745	+ 1.734	+ 1.747	− 16
12	324	bf	− 22.8	+ 33.7	9.355	9.352	9.354	9.411	+ 70	+ 1.792	+ 1.764	+ 1.778	+ 1.761	+ 21
13	332	ff	− 14.3	+ 15.3	9.845:	9.822:	9.834:	9.811	− 28:	+ 1.582	+ 1.619	+ 1.600	+ 1.585	+ 18
14	338	ff	− 7.5	+ 2.4	10.108	10.120	10.114	10.092	− 27	+ 1.475	+ 1.512	+ 1.494	+ 1.445	+ 60
15	334	f-ff	− 9.1	+ 28.3	9.562	9.546	9.554	9.527	− 33	+ 1.469	+ 1.502	+ 1.486	+ 1.474	+ 15
16	337	b	− 8.1	+ 52.9	9.018	9.024	9.021	8.991	− 37	+ 1.435	+ 1.439	+ 1.437	+ 1.450	− 16
17	343	bf	− 0.4	+ 25.2	9.530	9.529	9.530	9.594	+ 78	+ 1.280	+ 1.278	+ 1.279	+ 1.291	− 15
19	346	ff	+ 4.6	+ 15.3	9.897:	9.843:	9.870:	9.808	− 76:	+ 1.172	+ 1.212	+ 1.192	+ 1.188	+ 5
20	347	f	+ 5.4	+ 55.2	8.930	8.935	8.932:	8.939	+ 9:	+ 1.158	+ 1.173	+ 1.166:	+ 1.166	0:
21	352	bb	+ 8.1	+ 36.5	8.289	9.284	9.286	9.346	+ 73	+ 1.121	+ 1.159	+ 1.140	+ 1.112	+ 34
22	350	bf	+ 7.6	+ 35.2	9.417	9.402	9.410	9.375	− 43	+ 1.067	+ 1.145	+ 1.106	+ 1.122	− 20
23	354	f	+ 9.5	+ 28.6	9.517	9.567	9.542	9.519	− 28	+ 1.129	+ 1.157	+ 1.143	+ 1.083	+ 73
24	357	b	+ 12.0	0.0	10.097	10.095	10.096	10.141	+ 55	+ 0.996	+ 1.043	+ 1.020	+ 1.035	− 18
25	356	ff	+ 10.4	− 13.2	10.428	10.394	10.411	10.430	+ 23	+ 1.064	+ 1.129	+ 1.096:	+ 1.071	+ 30:
26	353	ff	+ 8.5	− 17.3	10.510:	10.487:	10.498:	10.519	+ 26:	+ 1.102	+ 1.136	+ 1.119:	+ 1.113	+ 7:
28	358	b	+ 15.2	+ 40.9	9.159	9.201	9.180	9.249	+ 84	+ 0.868	+ 0.866	+ 0.867	+ 0.962	− 116
30	367	bf	+ 23.3	+ 5.2	11.075	10.042	10.058	10.027	− 38	+ 0.785	+ 0.803	+ 0.794	+ 0.797	− 4
31	364	b	+ 20.9	− 6.8	10.179	10.191	10.185	10.288	+ 126	+ 0.792	+ 0.847	+ 0.820	+ 0.849	− 35
32	362	f	+ 19.0	− 11.6	10.377	10.337	10.357	10.394	+ 45	+ 0.849	+ 0.874	+ 0.862	+ 0.890	− 34
33	366	b	+ 21.6	− 57.6	11.397	11.384	11.390:	11.396	+ 7:	+ 0.796	+ 0.856	+ 0.826:	+ 0.841	− 18:
34	369	bf	+ 27.5	+ 24.7	9.631	9.623	9.627	9.602	− 30	+ 0.674	+ 0.696	+ 0.685	+ 0.706	− 26

PLATE XIV. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
35	371	bbb	+ 29.3	+ 46.6	9.089	9.072	9.080	9.123	+ 0.052	+ 0.692	+ 0.679	+ 0.686	+ 0.665	+ 0.026
36	375	bf	+ 32.1	+ 15.6	9.804	9.794	9.799	9.799	0	+ 0.579	+ 0.629	+ 0.604	+ 0.611	− 9
37	373	bf	+ 31.6	+ 12.3	9.856	9.851	9.854	9.871	+ 21	+ 0.612	+ 0.624	+ 0.618	+ 0.621	− 4
38	381	f bf	+ 41.1	− 33.8	10.913	10.838	10.876	10.875	− 1	+ 0.375	+ 0.403	+ 0.389	+ 0.429	− 49
39	379	f	+ 40.5	− 5.2	10.212	10.237	10.224	10.251	+ 32	+ 0.448	+ 0.481	+ 0.464	+ 0.438	+ 32
40	382	bf	+ 41.6	+ 18.9	9.739	9.733	9.736	9.726	− 12	+ 0.422	+ 0.443	+ 0.432	+ 0.410	+ 27
41	385	bbb	+ 45.6	+ 39.9	9.160	9.170	9.165:	9.267	+ 124:	+ 0.351	+ 0.383	+ 0.367:	+ 0.323	+ 54:
42	384	bbb	+ 44.0	+ 32.8[5]	9.385	9.380	9.382	9.422	+ 49	+ 0.345	+ 0.365	+ 0.355	+ 0.358	− 4

PLATE XV.

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I.	p Pos. II.	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III.	p' Pos. IV.	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
1	316	b	− 59.0[5]	+ 28.4[5]	9.004	8.908	8.956:	8.884	− 0.086:	+ 1.505	+ 1.481	+ 1.493:	+ 1.461	+ 0.038:
3	322	f	− 52.4	+ 14.9	9.192	9.146	9.169:	9.137	− 38:	+ 1.374	+ 1.349	+ 1.362:	+ 1.338	+ 29:
4	324	bf	− 51.7	− 26.3	9.831	9.805	9.818:	9.888	+ 84:	+ 1.383	+ 1.402	+ 1.392:	+ 1.376	+ 19:
5	325	b-bb	− 50.9	− 45.7	10.205	10.236	10.220:	10.242	+ 26:	+ 1.359	+ 1.316	+ 1.338:	+ 1.383	− 54:
7	331	f	− 43.2	+ 12.6	9.232	9.220	9.226	9.189	− 44	+ 1.206	+ 1.191	+ 1.198	+ 1.146	+ 62
8	329	b-bb	− 45.6	+ 44.0	8.669	8.634	8.652:	8.614	− 46:	+ 1.076	+ 1.072	+ 1.074:	+ 1.157	− 100:
9	330	b-bb	− 44.8	+ 56.3	8.423	8.434	8.428:	8.391	− 44:	+ 1.138	+ 1.110	+ 1.124:	+ 1.124	0:
10	336	bf	− 36.9	+ 48.7	8.532	8.519	8.526:	8.538	+ 14:	+ 1.010	+ 0.999	+ 1.004:	+ 0.966	+ 46:
11	335	bf	− 37.4	+ 42.1	8.658	8.646	8.652:	8.659	+ 8:	+ 1.018	+ 1.056	+ 1.032:	+ 0.982	+ 60:
12	333	f-ff	− 37.7	+ 13.5	9.214	9.214	9.214	9.177	− 44	+ 1.072	+ 1.066	+ 1.069	+ 1.028	+ 49
14	337	b	− 36.9	− 7.1	9.571	9.586	9.578	9.553	− 30	+ 1.011	+ 1.017	+ 1.014	+ 1.037	− 28
15	334	f	− 38.0	− 31.8	9.990	9.968	9.979	10.002	+ 28	+ 1.148	+ 1.114	+ 1.131	+ 1.093	+ 46
16	340	f-bf	− 33.0	+ 9.2	9.314	9.290	9.302	9.261	− 49	+ 0.976	+ 0.940	+ 0.958	+ 0.934	+ 29
17	341	bbbb	− 32.0	+ 15.1	9.142	9.181	9.162:	9.154	− 10:	+ 0.788	+ 0.772	+ 0.780:	+ 0.905	− 150:
18	342	ff	− 30.9	+ 16.7	9.041	9.080	9.060	9.126	+ 79	+ 0.831	+ 0.831	+ 0.831	+ 0.880	− 59
19	347	f-bf	− 23.4	− 4.8	9.579	9.588	9.584	9.525	− 71	+ 0.760	+ 0.737	+ 0.748	+ 0.748	0
20	343	bf	− 29.3	− 34.8	9.981	9.988	9.984	10.065	+ 97	+ 0.915	+ 0.904	+ 0.910	+ 0.912	− 2
22	354	f	− 19.4	− 31.4	10.042	10.040	10.041	10.013	− 34	+ 0.739	+ 0.754	+ 0.746	+ 0.697	+ 59
23	350	bf	− 21.3	− 24.8	9.902	9.918	9.910	9.891	− 23	+ 0.771	+ 0.728	+ 0.750	+ 0.730	+ 24
24	352	bb	− 20.8	− 23.6	9.848	9.838	9.843	9.871	+ 34	+ 0.716	+ 0.642	+ 0.679	+ 0.717	− 46
25	351	f	− 20.9	+ 1.0	9.456	9.447	9.452	9.422	− 36	+ 0.718	+ 0.720	+ 0.719	+ 0.688	+ 37
26	348	bf	− 23.2	+ 4.2	9.416	9.404	9.410	9.362	− 58	+ 0.778	+ 0.758	+ 0.768	+ 0.733	+ 42
27	355	f	− 18.5	+ 15.0	9.194	9.190	9.192	9.170	− 26	+ 0.644	+ 0.634	+ 0.639	+ 0.619	+ 24
28	349	bf-b	− 22.6	+ 31.6	8.872	8.876	8.874	8.864	− 12	+ 0.717	+ 0.696	+ 0.706	+ 0.685	+ 25
29	358	bf b	− 13.6	− 19.2	9.753	9.768	9.760	9.797	+ 44	+ 0.454	+ 0.448	+ 0.451	+ 0.559	− 130
30	357	bb	− 17.0	− 60.1	10.508	10.532	10.520	10.538	+ 22	+ 0.642	+ 0.624	+ 0.633	+ 0.683	− 60
31	367	bf	− 5.6	− 54.9	10.488	10.478	10.483:	10.455	− 34:	+ 0.424	+ 0.378	+ 0.401:	+ 0.435	− 41:
32	361	ff	− 9.8	− 46.0	10.229	10.252	10.240	10.289	+ 59	+ 0.648	+ 0.633	+ 0.640	+ 0.513	+ 152
33	360	f-ff	− 10.1	− 24.8	9.876	9.902	9.889	9.903	+ 17	+ 0.539	+ 0.517	+ 0.528	+ 0.492	+ 43
34	363	f-ff	− 9.0	− 22.1	9.896	9.878	9.887	9.855	− 38	+ 0.482	+ 0.470	+ 0.476	+ 0.465	+ 13
35	365	ff	− 7.5	− 20.7[5]	9.848	9.874	9.861	9.833	− 34	+ 0.461	+ 0.470	+ 0.466	+ 0.432	+ 41
36	359	ff	− 10.3	+ 3.5	9.306:	9.328	9.317:	9.387	+ 84:	+ 0.424	+ 0.430	+ 0.427:	+ 0.460	− 40:
37	370	f	− 0.3	+ 37.1	8.763	8.760	8.762	8.787	+ 30	+ 0.246	+ 0.218	+ 0.232	+ 0.205	+ 32
38	371	bbb	+ 0.5	− 13.5	9.705	9.722	9.714	9.709	− 6	+ 0.210	+ 0.256	+ 0.233	+ 0.252	− 23
39	368	f	− 4.8	− 29.7	9.982	9.964	9.973	9.998	+ 30	+ 0.336	+ 0.356	+ 0.346	+ 0.386	− 48

PLATE XV. — *Continued*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
40	369	bf	− 1.4	− 35.4	10.110	10.085	10.098	10.105	+0.008	+ 0.290	+ 0.272	+ 0.281	+ 0.321	− 0.048
41	374	bf	+ 2.7	− 47.8	10.296	10.288	10.292	10.335	+ 52	+ 0.252	+ 0.224	+ 0.238	+ 0.250	− 14
42	375	bf	+ 3.2	− 44.6	10.290	10.296	10.293	10.277	− 18	+ 0.194	+ 0.206	+ 0.200	+ 0.335	− 42
44	372	bf	+ 2.7	+ 20.6	9.111	9.070	9.090	9.090	0	+ 0.178	+ 0.200	+ 0.189	+ 0.163	+ 31
45	380	b	+ 12.7	+ 55.4	8.484	8.446	8.465	8.468	+ 4	− 0.038	− 0.043	− 0.040	− 0.094	+ 65
46	378	f	+ 9.8	− 25.7	9.972	9.936	9.954	9.940	− 17	+ 0.082	+ 0.073	+ 0.078	+ 0.071	+ 8
47	376	f	+ 7.0	− 26.9	10.006	9.978	9.992	9.959	− 40	+ 0.119	+ 0.134	+ 0.126	+ 0.132	− 7
48	377	f	+ 7.0	− 29.2	9.999	9.965	9.982	10.001	+ 23	+ 0.125	+ 0.106	+ 0.116	+ 0.116	0
49	382	bf	+ 12.7	− 41.2	10.238	10.251	10.244	10.225	− 23	+ 0.041	+ 0.046	+ 0.044	+ 0.030	+ 17
50	384	bbb	+ 15.1	− 27.3	9.996	10.006	10.001	9.975	− 31	− 0.056	− 0.074	− 0.065	− 0.039	− 31
51	385	bbb	+ 16.7	− 20.3	9.859	9.836	9.848	9.848	0	− 0.078	− 0.064	− 0.071	− 0.082	+ 13
52	383	bf	+ 13.6	+ 20.6	9.092	9.104	9.098	9.101	+ 4	− 0.049	− 0.042	− 0.046	− 0.068	+ 26
54	386	bf	+ 17.2	$+ 29.9^5$	8.922	8.943	8.932	8.934	+ 2	− 0.159	− 0.154	− 0.156	− 0.157	+ 1
57	389	bf	+ 30.1	+ 8.8	9.378	9.385	9.382	9.333	− 59	− 0.386	− 0.379	− 0.382:	− 0.403	+ 25:
58	387	b	+ 25.4	+ 16.1	9.184	9.212	9.198	9.195	− 4	− 0.300	− 0.324	− 0.312	− 0.313	+ 1
59	388	f	+ 26.8	+ 23.5	9.046	9.073	9.060	9.062	+ 2	− 0.300	− 0.309	− 0.304	− 0.352	+ 58
61	390	bf	+ 32.9	+ 15.8	9.149	9.128	9.138	9.208	+ 84	− 0.500	− 0.484	− 0.492	− 0.471	− 25
64	392	b	+ 48.6	+ 27.5	8.996	8.987	8.992:	9.012	+ 24:	− 0.830	− 0.825	− 0.828:	− 0.819	− 11:
65	391	bf	+ 46.9	− 44.4	10.353	10.364	10.358	10.318	− 48	− 0.696	− 0.702	− 0.699:	− 0.691	− 10:
66	393	ff	+ 54.8	− 8.2	9.722	9.737	9.730	9.667	− 76	− 0.903	− 0.898	− 0.900:	− 0.906	+ 7:
67	394	bb	+ 58.6	− 16.6	9.812	9.814	9.813	9.824	+ 13	− 1.024	− 1.037	− 1.030:	− 0.975	− 66:
68	395	b	+ 62.8	+ 22.6	9.058:	9.148	9.103	9.116	+ 16	− 1.068	− 1.033	− 1.050:	− 1.114	+ 77:

PLATE XVI.

			′	′	r	r	r	r	″	r	r	r	r	″
1	316	b	$- 59.0^5$	$+ 28.4^5$	9.742	9.792	9.767:	9.721	−0.056:	+ 2.464	+ 2.440	+ 2.452:	+ 2.402	+ 0.061:
3	322	f	− 52.4	+ 14.9	10.056	10.011	10.034:	10.025	− 11:	+ 2.361	+ 2.286	+ 2.324:	+ 2.267	+ 70:
4	324	bf	− 51.7	− 26.3	10.905	10.898	10.902:	10.964	+ 76:	+ 2.269	+ 2.276	+ 2.272:	+ 2.229	+ 52:
5	325	b-bb	− 50.9	− 45.7	11.381	11.376	11.378:	11.406	+ 34:	+ 2.186	+ 2.171	+ 2.178:	+ 2.202	− 29:
7	331	f	− 43.2	+ 12.6	10.138	10.109	10.124	10.072	− 63	+ 2.146	+ 2.095	+ 2.120	+ 2.089	+ 38
8	329	b-bb	− 45.6	+ 44.0	9.339	9.372	9.356:	9.357	+ 1:	+ 2.148	+ 2.126	+ 2.137:	+ 2.154	− 21:
9	330	b-bb	− 44.8	+ 56.3	9.068	9.076	9.072:	9.076	+ 5:	+ 2.223	+ 2.204	+ 2.214:	+ 2.146	+ 83:
10	336	bf	− 36.9	+ 48.7	9.227	9.236	9.232:	9.245	+ 16:	+ 1.999	+ 2.041	+ 2.020:	+ 1.989	+ 38:
11	335	bf	− 37.4	+ 42.1	9.468	9.406	9.437:	9.395	− 51:	+ 2.030	+ 2.008	+ 2.019:	+ 1.995	+ 29:
12	333	f-ff	− 37.7	+ 13.5	10.033	10.038	10.036:	10.047	+ 13:	+ 2.027	+ 2.010	+ 2.018	+ 1.984	+ 41
14	337	b	− 36.9	− 7.1	10.523	10.539	10.531	10.517	− 17	+ 1.952	+ 1.958	+ 1.955	+ 1.956	− 1
15	334	f	− 38.0	− 31.8	11.069	11.072	11.070	11.080	+ 12	+ 1.976	+ 1.949	+ 1.962	+ 1.963	− 1
16	340	f-bf	− 33.0	+ 9.2	10.184	10.205	10.194	10.142	− 63	+ 1.894	+ 1.890	+ 1.892	+ 1.892	0
17	341	bbbb	− 32.0	+ 15.1	9.975	9.957	9.966:	10.007	+ 50:	+ 1.715	+ 1.810	+ 1.762:	+ 1.875	− 138:
18	342	ff	− 30.9	+ 16.7	9.952	9.924	9.938:	9.970	+ 39:	+ 1.831	+ 1.843	+ 1.837:	+ 1.855	− 22:
19	347	f-b	− 23.4	− 4.8	10.423	10.456	10.440	10.455	+ 18	+ 1.705	+ 1.712	+ 1.708	+ 1.698	+ 12
20	343	bf	− 29.3	− 34.8	11.066	11.076	11.071	11.143	+ 88	+ 1.842	+ 1.803	+ 1.822	+ 1.794	+ 34
22	354	f	− 19.4	− 31.4	11.052	11.063	11.058	11.059	+ 1	+ 1.650	+ 1.640	+ 1.645	+ 1.606	+ 48
23	350	bf	− 21.3	− 24.8	10.933	10.955	10.944	10.910	− 41	+ 1.664	+ 1.667	+ 1.666	+ 1.646	+ 24
24	352	bb	− 20.8	− 23.6	10.835	10.827	10.831	10.882	+ 62	+ 1.628	+ 1.632	+ 1.630	+ 1.637	− 9

PLATE XVI. — *Continued.*

Nr.	Nr. Gen. Cat.	Brightn.	x	y	p Pos. I	p Pos. II	n	n_0	$\frac{6}{T}(n_0-n)$	p' Pos. III	p' Pos. IV	n'	n'_0	$\frac{6}{T}(n'-n'_0)$
			′	′	r	r	r	r	″	r	r	r	r	″
25	351	f	− 20.9	+ 1.0	10.284	10.310	10.297	10.321	+0.029	+ 1.687	+ 1.689	+ 1.688	+ 1.654	+ 0.041
26	348	bf	− 23.2	+ 4.2	10.280	10.254	10.267	10.250	− 21	+ 1.710	+ 1.677	+ 1.694	+ 1.700	− 7
27	355	f	− 18.5	+ 15.0	9.995	10.007	10.001:	10.001	0:	+ 1.612	+ 1.654	+ 1.633:	+ 1.616	+ 21:
28	349	bf-b	− 22.6	+ 31.6	9.632	9.654	9.643	9.625	− 22	+ 1.741	+ 1.758	+ 1.750	+ 1.705	+ 55
29	358	bf-b	− 13.6	− 19.2	10.697	10.707	10.702	10.778	+ 93	+ 1.426	+ 1.443	+ 1.434	+ 1.502	− 83
30	357	bb	− 17.0	− 60.1	11.749	11.712	11.730	11.712	− 22	+ 1.512	+ 1.475	+ 1.494	+ 1.542	− 59
31	367	bf	− 5.6	− 54.9	11.623	11.648	11.636:	11.587	− 60:	+ 1.309	+ 1.333	+ 1.321:	+ 1.327	− 7:
32	361	ff	− 9.8	− 46.0	11.405	11.454	11.430	11.386	− 54	+ 1.430	+ 1.375	+ 1.402	+ 1.412	− 12
33	360	f-ff	− 10.1	− 24.8	10.911	10.927	10.919	10.902	− 21	+ 1.512	+ 1.505	+ 1.508	+ 1.431	+ 94
34	363	f-ff	− 9.0	− 22.1	10.902	10.902	10.902	10.841	− 74	+ 1.447	+ 1.428	+ 1.438	+ 1.412	+ 29
35	365	ff	− 7.5	− 20.7[5]	10.881	10.859	10.870:	10.810	− 73	+ 1.443	+ 1.435	+ 1.439	+ 1.384	+ 67
36	359	ff	− 10.3	+ 3.5	10.218:	10.192	10.205:	10.258	+ 65:	+ 1.434	+ 1.460	+ 1.447:	+ 1.452	− 6:
37	370	f	− 0.3	+ 37.1	9.458	9.488	9.473	9.485	+ 15	+ 1.261	+ 1.288	+ 1.274	+ 1.280	− 7
38	371	bbb	− 0.5	− 13.5	10.570	10.581	10.576	10.639	+ 77	+ 1.273	+ 1.276	+ 1.274	+ 1.334	+ 49
39	368	f	− 4.8	− 29.7	11.057	11.049	11.053	11.011	− 51	+ 1.390	+ 1.325	+ 1.358	+ 1.326	+ 39
40	369	bf	− 1.4	− 35.4	11.144	11.156	11.150	11.139	− 13	+ 1.225	+ 1.231	+ 1.228	+ 1.258	− 37
41	374	bf	+ 2.7	− 47.8	11.380	11.410	11.395	11.419	+ 29	+ 1.178	+ 1.190	+ 1.184	+ 1.171	+ 16
42	375	bf	+ 3.2	− 44.6	11.287	11.309	11.298	11.346	+ 59	+ 1.183	+ 1.168	+ 1.176	+ 1.164	+ 15
44	372	bf	+ 2.7	+ 20.6	9.851	9.881	9.866	9.859	− 9	+ 1.184	+ 1.189	+ 1.186	+ 1.212	− 32
45	380	b	+ 12.7	+ 55.4	9.061	9.090	9.076	9.060	− 20	+ 1.030	+ 1.050	+ 1.040	+ 1.041	− 1
46	378	f	+ 9.8	− 25.7	10.950	11.024	10.987	10.911	− 93	+ 1.013	+ 1.010	+ 1.012	+ 1.049	− 46
47	376	f	+ 7.0	− 26.9	10.972	10.935	10.954	10.940	− 17	+ 1.171	+ 1.135	+ 1.153	+ 1.102	+ 63
48	377	f	+ 7.9	− 29.2	11.000	11.053	11.026	10.992	− 41	+ 1.096	+ 1.080	+ 1.088	+ 1.083	+ 6
49	382	bf	+ 12.7	− 41.2	11.303	11.302	11.302	11.262	− 49	+ 0.991	+ 0.998	+ 0.994	+ 0.983	+ 14
50	384	bbb	+ 15.1	− 27.3	10.914	10.947	10.930:	10.943	+ 16:	+ 0.923	+ 0.912	+ 0.918:	+ 0.946	− 34:
51	385	bbb	+ 16.7	− 20.3	10.740	10.718	10.729:	10.783	+ 66:	+ 0.902	+ 0.890	+ 0.896:	+ 0.919	− 28:
52	383	bf	+ 13.6	+ 20.6	9.871	9.881	9.876	9.852	− 29	+ 0.995	+ 1.021	+ 1.008	+ 1.003	+ 6
54	386	bf	+ 17.2	+ 29.9[5]	9.583	9.635	9.609	9.636	+ 33	+ 0.945	+ 0.939	+ 0.942	+ 0.940	+ 2
57	389	bf	+ 30.1	+ 8.8	10.122	10.168	10.145	10.111	− 41	+ 0.695	+ 0.690	+ 0.692	+ 0.679	+ 16
58	387	b	+ 25.4	+ 16.1	9.934	9.920	9.927	9.948	+ 26	+ 0.767	+ 0.800	+ 0.784	+ 0.774	+ 12
59	388	f	+ 26.8	+ 23.5	9.795	9.783	9.789	9.778	− 13	+ 0.748	+ 0.744	+ 0.746	+ 0.751	− 6
61	390	bf	+ 32.9	+ 15.8	9.814	9.872	9.843	9.950	+ 131	+ 0.611	+ 0.625	+ 0.618	+ 0.629	− 14
64	392	b	+ 48.6	+ 27.5	9.682	9.697	9.690	9.673	− 21	+ 0.331	+ 0.345	+ 0.338	+ 0.335	+ 4
65	391	bf	+ 46.9	− 44.4	11.316	11.348	11.332:	11.313	− 23:	+ 0.375	+ 0.359	+ 0.367:	+ 0.325	+ 52:
66	393	ff	+ 54.8	− 8.2	10.546	10.519	10.533:	10.483	− 61:	+ 0.211	+ 0.214	+ 0.212:	+ 0.195	+ 21:
67	394	bb	+ 58.6	− 16.6	10.662	10.662	10.662:	10.671	+ 11:	+ 0.073	+ 0.075	+ 0.074:	+ 0.117	− 53:
68	395	b	+ 62.8	+ 22.6	9.816	9.774	9.795:	9.776	− 23:	+ 0.079	+ 0.076	+ 0.078:	+ 0.060	+ 22:

Table II. AREA I. Plates H and I.

Nr.	Nr. Gen. Cat.	x	y	Pl. H $\frac{6}{T}(n_0-n)$	Pl. I $\frac{6}{T}(n_0-n)$	Area I. v	μ''_α	v_1	m''_α	Pl. H $\frac{6}{T}(n'-n'_0)$	Pl. I $\frac{6}{T}(n'-n'_0)$	Area I. v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
1	1	− 61.6	+ 5.6	+ 0.054	+ 0.158:	+ 0.112:	+ 0.102	+ 0.006	+ 0.106:	+ 0.013	+ 0.024:	+ 0.019:	− 0.017	+ 0.053	− 0.034:	3.6
2	2	− 58.9	+ 30.6		+ 19:			+ 13	+ 6:		− 40:			+ 52	− 92:	
3	3	− 54.3	+ 58.8		+ 61:			+ 3	+ 58:		− 8:			+ 51	− 59:	
4	4	− 51.0	+ 33.0		− 12:			+ 6	− 18:		+ 1:			+ 52	− 51:	
5	5	− 49.5	+ 26.3		+ 17:			+ 8	+ 9:		− 20:			+ 53	− 73:	
6	8	− 45.1	− 56.5		− 25:			+ 23	− 48:		+ 104:			+ 17	+ 87:	
7	9	− 43.4	− 23.9		− 83:			+ 16	− 99:		+ 12:			+ 39	− 27:	
8	10	− 42.6	− 12.4	+ 83	+ 60	+ 71		+ 3	+ 68	+ 20	− 40	− 13		+ 63	− 76	
9	7	− 44.9	+ 20.6	− 1	+ 12	+ 7		+ 7	0	+ 82	+ 23:	+ 49		+ 49	0	
10	6	− 46.6	+ 54.6	+ 9:	+ 19:	+ 15:	− 46	+ 10	+ 5:	− 19:	+ 43:	+ 15:	− 24	+ 24	− 9:	2.4
11	11	− 35.9	− 62.4		− 80:			+ 28	− 108:		+ 24:			+ 16	+ 8:	
12	15	− 24.9	+ 54.1		+ 23:			+ 6	+ 17:		+ 73:			+ 53	+ 20:	
13	16	− 25.0	+ 47.1		+ 133:			+ 6	+ 127:		+ 32:			+ 55	− 23:	
14	14	− 29.3	− 3.2		− 85			+ 15	− 100		+ 18			+ 51	− 33	
15	17	− 24.8	− 17.6	+ 12	+ 55	+ 36		+ 3	+ 33	− 73	− 65	− 69		+ 66	− 135	
16	19	− 23.0	− 46.5		+ 96:			+ 28	+ 68:		− 17:			+ 33	− 50:	
17	20	− 23.0	− 45.0	− 61	+ 14	− 20	− 29	+ 2	− 22	+ 66	+ 41	+ 53	+ 3	+ 69	− 16	
18	18	− 23.4	+ 25.1	− 3	− 20	− 13		+ 6	− 19	+ 79	+ 65	+ 71		+ 49	+ 22	
19	22	− 16.0	− 13.0	− 41	− 12	− 24		+ 4	− 28	+ 92	+ 68	+ 79		+ 66	+ 13	
20	23	− 15.9	− 13.1		− 106			+ 21	− 127		− 4			+ 50	− 54	
21	27	− 6.0	− 36.7	− 53	− 18	− 34	− 28	+ 3	− 37	+ 82	+ 26	+ 51	− 2	+ 69	− 18	1.8
23	26	− 7.7	+ 20.6		− 24			+ 11	− 35		− 125			+ 58	− 183	
24	28	− 3.4	+ 19.6	+ 42	+ 110	+ 80	+ 100	+ 4	+ 76	+ 23	+ 55	+ 41	− 20	+ 51	− 10	3.9
25	33	− 0.2	− 17.4	+ 1	− 2	0		+ 4	− 4	− 28	− 77	− 55		+ 66	− 121	
26	32	− 0.8	− 25.6	− 66	− 67	− 67		+ 3	− 70	+ 48	− 19	+ 10		+ 67	− 57	
27	29	− 3.4	− 61.4	+ 20:	+ 79:	+ 53:	+ 80	+ 2	+ 51:	− 117:	− 217:	− 173:	− 213	+ 68	− 241	2.0
28	35	+ 3.6	+ 24.0	− 6	+ 12	+ 4		+ 3	+ 1	− 123	− 49	− 82		+ 46	− 128	
29	40	+ 10.4	− 1.5		− 10			+ 18	− 28		+ 8			+ 59	− 51	
30	38	+ 8.7	− 12.3	+ 28	+ 127	+ 84	+ 90	+ 4	+ 80	+ 12	+ 42	+ 29	− 10	+ 63	− 34	3.8
31	37	+ 7.8	− 28.1		− 98			+ 26	− 124		+ 10			+ 51	− 41	
32	41	+ 12.0	− 40.7	− 26	− 53	− 42		+ 4	− 46	+ 66	− 14	+ 22		+ 67	− 45	
33	46	+ 17.0	− 33.0		− 46			+ 28	− 74		+ 20			+ 52	− 32	
34	43	+ 13.1	− 8.8	− 82	− 38	− 58		+ 4	− 62	+ 28	+ 11	+ 19		+ 61	− 42	
35	42	+ 12.8	+ 38.1	− 13	− 26	− 21		+ 3	− 24	+ 50	+ 25	+ 37		+ 33	+ 4	
36	55	+ 22.7	− 27.8	+ 117	+ 133	+ 126		+ 4	+ 122	+ 28	− 14	+ 5		+ 63	− 58	
37	57	+ 24.0	− 31.8	− 131	− 28	− 74		+ 4	− 78	− 111	− 144	− 130		+ 63	− 193	
38	48	+ 18.9	− 47.2		− 26			+ 34	− 60		+ 42			+ 45	− 3	
39	56	+ 23.2	− 53.3	+ 19	+ 156	+ 95	+ 105	+ 4	+ 91	+ 108	+ 22	+ 60	− 20	+ 63	− 3	2.2
40	60	+ 27.0	− 32.4		− 84:			+ 28	− 112:		+ 41:			+ 54	− 13:	
41	63	+ 28.3	+ 29.3	+ 1	− 38	− 20	− 36	0	− 20	− 70	+ 62	+ 3	− 6	+ 34	− 31	1.5
42	68	+ 33.5	− 3.0		− 2			+ 17	− 19		+ 22			+ 62	− 40	
43	65	+ 31.7	− 12.4	+ 77:	+ 1	+ 35:		+ 4	+ 31:	+ 38:	− 32	− 1:		+ 56	− 57:	
44	69	+ 33.8	− 20.8		− 14			+ 25	− 39		+ 35			+ 59	− 24	
45	81	+ 40.5	− 62.6		+ 40:			+ 44	[− 4:]		− 122:			+ 43	[− 165:]	
46	76	+ 38.4	− 23.1	− 64	− 10	− 34		+ 4	− 38	+ 9	+ 20	+ 15		+ 57	− 42	
47	77	+ 39.6	− 14.3	+ 53	+ 106	+ 83	+ 96	+ 4	+ 79	− 51	+ 5	− 20	− 4	+ 54	− 74	2.2
48	82	+ 42.3	− 21.9		+ 41			+ 25	+ 16		+ 34			+ 60	− 26	
49	94	+ 51.6	− 37.3	+ 10	+ 108:	+ 64:		+ 4	+ 60:	− 4	− 18:	− 12:		+ 53	− 65:	
50	90	+ 49.0	− 1.2		− 73:			+ 14	− 87:		+ 54:			+ 64	− 10:	
53	104	+ 56.2	+ 28.6		+ 17:			− 2	[+ 19:]		+ 128:			+ 61	[+ 67:]	

AREA 1. PLATE H AND I. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	Pl. H $\frac{6}{T}(n_0-n)$	Pl. I $\frac{6}{T}(n_0-n)$	Area I. v	μ''_α	v_1	m''_α	Pl. H $\frac{6}{T}(n'-n'_0)$	Pl. I $\frac{6}{T}(n'-n'_0)$	Area I. v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
54	106	+ 57.2	+ 18.2		— 0.116:			+ 0.002	— 0.118:		+ 0.017:			+ 0.063	— 0.046:	
55	112	+ 58.5	+ 16.1		— 71:			— 4	— 67:		+ 20:			+ 63	— 43:	
58	120	+ 61.2	— 32.0	— 0.006	+ 173:	+ 0.094:	+ 0.120	+ 4	+ 90:	+ 0.007	+ 52:	+ 0.032:	— 0.031	+ 46	— 14:	2.0

AREA 2. PLATE II.

Nr.	Nr. Gen. Cat.	x	y	$v = \frac{6}{T}(n_0-n)$	μ''_α	v_1	m''_α	$v' = \frac{6}{T}(n'-n'_0)$	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	
2	13	— 47.4	— 11.6	+ 0.143	+ 0.051	+ 0.102	+ 0.041	+ 0.117	+ 0.045	+ 0.016	+ 0.101	2.2
5	24	— 29.8	+ 10.3	+ 110		+ 79	+ 31	+ 70		+ 65	+ 5	
6	25	— 26.3	— 18.2^{5}	+ 10	— 26	+ 24	— 14	+ 26	+ 21	— 1	+ 27	1.4
7	29	— 18.0	+ 15.4	+ 115	+ 80	+ 46	+ 69	— 173	— 213	+ 75	— 248	1.5
8	27	— 20.6	+ 40.1	+ 40	— 28	+ 93	— 53	+ 134	— 2	+ 125	+ 9	1.4
9	32	— 15.4	+ 51.2	+ 26		+ 90	— 64	+ 84		+ 144	— 60	
10	34	— 14.8	+ 0.7^{5}	+ 149	+ 102	+ 13	+ 136	+ 7	— 21	+ 42	— 35	2.3
11	31	— 16.6	— 56.3	— 74		— 61	— 13	— 9		— 101	+ 92	
12	39	— 5.9	— 27.0	— 162		— 54	— 108	— 6		— 25	+ 19	
13	41	— 2.6	+ 36.1	— 22:		+ 23	— 45:	+ 52:		+ 113	— 61:	
14	44	— 1.3	— 9.4	+ 45	+ 105	— 46	+ 91	+ 1	— 13	+ 17	— 16	2.3
15	50	+ 5.1	— 21.1	— 45:		— 83	+ 38:	— 16:		— 12	— 4:	
16	55	+ 8.1	+ 49.1	+ 129:		+ 4	+ 125:	+ 9:		+ 134	— 125:	
17	57	+ 9.4	+ 45.1	— 71:		— 6	— 65:	— 61:		+ 127	— 188:	
18	56	+ 8.6	+ 23.5	+ 15	+ 105	— 35	+ 50	+ 49	— 20	+ 86	— 37	1.6
19	59	+ 11.9^{5}	— 26.1	— 163		— 114	— 49	+ 51		— 24	+ 75	
20	64	+ 15.8^{5}	+ 3.6	— 29	+ 101	— 87	+ 58	+ 18	— 21	+ 44	— 26	2.4
21	76	+ 23.8	+ 53.7	— 110		— 46	— 64	+ 73		+ 137	— 64	
22	75	+ 23.5	— 4.9	— 57		— 125	+ 68	— 55		+ 24	— 79	
23	81	+ 25.9	+ 14.1	+ 11:		— 110	+ 121:	— 7:		+ 63	— 70:	
24	101	+ 40.8	— 18.9^{5}	— 259:		— 206	— 53:	+ 68:		— 10	+ 78:	
25	100	+ 40.0	— 11.1	— 200	— 38	— 192	— 8	+ 2	— 12	+ 7	— 5	1.4
26	94	+ 37.0	+ 39.4^{5}	— 68		— 115	+ 47	+ 65		+ 108	— 43	
27	120	+ 46.6	+ 44.9	— 70	+ 120	— 145	+ 75	+ 117	— 31	+ 118	— 1	1.6
28	110	+ 43.1	+ 24.0^{5}	— 162		— 158	— 4	+ 73		+ 78	— 5	
29	118	+ 46.1	— 62.4^{5}	— 243:		— 275	+ 32:	— 27:		— 115	+ 88:	
30	134	+ 54.2	— 15.3	— 350		— 248	— 102	+ 98		— 4	+ 102	
31	126	+ 50.6	— 0.9	— 187:		— 218	+ 31:	+ 77:		+ 28	+ 49:	

AREA 3. PLATE III.

Nr.	Nr. Gen. Cat.	x	y	$v = \frac{6}{T}(n_0 - n)$	μ''_α	v_1	m''_α	$v' = \frac{6}{T}(n' - n'_0)$	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	
1	12	− 63.2	+ 38.3	+ 0.042:		− 0.008	+ 0.050:	− 0.006:		+ 0.027	− 0.033:	
2	16	− 53.4	− 13.2^5	+ 46:		− 24	+ 70:	− 23:		− 17	− 6:	
3	15	− 53.3	− 6.2^5	+ 17:		− 23	+ 40:	− 16:		− 9	− 7:	
4	18	− 51.9	− 35.2	− 45:		− 31	− 14:	− 6:		− 44	+ ′ 38:	
5	21	− 45.6	+ 39.7	− 31:		− 9	− 22:	− 6:		+ 31	− 37:	
6	28	− 31.9	− 40.9	+ 68	+ 100	− 30	+ 98	− 90	− 0.020	− 41	− 49	2.4
7	30	− 30.5	+ 13.0	+ 99	+ 92	− 20	+ 119	+ 13	− 22	+ 17	− 4	2.2
8	35	− 24.9	− 36.3	− 18		− 30	+ 12	− 123		− 31	− 92	
9	36	− 21.3^5	+ 37.1	− 25		− 18	− 7	+ 27		+ 36	− 9	
10	42	− 15.6	− 22.3	− 42		− 28	− 14	− 98		− 11	− 87	
11	51	− 7.0	+ 30.1	− 33		− 24	− 9	− 53		+ 36	− 89	
12	54	− 5.4^5	+ 48.5	− 63		− 20	− 43	+ 10		+ 45	− 35	
13	61	− 0.5	+ 40.1	− 29		− 24	− 5	− 36		+ 42	− 78	
14	63	− 0.1	− 31.1	− 105	− 36	− 32	− 73	− 22	− 6	− 14	− 8	1.2
15	66	+ 4.0	+ 45.1^5	− 11:		− 26	+ 15:	+ 16:		+ 45	− 29:	
16	67	+ 4.9	+ 56.7	− 105:		− 24	− 81:	− 6:		+ 50	− 56:	
17	74	+ 10.0	+ 29.5	+ 119	+ 132	− 30	+ 149	+ 12	− 24	+ 38	− 26	1.8
18	72	+ 6.7	+ 6.2	− 53		− 31	− 22	− 7		+ 23	− 30	
19	85	+ 16.9	+ 10.8	− 80:		− 34	− 46:	+ 17:		+ 30	− 13:	
20	86	+ 17.9	+ 37.6	− 17		− 33	+ 16	+ 13:		+ 44	− 31	
21	93	+ 22.0	+ 45.0^5	− 79:		− 34	− 45:	− 77:		+ 48	− 125:	
22	87	+ 19.8^5	+ 28.8	+ 90	+ 88	− 35	+ 125	+ 41	− 23	+ 41	0	2.3
23	89	+ 20.5	+ 19.9	− 13	− 32	− 36	+ 23	+ 19	− 18	+ 37	− 18	2.0
24	95	+ 24.1	− 21.0	0:		− 38	+ 38:	− 16:		+ 6	− 22:	
25	91	+ 20.5	− 32.1^5	+ 6:		− 38	+ 44:	− 30:		− 7	− 23:	
26	112	+ 30.0^5	− 44.3^5	+ 5		− 40	+ 45	− 52		− 16	− 36	
27	106	+ 28.8	− 42.3	− 67		− 41	− 26	− 21		− 13	− 8	
28	104	+ 27.9	− 32.0	− 40		− 41	+ 1	− 40		− 4	− 36	
29	97	+ 25.2	− 21.7	− 27		− 39	+ 12	− 2		+ 6	− 8	
30	117	+ 32.3	+ 47.4	− 41		− 40	− 1	− 50		+ 51	− 101	
31	122	+ 33.4	+ 47.0^5	+ 65	+ 63	− 40	+ 105	+ 67	− 38	+ 51	+ 16	1.7
32	123	+ 34.9	+ 35.5	+ 87	+ 121	− 42	+ 129	+ 21	− 38	+ 47	− 26	1.9
33	116	+ 32.1	+ 6.3	+ 22		− 42	+ 64	+ 5		+ 31	− 26	
34	114	+ 31.6	+ 4.9^5	+ 51		− 42	+ 93	− 38		+ 30	− 68	
35	133	+ 40.3	− 16.6	− 56:		− 45	− 11:	+ 35:		+ 16	+ 19:	
36	136	+ 42.5	+ 41.5^5	− 30		− 47	+ 17	− 31		+ 51	− 82	
37	150	+ 52.2	− 21.0^5	+ 75	+ 83	− 50	+ 125	− 28	− 24	+ 17	− 45	2.4
39	153	+ 53.4	+ 21.9^5	− 92:		− 54	− [38:]	− 146:		+ 45	[− 191:]	

AREA 4. PLATE IV.

Nr.	Nr. Gen. Cat.	x	y	$v = \frac{6}{T}(n_0 - n)$	μ''_α	v_1	m''_α	$v' = \frac{6}{T}(n' - n'_0)$	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	
1	28	-61.2^5	+19.5	+0.146:	+0.100	+0.040	+0.106:	+0.103:	−0.020	+0.076	+0.027:	2.4
2	32	−58.9	-25.7^5	− 6:		+ 58	− 64:	− 29:		+ 57	− 86:	
3	33	-58.2^5	−17.6	+ 21:		+ 55	− 34:	− 98:		+ 61	− 159:	
4	35	−54.3	$+23.9^5$	+ 25:		+ 37	− 12:	− 47:		+ 74	− 121:	
5	38	−49.3	−12.4	+ 149	+ 90	+ 53	+ 96	+ 16	− 10	+ 60	− 44	2.4
6	41	−46.0	−40.9	+ 22:		+ 66	− 44:	+ 22:		+ 43	− 21:	
7	43	−44.9	− 9.0	+ 57		+ 51	+ 6	+ 15		+ 59	− 44	
8	42	-44.9^5	$+37.9^5$	+ 7		+ 28	− 21	− 5		+ 70	− 75	
9	55	−35.3	−28.0	+ 126		+ 59	+ 67	− 76		+ 46	− 122	
10	56	−34.9	−53.6	+ 134	+ 105	+ 73	+ 61	− 2	− 20	+ 28	− 30	1.6
11	57	−34.0	−32.0	− 31		+ 62	− 93	− 137		+ 44	− 181	
13	63	−29.5	$+29.0^5$	+ 21	− 36	+ 31	− 10	+ 45	− 6	+ 61	− 16	1.2
14	68	−24.4	− 3.3	− 22		+ 46	− 68	− 13		+ 51	− 64	
15	65	−26.3	−12.8	+ 29		+ 50	− 21	+ 25		+ 49	− 24	
16	69	-24.2^5	−21.1	+ 23		+ 55	− 32	+ 41		+ 46	− 5	
17	81	−17.6	-62.9^5	+ 127:		+ 79	+ 48:	− 80:		+ 15	− 95:	
18	76	−19.6	−23.4	− 8		+ 56	− 64	+ 2		+ 41	− 39	
19	77	−18.4	−14.6	+ 151	+ 96	+ 51	+ 100	0	− 4	+ 45	− 45	1.7
20	82	-15.6^5	−22.2	+ 24		+ 55	− 31	+ 35		+ 41	− 6	
21	94	− 6.5	-37.7^5	+ 111		+ 61	+ 50	− 19		+ 28	− 47	
22	90	− 9.0	-1.6^5	0		+ 40	− 40	− 7		+ 45	− 52	
23	91	− 8.9	$+27.9^5$	+ 126		+ 25	+ 101	+ 47		+ 48	− 1	
24	95	− 5.3	+39.1	+ 35:		+ 18	[+ 17:]	− 102:		+ 45	[− 147:]	
25	97	− 4.1	+38.5	+ 28		+ 17	+ 11	− 13		+ 44	− 57	
26	104	-1.5^5	+28.1	− 12		+ 22	− 34	+ 28		+ 44	− 16	
27	96	− 4.8	$+20.0^5$	− 2		+ 27	− 29	+ 30		+ 46	− 16	
28	106	− 0.6	$+17.8^5$	+ 12		+ 26	− 14	0		+ 43	− 43	
29	111	− 0.3	−37.8	− 79		+ 60	− 139	− 46		+ 26	− 72	
30	110	− 0.4	−53.1	− 7		+ 71	− 78	− 10		+ 17	− 27	
31	124	$+5.6^5$	−35.1	− 15		+ 58	− 73	− 34		+ 25	− 59	
32	120	+ 3.1	−32.3	+ 121	+ 120	+ 56	+ 65	+ 10	− 31	+ 28	− 18	1.6
33	125	$+6.1^5$	−13.1	− 22		+ 43	+ 65	+ 15		+ 34	− 19	
34	119	+ 3.0	+14.8	+ 115		+ 27	+ 88	− 177		+ 40	− 217	
35	112	+ 0.6	+15.8	+ 42		+ 27	+ 15	− 23		+ 42	− 65	
36	133	+11.0	+43.5	+ 44		+ 8	+ 36	+ 8		+ 33	− 25	
37	132	+10.4	+28.1	− 18		+ 18	− 36	+ 2		+ 36	− 34	
38	131	+ 9.8	−51.1	− 17		+ 68	− 85	+ 10		+ 15	− 5	
40	140	+17.1	−15.8	− 82		+ 42	− 124	− 39		+ 28	− 67	
42	150	+22.9	$+38.9^5$	+ 136	+ 83	+ 4	+ 132	+ 39	− 24	+ 26	+ 13	2.4
43	149	+22.8	+21.0	− 25		+ 14	− 39	+ 34		+ 28	+ 6	
44	148	+21.7	+14.9	+ 27		+ 19	+ 8	0		+ 29	− 29	
45	151	+23.2	− 7.0	− 23		+ 33	− 56	+ 15		+ 27	− 12	
46	146	$+20.0^5$	-11.8^5	− 41		+ 38	− 79	− 1		+ 27	− 28	
49	142	+18.8	−40.6	− 38		+ 58	− 96	− 15		+ 17	− 32	
50	144	+19.2	−41.6	− 30		+ 59	− 89	− 7		+ 17	− 24	
51	163	+30.1	+14.0	+ 142	+ 115	+ 16	+ 126	+ 40	− 21	+ 24	+ 16	1.7
52	156	+25.0	$+19.6^5$	− 44		+ 14	− 58	+ 33		+ 27	+ 6	
53	159	+26.5	+27.9	+ 19		+ 10	+ 9	− 83		+ 26	− 109	
55	164	+30.3	$+44.8^5$	+ 42		− 4	+ 46	+ 17		+ 20	− 3	
56	170	+33.6	$+19.6^5$	+ 82	+ 97	+ 10	+ 72	+ 6	− 24	+ 22	− 16	2.4

AREA 4. PLATE IV. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	$v = \frac{6}{T}(n_0 - n)$	μ''_α	v_1	m''_α	$v' = \frac{6}{T}(n' - n'_0)$	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	
57	172	+ 34.8	+ 17.7	− 0.021		+ 0.010	[− 0.031]	− 0.129		+ 0.022	[− 0.151]	
58	168	+ 32.1	− 20.0	− 67		+ 39	[− 106]	− 82		+ 19	[− 101]	
59	176	+ 36.6	− 40.4	+ 19		+ 52	− 33	− 109		+ 10	− 119	
60	181	+ 39.4	− 64.4	− 60:		+ 71	− 131:	+ 44:		− 5	+ 49:	
61	179	+ 38.3	− 34.6^5	+ 39	− 0.020	+ 46	− 7	− 21	− 0.033	+ 11	− 32	2.4
62	180	+ 39.0	+ 7.0	+ 44		+ 17	+ 27	− 93		+ 18	− 111	
63	190	+ 43.9	+ 5.0	+ 106		+ 15	+ 91	− 5		+ 16	− 21	
64	193	+ 45.8	− 28.8^5	− 19		+ 40	− 59	− 105		+ 10	− 115	
65	195	+ 46.0	− 36.8	− 139		+ 47	[− 186]	− 18		+ 8	[− 26]	
66	209	+ 52.7^5	− 30.4	− 63		+ 38	− 101	− 28		+ 6	− 34	
67	205	+ 51.1	+ 4.7	+ 83		+ 11	+ 72	− 8		+ 12	− 20	
68	211	+ 54.4	+ 8.5	− 38:		+ 7	− 45:	− 28:		+ 10	− 38:	
69	206	+ 51.8	+ 18.1	+ 117	+ 96	+ 1	+ 116	+ 21	− 32	+ 11	+ 10	1.8
70	207	+ 51.8	+ 44.6	− 52:		− 18	− 34:	− 75:		+ 5	− 80:	
71	213	+ 56.1	− 8.1	− 80		+ 20	− 100	− 2		+ 8	− 10	
72	212	+ 55.4^5	− 52.2	+ 93:		+ 55	+ 38:	− 47:		− 3	− 44:	
73	222	+ 64.0	− 32.7	+ 151	+ 75	+ 34	+ 117	+ 1	− 31	− 1	+ 2	2.3
74	220	+ 63.5	− 11.9	+ 25:		+ 17	+ 8:	− 22:		+ 4	− 26:	

AREA 5. PLATES V AND VI.

Nr.	Nr. Gen. Cat.	x	y	Pl. V $\frac{6}{T}(n_0 - n)$	Pl. VI $\frac{6}{T}(n_0 - n)$	Area 5 v	μ''_α	v_1	m''_α	Pl. V $\frac{6}{T}(n' - n'_0)$	Pl. VI $\frac{6}{T}(n' - n'_0)$	Area 5 v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
1	30	−58.9	−46.8		+0.022:			− 0.086	+0.108:		+0.023:			+0.038	−0.015:	
3	36	−49.6	−22.7	−0.004	− 26	−0.015		− 45	+ 30	− 0.035	+ 7	−0.014		+ 34	− 48	
6	45	−41.4	+27.8	+ 26	− 11:	+ 8:		− 9	+ 17:	− 58	− 33:	− 46:		+ 38	− 84:	
8	47	−37.8^5	+58.1	+ 32:	− 22	+ 5:		+ 11	− 6:	− 22:	+ 61	+ 20:		+ 28	− 8:	
9	49	−36.6	+16.7	− 32	− 13	− 22		− 13	− 9	− 49	+ 15	− 17		+ 41	− 58	
10	51	−35.3	−29.7	+ 18	− 27	− 4		− 36	+ 32	− 89	− 74	− 82		+ 39	− 121	
11	54	−33.6	−11.4	− 8	− 43	− 26		− 25	− 1	− 68	+ 40	− 14		+ 44	− 58	
12	53	−33.6	− 8.7	− 37	− 35	− 36		− 24	− 12	+ 17	+ 28	+ 22		+ 44	− 22	
13	52	−34.7	+ 4.2	+ 13	− 31	− 9		− 18	+ 9	− 24	+ 20	− 2		+ 44	− 46	
14	58	−30.0	+ 3.8	+ 29	+ 71	+ 50		− 15	+ 65	+ 18	− 40	− 11		+ 46	− 57	
16	62	−28.0	+38.0	+ 6	− 22	− 8		+ 5	− 13	− 2	+ 1	0		+ 40	− 40	
17	67	−23.3	− 3.2	− 25	− 28	− 26		− 14	− 12	− 1	+ 32	+ 16		+ 47	− 31	
18	66	−24.2	−14.7^5	− 55	+ 15	− 20		− 21	+ 1	+ 47	+ 99	+ 73		+ 48	+ 25	
19	61	−28.7	−19.7^5	− 44	− 38	− 41		− 25	− 16	+ 14	+ 6	+ 10		+ 44	− 34	
20	72	−21.6	−53.7		− 104			− 66	[− 38]		+ 118			+ 73	[+ 45]	
21	74	−18.1	−30.4	+ 102	+ 116	+ 109	+0.132	− 23	+ 132	− 7	+ 28	+ 10	− 0.024	+ 47	− 37	2.7
23	73	−18.5	+ 3.5^5	− 14	+ 7	− 4		− 8	+ 4	− 35	− 26	− 30		+ 50	− 80	
24	71	−21.6	+11.0	+ 2	− 38	− 18		− 5	− 13	− 11	+ 62	+ 26		+ 48	− 22	
25	70	−22.3	+12.6	+ 48	+ 6	+ 27		− 5	+ 32	− 10	− 11	− 10		+ 48	− 58	
26	80	−15.6^5	+24.3	+ 5	− 6	0		+ 4	− 4	+ 40	+ 87	+ 64		+ 47	+ 17	

AREA 5. Plates V and VI. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	Pl. V $\frac{6}{T}(n_0-n)$	Pl. VI $\frac{6}{T}(n_0-n)$	Area 5 v	μ''_a	v_1	m''_a	Pl. V $\frac{6}{T}(n'-n'_0)$	Pl. VI $\frac{6}{T}(n'-n'_0)$	Area 5 v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
27	83	−12.3	+21.3	−0.011	+0.037	+0.013		+0.005	+0.008	−0.030	+0.021	−0.004		+0.049	−0.053	
28	79	−15.7	+14.8	+77	+77	+77	+0.092	0	+77	+13	+10	+12	−0.027	+49	−37	4.7
29	78	−16.4	+8.7	−4	−55	−30		−4	−26	+5	+15	+10		+50	−40	
30	84	−11.5	−6.0	−16	+5	−6		−9	+3	+2	+68	+35		+54	−19	
32	89	−7.7	-40.0^{5}		−49			−32	−17		+29			+72	−43	
33	87	−8.4	−31.1	+70	+54	+62	+88	−17	+79	+13	+6	+10	−23	+52	−42	4.4
34	92	-7.1^{5}	−27.6	−61	−32	−46		−15	−31	+24	+67	+46		+53	−7	
35	86	−10.4	−22.3	−34	−4	−19		−14	−5	+37	+89	+63		+52	+11	
36	93	−6.2	−14.9	−17	+15	−1		−8	+7	−35	−16	−26		+56	−82	
37	88	-8.1^{5}	−2.6	−19	−24:	−22:		−3	−19:	−10	+6:	−2:		+54	−56:	
38	99	−2.3	$+25.1^{5}$	−40	−11	−26		+12	−38	+36	+68	+52		+50	+2	
39	105	+0.4	+15.6	−6	−27	−16		+9	−25	−24	+46	+11		+54	−43	
40	103	−0.4	+12.4	−25	+10	−8		+8	−16	+11	+6	+8		+55	−47	
41	102	−0.7	−4.3	−48	+2	−23		0	−23	+23	+10	+16		+57	−41	
42	98	−2.7	-5.6^{5}	−38	+13	−12		−2	−10	+19	+54	+36		+57	−21	
43	108	+0.8	−23.9	−8	−43	−26		−8	−18	+41	+23	+32		+58	−26	
44	114	+3.2	−55.0		+76			−49	+125		+50			+94	−44	
45	116	+3.7	-53.6^{5}		−27			−47	+20		+45			+95	−50	
46	109	+1.1	-26.9^{5}	−71	−90	−80		−8	−72	−24	+50	+13		+57	−44	
47	123	+6.6	−24.5	+97	+98	+98	+121	−5	+103	+16	+17	+16	−38	+60	−44	3.0
48	122	+5.1	−12.9	+104	+88	+96	+63	−1	+97	+10	+54	+32	−38	+59	−27	2.5
49	117	+4.1	−12.6	+5	+20	+12		−2	+14	−61	−41	−51		+59	−110	
50	107	+1.0	+9.0	+86	+88	+87	+94	+7	+80	+52	+11	+32	−45	+56	−24	4.7
51	121	+5.1	+10.7	−25	−15	−20		+10	−30	+20	−1	+10		+57	−47	
52	115	+3.6	+15.5	−2	−5	−4		+11	−15	+59	+27	+43		+55	−12	
53	113	$+3.3^{5}$	+42.6	+95	+117	+106		+24	+82	−18	−32	−25		+44	−69	
54	130	+10.0	+44.4	+32	+21	+26		+28	−2	−2	+28	+13		+46	−33	
55	128	+9.4	+21.3	−23	−15	−19		+15	−34	−30	+22	−4		+55	−59	
56	129	+9.4	-14.0^{5}	−77	−73	−75		0	−75	−74	−54	−64		+62	−126	
57	127	+9.0	−19.4	−5	−9:	−7		0	−7	+25	+96:	+60		+61	−1	
58	136	$+14.2^{5}$	−18.5	+56	+71	+64		+3	+61	+6	+13	+10		+63	−53	
59	138	$+16.9^{5}$	−1.9	−49	−12	−30		+10	−40	+73	+54	+64		+63	+1	
60	135	+13.9	+7.4	−35	−30	−32		+12	−44	+35	+72	+54		+60	−6	
61	139	$+18.0_{5}$	$+24.2^{5}$	+52	+99	+76		+20	+56	−76	−39	−58		+57	−115	
62	141	$+19.8^{5}$	$+40.2^{5}$	+16	+20	+18		+29	−11	+32	+12	+22		+50	−28	
63	143	+20.6	+38.3	+121	+99	+110	+92	+29	+81	+90	−50	+20	−23	+52	−32	4.7
65	147	+21.9	+34.4	+32				+24	+8	+46				+74	−28	
67	155	+25.7	-42.8^{5}		−29			−18	−11		+30			+100	−70	
68	153	+25.2	−38 1	−26	−7	−16		+1	−17	−37	+1	−18		+66	−84	
69	154	+25.2	−37.0	−47	−10	−28		+2	−30	+38	+38	+38		+67	−29	
70	162	+30.9	−30.5	−121	−88	−104		+9	−113	+66	+135	+100		+70	+30	
71	161	+30.6	−27.7	−70	+12	−29		+9	−38	+61	+101	+81		+70	+11	
72	160	+29.5	−24.5	+14	−1	+6		+8	−2	+73	+16	+44		+70	−26	
73	157	+26.8	$+9.4^{5}$	+49	+60	+54	+19	+19	+35	+74	+32	+53	−20	+65	−12	3.1
74	152	+24.9	+43.7	+102	+112	+107		+33	+74	+23	−9	+7		+49	−42	
75	166	+32.0	+42.3	−49	+21	−14		+35	−49	−4	−20	−12		+51	−63	
77	173	+36.1	-8.0^{5}	−25	−2	−14	−27	+17	−31	+47	+62	+54	−8	+71	−17	2.0
78	167	+32.3	−24.6	−84	−55:	−70:		+11	−81:	+73	+94:	+84:		+71	+13:	
79	169	+34.5	-26.1^{5}	+101	+113	+107		+12	+95	−17	−6	−12		+72	−84	
80	171	+35.5	−46.6		−62			−20	−42		+85			+113	−28	

AREA 5. PLATES V AND VI. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	Pl. V $\frac{6}{T}(n_0-n)$	Pl. VI $\frac{6}{T}(n_0-n)$	Area 5. v	μ''_a	v_1	m''_a	Pl. V $\frac{6}{T}(n'-n'_0)$	Pl. VI $\frac{6}{T}(n'-n'_0)$	Area 5. v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
81	177	+38.4	−32.5	+0.104	+0.104	+0.104		+0.012	+0.092	+0.014	+0.046	+0.030		+0.074	−0.044	
82	182	+40.9	−15.5	+30	+57	+44	+0.016	+17	+27	+5	0	+2	−0.061	+74	−72	2.1
83	175	+37.5	−7.4	−25	−61	−43		+19	−62	+62	+10	+36		+72	−36	
84	174	+37.3	+15.9	−44	−45	−44		+25	−69	+47	−24	+12		+65	−53	
85	188	$+43.5^{5}$	+55.5	−12	−4:	−8:		+41	−49:	−29:	−32:	−30:		+45	−75:	
86	186	+43.4	+55.3	+48	+24:	+36:	−19	+41	−5:	+72:	0:	+36:	−10	+45	−9:	4.1
87	192	+45.0	+33.6	−10	−73	−42		+33	−75	+35	−54	−10		+59	−69	
88	185	$+42.9^{5}$	$+31.7^{5}$	−18	−12	−15		+32	−47	+67	+22	+44		+60	−16	
89	199	+49.0	+7.5	−58	+6	−26		+26	−52	+68	−5	+32		+72	−40	
90	197	+47.8	−46.5		−101			−14	−87		+32			+120	−88	
91	208	+53.2	−33.6	+37	0	+18		+18	0	−36:	+51	+8		+80	−72	
96	221	$+64.3^{5}$	−55.5		+6:			−24	+30:		+134:			+144	−10.	

AREA 6. PLATE VII.

Nr.	Nr. Gen. Cat.	x	y	$v = \frac{6}{T}(n_0-n)$	μ''_a	v_1	m''_a	$v' = \frac{6}{T}(n'-n'_0)$	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	
1	63	−58.6	−31.0	+0.005:	−0.036	+0.037	−0.032:	+0.041:	−0.006	+0.031	+0.010:	1.2
2	74	−48.0	+29.6	+154:	+132	+38	+116:	+11:	−24	+59	−48:	1.8
3	72	−51.6	+6.3	+36:		+37	−1:	+64:		+53	+11:	
4	85	−41.4	+10.9	−28:		+28	−56:	+110:		+54	+56:	
5	93	-36.0^{5}	$+45.0^{5}$	+50:		+28	+22:	−51:		+59	−110:	
6	86	−40.2	$+37.6^{5}$	+13:		+31	−18:	+51:		+39	+12:	
7	87	−38.3	+28.8	+116	+88	+28	+88	+34	−23	+58	−24	2.3
8	89	−37.6	+19.9	+8	−32	+25	−17	+24	−18	+56	−32	2.0
9	106	−29.8	−42.3	+36		+12	+24	+48		+28	+20	
10	104	−30.6	−32.0	−10		+13	−23	−18		+34	−52	
11	97	−33.3	−21.6	+2		+17	−15	−21		+40	−61	
12	95	−34.4	−21.0	+6:		+17	−11:	+11:		+40	−29:	
13	108	−29.1	+36.0	+48:		+18	+30:	−6:		+58	−64:	
14	122	−24.7	+47.0	+132	+63	+16	+116	+31	−38	+57	−26	1.7
15	123	−23.3	+35.4	+121	+121	+13	+108	+6	−38	+57	−51	1.9
16	116	−26.2	+6.3	+88		+12	+76	+6		+53	−47	
17	114	-26.6^{5}	+4.9	+83		+11	+72	+23		+52	−29	
18	112	−28.5	−44.4	+41		+11	+30	+39		+26	+13	
19	119	−26.3	−45.4	+63:		+9	+54:	−146:		+26	−172:	
20	132	−18.7	−32.0	−44:		+3	−47:	−8:		+35	−43:	
21	133	−18.1	−16.7	+73		+4	+69	+17		+43	−26	
22	129	−20.4	+45.9	−46:		+10	−56:	−69:		+56	−125:	
23	136	−15.6	+41.4	+44		+4	+40	+16		+55	−39	
24	137	−15.1	−18.6	−52		0	−52	−40		+43	−83	
25	148	−7.4	−45.3	−4		−7	+3	−33		+28	−61	

AREA 6. PLATE VII. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	$v = \frac{6}{T}(n_0 - n)$	μ''_α	v_1	m''_α	$v' = \frac{6}{T}(n' - n'_0)$	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	
26	149	− 6.4	− 39.2	−0.051		−0.009	−0.042	+0.011		+0.032	−0.021	
27	150	− 6.2	− 21.2	+ 123	+0.083	− 9	+ 132	+ 19	−0.024	+ 42	− 23	2.4
28	145	− 9.0^5	− 1.9	− 22		− 6	− 16	− 31		+ 49	− 80	
29	160	− 0.4	+ 35.4	− 15		− 15	0	− 18		+ 55	− 73	
30	161	+ 0.6	+ 32.2	− 58		− 16	− 42	+ 23		+ 54	− 31	
31	162	+ 1.0	+ 29.4	− 5		− 17	[+ 12]	+ 51		+ 54	[− 3]	
32	154	− 4.7	+ 22.9	− 38		− 10	− 28	+ 13		+ 54	− 41	
33	153	− 4.8	+ 21.8	− 39		− 10	− 29	− 13		+ 54	− 67	
34	155	− 4.3	+ 17.0	− 34		− 11	− 23	+ 1		+ 54	− 53	
35	164	+ 1.2	− 15.4	+ 11		− 17	+ 28	0		+ 45	− 45	
36	158	− 2.7	− 17.5^5	− 71		− 13	− 58	− 5		+ 43	− 48	
37	159	− 2.6	− 32.3	− 44		− 13	− 31	− 98		+ 36	− 134	
38	163	+ 0.9	− 46.2^5	+ 82	+ 115	− 16	+ 98	− 6	− 21	+ 29	− 35	1.7
39	172	+ 5.6	− 42.5	− 39		− 20	− 19	+ 47		+ 32	+ 15	
40	170	+ 4.5	− 40.6	+ 85	+ 97	− 19	+ 104	− 22	− 24	+ 32	− 54	2.4
42	165	+ 1.6	+ 7.9^5	− 62		− 18	− 44	+ 16		+ 52	− 36	
43	171	+ 5.6	+ 13.2	− 50		− 22	− 28	− 7		+ 53	− 60	
44	169	+ 4.7	+ 33.7	+ 63		− 21	+ 84	+ 31		+ 53	− 22	
45	167	+ 2.4	+ 35.3	− 50:		− 19	− 31:	+ 2:		+ 54	− 52:	
46	173	+ 6.3	+ 51.8	− 74	− 27	− 20	− 54	+ 51	− 8	+ 51	0	1.4
47	175	+ 7.6	+ 52.4	− 87		− 22	− 65	+ 19		+ 51	− 32	
48	182	+ 11.1	+ 44.3^5	− 27	+ 16	− 29	+ 2	− 19	− 61	+ 52	− 71	1.5
49	177	+ 8.4	+ 27.3	+ 58		− 27	+ 85	+ 45		+ 53	− 8	
51	178	+ 8.4	− 16.9	+ 12:		− 25	+ 37:	+ 1:		+ 44	− 43:	
52	180	+ 9.9	− 53.2	− 36		− 26	− 10	− 31		+ 25	− 56	
53	198	+ 18.9	− 18.1	− 46		− 37	− 9	+ 74		+ 45	+ 29	
55	189	+ 13.6	+ 6.7	+ 106:		− 33	+ 139:	− 22:		+ 51	− 73:	
56	197	+ 17.8	+ 13.2	− 74		− 37	− 37	− 8		+ 52	− 60	
57	194	+ 16.9	+ 19.1	− 93		− 36	− 57	+ 4		+ 52	− 48	
58	208	+ 23.3	+ 26.2^5	− 44		− 46	+ 2	− 75		+ 52	− 127	
59	201	+ 19.7	+ 23.3	− 50		− 40	− 10	+ 19		+ 52	− 33	
60	203	+ 20.1	+ 19.1	− 45:		− 41	− 4:	+ 22:		+ 52	− 30:	
61	202	+ 19.8	− 6.6	− 140		− 40	− 100	− 8		+ 48	− 56	
62	207	+ 22.7	− 15.6^5	− 68		− 42	− 26	− 1		+ 46	− 47	
63	210	+ 23.8	− 17.8^5	− 67		− 43	− 24	+ 60		+ 45	+ 15	
64	200	+ 19.5	− 34.2	− 125		− 36	[− 89]	+ 86		+ 38	[+ 48]	
65	206	+ 22.6	− 42.1	+ 35	+ 96	− 39	+ 74	+ 16	− 32	+ 34	− 18	1.8
66	211	+ 25.2	− 51.8	− 87		− 41	− 46	+ 42		+ 27	+ 15	
67	215	+ 30.4	+ 11.0	+ 57		− 53	+ 110	− 30		+ 50	− 80	
68	214	+ 29.5	+ 39.0	− 110		− 53	− 57	− 4		+ 49	− 53	
69	221	+ 34.4	+ 4.2	− 74	− 13	− 57	− 17	+ 76	+ 32	+ 49	+ 27	2.4
70	217	+ 33.0	+ 0.8	− 98	+ 1	− 56	− 42	+ 52	+ 19	+ 48	+ 4	1.8
71	224	+ 36.5	− 19.6	+ 73	+ 75	− 58	+ 131	+ 5	− 28	+ 44	− 39	2.4
72	227	+ 37.8^5	− 25.0	+ 97	+ 102	− 58	+ 155	+ 10	− 20	+ 42	− 32	2.4
73	233	+ 42.4	− 7.6	+ 87	+ 102	− 66	+ 153	+ 4	− 30	+ 47	− 43	1.7
74	229	+ 40.1	+ 0.1^5	− 8		− 64	+ 56	+ 33		+ 48	− 15	
75	231	+ 41.3	+ 5.8	− 82		− 67	− 15	+ 59		+ 49	+ 10	
76	228	+ 38.8	+ 60.0^5	+ 83:	+ 69	− 65	+ 148:	+ 24:	− 40	+ 41	− 17:	1.3
77	236	+ 43.9	+ 23.1	− 139		− 73	− 66	+ 40		+ 49	− 9	
79	238	+ 49.9	− 2.4	− 81		− 78	− 3	+ 24		+ 47	− 23	

AREA 6. Plate VII. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	$v = \frac{6}{T}(n_0-n)$	μ''_α	v_1	m''_α	$v' = \frac{6}{T}(n'-n'_0)$	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	
80	239	+ 50.3	+ 10.4	—0.113		—0.079	—0.034	—0.007		+0.049	—0.056	
81	241	+ 54.4	+ 47.9	— 191:		— 90	— 101:	+ 80:		+ 42	+ 38:	
82	242	+ 55.9	+ 23.4	+ 10:		— 90	+ 100:	+ 39:		+ 47	— 8:	
84	244	+ 58.3	— 6.8	— 120:		— 87	— 33:	+ 62:		+ 47	+ 15:	
85	245	+ 59.4	— 38.8	+ 5	+ 0.067	— 83	+ 88	+ 6	— 0.009	+ 38	— 32	2.3

AREA 7. Plates VIII and IX.

Nr.	Nr. Gen. Cat.	x	y	Pl. VIII $\frac{6}{T}(n_0-n)$	Pl. IX $\frac{6}{T}(n_0-n)$	Area 7 v	μ''_α	v_1	m''_α	Pl. VIII $\frac{6}{T}(n'-n'_0)$	Pl. IX $\frac{6}{T}(n'-n'_0)$	Area 7 v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
2	110	—58.3	—54.1	— 0.031:				+0.026	—0.057:	+0.007:				+0.057	—0.050:	
3	120	—54.6	—33.3	+ 88:	+0.101:	+0.094:	+0.120	— 14	+ 108:	— 20:	—0.038:	—0.029:	—0.031	+ 13	— 42:	2.2
4	119	—54.6	+13.8	+ 46:				+ 28	[+ 18:]	— 64:				+ 48	[— 112:]	
5	112	—56.9	+14.8	— 30:				+ 29	— 59:	+ 62:				+ 48	+ 14:	
6	106	—58.1	+16.9	+ 4:				+ 28	— 24:	+ 16:				+ 47	— 31:	
7	104	—59.0	+27.2	+ 4:				+ 31	— 27:	+ 56:				+ 41	+ 15:	
9	124	—52.1	—36.1	— 52:	— 21:	— 36:		— 13	— 23:	— 5:	+ 45:	+ 20:		+ 12	+ 8:	
10	131	—48.1	—52.1	— 31:				+ 23	— 54:	+ 70:				+ 59	+ 11:	
12	133	—46.4	+42.5	+ 40:				+ 25	+ 15:	— 26:				+ 29	— 55:	
13	148	—35.9	+13.9	+ 20:	+ 39	+ 30:		— 8	+ 38:	+ 22:	+ 13	+ 18:		+ 27	— 9:	
14	146	—37.7	—12.8	+ 11:				+ 20	— 9:	+ 70:				+ 55	+ 15:	
15	140	—40.6	—16.8	— 37:				+ 22	— 59:	+ 14:				+ 56	— 42:	
18	142	—39.1	—41.6	— 55:				+ 21	— 76:	+ 6:				+ 60	— 54:	
19	144	—38.7	—42.6	— 77:	+ 2:	— 38:		— 4	— 34:	— 10:	0:	— 5:		+ 10	— 15:	
20	151	—34.4	— 8.0	— 35:				+ 21	— 56:	+ 47:				+ 54	— 7:	
21	149	—34.7	+20.0	+ 2				+ 21	— 19	— 4				+ 42	— 46	
22	159	—31.0	+26.8^5	— 46	— 77	— 62		— 7	— 55	— 80	— 126	— 103		+ 25	— 128	
23	150	—34.5	+37.9	+ 121	+ 61:	+ 91:	+ 83	— 9	+ 100:	— 28	0:	— 14	— 24	+ 25	— 39:	4.5
24	164	—27.1	+43.8	+ 30:				+ 19	+ 11:	+ 20:				+ 23	— 3:	
25	170	—24.0	+18.6	+ 58	+ 23	+ 40	+ 97	— 5	+ 45	+ 18:	+ 14	+ 16	— 24	+ 26	— 10	4.5
26	163	—27.5	+12.9	+ 100	+ 43	+ 72	+ 115	— 4	+ 76	— 6	+ 2	— 2	— 21	+ 26	— 28	2.5
27	168	—25.7	—21.1	+ 48				+ 17	+ 31	— 1				+ 57	— 58	
28	176	—21.2	—41.4	+ 14				+ 17	— 3	+ 11				+ 59	— 48	
29	179	—19.6	—35.8	— 16	— 44	— 30	— 20	+ 4	— 34	— 44	— 10	— 27	— 33	+ 15	— 42	4.5
31	180	—18.6	+ 5.9	+ 25	+ 66	+ 46		— 2	+ 48	— 48	— 79	— 64		+ 24	— 88	
32	172	—22.8	+16.6	— 11				+ 13	— 24	+ 36				+ 42	— 6	
33	183	—17.4^5	+18.7	+ 20				+ 10	+ 10	— 25				+ 39	— 64	
36	191	—13.7	+14.8	— 40:				+ 8	— 48:	+ 22:				+ 41	— 19:	
37	184	—16.0	+ 7.6^5	+ 7				+ 11	— 4	— 37				+ 45	— 82	
38	190	—13.8	+ 3.9^5	+ 53				+ 10	+ 43	+ 12				+ 46	— 34	
39	187	—15.1	+ 3.9	— 30				+ 11	— 41	— 13:				+ 46	— 59:	
41	193	—12.0^5	—30.0	— 23,				+ 13	— 36	+ 8				+ 58	— 50	
42	195	—11.8	—37.9^5	+ 13				+ 12	+ 1	— 12				+ 59	— 71	
43	204	— 7.7	—62.9^5	+ 66:				+ 15	+ 51:	— 5:				+ 60	— 65:	
45	196	—11.3	— 3.9	— 4				+ 8	— 12	+ 36				+ 50	— 14	

AREA 7. PLATES VIII AND IX. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	Pl. VIII $\frac{6}{T}(n_0-n)$	Pl. IX $\frac{6}{T}(n_0-n)$	Area 7. v	μ''_a	v_1	m''_a	Pl. VIII $\frac{6}{T}(n'-n'_0)$	Pl. IX $\frac{6}{T}(n'-n'_0)$	Area 7. v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
46	205	− 6.5	+ 3.5	+ 0.084				+ 0.005	+ 0.079	− 0.037				+ 0.045	− 0.082	
48	206	− 5.8	+17.0	+ 109	+ 0.082	+ 0.096	+ 0.096	0	+ 96	− 11	+ 0.002	− 0.004	− 0.032	+ 23	− 27	2.7
49	200	− 8.9	+24.9	+ 22				+ 6	+ 16	− 37				+ 33	− 70	
51	198	− 9.5	+41.0	+ 37:				+ 5	+ 32:	+ 55:				+ 22	+ 33:	
52	207	− 5.6	+43.4	+ 29				+ 2	+ 27	− 6				+ 18	− 24	
53	210	− 4.6	+41.2	− 7				+ 3	− 10	+ 6				+ 19	− 13	
54	211	− 3.3	+ 7.3	− 23	− 45:	− 34:		+ 3	− 37:	+ 8	+ 23:	+ 16:		+ 23	− 7:	
55	213	− 1.5	− 9.2	− 108	− 112	− 110		+ 7	− 117	+ 20	+ 94	+ 57		+ 23	+ 34	
56	209	− 5.0	−31.6	− 50				+ 8	− 58	+ 6				+ 58	− 52	
58	212	− 2.5	−53.4	+ 71:	+ 118:	+ 94:		+ 16	+ 78:	− 24:	+ 10:	− 7:		+ 7	− 14:	
59	216	+ 2.1	−55.0^{5}	− 35:				+ 11	− 46:	+ 35:				+ 59	− 24:	
61	222	+ 6.1	−33.9^{5}	+ 101	+ 102	+ 102	+ 75	+ 17	+ 85	− 32	− 17	− 24	− 31	+ 17	− 41	4.3
62	220	+ 5.8	−13.1	+ 43	+ 22	+ 32		+ 9	+ 23	− 56	− 40	− 48		+ 22	− 70	
63	218	+ 4.9	− 6.0	− 79				+ 1	− 80	+ 4:				+ 48	− 44:	
65	219	+ 5.4	+ 0.1	− 71:				0	− 71:	+ 80				+ 45	+ 35	
67	217	+ 4.7	+59.8^{5}	+ 17:	− 30:	− 6:	+ 1	− 5	− 1:	− 8:	− 25:	− 16:	+ 19	+ 9	− 25:	2.8
68	224	+ 8.1	+39.5	+ 112	+ 95	+ 104	+ 75	− 1	+ 105	− 55	+ 17	− 19	− 28	+ 17	− 36	4.5
69	227	+ 9.4	+34.0	+ 107	+ 20	+ 64	+ 102	0	+ 64	− 20	+ 32	+ 6	− 20	+ 18	− 12	4.6
71	226	+ 9.0	− 7.8	+ 11				− 1	+ 12	+ 8				+ 49	− 41	
72	225	+ 8.0^{5}	−14.4	− 7	− 28	− 18		+ 10	− 28	− 38	− 11	− 24		+ 20	− 44	
73	230	+12.0	−29.1	− 16	− 51	− 34		+ 16	− 50	+ 13	− 8	+ 2		+ 18	− 16	
75	223	+ 6.9	−49.2	− 84				+ 8	− 92	+ 18				+ 61	− 43	
77	235	+15.1	−42.9	− 137	− 48	− 92		+ 20	− 112	− 62	− 19	− 40		+ 14	− 54	
78	232	+13.4	−26.9	− 72:				+ 1	− 73:	+ 29:				+ 55	− 26:	
79	234	+14.2	− 7.8^{5}	+ 4				− 3	+ 7	+ 10				+ 48	− 38	
80	233	+14.1	+51.4	+ 136	+ 96	+ 116	+ 102	− 2	+ 118	− 42	+ 7	− 18	− 30	+ 11	− 29	2.6
84	244	+30.0	+52.2	− 7:	− 18:	− 12:		− 4	− 8:	+ 23:	+ 19:	+ 21:		+ 7	+ 14:	
85	245	+31.0	+20.2	+ 116	+ 102	+ 109	+ 67	+ 4	+ 105	− 24	− 23	− 24	− 9	+ 18	− 42	4.4
86	249	+35.0	+ 4.4	− 18				− 55	+ 37	+ 43				+ 37	+ 6	
87	248	+34.9	−41.4	+ 2:	+ 23:	+ 12:		+ 25	− 13:	− 17:	− 47:	− 32:		+ 15	− 47:	
88	247	+34.6	−56.0	− 80:				− 6	− 74:	+ 37:				+ 59	− 22:	
89	246	+32.0	−59.8	+ 34:	+ 48:	+ 41:		+ 31	+ 10:	− 64:	− 78:	− 71:		+ 7	− 78:	
92	254	+37.8^{5}	−31.1^{5}	− 16:	− 4	− 10:		+ 22	− 32:	− 6:	+ 32	+ 13:		+ 17	− 4:	
93	262	+40.6	−10.0	− 48:				− 20	− 28:	+ 23:				+ 45	− 22:	
94	264	+41.9^{5}	− 6.9	+ 6:	+ 24	+ 15:		+ 13	+ 2:	+ 31:	− 24	+ 4:		+ 20	− 16:	
97	255	+38.3	+23.6	+ 124	+ 82	+ 103	+ 88	+ 4	+ 99	− 20	+ 11	− 4	− 9	+ 15	− 19	4.6
98	253	+37.3	+26.1	+ 124	+ 113	+ 118		+ 3	+ 115	− 38	+ 24	− 7		+ 14	− 21	
99	265	+42.2	+28.9	+ 14	+ 17	+ 16		+ 2	+ 14	− 29	− 12	− 20		+ 13	− 33	
100	258	+39.9	+51.0^{5}	+ 144	+ 94	+ 119	+ 86	− 3	+ 122	− 58	− 12	− 35	− 31	+ 6	− 41	4.2
101	251	+36.6	+53.8	+ 150	+ 96	+ 123	+ 91	− 5	+ 128	− 34	+ 7	− 14	− 21	+ 3	− 17	4.5
102	273	+48.5	+31.1	− 20	− 38:	− 29:	− 13	0	− 29:	− 30	+ 34:	+ 2	− 46	+ 11	− 9	2.1
103	269	+45.6	−11.6	+ 47:	+ 49:	+ 48:	+ 29	+ 15	+ 33:	− 77:	− 29:	− 53:	− 48	+ 18	− 71:	4.5
104	271	+46.9	−36.6	+ 36:	+ 40:	+ 38:	+ 23	+ 26	+ 12:	− 25:	+ 6:	− 10:	− 8	+ 16	− 26:	3.6
109	282	+55.7	+33.4	+ 108:	+ 68:	+ 88:	+ 102	0	+ 88:	− 44	− 6:	− 25:	− 50	+ 9	− 34:	4.5
110	280	+55.0	+20.4	− 17:				− 39	+ 22:	+ 41:				+ 19	+ 22:	
112	281	+55.1	−37.2	− 74:				− 22	− 52:	+ 30:				+ 55	− 25:	

AREA 8. Plates D and X.

Nr.	Nr. Gen. Cat.	x	y	Pl. D $\frac{6}{T}(n_0-n)$	Pl. X $\frac{6}{T}(n_0-n)$	Area 8 v	μ''_α	v_1	m''_α	Pl. D $\frac{6}{T}(n'-n'_0)$	Pl. X $\frac{6}{T}(n'-n'_0)$	Area 8 v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
1	163	—56.6	—45.9^5	+0.025:	—0.002:	+0.010:	+0.115	—0.103	+0.113:	—0.035:	+0.007:	—0.012:	—0.021	+0.012	—0.024:	2.2
2	164	—56.1	—15.1	— 32	— 62:	— 49:		— 62	+ 13:	— 53	+ 25:	— 10:		+ 15	— 25:	
3	173	—50.8	+52.1	— 53:	+ 11:	— 17:	— 27	+ 18	— 35:	+ 7:	— 50:	— 25:	- 8	— 14	— 11:	1.8
4	169	—52.5	+34.0	+ 89:	+ 100:	+ 95:		— 3	+ 98:	— 44:	— 61:	— 53:		— 2	— 51:	
5	177	—48.8	+27.6	+ 77:	+ 104:	+ 92:		— 9	+ 101:	— 53:	— 58:	— 56:		+ 1	— 57:	
6	171	—51.6^5	+13.5	— 31	— 47:	— 40:		— 25	— 15:	— 3	+ 64:	+ 34:		+ 8	+ 26:	
7	170	—53.0	—40.2	+ 26	— 44	— 13	+ 97	— 93	+ 80	+ 76	— 36	+ 14	— 24	+ 14	0	3.7
8	182	—46.0^5	+44.6	— 28	+ 23:	0:	+ 16	+ 12	— 12:	— 19	— 95:	— 61:	— 61	— 8	— 53:	1.9
10	197	—39.5	+13.5	— 25	— 73	— 52		— 21	— 31	— 57	— 1	— 26		+ 10	— 36	
13	206	—34.9	—41.9	+ 36	+ 20	— 27	+ 96	— 83	+ 110	— 1	+ 10	+ 5	— 32	+ 13	— 8	2.4
14	210	—33.6	—17.6		+ 6:			— 50	+ 56:		+ 12:			+ 22	— 10:	
15	207	—34.6	—15.4	— 39	— 2	— 18		— 53	+ 35	— 85	+ 18	— 28		+ 15	— 43	
16	208	—33.9	+26.4^5	+ 23	— 8	+ 6		— 4	+ 10	— 86	— 89	— 88		+ 2	— 90	
17	214	—27.6	+39.2		+ 23			+ 19	+ 4		— 25			— 10	— 15	
19	217	—24.3	+ 0.9^5	— 61	— 35	— 47	+ 1	— 28	— 19	— 70	+ 7	— 28	+ 19	— 6	— 22	2.5
20	227	—19.6	—24.9	+ 7	0:	+ 3:	+ 102	— 55	+ 58:	— 15	— 2:	— 7:	— 20	+ 15	— 22:	3.8
21	224	—20.9	—19.3^5	+ 26	— 7	+ 8	+ 75	— 50	+ 58	+ 60	+ 10	+ 32	— 28	+ 14	+ 18	3.8
22	221	—22.9	+ 4.4	— 57	— 49	— 53	— 13	— 24	— 29	0	— 12	— 7	+ 32	+ 10	— 17	3.7
23	228	—18.3	+60.1^5	+ 108:	+ 118:	+ 114:	+ 69	+ 38	+ 76:	— 55:	— 82:	— 70:	— 40	— 26	— 44:	1.6
25	236	—13.3^5	+23.2	+ 7	+ 30	+ 19		+ 1	+ 18	— 12	— 16	— 14		0	— 14	
26	231	—16.0	+ 6.0		+ 24:			— 15	+ 39		— 4:			+ 10	— 14:	
27	229	—17.0^5	+ 0.2^5	+ 105	+ 48	+ 73		— 26	+ 99	— 7	— 13	— 10		+ 10	— 20	
28	233	—14.9	— 7.5	+ 73	+ 108	+ 92	+ 102	— 33	+ 125	— 28	+ 2	— 11	— 30	+ 10	— 21	2.4
29	238	— 7.4^5	— 2.2^5	+ 104	+ 67	+ 84		— 24	+ 108	— 82	+ 7	— 33		+ 9	— 42	
30	239	— 6.9	+10.5	— 53	— 11	— 30		— 10	— 20	— 16	+ 12	0		+ 3	— 3	
31	237	— 8.5	+16.9	— 63	— 6	— 31		— 4	— 27	— 55	+ 20	— 14		+ 1	— 15	
32	240	— 4.2	+49.5	+ 45	+ 47:	+ 46:		+ 33	+ 13:	+ 42	— 42:	— 5:		— 22	+ 17:	
33	241	— 2.8	+48.0	— 50	— 54:	— 52:		+ 32	— 84:	— 13	— 16	— 15:		— 21	+ 6:	
35	242	— 1.3	+23.5	+ 76	+ 62	+ 68		+ 5	+ 63	— 96	— 26	— 57		— 6	— 51	
36	243	— 0.3	+ 6.2	+ 20	— 8	+ 4		— 11	+ 15	— 9	0	— 4		+ 3	— 7	
37	249	+ 6.0	—54.5		— 19			— 68	+ 49		— 5			+ 25	— 30	
38	245	+ 1.9^5	—38.7	+ 10	+ 40	+ 27	+ 67	— 59	+ 86	+ 53	— 37	+ 3	— 9	+ 8	— 5	3.6
40	244	+ 0.9^5	— 6.7	— 3	— 22	— 13		— 25	+ 12	— 12	+ 54	+ 25		+ 7	+ 18	
41	259	+11.1	+51.2^5		+ 44:			+ 43	+ 1:		+ 12:			— 37	+ 49:	
42	256	+10.5	+17.0		+ 61			+ 4	[+ 57]		— 10			— 6	[— 4]	
43	252	+ 8.1	+ 9.0		— 30			— 3	— 27		+ 48			+ 1	+ 47	
45	251	+ 7.6	— 5.1	+ 34	+ 43	+ 39	+ 91	— 20	+ 59	+ 10	— 49	— 23	— 21	+ 4	— 27	3.7
46	258	+10.9	— 7.9	+ 45	+ 52	+ 49	+ 86	— 22	+ 71	— 23	— 6	— 13	— 31	+ 3	— 16	3.5
47	257	+10.6	— 9.5		+ 2			— 23	+ 25		+ 12			+ 11	+ 1	
48	253	+ 8.2	—32.9	+ 86	+ 54	+ 68		— 50	+ 118	— 45	+ 10	— 15		+ 9	— 24	
49	255	+ 9.2	—35.3	+ 36	+ 43	+ 40	+ 88	— 52	+ 92	+ 6	— 47	— 23	— 9	+ 7	— 30	3.8
50	265	+13.1	—30.0	+ 35	— 7	+ 12		— 43	+ 55	+ 19	— 8	+ 4		+ 5	— 1	
51	266	+15.3^5	+24.8		— 31			+ 14	— 45		— 67			— 13	— 54	
52	267	+15.9	+29.3		+ 37			+ 18	+ 19		— 19			— 18	— 1	
53	268	+16.4	+34.2	+ 42	0	+ 19		+ 25	— 6	— 48	— 16	— 30		— 20	— 10	
54	270	+17.7	+59.7	+ 108:	+ 23:	+ 61:		+ 49	+ 12:	+ 95:	— 107:	— 17:		— 31	+ 14:	
55	277	+24.0^5	+32.3	+ 61	+ 17	+ 37		+ 25	+ 12	— 22	+ 1	— 9		— 22	+ 13	
56	274	+20.3	— 9.7	+ 4	— 37	— 18		— 18	0	+ 34	+ 25	+ 29		— 1	+ 30	
58	273	+19.4^5	—27.8^5	— 53	— 68	— 61	— 13	— 38	— 23	— 67	— 29	— 46	— 46	+ 2	— 48	1.9
59	280	+25.9	—38.5	+ 63	+ 12	+ 35		— 47	+ 82	— 63	— 18	— 38		— 1	— 37	

AREA 8. PLATES D AND X. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	Pl. D $\frac{6}{T}(n_0-n)$	Pl. X $\frac{6}{T}(n_0-n)$	Area 8 v	μ''_α	v_1	m''_α	Pl. D $\frac{6}{T}(n'-n'_0)$	Pl. X $\frac{6}{T}(n'-n'_0)$	Area 8 v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
60	282	+26.7	−25.5	+0.010	+0.073	+0.045	+0.102	−0.031	+0.076	−0.001	−0.037	−0.021	−0.050	−0.001	−0.020	3.7
61	287	+29.4	+ 7.1		− 18			− 1	− 17		+ 60			− 4	+ 64	
63	278	+24.9^5	+40.0	− 18	+ 8	− 4		+ 34	− 38	− 44	− 32	− 37		− 29	− 8	
64	285	+29.0^5	+42.9		+ 35:			+ 35	0		− 17:			− 35	+ 18:	
65	279	+25.0	+56.0	+ 25:	+ 8:	+ 15:	− 52	+ 48	− 33:	− 1	− 34:	− 20:	− 4	− 43	+ 23:	1.8
66	290	+33.6	+19.5	+ 22	− 43	− 14		+ 17	− 31	− 4	+ 14	+ 6		− 21	+ 27	
67	288	+32.6	+ 3.7		+ 2			− 4	+ 6		− 66			− 3	− 66	
68	295	+40.6	−16.1	+ 110	+ 77	+ 92		− 15	+ 107	− 77	− 38	− 56		− 11	− 45	
69	294	+39.4	+ 3.9		− 18			− 3	− 15		+ 34			− 5	+ 39	
70	300	+48.5	+32.1^5		− 11:			+ 25	− 36:		+ 4:			− 35	+ 39:	
71	298	+43.1	+22.7		− 60			+ 15	− 75		− 2			− 22	+ 20	
72	297	+43.0	−27.3	+ 139	+ 64	+ 98		− 26	+ 124	− 89	− 23	− 52		− 10	− 42	
73	301	+49.4	−18.8	+ 13	0	+ 6		− 14	+ 20	− 67	− 6	− 33		− 16	− 17	
74	310	+52.4	−18.5^5	+ 47	+ 31:	+ 38:	+ 76	− 13	+ 51:	− 83	− 46:	− 62:	− 43	− 18	− 44:	1.8
75	311	+52.9	− 3.6		− 4			− 10	+ 6		+ 13			− 5	+ 18	
76	309	+52.0^5	+ 3.1	− 36	− 2	− 17	− 3	+ 6	− 23	− 93	− 35	− 61	− 20	− 25	− 36	3.6
77	303	+49.7	+11.1	+ 51	+ 2	+ 23		+ 15	+ 8	− 26	− 30	− 28		− 28	0	
78	302	+49.5	+14.7	+ 63	+ 38	+ 49		+ 19	+ 30	− 34	+ 26	− 1		− 29	+ 28	
79	314	+54.0	+15.5		+ 18			+ 8	+ 10		+ 53			− 20	+ 73	
80	313	+51.5	+29.5	+ 199:	+ 114:	+ 151:		+ 32	+ 119:	− 41:	− 23:	− 31:		− 40	+ 9:	
81	316	+57.5	+28.1^5	+ 107:	+ 23:	+ 60		+ 33	+ 27:	− 31:	− 7:	− 18:		− 44	+ 26:	

AREA 9. PLATES A AND XI.

Nr.	Nr. Gen. Cat.	x	y	Pl. A $\frac{6}{T}(n_0-n)$	Pl. XI $\frac{6}{T}(n_0-n)$	Area 9. v	μ''_α	v_1	m''_α	Pl. A $\frac{6}{T}(n'-n'_0)$	Pl. XI $\frac{6}{T}(n'-n'_0)$	Area 9. v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
1	224	−49.5	+40.9	+0.026	−0.068	−0.026	+0.075	−0.086	+0.060	+0.140	+0.040	+0.084	−0.028	+0.053	+0.031	3.8
2	227	−48.1^5	+35.3^5	+ 30	− 19	+ 3	+ 102	− 80	+ 83	− 10	+ 36	+ 16	− 20	+ 52	− 36	3.8
3	220	−52.0	−11.7	+ 14	− 38:	− 15:		− 33	+ 18	− 47	− 35:	− 40:		+ 38	− 78:	
4	225	−49.8	−13.1	− 163	− 12:	− 79:		− 32	− 47:	+ 24	+ 5:	+ 13:		+ 36	− 23:	
5	222	−51.7	−32.6	+ 18	+ 59	+ 40	+ 75	− 14	+ 54	− 10	− 38	− 26	− 31	+ 23	− 49	3.6
6	235	−42.8	−41.6		− 131:			+ 10	− 141:		− 29:			+ 11	− 40:	
7	230	−45.9	−27.9	− 103	− 58	− 77		− 19	− 58	+ 17	− 12	0		+ 26	− 26	
8	234	−43.5	− 6.5		− 45			− 45	0		− 18			+ 27	− 45	
9	233	−43.5	+52.7	+ 106:	− 29:	+ 31:	+ 102	− 100	+ 131:	+ 100:	− 23:	+ 32:	− 30	+ 50	− 18:	2.4
10	244	−27.6	+53.5	− 61:	− 95:	− 80:		− 107	+ 27:	+ 117:	+ 38:	+ 74:		+ 44	+ 30:	
11	245	−26.6	+21.5	+ 35	0	+ 16	+ 67	− 75	+ 91	+ 67	+ 23	+ 43	− 9	+ 42	+ 1	3.6
12	247	−23.4	−54.8		+ 11:			+ 43	− 32:		− 24:			+ 5	− 29:	
13	246	−26.0	−58.5	− 11	+ 78:	+ 39		+ 9	+ 30:	− 91	− 62:	− 74:		− 6	− 68:	
14	261	−17.5	−49.0		− 30			+ 37	− 67		− 52			+ 10	− 62	
15	250	−21.7	−46.2		+ 77:			+ 29	+ 48:		− 19:			+ 10	− 29:	

AREA 9. PLATES A AND XI. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	Pl. A $\frac{6}{T}(n_0-n)$	Pl. XI $\frac{6}{T}(n_0-n)$	Area 9. v	μ''_α	v_1	m''_α	Pl. A $\frac{6}{T}(n'-n'_0)$	Pl. XI $\frac{6}{T}(n'-n'_0)$	Area 9. v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
16	248	−23.0	−40.1	−0.040	−0.001	−0.018		−0.011	−0.007	−0.116	−0.043	−0.076		+0.009	−0.085	
17	254	−20.1	−30.0	−49	+35	−2		−22	+20	−12	−20	−16		+16	−32	
18	249	−22.7	+5.7	+47	−24	+8		−58	+66	−9	−28	−19		+36	−55	
19	260	−17.8	+18.4		−36			−75	+39		−25			+29	−54	
20	255	−19.4	+24.9	−5	+29	+14	+0.088	−79	+93	+36	+61	+49	−0.009	+39	+10	3.8
21	253	−20.4	+27.3	+122	+17	+64		−82	+146	+52	−17	+14		+41	−27	
22	258	−17.7	+52.3	+5	−34:	−16:	+86	−110	+94:	+26	+8:	+16:	−31	+39	−23	3.5
23	251	−20.9	+55.0	−15	−24	−20	+91	−112	+92	+65	+35	+48	−21	+40	+8	3.7
24	265	−15.4	+30.1	−29	−54	−43		−86	+43	+9	−2	+3		+38	−35	
25	264	−15.9	−5.6	−12	−12	−12		−48	+36	+21	−1	+9		+29	−20	
26	262	−17.3	−8.8		−13:			−31	+18:		+10:			+26	−16:	
27	269	-12.1^5	−10.4	−17	+10	−2	+29	−43	+41	−17	−34	−27	−48	+25	−52	3.8
28	263	−16.1	-55.1^5		+37			+49	−12		+24			+6	+30	
29	272	−10.1	−55.0		+4			+51	−47		−24			+7	−31	
31	271	−11.0	−35.4	−62	+46	−2	+23	−19	+17	−29	−24	−26	−8	+9	−35	3.1
32	275	−5.9	−34.4	−18	−58	−40		−20	−20	−71	−23	−44		+7	−51	
33	273	−9.1	$+32.3^5$	−111	−112	−112	−13	−92	−20	+50	+2	+23	−46	+35	−12	1.9
34	274	−8.2	+50.4		−114:			−127	+13:		+31:			+23	+8:	
35	282	−1.9	+34.6	+29	+7	+17	+102	−97	+114	+36	+31	+33	−50	+30	+3	3.7
37	280	-2.7^5	+21.6	−53	−68	−61		−82	+21	−2	−32	−19		+30	−49	
38	283	−1.5	+13.4		+52			−63	+115		−26			+27	−53	
39	284	−0.4	−35.8		+70			+20	+50		−98			+17	−115	
40	281	−2.8	−36.1	−65	+31	−12		−19	+7	−88	−32	−57		+4	−61	
41	276	−5.2	−40.3		+54			+26	+28		−57			+15	−72	
42	292	+6.6	+16.4		−53			−68	+15		+7			+27	−20	
43	295	+12.0	+44.0	+17	−8	+3		−111	+114	−73	−13	−40		+19	−59	
47	296	+13.5	+22.8		−102			−78	−24		−25			+25	−50	
48	297	$+14.4^5$	+32.8	+12	+13	+12		−101	+113	−26	−4	−14		+18	−32	
49	311	+24.4	+56.5		−166:			−134	−32:		−49:			+14	−63:	
50	310	+23.8	+41.5	−85	−31	−55	+76	−114	+59	−93	−49	−69	−43	+9	−78	1.8
51	301	$+20.8^5$	+41.4	−187	−95	−136		−113	−23	+9	+5	+7		+12	−5	
52	307	+23.1	−1.5		−19			−36	+17		−19			+26	−45	
53	299	$+19.8^5$	−4.9		−54			−30	−24		−38			+26	−64	
54	312	+24.4	−27.4		−18			+14	−32		+54			+22	+32	
55	308	+23.1	−40.0		−31			+35	−66		+13			+18	−5	
56	315	+27.6	−25.7	−81	+107	+23	+84	−36	+59	−55	+20	−14	−24	−10	−4	3.8
57	317	+29.1	-6.4^5	−5	+67	+35		−60	+95	−21	−54	−40		−1	−39	
58	323	+36.4	-7.1^5		−80			−23	−57		−37			+24	−61	
59	320	+34.2	−17.8	+9	+50	+32		−49	+81	−59	0	−27		−11	−16	
60	326	+38.8	−13.6		−5			−11	+6		+68			+24	+44	
61	325	+37.8	$+14.1^5$	−18	+29	+9	+71	−87	+96	−78	−14	−42	−48	−4	−38	2.0
62	324	+36.8	+33.6	−32	−16	−23		−111	+88	−20	−24	−22		−2	−20	
63	332	+45.5	+15.2		−66			−64	−2		+29			+22	+7	
64	338	+52.3	+2.3		−138:			−38	[−100:]		−56			+22	[−78:]	
65	334	+50.6	+28.2		−50			−88	+38		−20			+18	−38	
66	337	+51.5	$+52.8^5$	−195:	−130:	−158:	−22	−142	−16:	−137:	−8:	−65:	−33	−19	−46:	1.7
67	343	+59.4	+25.2		+19:			−83	+102:		−29:			+17	−46:	

AREA 10. PLATES XII AND XIII.

Nr.	Nr. Gen. Cat.	x	y	Pl. XII $\frac{6}{T}(n_0-n)$	Pl. XIII $\frac{6}{T}(n_0-n)$	Area 10 v	μ''_α	v_1	m''_α	Pl. XII $\frac{6}{T}(n'-n'_0)$	Pl. XIII $\frac{6}{T}(n'-n'_0)$	Area 10 v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
1	245	−55.7	−38.6		−0.023:			−0.140	[+0.117]		−0.001:			+0.016	[−0.017:]	
2	244	−56.5^5	−6.6	−0.070:	−65:	−0.068:		−96	+28:	+0.047:	+28:	+0.038:		+12	+26:	
4	242	−58.6	+23.6	+40:	+54:	+47:		−46	+93:	−28:	−10:	−19:		+5	−24:	
5	251	−49.9	−5.1		+28:			−72	[+100:]		+84:			+4	[+80:]	
6	253	−49.4	−32.9	−13:	−7:	−10:		−132	+122:	−22:	−25:	−24:		+12	−36:	
7	255	−48.4	−35.3		−42			−125	[+83]		+6			+18	[−12]	
8	265	−44.5	−30.0	−90:	−95:	−92:		−122	+30:	−41:	−53:	−47:		+14	−61:	
10	258	−46.7	−7.9		+67			−74	+141		−2			+23	−25	
11	256	−46.9	+17.0		−86			−29	−57		+26			+19	+7	
12	266	−42.0	+24.8		−37			−11	−26		−78			+18	−96	
15	270	−39.5	+59.7		+35:			+57	−22:		−14:			+1	−15:	
16	268	−40.9	+34.2^5		−38:			+7	−45:		+11:			+15	−4:	
17	274	−37.2	−9.7^5	−101	−64	−82		−80	−2	+10	+19	+14		+14	0	
18	273	−38.1^5	−27.8	−113	−85	−99	−0.013	−111	+12	−36	−25	−30	−0.046	+15	−45	2.1
19	280	−31.8	−38.6	−79	−82	−80		−121	+41	+7	−6	0		+15	−15	
20	282	−30.9	−25.6		+34			−88	+122		+2			+22	−20	
21	277	−33.3	+32.3	−85	+40	−22		−6	−16	+5	−6	0		0	0	
22	278	−32.4	+40.0	−29:	−6:	−18:		+8	−26:	−49:	+18	−16:		−3	−13:	
23	279	−32.1^5	+55.9	−24:	+42:	+9:	−52	+36	−27:	+32:	−17:	+8:	−4	−14	+22:	2.0
24	288	−24.7^5	+60.0		+34:			+67	−33:		−10:			−2	−8:	
27	290	−23.8	+19.4	−7	+10	+2		−20	+22	+5	+16	+10		+6	+4	
28	287	−28.0	+7.1	−24	−22	−23		−44	+21	+29	+2	+16		+11	+5	
29	289	−24.9	+3.6	+43	−38	+2		−47	+49	+22	−16	+3		+11	−8	
30	286	−28.6	−27.0		−116			−89	−27		+95			+23	+72	
31	294	−18.0	+3.8	−23	−70	−46		−40	−6	−34	+10	−12		+11	−23	
33	293	−20.8	+37.6		−4			+29	−33		+36			+10	+26	
34	291	−23.3	+42.6		−7			+36	−43		+41			+8	+33	
35	298	−14.3	+22.5	−37	+23	−7		−6	−1	−18	−1	−10		+4	−14	
36	295	−17.0	−16.2	+86	+34	+60		−70	+130	−35	−30	−32		+15	−47	
37	297	−14.6	−27.4	+31	−1	+15		−85	+100	−7	−5	−6		+16	−22	
38	296	−15.5	−37.4	−94	−82	−88		−103	+15	+26	+44	+35		+16	+19	
39	301	−8.1	−18.9	−52	−66	−59		−66	+7	−11	−7	−9		+16	−25	
40	310	−5.2	−18.7^5	+14	−7	+4	+76	−63	+67	−26	+26	0	−43	+16	−16	1.9
41	309	−5.4	+2.9^5		−37			−17	[−20]		+67			+21	[+46]	
42	303	−7.7	+11.0	−25	−67	−46		−19	−27	−18	−7	−12		+8	−20	
43	302	−8.0	+14.5	0	+22	+11		−14	+25	−10	−20	−15		+6	−21	
44	304	−7.5	+25.6		−12			+19	−31		−29			+15	−44	
45	306	−5.9	+29.3	+109	+82	+96		+12	+84	−24	−28	−26		−1	−25	
46	300	−8.8	+32.0	+10	−10	0		+15	−15	−34	−2	−18		−3	−15	
47	305	−6.4	+34.1^5		−58			+35	−93		+29			+11	+18	
48	316	+0.1	+28.0	−50	+19	−16		+15	−31	−16	+4	−6		0	−6	
49	314	−3.5	+15.4	−32	−32	−32		−8	−24	−18	+13	−2		+6	−8	
50	311	−4.6	−3.8	−28	−36	−32		−39	+7	+12	+29	+20		+13	+7	
51	319	+4.6	−21.9	−104	−116	−110		−58	−52	+12	+26	+19		+17	+2	
52	318	+4.1	+46.9^5	−38	+26	−6		+49	−55	−1	+6	+2		−13	+15	
53	321	+6.8	+14.8^5	−55	+6	−24		0	−24	−17	−6	−12		+6	−18	
54	322	+7.0	+14.5	−56	−47	−52		−1	−51	0	+16	+8		+6	+2	
55	327	+10.9	+13.6	−14	−54	−34		+1	−35	−60	+12	−24		+7	−31	
56	328	+10.9	+13.5^5	−24	+4	−10		+1	−11	−2	−26	−14		+7	−21	
57	324	+7.7^5	+26.7^5	+42	+20	+31		−63	+94	+11	+18	+4		+18	−14	

AREA 10. PLATES XII AND XIII. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	Pl. XII $\frac{6}{T}(n_0-n)$	Pl. XIII $\frac{6}{T}(n_0-n)$	Area 10 v	μ''_α	v_1	m''_α	Pl. XII $\frac{6}{T}(n'-n'_0)$	Pl. XIII $\frac{6}{T}(n'-n'_0)$	Area 10 v'_1	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
58	325	+8.7	−46.1	+0.023	+0.005	+0.014	+0.071	−0.090	+0.104	+0.023	−0.029	−0.003	+0.048	+0.019	−0.022	2.2
59	332	+16.4	−45.0	−67	−89	−78		−82	+4	+52	+23	+38		+20	+18	
60	331	+16.0^5	+12.1	−50	−30	−40		+3	−43	−40	−31	−36		+7	−43	
61	329	+13.5	+43.6	−44	+4	−20	+22	+50	−70	−97	−76	−86	−99	−12	−74	1.6
62	330	+14.2	+55.9		+43:			+86	−43:		−26			−6	−20	
63	336	+22.2	+48.3	−4	+77	+36		+63	−27	−30	−4	−17		−18	+1	
64	335	+21.8	+41.8	+30	+80	+55		+52	+3	+1	−30	−15		−13	−2	
65	333	+21.6	+13.1	−19	−1	−10		+8	−18	+36	+6	+21		+6	+15	
66	339	+23.7	−3.2	+18	−16	+1		−15	+16	+25	+8	+16		+13	+3	
67	337	+22.5	−7.5	−35	+5	−15	−22	−22	+7	+6	−29	−12	−33	+14	−26	1.8
68	334	+21.5	−32.1	−80	−53	−66		−59	−7	+58	+17	+38		+20	+18	
69	343	+30.3	−35.1	+26	+49	+38		−55	+93	+12	−20	−4		+22	−26	
70	340	+26.3	+8.9	−67	−14	−40		+5	−45	+18	+4	+11		+7	+4	
71	341	+27.4	+14.8		+43:			+24	[+19:]		−23:			+15	[−38:]	
72	342	+28.4	+16.4	+64	+88	+76		+17	+59	+7	+25	+16		+3	+13	
73	349	+36.6	+31.2	−78	+8	−35		+44	−79	+4	−22	−9		−7	−2	
74	348	+36.1	+3.9^5	−55	+5	−25		+5	−30	−18	+8	−5		+9	−14	
75	347	+36.0	−5.1	−74	+12	−31		−8	−23	−38	−29	−34		+13	−47	
76	344	+31.8^5	−12.9		+12			−15	+27		−25			+24	−49	
77	345	+32.1	−13.2		−29			−16	−13		+47			+24	+23	
78	357	+42.7	−60.3		−24:			−77	+53:		−22:			+25	−47:	
79	354	+40.2	−31.7	−50	−72	−61		−43	−18	+47	+13	+30		+20	+10	
80	350	+38.2	−25.0^5	−107	−44	−76		−35	−41	+35	+30	+32		+19	+13	
81	352	+38.7	−23.8^5		+58			−26	+84		−10			+26	−36	
82	351	+38.3	+0.8	−71	−13	−42		+1	−43	−4	+17	+6		+10	−4	
83	355	+40.8	+14.8^5	−34	−2	−18		+24	−42	+4	+16	+10		+2	+8	
84	358	+45.9	−19.4^5	+13:	+79	+46:	+59	−22	+68:	−114:	−124	−119:	−110	+17	−136:	2.0
85	360	+49.3	−25.0		−59			−21	−38		−14			+26	−40	
86	363	+50.4	−22.3		−24			−17	−7		+26			+26	0	
87	371	+59.9	−13.7		+26			+1	[+25]		+16			+24	[−8]	
88	369	+58.2	−35.6		−10:			−31	+21:		−16:			+28	−44:	
91	372	+62.0	+20.4		+12:			+54	−42:		+47:			+10	+37:	

AREA 11. PLATE XIV.

Nr.	Nr. Gen. Cat.	x	y	$v = \frac{6}{T}(n_0-n)$	μ''_α	v_1	m''_α	$v' = \frac{6}{T}(n'-n'_0)$	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	
1	282	−61.6	+34.9	+0.046:	+0.102	−0.053	+0.099:	+0.011:	−0.050	+0.028	−0.017:	2.4
2	295	−47.6	+44.3	+45:		−40	+85:	+18:		+32	−14:	
3	297	−45.3	+33.0	+99		−37	+136	+10		+30	−20	
4	310	−35.8	+41.7	+33	+76	−32	+65	−21	−43	+33	−54	1.4
5	301	−38.8	+41.6	−34		−33	−1	−20		+33	−53	

AREA 11. PLATE XIV. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	$v = \frac{6}{T}(n_0-n)$	μ''_α	v_1	m''_α	$v' = \frac{6}{T}(n'-n'_0)$	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	
7	315	− 32.4	− 25.4	+ 0.070:	+ 0.084	− 0.019	+ 0.089	− 0.018	− 0.024	− 0.007	− 0.011	2.4
8	317	− 30.7	− 6.3	+ 90		− 22	+ 112	+ 13		+ 14	− 1	
9	323	− 23.5	− 7.1	− 35		− 15	− 20	− 102		+ 16	− 118	
10	320	− 25.6	− 17.6	+ 41		− 15	+ 56	− 6		+ 9	− 15	
11	325	− 22.0	+ 14.3	+ 106	+ 71	− 17	+ 123	− 16	− 48	+ 27	− 43	1.5
12	324	− 22.8	+ 33.7	+ 70		− 20	+ 90	+ 21		+ 33	− 12	
13	332	− 14.3	+ 15.3	− 28:		− 12	− 16:	+ 18		+ 29	− 11	
14	338	− 7.5	+ 2.4	− 27		− 2	− 25	+ 60		+ 25	+ 35	
15	334	− 9.1	+ 28.3	− 33		− 9	− 24	+ 15		+ 35	− 20	
16	337	− 8.1	+ 52.9	− 37	− 22	− 14	− 23	− 16	− 33	+ 38	− 54	1.3
17	343	− 0.4	+ 25.2	+ 78		− 3	+ 81	− 15		+ 35	− 50	
19	346	+ 4.6	+ 15.3	− 76:		+ 2	− 78	+ 5		+ 33	− 28	
20	347	+ 5.4	+ 55.2	+ 9:		− 6	+ 15:	0:		+ 39	− 39:	
21	352	+ 8.1	+ 36.5	+ 73	+ 63	− 2	+ 75	+ 34	− 39	+ 39	− 5	2.0
22	350	+ 7.6	+ 35.2	− 43		− 1	− 42	− 20		+ 39	− 59	
23	354	+ 9.5	+ 28.6	− 28		+ 2	− 30	+ 73		+ 37	+ 36	
24	357	+ 12.0	0.0	+ 55	− 6	+ 12	+ 43	− 18	− 38	+ 29	− 47	1.8
25	356	+ 10.4	− 13.2	+ 23		+ 14	+ 9	+ 30:		+ 23	+ 7:	
26	353	+ 8.5	− 17.3	+ 26:		+ 14	+ 12:	+ 7:		+ 19	− 12:	
28	358	+ 15.2	+ 40.9	+ 84	+ 59	+ 3	+ 81	− 116	− 110	+ 41	− 157	1.4
30	367	+ 23.3	+ 5.2	− 38		+ 18	− 56	− 4		+ 33	− 37	
31	364	+ 20.9	− 6.8	+ 126	+ 91	+ 18	+ 108	− 35	− 42	+ 28	− 63	1.7
32	362	+ 19.0	− 11.6	+ 45		+ 20	+ 25	− 34		+ 25	− 59	
33	366	+ 21.6	− 57.6	+ 7:		+ 38	− 31:	− 18:		− 8	− 10:	
34	369	+ 27.5	+ 24.7	− 30		+ 14	− 44	− 26		+ 40	− 66	
35	371	+ 29.3	+ 46.6	+ 52	+ 75	+ 8	+ 44	+ 26	− 23	+ 41	− 15	2.4
36	375	+ 32.1	+ 15.6	0		+ 19	− 19	− 9		+ 38	− 47	
37	373	+ 31.6	+ 12.3	+ 21		+ 21	0	− 4		+ 38	− 42	
38	381	+ 41.1	− 33.8	− 1		+ 43	− 44	− 49		+ 18	− 67	
39	379	+ 40.5	− 5.2	+ 32		+ 31	+ 1	+ 32		+ 34	− 2	
40	382	+ 41.6	+ 18.9	− 12		+ 24	− 36	+ 27		+ 40	− 13	
41	385	+ 45.6	+ 39.9	+ 124:	+ 65	+ 17	+ 107	+ 54:	− 15	+ 42	+ 12:	2.4
42	384	+ 44.0	+ 32.8^5	+ 49	+ 19	+ 19	+ 30	− 4	− 56	+ 43	− 47	2.4

AREA 12. PLATES XV AND XVI.

Nr.	Nr. Gen. Cat.	x	y	Pl. XV $\frac{6}{T}(n_0-n)$	Pl. XVI $\frac{6}{T}(n_0-n)$	Area 12 v	μ''_α	v_1	m''_α	Pl. XV $\frac{6}{T}(n'-n'_0)$	Pl. XVI $\frac{6}{T}(n'-n'_0)$	Area 12 v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
1	316	−59.0^5	+28.4^5	− 0.086:	− 0.056:	− 0.071:		+ 0.006	− 0.077:	+ 0.038:	+ 0.061:	+ 0.050:		+ 0.043	+ 0.007:	
3	322	−52.4	+14.9	− 38:	− 11:	− 24:		0	− 24	+ 29:	+ 70:	+ 50:		+ 41	+ 9:	
4	324	−51.7	−26.3	+ 84:	+ 76:	+ 80:		− 14	+ 94:	+ 19:	+ 52:	+ 36:		+ 27	+ 9:	
5	325	−50.9	−45.7	+ 26:	+ 34:	+ 30:	+ 0.071	− 23	+ 53:	− 54:	− 29:	− 42:	− 0.048	+ 15	− 57:	2.2
7	331	−43.2	+12.6	− 44	− 63	− 54		0	− 54	+ 62	+ 38	+ 50		+ 38	+ 12	

AREA 12. PLATES XV AND XVI. — *Continued.*

Nr.	Nr. Gen. Cat.	x	y	Pl. XV $\frac{6}{T}(n_0-n)$	Pl. XVI $\frac{6}{T}(n-n_0)$	Area 12 v	μ''_α	v_1	m''_α	Pl. XV $\frac{6}{T}(n'-n'_0)$	Pl. XVI $\frac{6}{T}(n'-n'_0)$	Area 12 v'	μ''_δ	v'_1	m''_δ	p_n
		′	′	″	″	″	″	″	″	″	″	″	″	″	″	
8	329	−45.6	+44.0	−0.046:	+0.001:	−0.022:	+0.022	+0.013	−0.035:	−0.100:	−0.021:	−0.060:	−0.099	+0.039	−0.099:	1.6
9	330	−44.8	+56.3	− 44:	+ 5:	− 20:	+ 7	+ 16	− 36:	0:	+ 83:	+ 42	− 14	+ 37	+ 5	1.8
10	336	−36.9	+48.7	+ 14:	+ 16:	+ 15:		+ 13	+ 2:	+ 46:	+ 38:	+ 42		+ 36	+ 6	
11	335	−37.4	+42.1	+ 8:	− 51:	− 22:		+ 9	− 31:	+ 60:	+ 29:	+ 44		+ 37	+ 7	
12	333	−37.7	+13.5	− 44	+ 13:	− 16		− 1	− 15	+ 49	+ 41	+ 45		+ 37	+ 8	
14	337	−36.9	− 7.1	− 30	− 17	− 24	− 22	− 8	− 16	− 28	− 1	− 14	− 33	+ 32	− 46	1.8
15	334	−38.0	−31.8	+ 28	+ 12	+ 20		− 17	+ 37	+ 46	− 1	+ 23		+ 22	+ 1	
16	340	−33.0	+ 9.2	− 49	− 63	− 56		− 2	− 54	+ 29	0	+ 14		+ 35	− 21	
17	341	−32.0	+15.1	− 10:	+ 50:	+ 20:	+ 52	− 2	+ 22:	− 150:	− 138:	− 144:	− 181	+ 36	− 180:	4.8
18	342	−30.9	+16.7	+ 79	+ 39:	+ 59		− 1	+ 60	− 59	− 22:	− 40		+ 35	− 75	
19	347	−23.4	− 4.8	− 71	+ 18	− 26		− 8	− 18	0	+ 12	+ 6		+ 30	− 24	
20	343	−29.3	−34.8	+ 97	+ 88	+ 92		− 17	+ 109	− 2	+ 34	+ 16		+ 20	− 4	
22	354	−19.4	−31.4	− 34	+ 1	− 16		− 15	− 1	+ 59	+ 48	+ 54		+ 21	+ 33	
23	350	−21.3	−24.8	− 23	− 41	− 32		− 13	− 19	+ 24	+ 24	+ 24		+ 23	+ 1	
24	352	−20.8	−23.6	+ 34	+ 62	+ 48	+ 63	− 12	+ 60	− 46	− 9	− 28	− 39	+ 24	− 52	3.3
25	351	−20.9	+ 1.0	− 36	+ 29	− 4		− 7	+ 3	+ 37	+ 41	+ 39		+ 31	+ 8	
26	348	−23.2	+ 4.2	− 58	− 21	− 40		− 6	− 34	+ 42	− 7	+ 18		+ 33	− 15	
27	355	−18.5	+15.0	− 26	0:	− 13		− 3	− 10	+ 24	+ 21:	+ 22		+ 32	− 10	
28	349	−22.6	+31.6	− 12	− 22	− 17		+ 2	− 19	+ 25	+ 55	+ 40		+ 33	+ 7	
29	358	−13.6	−19.2	+ 44	+ 93	+ 68	+ 59	− 13	+ 81	− 130	− 83	− 106	− 110	+ 25	− 131	2.0
30	357	−17.0	−60.1	+ 22	− 22	0	− 6	− 21	+ 21	− 60	− 59	− 60	− 38	+ 4	− 64	2.8
31	367	− 5.6	−54.9	− 34:	− 60:	− 47:		− 20	− 27:	− 41:	− 7:	− 24:		+ 6	− 30:	
32	361	− 9.8	−46.0	+ 59	− 54	+ 2		− 18	+ 20	+ 152	− 12	+ 70		+ 11	+ 59	
33	360	−10.1	−24.8	+ 17	− 21	− 2		− 14	+ 12	+ 43	+ 94	+ 68		+ 21	+ 47	
34	363	− 9.0	−22.1	− 38	− 74	− 56		− 14	− 42	+ 13	+ 29	+ 21		+ 22	− 1	
35	365	− 7.5	−20.7^5	− 34	− 73	− 54		− 15	− 39	+ 41	+ 67	+ 54		+ 24	+ 30	
36	359	−10.3	+ 3.5	+ 84:	+ 65:	+ 74:		− 8	+ 82:	− 40:	− 6:	− 23:		+ 28	− 51	
37	370	− 0.3	+37.1	+ 30	+ 15	+ 22		− 1	+ 23	+ 32	− 7	+ 12		+ 24	− 12	
38	371	+ 0.5	−13.5	− 6	+ 77	+ 36	+ 75	− 13	+ 49	− 23	+ 49	+ 13	− 23	+ 23	− 10	4.4
39	368	− 4.8	−29.7	+ 30	− 51	− 10		− 15	+ 5	− 48	+ 39	− 4		+ 19	− 23	
40	369	− 1.4	−35.4	+ 8	− 13	− 2		− 16	+ 14	− 48	− 37	− 42		+ 16	− 58	
41	374	+ 2.7	−47.8	+ 52	+ 29	+ 40		− 19	+ 59	− 14	+ 16	+ 1		+ 9	− 8	
42	375	+ 3.2	−44.6	− 18	+ 59	+ 20		− 19	+ 39	− 42	+ 15	− 14		+ 12	− 26	
44	372	+ 2.7	+20.6	0	− 9	− 4		− 6	+ 2	+ 31	− 32	0		+ 25	− 25	
45	380	+12.7	+55.4	+ 4	− 20	− 8		− 2	− 6	+ 65	− 1	+ 32		+ 14	+ 18	
46	378	+ 9.8	−25.7	− 17	− 93	− 55		− 16	− 39	+ 8	− 46	− 19		+ 19	− 38	
47	376	+ 7.0	−26.9	− 40	− 17	− 28		− 15	− 13	− 7	+ 63	+ 28		+ 18	+ 10	
48	377	+ 7.9	−29.2	+ 23	− 41	− 9		− 17	+ 8	0	+ 6	+ 3		+ 17	− 14	
49	382	+12.7	−41.2	− 23	− 49	− 36		− 18	− 18	+ 17	+ 14	+ 16		+ 12	+ 4	
50	384	+15.1	−27.3	− 31	+ 16:	− 8	+ 19	− 17	+ 9	− 31	− 34:	− 32	− 56	+ 17	− 49	4.6
51	385	+16.7	−20.3	0	+ 66:	+ 33	+ 65	− 17	+ 50	+ 13	− 28:	− 8	− 15	+ 19	− 27	4.6
52	383	+13.6	+20.6	+ 4	− 29	− 12		− 8	− 4	+ 26	+ 6	+ 16		+ 22	− 6	
54	386	+17.2	+29.9^5	+ 2	+ 33	+ 18		− 10	+ 28	+ 1	+ 2	+ 2		+ 20	− 18	
57	389	+30.1	+ 8.8	− 59	− 41	− 50		− 17	− 33	+ 25:	+ 16	+ 20		+ 18	+ 2	
58	387	+25.4	+16.1	− 4	+ 26	+ 11		− 15	+ 26	+ 1	+ 12	+ 6		+ 19	− 13	
59	388	+26.8	+23.5	+ 2	− 13	− 6		− 14	+ 8	+ 58	− 6	+ 26		+ 18	+ 8	
61	390	+32.9	+15.8	+ 84	+ 131	+ 108		− 18	+ 126	− 25	− 14	− 20		+ 17	− 37	
64	392	+48.6	+27.5	+ 24:	− 21	+ 2:		− 23	+ 25:	− 11:	+ 4	− 4:		+ 8	− 12:	
65	391	+46.9	−44.4	− 48	− 23:	− 36		− 26	− 10	− 10:	+ 52:	+ 21		+ 7	+ 14	
66	393	+54.8	− 8.2	− 76	− 61:	− 68		− 29	− 39	+ 7:	+ 21:	+ 14		+ 12	+ 2	
67	394	+58.6	−16.6	+ 13	+ 11:	+ 12		− 29	+ 41	− 66:	− 53:	− 60		+ 10	− 70	
68	395	+62.8	+22.6	+ 16	− 23:	− 4		− 30	+ 26	+ 77:	+ 22:	+ 50		+ 6	+ 44	

PROPER MOTIONS IN RIGHT ASCENSION.

Nr.	BD Nr.	BD mag.	AR 1855	Decl. 1855	Phot. mag.	A.G.C.	Area 1.	Area 2.	Area 3.	Area 4.	Area 5.	Δm	m″α	m^s α
		m	4h m s	+ ° ′	m		″	″	″	″	″	″	″	s
1	603	6.3	7 32.7	15 2.0	6	B 1118 / L 1247	+ 0.106:×					0.000	+ 0.106	+ 0.0073
2	604	9.2	43.0	15 27.2	9.4		+ * 6:×					0	+ 0.006	+ 0.0004
3	605	9.4	8 1.5	15 55.4	9.4		+ * 58:×					0	+ 0.058	+ 0.0040
4	606	9.5	15.6	15 29.6	9.7		− * 18:×					0	− 0.018	− 0.0012
5	—	—	22.0	15 22.9	9.7		+ * 9:					0	+ 0.009	+ 0.0006
6	607	7.1	33.5	15 51.2	6	B 1120	+ 5:×					0	+ 0.005	+ 0.0003
7	608	9.5	41.0	15 17.2	9.4		0					0	0.000	0.0000
8	*656	9.4	41.6	14 0.1	9.7		− * 48:×					0	− 0.048	− 0.0033
9	675	9.3	48.0	14 32.7	9.7		− * 99:					0	− 0.099	− 0.0068
10	676	9.4	51.1	14 44.2	9.9		+ 68					0	+ 0.068	+ 0.0047
11	658	9.5	9 19.8	13 54.3	9.7		− * 108:×					0	− 0.108	− 0.0074
12	577	8.4	20.1	16 35.2	8.9	B 1126			+ 0.050:×			− 1	+ 0.049	+ 0.0034
13	659	6.5	34.7	13 28.4	7.6	L 1250		+ 0.041				0	+ 0.041	+ 0.0028
14	—	—	46.1	14 53.5	10.0		− * 100					0	− 0.100	− 0.0069
15	610	9.5	10 2.7	15 50.8	9.8		+ * 17:×		+ 40:			+ 3	+ 0.033	+ 0.0023
16	609	9.0	3.3	15 43.8	9.4	B 1130	+ * 127:		+ 70:			+ 2	+ 0.101	+ 0.0070
17	677	9.3	4.9	14 39.1	8.8		+ 33					0	+ 0.033	+ 0.0023
18	611	9.5	10.0	15 21.8	9.6		− 19		− 14:×			+ 2	− 0.015	− 0.0010
19	—	—	12.9	14 10.2	10.0		+ * 68:					0	+ 0.068	+ 0.0047
20	678	9.0	13.7	14 11.7	8.8	L 1252	− 22					0	− 0.022	− 0.0015
21	—	—	33.9	16 36.7	10.1				− 22:×			+ 5	− 0.017	− 0.0012
22	—	—	41.3	14 43.7	9.7		− 28					0	− 0.028	− 0.0019
23	—	—	41.7	14 43.6	10.0		− * 127					0	− 0.127	− 0.0088
24	660	9.0	46.5	13 50.3	8.8	L 1255		+ 31				0	+ 0.031	+ 0.0021
25	661	7.0	11 1.6	13 21.8	7.6	L 1258		− 14				0	− 0.014	− 0.0010
26	—	—	15.0	15 17.4	10.0		− * 35					0	− 0.035	− 0.0024
27	679	8.0	23.5	14 20.2	8.2	L 1259	− 37	− 53				0	− 0.043	− 0.0030
28	612	3.8	32.9	15 16.4	6	B 1137	+ 76		+ 98	+ 0.106:×		− 4	+ 0.086	+ 0.0059
29	662	8.0	34.6	13 55.6	8.0	L 1261	+ 51:×	+ 69				0	+ 0.059	+ 0.0041
30	579	7.3	37.2	16 10.1	7	B 1138			+ 119		+ * 0.108:×	− 4	+ 0.112	+ 0.0078
31	577	8.0	42.1	12 43.8	8.4	L 1262		− 13				0	− 0.013	− 0.0009
32	680	8.8	44.7	14 31.2	8.8	L 1263	− 70	− 64		− 64:×		0	− 0.067	− 0.0046
33	681	9.3	46.8	14 39.4	9.4		− 4			− 34:×		0	− 0.014	− 0.0010
34	663	5.7	48.1	13 40.9	6	L 1264		+ 136				0	+ 0.136	+ 0.0093
35	—	—	12 1.8	15 20.8	9.7		+ 1		+ 12	− 12:		+ 2	+ 0.002	+ 0.0001
36	580	9.5	14.7	16 34.2	9.8				− 7		+ 30	+ 2	+ 0.020	+ 0.0014
37	—	—	20.1	14 28.7	10.0		− * 124					0	− 0.124	− 0.0085
38	682	5.9	23.3	14 44.6	6	L 1266	+ 80			+ 96		− 2	+ 0.084	+ 0.0058
39	664	9.3	25.2	13 13.2	9.4			− 108				0	− 0.108	− 0.0074
40	—	—	30.4	14 55.3	10.0		− * 28					0	− 0.028	− 0.0019
41	683	9.5	37.7	14 16.1	9.6		− 46	− 45:		− 44:		+ 1	− 0.044	− 0.0030
42	614	9.1	39.8	15 34.8	9.0		− 24		− 14	− 21		+ 1	− 0.019	− 0.0013
43	684	9.3	41.7	14 48.1	9.6		− 62			+ 6		+ 1	− 0.035	− 0.0024
44	665	6.5	43.7	13 30.8	6	L 1268		+ 91				0	+ 0.091	+ 0.0062
45	—	—	48.6	17 24.8	10.3						+ 17:	0	+ 0.017	+ 0.0012
46	—	—	58.3	14 23.9	10.0		− * 74					0	− 0.074	− 0.0051
47	709	8.0	13 1.3	17 55.0	7.9	B 1141					− 6:×	0	− 0.006	− 0.0004
48	—	—	6.3	14 9.7	9.7		− * 60					0	− 0.060	− 0.0041
49	710	8.8	7.5	17 13.7	9.1	B 1142					− 9	0	− 0.009	− 0.0006
50	666	9.5	10.4	13 19.1	9.7			+ 38				0	+ 0.038	+ 0.0026
51	581	9.0	14.8	16 27.3	8.2	B 1144			− 9		+ 32	− 1	+ 0.017	+ 0.0012
52	—	—	15.8	17 1.3	9.7						+ 9	0	+ 0.009	+ 0.0006
53	—	—	20.6	16 48.4	10.0						− 12	0	− 0.012	− 0.0008
54	582	9.0	21.1	16 45.7	9.0	B 1146			− 43		− 1	0	− 0.015	− 0.0010
55	685	9.5	21.8	14 29.1	9.1		+ 122	+ 125:		+ 67		0	+ 0.108	+ 0.0074

„Additional" stars are marked *. × denotes weight 0.8, × weight 0.4 (see art. 8.)

PROPER MOTIONS IN DECLINATION.

Nr.	Area 1	Area 2	Area 3	Area 4	Area 5	Δ_m	m''_δ	Prob. error.	Catalogues		Publ. 13		
									μ^s_α	μ''_δ	μ^s_α	μ''_δ	p_μ
	″	″	″	″	″	″	″	± ″	s	″	s	″	
1	— 0.034:					0.000	— 0.034	0.015	+ 0.0074	— 0.010	+ 0.0070	— 0.017	35.5
2	— * 92:ˣ					+ 6	— 0.086	19					
3	— * 59:ˣ					+ 6	— 0.053	27					
4	— * 51:ˣ					+ 12	— 0.039	19					
5	— * 73:					+ 12	— 0.061	17					
6	— 9:ˣ					0	— 0.009	21	— *0.004*	— *0.04*	— 0.0032	— 0.024	6.1
7	0					+ 6	+ 0.006	13					
8	+ * 87:ˣ					+ 12	+ 0.099	27					
9	— * 27:					+ 12	— 0.015	17					
10	— 76					+ 15	— 0.061	13					
11	+ * 8:ˣ					+ 12	+ 0.020	27					
12			—0.033:ˣ			+ 2	— 0.031	27					
13		+ 0.101				0	+ 0.101	17	— 0.0015*	+ 0.037	+ 0.0035	+ 0.045	20.1
14	— * 33					+ 16	— 0.017	17					
15	+ * 20:ˣ		— 7:			+ 16	+ 0.021	13					
16	— * 23:		— 6:			+ 8	— 0.006	12					
17	— 135					0	— 0.135	13					
18	+ 22		+ 38:ˣ			+ 11	+ 0.038	10					
19	— * 50:					+ 16	— 0.034	17					
20	— 16					0	— 0.016	13			— 0.0020	+ 0.003	2.4
21			— 37:ˣ			+ 20	— 0.017	19					
22	+ 13					+ 12	+ 0.025	13					
23	— * 54					+ 16	— 0.038	17					
24		+ 5				0	+ 0.005	17					
25		+ 27				0	+ 0.027	17			— 0.0018	+ 0.021	3.4
26	— * 183					+ 16	— 0.167	17					
27	— 18	+ 9				0	— 0.008	10			— 0.0019	— 0.002	3.1
28	— 10		— 49	+0.027:ˣ		— 3	— 0.016	9	+ **0.0069**	— **0.021**	+ 0.0069	— 0.020	100
29	— 241:ˣ	— 248				0	— 0.244	11	+ 0.004*	— 0.26	+ 0.0055	— 0.213	4.0
30			— 4		—*0.015:ˣ	— 1	— 0.008	14	+ *0.0076*	— *0.016*	+ 0.0064	— 0.022	17.0
31		+ 92				0	+ 0.092	17					
32	— 57	— 60		— 86:ˣ		0	— 0.064	9					
33	— 121			— 159:ˣ		+ 6	— 0.128	10					
34		— 35				0	— 0.035	17	+ 0.0064	— 0.018	+ 0.0070	— 0.021	33.0
35	— 128		— 92	— 121:		+ 14	— 0.102	9					
36			— 9		— 48	+ 15	— 0.020	10					
37	— * 41					+ 16	— 0.025	17					
38	— 34			— 44		— 3	— 0.041	10	+ 0.0058	— 0.013	+ 0.0062	— 0.010	49.2
39		+ 19				+ 6	+ 0.025	17					
40	— * 51					+ 16	— 0.035	17					
41	— 45	— 61:		— 21:		+ 11	— 0.032	9					
42	+ 4		— 87	— 75		+ 1	— 0.042	9					
43	— 42			— 44		+ 11	— 0.032	10					
44		— 16				0	— 0.016	17	+ 0.0072	— 0.024	+ 0.0072	— 0.013	29.7
45					— 84:	+ 16	— 0.068	12					
46	— * 32					+ 16	— 0.016	17					
47					— 8:ˣ	0	— 0.008	13					
48	— * 3					+ 12	+ 0.009	17					
49					— 58	+ 1	— 0.057	12					
50		— 4:				+ 12	+ 0.008	17					
51			— 89		— 121	0	— 0.110	10					
52					— 46	+ 12	— 0.034	12					
53					— 22	+ 16	— 0.006	12					
54			— 35		— 58	+ 1	— 0.049	10					
55	— 58	— 125:		— 122		+ 1	— 0.093	9					

13: Auwer's Mayer. 29: Publ. Cincinnati, 14.

PROPER MOTIONS IN RIGHT ASCENSION.

Nr.	BD Nr.	BD mag.	AR 1855	Decl. 1855	Phot. mag.	A.G.C.	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Δ_m	m''_a	m^s_a
		m	4h m. s.	° + ′	m.		″	″	″	″	″	″	″	″	″	s
56	687	7.4	13 23.9	14 3.6	6	L 1271	+0.091	+0.050		+0.061×				— 0.001	+ 0.071	+ 0.0049
57	686	9.3	27.2	14 25.1	9.0		— 78	— 65:		— 93				0	— 0.079	— 0.0054
58	—	—	35.4	17 0.9	10.3						+0.065			0	+ 0.065	+ 0.0045
59	667	7.5	38.1	13 14.2	7.6	L 1272		— 49						0	— 0.049	— 0.0034
60	—	—	39.6	14 24.5	10.0		—* 112:							0	— 0.112	— 0.0077
61	—	—	41.2	16 37.3	9.8				— 0.005		— 16			+ 2	— 0.010	— 0.0007
62	711	9.5	43.3	17 35.1	9.1						— 13			0	— 0.013	— 0.0009
63	615	8.9	44.5	15 26.2	9.4	B 1148	— 20		— 73	— 10		—0.032:×		+ 2	— 0.030	— 0.0021
64	668	5.7	53.7	13 43.8	6	L 1274		+ 58						0	+ 0.058	+ 0.0040
65	—	—	58.1	14 44.4	9.5		+ 31:			— 21				+ 1	+ 0.012	+ 0.0008
66	—	—	14 0.0	16 42.3	9.9				+ 15:		+ 1			+ 2	+ 0.008	+ 0.0006
67	583	9.4	3.6	16 53.9	9.6				— 81:		— 12			+ 2	— 0.033	— 0.0023
68	688	9.5	5.9	14 53.9	9.7		—* 19			— 68				+ 2	— 0.042	— 0.0029
69	—	—	7.0	14 36.1	9.7		—* 39			— 32				+ 2	— 0.034	— 0.0023
70	—	—	7.5	17 9.7	10.3						+ 32			0	+ 0.032	+ 0.0022
71	—	—	10.4	17 8.1	10.3						— 13			0	— 0.013	— 0.0009
72	—	—	12.1	16 3.4	10.1				— 22		[—* 38]	— 1:		+ 6	— 0.006	— 0.0004
73	*584	8.8	23.6	17 0.7	8.7	B 1149					+ 4			0	+ 0.004	+ 0.0003
74	585	8.0	25.7	16 26.8	7.8	B 1150			+ 149		+ 132	+ 116:		— 2	+ 0.130	+ 0.0090
75	669	9.3	25.9	13 35.4	9.4			+ 68						0	+ 0.068	+ 0.0047
76	689	8.5	26.4	14 33.8	8.8	L 1277	— 38	— 64		— 64				0	— 0.052	— 0.0036
77	690	7.8	31.1	14 42.7	7.6	L 1278	+ 79			+ 100				— 1	+ 0.086	+ 0.0059
78	—	—	32.2	17 5.8	10.1						— 26			0	— 0.026	— 0.0018
79	712	3.7	34.8	17 11.9	6	B 1151					+ 77			0	+ 0.077	+ 0.0054
80	—	—	35.3	17 20.4	10.3						— 4			0	— 0.004	— 0.0003
81	671	9.3	35.5	13 54.4	9.4		[—* 4:×]	+ 121:		+ 48:×				0	+ 0.089	+ 0.0061
82	—	—	42.6	14 35.0	9.7		+* 16			— 31				+ 2	— 0.006	— 0.0004
83	—	—	49.1	17 18.4	10.3						+ 8			0	+ 0.008	+ 0.0006
84	—	—	53.0	16 51.2	10.3						+ 3			0	+ 0.003	+ 0.0002
85	—	—	54.4	16 8.1	10.2				— 46:			— 56:		+ 6	— 0.045	— 0.0031
86	—	—	57.8	16 34.9	9.5				+ 16		— 5	— 18:		+ 2	— 0.001	— 0.0001
87	586	6.0	15 6.2	16 26.1	6	B 1155			+ 125		+ 79	+ 88		— 4	+ 0.089	+ 0.0062
88	—	—	6.6	16 54.6	10.3						— 19:			0	— 0.019	— 0.0013
89	587	8.0	9.6	16 17.2	7.8	B 1156			+ 23		—* 17	— 17		— 2	— 0.006	— 0.0004
90	—	—	9.6	14 55.7	9.7		—* 87:			— 40				+ 2	— 0.061	— 0.0042
91	616	9.5	10.1	15 25.1	9.9				+ 44:	+ 101				+ 4	+ 0.076	+ 0.0053
92	—	—	11.3	16 29.6	10.3						— 31			0	— 0.031	— 0.0022
93	—	—	15.3	16 42.3	9.8				— 45:		+ 7	+ 22:		+ 3	+ 0.001	+ 0.0001
94	691	8.8	20.5	14 19.7	8.8	L 1280	+ 60:×	+ 47		+ 50				0	+ 0.053	+ 0.0036
95	—	—	25.0	15 36.3	10.1				+ 38:	[+ 17:]		— 11:		+ 6	+ 0.020	+ 0.0014
96	—	—	26.6	15 17.3	10.0					— 29				+ 4	— 0.025	— 0.0017
97	617	9.5	29.5	15 35.6	9.8				+ 12	+ 11		— 15		+ 4	+ 0.007	+ 0.0005
98	—	—	29.7	16 51.5	10.0						— 10			0	— 0.010	— 0.0007
99	—	—	30.9	17 22.4	10.0						— 38			0	— 0.038	— 0.0027
100	674	8.3	33.3	13 29.2	7.6	L 1281		— 8:						0	— 0.008	— 0.0005
101	—	—	37.4	13 21.4	9.4			— 53:						0	— 0.053	— 0.0036
102	—	—	38.1	16 52.9	10.0						— 23			0	— 0.023	— 0.0016
103	—	—	39.0	17 9.6	10.0						— 16			0	— 0.016	— 0.0011
104	618	9.5	39.7	15 25.4	9.7		[+* 19:×]		+ 1	— 34		— 23	—*0.027:×	+ 3	— 0.017	— 0.0012
105	713	9.4	42.3	17 12.8	9.4						— 25			0	— 0.025	— 0.0017
106	—	—	44.0	15 15.1	9.6		—* 118:		— 26	— 14		+ 24	—* 24:×	+ 3	— 0.029	— 0.0020
107	714	4.8	44.6	17 6.2	6	B 1158					+ 80			0	+ 0.080	+ 0.0056
108	—	—	44.6	16 33.3	10.3						— 18	+ 30:		+ 2	0.000	0.0000
109	—	—	46.0	16 30.2	10.3						— 72			0	— 0.072	— 0.0050
110	692	9.0	46.1	14 4.3	8.8	L 1283		— 4		— 78			—* 57:×	+ 1	— 0.043	— 0.0030

Additional stars are marked *. × denotes weight 0.8, × weight 0.4 (See art. 8).

PROPER MOTIONS IN DECLINATION.

Nr.	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Δ_m	m''_δ	Prob. error.	Catalogues μ^s_α	Catalogues μ''_δ	Publ. 13 μ^s_α	Publ. 13 μ''_δ	p_μ
	"	"	"	"	"	"	"	"	"	± "	s	"	s	"	
56	− 0.063	−0.037:×		−0.030×				−0.002	− 0.021	0.009			+0.0072	− 0.020	4.7
57	− 193	− 188:		− 181				0	− 0.188	9					
58					−0.057			+ 16	− 0.041	12					
59		+ 75						0	+ 0.075	17					
60	− * 13:							+ 16	+ 0.003	17					
61			−0.078		− 34			+ 15	− 0.034	10					
62					− 40			+ 1	− 0.039	12					
63	− 31		− 8	− 16		+0.010:×		+ 7	− 0.008	8			− 0.0025	− 0.006	2.5
64		− 26						0	− 0.026	17	+ 0.0060	− 0.024	+ 0.0069	− 0.021	49 2
65	− 57:			− 24				+ 9	− 0.035	10					
66			− 29:		+ 25			+ 16	+ 0.023	10					
67			− 56:		− 31			+ 11	− 0.028	10					
68	− * 40			− 64				+ 14	− 0.038	12					
69	− * 24			− 5				+ 14	− 0.000	12					
70					− 58			+ 16	− 0.042	12					
71					− 22			+ 16	− 0.006	12					
72			− 30		[+ * 45]	+ 11:		+ 18	+ 0.008	12					
73					− 80			0	− 0.080	12					
74			− 26		− 37	− 48:		0	− 0.037	9	+ *0.0104*	− *0.009*	+ 0.0091	− 0.031	5.9
75		− 79						+ 6	− 0.073	17					
76	− 42	− 64		− 39				0	− 0.047	9					
77	− 74			− 45				− 2	− 0.065	10			+ 0.0066	− 0.004	4.9
78					− 40			+ 16	− 0.024	12					
79					− 37			0	− 0.037	12	+ **0.0066**	− **0.024**	+ 0.0064	− 0.027	100
80					+ 17			+ 16	+ 0.033	12					
81	[− * 165:×]	− 70:		− 95:×				+ 6	− 0.075	13					
82	− * 26			− 6				+ 14	− 0.002	12					
83					− 53			+ 16	− 0.037	12					
84					− 19			+ 16	− 0.003	12					
85			− 13:			+ 56:		+ 18	+ 0.040	12					
86			− 31		+ 11	+ 12:		+ 9	+ 0.010	9					
87			0		− 42	− 24		− 1	− 0.028	9	+ 0.0057	− 0.032*	+ 0.0061	− 0.023	33.8
88					− 56:			+ 16	− 0.040	12					
89			− 18		− * 43	− 32		0	− 0.031	10			− 0.0022	− 0.018	8.8
90	− * 10:			− 52				+ 14	− 0.017	12					
91			− 23:	− 1				+ 19	+ 0.007	12					
92					− 7			+ 16	+ 0.009	12					
93			−125:		− 82	− 110:		+ 15	− 0.085	9					
94	− 65:×	− 43		− 47				0	− 0.053	9					
95			− 22:	[− 147:]		− 29:		+ 18	− 0.008	12					
96				− 16				+ 20	+ 0.004	17					
97			− 8	− 57		− 61		+ 16	− 0.026	10					
98					− 21			+ 16	− 0.005	12					
99					+ 2			+ 16	+ 0.018	12					
100		− 5						0	− 0.005	17			− 0.0026	− 0.012	3.0
101		+ 78:						+ 6	+ 0.084	17					
102					− 41			+ 16	− 0.025	12					
103					− 47			+ 16	− 0.031	12					
104	[+ * 67:×]		− 36	− 16		− 52	+ *0.015:×	+ 14	− 0.010	9					
105					− 43			+ 6	− 0.037	12					
106	− * 46:		− 8	− 43		+ 20	− * 31:×	+ 11	− 0.010	8					
107					− 24			0	− 0.024	12	+ 0.0072	− 0.020*	+ 0.0064	− 0.046	81.9
108					− 26	− 64:		+ 16	− 0.023	10					
109					− 44			+ 16	− 0.028	12					
110		− 5		− 27			− * 50:×	0	− 0.022	10					

87: Bossert: + 0s.0093 0.″000. 107: Bossert: + 0s.0114 0.″000.

PROPER MOTIONS IN RIGHT ASCENSION.

Nr.	BD Nr.	BD mag.	AR 1855	Decl. 1855	Phot. mag.	A.G.C.	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Δm	m''_α	m^s_α
		m	4h m s	° + ′	m		″	″	″	″	″	″	″	″	″	″	s
111	—	—	15 46.2	14 19.5	10.0					— 0.139					+ 0.004	— 0.135	— 0.0093
112	619	9.5	49.0	15 13.1	9.7		—*0.067:ˣ		+ 0.045	+ 15		+ 0.030	—*0.059:		+ 3	— 0.002	— 0.0001
113	715	9.5	54.4	17 39.8	9.7						+ 0.082				0	+ 0.082	+ 0.0057
114	589	8.8	55.4	16 2.3	7.8	B 1159			+ 93		+ *125	+ 72			— 2	+ 0.095	+ 0.0066
115	—	—	55.6	17 12.7	10.0						— 15				0	— 0.015	— 0.0010
116	590	9.0	57.7	16 3.7	7.8	B 1160			+ 64		+ *20	+ 76			— 2	+ 0.051	+ 0.0035
117	—	—	58.2	16 44.6	10.0				— 1		+ 14				+ 2	+ 0.011	+ 0.0008
118	584	7.4	58.5	12 37.9	7.6	L 1284		+ 0.032:˟							0	+ 0.032	+ 0.0022
119	—	—	58.9	15 12.1	9.9					+ 88		+ 54:	[+ *18:]		+ 4	+ 0.075	+ 0.0052
120	693	7.8	16 0.2	14 25.1	7.4	L 1285	+ 90:ˣ	+ 75ˣ		+ 65			+ 108:ˣ		0	+ 0.088	+ 0.0061
121	716	9.3	2.1	17 8.0	9.9	B 1161					— 30				0	— 0.030	— 0.0021
122	591	8.0	2.4	16 44 4	6½	B 1162			+ 105		+ 97	+ 116			— 3	+ 0.101	+ 0.0070
123	592	8.2	9 0	16 32.8	7.8	B 1163			+ 129		+ 103	+ 108			— 2	+ 0.109	+ 0.0076
124	694	9.2	10.6	14 22.2	9.2					— 73			— 23:ˣ		0	— 0.042	— 0.0029
125	—	—	12.5	14 44.2	9.7					— 65					+ 3	— 0.062	— 0.0043
126	675	9.5	17.5	13 39.5	9.4			+ 31:							0	+ 0.031	+ 0.0021
127	—	—	18.8	16 37.8	10.3						— 7				0	— 0.007	— 0.0005
128	717	9.4	19.8	17 18 5	9.4						— 34				0	— 0.034	— 0.0024
129	—	—	20.7	16 43.3	10.0						— 75	— 56:			+ 2	— 0.067	— 0.0047
130	718	9.5	21.9	17 41.6	9.7						— 2				0	— 0.002	— 0.0001
131	695	9.3	28.3	14 6.3	9.2					— 85			— *54:ˣ		+ 1	— 0.075	— 0.0052
132	—	—	29.1	15 25.4	9.8					— 36		— 47:			+ 4	— 0.038	— 0.0026
133	—	—	31.4	15 40.7	9.9				— 11:	+ 36		+ 69	+ *15:ˣ		+ 2	+ 0.030	+ 0.0021
134	676	9.3	32.6	13 25.1	8.8			— 102							0	— 0.102	— 0.0070
135	—	—	38.9	17 4.7	10.3						— 44				0	— 0.044	— 0.0031
136	593	9.4	40.6	16 38.8	9.9				+ 17		+ 61	+ 40			+ 3	+ 0.048	+ 0.0033
137	—	—	43.9	15 38.8	10.3							— 52			+ 7	— 0.045	— 0.0031
138	—	—	52.0	16 55.4	10.3						— 40				0	— 0.040	— 0.0028
139	—	—	55.7	17 21.5	10.0						+ 56				0	+ 0.056	+ 0.0039
140	—	—	57.9	14 41.6	9.7					— 124			— *59:		+ 2	— 0.090	— 0.0062
141	—	—	17 3.0	17 37.5	9.1						— 11				0	— 0.011	— 0.0008
142	—	—	5.3	14 16.8	9.7					— 96			— *76:		+ 2	— 0.084	— 0.0058
143	719	4.7	6.4	17 35.5	4	B 1170					+ 81				0	+ 0.081	+ 0.0057
144	696	8.9	6.5	14 15.9	8.8	L 1290				— 89			— 34:		0	— 0.052	— 0.0036
145	—	—	9.0	15 55.6	10.0							— 16			+ 6	— 0.010	— 0.0007
146	—	—	9.8	14 45.6	10.0					— 79			— *9:		+ 1	— 0.043	— 0.0030
147	—	—	11.8	17 31.7	10.3						+ *8				0	+ 0.008	+ 0.0006
148	620	9.4	16.3	15 12.3	9.6					+ 8		+ 3	+ 38:		+ 2	+ 0.024	+ 0.0017
149	—	—	20.8	15 18.4	9.7					— 39		— 42	— *19		+ 3	— 0.030	— 0.0021
150	621	6.8	21.0	15 36.3	7	B 1171			+ 125	+ 132		+ 132	+ 100:		— 3	+ 0.115	+ 0.0080
151	—	—	22.9	14 50.4	10.0					— 56			— *56:		+ 1	— 0.055	— 0.0038
152	721	9.3	24.3	17 41.0	9.1						+ 74				0	+ 0.074	+ 0.0052
153	594	9.4	26.0	16 19 3	9.2				[— 38:]		— 17	— 29			+ 1	— 0.020	— 0.0014
154	595	9.3	26.4	16 20.4	9.6						— 30	— 28			+ 1	— 0.028	— 0.0019
155	596	9.4	28.2	16 14.5	9.2						— *11	— 23			+ 1	— 0.016	— 0.0011
156	622	9.5	30.0	15 17 0	10.0					— 58					+ 4	— 0.054	— 0.0037
157	722	8.0	32.6	17 6.7	7.9	B 1173					+ 35				0	+ 0.035	+ 0.0024
158	—	—	35.5	15 40.0	10.3							— 58			+ 7	— 0.051	— 0.0035
159	—	—	36.1	15 25.2	9.2					+ 9		— 31	— 55		+ 1	— 0.032	— 0.0022
160			44.6	16 32.8	9.7						— 2	0			+ 1	0.000	0.0000
161	}597	9.5	48.4	16 29.7	9.8						— 38	— 42			+ 1	— 0.038	— 0.0026
162			50.1	16 26.9	10.3						— 113	[+ 12]			0	— 0.113	— 0.0079
163	624	7.7	50.9	15 11.4	8.0	B 1174				+ 126		+ 98	+ 76	+ 0.113:˟	0	+ 0.097	+ 0.0067
164	623	9.5	51.7	15 42.1	9.3					+ 46		+ 28	+ *11:	+ 13:	— 5	+ 0.018	+ 0.0012
165	—	—	53.0	16 5.4	10.3							— 44			+ 7	— 0.037	— 0.0026

Additional stars are marked *. ˣ denotes weight 0.8, ˟ weight 0.4 (see art. 8).

PROPER MOTIONS IN DECLINATION.

Nr.	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Δ_m	m''_δ	Prob. error	Catalogues μ^s_α	Catalogues μ''_δ	Publ. 13 μ^s_α	Publ. 13 μ''_δ	p_μ
	″	″	″	″	″	″	″	″	″	″	± ″	s	″	s	″	
111				−0.072					+0.020	−0.052	0.017					
112	−*0.043:×		−0.036	− 65		+0.013	+*0.014:		+ 13	−0.010	8					
113					−0.069				+ 12	−0.057	12					
114			− 68		− *44	− 29			0	−0.047	10					
115					− 12				+ 16	+0.004	12					
116			− 26		− *50	− 47			0	−0.041	10					
117			− 101		− 110				+ 17	−0.090	10					
118		+0.088:×							0	+0.088	27					
119				−217		−172:	[−*112:]		+ 17	−0.177	12					
120	− 14:×	− 1×		− 18			− 42:×		+ 1	−0.021	8			+0.0083	−0.031	4.1
121					− 47				+ 15	−0.032	12					
122			+ 16		− 27	− 26			− 1	−0.017	9			+0.0044	−0.038	4.9
123			− 26		− 44	− 51			0	−0.041	9	*+0.0095*	*−0.017*	+0.0084	−0.038	7.3
124				− 59			+ 8:×		+ 1	−0.017	10					
125				− 19					+ 15	−0.004	17					
126		+ 49:							+ 6	+0.055	17					
127					− 1				+ 16	+0.015	12					
128					− 59				+ 6	−0.053	12					
129					− 126	−125:			+ 16	−0.110	10					
130					− 33				+ 12	−0.021	12					
131				− 5			+ *11:×		+ 3	+0.003	14					
132				− 34		− 43:			+ 16	−0.022	12					
133			+ 19:	− 25		− 26	− *55:×		+ 17	−0.003	9					
134		+ 102							0	+0.102	17					
135					− 6				+ 16	+0.010	12					
136			− 82		− 53	− 39			+ 16	−0.041	9					
137						− 83			+ 16	−0.067	17					
138					+ 1				+ 16	+0.017	12					
139					− 115				+ 16	−0.099	12					
140				− 67			− *42:		+ 14	−0.040	12					
141					− 28				+ 1	−0.027	12					
142				− 32			− *54:		+ 14	−0.029	12					
143					− 32				0	−0.032	12	*+0.0088*	*−0.024*	+0.0064	−0.023	82.7
144				− 24			− 15:		0	−0.018	10					
145						− 80			+ 16	−0.064	17					
146				− 28			+ *15:		+ 18	+0.012	12					
147					− *28				+ 16	−0.012	17					
148				− 29		− 61	− 9:		+ 9	−0.018	9					
149				+ 6		− 21	− *46		+ 13	−0.007	10					
150			− 45	+ 13		− 23	− 39:		− 1	−0.028	8	*+0.0067*	*−0.030*	+0.0057	−0.024	46.8
151				− 12			− *7:		+ 18	+0.008	12					
152					− 42				+ 1	−0.041	12					
153			[− 191:]		− 84	− 67			+ 2	−0.076	10					
154					− 29	− 41			+ 10	−0.023	10					
155					− *70	− 53			+ 2	−0.059	12					
156				+ 6					+ 20	+0.026	17					
157					− 12				0	−0.012	12			+0.0013	−0.020	8.2
158						− 48			+ 16	−0.032	17					
159				−109		−134	− 128		+ 1	−0.124	9					
160					− 26	− 73			+ 12	−0.030	10					
161					+ 11	− 31			+ 14	+0.011	10					
162					+ 30	[− 3]			+ 16	+0.046	12					
163				+ 16		− 35	− 28	−0.024:×	− 1	−0.020	8	*+0.0080*	*−0.024**	+0.0079	−0.021	4.9
164				− 3		− 45	− *3:	− 25:	+ 2	−0.018	8					
165						− 36			+ 16	−0.020	17					

163. Corrected value. See A.G.C. Berlin, Berichtigungen und Zusätze. Uncorrected value was erroneously adopted in Publ. 13.

PROPER MOTIONS IN RIGHT ASCENSION.

Nr.	BD Nr.	BD mag.	AR 1855	Decl. 1855	Phot. mag.	A.G.C.	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Δ_m	m''_a	m^s_a
		m	4^h m s	+ ° ′	m		″	″	″	″	″	″	″	″	s
166	—	—	17 54.0	17 39.6	10.3			—0.049					0.000	— 0.049	— 0.0034
167	—	—	56.3	16 32.7	10.3			— 81:	—0.031:				+ 2	— 0.062	— 0.0043
168	—	—	18 0.0	14 37.4	9.7		[—0.106]			+*0.031			0	+ 0.031	+ 0.0021
169	598	8.3	5.2	16 31.2	8.3	B 1176		+ 95	+ 84		+ 0.098:×		0	+ 0.093	+ 0.0065
170	625	5.0	5.4	15 17.1	6	B 1175	+ 72		+ 104	+ 45	+ 80×		0	+ 0.070	+ 0.0048
171	599	9.5	9.5	16 10.7	9.6			—* 42	— 28		— 15:		— 4	— 0.030	— 0.0021
172	—	—	10.6	15 15.1	10.1		[— 31]		— 19	—* 24			+ 2	— 0.020	— 0.0014
173	600	7.6	11.9	16 49.3	8.0	B 1177		— 31	— 54		— 35:×		0	— 0.038	— 0.0026
174	—	—	16.5	17 13.3	10.0			— 69					0	— 0.069	— 0.0048
175	—	—	17.8	16 50.0	10.2			— 62	— 65				+ 2	— 0.061	— 0.0043
176	—	—	17.9	14 17.1	9.8		— 33			—* 3			+ 2	— 0.016	— 0.0011
177	601	8.2	21.1	16 24.9	8.4	B 1178		+ 92	+ 85		+ 101:		— 1	+ 0.093	+ 0.0065
178	—	—	21.6	15 40.6	10.3				+ 37:				+ 7	+ 0.044	+ 0.0030
179	697	5.0	25.0	14 22.9	6½	L 1295	— 7			— 34			— 1	— 0.026	— 0.0018
180	—	—	27.9	15 4.4	9.6		+ 27		— 10	+ 48			+ 2	+ 0.030	+ 0.0021
181	682	9.0	29.6	13 53.1	8.8	L 1296	— 131:×						0	— 0.131	— 0.0090
182	602	7.2	31.8	16 41.9	8.3	B 1179		+ 27	+ 2		— 12:×		0	+ 0.010	+ 0.0007
183	—	—	32.7	15 17.2	10.0					+* 10			— 2	+ 0.008	+ 0.0006
184	—	—	38.7	15 6.1	10.0					—* 4			— 2	— 0.006	— 0.0004
185	—	—	39.7	17 29.1	10.0			— 47					0	— 0.047	— 0.0033
186	724	6.9	41.8	17 52.6	6	B 1183		— 5:×					0	— 0.005	— 0.0004
187	—	—	42.4	15 2.4	10.0					—* 41:			— 2	— 0.043	— 0.0030
188	—	—	42.5	17 52.9	9.1			— 49:×					0	— 0.049	— 0.0034
189	—	—	42.9	16 4.3	10.3				+ 139:				+ 7	+ 0.146	+ 0.0101
190	—	—	47.8	15 2.4	9.7		+ 91			+* 43			+ 2	+ 0.069	+ 0.0048
191	—	—	48.0	15 13.3	10.0					—* 48:			— 2	— 0.050	— 0.0035
192	725	9.5	48.4	17 31.0	9.9			— 75					0	— 0.075	— 0.0052
193	—	—	55.8	14 28.6	9.6		— 59			—* 36			+ 2	— 0.046	— 0.0032
194	—	—	56.4	16 16.7	10.0				— 57				+ 6	— 0.051	— 0.0035
195	—	—	56.7	14 20.7	9.8		[— 186]			+* 1			0	+ 0.001	+ 0.0001
196	—	—	58.3	14 54.7	10.0					—* 12			— 2	— 0.014	— 0.0010
197	603	9.5	19 0.2	16 10.8	9.4			—* 87×	— 37		— 31		— 4	— 0.050	— 0.0035
198	—	—	5.3	15 39.5	10.0				— 9	+* 32:			+ 2	+ 0.014	+ 0.0010
199	—	—	5.6	17 4.9	10.1			— 52					0	— 0.052	— 0.0036
200	—	—	7.8	15 23.5	10.0				[— 89]	+* 16			— 2	+ 0.014	+ 0.0010
201	—	—	8.0	16 20.9	10.0				— 10				+ 6	— 0.004	— 0.0003
202	—	—	8.9	15 51.0	10.3				— 100				+ 7	— 0.093	— 0.0064
203	—	—	9.7	16 16.7	10.3				— 4:				+ 7	+ 0.003	+ 0.0002
204	684	9.4	14.2	13 55.7	9.7					+* 51:×			0	+ 0.051	+ 0.0035
205	—	—	18.0	15 2.1	9.7		+ 72			+* 79			+ 2	+ 0.078	+ 0.0054
206	627	8.2	20.6	15 15.6	8.0	B 1184	+ 116		+ 74	+ 96	+ 110×		0	+ 0.099	+ 0.0068
207	626	9.3	21.1	15 42.0	9.5		— 34:×		— 26	+* 27	+ 35		— 3	+ 0.004	+ 0.0003
208	604	9.5	22.9	16 23.8	9.4			0×	+ 2		+ 10		— 3	+ 0.001	+ 0.0001
209	698	9.3	24.8	14 27.0	9.6		— 101×			—* 58			+ 3	— 0.074	— 0.0051
210	—	—	25.7	15 39.8	9.9				— 24	—* 10	+* 56:		+ 2	+ 0.009	+ 0.0006
211	628	9.4	31.2	15 5.9	9.6		— 45:		— 46	— 37:			+ 1	— 0.040	— 0.0028
212	699	9.3	35.6	14 5.2	8.8		+ 38:			+ 78:			0	+ 0.071	+ 0.0049
213	700	9.3	39.0	14 49.4	9.2		— 100			— 117			0	— 0.111	— 0.0077
214	—	—	48.9	16 36.6	9.8				— 57		+* 4		+ 3	— 0.023	— 0.0016
215	—	—	52.7	16 8.6	10.0				+ 110				+ 6	+ 0.116	+ 0.0080
216	—	—	54.6	14 3.6	9.7					—* 46:			0	— 0.046	— 0.0032
217	630	8.7	20 3.5	15 58.4	8.9	B 1185			— 42	— 1:×	— 19		0	— 0.018	— 0.0012
218	—	—	5.4	14 52.6	10.0					—* 80:			— 2	— 0.082	— 0.0057
219	—	—	7.4	14 58.7	10.0					—* 71			— 2	— 0.073	— 0.0050
220	701	9.1	9.2	14 45.5	8.8		+ 8:×			+ 23		+ 0.018:	— 1	+ 0.017	+ 0.0012

„Additional" stars are marked *. × denotes weight 0.8, × weight 0.4 (see art. 8.)

PROPER MOTIONS IN DECLINATION.

Nr.	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Δ_m	m''_δ	Prob. error.	Catalogues		Publ. 13.		
										μ^s_α	μ''_δ	μ^s_α	μ''_δ	p_μ
	″	″	″	″	″	″	″	″	± ″	s	″	s	″	
166		—0.063					+0.016	— 0.047	0.012					
167		+ 13:	—0.052:				+ 16	+ 0.007	10					
168	[—0.101]			—*0.058			+ 12	— 0.046	17					
169		— 84	— 22		—0.051:^{x}		— 1	— 0.061	8					
170	— 16		— 54	— 10	0^{x}		0	— 0.017	7	+0.0067	— 0.014	+0.0067	— 0.024	48.3
171		— * 28	— 60		+ 26:		+ 7	— 0.006	9					
172	[— 151]		+ 15	— * 6			+ 16	+ 0.020	12					
173		— 17	0		— 11:^{x}		0	— 0.011	9			—0.0019	— 0.008	3.4
174		— 53					+ 16	— 0.037	12					
175		— 36	— 32				+ 16	— 0.019	10					
176	— 119			— * 48			+ 16	— 0.068	12					
177		— 44	— 8		— 57:		— 1	— 0.042	8					
178			— 43:				+ 16	— 0.027	17					
179	— 32			— 42			— 3	— 0.042	10	—0.0008	— 0.023	—0.0014	— 0.033	49.2
180	— 111		— 56	— 88			+ 8	— 0.078	9					
181	+ 49:^{x}						0	+ 0.049	27					
182		— 72	— 71		— 53:^{x}		— 1	— 0.067	8	*+0.006*	*—0.05*	+0.0011	— 0.061	3.5
183				— * 64			+ 16	— 0.048	17					
184				— * 82			+ 16	— 0.066	17					
185		— 16					+ 16	0.000	12					
186		— 9:^{x}					0	— 0.009	19			—0.0013	— 0.010	24.0
187				— * 59:			+ 16	— 0.043	17					
188		— 75:^{x}					+ 1	— 0.074	19					
189			— 73:				+ 16	— 0.057	17					
190	— 21			— * 34			+ 14	— 0.014	12					
191				— * 19:			+ 16	— 0.003	17					
192		— 69					+ 15	— 0.054	12					
193	— 115			— * 50			+ 12	— 0.070	12					
194			— 48				+ 16	— 0.032	17					
195	[— 26]			— * 71			+ 14	— 0.057	17					
196				— * 14			+ 16	+ 0.002	17					
197		— * 88^{x}	— 60		— 36		+ 4	— 0.051	9					
198			+ 29	+ * 33:			+ 16	+ 0.047	12					
199		— 40					+ 16	— 0.024	12					
200			[+ 48]	— * 70			+ 16	— 0.054	17					
201			— 33				+ 16	— 0.017	17					
202			— 56				+ 16	— 0.040	17					
203			— 30:				+ 16	— 0.014	17					
204				— * 65:^{x}			+ 12	— 0.053	19					
205	— 20			— * 82			+ 14	— 0.037	12					
206	+ 10		— 18	— 27	— 8^{x}		— 1	— 0.015	7			+0.0066	— 0.032	6.0
207	— 80:^{x}		— 47	— * 24	— 43		+ 6	— 0.040	8					
208		— 72^{x}	— 127		— 90		+ 4	— 0.088	8					
209	— 34^{x}			— * 52			+ 11	— 0.033	13					
210			+ 15	— * 13	— * 10:		+ 12	+ 0.009	10					
211	— 38:		+ 15	— 7:			+ 8	— 0.001	9					
212	— 44:^{x}			— 14:			0	— 0.019	10					
213	— 10			+ 34			0	+ 0.019	10					
214			— 53		— * 15		+ 11	— 0.023	12					
215			— 80				+ 16	— 0.064	17					
216				— * 24:			+ 12	— 0.012	17					
217			+ 4	— 25:^{x}	— 22		— 1	— 0.018	8	*—0.0018*	*+0.016*	+0.0001	+ 0.019	6.3
218				— * 44:			+ 16	— 0.028	17					
219				+ * 35			+ 16	+ 0.051	17					
220	— 26:^{x}			— 70		—0.078:	+ 1	— 0.064	8					

PROPER MOTIONS IN RIGHT ASCENSION.

Nr.	BD Nr.	BD mag.	AR 1855	Decl. 1855	Phot. mag.	A.G.C.	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Δm	m''_a	m^s_a
		m	4^h m s	+ ° ′	m		″	″	″	″	″	″	″	″	″	s
221	605	5.0	20 9.3	16 1.9	6½	B 1186		+*0.030:	−0.017		−0.029			+0.001	−0.008	−0.0006
222	702	6.5	10.8	14 24.9	6½	L 1301	+0.117^{x}			+0.085		+0.054		+ 2	+0.078	+0.0054
223	—	—	14.4	14 9.4	10.0					−*92				− 2	−0.094	−0.0065
224	631	4.0	17.9	15 38.2	6	B 1189			+ 131	+ 105	+ 58	+ 60^{x}		+ 3	+0.090	+0.0062
225	703	9.1	18.3	14 44.3	9.4					− 28		− 47:		− 2	−0.038	−0.0026
226	—	—	22.4	14 50.8	9.7					+*12				0	+0.012	+0.0008
227	632	4.0	23.4	15 32.7	4	B 1190			+ 155	+ 64	+ 58:	+ 83		+ 4	+0.086	+0.0060
228	606	7.8	27.2	16 57.6	8.1	B 1191			+ 148:^{x}		+ 76:^{x}			0	+0.093	+0.0065
229	—	—	33.7	15 57.6	10.0				+ 56		+ 99			− 6	+0.076	+0.0053
230	704	8.5	35.3	14 29.6	8.0	L 1305				− 50		− 58		+ 1	−0.053	−0.0037
231	—	—	37.7	16 3.4	10.1				− 15		+*39:			+ 4	+0.016	+0.0011
232	—	—	41.0	14 31.8	10.0					−*73:				− 2	−0.075	−0.0052
233	633	6.5	42.5	15 50.1	7.6	B 1192			+ 153	+ 118	+ 125	+ 131:^{x}		+ 1	+0.130	+0.0090
234	—	—	43.9	14 50.9	9.8					+* 7		* 0		+ 3	+0.007	+0.0005
235	705	9.3	48.2	14 15.8	9.4					− 112		−*141:		+ 1	−0.021	−0.0083
236	—	—	48.3	16 20.6	9.8				− 66		+ 18			− 5	−0.019	−0.0013
237	—	—	21 8.7	16 14.4	9.6						− 27			− 12	−0.039	−0.0027
238	634	9.5	13.6	15 55.3	9.6				− 3		+ 108			− 6	+0.059	+0.0041
239	607	9.5	15.5	16 8.0	9.6				− 34		− 20			− 6	−0.031	−0.0022
240	—	—	26.1	16 47.0	9.5						+ 13:			− 10	+0.003	+0.0002
241	608	9.4	32.0	16 45.5	8.7				− 101:^{x}		− 84:			− 2	−0.089	−0.0062
242	609	9.3	38.6	16 21.0	8.7				+ 100:^{x}		+ 63		+0.093:^{x}	− 1	+0.081	+0.0056
243	—	—	43.1	16 3.7	9.5						+ 15			− 10	+0.005	+0.0003
244	635	8.5	48.5	15 50.9	8.6	B 1197			− 33:	− 8:^{x}	+ 12	+ 27:^{x}	+ 28:	− 2	+0.007	+0.0005
245	636	6.0	52.8	15 19.0	6½	B 1199			+ 88^{x}	+ 105	+ 86	+ 91	[+*117^{x}]	+ 2	+0.096	+0.0066
246	689	8.2	57.6	13 59.2	8.2	L 1310				+ 10:^{x}		+ 30:^{x}		− 1	+0.018	+0.0012
247	706	9.5	22 7.8	14 2.7	9.4					−*74:^{x}		−*32:		+ 3	−0.048	−0.0033
248	707	8.9	9.7	14 17.5	8.9	L 1311				− 13:		− 7^{x}		− 1	−0.012	−0.0008
249	—	—	9.7	15 3.2	9.5					+* 37	+*49	+ 66		− 2	+0.051	+0.0035
250	—	—	14.8	14 11.3	9.9							+*48:		+ 6	+0.054	+0.0037
251	637	5.0	16.0	15 52.5	6	B 1200				+ 128^{x}	+ 59	+ 92	[+*100:]	+ 4	+0.097	+0.0067
252	—	—	17.9	16 6.5	9.7						−*27			0	−0.027	−0.0019
253	638	9.1	18.8	15 24.8	9.0					+ 115	+ 118	+ 146	+ 122:	− 2	+0.122	+0.0084
254	708	9.0	21.5	14 27.7	8.8	L 1312				− 32:		+ 20		− 1	−0.010	−0.0007
255	639	5.5	22.9	15 22.4	6	B 1202				+ 99	+ 92	+ 93	[+*83^{x}]	+ 4	+0.099	+0.0069
256	—	—	27.8	16 14.5	9.8						[+*57]		−*57	0	−0.057	−0.0040
257	—	—	28.7	15 48.0	9.9						+*25			0	+0.025	+0.0017
258	640	7.5	29.3	15 49.8	6½	B 1203				+ 122^{x}	+ 71	+ 94:	+*141	+ 2	+0.105	+0.0073
259	—	—	29.7	16 48.7	9.5						+* 1:			0	+0.001	+0.0001
260	—	—	29.8	15 15.9	9.9							+*39		+ 6	+0.045	+0.0031
261	—	—	32.2	14 8.5	9.6							−*67		+ 6	−0.061	−0.0042
262	—	—	32.4	14 48.7	10.0					−*28:		+*18:		+ 2	−0.003	−0.0002
263	709	9.5	38.0	14 2.4	9.6							−*12		+ 6	−0.006	−0.0004
264	710	9.3	38.1	14 51.9	9.0					+ 2:		+ 36		− 2	+0.015	+0.0010
265	641	9.3	39.4	15 27.6	9.1					+ 14	+ 55	+ 43	+ 30:	− 2	+0.032	+0.0022
266	—	—	48.1	16 22.4	9.7						−*45		−* 26	0	−0.036	−0.0025
267	610	9.5	50.0	16 26.9	9.6						+*19			0	+0.019	+0.0013
268	611	9.4	52.0	16 31.8	9.5						− 6		−* 45:	− 6	−0.027	−0.0019
269	711	7.3	53.6	14 47.3	8.2	L 1315				+ 33:		+ 41		− 1	+0.036	+0.0025
270	612	9.2	57.4	16 57.2	8.6	B 1205					+ 12:^{x}		−* 22:^{x}	− 2	+0.002	+0.0001
271	712	8.0	58.9	14 22.3	8.0	L 1317				+ 12:		+ 17		0	+0.014	+0.0010
272	—	—	23 2.9	14 2.6	9.5							−*47		+ 5	−0.042	−0.0029
273	643	8.3	5.5	15 29.9	8.2	B 1206				− 29:	− 23	− 20	+ 12	− 1	−0.015	−0.0010
274	644	9.5	9.0	15 47.9	9.5						0	+*13:	− 2	− 2	0.000	0.0000
275	713	9.0	20.1	14 23.3	9.3	L 1320						− 20		− 4	−0.024	−0.0017

„Additional" stars are marked *. ^{x} denotes weight 0.8, ^{x} weight 0.4 (see art. 8).

PROPER MOTIONS IN DECLINATION.

Nr.	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Δ_m	m''_δ	Prob. error.	Catalogues μ^s_α	Catalogues μ''_δ	Publ. 13 μ^s_α	Publ. 13 μ''_δ	p_μ
	"	"	"	"	"	"	"	"	"	± "	s	"	s	"	
221		−*0.010:	+0.027		−0.017			−0.001	−0.004	0.009	−0.0009	+0.037	−0.0009	+0.032	44.9
222	+0.002*			−0.041		−0.049		− 2	−0.042	9	+0.0062	−0.022	+0.0052	−0.031	32.6
223				− *43				+ 16	−0.027	17					
224			− 39	− 36	+ 18	+ 31*		+ 2	−0.005	7	+0.0048	−0.015	+0.0052	−0.028	49.1
225				− 44		− 23:		+ 7	−0.028	9					
226				− *41				+ 12	−0.029	17					
227			− 32	− 12	− 22:	− 36		− 1	−0.025	7	+0.0064	−0.003*	+0.0070	−0.020	50.9
228			− 17:*		− 44:*			− 1	−0.039	13			+0.0048	−0.040	2.6
229			− 15		− 20			+ 11	−0.007	10					
230				− 16		− 26		0	−0.020	9					
231			+ 10		− *14:			+ 12	+0.010	12					
232				− *26:				+ 16	−0.010	17					
233			− 43	− 29	− 21	− 18:*		0	−0.027	7	+0.0097	−0.024*	+0.0071	−0.030	5.6
234				− *38		− *45		+ 18	−0.024	12					
235				− 54		− *40:		+ 6	−0.043	10					
236			− 9		− 14			+ 10	−0.002	10					
237					− 15			+ 4	−0.011	13					
238			− 23		− 42			+ 4	−0.031	10					
239			− 56		− 3			+ 4	−0.019	10					
240					+ 17:			+ 3	+0.020	13					
241			+ 38:*		+ 6:			− 3	+0.009	12					
242			− 8:*		− 51		−0.024:*	− 3	−0.035	9					
243					− 7			+ 3	−0.004	13					
244			+ 15:	+ 14:*	+ 18	+ 30:*	+ 26:	− 1	+0.020	6					
245			− 32*	− 42	− 5	+ 1	[− *17*]	− 2	−0.020	7	+0.0050	−0.004	+0.0046	−0.009	35.1
246				− 78:*		− 68:*		+ 2	−0.072	10					
247				− *22:*		− *29:		+ 9	−0.017	13					
248				− 47:		− 85*		+ 1	−0.061	9					
249				+ * 6	− *30	− 55		+ 9	−0.022	9					
250						− *29:		+ 23	−0.006	17					
251				− 17*	− 27	+ 8	[+ *80:]	− 1	−0.013	8	+0.0068	−0.020*	+0.0063	−0.021	43.5
252					+ *47			+ 5	+0.052	17					
253				− 21	− 24	− 27	− 36:	0	−0.027	6					
254				− 4:		− 32		+ 1	−0.015	9					
255				− 19	− 30	+ 10	[− *12*]	− 1	−0.014	7	+0.0069	−0.018*	+0.0061	−0.009	49.8
256					[− * 4]		+ * 7	+ 14	+0.021	17					
257					+ * 1			+ 7	+0.008	17					
258				− 41*	− 16	− 23:	− *25	+ 1	−0.025	7	+0.0063*	−0.020	+0.0060	−0.031	26.5
259					+ *49:			+ 2	+0.051	17					
260						− *54		+ 23	−0.031	17					
261						− *62		+ 17	−0.045	17					
262				− *22:		− *16:		+ 20	+0.001	12					
263						+ *30		+ 17	+0.047	17					
264				− 16:		− 20		+ 2	−0.016	9					
265				− 33	− 1	− 35	− 61:	+ 1	−0.033	6					
266					− *54		− *96	+ 9	−0.066	12					
267					− * 1			+ 4	+0.003	17					
268					− 10		− * 4:	+ 5	−0.003	10					
269				− 71:		− 52		+ 2	−0.061	9	+0.0016	−0.041	+0.0020	−0.048	49.2
270					+ 14:*		− *15:*	− 2	+0.005	13					
271				− 26:		− 35		+ 2	−0.028	9			+0.0016	−0.008	12.6
272						− *31		+ 14	−0.017	17					
273				− 9:	− 48	− 12	− 45	0	−0.028	6			−0.0009	−0.046	3.7
274					+ 30	+ * 8:	0	+ 10	+0.022	8					
275						− 51		+ 9	−0.042	13					

227: Bossert: + 0ˢ.0091 0″.000.

233. Publ. Cincinnati 14: + 0ˢ.0104 − 0″.045.

251: Küstner, Veröff. Bonn 2: + 0ˢ.0055 − 0″.022.

255: Bossert: + 0ˢ.0127 − 0″.037.

258. Auwers's Mayer.

PROPER MOTIONS IN RIGHT ASCENSION.

Nr.	BD Nr.	BD mag.	AR 1855	Decl. 1855	Phot. mag.	A.G.C.	Area 7	Area 8	Area 9	Area 10	Area 11	Area 12	Δ_m	m''_a	m^s_a
		m	4h m s	+° ′	m		″	″	″	″	″	″	″	″	s
276	714	9.4	23 23.0	14 17.3	9.4				+*0.028				+0.005	+0.033	+0.0023
277	—	—	23.7	16 29.9	9.4			+0.012		−0.016			− 4	−0.008	−0.0006
278	613	9.5	27.7	16 37.6	9.4			− 38		− 26:			− 4	−0.035	−0.0024
279	614	9.2	28.2	16 53.5	8.6	B 1207		− 33:×		− 27:×			− 1	−0.031	−0.0022
280	—	—	31.8	15 19.2	9.4		+*0.022:	+ 82	+ 21	+ 41			− 3	+0.040	+0.0028
281	715	9.0	33.0	14 21.6	8.8	L 1323	− * 52:		+ 7				0	−0.016	−0.0011
282	645	6.5	35.2	15 32.2	6½	B 1208	+ 88:×	+ 76	+ 114	+* 122	+0.099:×		+ 2	+0.100	+0.0069
283	—	—	37.4	15 11.0	9.9				+* 115				+ 6	+0.121	+0.0084
284	716	9.5	42.7	14 21.8	9.9				+* 50				+ 6	+0.056	+0.0039
285	—	—	44.3	16 40.5	9.9			* 0:					0	0.000	0.0000
286	—	—	44.6	15 30.7	9.6					− * 27			0	−0.027	−0.0019
287	—	—	46.5	16 4.8	9.8			− * 17		+ 21			0	+0.008	+0.0006
288	615	9.5	58.9	16 57.7	9.5			+ * 6		− * 33:×			0	−0.011	−0.0008
289	—	—	59.4	16 1.3	9.8					+ 49			0	+0.049	+0.0034
290	616	9.3	24 3.8	16 17.1	9.0			− 31		+ 22			− 1	−0.003	−0.0002
291	—	—	5.5	16 40.3	9.8					− * 43			0	−0.043	−0.0030
292	—	—	10.8	15 14.0	9.7				+ * 15				+ 6	+0.021	+0.0015
293	—	—	16.0	16 35.3	9.8					− * 33			0	−0.033	−0.0023
294	617	9.5	28.1	16 1.5	9.6			− * 15		− 6			0	−0.009	−0.0006
295	646	8.8	33.0	15 41.6	8.8	B 1210		+ 107	+ 114	+ 130	+ 85:×		− 1	+0.113	+0.0078
296	—	—	39.3	15 20.5	9.7				− * 24	+ 15			+ 2	+0.004	+0.0003
297	647	8.6	42.9	15 30.4	8.8	B 1212		+ 124	+ 113	+ 100	+ 136		− 1	+0.114	+0.0079
298	—	—	43.2	16 20.2	9.8			− * 75		− 1			0	−0.026	−0.0018
299	717	9.5	25 5.9	14 52.8	9.6				− * 24				+ 6	−0.018	−0.0012
300	—	—	6.0	16 29.8	9.6			− * 36:		− 15			0	−0.022	−0.0015
301	648	9.1	9.6	15 39.0	8.8	B 1214		+ 20	− 23	+ 7	− 1		− 1	0.000	0.0000
302	618	9.2	9.6	16 12.1	9.0			+ 30		+ 25			− 1	+0.026	+0.0018
303	619	9.2	10.9	16 8.8	9.1			+ 8		− 27			− 3	−0.014	−0.0010
304	—	—	11.5	16 23.4	9.6					− * 31			0	−0.031	−0.0022
305	—	—	15.9	16 32.0	9.6					− * 93			0	−0.093	−0.0065
306	620	9.0	18.2	16 27.2	9.2	B 1217				+ 84			0	+0.084	+0.0058
307	718	9.4	19.4	14 56.2	9.6				+ * 17				+ 6	+0.023	+0.0016
308	—	—	20.1	14 17.7	9.5				− * 66				+ 5	−0.061	−0.0042
309	621	7.5	20.5	16 0.8	7.8	B 1218		− 23		[− * 20]			+ 4	−0.019	−0.0013
310	649	8.8	21.9	15 39.2	8.7	B 1219		+ 51:	+ 59	+ 67	+ 65		− 2	+0.058	+0.0040
311	—	—	24.1	15 54.0	9.4			+ * 6	− * 32:×	+ 7			+ 1	0.000	0.0000
312	—	—	25.3	14 30.3	9.6				− * 32				+ 6	−0.026	−0.0018
313	—	—	28.1	16 27.2	9.0			+ 119:					− 6	+0.113	+0.0079
314	—	—	28.2	16 13.2	9.5			+ * 10		− 24			0	−0.013	−0.0009
315	720	5.4	37.5	14 32.1	6	L 1327			+ 59		+ 89		0	+0.071	+0.0049
316	622	9.0	43.3	16 25.8	8.8	B 1220		+ 27:×		− 31		−0.077:×	− 1	−0.032	−0.0022
317	721	8.5	44.0	14 51.3	8.9	{B 1221 L 1329			+ 95		+ 112		0	+0.102	+0.0070
318	—	—	59.4	16 44.8	9.5					− 55			0	−0.055	−0.0038
319	—	—	26 2.6	15 35.9	9.8					− 52			0	−0.052	−0.0036
320	722	8.7	5.2	14 40.0	9.4	L 1332			+ 81		+ 56		− 1	+0.070	+0.0048
321	—	—	11.1	16 12.6	9.5					− 24			0	−0.024	−0.0017
322	623	9.5	11.9	16 12.4	9.5	B 1222				− 51		− 24:	− 4	−0.042	−0.0029
323	—	—	13.7	14 50.4	9.6				− * 57		− 20		+ 6	−0.032	−0.0022
324	650	9.1	16.0	15 31.0	9.3				+ 88	+ 94	+ 90	+ 94:	− 2	+0.090	+0.0062
325	651	8.5	19.6	15 11.9	8.6	B 1223			+ 96	+ 104	+ 123	+ 53:×	0	+0.092	+0.0064
326	723	9.4	24.6	14 44.2	9.9				+ * 6				+ 6	+0.012	+0.0008
327	—	—	28.2	16 11.4	9.8					− 35			0	−0.035	−0.0024
328	—	—	28.2	16 11.4	9.8					− 11			0	−0.011	−0.0008
329	624	7.3	38.8	16 41.5	8.4	B 1226				− 70		− 35:×	0	−0.054	−0.0038
330	625	7.0	41.9	16 53.7	8.4	B 1227				−* 43:		− 36:×	0	−0.040	−0.0028

Additional stars are marked *. × denotes weight 0.8, × weight 0.4 (See art. 8).

PROPER MOTIONS IN DECLINATION.

Nr.	Area 7	Area 8	Area 9	Area 10	Area 11	Area 12	Δm	m''_δ	Prob. error	Catalogues		Publ. 13		
										μ^s_α	μ''_δ	μ^s_α	μ''_δ	p_μ
	"	"	"	"	"	"	"	"	± "	s	"	s	"	
276			−*0.072				+0.012	−0.060	0.017					
277		+0.013		0.000			+4	+0.010	9					
278		−8		−13:			+4	−0.007	9					
279		+23:×		+22:×			−1	+0.021	10			−0.0036	−0.004	3.2
280	+*0.022:	−37	−49	−15			+6	−0.016	7					
281	−*25:		−61				+1	−0.046	10					
282	−34:×	−20	+3	−*20	−0.017:×		−1	−0.018	7	+0.0058	−0.026	+0.0070	−0.050	48.3
283			−*53				+23	−0.030	17					
284			−*115				+23	−0.092	17					
285		+*18:					+7	+0.025	17					
286				+*72			+10	+0.082	17					
287		+*64		+5			+11	+0.036	10					
288		−*63		−*8:×			+5	−0.034	13					
289				−8			+14	+0.006	12					
290		+27		−4			−1	+0.013	9					
291				+*33			+14	+0.047	17					
292			−*20				+20	0.000	17					
293				+*26			+14	+0.040	17					
294		+*39		−23			+8	+0.006	10					
295		−45	−59	−47	−14:×		0	−0.045	7					
296			−*50	+19			+14	+0.010	10					
297		−42	−32	−22	−20		0	−0.029	7					
298		+*20		−14			+11	+0.008	10					
299			−*64				+17	−0.047	17					
300		+*39:		−15			+8	+0.011	10					
301		−17	−5	−25	−53		0	−0.022	7					
302		+28		−21			−1	0.000	9					
303		0		−20			−1	−0.012	9					
304				−*44			+10	−0.034	17					
305				+*18			+10	+0.028	17					
306				−25			+2	−0.023	12					
307			−*45				+17	−0.028	17					
308			−*5				+14	+0.009	17					
309		−36		[+*46]			−2	−0.038	13	−0.0004*	−0.026	−0.0002	−0.020	33.1
310		−44:	−78	−16	−54		0	−0.045	7			+0.0053	−0.043	3.1
311		+*18	−*63:×	+7			+6	+0.001	9					
312			+*32				+17	+0.049	17					
313		+9:					−4	+0.005	13					
314		+*73		−8			+6	+0.025	10					
315			−4		−11		−6	−0.013	10	+0.0060	−0.024	+0.0058	−0.024	75.4
316		+26:×		−6		+0.007:×	0	+0.007	8					
317			−39		−1		+3	−0.021	10					
318				+15			+8	+0.023	12					
319				+2			+14	+0.016	12					
320			−16		−15		+11	−0.005	10					
321				−18			+8	−0.010	12					
322				+2		+9:	+7	+0.013	9					
323			−*61		−118		+18	−0.071	12					
324			−20	−14	−12	+9:	+6	−0.002	7					
325			−38	−22	−43	−57:×	+1	−0.038	7			+0.0049	−0.048	3.9
326			+*44				+23	+0.067	17					
327				−31			+14	−0.017	12					
328				−21			+14	−0.007	12					
329				−74		−99:×	+1	−0.084	9	+0.0015	−0.099	+0.0015	−0.099	2.4
330				−*20:		+5:×	+1	−0.008	13	+0.0005	−0.014	+0.0005	−0.014	2.9

309: Auwers' Mayer.

PROPER MOTIONS IN RIGHT ASCENSION.

Nr.	BD Nr.	BD mag.	AR 1855	Decl. 1855	Phot. mag.	A.G.C.	Area 9	Area 10	Area 11	Area 12	Δm	m″a	m^s a
		m	4h m s	+° ′	m		″	″	″	″	″	″	s
331	—	—	26 49.5	16 10.0	9.6			−0.043		−0.054	0.000	−0.048	−0.0033
332	—	—	51.4	15 12.8	9.8		−*0.002	+ 4	− 16:		+ 3	+0.001	+0.0001
333	—	—	27 12.8	16 11.0	9.6			− 18		− 15	− 4	−0.020	−0.0014
334	—	—	13.0	15 25.8	9 6		+* 38	− 7	− 24	+ 37	0	+0.012	+0.0008
335	626	9.4	13.1	16 39.7	9.2			+ 3		− 31:	− 2	−0.016	−0.0011
336	627	9.2	14.7	16 46.2	9.1			− 27		+ 2:×	− 2	−0.016	−0.0011
337	653	7.7	16.6	15 50.5	8.6	B 1231	− 16:×	+ 7	− 23	− 16	0	−0.009	−0.0006
338	—	—	19.9	15 0.0	9.8		[−* 100:]		− 25		+ 6	−0.019	−0.0013
339	—	—	21.8	15 54.7	9.8			+ 16			0	+0.016	+0.0011
340	628	9.3	32.3	16 6.8	9.4			− 45		− 54	− 3	−0.053	−0.0037
341	629	1.1	36.3	16 12.8	4	B 1233		[+* 19:]		+ 22:	+ 10	+0.032	+0.0022
342	630	9.5	40.9	16 14.3	9.8			+ 59		+ 60	− 4	+0.056	+0.0039
343	654	9.0	49.0	15 22.9	9.1	B 1234	+* 102:×	+ 93	+ 81	+ 109	− 1	+0.097	+0.0067
344	—	—	55.6	15 45.0	9.6			+* 27			0	+0.027	+0.0019
345	—	—	56.8	15 44.7	9.6			−* 13			0	−0.013	−0.0009
346	—	—	28 9.6	15 12.9	10.0				− 78		+ 6	−0.072	−0.0050
347	655	9.5	12.4	15 52.9	9.5			− 23	+ 15:	− 18	− 1	−0.014	−0.0010
348	631	9.1	13.0	16 1.9	9.2			− 30		− 34	− 2	−0.034	−0.0024
349	632	9.3	15.1	16 29.3	8.8			− 79		− 19	− 1	−0.050	−0.0035
350	—	—	21.4	15 32.9	9.3			− 41	− 42	− 19	− 1	−0.033	−0.0023
351	—	—	22.7	15 58.7	9.6			− 43		+ 3	− 4	−0.024	−0.0017
352	656	7.0	23.7	15 34 2	7.5	B 1239		+* 84	+ 75	+ 60	0	+0.070	+0.0048
353	—	—	26.4	14 40.3	10.0				+ 12:		+ 6	+0.018	+0.0012
354	—	—	29.7	15 26.2	9.6			− 18	− 30	− 1	− 2	−0.016	−0.0011
355	—	—	32.3	16 12.7	9.7			− 42		− 10	− 4	−0.030	−0.0021
356	725	9.5	34.2	14 44.4	10.0				+ 9		+ 6	+0.015	+0.0010
357	726	7.5	40.5	14 57.7	8.2	B 1240 L 1339		+* 53:×	+ 43	+ 21×	+ 1	+0.034	+0.0023
358	657	8.0	53.3	15 38.6	8.8	B 1242		+ 68:	+ 81	+ 81	− 1	+0.075	+0.0052
359	—	—	29 6.7	16 1.3	9.9					+ 82:	− 9	+0.073	+0.0051
360	658	9.5	8.0	15 33.0	9.8			−* 38		+ 12	− 5	−0.010	−0.0007
361	—	—	9.6	15 11.8	9.9					+ 20	− 9	+0.011	+0.0008
362	—	—	9.8	14 46.1	9.7				+ 25		+ 5	+0.030	+0.0021
363	—	—	12.6	15 35.7	9.8			−* 7		− 42	− 5	−0.035	−0.0024
364	728	7.9	17.3	14 51.0	8.8	B 1244 L 1342			+ 108		0	+0.108	+0.0075
365	—	—	18.8	15 37.0	9.9					− 39	− 9	−0.048	−0.0033
366	729	8.7	20.8	14 0.3	8.8	L 1343			− 31:×		0	−0.031	−0.0021
367	659	8.8	27.2	15 3.0	9.4	B 1245 L 1344			− 56	− 27:	− 2	−0.039	−0.0027
368	—	—	30.1	15 28.1	9.6					+ 5	− 7	−0.002	−0.0001
369	660	9.5	44.3	15 22.4	9.3			+* 21:×	− 44	+ 14	− 1	−0.001	−0.0001
370	—	—	47.8	16 34.9	9.6					+ 23	− 7	+0.016	+0.0011
371	661	6.5	51.7	15 44.3	6	B 1246		[+* 25×]	+ 44	+ 49	+ 1	+0.048	+0.0033
372	—	—	30 0.4	16 18.4	9.2			−* 42:×		+ 2	− 3	−0.014	−0.0010
373	—	—	1.5	15 45.4	9.4				0		+ 3	+0.003	+0.0002
374	662	9.3	1.6	15 10.0	9.3					+ 59	− 4	+0.055	+0.0038
375	663	8.4	3.6	15 13.3	9.4	B 1247			− 19	+ 39	− 2	+0.018	+0.0012
376	—	—	19.2	15 30.9	9.6					− 13	− 7	−0.020	−0.0014
377	—	—	23.0	15 28.6	9.6					+ 8	− 7	+0.001	+0.0001
378	—	—	30.8	15 32.1	9.6					− 39	− 7	−0.046	−0.0032
379	—	—	38.7	14 52.6	9.7				+ 1		+ 5	+0.006	+0.0004
380	634	9.3	41.5	16 53.2	8.7					− 6	− 1	−0.007	−0.0005
381	731	9.4	41.7	14 24.0	9.6				− 44		+ 4	−0.040	−0.0028
382	664	8.9	43.0	15 16.7	9.4	B 1251			− 36	− 18	− 2	−0.026	−0.0018
383	635	9.5	45.8	16 18.5	9.3					− 4	− 4	−0.008	−0.0006
384	665	5.3	52.7	15 30.6	6	B 1252			+ 30	+ 9	+ 1	+0.017	+0.0012
385	666	5.3	59.1	15 37.6	6	B 1254			+ 107:×	+ 50	+ 2	+0.068	+0.0047

Additional stars are marked *. × denotes weight 0.8, × weight 0.4 (See art. 8).

PROPER MOTIONS IN DECLINATION.

Nr.	Area 9	Area 10	Area 11	Area 12	$\varDelta_m$	m''_δ	Prob. error.	Catalogues μ^s_α	Catalogues μ''_δ	Publ. 13. μ^s_α	Publ. 13. μ''_δ	p_μ
	″	″	″	″	″	″	± ″	s	″	s	″	
331		−0.043		+0.012	+0.009	−0.007	0.009					
332	+*0.007	+ 18	−0.011		+ 18	+0.026	9					
333		+ 15		+ 8	+ 9	+0.021	9					
334	−* 38	+ 18	− 20	+ 1	+ 12	+0.009	7					
335		− 2		+ 7:	+ 2	+0.004	9					
336		+ 1		+ 6:×	+ 1	+0.004	9					
337	− 46:×	− 26	− 54	− 46	+ 1	−0.039	8			−0.0015	−0.033	2.8
338	[−* 78:]		+ 35		+ 24	+0.059	17					
339		+ 3			+ 14	+0.017	12					
340		+ 4		− 21	+ 5	−0.003	9					
341		[−* 38:]		− 180:	+ 9	−0.171	12	+0.0037	−0.181	+0.0036	−0.181	100
342		+ 13		− 75	+ 13	−0.018	9	+0.0052*	−0.031			
343	−* 46:×	− 26	− 50	− 4	+ 2	−0.023	8					
344		−* 49			+ 10	−0.039	17					
345		+* 23			+ 10	+0.033	17					
346			− 28		+ 26	−0.002	17					
347		− 47	− 39:	− 24	+ 9	−0.027	8					
348		− 14		− 15	+ 2	−0.012	9					
349		− 2		+ 7	0	+0.002	9					
350		+ 13	− 59	+ 1	+ 5	−0.001	8					
351		− 4		+ 8	+ 9	+0.011	9					
352		−* 36	− 5	− 52	0	−0.036	9			+0.0044	−0.039	9.3
353			− 12:		+ 26	+0.014	17					
354		+ 10	+ 36	+ 33	+ 11	+0.035	8					
355		+ 8		− 10	+ 11	+0.010	9					
356			+ 7:		+ 26	+0.033	17					
357		−* 47:×	− 47	− 64×	+ 2	−0.054	10			−0.0004	−0.038	6.6
358		− 136:	− 157	− 131	0	−0.138	8			+0.0041	−0.110	3.2
359				− 51:	+ 12	−0.039	12					
360		−* 40		+ 47	+ 12	+0.030	10					
361				+ 59	+ 12	+0.071	12					
362			− 59		+ 20	−0.039	17					
363		* 0		− 1	+ 12	+0.011	10					
364			− 63		+ 2	−0.061	17	*+0.0100*	*−0.029*	+0.0063	−0.042	5.5
365				+ 30	+ 12	+0.042	12					
366			− 10:×		+ 2	−0.008	19					
367			− 37	− 30:	+ 7	−0.025	10					
368				− 23	+ 8	−0.015	12					
369		−* 44:×	− 66	− 58	+ 5	−0.052	9					
370				− 12	+ 8	−0.004	12					
371		[−* 8×]	− 15	− 10	0	−0.012	10	+0.0054	−0.011	+0.0052	−0.023	40.0
372		+* 37:×		− 25	+ 1	−0.006	10					
373			− 42		+ 12	−0.030	17					
374				− 8	+ 3	−0.005	12					
375			− 47	− 26	+ 8	−0.025	10					
376				+ 10	+ 8	+0.018	12					
377				− 14	+ 8	−0.006	12					
378				− 38	+ 8	−0.030	12					
379			− 2		+ 20	+0.018	17					
380				+ 18	+ 1	+0.019	12					
381			− 67		+ 17	−0.050	17					
382			− 13	+ 4	+ 7	+0.005	10					
383				− 6	+ 3	−0.003	12					
384			− 47	− 49	0	−0.048	10	+0.0009	−0.066	+0.0013	−0.056	58.7
385			+ 12:×	− 27	+ 2	−0.014	10	+0.0050	−0.022	+0.0045	−0.015	58.7

342: Comstock, A. J. 558, from comparison with Aldebaran (341). Auwers's p. m. of Aldebaran has been substituted for Newcomb's used by Comstock.

PROPER MOTIONS IN RIGHT ASCENSION AND DECLINATION.

Nr.	BD Nr.	BD mag.	AR 1855	Decl. 1855	Phot. mag.	A.G.C.	Area 12	Δ_m	m''_a	m^s_a	Area 12	Δ_m	m''_δ	Prob. error	Catalogues μ^s_a	Catalogues μ''_δ
		m	4^h m s	$+$ ° ′	m		″	″	″	s	″	″	″	± ″	s	″
386	636	8.8	31 0.8	16 27.8	9.3	B 1255	+ 0.028	− 0.004	+ 0.024	+ 0.0017	−0.018	+ 0.003	− 0.015	0.012		
387	637	8.8	35.1	16 13.9	8.7	B 1257	+ 26	− 1	+ 0.025	+ 0.0017	− 13	+ 1	− 0.012	12		
388	—	—	40.7	16 21.4	9.6		+ 8	− 7	+ 0.001	+ 0.0001	+ 8	+ 8	+ 0.016	12		
389	639	9.2	54.6	16 6.7	9.3		− 33	− 4	− 0.037	− 0.0026	+ 2	+ 3	+ 0.005	12		
390	640	9.2	32 6.2	16 13.7	9.3		+ 126	− 4	+ 0.122	+ 0.0085	− 37	+ 3	− 0.034	12		
391	667	9.3	33 5.5	15 13.6	9.3		− 10×	− 4	− 0.014	− 0.0010	+ 14×	+ 3	+ 0.017	13		
392	641	8.3	11.7	16 25.3	8.7	B 1266	+ 25:	− 1	+ 0.024	+ 0.0017	− 12:	+ 1	− 0.011	12		
393	668	9.4	37.7	15 49.8	9.9		− 39	− 9	− 0.048	− 0.0033	+ 2	+ 12	+ 0.014	12		
394	669	8.0	52.9	15 41.3	7.5	B 1270	+ 41×	+ 2	+ 0.043	+ 0.0030	− 70×	+ 3	− 0.067	13	+0.0048*	−0.114
395	643	9.5	34 10.4	16 20.7	8.7		+ 26×	− 1	+ 0.025	+ 0.0017	+ 44×	+ 1	+ 0.045	13		

394: Bossert.

TABLE IV. DEFINITIVE PROPER MOTIONS OF STANDARD STARS.

Nr.	μ''_a	μ^s_a	μ''_δ	Prob. error.	Nr.	μ''_a	μ^s_a	μ''_δ	Prob. error.	Nr.	μ''_a	μ^s_a	μ''_δ	Prob. error.
	″	s	″	″		″	s	″	″		″	s	″	″
1	+ 0.102	+ 0.0070	− 0.018	±0.004	120	+ 0.096	+ 0.0066	− 0.024	±0.007	255	+ 0.090	+ 0.0062	− 0.010	±0.003
6	− 0.035	− 0.0024	− 0.021	10	122	+ 0.088	+ 0.0061	− 0.024	7	258	+ 0.093	+ 0.0064	− 0.029	4
13	+ 0.050	+ 0.0034	+ 0.051	6	123	+ 0.114	+ 0.0079	− 0.040	7	269	+ 0.030	+ 0.0021	− 0.050	4
20	− 0.025	− 0.0017	− 0.009	11	143	+ 0.091	+ 0.0064	− 0.024	3	271	+ 0.019	+ 0.0013	− 0.016	6
25	− 0.021	− 0.0014	+ 0.024	11	150	+ 0.090	+ 0.0062	− 0.025	4	273	− 0.015	− 0.0010	− 0.031	6
27	− 0.038	− 0.0026	− 0.006	9	157	+ 0.025	+ 0.0017	− 0.017	7	279	− 0.037	− 0.0026	+ 0.013	8
28	+ 0.099	+ 0.0068	− 0.021	2	163	+ 0.103	+ 0.0071	− 0.021	7	282	+ 0.102	+ 0.0071	− 0.042	3
29	+ 0.068	+ 0.0047	− 0.231	9	170	+ 0.091	+ 0.0063	− 0.022	3	309	− 0.005	− 0.0003	− 0.022	4
30	+ 0.095	+ 0.0066	− 0.020	6	173	− 0.035	− 0.0024	− 0.010	8	310	+ 0.061	+ 0.0042	− 0.045	6
34	+ 0.104	+ 0.0071	− 0.022	5	179	− 0.021	− 0.0014	− 0.034	4	315	+ 0.083	+ 0.0057	− 0.023	3
38	+ 0.089	+ 0.0061	− 0.014	4	182	+ 0.012	+ 0.0008	− 0.066	7	325	+ 0.088	+ 0.0061	− 0.040	6
44	+ 0.104	+ 0.0071	− 0.013	5	186	− 0.018	− 0.0013	− 0.010	5	329	− 0.038	− 0.0026	− 0.087	8
56	+ 0.083	+ 0.0057	− 0.021	7	206	+ 0.098	+ 0.0068	− 0.020	6	330	− 0.022	− 0.0015	− 0.010	10
63	− 0.031	− 0.0021	− 0.008	7	217	− 0.011	− 0.0008	− 0.004	7	337	− 0.011	− 0.0008	− 0.038	7
64	+ 0.099	+ 0.0068	− 0.021	4	221	− 0.012	− 0.0008	+ 0.026	4	341	+ 0.052	+ 0.0036	− 0.181	2
74	+ 0.131	+ 0.0091	− 0.032	7	222	+ 0.076	+ 0.0052	− 0.034	4	352	+ 0.067	+ 0.0046	− 0.037	6
77	+ 0.090	+ 0.0062	− 0.039	8	224	+ 0.078	+ 0.0054	− 0.023	3	357	+ 0.015	+ 0.0010	− 0.046	7
79	+ 0.094	+ 0.0066	− 0.025	2	227	+ 0.098	+ 0.0068	− 0.021	3	358	+ 0.072	+ 0.0050	− 0.132	7
87	+ 0.088	+ 0.0061	− 0.024	4	228	+ 0.084	+ 0.0059	− 0.039	10	364	+ 0.096	+ 0.0066	− 0.047	10
89	− 0.020	− 0.0014	− 0 024	7	233	+ 0.122	+ 0.0085	− 0.028	6	371	+ 0.071	+ 0.0049	− 0.021	4
100	− 0.024	− 0.0016	− 0.009	12	245	+ 0 075	+ 0.0052	− 0.012	4	384	+ 0.019	+ 0.0013	− 0.055	3
107	+ 0.093	+ 0.0065	− 0.044	3	251	+ 0.092	+ 0.0064	− 0.019	4	385	+ 0.065	+ 0.0045	− 0.015	3

Table V. Proper Motions of Stars belonging to the Group of the Hyades.

Very Probable.

Nr.	A.R. 1855	Decl. 1855	Phot. mag.	μ''_α	m^s_α	μ''_δ	Prob. error.
	4^h m s	° + ′	m	″	s	″	″
1	7 32.7	15 2.0	6	+0.102	+0.0070	−0.018	±0.004
16	10 3.3	15 43.8	9.4	+0.101	+0.0070	−0.006	12
19	12.9	14 10.2	10.0	+0.068	+0.0047	−0.034	17
28	11 32.9	15 16.4	6	+0.099	+0.0068	−0.021	2
30	37.2	16 10.1	7	+0.095	+0.0066	−0.020	6
34	48.1	13 40.9	6	+0.104	+0.0071	−0.022	5
38	12 23.3	14 44.6	6	+0.089	+0.0061	−0.014	4
56	13 23.9	14 3.6	6	+0.083	+0.0057	−0.021	7
58	35.4	17 0.9	10.3	+0.065	+0.0045	−0.041	12
64	53.7	13 43.8	6	+0.099	+0.0068	−0.021	4
77	14 31.1	14 42.7	7.6	+0.090	+0.0062	−0.039	8
79	34.8	17 11.9	6	+0.094	+0.0066	−0.025	2
87	15 6.2	26 26.1	6	+0.088	+0.0061	−0.024	4
114	55.4	16 2.3	7.8	+0.095	+0.0066	−0.047	10
120	16 0.2	14 25.1	7.4	+0.096	+0.0066	−0.024	7
122	2.4	16 44.4	6½	+0.088	+0.0061	−0.024	7
143	17 6.4	17 35.5	4	+0.091	+0.0064	−0.024	3
150	21.0	15 36.3	7	+0.090	+0.0062	−0.025	4
152	24.3	17 41.0	9.1	+0.074	+0.0052	−0.041	12
163	50.9	15 11.4	8.0	+0.103	+0.0071	−0.021	7
170	18 5.4	15 17.1	6	+0.091	+0.0063	−0.022	3
177	21.1	16 24.9	8.4	+0.093	+0.0065	−0.042	8
190	47.8	15 2.4	9.7	+0.069	+0.0048	−0.014	12
205	19 18.0	15 2.1	9.7	+0.078	+0.0054	−0.037	12
206	20.6	15 15.6	8.0	+0.098	+0.0068	−0.020	6
212	35.6	14 5.2	8.8	+0.071	+0.0049	−0.019	10
222	20 10.8	14 24.9	6½	+0.076	+0.0052	−0.034	4
224	17.9	15 38.2	6	+0.078	+0.0054	−0.023	3
227	23.4	15 32.7	4	+0.098	+0.0068	−0.021	3
228	27.2	16 57.6	8.1	+0.084	+0.0059	−0.039	10
229	33.7	15 57.6	10.0	+0.076	+0.0053	−0.007	10
242	21 38.6	16 21.0	8.7	+0.081	+0.0056	−0.035	9
251	22 16.0	15 52.5	6	+0.092	+0.0064	−0.019	4
258	29.3	15 49.8	6½	+0.093	+0.0064	−0.029	4
283	23 37.4	15 11.0	9.9	+0.121	+0.0084	−0.030	17
306	25 18.2	16 27.2	9.2	+0.084	+0.0058	−0.023	12
315	37.5	14 32.1	6	+0.083	+0.0057	−0.023	3
317	44.0	14 51.3	8.9	+0.102	+0.0070	−0.021	10
325	26 19.6	15 11.9	8.6	+0.088	+0.0061	−0.040	6
343	27 49.0	15 22.9	9.1	+0.097	+0.0067	−0.023	8
359	29 6.7	16 1.3	9.9	+0.073	+0.0051	−0.039	12
364	17.3	14 51.0	8.8	+0.096	+0.0066	−0.047	10

Probable.

Nr.	A.R. 1855	Decl. 1855	Phot. mag.	μ''_α	μ^s_α	μ''_δ	Prob. error.
	4^h m s	° + ′	m	″	s	″	″
3	8 1.5	15 55.4	9.4	+0.058	+0.0040	−0.053	±0.027
12	9 20.1	16 35.2	8.9	+0.049	+0.0034	−0.031	27
44	12 43.7	13 30.8	6	+0.104	+0.0071	−0.013	5
91	15 10.1	15 25.1	9.9	+0.076	+0.0053	+0.007	12
107	44.6	17 6.2	6	+0.093	+0.0065	−0.044	3
113	54.4	17 39.8	9.7	+0.082	+0.0057	−0.057	12
123	16 9.0	16 32.8	7.8	+0.114	+0.0079	−0.040	7
178	18 21.6	15 40.6	10.3	+0.044	+0.0030	−0.027	17
238	21 13.6	15 55.3	9.6	+0.059	+0.0041	−0.031	10
250	22 14.8	14 11.3	9.9	+0.054	+0.0037	−0.006	17
255	22.9	15 22.4	6	+0.090	+0.0062	−0.010	3
260	29.8	15 15.9	9.9	+0.045	+0.0031	−0.031	17
282	23 35.2	15 32.2	6½	+0.102	+0.0071	−0.042	3
297	24 42.9	15 30.4	8.8	+0.114	+0.0079	−0.029	7
313	25 28.1	16 27.2	9.0	+0.113	+0.0079	+0.005	13
320	26 5.2	14 40.0	9.4	+0.070	+0.0048	−0.005	10
324	16.0	15 31.0	9.3	+0.090	+0.0062	−0.002	7
342*	27 40.9	16 14.3	9.8	+0.073	+0.0051	−0.030	3
390	32 6.2	16 13.7	9.3	+0.122	+0.0085	−0.034	12

Doubtful.

Nr.	A.R. 1855	Decl. 1855	Phot. mag.	μ''_α	μ^s_α	μ''_δ	Prob. error.
	m s	° ′	m	″	s	″	″
10	8 51.1	14 44.2	9.9	+0.068	+0.0047	−0.061	±0.013
24	10 46.5	13 50.3	8.8	+0.031	+0.0021	+0.005	17
50	13 10.4	13 19.1	9.7	+0.038	+0.0026	+0.008	17
116	15 57.7	16 3.7	7.8	+0.051	+0.0035	−0.041	10
169	18 5.2	16 31.2	8.3	+0.093	+0.0065	−0.061	8
204	19 14.2	13 55.7	9.7	+0.051	+0.0035	−0.053	19
215	52.7	16 8.6	10.0	+0.116	+0.0080	−0.064	17
233	20 42.5	15 50.1	7.6	+0.122	+0.0085	−0.028	6
245	21 52.8	15 19.0	6½	+0.075	+0.0052	−0.012	4
249	22 9.7	15 3.2	9.5	+0.051	+0.0035	−0.022	9
253	18.8	15 24.8	9.0	+0.122	+0.0084	−0.027	6
295	24 33.0	15 41.6	8.8	+0.113	+0.0078	−0.045	7
352	28 23.7	15 34.2	7.5	+0.067	+0.0046	−0.037	6
371	29 51.7	15 44.3	6	+0.071	+0.0049	−0.021	4
374	30 1.6	15 10.0	9.3	+0.055	+0.0038	−0.005	12
385	59.1	15 37.6	6	+0.065	+0.0045	−0.015	3

342: Weighted mean of p.m. from plates and value given by Comstock, A. J. 558.