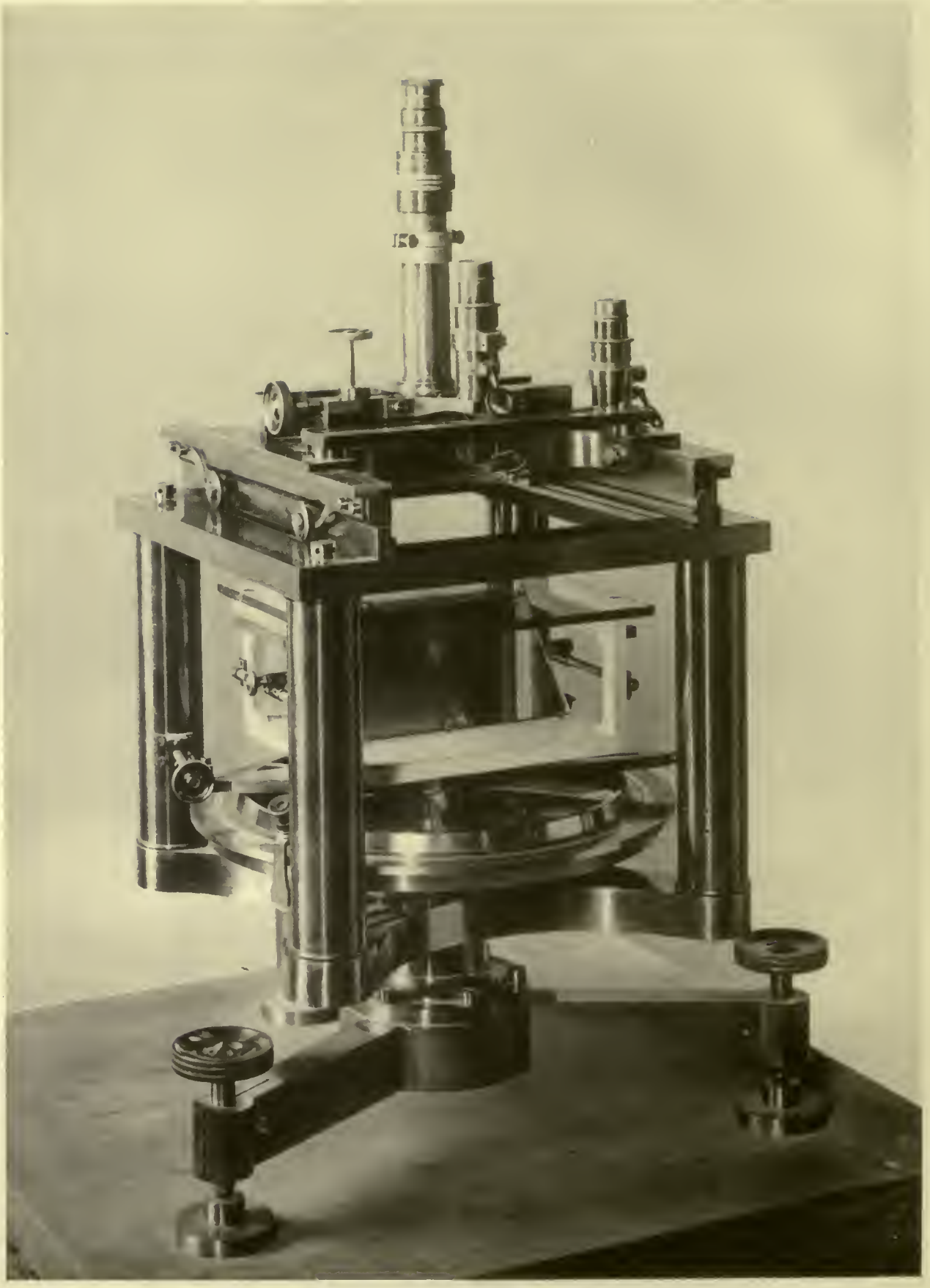

THE HARKNESS-STACKPOLE MEASURING ENGINE

DETERMINATION OF THE SOLAR PARALLAX

FROM PHOTOGRAPHS OF EROS MADE WITH THE CROSSLEY REFLECTOR OF THE LICK OBSERVATORY UNIVERSITY OF CALIFORNIA

BY

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PREFACE

A few days following the untimely death of Director Keeler, in August, 1900, it became my duty, as astronomer in charge, to make provision for carrying out the requests and recommendations of the Conférence Astrographique Internationale as to securing coöperative observations of Eros, for the determination of the solar parallax. To Assistant Astronomer Perrine was assigned the securing of such observations as could be advantageously made with the Crossley reflector. Mr. H. K. Palmer, who had assisted Professor Keeler in the photography of nebulæ and star clusters, and who was therefore familiar with the peculiarities of the original reflector mounting, was asked to assist Dr. Perrine. The observations were secured in great numbers on all favorable nights throughout the advantageous part of the opposition, as published in Lick Observatory Bulletin, No. 13.

There remained the work of measuring, reducing, and discussing the photographic observations. It was arranged that these duties should be undertaken by another observatory, of great experience in dealing with photographic star positions. Unfortunately, the long-continued illness and final death of the director of the observatory delayed the utilization of the Crossley reflector photographs for several years. The plates were returned to Mount Hamilton in 1905, and the work of measurement and reduction began in December, 1905, on the basis of a grant generously made by the Carnegie Institution of Washington for this purpose. This aid is herewith gratefully acknowledged.

The plates were measured and the more routine parts of the calculation carried through by Mrs. Moore and Miss Hobe, as explained in the text, under the supervision of Dr. Perrine. The critical parts of the reductions and the complete discussion of the results were made by Dr. Perrine personally. A detailed account of methods and formulæ employed is given in the following pages.

W. W. CAMPBELL.

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INTRODUCTION.

Shortly after the lamented death of Director Keeler, I was asked by Director Campbell to take charge of all duties in connection with the Crossley reflecting telescope. Before any great amount of experience had been gained with the instrument I was under the necessity of making out a program for observing Eros for parallax. Fortunately, we still had the services of Mr. H. K. Palmer, who had assisted Professor Keeler in nearly all of his work with the reflector. His experience, enthusiasm, and ability throughout the trying conditions under which we worked on the Eros campaign made it possible to secure the observational material which was obtained.

The instability of the mounting of the telescope, which had given Keeler so much trouble in his work and about which he has written somewhat fully in his paper on the instrument, was the chief source of our difficulties. It was early recognized that the only feasible plan was to give exposures as short as would furnish sufficient comparison-stars within the region of good definition on the plates, make as many exposures as possible, and measure only the perfect images.

Observations were secured on every possible opportunity, even when the seeing was poor and the wind high. Round images were more desired than small ones. A complete account of the plates and of the conditions under which they were taken was printed in Lick Observatory Bulletin No. 13, and it seems unnecessary to repeat that account here.

All of the measurements and reductions of the Eros plates have been made by Mrs. Moore and Miss Hobe, Carnegie Institution of Washington assistants. It is a pleasure to testify to their ability and interest through the entire work.

GENERAL PLAN OF WORK.

Owing to the distance of Mount Hamilton from the other observatories taking part in the Eros solar parallax determination, it seemed advisable to plan so that the observations obtained there would be suitable for a determination of the parallax by themselves, rather than in combination with those of other stations. To this end the plan adopted embraced the taking of photographs at large hour-angles both *east* and *west* of the meridian. In addition to the plates for displacements of Eros, a series was secured on the meridian, for the determination of the errors of the ephemeris.

STAR-PLACES FOR REDUCTION OF THE PLATES.

Within the small fields of the Crossley plates there were not enough catalogue stars of any kind to furnish a basis for obtaining positions of Eros or of comparison-stars near Eros. It therefore became necessary to have recourse to star-places obtained from the

plates taken with the astrographic telescopes, which had much larger fields and for the reduction of which an especially planned list of stars was observed with meridian circles. In the preliminary investigations upon some of the Crossley plates it was necessary to have the places of sufficient stars for their reduction. On making a request to Director Loewy, the Paris Observatory measured and furnished the places of a list of stars for the purpose.

In his work of discussing star-places, Professor Hinks, of the Cambridge Observatory, kindly offered to include the stars required for the proper reduction of the Crossley plates. The Royal Observatory at Greenwich specially measured and reduced nearly 100 star-positions for use by Professor Hinks in his list for the Crossley plates. Needless to say, these star-places were an essential feature of our work, and our indebtedness to these sources is proportionately great.

In the reduction of the meridian plates, after the plate constants had been derived, the positions of all the comparison-stars were computed from the plate measures. These places were compared with the catalogue places and in a few cases where the discordances were large and the weights of the catalogue places small, the Crossley places were adopted for the parallax solution.

SELECTION OF PLATES.

For the determination of the absolute places of Eros, 3 of the best plates on each of 44 nights, or 129 plates in all, taken close to the meridian, were selected. These three plates contain, on the average, ten images, which should furnish a strong place of the asteroid. Only those images were measured which appeared to be perfectly round. Star-places for some of the dates at the beginning of the meridian series and also at the end were difficult to obtain. As they were not necessary in the parallax work, these dates were dropped.

For the parallax work, only those dates were selected which contained both east- and west observations on the same night. It was necessary to discard five of these because of poor images. These restrictions necessarily reduced the amount of material, but in such cases only the good observations really justify measurement and reduction, and I believed that the result from carefully selected data would be stronger than if a considerable number of poor plates were included. Observations for which the parallax factors would be small were excluded for the same reason. The results obtained in the following discussion are based upon 281 plates on 18 nights; 823 selected images of Eros were measured.

MEASUREMENT OF THE PLATES.

All of the plates have been measured on the Harkness-Stackpole Engine belonging to the Lick Observatory. A very brief description of this engine is given in Publications of the Lick Observatory, vol. 1, p. 76. A more detailed account is desirable and is appended. A considerable amount of preliminary investigation of the engine was carried out before any of the final measurements were made. The slides were tested and found to be sensibly straight. Micrometers were attached to the microscopes for reading the glass scales more accurately. A number of plates were measured in this way. It was soon found, however, that there were errors in the positions of the star-images themselves larger than the errors of the scale divisions and of reading the scales by the glass-reticle microscopes. When several settings were taken and plates measured in direct and reversed positions, it was found that such errors were sufficiently reduced

to bring them well below the errors of the images themselves. The scale-micrometers, were, therefore, discontinued. All measures were referred directly to the glass scales. without the intervention of a *reseau*.

The sky had previously been used as a source of illumination for the negative and the scales. Considerable difficulty was experienced from changes of intensity on cloudy days and late in the afternoons of clear days. Experimental plates were measured, using Rochester kerosene lamps, the sky light being screened off. The resulting measures showed no indication of any systematic effect and the method was adopted for the Eros plates. All of them have been measured under these conditions.

The general stability of the engine had been found to be good. The error of runs of the scale microscopes was very carefully adjusted to zero before beginning the work. This adjustment was tested frequently throughout the measuring, but required no change. The measurements of all plates were completed the same day on which they were begun.

The plates were measured in each of two positions, 180° apart. Three settings were made on Eros, then two settings on each of the comparison-stars in turn, then three more on Eros. This was the program for each of the sets of exposures selected. A complete measure rests upon 12 settings on Eros and 4 settings on each star. Settings were recorded to 0.0001 inch and the means taken to 0.00001 inch. Before the measured plate was removed from the engine, the differences were taken, the *direct* and *reversed* coördinates compared, and any discrepancies looked up.

The inclination of the slides was carefully determined on a number of days. The value of the angle between the ~~left~~ right end of the X-slide and the farther end of the Y-slide was found to be 89° 48′ 30″. The form of the correction for inclination to be applied to the X-coördinates is, therefore, $+ Y \sin I$, where I is the deviation of the Y-slide from the true Y-axis.

The Y-coördinates theoretically require the small corrections introduced by the term $\cos I$. The coördinates are all less than 1000″, for which the correction is negligible. No plates or images have been rejected since the completion of the measures. During the work of measurement, a number of rejections of stars, images, and plates were made, when it was found that they were so bad as to weaken the result.

REDUCTION.

As the method of using photography for determinations of the highest precision is still in its infancy and can not be said to be on the same well-defined footing as the visual methods, and because there is a distrust of photographic results by some astronomers, it seemed desirable to take unusual precautions against peculiar errors in this work. To this end a plan of reduction was adopted which promised detection of errors peculiar to photographic methods, should they exist.

As the apparent motion of the asteroid between evening and the following morning observations was only about 8′ to 10′, it was possible to select the comparison-stars so that they would fulfill two conditions:

(1) The same stars would be used for both evening and morning reductions, thus eliminating to a great extent any errors of the star-places themselves. Such a selection of stars also permitted an investigation of the refractions and any possible distortion of the mirrors.

This procedure had the objection that if there were any optical distortion it would remain in part because the asteroid was eccentrically placed among the stars, in opposite

directions at the two elongations. To test this point, a different selection was adopted, so that —

(2) The stars would be as symmetrically placed about the asteroid as possible. This selection also had the advantage of reducing any effect on the scale value and orientation due to errors in the places of the comparison-stars.

The two different methods furnished in addition a valuable check on the numerical work. The measures of the images selected on each plate were combined and reduced as a whole. By using the center of gravity of the comparison-stars, as origin, it became possible to simplify the reduction of the individual plates. Instead of reducing each plate directly to the system of stars, a system of standard rectangular coördinates was first derived from all of the plates of a group (evening or morning) by taking their means after having corrected for refraction. The scale value and orientation corrections necessary to reduce each plate to the standard were then easily obtained, in rectangular coördinates. The constants necessary to reduce the *standard* coördinates to the star system were then obtained and the data necessary for the complete reduction of the group of plates were available. This plan was followed in all except a very few cases where it was necessary to reduce one or two plates directly to the star system on account of a change in the position of the optical axis.

The same plan of reduction was used for the meridian observations.

REFRACTION.

The ranges of temperature and air-pressure were both small during the observations, and it was found, upon investigation, that a constant value of each could be used in computing the refraction corrections, without introducing any appreciable error into the final result. The refractions were therefore computed for a temperature of $+ 55^\circ$ F. and an air-pressure of 26.00 inches.

REFRACTION TERMS OF THE SECOND ORDER.

According to the criterion developed by Rambaut,* the refraction terms of the second order for a zenith distance of 60° do not amount to $0''.01$ until the $\Delta\alpha$ or $\Delta\delta$ exceeds $950''$. As the greatest distances measured on the Eros plates are under this, and as the reductions are made to two decimal places, it is not necessary to consider refraction terms beyond the first order.

SPHERICAL CORRECTIONS AND CORRECTIONS FOR REFRACTION.

As it was desired to compare the east-and-west plate-measures as early as possible in the process of reduction, with the view of detecting optical distortions, etc., the refraction corrections were applied in the *rectangular* form as given by Turner. The spherical corrections were computed by Jacoby's expansions, but on account of the above method of correcting for refraction, it was necessary to use the *apparent* center of the plate, as origin, instead of the *true* center, in applying the spherical corrections.

ABERRATION.

An investigation has shown that the maximum effect of differential diurnal aberration which can occur under the conditions of the Eros parallax work, in the limited field of the Crossley reflector, is so small, when a number of stars are used, as to be insensible. Furthermore, any residuals of this kind become of an *accidental* order and are entirely eliminated in a series of sufficient length.

* Astr. Nach., 3125, c. 65.

PARALLAX CORRECTIONS.

The parallax corrections were computed with the value 8″.80; the value of $\log \rho$ used was 9.9995455, which is the value for the Crossley reflector including the altitude of the instrument above sea level.

FORMULÆ USED IN THE REDUCTIONS.

For convenience of reference the various formulæ used in the investigation are here collected.

The formulæ for parallax take the well-known form:

$$\alpha - \alpha' = \frac{8.80\,\rho\cos\phi'}{\Delta}\frac{\sin t}{\cos\delta} = \pi \qquad \delta - \delta' = \frac{8.80\,\rho}{\Delta}(-\sin\delta\cos\phi'\cos t + \cos\delta\sin\phi')$$

where $\log\rho = 9.9995455$ and the parallax factor $= 15\cos\delta\frac{\pi}{8.80}$.

The refraction terms (for each star) are as follows:

$$M_x = k'(1+H^2)\sin 1'' \qquad N_x = M_y = k'\cdot G\cdot H\sin 1'' \qquad N_y = k'(1+G^2)\sin 1''$$

where

$$\tan N = \cot\phi\cos t \qquad G = \cot(\delta + N)$$

$$H = \operatorname{cosec}(\delta+N)\tan t\sin N \qquad k' = (\text{photo-visual})\,\alpha' B^A\gamma^\lambda \text{ (Bessel's tables)}$$

The rectangular coördinates, X_0 and Y_0, of each comparison-star as referred to Eros are measured and the corrected values X and Y found by

$$X = X_0 + Y_0\sin I + M_x X_0 + N_x Y_0 \qquad Y = Y_0 + M_y X_0 + N_y Y_0$$

where I is the angle of inclination of the slides of the measuring engine.

From the values of X and Y thus secured the coördinates of the center of gravity of the group of comparison-stars are determined for each plate by:

$$C = \frac{X_a + X_b \cdots X_n}{\nu} \qquad K = \frac{Y_a + Y_b \cdots Y_n}{\nu}$$

where $\nu =$ number of comparison-stars.

With these values of C and K new coördinates for the comparison-stars from the center of gravity were found for each star as follows:

$$X_a - C = X'_a, \cdots X_n - C = X'_n \qquad Y_a - K = Y'_a, \cdots Y_n - K = Y'_n$$

For all "east" plates and for all "west" plates on a particular date these new coördinates were combined in a "standard" plate by

$$\frac{X'_{a_1} + X'_{a_2} + \cdots X'_{a_n}}{n} = X_{a_s} \qquad \frac{Y'_{a_1} + Y'_{a_2} + \cdots Y'_{a_n}}{n} = Y_{a_s}$$

(for comparison-star a)

and similarly for each comparison-star "east" or "west," giving a fictitious plate of stars whose coördinates are the means of those stars for the individual plates.

The polar coördinates of the stars (as furnished by Hinks) are reduced to the center of gravity of the system in the following manner: the mean of the "east" X and Y coördinates of some star near Eros are converted into α and δ by

$$\Delta\delta = s_b Y, \text{ and } \Delta\alpha = \left(\frac{s_a}{15}\right)\times\sec\delta_{\text{Eros}}$$

whence

$$\delta_{\text{Eros}} = \delta_{\text{star}} + \Delta\delta, \text{ and } \alpha_{\text{Eros}} = \alpha_{\text{star}} + \Delta\alpha$$

In the above, s_a and s_b are the values of scale A and scale B respectively. From these values the apparent α and δ of Eros were obtained by

$$\Delta\alpha' = -\tfrac{1}{15} k' \operatorname{cosec}(\delta + N) \cot N \sec \delta_t \qquad \Delta\delta' = -k' \cot(\delta + N)$$

and

$$\alpha_{\text{app.}} = \alpha_t - \Delta\alpha' \qquad \delta_{\text{app.}} = \delta_t - \Delta\delta'$$

If there is any appreciable spherical correction due to the chosen star not being close enough to Eros that also is applied.

Having the apparent α and δ of Eros, the differences $\Delta\alpha$ and $\Delta\delta$ between Eros and the individual stars are derived; with these values the curvature corrections $[A'']_a$, $[D'']_a$, etc., are taken from tables computed in accordance with the formulæ given in the Lick Observatory Bulletin 4, 78 (1906); these are applied to the individual stars giving places freed from curvature.

$[A'']_a$, $[D'']_a$, etc., are the sums of all of the sensible terms of the curvature corrections, computed by the following formulae:

For $X \sec \delta$

$$A_1'' = A_1 (X \sec \delta)\, Y \qquad A_2'' = A_2 (X \sec \delta)\, Y^2 \qquad A_3'' = A_3 (X \sec \delta)^3$$
$$A_4'' = A_4 (X \sec \delta)^3\, Y \qquad A_5'' = A_5 (X \sec \delta)\, Y^3 \qquad A_6'' = A_6 (X \sec \delta)^3\, Y^2$$
$$A_7'' = A_7 (X \sec \delta)^5 \qquad A_8'' = A_8 (X \sec \delta)\, Y^4$$

For Y

$$D_1'' = D_1 (X \sec \delta)^2 \qquad D_2'' = D_2 (X \sec \delta)^2\, Y \qquad D_3'' = D_3\, Y^3$$
$$D_4'' = D_4 (X \sec \delta)^2\, Y^2 \qquad D_5'' = D_5 (X \sec \delta)^4 \qquad D_6'' = D_6 (X \sec \delta)^4\, Y$$
$$D_7'' = D_7 (X \sec \delta)^2\, Y^3 \qquad D_8'' = D_8\, Y^5$$

The auxiliary quantities A_1, etc., D_1, etc., are computed by the following formulae:

$A_1 = \sin 1'' \tan \delta$	[4.68557 − 10]	$D_1 = -\tfrac{1}{4}(15)^2 \sin 1'' \sin 2\delta$	[$_n$6.43570 − 10]
$A_2 = \sin^2 1'' \tan^2 \delta$	[9.37115 − 20]	$D_2 = -\tfrac{1}{2}(15)^2 \sin^2 1''$	[$_n$1.42230 − 10]
$A_3 = -\tfrac{1}{3}(15)^2 \sin^2 1''$	[$_n$1.24621 − 10]	$D_3 = -\tfrac{1}{3} \sin^2 1''$	[$_n$8.89403 − 20]
$A_4 = -(15)^2 \sin^3 1'' \tan \delta$	[$_n$6.40890 − 20]	$D_4 = -\tfrac{1}{2}(15)^2 \sin^3 1'' \sin^2 \delta \tan \delta$	[$_n$6.10787 − 20]
$A_5 = \sin^3 1'' \tan^3 \delta$	[4.05672 − 20]	$D_5 = \tfrac{1}{8}(15)^4 \sin^3 1'' (3 \sin \delta \cos^3 \delta$	
$A_6 = -2(15)^2 \sin^4 1'' \tan^2 \delta$	[$_n$1.39551 − 20]	$\quad + \sin^3 \delta \cos \delta)$	[7.85799 − 20]
$A_7 = \tfrac{1}{8}(15)^4 \sin^4 1''$	[2.74769 − 20]	$D_6 = \tfrac{1}{8}(15)^4 \sin^4 1''$	[3.02069 − 20]
$A_8 = \sin^4 1'' \tan^4 \delta$	[8.74230 − 30]	$D_7 = \tfrac{1}{2}(15)^2 \sin^4 1'' (1 - \tan^2 \delta)$	[0.79345 − 20]
		$D_8 = \tfrac{1}{5} \sin^4 1''$	[8.04333 − 30]

The logarithms of the constant quantities are given in brackets.

The corrected star-places are now reduced to the center of gravity separately for "east" and "west" by

$$\alpha_c = \frac{\alpha_a + \alpha_b + \cdots \alpha_n}{\nu} \qquad \delta_k = \frac{\delta_a + \delta_b + \cdots \delta_n}{\nu}$$

and, for each star,

$$\alpha_a - \alpha_c = x \sec \delta \qquad \delta_a - \delta_k = y$$

The rectangular coördinates of the "standard" plates are next converted into polar coördinates by means of the adopted values for scale A and scale B; then a comparison is made of these plate coördinates with the star coördinates:

$$n_x = X_{a_s} \frac{s_a}{15} \sec \delta_t - x \sec \delta \qquad n_y = Y_{a_s} \cdot s_b - y$$

Using the values

$$\pi = X_{a_s} \frac{s_a}{15} \sec \delta \cdot 15 \cos \delta \qquad \rho = Y_{a_s} \cdot s_b$$

$$n_x' = \left(X_{a_s} \cdot \frac{s_a}{15} \sec \delta - x \sec \delta \right) 15 \cos \delta \qquad n_y = Y_{a_s} \cdot s_b - y$$

the equations

$$\pi p + \rho r + n'_x = 0 \qquad \rho p - \pi r + n_y = 0$$

are formed, where p and r are the corrections to be found to the adopted values of the scale and the orientation.

Letting

$$A = [\pi\pi] \qquad E = [\rho n'_x] \qquad C = [\pi n'_x] \qquad C' = [\rho n_y] \qquad D = [\rho\rho] \qquad E' = -[\pi n_y]$$

the corrections to scale value and orientation are derived for the "standard" plate,

$$p_s = -\frac{C - C'}{A + D} \qquad r_s = -\frac{E + E'}{A + D}$$

Next are derived the values p' and r' of the individual plates reduced to the "standard"; this is done precisely as above, except that there is no reduction to polar coördinates, giving

$$n'_x = X_{\text{plate}} - X_{\text{standard}} \qquad n_y = Y_{\text{plate}} - Y_{\text{standard}} \qquad \pi p_p + \rho r_p + n'_x = 0, \text{ etc.}$$

and for any plate

$$p = p_s + p_p \qquad r = r_s + r_p$$

Applying these corrections to the center of gravity coördinates (transformed to polar) in the following form

$$C + pC + \tfrac{1}{15} rK \sec\delta = \Delta\alpha_{\text{Eros}} \qquad K + 15\, rC \cos\delta'_1 + pK = \Delta\delta_{\text{Eros}}$$

gives the desired right ascension and declination of Eros:

$$\Delta\alpha + \alpha_{\text{center of gravity}} = \alpha_{\text{Eros}} \qquad \Delta\delta + \delta_{\text{center of gravity}} = \delta_{\text{Eros}}$$

This is done independently for "east" and "west" plates. These coördinates must be reduced to apparent place to compare with the computed value. To make the α comparable the equations

$$\alpha_{\text{Eros}} + \Delta\alpha' + \pi$$

are formed for each plate, where $\Delta\alpha'$ is composed of $\Delta\alpha$ from Circulaire 9, p. 191, and $+ h' = \frac{1}{15} \sec\delta \sin(H + \alpha)h$ (that part of the regular apparent place reduction omitted from $\Delta\alpha$).

For each plate a value of α is interpolated from Millosevich's ephemeris. This is corrected by terms due to the obliquity of the ecliptic and perturbations. For the "west" plates an additional correction is applied, due to the fact that the meridian plates afford a correction to Millosevich's ephemeris, and is obtained by multiplying the intervals between "east" and "west" plates by the correction to the ephemeris over those periods. Thus we derive for the α ephemeris

$$\alpha_{\text{ephemeris}} = \alpha_{\text{Millosevich}} + (\text{interval} \times \text{correction to ephemeris}) + (\text{obliquity correction}) + (\text{perturbation correction})$$

A comparison of these values with the observations gives a series of values of *Obs.–Eph.* for "east" and "west" plates on each date. The "east" and "west" values are now combined and multiplied by the parallax factor, giving

$$\frac{(E - W)'' \, 15 \cos\delta}{\Sigma\pi f} = \Delta\pi_0$$

where

E and W = differences *Obs.–Eph.* in seconds of arc.

$\Sigma\pi f$ = sum of parallax factors for the plates combined.

$\Delta\pi_0$ = the correction to the value 8.80″.

From the extensive literature relating to formulæ and methods used in reducing photographic plates, the following titles, in addition to those quoted in the text, are given as bearing most closely upon the present research:

H. H. Turner. Preliminary note on the reduction of measures of photographic plates. Monthly Notices, **54**, 11.
H. Jacoby. Comparison of methods for the reduction of star-photographs. Astronomical Journal, **22**, 81.
—— On the reduction of stellar photographs, with special reference to the astro-photographic chart plates. Columbia Observatory Contributions, No. 10.
—— Tables for the reduction of astronomical photographs. Columbia Observatory Contributions, No. 23.
C. D. Perrine. How to obtain the position of a star from a photograph. Popular Astronomy, **15**, 259.
—— Preliminary note on some simplifications in the reduction of stellar photographs. Lick Observatory Bulletin, **4**, 77 and 99.

REDUCTIONS TO TRUE PLACE.

In the reductions to true place the aberrations were computed with data derived from the American Ephemeris for 1900, the precessions and nutations being taken from Circular No. 9 of the "Conference Astrophotographique Internationale de Juillet, 1900."

To render the observations and ephemeris homogeneous, the reductions to Newcomb's value of the obliquity, as published by Witt in Circular 12 of the "Conference Astrophotographique Internationale de Juillet, 1900," have been applied.

CORRECTIONS TO THE EPHEMERIS OF EROS.

The deviations of Eros from the ephemeris in Circular No. 9 of the "Conference Astrophotographique Internationale de Juillet, 1900," were derived from the observations made near the meridian. Each final position used is the mean of from ten to twelve images.

An inspection of the charted residuals in right ascension showed some evidence of a periodic inequality. The residuals of the intervals

Oct. 5 to 10, inclusive Nov. 9 to 13, inclusive Nov. 23 to Dec. 12, inclusive

can be represented much better by a curve whose double amplitude is $0^s.05$ and period about 9 days than by a straight line. The accompanying reproduction of the chart will make this clear.

It should be noticed, however, that the interval from Oct. 12 to Nov. 5 inclusive, over which observations are fairly well distributed, does not show any periodicity of this kind. In fact, these residuals are satisfactorily represented by a straight line. The first possibility examined in search for an explanation was that of a connection with the light period of $2^h\ 38^m$ found by Oppolzer. 82 periods of $2^h\ 38^m$ very nearly equal 9 days, hence the relation might be to the shorter period, where daily observations only are used. Comparison over the entire period of 79 days covered by the observations showed a lack of synchronism. Comparison was then made with the period of $2^h\ 38^m$, using a separate epoch for each group. This comparison showed strong evidence of some relation to a period of about that length. The accompanying diagrams will make plain the apparent connection.

It seemed very desirable, if not absolutely essential, that the light variations of Eros during the period covered by these observations should be utilized in this connection,

before making further attempt to locate the cause of an apparent connection with a period approximating closely to that of the brightness variation. Efforts have been made to secure the unpublished photometric observations of Eros made in 1900 at other observatories, but they are not yet available.

A careful examination was made to see if there was any relation to the Moon. While the three maxima observed fall pretty close to maxima of the nutation term, the length of the Eros period appears to be 9 days instead of 14, as in the nutation. This length of period seems pretty well established from the interval Nov. 23 to Dec. 12, where two complete periods are well outlined. There does not appear to be any indication in these observations of an error in the assumed mass of the Moon.

It seems very unlikely that there should be any relation to the very small term in which 3 ☾ appears.

On the whole, it appears more probable that the inequality is connected with the variation of light in some way. This explanation has grave difficulties also, for the asteroid presented no sensible disk and the most ready explanation would be one of varying surface brightness.

Failing to find a satisfactory explanation, the reality of the periodic inequality may be questioned, although appearances certainly favor its genuineness, particularly in the first and last intervals. It is difficult to see how so many observations can be so well represented by a curve, simply on the doctrine of chance, to say nothing of the probable accuracy being greater than would be shown by the residuals on the assumption of a straight line.

The declination residuals were then plotted to see if they would throw any light on the matter. The residuals in the first interval from Oct. 5 to 10 require a curve similar to that found for the right ascensions of the same interval, to represent them. There are also some evidences of a similar periodicity throughout the other two intervals, although not nearly so well marked as in the right ascensions.

Comparison was also made with all of the available residuals published by other photographic observers of Eros, which showed that the Crossley residuals all fall inside the belt formed by such observations. The total of the observations fails to disclose any such periodicity. Various other possible sources were considered, such as the plate-constants, refraction, displacements in a secondary orbit, etc., but no reasonable explanation has been found. A similar systematic error in the star-places would be carried through the work, but that seems impossible. In view of these facts, the deviations have been treated as accidental, for the present, in deriving the corrections to the ephemeris.

The daily variations found in the ephemeris right ascensions during three intervals, covering our parallax dates, are:

Oct. 6 to 29 inclusive	− .0071
Nov. 3, 10	.0000
Nov. 28 to Dec. 24 inclusive	+ .0041

These values were used in our parallax derivations. An examination of the parallax dates, with respect to the possible effect of any such periodic inequality in the motion of Eros if of 9-day period, shows that the observations are so numerous and so distributed that but little effect can enter, even if such a periodic inequality is real. If the connection should be with the short light period, it is also probable that the observations are numerous enough to eliminate any serious effect in the final result.

DERIVATION OF THE SOLAR PARALLAX.

The change in the ephemeris correction during the interval between evening and morning observations was applied before deriving the correction to the solar parallax. The parallax corrections were derived, as nearly as possible, from pairs of plates, one evening with one morning plate, with the view of showing the agreement between small groups of observations, and for check purposes. The details of the derivation will be evident from the table containing the data. In accordance with preliminary investigations made by us and other astronomers, it did not seem justifiable to include in the solution any other unknowns than that of the parallax.

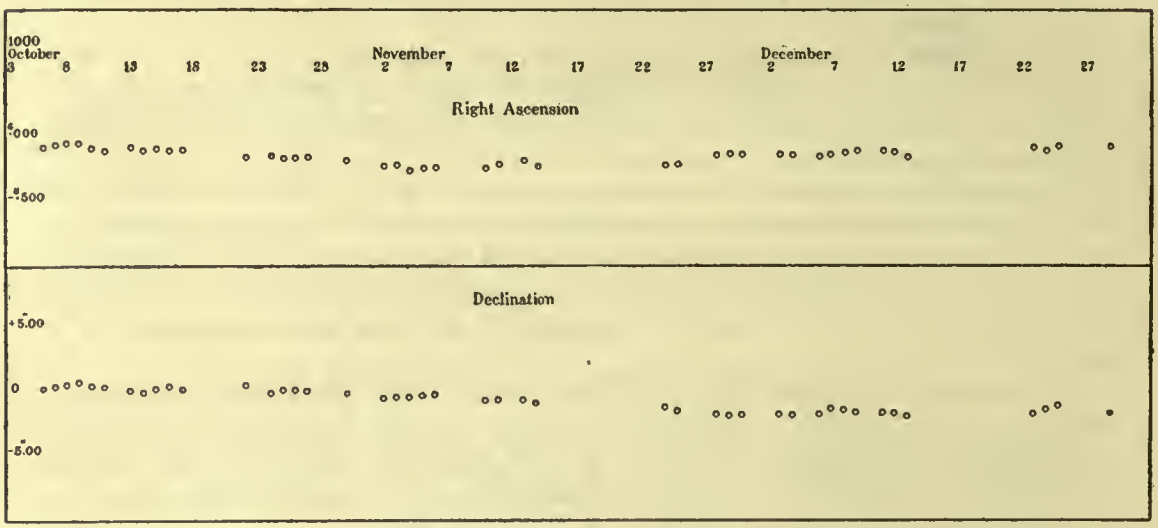

FIG. 1. — Position inequality of Eros.

As the correction to the ephemeris has been carefully determined and made use of, it does not seem worth while to include terms depending upon uncertainties in any of the elements of the orbit of Eros. The derivation of the parallax has been based wholly upon the displacements in right ascension, as 0.97 of the total parallactic displacement is in this direction, and because of the smallness of the displacement in declination at this latitude. The inclusion of any declination results would not have strengthened the determination.

Before proceeding to a final discussion of the results, a short investigation of the possible sources of systematic error is pertinent.

SYSTEMATIC ERRORS.

The most probable sources of systematic error appeared to be the following:

1. Distortions in the figure of the great mirror of the telescope due to the extreme hour angles at which the displacement negatives were made.
2. Errors in the refraction constant.
3. Radial distortion (aberration) of the star-images.
4. The periodic light variation of Eros.
5. The suspected periodic inequality of position of Eros.

(1 and 2) Sources 1 and 2 would, if present, probably reveal themselves in a similar manner, and they have been considered together.

As already explained, two methods of reduction, particularly adapted to testing some of these points, were adopted. These two systems of reduction give us three ways of investigating such systematic errors as the two mentioned.

(*a*) By a direct comparison of the measured coördinates east and west with each other and with the meridian group;

(*b*) By a comparison of the plate constants derived from each of the two solutions; and

(*c*) By an examination of the parallax results themselves.

(*a*) In the first solution the same stars are used both east and west, and their coördinates derived from the *center of gravity of the group*. After the rectangular measures of such groups and that of the meridian groups have been freed from the effects of refraction and referred to the same coördinate axes, they are suitable for investigating this question without further reduction. For this purpose the *sums* of the *standard coördinates* for each elongation and for the meridian have been obtained. As only the X coördinates have been used in the parallax determination, it is these alone with which we shall concern ourselves. If there are no systematic errors, such as in the assumed refraction, distortions, and the like, the sum of the east group should agree exactly with those of the west and meridian groups.

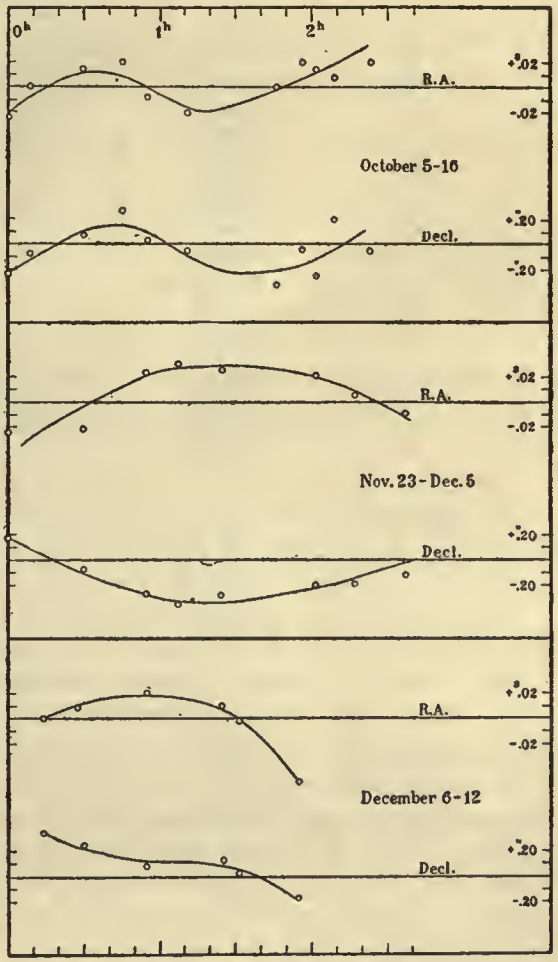

FIG. 2. — Comparison of position inequality of Eros with period of light variations — $2^h\ 38^m$.

As a preliminary, these sums were tabulated before any attempt was made to reduce them to a common scale value or orientation. The resulting comparison showed such small differences, with no indications of system, that it was not deemed necessary to go to the labor of a complete reduction. These unreduced results are given in the table on page 12. The unit is one inch. The fifth (last) decimal place corresponds almost exactly to hundredths of seconds of arc. The column E–W, therefore, may be considered as such.

When we consider that each difference in the column E–W contains the errors of from 6 to 10 distances, as well as the effect of scale value and orientation, we must allow that they are small and do not show any evidence of distortion and refraction such as we have been seeking. All of these differences would probably be diminished by a complete reduction.

(*b*) As the plate constants rest upon measures made in *both* coördinates, this test contains the additional element of the declination measures. A comparison of these constants confirms the conclusion reached in (*a*), viz., that there is no evidence of distortion of the mirror or of errors in the refraction constant employed.

Sums of East, Meridian, and West Rectangular Coördinates.

Date.	East.	Meridian.	West.	E–W.
	in.	in.	in.	
Oct. 6	1.80276	1.80321	1.80365	− 89
12	1.86327	.....	1.86391	− 64
13	2.19286	2.19391	2.19339	− 53
14	1.75576	1.75548	1.75510	+ 66
15	2.29890	2.29965	2.29862	+ 28
16	1.80555	1.80538	1.80652	− 97
21	2.08389	2.08479	2.08364	+ 25
24	2.66303	2.66541	2.66520	−217
26	1.30517	.....	1.30484	+ 33
29	2.58931	2.59019	2.58891	+ 40
Nov. 3	1.79189	.....	1.79309	−120
10	2.21430	2.21509	2.21370	+ 60
28	2.55749	2.55747	2.55823	− 74
29	3.21513	3.21237	3.21552	− 39
Dec. 5	1.84737	1.84762	1.84652	+ 85
5	2.34865	2.34866	2.34918	− 53
7	1.56439	1.56393	1.56415	+ 24
24	2.11772	.....	2.11698	+ 74

(*c*) The zenith distances at which the observations were made were larger in the evening than in the morning, at the beginning of the series. The zenith distances changed until, at the end of the series, they were larger in the morning than in the evening.

The values of the parallax derived from the first and second halves of the period should show a change if any errors of the nature of 1 and 2 exist.

An examination shows no greater difference than is to be expected.

(3) On account of the very limited field in the Crossley plates over which the star-images are round, it is perhaps a question whether even in the field used there may not be radial aberrations which can not be detected by the eye, but which would result in systematic error, and which might be detected in a long series of observations. A systematic effect of this sort should be revealed by a comparison of the plate constants for the two solutions. The following are the differences, without respect to sign, between the constants of the east and west groups of the entire 18 equations, in units of the sixth decimal place, for both solutions:

Solution.	Scale Value.	Orientation.
First	8267	16086
Second	6943	21195

The scale value is a little more accordant in the second solution, whereas the orientation is more accordant in the first solution. The *absolute* values of the constants given above are of little importance, as they are affected by a variety of conditions which are almost entirely eliminated in the solution. There appears, therefore, to be no indication of any systematic effect from radial aberration. This conclusion is confirmed by the close agreement of the parallax derived from the two independent solutions.

(4) By arranging the values of the parallax in the order of their derivation from the light period, any dependence upon that cause should be shown. Such arrangements show no relation.

(5) As has already been pointed out, there should be little effect on the derived parallax, even should a periodic inequality of position be confirmed.

WEIGHTS.

The only grounds upon which weights have been assigned are:

A. The number of images of Eros and of the comparison-stars concerned in an equation.

B. The sizes of the parallax factors (relative inverse distances of Eros at the times of observation).

The errors of observation remaining constant, their effect on the resulting parallax will vary as the inverse distance of the asteroid at the time of observation. It is well known, however, that the accuracy of a result is not directly proportional to the number of plates or images concerned. As an experiment, three systems have been used, namely, *unweighted*, *square root of weights*, *full weights*.

Solutions have been made also according to certain arbitrary but reasonable assumptions. The results of the various assumptions and combinations are here given in tabular form:

	Solution 1.	Solution 2.
Unweighted.	″	″
126 equations (all)	+.0086	+.0070
120 equations (rejecting o″.100 and over)	+.0093	.....
122 equations (rejecting o″.100 and over)	.....	+.0093
96 equations (rejecting o″.050 and over)	+.0057	.....
92 equations (rejecting o″.050 and over)	.....	+.0056
18 dates	+.0034	+.0031
18 dates (rejecting large − value on Oct. 13)	+.0058	+.0050
Simple mean of above	+.0066	+.0060
Weighted — Square Root of Weights.		
126 equations (all)	+.0109	+.0095
120 equations (rejecting o″.100 and over)	+.0115	.....
122 equations (rejecting o″.100 and over)	.....	+.0114
96 equations (rejecting o″.050 and over)	+.0067	.....
92 equations (rejecting o″.050 and over)	.....	+.0065
18 dates (all)	+.0041	+.0039
18 dates (rejecting large − value on Oct. 13)	+.0062	+.0056
Simple mean of above	+.0077	+.0072
Full Weights.		
126 equations (all)	+.0130	+.0118
18 dates (all)	+.0047	+.0047
18 dates (rejecting large − value on Oct. 13)	+.0065	+.0061
Simple mean of above	+.0081	+.0075
General mean, all three weights	+.0074	+.0069

An examination of the results of the different assumptions shows a systematic difference between the value derived from *equations* and *dates*. This difference is due to the excess of large *positive* corrections over large *negative* corrections on the dates giving large systematic values of the correction. It is also accentuated by a large negative correction on Oct. 13, an equation which we would probably be justified in rejecting altogether. Hence it seems certain that the equations (including these large values)

give too *large* a result, and that the dates (including the large negative value on Oct. 13) give too *small* a value of the parallax.

In my opinion, the square root of the product of parallax factors and of the number of images is the most reliable weight. The final value is based on such weights.

THE FINAL VALUE OF THE SOLAR PARALLAX.

The slight differences between the results of so many combinations seem to make it unnecessary to go into further refinements of weighting and selection. If we take the simple mean of the four values derived respectively from all equations, equations under 0″.050, all dates (Oct. 13 revised), weighted by the square root, we find values which differ but slightly from those based on any of the other reasonable assumptions. I therefore consider the following as the most probable values of the solar parallax from the two solutions:

	″	″
Solution 1	8.80	+.0070
Solution 2	8.80	+.0064

As there seems to be no good reason why one of these values should be given greater weight than the other, the simple mean, + 0″.0067, is adopted as the final result, making the value of the solar parallax

$$\pi = 8''.8067 \pm 0''.0025.$$

The assigned probable error is not the result of any single assumption, but is estimated from the probable errors derived in several ways, as follows:

P.E., 126 equations	±0″.0027
96 equations	± .0018
18 daily means	± .0052
15 daily means (omitting 3 largest values)	± .0034
8 results used in final combination	± .0018

After the reduction of the measures and the derivation of the parallax, the plates (20 in number) showing the largest discordances were completely remeasured and re-reduced. To test five of these results still farther, a third set of measures and another complete reduction of the five were made. The measures generally reproduced the original results very closely. The substitution of the twenty remeasured results would have changed the parallax by only 0″.0005. This was considered a valuable check on the early measures of these plates and on the reliability of all the measures. Only the original measures have been used in the final discussion.

TABLE I. — MERIDIAN PLATE MEASURES.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Oct. 5	C				Oct. 7	C
84	a	13 34 47	−18102	−66975	110	a	13 37 47	−65483	−34620
	b		−14504	+ 8777		b		−51954	+33320
	c		+ 3167	+28141		c		+ 1136	+18776
	d		+ 5054	−46246		d		+ 4204	−70299
	e		+ 5991	−18790		e		+ 7913	−70398
	f		+10853	+ 7707		f		+ 9406	+36598
	g		+ 9596	+43605		g		+25238	−25115
	h		+53862	+ 8426		h		+53657	−18697
			Oct. 5	H				Oct. 7	H
85	a	13 44 47	−17886	−67911	112	a	13 50 11	−65241	−35748
	b		−14369	+ 7873		b		−51726	+32198
	c		+ 3308	+27222		c		+ 1359	+17663
	d		+ 5202	−47160		d		+ 4442	−71427
	e		+ 6136	−19698		e		+ 8152	−71516
	f		+11001	+ 6795		f		+ 9634	+35487
	g		+ 9714	+42711		g		+25493	−26234
	h		+53983	+ 7523		h		+53895	−19827
			Oct. 5	C				Oct. 7	C
90	a	14 15 0	−17594	−70677	113	a	13 53 24	−65208	−36019
	b		−13990	+ 5107		b		−51640	+31898
	c		+ 3708	+24426		c		+ 1424	+17366
	d		+ 5555	−49947		d		+ 4462	−71722
	e		+ 6526	−22494		e		+ 8173	−71803
	f		+11404	+ 4003		f		+ 9672	+35186
	g		+10137	+39888		g		+25512	−26521
	h		+54411	+ 4698		h		+53913	−20119
			Oct. 6	H				Oct. 8	H
98	a	13 34 15	−19675	−38712	117*	a	13 36 0	−13489	+15002
	b		−20829	+27682		b		+10518	− 7470
	c		−17707	+ 7308		c		+ 3522	+20279
	d		− 2857	+19307		d		+18198	−10951
	e		+ 5971	−28433		e		+27629	+13547
	f		+11472	−58252		f		+29374	+25599
	g		+17685	+41466		g		+37600	+31155
	h		+35361	−31576		h		+58712	− 6774
	i		+53800	+ 4330					
			Oct. 6	C				Oct. 8	C
100	a	13 43 1	−19545	−39484	118*	a	13 40 54	−13390	+14586
	b		−20696	+26894		b		−10402	− 7914
	c		−17577	+ 6521		c		+ 3629	+19827
	d		− 2719	+18520		d		+18306	−11392
	e		+ 6105	−29227		e		+27733	+13095
	f		+11595	−59035		f		+29488	−25147
	g		+17827	+40668		g		+37718	+30708
	h		+35485	−32356		h		+58814	− 7228
	i		+53927	+ 3534					
			Oct. 6	H				Oct. 8	H
102	a	13 57 6	−19284	−40775	119	a	13 50 0	−13185	+13560
	b		−20478	+25591		b		−10191	− 8911
	c		−17338	+ 5204		c		+ 3832	+18837
	d		− 2503	+17226		d		+18541	−12369
	e		+ 6322	−30515		e		+27950	+12101
	f		+11840	−60308		f		+29698	+24162
	g		+18025	+39371		g		+37920	+29721
	h		+35703	−33619		h		+59043	− 8200
	i		+54116	+ 2266					

* These times have been changed from the records as published in Lick Observatory Bulletin No. 13 by $+2^m$.

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Oct. 9	C				Oct. 10	H
122	a	13 27 0	−11617	+17963	131	a	13 36 8	−50186	+ 1500
	b		− 9165	−25604		b		−40530	− 6296
	c		− 5167	+18448		c		−35170	+11224
	d		− 4648	− 6066		d		−10733	−19313
	e		− 6051	−66147		e		− 4674	+43108
	f		+ 1442	+ 1032		f		+25355	− 1772
	g		+ 5270	+34224		g		+39239	−26992
	h		+ 9007	− 6744		h		+70482	−32759
	u		+13820	−40660		x		+ 1288	+ 3625
	x_1		+ 7849	−31974					
	x_2		+ 9337	−28853					
	y		+20662	−25651					
	z		+22166	−33569					
			Oct. 9	C				Oct. 12	C
123	a	13 30 11	−11550	+17705	142*	a	13 45 23	−41516	+25482
	b		− 9098	−25862		b		−20118	+26746
	c		− 5071	+18204		c		−11380	+ 263
	d		− 4559	− 6324		d		− 8018	−48759
	e		− 5996	−66417		e		+13732	+ 1501
	f		+ 1522	+ 764		f		+19667	−64355
	g		+ 5361	+33975		g		+68942	+12602
	h		+ 9082	− 7020					
	u		+13901	−40939					
	x_1		+ 7911	−32246					
	x_2		+ 9415	−29184					
	y		+20750	−25909					
	z		+22222	−33856					
			Oct. 9	H				Oct. 12	H
125	a	13 40 47	−11282	+16759	143*	a	13 48 5	−41411	+25298
	b		− 8832	−26798		b		−20008	+26522
	c		− 4825	+17234		c		−11272	+ 78
	d		− 4312	− 7278		d		− 7966	−49051
	e		− 5702	−67363		e		+13802	+ 1337
	f		+ 1776	− 183		f		+19690	−64646
	g		+ 5593	+33046		g		+69003	+12378
	h		+ 9338	− 7957					
	u		+14182	−41882					
	x_1		+ 8206	−33188					
	x_2		+ 9697	−30030					
	z		+22506	−34795					
			Oct. 10	H				Oct. 12	C
129	a	13 29 43	−50372	+ 2067	144*	a	13 51 23	−41308	+25029
	b		−40726	− 5732		b		−19901	+26241
	c		−35359	+11783		c		−11175	− 230
	d		−10890	−18759		d		− 7836	−49268
	e		− 4853	+43683		e		+13912	+ 1036
	f		+25162	− 1187		f		+19813	−64868
	g		+39045	−26443		g		+69112	+12080
	h		+70294	−32220					
	x		+ 1089	+ 4208					
			Oct. 10	C				Oct. 13	H
130	a	13 33 0	−50296	+ 1804	156	a	13 7 43	−55474	−44566
	b		−40636	− 6003		b		−54683	+ 2145
	c		−35277	+11537		c		−12432	+24963
	d		−10823	−19032		d		+ 4170	−59295
	e		− 4742	+43410		e		+11705	+14039
	f		+25260	− 1492		f		+20641	−32341
	g		+39128	−26736		g		+25243	+ 777
	h		+70377	−32501		h		+26364	+36854
	x		+ 1287	+ 3936					

* These times have been changed from the records as published in Lick Observatory Bulletin No. 13 by +1m.

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Oct. 13	C				Oct. 15	C
157	a	13 11 15	−55425	−44876	204	a	12 56 11	−38691	−33587
	b		−54576	+ 1860		b		−24299	−14974
	c		−12297	+24659		c		− 6068	−20248
	d		+ 4251	−59634		d		− 5877	+16844
	e		+11827	+13716		e		+12360	+41894
	f		+20760	−32679		f		+18645	−46666
	g		+25386	+ 463		g		+38807	−39620
	h		+26524	+36527		h		+42752	− 4079
						i		+52366	+ 5846
						x		+ 7586	−43109
			Oct. 13	C				Oct. 15	H
160	a	13 25 11	−54901	−46038	205	a	12 59 0	−38559	−33834
	b		−54062	+ 696		b		−24179	−15217
	c		−11770	+23514		c		− 5921	−20474
	d		+ 4724	−60754		d		− 5770	+16625
	e		+12350	+12594		e		+12421	+41628
	f		+21224	−33807		f		+18803	−46885
	g		+25884	− 678		g		+38955	−39794
	h		+27041	+35394		h		+42879	− 4259
						i		+52498	+ 5686
						x		+ 7735	−43347
			Oct. 14	C				Oct. 15	C
180	a	13 1 47	−51882	−34702	207	a	13 11 0	−38039	−34782
	b		−27038	−13495		b		−23667	−16164
	c		−13498	−61629		c		− 5414	−21452
	d		−12049	+ 876		d		− 5269	+15654
	e		− 6420	+42001		e		+12937	+40700
	f		− 1314	+18757		f		+19309	−47814
	g		+14240	−21154		g		+39436	−40726
	h		+17169	+44900		h		+43373	− 5232
	i		+38826	− 3233		i		+52986	+ 4687
						x		+ 8222	−44285
			Oct. 14	H				Oct. 16	H
181	a	13 6 0	−51752	−35069	232	a	12 51 47	−43086	+38895
	b		−26875	−13850		b		−21245	−36214
	c		−13360	−61989		c		−19560	−13288
	d		−11884	+ 500		d		− 9092	− 4536
	e		− 6257	+41660		e		+ 2367	+ 92
	f		− 1152	+18401		f		+ 4782	+45884
	g		+14405	−21520		g		+10124	− 2907
	h		+17329	+44528		h		+22085	+ 8296
	i		+38992	− 3590		i		+47318	−19424
						x		+ 1540	− 5929
			Oct. 14	H				Oct. 16	H
182	a	13 8 54	−51624	−35316	235	a	13 8 6	−42356	+37635
	b		−26774	−14069		b		−20520	−37464
	c		−13230	−62237		c		−18835	−14556
	d		−11782	+ 272		d		− 8361	− 5792
	e		− 6148	+41418		e		+ 3098	− 1169
	f		− 1045	+18161		f		+ 5500	+44626
	g		+14510	−21754		g		+10836	− 4171
	h		+17427	+44301		h		+22796	+ 7038
	i		+39088	− 3815		i		+48020	−20670
						x		+ 2251	− 7187

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Oct. 16	H				Oct. 23	C
236	a	13 11 1	−42256	+37434	273	a	12 30 2	−51415	+ 1042
	b		−20386	−37724		b		−35950	−41276
	c		−18692	−14789		c		−20942	+15082
	d		− 8225	− 6037		d		−18499	−30414
	e		+ 3223	− 1388		e		−17990	+13308
	f		+ 5634	+44405		f		+32881	+ 5186
	g		+10989	− 4398		g		+56991	− 2287
	h		+22941	+ 6808		h		+57200	+42426
	i		+48179	−20896					
	x		+ 2397	− 7441					
			Oct. 21	C				Oct. 24	H
258	a	12 31 24	−41816	+33853	286	a	12 23 8	−54839	−29285
	b		−24684	+11756		b		−36396	+30794
	c		−13563	−12480		c		−28675	−23739
	d		− 3458	+64820		d		−21942	−53415
	e		+ 1821	−41920		e		+ 2728	+14393
	f		+27916	−38388		f		+ 4791	− 2265
	g		+40301	+ 413		g		+ 8390	+34070
	h		+49864	− 7753		h		+23064	+15395
	x		−50635	+52016		i		+36204	−36606
	y		+64893	−91622		j		+44684	− 3015
			Oct. 21	H				Oct. 24	C
259	a	12 30 0	−41307	+33438	287	a	12 32 23	−54232	−29815
	b		−24207	+11296		b		−35802	+30283
	c		−13139	−12960		c		−28058	−24291
	d		− 2918	+64358		d		−21331	−53950
	e		+ 2201	−42415		e		+ 3342	+13863
	f		+28310	−38928		f		+ 5375	− 2784
	g		+40742	− 130		g		+ 8979	+33572
	h		+50285	− 8299		h		+23687	+14892
	y		+65191	−92276		i		+36816	−37139
						j		+45302	− 3519
			Oct. 21	C				Oct. 24	H
260	a	12 42 11	−41131	+33195	288	a	12 35 23	−54029	−29983
	b		−24036	+11058		b		−35569	+30098
	c		−12948	−13186		c		−27856	−24442
	d		− 2734	+64083		d		−21154	−54122
	e		+ 2380	−42621		e		+ 3550	+13686
	f		+28474	−39135		f		+ 5581	− 2984
	g		+40935	− 381		g		+ 9202	+33354
	h		+50470	− 8537		h		+23889	+14680
	y		+65420	−92470		i		+37008	−37329
						j		+45504	− 3738
			Oct. 23	H				Oct. 25	C
272	a	12 26 48	−51594	+ 1291	311	a	12 3 8	−36980	−12649
	b		−36160	+41037		b		−27315	+12608
	c		−21150	+15244		c		−26250	+ 1156
	d		−18704	−30199		d		− 3443	−19909
	e		−18186	+13547		e		+ 4617	+ 7066
	f		+32718	+ 5356		f		+13159	+ 1587
	g		+56829	− 2112		g		+21721	−36555
	h		+57018	+42612		h		+34079	+26982
						i		+52712	−16198

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Oct. 25	H				Oct. 29	H
312	a	12 5 43	−36800	−12791	353	a	11 51 36	−47756	− 5005
	b		−27139	+12426		b		−38548	−25608
	c		−26090	+ 1001		c		−35746	+15700
	d		− 3267	−20064		d		−13437	+ 5874
	e		+ 4780	+ 6900		e		+ 6775	+24409
	f		+13329	+ 1411		f		+20149	+ 5527
	g		+21882	−36724		g		+19325	− 2418
	h		+34256	+26803		h		+36217	+ 3188
	i		+52879	−16381		i		+39465	−25217
						x		+17217	−26599
						y		+18227	−24284
						z		−53663	+43086
			Oct. 25	C				Oct. 29	H
314	a	12 17 58	−35966	−13484	354	a	11 54 36	−47519	− 5134
	b		−26288	+11786		b		−38307	−25745
	c		−25237	+ 309		c		−35505	+15584
	d		− 2417	−20756		d		−13195	+ 5727
	e		+ 5631	+ 6226		e		+ 7015	+24274
	f		+14158	+ 748		f		+20376	+ 5380
	g		+22718	−37384		g		+19544	− 2584
	h		+35104	+26115		h		+36429	+ 3016
	i		+53717	−17037		i		+39708	−25387
						x		+17405	−26777
						y		+18451	−24393
						z		−66253	+38737
			Oct. 26	C				Oct. 29	H
329	a	12 2 11	−39476	+ 5694	355	a	11 57 43	−47298	− 5275
	b		−10750	+17538		b		−38074	−25878
	c		− 8103	+ 3739		c		−35269	+15458
	d		− 7816	−39557		d		−12956	+ 5591
	e		+ 1022	+ 9989		e		+ 7253	+24168
	f		+19984	+16098		f		+20623	+ 5275
	g		+22681	−14969		g		+19778	− 2710
	h		+21954	−52279		h		+36688	+ 2900
	x		− 3023	+18702		i		+39945	−25496
						x		+17645	−26855
						y		+18685	−24508
						z		−66036	+38649
			Oct. 26	C				Nov. 1	H
330	a	12 5 0	−39322	+ 5512	360	a	11 39 0	−30676	+ 7917
	b		−10572	+17378		b		−34206	+21500
	c		− 7895	+ 3626		c		− 5760	−11678
	d		− 7602	−39687		e		+ 1035	+13122
	e		+ 1210	+ 9853		f		+23414	+ 9612
	f		+20184	+15977		g		+25777	+35465
	g		+22885	−15118		h		+33483	− 3210
	h		+22192	−52387		x		−31772	+ 222
	x		− 2836	+18544		y		+25559	+ 4418
						z		+32309	−24162
			Oct. 26	H				Nov. 1	H
331	a	12 8 1	−39103	+ 5394	361	a	11 42 23	−30419	+ 7814
	b		−10325	+17236		b		−33919	+21412
	c		− 7680	+ 3469		c		− 5494	−11775
	d		− 7408	−39838		d		− 2569	−52285
	e		+ 1440	+ 9709		e		+ 1295	+12999
	f		+20398	+15798		f		+23683	+ 9491
	g		+23100	−15285		g		+26027	+35350
	h		+22385	+52535		h		+33737	− 3310
	x		− 2594	+18383		x		−31468	+ 128
						y		+25789	+ 4323
						z		+32587	−24270

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Nov. 1	H				Nov. 3	H
362	a	11 45 8	−30178	+ 7715	411	a	11 23 6	−36822	−31501
	b		−33719	+21296		b		−33061	+ 9804
	c		− 5262	−11874		c		−27119	− 7218
	d		− 2300	−52379		d		−15958	+12285
	e		+ 1523	+12919		e		+17763	+ 8463
	f		+23901	+ 9408		f		+35655	+ 888
	g		+26236	+35286		g		+36652	−15910
	h		+33986	− 3384		h		+40064	−37586
	x		−31245	+ 23		x		+22670	−15256
	y		+26079	+ 4228					
	z		+32848	−24331					
			Nov. 2	H				Nov. 3	C
384	a	11 25 47	−24485	+11418	414	a	11 36 15	−35678	−31832
	b		−16413	+ 8978		b		−31964	+ 9485
	c		−13875	+33076		c		−26006	− 7524
	d		−12786	+ 1656		d		−14861	+11987
	e		− 8134	+ 8062		e		+18831	+ 8179
	f		+11958	−19646		f		+36734	+ 612
	g		+27094	−26439		g		+37729	−16192
	h		+31010	−14090		h		+41195	−37852
	x		+38897	−13462		x		+23769	−15526
			Nov. 2	C				Nov. 4	H
385	a	11 29 11	−24199	+11323	439	a	11 4 0	−31522	− 4859
	b		−16144	+ 8911		b		−18513	+18820
	c		−13596	+32996		c		−16294	−44266
	d		−12504	+ 1572		d		−11125	−49507
	e		− 7853	+ 7993		e		+ 4553	−16277
	f		+12231	−19702		f		+ 8909	− 7046
	g		+27348	−26518		g		+ 9285	+ 4144
	h		+31284	−14161		h		+45833	− 6492
	x		+39142	−13572		i		+47764	− 2920
			Nov. 2	H				Nov. 4	C
386	a	11 36 54	−23571	+11096	441	a	11 11 1	−30936	− 4978
	b		−15486	+ 8662		b		−17919	+18695
	c		−12957	+32758		c		−15710	−44374
	d		−11892	+ 1368		d		−10542	−49636
	e		− 7228	+ 7766		e		+ 5159	−16403
	f		+12851	−19932		f		+ 9501	− 7192
	g		+27963	−26709		g		+ 9912	+ 4013
	h		+31904	−14383		h		+46474	− 6636
	x		+39745	−13767		i		+48374	− 3073
			Nov. 3	C				Nov. 4	H
408	a	11 10 0	−37930	−31224	443	a	11 24 23	−29807	− 5263
	b		−34179	+10111		b		−16753	+18405
	c		−28224	− 6928		c		−14577	−44650
	d		−17047	+12604		d		− 9416	−49899
	e		+16680	+ 8785		e		+ 6265	−16669
	f		+34591	+ 1204		f		+10677	− 7446
	g		+35565	−15620		g		+11039	+ 3740
	h		+38977	−37297		h		+47576	− 6930
	x		+21562	−14959		i		+49483	− 3358

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Nov. 5	C				Nov. 9	C
445*	a	10 59 0	−79298	−33103	466	a	10 48 48	−49091	− 5080
	b		−75588	−23766		b		−22244	+10062
	c		−39471	−13769		c		−15650	−16696
	d		−22132	+ 424		d		− 8988	+24193
	e		+ 3169	−26845		e		+ 1444	−60878
	f		+ 3623	−14514		f		+ 5390	+17120
	g		+31752	+32310		g		+ 9722	−28383
	h		+38342	−22540		h		+15380	+37007
	i		+13113	−22694		i		+15391	+39278
	x		−24002	−11988		j		+36967	−20088
	y		−11118	− 6670					
	z		− 9613	+ 4042					
			Nov. 5	H				Nov. 9	H
447	a	11 5 0	−78824	−33217	467	a	11 2 54	−47893	− 5050
	b		−75111	−23882		b		−21045	+10096
	c		−38977	−13827		c		−14440	−16647
	d		−21633	+ 332		d		− 7791	+24217
	e		+ 3689	−26938		e		+ 2662	−60790
	f		+ 4134	−14596		f		+ 6566	+17203
	g		+32262	+32221		g		+10915	−28298
	h		+38871	−22621		h		+16577	+37094
	i		+13637	−22767		i		+16570	+39375
	x		−23499	−12070		j		+38158	−20014
	y		−10670	− 6730					
	z		− 9103	+ 3940					
			Nov. 5	C				Nov. 10	C
450	a	11 23 54	−77213	−33568	486	a	10 30 0	−44917	+12650
	b		−73482	−24181		b		−44459	− 7963
	c		−37372	−14187		c		−37158	−32769
	d		−20022	+ 52		d		−17357	−10578
	e		+ 5275	−27256		e		−13929	+22767
	f		+ 5699	−14892		f		+24384	+55084
	g		+33838	+31966		g		+25596	+33870
	h		+40451	−22932		h		+32110	+15809
	i		+15226	−23096		t		+21084	− 2278
	x		−21896	−12406		w		+44854	+16026
	y		− 9073	− 7018		x		−15929	+ 2063
	z		− 7502	+ 3680		y		−14656	+ 1366
						z		−11574	+ 1415
			Nov. 9	H				Nov. 10	H
464	a	10 40 54	−49716	− 5097	487	a	10 37 0	−44336	+12634
	b		−22872	+10068		b		−43876	− 7910
	c		−16304	−16693		c		−36585	−32731
	d		− 9616	+24202		d		−16753	−10522
	e		+ 775	−60851		e		−13342	+22801
	f		+ 4748	+17145		f		+24952	+55041
	g		+ 9066	−28369		g		+26177	+33903
	h		+14783	+37022		h		+32690	+15829
	i		+14761	+39299		t		+21651	− 2240
	j		+36320	−20096		w		+45407	+16003
						x		−15354	+ 2101
						y		−14055	+ 1408
						z		−10952	+ 1432

* The time for this plate has been changed from the records as published in Lick Observatory Bulletin No. 13 by + 1m.

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Nov. 10	C				Nov. 13	H
492	a	11 0 0	−42388	+12757	539	a	10 12 0	−27527	−14048
	b		−41984	− 7802		b		−25206	− 6591
	c		−34703	−32636		c		−11578	+ 4534
	d		−14814	−10407		d		− 2280	− 1164
	e		−11405	+22930		e		+ 1873	+19506
	f		+26882	+55169		f		+ 5176	−36914
	g		+28106	+34052		g		+12662	+12865
	h		+34642	+15981		h		+31514	+10706
	w		+47353	+16125		i		+45831	+14451
	x		−13395	+ 2229		u		+44202	+ 8662
	y		−11097	+ 1568		v		−51798	−13669
	z		− 9037	+ 1574		w		+33339	−18479
			Nov. 12	H				Nov. 13	C
518	a	10 16 1	−26961	+ 718	540	a	10 15 0	−27290	−13986
	b		−11178	−15965		b		−24972	− 6517
	c		− 7636	+18224		c		−11360	+ 4597
	d		− 1493	+ 4903		d		− 2041	− 1078
	e		+18955	+51307		e		+ 2104	+19579
	f		+34230	−13121		f		+ 5429	−36839
	g		+48876	− 7712		g		+12887	+12938
	h		+48176	−14698		h		+31732	+10780
	x		−20113	−15576		i		+46064	+14529
	z		+39085	+12622		u		+44450	+ 8743
						v		−51548	−13611
						w		+33606	−18431
			Nov. 12	C				Nov. 23	H
519	a	10 19 23	−26678	+ 662	571*	a	9 11 36	−35081	+29216
	b		−10888	−15951		b		−35602	−26313
	c		− 7352	+18244		c		−21468	+14752
	d		− 1222	+ 4946		d		+ 2394	+17842
	e		+19230	+51366		e		+ 4890	− 4829
	f		+34530	−13107		f		+17559	+27591
	g		+49131	− 7698		g		+26192	+23104
	h		+48441	−14683		h		+52231	−33093
	x		−19857	−15598					
	z		+39346	+12625					
			Nov. 12	H				Nov. 23	C
520	a	10 22 6	−26447	+ 797	573*	a	9 17 47	−34732	+29582
	b		−10661	−15854		b		−35260	−25962
	c		− 7129	+18350		c		−21128	+15104
	d		− 988	+ 5002		d		+ 2761	+18212
	e		+19471	+51400		e		+ 5280	− 4542
	f		+34778	−13023		f		+17926	+27991
	g		+49393	− 7615		g		+26614	+23472
	h		+48802	−14612		h		+52599	−32752
	x		−19625	−15498					
	z		+39602	+12703					
			Nov. 13	C				Nov. 23	H
538	a	10 9 23	−27744	−14105	576*	a	9 37 54	−33565	+30799
	b		+25449	− 6631		b		−34102	−24756
	c		−11797	+ 4488		c		−19940	+16327
	d		− 2501	− 1211		d		+ 3918	+19420
	e		+ 1652	+19469		e		+ 6420	− 3248
	f		+ 4974	−36960		f		+19088	+29152
	g		+12452	+12804		g		+27737	+24661
	h		+31307	+10657		h		+53765	−31533
	i		+45644	+14499					
	t		−73553	−18542					
	u		+44002	+ 8623					
	v		−52026	−13715					
	w		+33165	−18533					

* These times have been changed from the records as published in Lick Observatory Bulletin No. 13 by -5^m.

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Nov. 24	C				Nov. 29	H
588	a	9 36 51	−56529	−10498	660	a	8 50 54	−74395	+ 8149
	b		−56494	+ 7730		b		−49432	−22982
	c		+ 5871	+49910		c		−48190	−27761
	d		+16916	−50614		d		+16818	+28070
	e		+21015	−50642		e		+22908	+15538
	f		+32222	+64096		f		+25598	−48426
	g		+39750	+40580		g		+35333	− 9318
	h		+40772	+25659		h		+40695	− 694
			Nov. 27	H				Nov. 29	C
602	a	9 0 53	−53034	+ 7736	661	a	8 53 54	−74248	+ 8454
	b		−15973	−14442		b		−49353	−22680
	c		− 9759	+41238		c		−48108	−27463
	d		+ 2382	−36472		d		+16953	+28288
	f		+24277	+ 9920		e		+23028	+15737
	g		+50302	− 2342		f		+25647	−48189
	h		−50523	−21660		g		+35412	− 9102
						h		+40774	− 509
			Nov. 27	H				Nov. 29	H
606	a	9 13 1	−52508	+ 8593	666	a	9 9 8	−73764	+ 9531
	b		−15478	−13516		b		−48813	−21599
	c		+ 9268	+42089		c		−47572	−26360
	d		+ 2908	−35542		d		+17437	+29492
	f		+24738	+10797		e		+23527	+16950
	g		+50721	− 1425		f		+26220	−46988
	h		−49990	−20725		g		+35941	− 7882
						h		+41319	+ 733
			Nov. 28	C				Dec. 2	H
627	a	8 55 43	−60420	+11550	679	a	8 38 23	−48778	+31482
	b		−45361	+26292		b		−24974	−34688
	c		−11185	−16737		c		−23198	−54541
	d		+ 9474	+27985		d		+ 3091	+13157
	e		+16842	−43665		e		+ 7065	+36710
	f		+29099	−48810		f		+12638	−19634
	g		+38118	−24560		g		+26494	−21185
	h		+52912	+11920		h		+37531	+36442
						x		+ 1716	+55887
			Nov. 28	H				Dec. 2	C
629	a	9 1 53	−60157	+12016	680	a	8 41 0	−48718	+31652
	b		−45103	+26771		b		−24900	−34482
	c		−10950	−16278		c		−23109	−54354
	d		+ 9724	+28449		d		+ 3113	+13334
	e		+17059	−43207		e		+ 7120	+36954
	f		+29292	−48331		f		+12796	−19392
	g		+38331	−24085		g		+26572	−20954
	h		+53130	+12375		h		+37560	+36677
						x		+ 1772	+56143
			Nov. 28	C				Dec. 2	H
630	a	9 4 54	−60025	+12236	681	a	8 44 1	−48640	+31953
	b		−44998	+26984		b		−24856	−34207
	c		−10831	−16048		c		−23091	−54072
	d		+ 9858	+28673		d		+ 3208	+13599
	e		+17177	−42974		e		+ 7204	+37186
	f		+29406	−48110		f		+12741	−19165
	g		+38464	−23860		g		+26607	−20711
	h		+53258	+12610		h		+37663	+36901
						x		+ 1870	+56387

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Dec. 3	C				Dec. 6	C
698	a	8 36 0	−64636	+ 8642	756*	a	8 15 0	−41213	−34605
	b		−30304	−23967		b		−39492	−11782
	c		−10844	+69852		c		−10373	−26491
	d		−12161	− 7697		d		− 5594	− 7525
	e		+27892	−66492		e		+25689	−50948
	f		+76046	− 8839		f		+32241	+30422
						g		+36287	−49963
						h		+43996	−27465
			Dec. 3	C				Dec. 6	H
699	a	8 39 0	−64622	+ 8844	758*	a	8 21 11	−41190	−33990
	b		−30299	−23750		b		−39475	−11179
	c		−10857	+70091		c		−10348	−25907
	d		−12135	− 7430		d		− 5580	− 6938
	e		+27904	−66260		e		+25713	−50380
	f		+76059	− 8588		f		+32255	+30898
						g		+36307	−49398
						h		+44008	−26884
			Dec. 3	H				Dec. 6	C
700	a	8 42 0	−64573	+ 9112	759*	a	8 24 0	−41178	−33708
	b		−30201	−23472		b		−39450	−10894
	c		−10825	+70344		c		−10338	−25622
	d		−12064	− 7182		d		− 5582	− 6692
	e		+27995	−65955		e		+25714	−50098
	f		+76114	− 8311		f		+32276	+31174
						g		+36304	−49140
						h		+43994	−26627
			Dec. 5	H				Dec. 7	H
725	a	8 18 0	−34863	−33578	787	a	8 11 0	−20412	−49173
	b		−13723	−52750		b		−16192	−19805
	c		− 1230	+ 8046		c		−11993	−33871
	d		+ 4623	−14161		d		− 2058	−15649
	e		+14471	+20243		e		− 3022	−19789
	f		+22878	+51422		f		+11053	+20844
	g		+37448	−32754		g		+21301	− 5421
	h		+64176	+14532		h		+60245	−13227
			Dec. 5	C				Dec. 7	C
726	a	8 21 11	−34843	−33265	790	a	8 20 0	−20455	−48421
	b		−13736	−52442		b		−16215	−18987
	c		− 1206	+ 8363		c		−12008	−33076
	d		+ 4646	−13876		d		− 2080	−14796
	e		+14520	+20546		e		− 3045	−18952
	f		+22928	+51718		f		+11027	+21692
	g		+37472	−32491		g		+21269	− 4596
	h		+64215	+14771		h		+60201	−12387
			Dec. 5	H				Dec. 7	H
728	a	8 27 0	−34813	−32750	791	a	8 23 0	−20482	−48031
	b		−13649	−51938		b		−16226	−18675
	c		− 1170	+ 8874		c		−12041	−32738
	d		+ 4703	−13351		d		− 2094	−14504
	e		+14553	+21067		e		− 3063	−18667
	f		+22956	+52287		f		+11035	+21954
	g		+37530	−31955		g		+21269	− 4308
	h		+64227	+15348		h		+60171	−12120

* These times have been changed from the records as published in Lick Observatory Bulletin No. 13 by $+1^m$.

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE NO.	STAR.	P. S. T.	x	y	PLATE NO.	STAR.	P. S. T.	x	y
			Dec. 8	C				Dec. 11	H
821	a	8 20 55	−50600	+26237	847	a	8 4 47	−40849	+26620
	b		−20863	−40874		b		−39407	− 6529
	c		− 9673	+15378		c		− 9182	+30838
	d		− 3299	+35177		d		+13391	−48054
	e		+10881	−14589		e		+16189	− 4246
	f		+29451	−10403		f		+16208	−11978
	g		+34182	− 4213		g		+45452	+31830
	h		+60515	+28174		h		+59731	+36588
						x		+10764	+50132
			Dec. 8	C				Dec. 11	C
823	a	8 27 0	−50632	+26817	848	a	8 8 0	−40927	+26937
	b		−20903	−40230		b		−39475	− 6218
	c		− 9715	+15968		c		− 9256	+31169
	d		− 3335	+35785		d		+13312	−47740
	e		+10835	−13978		e		+16125	− 3927
	f		+29387	− 9796		f		+16125	−11669
	g		+34119	− 3603		g		+45377	+32152
	h		+60453	+28789		h		+59666	+36914
						x		+10685	+50418
			Dec. 8	H				Dec. 11	H
824	a	8 30 0	−50668	+27123	849	a	8 10 43	−40971	+27224
	b		−20940	−39990		b		−39526	− 5946
	c		− 9743	+16265		c		− 9315	+31430
	d		− 3380	+36083		d		+13257	−47454
	e		+10828	−13724		e		+16058	− 3660
	f		+29382	− 9528		f		+16063	−11389
	g		+34110	− 3340		g		+45323	+32426
	h		+60486	+29049		h		+59607	+37180
						x		+10651	+50721
			Dec. 10	C				Dec. 12	C
827	a	8 7 55	−53273	+16094	854	a	8 5 36	−45199	+55859
	b		−14363	−58638		b		−16645	− 6761
	c		− 3596	+18964		c		− 7926	+23638
	d		− 3198	+39106		d		+ 402	+38776
	e		− 1560	+65899		e		+ 1015	+21458
	f		− 1015	−41402		f		+26085	−32349
	g		+ 9944	−15180		g		+39446	−49158
	h		+22359	+14317		h		+45351	−32381
			Dec. 10	H				Dec. 12	H
832	a	8 22 53	−53535	+17580	855	a	8 8 36	−45293	+56146
	b		−14684	−57202		b		−16711	− 6466
	c		− 3840	+20443		c		− 8028	+23944
	d		− 3410	+40572		d		+ 295	+39083
	e		− 1769	+67336		e		+ 928	+21752
	f		− 1330	−39960		f		+26020	−32053
	g		+ 9663	−13706		g		+39377	−48833
	h		+22114	+15786		h		+45291	−32050
			Dec. 10	C				Dec. 12	C
833	a	8 25 54	−53556	+17869	856	a	8 11 54	−45360	+56526
	b		−14699	−56838		b		−16802	− 6091
	c		− 3886	+20735		c		− 8088	+24295
	d		− 3475	+40874		d		+ 227	+39432
	e		− 1817	+67654		e		+ 857	+22114
	f		− 1342	−39594		f		+25928	−31706
	g		+ 9628	−13421		g		+39289	−48499
	h		+22048	+16102		h		+45210	−31612

TABLE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Dec. 22	H				Dec. 24	H
878	a	7 40 36	−20283	+58426	903	a	7 35 0	−48833	+14515
	b		− 4698	+ 8852		b		−29483	−59953
	c		+ 598	+18586		c		−30888	−15126
	d		+ 7356	−32581		e		+ 4874	−40352
	e		+18190	−91054		f		+12225	−48239
	f		+25730	−36343		g		+14381	−53460
	g		+25794	−15375		h		+15564	+24946
	h		+26458	+31231		i		+43450	− 4753
						j		− 7351	−15376
			Dec. 22	C				Dec. 24	C
880	a	7 46 36	−20731	+59053	904	a	7 38 1	−49055	+14869
	b		− 5129	+ 9493		b		−29742	−59622
	c		+ 159	+19219		c		−31122	−14777
	d		+ 6912	−31914		e		+ 4619	−40021
	e		+17730	−90383		f		+11950	−47898
	f		+25298	−35693		g		+14106	−53126
	g		+25354	−14731		h		+15351	+25261
	h		+26013	+31889		i		+43175	− 4441
						j		− 7606	−15034
			Dec. 22	H				Dec. 24	H
881	a	7 49 58	−21036	+59435	906	a	7 44 0	−49572	+15497
	b		− 5398	+ 9858		b		−30259	−58985
	c		− 124	+19599		c		−31620	−14129
	d		+ 6690	−31536		e		+ 4134	−39371
	e		+17566	−90006		f		+11458	−47241
	f		+25058	−35267		g		+13628	−52474
	g		+25089	−14340		h		+14782	+25975
	h		+25739	+32270		i		+42664	− 3770
						j		− 8096	−14383
			Dec. 23	C				Dec. 26	C
889	a	7 35 36	−44249	−18882	920	a	7 36 0	−61902	−12526
	b		+ 3737	+59920		b		+21924	+27536
	c		+ 753	−31279		c		+32370	+35082
	d		+15743	−34117		d		+16431	−51250
	e		+29938	−38311		e		+60973	+15085
	f		+26388	−10475		f		+68675	−11378
	g		+28067	+23163		g		+66062	−51335
			Dec. 23	H				Dec. 26	H
890	a	7 38 47	−44492	−18502	921	a	7 39 0	−62162	−12169
	b		+ 3500	+60258		b		+21637	+27833
	c		+ 486	−30934		c		+32114	+35358
	d		+15467	−33788		d		+16128	−50927
	e		+29659	−37975		e		+60705	+15410
	f		+26124	−10133		f		+68395	−11090
	g		+27795	+23494		g		+65780	−51048
			Dec. 23	C				Dec. 26	C
891	a	7 41 36	−44701	−18209	922	a	7 41 36	−62389	−11894
	b		+ 3288	+60545		b		+21395	+28130
	c		+ 282	−30628		c		+31870	+35687
	d		+15259	−33488		d		+15916	−50603
	e		+29463	−37643		e		+60470	+15713
	f		+25921	− 9838		f		+68155	−10775
	g		+27611	+23791		g		+65545	−50716

PLATE I. — MERIDIAN PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			Dec. 28	H				Dec. 28	H
930	a	7 26 11	−69930	− 4560	932	a	7 31 47	−70519	− 3966
	b		−47821	− 8858		b		−48402	− 8251
	c		−21771	−43130		c		−22350	−42500
	d		−18622	− 2214		d		−19195	− 1600
	e		−10942	−26940		e		−11504	−26336
	f		+ 314	+57093		f		− 266	+57675
	g		+ 8987	−79403		g		+ 8400	−78752
	h		+26858	+48944		h		+26250	+49524
			Dec. 28	C					
931	a	7 28 52	−70209	− 4293					
	b		−48082	− 8577					
	c		−22049	−42784					
	d		−18898	− 1930					
	e		−11192	−26673					
	f		+ 42	+57375					
	g		+ 8749	−79083					
	h		+26549	+49235					

TABLE II.—MERIDIAN PLATE CONSTANTS.

DATE.	PLATE NO.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N_y
Oct. 5	84	+.000023	−.000082			+.000251	+.000003	+.000257
	85	− 53	− 490			252	1	"
	90	+ 39	+ 525			"	− 3	"
				−.000462	+.000650			
Oct. 6	98	− 208	− 62			248	+ 2	254
	100	− 86	− 195			247	+ 1	"
	102	+ 256	+ 262			"	− 1	"
				+.000027	+.000402			
Oct. 7	110	− 272	− 284			247	0	254
	112	− 388	− 272			"	− 1	"
	113	− 77	− 298			"	− 1	"
Oct. 8	117	− 825	+ 2036			243	0	251
	118	− 816	+ 1802			"	0	"
	119	− 871	+ 2288			"	− 2	"
Oct. 9	122	+ 133	+ 58			244	+ 1	252
	123	− 103	− 281			"	+ 1	"
	125	− 13	+ 220			"	0	"
				−.000313	−.004054			
Oct. 10	129	− 836	+ 951			244	0	253
	130	− 917	− 681			"	0	"
	131	− 736	+ 1107			"	0	"
Oct. 12	142	+ 334	+ 477			247	− 4	256
	143	− 440	− 388			248	− 4	"
	144	+ 124	− 87			"	− 5	"
				−.000230	−.001990			
Oct. 13	156	+ 250	+ 421			245	+ 1	256
	157	− 203	− 203			"	+ 1	"
	160	− 47	− 224			"	− 2	
				−.002018	−.002934			
Oct. 14	180	+ 93	− 30			246	+ 2	257
	181	− 67	− 99			"	+ 1	"
	182	− 17	+ 92			"	0	"
				−.000962	−.000033			
Oct. 15	204	− 121	− 570			247	+ 2	258
	205	− 76	+ 348			"	+ 2	"
	207	+ 209	+ 219			246	0	"
				−.000334	−.000527			
Oct. 16	232	+ 23	− 77			244	+ 2	256
	235	+ 230	− 42			"	0	"
	236	− 264	+ 120			"	− 1	"
				−.000391	+.00236			
Oct. 21	258	− 73	+ 993			245	+ 1	261
	259	− 111	− 421			"	+ 1	"
	260	+ 174	− 495			"	0	"
				−.000193	+.000258			
Oct. 23	272	− 573	+ 127			252	0	270
	273	− 343	+ 619			+.000252	0	+.000270

TABLE II. — MERIDIAN PLATE CONSTANTS — Continued.

DATE.	PLATE NO.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N_y
Oct. 24	286	+.000083	+.000024			+.000251	.000000	+.000269
	287	− 154	+ 233			"	− 2	"
	288	+ 72	− 262			"	− 3	"
				−.000914	−.00280			
Oct. 25	311	− 97	+ 152			247	+ 3	265
	312	+ 15	− 107			"	+ 2	"
	314	+ 76	− 39			"	0	"
				−.000714	+.00197			
Oct. 26	329	+ 35	− 282			248	+ 2	267
	330	− 80	+ 454			"	+ 1	"
	331	+ 35	− 160			"	0	"
				−.000417	−.002383			
Oct. 29	353	+ 29	+ 177			254	0	276
	354	+ 92	− 184			"	0	"
	355	− 119	+ 17			"	0	"
				−.000314	+.000864			
Nov. 1	360	− 673	+ 2609			250	0	272
	361	− 64	+ 2486			"	− 1	"
	362	− 125	+ 3095			"	− 2	"
Nov. 2	384	− 331	+ 9			246	+ 1	267
	385	− 51	− 14			"	0	"
	386	+ 397	+ 9			"	− 2	"
				−.000551	−.002187			
Nov. 3	408	− 426	− 207			245	+ 4	267
	411	+ 69	− 261			"	0	"
	414	+ 362	+ 468			"	− 3	"
				−.000207	+.002069			
Nov. 4	439	+ 79	+ 341			247	+ 4	269
	441	− 227	− 86			"	+ 2	"
	443	+ 139	− 262			"	− 2	"
				−.000847	−.00191			
Nov. 5	445	+ 163	− 137			246	+ 4	268
	447	+ 19	− 181			"	+ 2	"
	450	− 197	+ 315			"	− 3	"
				−.000238	+.000238			
Nov. 9	464	− 92	− 297			246	+ 2	268
	466	− 10	− 97			247	0	269
	467	+ 106	+ 382			248	− 4	270
				−.000734	+.000252			
Nov. 10	486	− 119	+ 69			245	+ 4	268
	487	+ 288	− 61			"	+ 2	"
	492	− 156	− 4			"	− 5	267
				−.000933	−.004042			
Nov. 12	518	+ 218	− 170			246	+ 4	267
	519	+ 108	+ 117			"	+ 3	"
	520	− 325	+ 52			+.000245	+ 2	+.000267
				−.000656	−.004001			

TABLE II. — MERIDIAN PLATE CONSTANTS — Continued.

DATE.	PLATE No.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N_y
Nov. 13	538	−.000378	+.000274			+.000245	+.000004	+.000267
	539	+ 165	− 260			"	+ 3	"
	540	+ 210	− 9			"	+ 3	"
				−.000810	+.000217			
Nov. 23	571	− 163	− 1044			251	+ 3	269
	573	− 77	− 209			"	+ 1	"
	576	− 20	− 255			"	− 3	"
Nov. 24	588	− 228	+ 1724			251	− 3	268
Nov. 27	601	− 193	− 246			249	+ 3	265
	602	− 417	+ 102			"	+ 2	"
	606	+ 607	+ 146			"	+ 1	"
				−.001110	+.000717			
Nov. 28	627	− 219	+ 169			248	+ 2	263
	629	+ 122	− 110			"	0	"
	630	+ 107	− 60			"	0	"
				+.000062	−.00114			
Nov. 29	660	− 143	+ 239			248	+ 2	262
	661	+ 207	− 808			"	+ 1	"
	666	− 68	+ 578			"	− 2	"
				+.000506	−.004946			
Dec. 2	679	− 28	− 161			245	+ 2	257
	680	− 44	+ 569			"	+ 1	"
	681	+ 61	− 404			"	+ 1	"
				−.000126	+.003284			
Dec. 3	698	− 38	− 259			246	+ 1	258
	699	− 65	− 25			"	+ 1	"
	700	+ 93	+ 283			"	0	"
				−.000661	+ .00324			
Dec. 5	725	+ 179	+ 244			246	+ 3	255
	726	+ 75	− 371			"	+ 2	"
	728	− 245	+ 137			245	+ 1	"
				−.000892	−.001763			
Dec. 6	756	− 319	+ 363			246	+ 3	255
	758	+ 87	− 72			"	+ 2	"
	759	+ 213	− 299			245	+ 1	254
				−.000663	+.000201			
Dec. 7	787	+ 27	+ 53			248	+ 3	256
	790	− 356	+ 409			247	+ 2	"
	791	+ 311	− 482			246	+ 1	"
				−.000538	+.000647			
Dec. 8	821	− 42	+ 31			247	+ 1	256
	823	+ 350	+ 101			248	0	"
	824	− 316	− 126			+.000248	− 1	+.000256
				−.00147	+.00171			

TABLE II.—MERIDIAN PLATE CONSTANTS—Continued.

DATE.	PLATE No.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N_y
Dec. 10	827	−.000074	+.000434			+.000251	+.000001	+.000258
	832	− 215	− 378			252	− 1	"
	833	+ 276	− 67			253	− 1	"
				−.000342	−.000511			
Dec. 11	847	+ 21	+ 4			250	+ 1	257
	848	− 67	+ 20			"	+ 1	"
	849	+ 51	− 32			"	+ 1	"
				−.000655	+.000336			
Dec. 12	854	− 48	− 240			251	+ 1	257
	855	− 38	+ 168			"	+ 1	"
	856	+ 85	+ 61			"	0	"
				−.001055	+.001118			
Dec. 22	878	− 128	− 289			253	0	255
	880	+ 98	− 281			"	− 1	"
	881	+ 31	+ 569			"	− 1	"
				−.000457	+.000452			
Dec. 23	889	− 167	+ 235			251	+ 1	252
	890	+ 33	− 151			250	0	"
	891	+ 134	− 70			"	0	"
				−.000095	+.000250			
Dec. 24	903	− 78	+ 133			250	0	252
	904	+ 145	− 342			"	0	"
	906	− 79	+ 221			"	0	"
				−.000397	−.001946			
Dec. 28	930	− 648	+ 4347			253	0	253
	931	− 526	+ 4743			"	0	"
	932	− 265	+ 4423			+.000253	0	+.000253

TABLE III. — MERIDIAN MEAN PLACES, REDUCTION TO APPARENT PLACE, AND PARALLAX CORRECTIONS.

DATE.	PLATE NO.	BERLIN M. T.	MEAN PLACE 1900. 0.		REDUCTION TO APPARENT PLACE.		PARALLAX Δ.	
			α	δ	α	δ	α	δ
		h m s	h m s	° ′ ″	s	″	s	″
Oct. 5	84	22 28 22	2 43 48.267	46 35 4.07	+6.057	+13.02	−.095	−2.64
	85	38 22	48.131	13.08			−.040	2.66
	90	23 8 35	47.771	40.49			+.126	2.62
Oct. 6	98	22 27 50	2 43 37.268	46 56 43.03	6.107	13.19	−.077	2.78
	100	36 36	37.144	50.88			−.028	2.80
	102	23 50 41	36.936	57 4.01			+.051	2.79
Oct. 7	110	22 31 22	2 43 22.375	47 18 13.96	6.158	13.39	−.034	2.93
	112	43 46	22.145	24.99			+.037	2.93
	113	46 59	22.107	27.93			+.055	2.93
Oct. 8	117	22 29 35	2 43 3.621	47 39 27.25	6.208	13.57	−.021	3.07
	118	34 29	3.520	31.51			+.008	3.07
	119	43 35	3.312	39.34			+.061	3.06
Oct. 9	122	22 20 35	2 42 40.948	48 0 19.45	6.257	13.78	−.049	3.20
	123	23 46	40.870	22.00	6.258		−.030	3.21
	125	34 22	40.619	31.28	6.258		+.033	3.21
Oct. 10	129	22 23 18	2 42 13.899	48 21 6.44	6.308	14.00	−.007	3.35
	130	26 35	13.814	9.13			+.013	3.35
	131	29 43	13.720	11.91			+.032	3.35
Oct. 12	142	22 38 58	2 41 6.734	49 1 55.90	6.406	14.49	+.147	3.58
	143	41 40	6.643	58.02			+.164	3.57
	144	44 58	6.538	2 0.68			+.184	3.55
Oct. 13	156	22 1 18	2 40 28.113	49 21 13.64	6.453	14.75	−.061	3.76
	157	4 50	27.993	16.74			−.038	3.77
	160	18 46	27.486	27.89			+.050	3.77
Oct. 14	180	21 55 22	2 39 44.080	49 40 36.77	6.500	15.02	−.070	3.90
	181	59 35	43.924	40.32			−.043	3.91
	182	22 2 29	43.814	42.65			−.024	3.91
Oct. 15	204	21 49 46	2 38 55.546	49 59 36.79	6.546	15.31	−.077	4.04
	205	52 35	55.429	38.99			−.059	4.05
	207	22 4 35	54.915	48.43			+.021	4.06
Oct. 16	232	21 45 22	2 38 2.464	50 18 12.27	6.592	15.64	−.076	4.19
	235	22 1 41	1.733	24.66			+.034	4.20
	236	4 36	1.593	26.95			+.053	4.20
Oct. 21	258	21 24 59	2 32 28.960	51 43 51.59	6.799	17.38	−.047	4.90
	259	32 35	28.491	56.35			+.008	4.91
	260	35 46	28.297	58.65			+.032	4.91
Oct. 23	272	21 20 23	2 29 44.270	52 14 7.68	6.869	18.19	−.004	5.19
	273	23 37	44.069	9.69			+.021	5.18
Oct. 24	286	21 16 43	2 28 15.653	52 28 16.26	6.901	18.62	+.010	5.32
	287	25 58	15.003	21.31			+.081	5.31
	288	28 58	14.782	23.22			+.104	5.30
Oct. 25	311	20 56 43	2 26 44.201	52 41 33.10	+6.931	+19.06	−.104	5.43
	312	59 18	44.020	34.78			−.084	5.44
	314	21 11 33	43.112	41.37			+.012	−5.45

TABLE III. — MERIDIAN MEAN PLACES, REDUCTION TO APPARENT PLACE, AND PARALLAX CORRECTIONS — Continued.

DATE.	PLATE No.	BERLIN M. T.	MEAN PLACE 1900.0.		REDUCTION TO APPARENT PLACE.		PARALLAX Δ.	
			α	δ	α	δ	α	δ
		h m s	h m s	° ′ ″	s	″	s	″
Oct. 26	329	20 55 46	2 25 7.501	52 54 17.19	+6.957	+19.60	−.069	−5.57
	330	58 35	7.290	18.49			−.047	5.58
	331	21 1 41	7.053	19.96			−.022	5.58
Oct. 29	353	20 45 11	2 19 56.482	53 27 43.45	7.021	20.92	−.019	5.95
	354	48 11	56.230	44.89		20.92	+.005	5.95
	355	51 18	55.965	46.10		20.93	+.031	5.95
Nov. 1	360	20 32 35	2 14 18.466	53 53 33.44	7.058	22.41	+.021	6.28
	361	35 58	18.184	34.42			+.051	6.27
	362	38 43	17.924	35.33			+.074	6.27
Nov. 2	384	20 19 22	2 12 21.899	54 0 19.98	7.064	22.92	−.042	6.37
	385	22 46	21.594	20.72			−.013	6.38
	386	30 29	20.895	22.91			+.055	6.37
Nov. 3	408	20 3 35	2 10 23.699	54 6 10.57	7.065	23.44	−.130	6.44
	411	16 41	22.480	13.58			−.014	6.47
	414	29 50	21.258	16.53			+.101	6.46
Nov. 4	439	19 57 35	2 8 23.140	54 11 6.94	7.064	23.96	−.132	6.53
	441	20 4 36	22.459	8.23		23.96	−.069	6.55
	443	17 58	21.194	10.89		23.97	+.050	6.56
Nov. 5	445	19 52 35	2 6 21.240	54 15 5.45	7.059	24.48	−.124	6.61
	447	58 35	20.666	6.26			−.071	6.63
	450	20 17 29	18.890	9.28			+.100	6.63
Nov. 9	464	19 34 29	1 58 8.638	54 21 0.98	7.004	26.53	−.075	6.90
	466	42 23	7.915	1.07			−.001	6.91
	467	56 29	6.573	0.44			+.131	6.89
Nov. 10	486	19 23 35	1 56 6.830	54 19 57.49	6.983	27.04	−.122	6.93
	487	30 35	6.177	57.10			−.056	6.95
	492	53 35	4.019	55.83			+.160	6.91
Nov. 12	518	19 9 36	1 52 6.110	54 14 45.44	6.932	28.03	−.144	6.99
	519	12 58	5.798	45.32	6.931		−.112	7.01
	520	15 41	5.523	44.51	6.931		−.086	7.02
Nov. 13	538	19 2 58	1 50 8.314	54 10 36.62	6.901	28.50	−.152	7.02
	539	5 35	8.072	36.25			−.127	7.03
	540	8 35	7.811	35.55			−.098	7.04
Nov. 23	571	18 15 11	1 33 42.968	52 35 5.52	6.501	32.49	−.176	6.83
	573	11 22	42.572	1.97			−.115	6.85
	576	31 29	41.322	34 50.03			+.083	6.82
Nov. 24	588	18 30 26	1 32 29.561	52 20 16.01	6.456	32.80	+.123	6.74
Nov. 27	601	17 51 29	1 29 32.819	51 32 24.60	6.325	33.56	−.115	6.49
	602	54 28	32.678	22.65			−.086	6.50
	606	18 6 36	32.156	13.78			+.033	6.51
Nov. 28	627	17 49 18	1 28 46.100	51 14 55.78	+6.283	+33.78	−.090	6.40
	629	55 28	45.857	51.17			−.030	6.41
	630	58 29	45.715	48.98			.000	−6.41

TABLE III. — MERIDIAN MEAN PLACES, REDUCTION TO APPARENT PLACE, AND PARALLAX CORRECTIONS — Continued.

DATE.	PLATE No.	BERLIN M. T.	MEAN PLACE 1900. 0.		REDUCTION TO APPARENT PLACE.		PARALLAX Δ.	
			α	δ	α	δ	α	δ
		h m s	h m s	° ′ ″	s	″	s	″
Nov. 29	660	17 44 29	1 28 6.042	50 56 50.04	+6.241	+33.97	−.092	−6.29
	661	47 29	5.937	47.68			−.063	6.30
	666	18 2 43	5.401	36.14			+.086	6.29
Dec. 2	679	17 31 58	1 26 45.908	49 58 58.16	6.122	34.44	−.085	5.93
	680	34 35	45.836	56.09			−.060	5.94
	681	37 36	45.782	53.57			−.031	5.94
Dec. 3	698	17 29 35	1 26 32.552	49 38 34.61	6.085	34.54	−.068	5.80
	699	32 35	32.543	32.31			−.039	5.81
	700	35 35	32.472	29.66			−.010	5.81
Dec. 5	725	17 11 35	1 26 26.191	48 56 33.87	6.014	34.72	−.163	5.48
	726	14 46	26.163	30.94			−.133	5.49
	728	20 35	26.120	25.80			−.077	5.51
Dec. 6	756	17 8 35	1 26 32.899	48 34 49.01	5.981	34.77	−.155	5.33
	758	14 46	32.867	43.46			−.096	5.36
	759	17 35	32.854	40.80			−.070	5.36
Dec. 7	787	17 4 35	1 26 46.173	48 12 40.17	5.949	34.82	−.157	5.18
	790	13 35	46.208	31.62			−.072	5.21
	791	16 35	46.202	29.10			−.043	5.22
Dec. 8	821	17 14 30	1 27 6.125	47 49 55.39	5.919	34.84	−.029	5.06
	823	20 35	6.166	49.41			+.029	5.06
	824	23 35	6.187	46.74			+.057	5.05
Dec. 10	827	17 1 29	1 28 5.223	47 3 54.55	5.862	34.80	−.086	4.71
	832	16 28	5.474	40.22			+.054	4.72
	833	19 29	5.511	37.06			+.083	4.71
Dec. 11	847	16 58 22	1 28 44.370	46 40 22.84	5.837	34.76	−.084	4.54
	848	17 1 35	44.441	19.74			−.054	4.54
	849	4 18	44.493	17.02			−.029	4.55
Dec. 12	854	16 59 11	1 29 29.896	46 16 30.24	5.812	34.71	−.046	4.37
	855	17 2 11	29.975	27.24			−.019	4.37
	856	5 29	30.039	23.54			+.012	4.37
Dec. 22	878	16 34 11	1 42 31.998	42 7 27.14	5.643	33.25	−.032	2.42
	880	40 11	32.382	20.78			+.020	2.42
	881	43 33	32.612	17.05			+.050	2.42
Dec. 23	889	16 29 11	1 44 20.521	41 41 55.63	5.633	33.04	−.057	2.21
	890	32 22	20.746	52.27			−.029	2.21
	891	35 11	20.922	49.23			−.005	2.21
Dec. 24	903	16 28 35	1 46 14.490	41 16 15.80	5.623	32.80	−.044	2.00
	904	31 36	14.702	12.59			−.018	2.01
	906	37 35	15.155	6.06			+.033	2.01
Dec. 28	930	16 19 46	1 54 38.159	39 33 19.88	+5.596	+31.68	−.055	1.17
	931	22 27	38.375	17.06			−.033	1.17
	932	25 22	38.643	13.88			−.008	−1.18

TABLE IV. — MERIDIAN TRUE PLACES AND CORRECTIONS TO EPHEMERIS.

DATE.	PLATE NO.	BERLIN M. T.	OBSERVED.		O-E	
			α	δ	α	δ
		h m s	h m s	° ′ ″	s	″
Oct. 5	84	22 28 22	2 43 54.229	46 35 14.45	−.055	+ .46
	85	38 22	54.148	23.44	70	32
	90	23 8 35	53.954	50.89	75	36
Oct. 6	98	22 27 50	2 43 43.298	46 56 53.44	50	42
	100	36 36	43.223	57 1.27	46	36
	102	50 41	43.094	14.41	49	82
Oct. 7	110	22 31 22	2 43 28.499	47 18 24.42	35	62
	112	43 46	28.340	35.45	50	64
	113	46 59	28.320	38.39	33	75
Oct. 8	117	22 29 35	2 43 9.786	47 39 37.75	43	91
	118	34 29	9.736	42.01	24	86
	119	43 35	9.581	49.85	49	71
Oct. 9	122	22 20 35	2 42 47.156	48 0 30.03	68	64
	123	23 46	47.098	32.57	71	43
	125	34 22	46.910	41.85	78	56
Oct. 10	129	22 23 18	2 42 20.200	48 21 17.09	97	54
	130	26 35	20.135	19.78	95	39
	131	29 43	20.060	22.56	103	46
Oct. 12	142	22 38 58	2 41 13.287	49 2 6.81	67	31
	143	41 40	13.213	8.94	69	16
	144	44 58	13.128	11.62	67	+ 08
Oct. 13	156	22 1 18	2 40 34.505	49 21 24.63	93	− 01
	157	4 50	34.408	27.72	89	+ 26
	160	18 46	33.989	38.87	97	− 15
Oct. 14	180	21 55 22	2 39 50.510	49 40 47.89	82	+ 16
	181	59 35	50.381	51.43	72	37
	182	22 2 29	50.290	53.76	70	39
Oct. 15	204	21 49 46	2 38 2.015	49 59 48.06	89	49
	205	52 35	1.916	50.25	92	53
	207	22 4 35	1.482	59.68	97	45
Oct. 16	232	21 45 22	2 38 8.980	50 18 23.70	89	42
	235	22 1 41	8.359	36.08	77	19
	236	4 36	8.238	38.37	85	27
Oct. 21	258	21 24 59	2 32 35.712	51 44 4.06	142	62
	259	32 35	35.298	8.81	150	44
	260	35 46	35.128	11.11	148	+ 66
Oct. 23	272	21 20 23	2 29 51.135	52 14 20.68	143	− 03
	273	23 37	50.959	22.70	122	04
Oct. 24	286	21 16 43	2 28 22.564	52 28 29.56	157	+ 36
	287	25 58	21.985	34.62	154	11
	288	28 58	21.787	36.54	161	29
Oct. 25	311	20 56 43	2 26 51.028	52 41 46.73	156	12
	312	59 18	50.867	48.40	146	37
	314	21 11 33	50.055	54.98	−153	+ 26

TABLE IV. — MERIDIAN TRUE PLACES AND CORRECTIONS TO EPHEMERIS — Continued.

DATE.	PLATE No.	BERLIN M. T.	OBSERVED.		O–E	
			α	δ	α	δ
		h m s	h m s	° ′ ″	s	″
Oct. 26	329	20 55 46	2 25 14.389	52 54 31.22	−.141	+ .25
	330	58 35	14.200	32.51	143	13
	331	21 1 41	13.987	33.98	149	+ 4
Oct. 29	353	20 45 11	2 20 3.484	53 27 58.45	173	− 17
	354	48 11	3.254	59.88	174	0
	355	51 18	3.018	28 1.08	171	− 11
Nov. 1	360	20 32 35	2 14 25.545	53 53 49.57	233	42
	361	35 58	25.293	50.56	205	47
	362	38 43	25.056	51.47	220	40
Nov. 2	384	20 19 22	2 12 28.921	54 0 36.53	210	27
	385	22 46	28.645	37.26	215	52
	386	30 29	28.014	39.46	203	39
Nov. 3	408	20 3 35	2 10 30.634	54 6 27.57	251	37
	411	16 41	29.531	30.55	258	37
	414	29 50	28.424	33.51	257	40
Nov. 4	439	19 57 35	2 8 30.072	54 11 24.37	210	27
	441	20 4 36	29.454	25.64	231	31
	443	17 58	28.308	28.30	257	12
Nov. 5	445	19 52 35	2 6 28.175	54 15 23.32	218	20
	447	58 35	27.654	24.11	236	28
	450	20 17 29	26.049	27.13	232	1
Nov. 9	464	19 34 29	1 58 15.567	54 21 20.61	254	63
	466	42 23	14.918	20.69	225	58
	467	56 29	13.708	20.08	229	66
Nov. 10	486	19 23 35	1 56 13.691	54 20 17.60	210	65
	487	30 35	13.104	17.19	198	70
	492	53 35	11.162	15.96	195	42
Nov. 12	518	19 9 36	1 52 12.898	54 15 6.48	165	72
	519	12 58	12.617	6.34	160	34
	520	15 41	12.368	5.52	194	76
Nov. 13	538	19 2 58	1 50 15.063	54 10 58.10	219	88
	539	5 35	14.846	57.72	225	76
	540	8 35	14.614	57.01	210	88
Nov. 23	571	18 5 11	1 33 49.293	52 35 31.18	204	1.14
	573	11 22	48.958	27.61	214	1.12
	576	31 29	47.906	15.70	207	1.32
Nov. 24	588	18 30 26	1 32 36.140	52 20 42.07	200	1.48
Nov. 27	601	17 51 29	1 29 39.029	51 32 51.67	131	1.72
	602	54 28	38.917	49.71	143	1.62
	606	18 6 36	38.514	40.83	129	1.82
Nov. 28	627	17 49 18	1 28 52.293	51 15 23.16	113	1.86
	629	55 28	52.110	18.54	109	1.88
	630	58 29	51.998	16.35	−129	−1.82

TABLE IV. — MERIDIAN TRUE PLACES AND CORRECTIONS TO EPHEMERIS — Continued.

DATE.	PLATE No.	BERLIN M. T.	OBSERVED.		O–E	
			α	δ	α	δ
		h m s	h m s	° ′ ″	s	″
Nov. 29	660	17 44 29	1 28 12.191	50 57 17.72	−.124	−1.80
	661	47 29	12.115	15.35	123	1.85
	666	18 2 43	11.728	3.82	119	1.63
Dec. 2	679	17 31 58	1 26 51.945	49 59 26.67	112	1.79
	680	34 35	51.898	24.59	129	1.69
	681	37 36	51.873	22.07	119	1.67
Dec. 3	698	17 29 35	1 26 38.569	49 39 3.35	149	1.95
	699	32 35	38.589	1.04	108	1.62
	700	35 35	38.547	38 58.39	129	1.70
Dec. 5	725	17 11 35	1 26 32.042	48 57 3.11	132	1.70
	726	14 46	32.044	0.17	137	1.79
	728	20 35	32.057	56 55.01	138	1.70
Dec. 6	756	17 8 35	1 26 38.725	48 35 18.45	109	1.29
	758	14 46	38.752	12.87	125	1.20
	759	17 35	38.765	10.21	131	1.34
Dec. 7	787	17 4 35	1 26 51.965	48 13 9.81	118	1.32
	790	13 35	52.085	1.23	101	1.57
	791	16 35	52.108	12 58.70	112	1.27
Dec. 8	821	17 14 30	1 27 12.015	47 50 25.17	92	1.59
	823	20 35	12.114	19.19	93	1.70
	824	23 35	12.163	16.53	93	1.48
Dec. 10	827	17 1 29	1 28 10.999	47 4 24.64	105	1.75
	832	16 28	11.390	10.30	92	1.33
	833	19 29	11.456	7.15	99	1.67
Dec. 11	847	16 58 22	1 28 49.123	46 40 53.06	110	1.78
	848	17 1 35	50.224	49.96	106	1.61
	849	4 18	50.301	47.23	109	1.63
Dec. 12	854	16 59 11	1 29 35.662	46 17 0.58	132	1.77
	855	17 2 11	35.768	16 57.58	149	1.75
	856	5 29	35.863	53.88	145	2.14
Dec. 22	878	16 36 11	1 42 37.609	42 7 57.97	70	1.77
	880	40 11	38.045	51.61	81	1.68
	881	43 33	38.305	47.88	66	1.88
Dec. 23	889	16 29 11	1 44 26.097	41 42 26.46	96	1.40
	890	32 22	26.350	23.10	88	1.37
	891	35 11	26.550	20.06	111	1.34
Dec. 24	903	16 28 35	1 46 20.069	41 16 46.59	64	1.03
	904	31 36	20.307	43.38	70	1.00
	906	37 35	20.811	36.85	45	1.23
Dec. 28	930	16 19 46	1 54 43.700	39 33 50.43	57	1.69
	931	22 27	43.938	47.55	76	1.62
	932	25 22	44.231	44.36	− 55	−1.72

TABLE V. — PARALLAX PLATE MEASURES.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 6	C				Oct. 6	H
92 E.	a	8 28 6	−23750	− 9932	104 W.	a	16 41 15	−16816	−55508
	b		−24947	+56459		b		−17991	+10874
	c		−21818	+36098		c		−14871	− 9496
	d		− 6965	+48090		d		− 31	+ 2510
	e		+ 1866	+ 359		e		+ 8834	−45206
	f		+ 7365	−29469		f		+14356	−75036
	g		+13548	+70261		g		+20519	+24672
	h		+31233	− 2758		h		+38216	−48336
	i		+49637	+33142		i		+56614	−12450
	l		+17529	−59661		n		+ 3722	+70220
	m		−33519	−40410		o		−32036	+64657
			Oct. 6	C				Oct. 6	C
93 E.	a	8 31 0	−23695	−10205	105 W.	a	16 46 12	−16710	−55952
	b		−24895	+56155		b		−17936	+10415
	c		−21770	+35785		c		−14812	− 9942
	d		− 6922	+47800		d		+ 29	+ 2066
	e		+ 1879	+ 59		e		+ 8922	−45656
	f		+ 7389	−29723		f		+14460	−75464
	g		+13584	+69969		g		+20566	+24248
	h		+31255	− 3021		h		+38323	−48740
	i		+49666	+32883		i		+56702	−12839
	l		+17544	−59905		n		+ 3733	+69790
	m		−33485	−40686		o		−31998	+64136
			Oct. 6	H				Oct. 6	H
94 E.	a	S 33 47	−23690	−10488	106 W.	a	16 50 0	−16632	−56328
	b		−24884	+55905		b		−17822	+10046
	c		−21754	+35530		c		−14714	−10336
	d		− 6903	+47537		d		+ 96	+ 1686
	e		+ 1930	− 192		e		+ 8988	−46044
	f		+ 7405	−30024		f		+14504	−75888
	g		+13603	+69717		g		+20644	+23854
	h		+31310	− 3274		h		+38374	−49146
	i		+49744	+32633		i		+56766	−13251
	l		+17587	−60201		n		+ 3831	+69402
	m		−33464	−40960		o		−31932	+63802
			Oct. 6	H				Oct. 6	H
95 E.	a	8 43 0	−23581	−11334	107 W.	a	16 59 35	−16490	−57097
	b		−24780	+54976		b		−17710	+ 9210
	c		−21651	+34628		c		−14580	−11144
	d		− 6810	+46631		d		+ 238	+ 883
	e		+ 2016	− 1076		e		+ 9135	−46834
	f		+ 7518	−30884		f		+14650	−76632
	g		+13693	+68759		g		+20750	+23068
	h		+31373	− 4213		h		+38495	−49910
	i		+49777	+31645		i		+56885	−14012
	l		+17682	−61048		n		+ 3915	+68588
	m		−33351	−41792		o		−31805	+62986
			Oct. 6	C				Oct. 6	H
96 E.	a	8 46 1	−23524	−11618	108 W.	a	17 3 12	−16530	−57489
	b		−24705	+54737		b		−17684	+ 8931
	c		−21607	+34361		c		−14583	−11494
	d		− 6747	+46364		d		+ 280	+ 570
	e		+ 2029	− 1383		e		+ 9117	−47238
	f		+ 7553	−31162		f		+14626	−77054
	g		+13778	+68528		g		+20841	+22722
	h		+31366	− 4479		h		+38481	−50343
	i		+49840	+31435		i		+56910	−14416
	l		+17718	−61321		n		+ 4048	+68260
	m		−33286	−42091		o		−31693	+62693

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 12	H				Oct. 12	C
134 E.	a	7 26 11	−53028	+58451	140 E.	a	7 57 5	−52221	+55699
	b		−31659	+59761		b		−30858	+57010
	c		−22826	+33403		c		−21996	+30643
	d		−19314	−15688		d		−18452	−18420
	e		+ 2268	+34722		e		+ 3048	+32018
	f		+ 8391	−31184		f		+ 9247	−33927
	g		+57342	+45932		g		+58176	+43299
	m		+ 7497	−51274		m		+ 8391	−53911
	n		+41287	−63240		n		+42190	−65897
			Oct. 12	C				Oct. 12	C
135 E.	a	7 28 58	−52948	+58274	145 W.	a	16 40 0	−35955	+10896
	b		−31585	+59559		b		−14586	+12204
	c		−22770	+33177		c		− 5734	−14182
	d		−19207	−15909		d		− 2094	−63248
	e		+ 2329	+34494		e		+19339	−12812
	f		+ 8458	−31440		f		+25582	−78717
	g		+57418	+45693		g		+74500	− 1556
	m		+ 7600	−51450		o		−52839	+25018
	n		+41368	−63452		p		+56000	+52500
			Oct. 12	H				Oct. 12	H
136 E.	a	7 32 35	−52780	+57890	146 W.	a	16 43 42	−35834	+10573
	b		−31426	+59221		b		−14447	+11897
	c		−22614	+32802		c		− 5584	−14499
	d		−19042	−16226		d		− 1998	−63541
	e		+ 2479	+34175		e		+19472	−13137
	f		+ 8596	−31728		f		+25712	−78995
	g		+57592	+45402		g		+74638	− 1863
	m		+ 7765	−51711		o		−52701	+24709
	n		+41517	−63756		p		+56154	+52230
			Oct. 12	C				Oct. 12	C
137 E.	a	7 40 8	−52708	+57170	147 W.	a	16 51 47	−35594	+ 9939
	b		−31326	+58474		b		−14207	+11268
	c		−22499	+32116		c		− 5356	−15146
	d		−18884	−16908		d		− 1706	−64243
	e		+ 2585	+33460		e		+19714	−13779
	f		+ 8815	−32410		f		+25933	−79710
	g		+57683	+44766		g		+74908	− 2509
	m		+ 7966	−52385		o		−52459	+24082
	n		+41750	−64393		p		+56394	+51564
			Oct. 12	H				Oct. 12	C
138 E.	a	7 44 8	−52532	+56868	148 W.	a	16 57 47	−35414	+ 9465
	b		−31149	+58144		b		−14014	+10774
	c		−22358	+31794		c		− 5169	−15646
	d		−18795	−17246		d		− 1562	−64714
	e		+ 2695	+33102		e		+19904	−14286
	f		+ 8917	−32761		f		+26103	−80193
	g		+57825	+44380		g		+75062	− 3048
	m		+ 8063	−52761		o		−52244	+23623
	n		+41852	−64775		p		+56572	+51063
			Oct. 12	C				Oct. 13	H
139 E.	a	7 53 25	−52359	+56000	150 E.	a	7 15 9	−66916	−13962
	b		−30986	+57264		b		−66111	+32710
	c		−22131	+30924		c		−23778	+55646
	d		−18551	−18059		d		− 7385	−28782
	e		+ 2938	+32236		e		+ 326	+44700
	f		+ 9148	−33582		f		+ 9106	− 1792
	g		+58032	+43519		g		+13816	+31440
	m		+ 8317	−53563		h		+14936	+67479
	n		+42114	−65552		m		−31252	−47638
						n		+ 6964	−60620

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE NO.	STAR.	P. S. T.	x	y	PLATE NO.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 13	C				Oct. 13	H
151 E.	a	7 19 23	−66771	−14379	165 W.	a	16 53 20	−47698	−62921
	b		−65981	+32329		b		−46861	−16206
	c		−23784	+55151		c		− 4574	+ 6632
	d		− 7252	−29105		d		+11982	−77664
	e		+ 353	+44226		e		+19516	− 4308
	f		+ 9233	− 2165		f		+28449	−50706
	g		+13863	+30950		g		+33112	−17571
	h		+14987	+67001		h		+34206	+18489
	m		−31139	−48042		o		−49618	+38556
	n		+ 7077	−60972		p		+71122	+22029
			Oct. 13	H				Oct. 13	C
152 E.	a	7 21 58	−66746	−14658	166 W.	a	17 1 0	−47376	−63508
	b		−65956	+32070		b		−46571	−16798
	c		−23670	+54922		c		− 4301	+ 6008
	d		− 7190	−29410		d		+12202	−78205
	e		+ 434	+43952		e		+19809	− 4918
	f		− 9310	− 2375		f		+28684	−51250
	g		+13970	+30750		g		+33324	−18155
	h		+15064	+66710		h		+34469	+17890
	m		−31070	−48312		o		−49304	+37992
	n		+ 7174	−61265		p		+71389	+21395
			Oct. 13	C				Oct. 13	H
153 E.	a	7 35 9	−66346	−15798	167 W.	a	17 3 58	−47244	−63722
	b		−65532	+30940		b		−46424	−16936
	c		−23312	+53793		c		− 4214	+ 5816
	d		− 6818	−30541		d		+12372	−78404
	e		+ 822	+42895		e		+19922	− 5134
	f		+ 9698	− 3552		f		+28816	−51462
	g		+14315	+29654		g		+33429	−18379
	h		+15468	+65668		h		+34596	+17631
	m		−30702	−49450		o		−49208	+37751
	n		+ 7532	−62375		p		+71499	+21186
			Oct. 13	H				Oct. 13	C
163 W.	a	16 46 58	−47873	−62442	168 W.	a	17 12 0	−47028	−64338
	b		−47090	−15692		b		−46210	−17631
	c		− 4793	+ 7133		c		− 3965	+ 5147
	d		+11770	−77141		d		+12584	−79004
	e		+19346	− 3784		e		+20182	− 5770
	f		+28257	−50213		f		+29040	−52107
	g		+32883	−17072		g		+33667	−19039
	h		+33994	+19012		h		+34839	+17020
	o		−49786	+39091		o		−48976	+37121
	p		+70917	+22530		p		+71751	+20559
			Oct. 13	C				Oct. 13	H
164 W.	a	16 49 35	−47764	−62592	169 W.	a	17 14 58	−46906	−64637
	b		−46974	−15860		b		−46063	−17879
	c		− 4692	+ 6906		c		− 3870	+ 4909
	d		+11906	−77287		d		+12726	−79256
	e		+19428	− 4010		e		+20268	− 6008
	f		+28371	−50354		f		+29173	−52348
	g		+32968	−17244		g		+33759	−19300
	h		+34101	+18783		h		+34904	+16749
	o		−49719	+38843		o		−48866	+36841
	p		+71038	+22306		p		+71794	+20288

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 14	C				Oct. 14	H
170 E.	a	7 29 35	−63816	− 6472	175 E.	a	8 2 0	−62784	− 9280
	b		−38984	+14722		b		−37954	+11926
	c		−25504	−33395		c		−24453	−36220
	d		−24004	+29098		d		−22965	+26276
	e		−18286	+70122		e		−17252	+67329
	f		−13222	+46950		f		−12188	+44114
	g		+ 2266	+ 7045		g		+ 3321	+ 4224
	h		+ 5248	+72995		h		+ 6295	+70207
	i		+26798	+24965		i		+27904	+22150
	m		+56421	+ 9735		m		+57496	+ 6874
	n		+ 8246	−52208		n		+ 9270	−55040
			Oct. 14	H				Oct. 14	C
171 E.	a	7 32 35	−63726	− 6715	176 E.	a	8 5 15	−62710	− 9569
	b		−38858	−14508		b		−37847	+11671
	c		−25408	−33622		c		−24362	−36489
	d		−23878	+28850		d		−22845	+25983
	e		−18154	+69875		e		−17148	+67027
	f		−13104	+46692		f		−12086	+43825
	g		+ 2374	+ 6792		g		+ 3425	+ 3945
	h		+ 5364	+72752		h		+ 6405	+69907
	i		+26932	+24735		i		+27968	+21856
	m		+56496	+ 9468		m		+57570	+ 6583
	n		+ 8264	−52422		n		+ 9352	−55313
			Oct. 14	C				Oct. 14	H
172 E.	a	7 36 47	−63593	− 7122	177 E.	a	8 14 51	−62390	−10387
	b		−38764	+14100		b		−37529	+10834
	c		−25238	−34040		c		−24031	−37314
	d		−23795	+28462		d		−22541	+25163
	e		−18123	+69494		e		−16850	+66238
	f		−13040	+46313		f		−11794	+43023
	g		+ 2500	+ 6440		g		+ 3733	+ 3133
	h		+ 5417	+72416		h		+ 6691	+69113
	i		+27034	+24372		i		+28290	+21049
	m		+56656	+ 9125		m		+57906	+ 5790
	n		+ 8466	−52799		n		+ 9677	−56157
			Oct. 14	H				Oct. 14	C
173 E.	a	7 50 8	−63227	− 8298	178 E.	a	8 17 51	−62257	−10658
	b		−38368	+12943		b		−37427	+10539
	c		−24863	−35182		c		−23928	−37583
	d		−23364	+27304		d		−22413	+24965
	e		−17682	+68291		e		−16716	+65957
	f		−12613	+45144		f		−11641	+42785
	g		+ 2930	+ 5258		g		+ 3854	+ 2888
	h		+ 5855	+71197		h		+ 6832	+68842
	i		+27475	+23181		i		+28428	+20838
	m		+57099	+ 7923		m		+58017	+ 5568
	n		+ 8885	−54005		n		+ 9762	−56398
			Oct. 14	C				Oct. 14	H
174 E.	a	7 53 0	−63083	− 8530	187 W.	a	16 37 43	−43672	−51907
	b		−38243	+12691		b		−18836	−30677
	c		−24738	−35471		c		− 5320	−78830
	d		−23240	+27062		d		− 3834	−16335
	e		−17541	+68119		e		+ 1787	+24786
	f		−12485	+44927		f		+ 6885	+ 1546
	g		+ 3030	+ 5014		g		+22417	−38347
	h		+ 5992	+71014		h		+25392	+27671
	i		+27592	+22966		i		+47001	−20427
	m		+57203	+ 7703		o		+23181	+47935
	n		+ 8963	−54282		p		+23367	+60063

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 14	C				Oct. 14	H
188 W.	a	16 40 48	−43575	−52119	193 W.	a	17 10 36	−42456	−54431
	b		−18734	−30929		b		−17648	−33233
	c		− 5233	−79088		c		− 4096	−81362
	d		− 3739	−16572		d		− 2655	−18882
	e		+ 1908	+24562		e		+ 2958	+22273
	f		+ 7008	+ 1305		f		+ 8088	− 989
	g		+22539	−38576		g		+23622	−40843
	h		+25504	+27442		h		+26545	+25164
	i		+47136	−20638		i		+48188	−22911
	o		+23253	+47696		o		+24304	+45393
	p		+23436	+59829		p		+24454	+57548
			Oct. 14	H				Oct. 15	H
189 W.	a	16 45 45	−43364	−52508	195 E.	a	7 29 25	−51342	− 6426
	b		−18542	−31306		b		−36999	+12224
	c		− 5008	−79442		c		−18743	+ 6943
	d		− 3545	−16961		d		−18604	+44054
	e		+ 2079	+24193		e		− 447	+69025
	f		+ 7178	+ 933		f		+ 5942	−19455
	g		+22711	−38951		g		+26048	−12347
	h		+25659	+27065		h		+29977	+23194
	i		+47284	−21041		i		+39604	+33080
	o		+23424	+47318		m		+50278	−23457
	p		+23594	+59444		n		+50473	−11343
			Oct. 14	C				Oct. 15	C
190 W.	a	16 56 15	−43008	−53322	196 E.	a	7 33 58	−51208	− 6782
	b		−18173	−32116		b		−36858	+11850
	c		− 4606	−80224		c		−18589	+ 6564
	d		− 3166	−17779		d		−18440	+43665
	e		+ 2432	+23364		e		− 248	+68666
	f		+ 7560	+ 64		f		+ 6100	−19832
	g		+23100	−39762		g		+26220	−12736
	h		+26034	+26256		h		+30150	+22768
	i		+47642	+21816		i		+39777	+32677
	o		+23764	+46478		m		+50452	−23885
	p		+23954	+58616		n		+50652	−11757
			Oct. 14	H				Oct. 15	H
191 W.	a	16 59 15	−42902	−53606	197 E.	a	7 44 15	−50875	− 7669
	b		−18086	−32412		b		−36503	+10947
	c		− 4536	−80524		c		−18236	+ 5674
	d		− 3096	−18026		d		−18068	+42806
	e		+ 2588	+23116		e		+ 113	+67742
	f		+ 7698	− 116		f		+ 6449	−20727
	g		+23148	−40044		g		+26591	−13651
	h		+26161	+26004		h		+30504	+21868
	i		+47784	−22094		i		+40133	+31809
	o		+23898	+46221		m		+50803	−24871
	p		+24068	+58366		n		+51000	−12657
			Oct. 14	C				Oct. 15	C
192 W.	a	17 7 35	−42556	−54194	198 E.	a	7 47 11	−50756	− 8009
	b		−17754	−33006		b		−36395	+10670
	c		− 4232	−81138		c		−18121	+ 5396
	d		− 2749	−18661		d		−17994	+42520
	e		+ 2868	+22479		e		+ 172	+67560
	f		+ 7968	− 774		f		+ 6574	−20980
	g		+23488	−40641		g		+26708	−13839
	h		+26438	+25364		h		+30598	+21670
	i		+48064	−22696		i		+40228	+31588
	o		+24211	+45606		m		+50935	−24962
	p		+24371	+57756		n		+51119	−12832

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE NO.	STAR.	P. S. T.	x	y	PLATE NO.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 15	H				Oct. 15	H
199 E.	a	7 54 15	−50499	− 8491	215 W.	a	16 42 43	−29457	−51166
	b		−36129	+10126		b		−15071	−32570
	c		−17886	+ 4837		c		+ 3134	−37851
	d		−17728	+41950		d		+ 3377	− 794
	e		+ 488	+66907		e		+21606	+24264
	f		+ 6815	−21580		f		+27839	−64265
	g		+26944	−14504		g		+47994	−57213
	h		+30859	+21036		h		+51934	−21714
	i		+40490	+30943		i		+61570	−11797
	m		+51166	−25625		o		−17849	+30584
	n		+51373	−13502		p		−44271	+23533
			Oct. 15	H				Oct. 15	C
201 E.	a	8 4 43	−50121	− 9408	216 W.	a	16 52 24	−29015	−51928
	b		−35754	+ 9215		b		−14634	−33323
	c		−17501	+ 3926		c		+ 3580	−38570
	d		−17339	+41030		d		+ 3759	− 1506
	e		+ 852	+66021		e		+21982	+23532
	f		+ 7184	−22460		f		+28315	−64942
	g		+27311	−15379		g		+48458	−57836
	h		+31235	+20147		h		+52383	−22347
	i		+40872	+30060		i		+61980	−12438
	m		+51533	−26530		o		−17514	+29815
	n		+51733	−14384		p		−43934	+22739
			Oct. 15	C				Oct. 15	H
202 E.	a	8 7 48	−50030	− 9697	217 W.	a	16 54 46	−28936	−52104
	b		−35650	+ 8954		b		−14558	−33502
	c		−17382	+ 3668		c		+ 3672	−38736
	d		−17224	+40766		d		+ 3849	− 1680
	e		+ 948	+65746		e		+22042	+23375
	f		+ 7313	−22730		f		+28391	−65146
	g		+27456	−15634		g		+48523	−58047
	h		+31377	+19894		h		+52450	−22532
	i		+40980	+29788		i		+62059	−12626
	m		+51690	−26778		o		−17420	+29658
	n		+51859	−14644		p		−43808	+22583
			Oct. 15	H				Oct. 15	C
213 W.	a	16 36 58	−29684	−50698	218 W.	a	17 2 15	−28850	−52568
	b		−15278	−32109		b		−14372	−34002
	c		+ 2924	−37403		c		+ 3800	−39335
	d		+ 3144	− 343		d		+ 4122	− 2265
	e		+21378	+24720		e		+22425	+22735
	f		+27608	−63815		f		+28438	−65800
	g		+47728	−56748		g		+48612	−58795
	h		+51696	−21283		h		+52680	−23242
	i		+61338	−11331		i		+62320	−13372
	o		−18072	+31040		o		−17000	+29170
	p		−44478	+23995		p		−43428	+22172
			Oct. 15	C				Oct. 15	H
214 W.	a	16 39 58	−29493	−50973	219 W.	a	17 5 46	−28476	−52897
	b		−15136	−32358		b		−14110	−34277
	c		+ 3078	−37609		c		+ 4080	−39570
	d		+ 3250	− 562		d		+ 4281	− 2490
	e		+21451	+24515		e		+22438	+22528
	f		+27828	−64008		f		+28798	−65936
	g		+47966	−56897		g		+48956	−58851
	h		+51869	−21404		h		+52846	−23370
	i		+61474	−11468		i		+62460	−13469
	o		−18004	+30789		o		−16959	+28834
	p		−44408	+23688		p		−43368	+21784

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 15	C				Oct. 16	H
220 W.	a	17 12 48	−28212	−53419	225 E.	a	7 35 15	−56393	+64620
	b		−13830	−34836		b		−34599	−10488
	c		+ 4385	−40092		c		−32909	+12440
	d		+ 4535	− 3045		d		−22439	+21192
	e		+22732	+22075		e		−11006	+25855
	f		+29148	−66465		f		− 8554	+71680
	g		+49282	−59340		g		− 3224	+22830
	h		+53170	−23859		h		+ 8676	+34062
	i		+62785	−13940		i		+33966	+ 6302
	o		−16738	+28296		l		+33154	−17150
	p		−43124	+21206		m		+11981	−39428
			Oct. 15	H				Oct. 16	C
221 W.	a	17 15 36	−28122	−53641	226 E.	a	7 39 58	−56229	+64157
	b		−13726	−35042		b		−34410	−10898
	c		+ 4441	−40324		c		−32732	+12030
	d		+ 4656	− 3240		d		−22273	+20802
	e		+22814	+21778		e		−10820	+25444
	f		+29202	−66684		f		− 8408	+71209
	g		+49327	−59622		g		− 3035	+22432
	h		+53226	−24166		h		+ 8853	+33648
	i		+62818	−14224		i		+34124	+ 5946
	o		−16622	+28075		l		+33337	−17524
	p		−43019	+21011		m		+12198	−39824
			Oct. 16	C				Oct. 16	H
222 E.	a	7 17 35	−57102	+66068	227 E.	a	7 46 58	−55874	+63664
	b		−35302	− 9022		b		−34176	−11444
	c		−33625	+13895		c		−32443	+11484
	d		−23145	+22670		d		−21976	+20246
	e		−11725	+27330		e		−10540	+24897
	f		− 9248	+73130		f		− 8040	+70593
	g		− 3900	+24310		g		− 2746	+21866
	h		− 7982	+35550		h		+ 9154	+33083
	i		+33240	+ 7798		i		+34410	+ 5310
	l		+32438	−15660		l		+33572	−18156
	m		+11298	−37950		m		+12387	−40406
			Oct. 16	H				Oct. 16	C
223 E.	a	7 21 45	−56832	+65756	228 E.	a	7 49 48	−55831	+63350
	b		−35122	− 9356		b		−34046	−11732
	c		−33422	+13594		c		−32344	+11207
	d		−22936	+22344		d		−21891	+19972
	e		−11489	+26968		e		−10464	+24653
	f		− 9014	+72758		f		− 8041	+70356
	g		− 3714	+23964		g		− 2648	+21607
	h		+ 8204	+35166		h		+ 9243	+32842
	i		+33456	+ 7418		i		+34510	+ 5113
	l		+32626	−16036		l		+33716	−18346
	m		+11424	−38346		m		+12582	−40680
			Oct. 16	C				Oct. 16	H
224 E.	a	7 26 45	−56753	+65253	230 E.	a	8 0 46	−55402	+62484
	b		−34955	− 9820		b		−33648	−12608
	c		−33260	+13116		c		−31930	+10314
	d		−22796	+21895		d		−21458	+19070
	e		−11355	+26559		e		−10016	+23716
	f		− 8925	+72320		f		− 7561	+69446
	g		− 3557	+23544		g		− 2228	+20709
	h		+ 8343	+34774		h		+ 9686	+31909
	i		+33619	+ 7040		i		+34933	+ 4156
	l		+32822	−16411		l		+34121	−19300
	m		+11663	−38739		m		+12954	−41592

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 16	C				Oct. 16	H
239 W.	a	16 52 1	−32581	+20726	244 W.	a	17 16 0	−31569	+18995
	b		−10702	−54395		b		− 9700	−56110
	c		− 9017	−31462		c		− 8013	−33204
	d		+ 1452	−22692		d		+ 2446	−24437
	e		+12871	−18060		e		+13877	−19817
	f		+15335	+27773		f		+16321	+26000
	g		+20698	−21075		g		+21676	−22812
	h		+32622	− 9858		h		+33595	−11617
	i		+57895	−37560		i		+58848	−39323
	n		−29526	+35552		n		−28527	+33806
	o		+ 4322	+52015		o		+ 5334	+50235
			Oct. 16	H				Oct. 21	H
240 W.	a	16 56 12	−32404	+20434	247 E.	a	7 4 0	−60038	+57028
	b		−10541	−54708		b		−42946	+34873
	c		− 8858	−31779		c		−31879	+10650
	d		+ 1619	−23021		d		−21639	+87954
	e		+13054	−18380		e		−16573	−18788
	f		+15513	+27479		f		+ 9500	−15274
	g		+20859	−21381		g		+21955	+23472
	h		+32790	−10169		h		+31507	+15277
	i		+58052	−37877		l		+40563	−18258
	n		−29355	+35272		m		+42979	−34095
	o		+ 4521	+51722					
			Oct. 16	C				Oct. 21	C
241 W.	a	17 1 0	−32212	+20067	248 E.	a	7 6 36	−59909	+56820
	b		−10305	−55060		b		−42834	+34686
	c		− 8636	−32134		c		−31745	+10448
	d		+ 1841	−23366		d		−21545	+87740
	e		+13264	−18732		e		−16419	−18964
	f		+15702	+27100		f		+ 9654	−15453
	g		+21097	−21726		g		+22086	+23335
	h		+32998	−10518		h		+31640	+15143
	i		+58267	−38230		y		+46556	−68713
	n		−29171	+34895		l		+40723	−18417
	o		+ 4688	+51347		m		+43149	−34223
			Oct. 16	H				Oct. 21	C
242 W.	a	17 7 8	−31943	+19624	250 E.	a	7 19 51	−59214	+55848
	b		−10088	−55511		b		−42124	+33716
	c		− 8404	−32565		c		−31043	+ 9482
	d		+ 2086	−23828		d		−20859	+86822
	e		+13522	−19179		e		−15731	−19944
	f		+15949	+26622		f		+10355	−16438
	g		+21318	−22187		g		+22772	+22345
	h		+33224	−10995		h		+32319	+14166
	i		+58492	−38693		y		+47233	−69700
	n		−28866	+34437		l		+41410	−19378
	o		+ 4967	+50859		n		+43831	−35205
			Oct. 16	C				Oct. 21	H
243 W.	a	17 10 8	−31831	+19415	251 E.	a	7 25 43	−58920	+55473
	b		− 9967	−55745		b		−41838	+33337
	c		− 8278	−32806		c		−30759	+ 9084
	d		+ 2226	−24046		d		−20515	+86385
	e		+13648	−19404		e		−15434	−20351
	f		+16085	+26418		f		+10656	−16842
	g		+21448	−22381		g		+23079	+21917
	h		+33392	−11182		h		+32636	+13732
	i		+58664	−38910		l		+41694	−19824
	n		−28766	+34241		m		+44124	−35650
	o		+ 5094	+50675					

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 21	C				Oct. 21	H
252 E.	a	7 29 23	−58728	+55180	266 W.	a	16 45 25	−27184	+17682
	b		−41636	+33045		b		−10076	− 4465
	c		−30572	+ 8793		c		+ 1022	−28715
	d		−20333	+86109		d		+11166	+48635
	e		−15267	−20630		e		+16363	−58118
	f		+10833	−17133		f		+42420	−54620
	g		+23287	+21622		g		+54860	−15852
	h		+32835	+13446		h		+64378	−24040
	l		+41891	−20102		n		−38098	+65254
	m		+44301	−35934		o		+24177	+61574
						x		−35976	+35801
			Oct. 21	H				Oct. 21	C
253 E.	a	7 36 51	−58331	+54631	267 W.	a	16 54 0	−26712	+17149
	b		−41240	+32480		b		− 9584	− 5012
	c		−30155	+ 8230		c		+ 1501	−29236
	d		−19955	+85566		d		+11651	+48092
	e		−14826	−21183		e		+16846	−58660
	f		+11274	−17664		f		+42932	−55145
	g		+23666	+21113		g		+55325	−16376
	h		+33222	+12920		h		+64857	−24561
	l		+42290	−20624		n		−37612	+64715
	m		+44726	−36438		o		+24673	+61040
						x		−35518	+35294
			Oct. 21	C				Oct. 21	H
254 E.	a	7 40 1	−58166	+54397	268 W.	a	16 56 15	−26530	+16998
	b		−41081	+32247		b		− 9454	− 5154
	c		−29997	+ 8022		c		+ 1638	−29396
	d		−19799	+85317		d		+11788	+47961
	e		−14684	−21411		e		+17000	−58804
	f		+11410	−17888		f		+43042	−55289
	g		+23834	+20873		g		+55412	−16512
	h		+33387	+12684		h		+65010	−24706
	l		+42471	−20868		n		−37475	+64544
	m		+44895	−36687		o		+24768	+60901
						x		−35348	+35111
			Oct. 21	H				Oct. 21	C
264 W.	a	16 39 36	−27494	+18036	269 W.	a	17 5 8	−26105	+16457
	b		−10380	− 4116		b		− 8975	− 5691
	c		+ 705	−28342		c		+ 2132	−29921
	d		+10845	+48970		d		+12264	+47441
	e		+16037	−57778		e		+17480	−59346
	f		+42116	−54272		f		+43561	−55854
	g		+54568	−15457		g		+55965	−17061
	h		+64053	−23672		h		+65501	−25261
	n		−38423	+65603		n		−37007	+64067
	o		+23869	+61911		o		+25300	+60401
			Oct. 21	C				Oct. 21	H
265 W.	a	16 42 25	−27326	+17836	270 W.	a	17 7 55	−25948	+16267
	b		−10218	− 4298		b		− 8844	− 5870
	c		+ 836	−28540		c		+ 2283	−30124
	d		+11014	+48744		d		+12421	+47253
	e		+16164	−57974		e		+17610	−59545
	f		+42236	−54467		f		+43682	−56040
	g		+54632	−15691		g		+56082	−17246
	h		+64200	−23868		h		+65624	−25442
	n		−38244	+65426		n		−36870	+63848
	o		+24047	+61736		o		+25429	+60158

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 21	C				Oct. 24	H
271 W.	a	17 14 48	−25569	+15870	278 E.	a	7 21 24	−74013	−10498
	b		− 8446	− 6288		b		−55584	+49534
	c		+ 2646	−30528		c		−47860	− 4956
	d		+12784	+46840		d		−41196	−34616
	e		+18002	−59948		e		−16460	+33136
	f		+44068	−56428		f		−14452	+16506
	g		+56476	−17646		g		−10860	+52787
	h		+66006	−25842		h		+ 3790	+34142
	n		−36453	+63445		i		+16914	−17795
	o		+25793	+59780		j		+25397	+15731
						l		+45392	−53942
						m		+40091	−23692
			Oct. 24	C				Oct. 24	C
275 E.	a	7 7 20	−74765	− 9598	291 W.	a	16 28 53	−38916	−42962
	b		−56412	+50404		b		−20459	+17130
	c		−48705	− 4060		c		−12754	−37427
	d		−42018	−33700		d		− 6035	−67086
	e		−17358	+34084		e		+18677	+ 741
	f		−15322	+17404		f		+20691	−15932
	g		−11735	+53697		g		+24323	+20420
	h		+ 2980	+35062		h		+39000	+ 1750
	i		+16088	−16945		i		+52117	−50303
	j		+24578	+16627		j		+60617	−16671
	l		+44525	−53038		n		−47453	+31040
	m		+39302	−22810		o		−16259	+51135
			Oct. 24	H				Oct. 24	H
276 E.	a	7 9 58	−74702	− 9744	292 W.	a	16 31 46	−38706	−43112
	b		−56225	+50278		b		−20290	+16964
	c		−48552	− 4206		c		−12527	−37563
	d		−41867	−33857		d		− 5796	−67242
	e		−17144	+33914		e		+18848	+ 576
	f		−15118	+17238		f		+20890	−16073
	g		−11550	+53519		g		+24512	+20260
	h		+ 3094	+34867		h		+39207	+ 1607
	i		+16230	−17100		i		+52302	−50402
	j		+24700	+16469		j		+60804	−16819
	l		+44675	−53212		n		−47278	+30862
	m		+39398	−22964		o		−16079	+50970
			Oct. 24	C				Oct. 24	C
277 E.	a	7 12 58	−74496	− 9918	293 W.	a	16 34 53	−38543	−43276
	b		−56093	+50073		b		−20088	+16800
	c		−48388	− 4390		c		−12364	−37726
	d		−41700	−34028		d		− 5648	−67399
	e		−17004	+33689		e		+19035	+ 402
	f		−14942	+17076		f		+21077	−16239
	g		−11366	+53344		g		+24685	+20067
	h		+ 3270	+34684		h		+39376	+ 1403
	i		+16392	−17256		i		+52493	−50590
	j		+24869	+16302		j		+60964	−17021
	l		+44866	−53399		n		−47073	+30703
	m		+39584	−23141		o		−15886	+50765

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 24	H				Oct. 24	H
294 W.	a	16 44 1	−37950	−43781	298 W.	a	17 5 15	−36630	−44889
	b		−19525	+16316		b		−18200	+15207
	c		−11780	−38228		c		−10449	−39355
	d		− 5057	−67902		d		− 3740	−69016
	e		+19601	− 81		e		+20918	− 1202
	f		+21629	−16732		f		+22953	−17838
	g		+25265	+19588		g		+26551	+18467
	h		+39932	+ 920		h		+41246	− 212
	i		+53060	−51091		i		+54383	−52201
	j		+61554	−17488		j		+62847	−18622
	n		−46509	+30215		n		−45192	+29111
	o		−15322	+50277		o		−14025	+49167
			Oct. 24	C				Oct. 26	C
295 W.	a	16 46 43	−37800	−43913	319 E.	a	6 52 8	−60538	+23180
	b		−19372	+16153		b		−31790	+35056
	c		−11620	−38346		c		−29135	+21255
	d		− 4899	−68031		d		−28891	−22051
	e		+19756	− 209		f		− 1046	+33593
	f		+21789	−16857		g		+ 1621	+ 2480
	g		+25403	+19430		h		+ 888	−34801
	h		+40080	+ 779		l		+27327	−30473
	i		+53221	−51209		m		+34709	−11747
	j		+61672	−17636					
	n		−46344	+30066					
	o		−15186	+50124					
			Oct. 24	H				Oct. 26	H
296 W.	a	16 55 8	−37230	−44368	320 E.	a	6 54 48	−60407	+23010
	b		−18804	+15734		b		−31662	+34874
	c		−11068	−38813		c		−28994	+21114
	d		− 4345	−68476		d		−28711	−22188
	e		+20300	− 657		f		− 898	+33448
	f		+22338	−17291		g		+ 1794	+ 2362
	g		+25933	+19004		h		+ 1065	−34948
	h		+40618	+ 353		l		+27490	−30609
	i		+53772	−51635		m		+34854	−11879
	j		+62232	−18053					
	n		−45807	+29610					
	o		−14631	+49699					
			Oct. 24	C				Oct. 26	C
297 W.	a	16 58 8	−37080	−44518	321 E.	a	6 57 15	−60234	+22860
	b		−18666	+15555		b		−31504	+34730
	c		−10904	−38950		c		−28781	+20933
	d		− 4172	−68635		d		−28566	−22357
	e		+20455	− 792		f		− 718	+33298
	f		+22496	−17418		g		+ 1932	+ 2216
	g		+26136	+18847		h		+ 1209	−35080
	h		+40807	+ 193		l		+27636	−30770
	i		+53970	−51810		m		+35039	−12044
	j		+62433	−18213					
	n		−45654	+29455					
	o		−14463	+49523					

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 26	H				Oct. 26	H
322 E.	a	7 3 51	−59818	+22500	336 W.	a	16 38 58	−20353	− 7967
	b		−31064	+34360		b		+ 8398	+ 3890
	c		−28410	+20565		c		+11072	− 9862
	d		−28161	−22726		d		+11352	−53161
	f		− 311	+32901		f		+39134	+ 2457
	g		+ 2363	+ 1799		g		+41852	−28604
	h		+ 1631	−35492		h		+41159	−65858
	l		+28045	−31166		n		−15154	+41987
	m		+35461	−12450		o		−45354	+26208
			Oct. 26	C				Oct. 26	C
323 E.	a	7 7 2	−59598	+22305	337 W.	a	16 42 8	−20132	− 8134
	b		−30857	+34157		b		+ 8615	+ 3745
	c		−28204	+20358		c		+11279	−10032
	d		−27965	−22917		d		+11585	−53295
	f		− 77	+32740		f		+39337	+ 2324
	g		+ 2573	+ 1609		g		+42065	−28761
	h		+ 1805	−35642		h		+41381	−66025
	l		+28244	−31356		n		−14937	+41833
	m		+35616	−12654		o		−45148	+26048
			Oct. 26	H				Oct. 26	H
324 E.	a	7 12 58	−59251	+21954	338 W.	a	16 45 15	−19930	− 8258
	b		−30486	+33816		b		+ 8789	+ 3591
	c		−27801	+20044		c		+11477	−10164
	d		−27565	−23251		d		+11751	−53473
	f		+ 264	+32375		f		+39514	+ 2133
	g		+ 2945	+ 1272		g		+42234	−28930
	h		+ 2231	−36007		h		+41523	−66193
	l		+28647	−31687		n		−14722	+41687
	m		+36021	−12966		o		−44895	+25897
			Oct. 26	C				Oct. 26	C
325 E.	a	7 15 51	−59040	+21788	339 W.	a	16 52 47	−19446	− 8608
	b		−30274	+33651		b		+ 9299	+ 3243
	c		−27613	+19853		c		+11973	−10516
	d		−27380	−23441		d		+12243	−53781
	f		+ 484	+32213		f		+40036	+ 1800
	g		+ 3151	+ 1090		g		+42742	−29270
	h		+ 2403	−36171		h		+42034	−66528
	l		+28818	−31865		n		−14238	+41330
	m		+36218	−13152		o		−44447	+25587
			Oct. 26	H				Oct. 26	H
326 E.	a	7 22 51	−58575	+21347	340 W.	a	16 55 46	−19252	− 8718
	b		−29821	+33219		b		+ 9493	+ 3112
	c		−27159	+19434		c		+12171	−10610
	d		−26914	−23850		d		+12458	−53938
	f		+ 932	+31776		f		+40214	+ 1680
	g		+ 3601	+ 665		g		+42960	−29390
	h		+ 2873	−36586		h		+42262	−66641
	l		+29295	−32280		n		−14068	+41208
	m		+36669	−13556		o		−44249	+25449
			Oct. 26	C				Oct. 26	C
327 E.	a	7 26 35	−58357	+21184	341 W.	a	17 3 15	−18742	− 9088
	b		−29572	+33032		b		+ 9988	+ 2742
	c		−26906	+19242		c		+12650	−11000
	d		−26698	−24074		d		+12938	−54238
	f		+ 1193	+31570		f		+40713	+ 1303
	g		+ 3842	+ 486		g		+43410	−29761
	h		+ 3084	−36822		h		+42698	−66979
	l		+29521	−32507		n		−13548	+40805
	m		+36897	−13770		o		−43745	+25052

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 26	H				Oct. 29	H
342 W.	a	17 6 8	−18549	− 9211	347 E.	a	6 55 0	−69729	+ 8716
	b		+10195	+ 2661		b		−60582	−11932
	c		+12876	−11115		c		−57672	+29387
	d		+13153	−54408		d		−35395	+19495
	f		+40920	+ 1189		e		−15166	+38019
	g		+43644	−29872		f		− 1840	+19111
	h		+42942	−67107		g		− 2691	+11144
	n		−13364	+40724		h		+14223	+16720
	o		−43545	+24967		i		+17408	−11692
						l		+10230	−51404
						m		+55419	− 3005
			Oct. 26	C				Oct. 29	C
343 W.	a	17 14 24	−18004	− 9609	348 E.	a	7 1 46	−69246	+ 8269
	b		+10744	+ 2238		b		−60062	−12330
	c		+13421	−11532		c		−57253	+28991
	d		+13685	−54784		d		−34960	+19108
	f		+41451	+ 826		e		−14754	+37694
	g		+44194	−30253		f		− 1390	+18789
	h		+43468	−67511		g		− 2240	+10830
	n		−12803	+40332		h		+14657	+16449
	o		−43016	+24587		i		+17898	−11969
						l		+10810	−51699
						m		+55908	− 3225
			Oct. 26	H				Oct. 29	H
344 W.	a	17 17 35	−17812	− 9728	349 E.	a	7 5 8	−68993	+ 8237
	b		+10942	+ 2114		b		−59856	−12394
	c		+13632	−11669		c		−56953	+28898
	d		+13913	−54941		d		−34683	+19010
	f		+41644	+ 678		e		−14454	+37529
	g		+44394	−30393		f		− 1140	+18605
	h		+43708	−67648		g		− 1999	+10645
	n		−12634	+40181		h		+14900	+16230
	o		−42836	+24415		i		+18095	−12176
						l		+10944	−51876
						m		+56110	− 3537
			Oct. 29	H				Oct. 29	C
345 E.	a	6 49 15	−70109	+ 8899	350 E.	a	7 11 43	−68560	+ 7750
	b		−60927	−11686		b		−59343	−12872
	c		−58136	+29611		c		−56568	+28453
	d		−35832	+19746		d		−34257	+18604
	e		−15629	+38311		e		−14083	+37189
	f		− 2269	+19375		f		− 707	+18303
	g		− 3131	+11417		g		− 1536	+10341
	h		+13810	+17027		h		+15353	+15956
	i		+17018	−11357		i		+18636	−12464
	l		+ 9893	−51093		l		+11546	−52191
	m		+55003	− 2687		m		+56621	− 3700
			Oct. 29	C				Oct. 29	H
346 E.	a	6 51 47	−69928	+ 8734	351 E.	a	7 14 36	−68338	+ 7784
	b		−60746	−11882		b		−59175	−12845
	c		−57956	+29446		c		−56300	+28439
	d		−35633	+19574		d		−34015	+18553
	e		−15464	+38149		e		−13762	+37072
	f		− 2103	+19265		f		− 455	+18142
	g		− 2942	+11300		g		− 1315	+10208
	h		+13939	+16924		h		+15581	+15766
	i		+17189	−11496		i		+18789	−12649
	l		+10091	−51231		l		+11628	−52362
	m		+55175	− 2738		m		+56793	− 3985

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Oct. 29	C				Nov. 3	C
357 W.	a	16 52 54	−25208	−16526	398 E.	a	6 33 58	−60228	−23746
	b		−15994	−37124		b		−56426	+17561
	c		−13207	+ 4161		c		−50524	+ 538
	d		+ 9065	− 5689		d		−39328	+20051
	e		+29260	+12847		e		− 5651	+16194
	f		+42620	− 6022		f		+12254	+ 8608
	g		+41791	−13978		g		+13272	− 8180
	h		+58696	− 8360		h		+16614	−29844
	i		+61963	−36742		l		+59356	−16506
	o		−52368	+47926		m		+69718	+ 5256
	p		−42198	−15140					
			Oct. 29	H				Nov. 3	H
358 W.	a	16 55 36	−25056	−16594	399 E.	a	6 40 25	−59730	−23960
	b		−15883	−37197		b		−55951	+17370
	c		−13027	+ 4099		c		−49976	+ 332
	d		+ 9250	− 5797		d		−38818	+19860
	e		+29435	−12705		e		− 5150	+15993
	f		+42795	− 6198		f		+12726	+ 8422
	g		+41943	−14142		g		+13753	− 8384
	h		+58830	− 8561		h		+17107	−30046
	i		+62084	−36949		l		+59784	−16700
	o		−52090	+47900		m		+70166	+ 5047
	p		−42051	−15141					
			Oct. 29	C				Nov. 3	C
359 W.	a	16 59 25	−24748	−16782	400 E.	a	6 43 35	−59432	−24075
	b		−15526	−37370		b		−55642	+17222
	c		−12752	+ 3906		c		−49722	+ 182
	d		+ 9508	− 5920		d		−38542	+19730
	e		+29688	+12613		e		− 4922	+15888
	f		+43064	− 6272		f		+12982	+ 8325
	g		+42261	−14189		g		+14038	− 8462
	h		+59150	− 8602		h		+17385	−30140
	i		+62445	−36960		l		+60090	−16770
	o		−51922	+47660		m		+70398	+ 4985
	p		−41720	−15381					
			Nov. 3	C				Nov. 3	H
396 E.	a	6 28 8	−60654	−23633	401 E.	a	6 49 48	−58997	−24220
	b		−56891	+17680		b		−55216	+17098
	c		−50945	+ 623		c		−49270	+ 43
	d		−39780	+20160		d		−38100	+19556
	e		− 6120	+16352		e		− 4448	+15707
	f		+11790	+ 8776		f		+13463	+ 8133
	g		+12814	− 7985		g		+14467	− 8660
	h		+16192	−29668		h		+17834	−30318
	l		+58898	−16287		l		+60562	−17018
	m		+69209	+ 5467		m		+70916	+ 4753
			Nov. 3	H				Nov. 3	C
397 E.	a	6 31 1	−60408	−23717	402 E.	a	6 52 58	−58710	−24315
	b		−56666	+17591		b		−54925	+16964
	c		−50697	+ 547		c		−48988	− 64
	d		−39556	+20103		d		−37816	+19458
	e		− 5919	+16279		e		− 4159	+15616
	f		+11997	+ 8701		f		+13725	+ 8048
	g		+13016	− 8087		g		+14752	− 8749
	h		+16423	−29757		h		+18101	−30428
	l		+59103	−16383		l		+60773	−17090
	m		+69453	+ 5393		m		+71151	+ 4669

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Nov. 3	H				Nov. 3	C
404 E.	a	7 3 12	−57944	−24604	423 W.	a	17 18 47	− 8338	−38042
	b		−54148	+16688		b		− 4543	+ 3257
	c		−48202	− 326		d		+12553	+ 5737
	d		−37025	+19145		e		+46247	+ 1897
	e		− 3383	+15320		f		+64096	− 5685
	f		+14516	+ 7734		g		+65084	−22475
	g		+15518	− 9034		h		+68546	−44148
	h		+18899	−30719		o		−30592	+20358
	l		+61602	−17405		p		−69019	+27544
	m		+71957	+ 4354					
			Nov. 3	C				Nov. 3	C
417 W.	a	16 55 47	−10051	−37692	424 W.	a	17 24 8	− 7888	−38145
	b		− 6279	+ 3628		b		− 4146	+ 3172
	d		+10826	+ 6105		d		+12966	+ 5663
	e		+44532	+ 2273		e		+46657	+ 1833
	f		+62402	− 5316		f		+64521	− 5762
	g		+63397	−22112		h		+68960	−44203
	h		+66838	−43740		o		−30154	+20248
	o		−32332	+20726		p		−68562	+27441
	p		−70746	+27932					
			Nov. 3	H				Nov. 3	C
419 W.	a	17 2 11	− 9540	−37806	425 W.	a	17 26 58	− 7691	−38146
	b		− 5782	+ 3512		b		− 3932	+ 3153
	d		+11312	+ 6003		d		+13190	+ 5646
	e		+45027	+ 2155		e		+46889	+ 1828
	f		+62886	− 5396		f		+64756	− 5744
	h		+67326	−43828		h		+69201	−44208
	o		−31832	+20598		o		−29998	+20208
	p		−70265	+27788		p		−68399	+27389
			Nov. 3	C				Nov. 3	C
420 W.	a	17 6 53	− 9224	−37849	426 W.	a	17 29 58	− 7479	−38226
	b		− 5433	+ 3438		b		− 3711	+ 3078
	d		+11674	+ 5918		d		+13396	+ 5566
	e		+45358	+ 2076		e		+47082	+ 1742
	f		+63212	− 5500		f		+64951	− 5843
	g		+64202	−22286		h		+69398	−44271
	h		+67667	−43937		o		−29740	+20176
	o		−31466	+20525		p		−68172	+27366
	p		−69860	+27737					
			Nov. 3	C				Nov. 10	C
421 W.	a	17 10 35	− 8954	−37910	472 E.	a	6 16 36	−65739	+11994
	b		− 5145	+ 3400		b		−65266	− 8538
	d		+11978	+ 5882		c		−57996	−33340
	e		+45640	+ 2045		d		−38183	−11150
	f		+63508	− 5551		e		−34766	+22176
	g		+64490	−22334		f		+ 3499	+54414
	h		+67964	−44025		g		+ 4770	+33280
	o		−31172	+20478		h		+11280	+15219
	p		−69580	+27688		l		+37941	+ 550
						m		+64750	+15795
			Nov. 3	C				Nov. 10	H
422 W.	a	17 15 58	− 8538	−38010	473 E.	a	6 19 35	−65444	+12056
	b		− 4778	+ 3310		b		−64957	− 8466
	d		+12332	+ 5778		c		−57704	−33236
	e		+46022	+ 1926		d		−37930	−11124
	f		+63868	− 5648		e		−34487	−22201
	g		+64889	−22461		f		+ 3818	+54484
	h		+68321	−44086		g		+ 5038	+33286
	o		−30814	+20393		h		+11513	+15206
	p		−69217	+27610		l		+38153	+ 538
						m		+65033	+15834

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Nov. 10	C				Nov. 10	H
474 E.	a	6 22 37	−65264	+11991	495 W.	a	15 56 9	−18300	+16015
	b		−64802	− 8539		b		−17828	− 4552
	c		−57555	−33320		c		−10479	−29308
	d		−37713	−11175		d		+ 9258	− 7107
	e		−34277	+22175		e		+12694	+26195
	f		+ 3991	+54407		f		+50947	+58433
	g		+ 5233	+33269		g		+52157	+37302
	h		+11744	+15213		h		+58668	+19265
	l		+38421	+ 547		o		−43358	− 9585
	m		+65206	+15765		p		−32290	+10430
			Nov. 10	H				Nov. 10	H
475 E.	a	6 29 54	−64658	+11986	496 W.	a	15 59 35	−18012	+16095
	b		−64189	− 8529		b		−17548	− 4484
	c		−56910	−33335		c		−10234	−29298
	d		−37096	−11152		d		+ 9520	− 7032
	e		−33696	+22168		e		+12986	+26252
	f		+ 4555	+54412		f		+51242	+58486
	g		+ 5806	+33277		g		+52441	+37335
	h		+12320	+15209		h		+58960	+19302
	l		+39005	+ 562		o		−43076	− 9521
	m		+65826	+15801		p		−32024	+10520
			Nov. 10	H				Nov. 10	H
476 E.	a	6 32 25	−64496	+12022	498 W.	a	16 8 12	−17348	+16198
	b		−64021	− 8528		b		−16875	− 4358
	c		−56766	−33346		c		− 9512	−29114
	d		−36910	−11168		d		+10201	− 6898
	e		−33514	+22180		e		+13654	+26382
	f		+ 4742	+54402		f		+51878	+58611
	g		+ 6010	+33256		g		+53084	+37468
	h		+12517	+15214		h		+59631	+19436
	l		+39168	+ 524		o		−42424	− 9409
	m		+65984	+15742		p		−31344	+10644
			Nov. 10	H				Nov. 10	H
477 E.	a	6 38 36	−63986	+11994	501 W.	a	16 20 35	−16410	+16394
	b		−63502	− 8544		b		−15936	− 4184
	c		−56229	−33333		c		− 8618	−28969
	d		−36434	−11172		d		+11144	− 6768
	e		−33000	+22156		e		+14590	+26570
	f		+ 5266	+54398		f		+52812	+58795
	g		+ 6505	+33248		g		+54043	+37666
	h		+13012	+15198		h		+60576	+19598
	l		+39684	+ 524		o		−41464	− 9205
	m		+66494	+15780		p		−30412	+10824
			Nov. 10	H				Nov. 28	H
478 E.	a	6 41 35	−63722	+12015	615 E.	a	5 56 54	−67062	− 1376
	b		−63258	− 8520		b		−51991	+13342
	c		−55968	−33308		c		−17835	−29696
	d		−36152	−11198		d		+ 2840	+15018
	e		−32758	+22195		e		+10181	−56628
	f		+ 5500	+54398		f		+22416	−61761
	g		+ 6750	+33238		g		+31457	−37499
	h		+13255	+15205		h		+46236	− 1040
	l		+39922	+ 508		l		+39792	+57032
	m		+66745	+15760		m		−13128	+71807

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Nov. 28	C				Nov. 28	H
616 E.	a	5 59 54	−66956	− 1182	621 E.	a	6 15 8	−66376	− 105
	b		−51903	+13546		b		−51345	+14613
	c		−17736	−29490		c		−17179	−28389
	d		+ 2953	+15222		d		+ 3499	+16300
	e		+10260	−56425		e		+10824	−55310
	f		+22490	−61556		f		+23060	−60456
	g		+31536	−37311		g		+32091	−36207
	h		+46343	− 839		h		+46880	+ 238
	l		+39916	+57231		l		+40436	+58289
	m		−12984	+72035		m		−12464	+73117
			Nov. 28	H				Nov. 28	C
617 E.	a	6 2 36	−66880	− 982	622 E.	a	6 17 47	−66310	+ 64
	b		−51792	+13740		b		−51258	+14807
	c		−17653	−29303		c		−17104	−28233
	d		+ 3048	+15413		d		+ 3593	+16494
	e		+10357	−56247		e		+10899	−55153
	f		+22582	−61377		f		+23130	−60292
	g		+31647	−37136		g		+32174	−36057
	h		+46457	− 665		h		+46981	+ 436
	l		+40027	+57402		l		+40545	+58500
	m		−12880	+72214		m		−12368	+73307
			Nov. 28	C				Nov. 28	H
618 E.	a	6 5 47	−66740	− 766	623 E.	a	6 20 43	−66206	+ 272
	b		−51685	+13942		b		−51143	+14995
	c		−17534	−29070		c		−16991	−28012
	d		+ 3160	+15637		d		+ 3696	+16685
	e		+10472	−56009		e		+11015	−54939
	f		+22706	−61141		f		+23245	−60086
	g		+31745	−36906		g		+32295	−35838
	h		+46561	− 431		h		+47095	+ 621
	l		+40102	+57650		l		+40634	+58683
	m		−12796	+72454		m		−12248	+73481
			Nov. 28	H				Nov. 28	C
619 E.	a	6 8 36	−66605	− 586	624 E.	a	6 23 58	−66090	+ 473
	b		−51587	+14160		b		−51036	+15227
	c		−17412	−28861		c		−16876	−27812
	d		+ 3257	+15835		d		+ 3809	+16931
	e		+10593	−55774		e		+11144	−54712
	f		+22836	−60924		f		+23391	−59855
	g		+31870	−36672		g		+32422	−35613
	h		+46659	− 221		h		+47217	+ 868
	l		+40197	+57836		l		+40751	+58951
	m		−12722	+72626		m		−12154	+73742
			Nov. 28	C				Nov. 28	H
620 E.	a	6 12 8	−66519	− 338	625 E.	a	6 26 47	−65996	+ 694
	b		−51465	+14378		b		−50917	+15438
	c		−17287	−28616		c		−16791	−27610
	d		+ 3378	+16066		d		+ 3922	+17109
	e		+10711	−55553		e		+11219	−54538
	f		+22957	−60677		f		+23466	−59672
	g		+32000	−36438		g		+32502	−35432
	h		+46793	+ 20		h		+47313	+ 1047
	l		+40337	+58086		l		+40874	+59106
	m		−12579	+72880		m		−12002	+73928

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Nov. 28	C				Nov. 28	H
635 W.	a	14 4 1	−49579	+36133	644 W.	a	14 44 0	−48398	+39486
	b		−34471	+50864		b		−33302	+54217
	c		− 330	+ 7847		c		+ 853	+11189
	d		+20302	+52599		d		+21454	+55889
	e		+27718	−19083		e		+28887	−15728
	f		+39969	−24214		f		+41127	−20875
	g		+48970	+ 73		g		+50154	+ 3394
	h		+63711	+36574		h		+64898	+39860
	n		−15564	−31567		n		−14390	−28242
	o		−55353	− 9217		o	14 44 35	−54150	− 5860
			Nov. 28	C				Nov. 28	C
637 W.	a	14 10 0	−49369	+36642	647 W.	a	14 53 0	−48095	+40205
	b		−34257	+51369		b		−33037	+54934
	c		− 120	+ 8325		c		+ 1121	+11918
	d		+20510	+53056		d		+21703	+56624
	e		+27881	−18588		e		+29153	−14986
	f		+40128	−23724		f		+41388	−20117
	g		+49163	+ 516		g		+50410	+ 4112
	h		+63962	+37017		h		+65167	+40569
	n		−15375	−31059		n		−14117	−27466
	o	14 9 43	−55225	− 8741		o		−53856	− 5197
			Nov. 28	C				Nov. 29	H
639 W.	a	14 16 50	−49155	+37154	648 E.	a	5 47 47	−80505	− 5639
	b		−34060	+51936		b		−55526	−36767
	c		+ 75	+ 8854		c		−54281	−41514
	d		+20692	+53636		d		+10738	+14355
	e		+28118	−17976		e		+16860	+ 1826
	f		+40368	−23126		f		+19598	−62102
	g		+49380	+ 1136		g		+29291	−23007
	h		+64138	+37629		h		+34654	−14399
	n		−15195	−30558		l		+ 5794	+40434
	o		−54952	− 8246		m		−33962	+62791
			Nov. 28	H				Nov. 29	C
640 W.	a	14 18 53	−49072	+37388	649 E.	a	5 50 25	−80429	− 5415
	b		−34013	+52112		b		−55468	−36546
	c		+ 121	+ 9078		c		−54236	−41319
	d		+20781	+53816		d		+10796	+14551
	e		+28142	−17829		e		+16923	+ 2021
	f		+40384	−22958		f		+19608	−61946
	g		+49404	+ 1287		g		+29354	−22862
	h		+64223	+37786		h		+34717	−14224
	n		−15145	−30286		l		+ 5898	+40628
	o		−54875	− 7967		m		−33832	+62974
			Nov. 28	C				Nov. 29	H
643 W.	a	14 41 0	−48436	+39228	650 E.	a	5 53 53	−80324	− 5147
	b		−33355	+53963		b		−55373	−36255
	c		+ 767	+10923		c		−54102	−41055
	d		+21409	+55636		d		+10933	+14796
	e		+28794	−16015		e		+17046	+ 2261
	f		+41036	−21152		f		+19726	−61651
	g		+50063	+ 3107		g		+29463	−22592
	h		+64861	+39623		h		+34835	−13972
	n		−14484	−28486		l		+ 6023	+40871
	o		−54256	− 6170		m		−33719	+63205

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Nov. 29	C				Nov. 29	H
651 E.	a	5 56 25	−80253	− 4950	656 E.	a	6 12 0	−79756	− 3849
	b		−55304	−36104		b		−54798	−34978
	c		−54046	−40876		c		−53547	−39749
	d		+10997	+14950		d		+11488	+16107
	e		+17118	+ 2423		e		+17606	+ 3553
	f		+19786	−61557		f		+20312	−60382
	g		+29514	−22434		g		+30046	−21283
	h		+34900	−13828		h		+35402	−12659
	l		+ 6067	+41030		l		+ 6562	+42168
	m		−33648	+63432		m		−33172	+64547
			Nov. 29	H				Nov. 29	C
652 E.	a	5 59 46	−80154	− 4726	657 E.	a	6 14 47	−79657	− 3630
	b		−55187	−35864		b		−54712	−34764
	c		−53936	−40630		c		−53465	−39527
	d		+11110	+15211		d		+11594	+16310
	e		+17215	+ 2660		e		+17706	+ 3770
	f		+19923	−61286		f		+20409	−60162
	g		+29648	−22191		g		+30124	−21075
	h		+34994	−13571		h		+35500	−12451
	l		+ 6168	+41303		l		+ 6657	+42384
	m		−33547	+63672		m		−33069	+64769
			Nov. 29	C				Nov. 29	H
653 E.	a	6 2 53	−80057	− 4529	658 E.	a	6 17 36	−79562	− 3416
	b		−55086	−35683		b		−54619	−34543
	c		−53818	−40439		c		−53358	−39298
	d		+11210	+15435		d		+11690	+16534
	e		+17334	+ 2910		e		+17802	+ 3992
	f		+20065	−61056		f		+20478	−59953
	g		+29761	−21949		g		+30215	−20868
	h		+35133	−13325		h		+35582	−12229
	l		+ 6272	+41508		l		+ 6755	+42593
	m		−33456	+63863		m		−32980	+65008
			Nov. 29	H				Nov. 29	C
654 E.	a	6 6 0	−79923	− 4251	668 W.	a	13 57 46	−64845	+33357
	b		−54968	−35400		b		−39852	+ 2240
	c		−53726	−40166		c		−38611	− 2546
	d		+11322	+15674		d		+26396	+53370
	e		+17432	+ 3117		e		+32518	+40816
	f		+20134	−60835		f		+35256	−23116
	g		+29850	−21730		g		+44953	+15991
	h		+35220	−13113		h		+50320	+24604
	l		+ 6382	+41742		n		−25282	−64955
	m		−33331	+64135		o		−43738	−56766
			Nov. 29	C				Nov. 29	H
655 E.	a	6 8 46	−79840	− 4064	669 W.	a	14 0 36	−64761	+33614
	b		−54892	−35198		b		−39771	+ 2493
	c		−53636	−39957		c		−38543	− 2272
	d		+11407	+15875		d		+26481	+53612
	e		+17517	+ 3331		e		+32607	+41058
	f		+21998	−60609		f		+35305	−22880
	g		+29936	−21529		g		+45057	+16239
	h		+35302	−12910		h		+50413	+24853
	l		+ 6487	+41945		n		−25217	−64699
	m		−33243	+64337		o		−43681	−56482

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Nov. 29	C				Nov. 29	H
670 W.	a	14 3 58	−64703	+33890	675 W.	a	14 19 53	−64268	+35249
	b		−39680	+ 2755		b		−39280	+ 4149
	c		−38466	− 2018		c		−38039	− 627
	d		+26522	+53870		d		+26957	+55247
	e		+32667	+41332		e		+33075	+42701
	f		+35434	−22585		f		+35839	−21219
	g		+45100	+16500		g		+45525	+17883
	h		+50467	+25142		h		+50876	+26492
	n		−25116	−64418		n		−24717	−63041
	o		−43570	−56255		o		−43146	−54851
			Nov. 29	H				Nov. 29	C
671 W.	a	14 6 46	−64638	+34124	676 W.	a	14 22 54	−64172	+35529
	b		−39637	+ 2999		b		−39211	+ 4420
	c		−38402	− 1743		c		−37958	− 356
	d		+26616	+54138		d		+27065	+55472
	e		+32736	+41564		e		+33186	+42912
	f		+35476	−22338		f		+35886	−21016
	g		+45193	+16754		g		+45610	+18107
	h		+50544	+25381		h		+50972	+26717
	n		−25070	−64168		n		−24673	−62790
	o		−43520	−55966		o		−43111	−54595
			Nov. 29	C				Nov. 29	H
672 W.	a	14 10 1	−64496	+34388	677 W.	a	14 26 8	−64105	+35805
	b		−39515	+ 3276		b		−39106	+ 4685
	c		−38257	− 1456		c		−37891	− 76
	d		+26707	+54350		d		+27115	+55766
	e		+32821	+41820		e		+33247	+43259
	f		+35569	−22076		f		+35984	−20703
	g		+45263	+17010		g		+45688	+18394
	h		+50615	+25609		h		+51042	+27030
	n		−24978	−63893		n		−24572	−62492
	o		−43433	−55703		o		−43022	−54283
			Nov. 29	H				Nov. 29	H
673 W.	a	14 13 8	−64422	+34674	678 W.	a	14 29 1	−64020	+36066
	b		−39412	+ 3575		b		−39029	+ 4961
	c		−38189	− 1186		c		−37801	+ 173
	d		+26788	+54647		d		+27201	+56001
	e		+32917	+42104		e		+33318	+43471
	f		+35600	−21833		f		+36044	−20439
	g		+45352	+17263		g		+45733	+18637
	h		+50702	+25860		h		+51109	+27262
	n		−24902	−63618		n		−24499	−62238
	o		−43337	−55411		o		−42938	−54034
			Nov. 29	C				Dec. 5	H
674 W.	a	14 16 36	−64378	+34970	713 E.	a	5 44 0	−35812	−47175
	b		−39361	+ 3844		b		−14670	−66344
	c		−38134	− 915		c		− 2198	− 5582
	d		+26875	+54957		d		+ 3658	−27796
	e		+32989	+42412		e		+13518	+ 6658
	f		+35756	−21522		f		+21928	+37846
	g		+45438	+17578		g		+36488	−46404
	h		+50785	+26203		h		+63228	+ 954
	n		−24808	−63340		l		+23224	+74066
	o		−43259	−55148		m		+51597	+46182

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900 Dec. 5	H				1900 Dec. 5	C
714 E.	a	5 46 43	−35831	−46997	719 E.	a	6 1 25	−35770	−45717
	b		−14688	−66174		b		−14612	−64890
	c		− 2205	− 5355		c		− 2119	− 4064
	d		+ 3639	−27592		d		+ 3738	−26294
	e		+13520	+ 6842		e		+13594	+ 8109
	f		+21905	+38013		f		+21972	+39280
	g		+36457	−46188		g		+36574	−44884
	h		+63204	+ 1108		h		+63280	+ 2366
	l		+23199	+74220		l		+23240	+75500
	m		+51549	+46353		m		+51612	+47590
			Dec. 5	C				Dec. 5	H
715 E.	a	5 50 0	−35801	−46704	720 E.	a	6 4 53	−35739	−45400
	b		−14662	−65847		b		−14599	−64572
	c		− 2182	− 5051		c		− 2102	− 3772
	d		+ 3677	−27280		d		+ 3741	−25991
	e		+13520	+ 7134		e		+13593	+ 8394
	f		+21904	+38295		f		+21984	+39576
	g		+36513	−45871		g		+36564	−44608
	h		+63208	+ 1384		h		+63285	+ 2658
	l		+23182	+74493		l		+23270	+75767
	m		+51561	+46629		m		+51670	+47912
			Dec. 5	H				Dec. 5	C
716 E.	a	5 53 0	−35814	−46385	721 E.	a	6 8 8	−35731	−45122
	b		−14684	−65569		b		−14608	−64303
	c		− 2169	− 4797		c		− 2092	− 3481
	d		+ 3693	−27025		d		+ 3762	−25710
	e		+13535	+ 7380		e		+13622	+ 8713
	f		+21940	+38542		f		+22010	+39879
	g		+36493	−45610		g		+36588	−44320
	h		+63215	+ 1616		h		+63339	+ 2965
	l		+23249	+74744		l		+23287	+76088
	m		+51619	+46865		m		+51708	+48202
			Dec. 5	C				Dec. 5	H
717 E.	a	5 55 36	−35851	−46285	722 E.	a	6 10 54	−35699	−44882
	b		−14714	−65466		b		−14564	−64053
	c		− 2145	− 4581		c		− 2077	− 3257
	d		+ 3666	−26838		d		+ 3797	−25480
	e		+13566	+ 7604		e		+13641	+ 8920
	f		+21965	+38757		f		+22024	+40102
	g		+36490	−45440		g		+36596	−44071
	h		+63243	+ 1800		h		+63314	+ 3172
	l		+23231	+74939		l		+23303	+76290
	m		+51618	+47064		m		+51686	+48446
			Dec. 5	H				Dec. 5	C
718 E.	a	5 58 25	−35776	−45968	723 E.	a	6 14 8	−35734	−44630
	b		−14638	−65147		b		−14598	−63835
	c		− 2134	− 4330		c		− 2066	− 2972
	d		+ 3720	−26550		d		+ 3771	−25216
	e		+13567	+ 7856		e		+13668	+ 9210
	f		+21958	+39008		f		+22048	+40368
	g		+36552	−45130		g		+36594	−43816
	h		+63261	+ 2112		h		+63363	+ 3450
	l		+23198	+75190		l		+23319	+76597
	m		+51598	+47343		m		+51721	+48701

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Dec. 5	H				Dec. 5	C
733 W.	a	13 21 1	−33524	− 4683	738 W.	a	13 35 36	−33522	− 3219
	b		−12361	−23852		b		−12378	−22411
	c		+ 67	+36932		c		+ 64	+38381
	d		+ 5957	+14754		d		+ 5969	+16194
	e		+15778	+49126		e		+15775	+50562
	f		+24151	+80293		f		+24138	+81729
	g		+38779	− 3855		g		+38776	− 2429
	h		+65457	+43390		h		+65460	+44861
	o		+20371	−43555		o		+20346	−42105
	p		+43918	−46512		p		+43892	−45066
			Dec. 5	C				Dec. 5	H
734 W.	a	13 23 54	−33502	− 4412	739 W.	a	13 39 8	−33528	− 2911
	b		−12374	−23586		b		−12380	−22077
	c		+ 58	+37198		c		+ 42	+38695
	d		+ 5963	+15027		d		+ 5955	+16539
	e		+15778	+49409		e		+15760	+50917
	f		+24152	+80582		f		+24095	+82069
	g		+38794	− 3589		g		+38768	− 2050
	h		+65471	+43720		h		+65439	+45209
	o		+20366	−43268		o		+20362	−41774
	p		+43927	−46218		p		+43905	−44724
			Dec. 5	H				Dec. 5	C
735 W.	a	13 27 1	−33504	− 4086	740 W.	a	13 42 0	−33540	− 2619
	b		−12369	−23265		b		−12391	−21807
	c		+ 69	+37524		c		+ 81	+39010
	d		+ 5959	+15329		d		+ 5974	+16812
	e		+15780	+49722		e		+15782	+51191
	f		+24135	+80854		f		+24160	+82341
	g		+38760	− 3269		g		+38778	− 1805
	h		+65450	+43994		h		+65454	+45442
	o		+20368	−42948		o		+20323	−41513
	p		+43904	−45895		p		+43872	−44452
			Dec. 5	C				Dec. 5	C
736 W.	a	13 30 1	−33502	− 3802	741 W.	a	13 45 8	−33519	− 2326
	b		−12340	−22975		b		−12364	−21498
	c		+ 47	+37816		c		+ 22	+39303
	d		+ 5947	+15624		d		+ 5935	+17105
	e		+15793	+50062		e		+15749	+51494
	f		+24153	+81218		f		+24125	+82646
	g		+38777	− 2966		g		+38740	− 1482
	h		+65490	+44379		h		+65419	+45771
	o		+20375	−42668		o		+20350	−41171
	p		+43919	−45607		p		+43879	−44126
			Dec. 5	H				Dec. 5	H
737 W.	a	13 32 36	−33538	− 3544	742 W.	a	13 47 54	−33562	− 2032
	b		−12387	−22735		b		−12391	−21200
	c		+ 28	+38062		c		+ 8	+39587
	d		+ 5940	+15870		d		+ 5922	+17399
	e		+15753	+50267		e		+15730	+51797
	f		+24122	+81399		f		+24090	+82929
	g		+38758	− 2725		g		+38746	− 1188
	h		+65425	+44518		h		+65404	+46064
	o		+20347	−42417		o		+20338	−40905
	p		+43896	−45362		p		+43866	−43838

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900 Dec. 5	C				1900 Dec. 6	C
743 W.	a	13 51 0	−33538	− 1705	748 E.	a	5 52 36	−41444	−47401
	b		−12423	−20900		b		−39721	−24595
	c		+ 58	+39885		c		−10601	−39316
	d		+ 5949	+17689		d		− 5829	−20352
	e		+15786	+52075		e		+25460	−63799
	f		+24162	+83215		f		+32002	+17532
	g		+38757	− 920		g		+36050	−62819
	h		+65451	+46325		h		+43725	−40260
	o		+20314	−40603		l		+11677	+47476
	p		+43866	−43572		m		+35249	+44508
			Dec. 6	H				Dec. 6	H
744 E.	a	5 41 0	−41428	−48430	749 E.	a	5 55 43	−41428	−47085
	b		−39710	−25616		b		−39687	−24278
	c		−10602	−40339		c		−10575	−39017
	d		− 5834	−21374		d		− 5819	−20053
	e		+25462	−64832		e		+25479	−63492
	f		+31984	+16485		f		+32021	+17789
	g		+36049	−63847		g		+36070	−62512
	h		+43718	−41306		h		+43722	−39991
	l		+11683	+46399		l		+11708	+47700
	m		+35256	+43474		m		+35286	+44783
			Dec. 6	C				Dec. 6	C
745 E.	a	5 43 51	−41444	−48253	750 E.	a	5 59 8	−41427	−46812
	b		−39737	−25432		b		−39703	−23987
	c		−10607	−40154		c		−10593	−38713
	d		− 5862	−21168		d		− 5825	−19753
	e		+25480	−64598		e		+25489	−63190
	f		+31999	+16786		f		+32014	+18109
	g		+36082	−63601		g		+36064	−62215
	h		+43724	−41050		h		+43740	−39684
	l		+11659	+46678		l		+11693	+48005
	m		+35227	+43763		m		+35265	+45079
			Dec. 6	C				Dec. 6	H
746 E.	a	5 46 54	−41444	−47880	751 E.	a	6 2 0	−41428	−46544
	b		−39708	−25060		b		−39703	−23748
	c		−10602	−39798		c		−10594	−38455
	d		− 5828	−20843		d		− 5813	−19497
	e		+25467	−64278		e		+25473	−62936
	f		+32002	+17017		f		+32009	+18349
	g		+36060	−63289		g		+36069	−61955
	h		+43716	−40773		h		+43735	−39415
	l		+11685	+46940		l		+11701	+48257
	m		+35261	+44006		m		+35262	+45343
			Dec. 6	H				Dec. 6	C
747 E.	a	5 49 36	−41444	−47695	752 E.	a	6 5 6	−41404	−46308
	b		−39729	−24879		b		−39681	−23493
	c		−10627	−39602		c		−10566	−38216
	d		− 5848	−20639		d		− 5808	−19243
	e		+25457	−64108		e		+25518	−62664
	f		+32037	+17251		f		+32023	+18666
	g		+36050	−63105		g		+36116	−61664
	h		+43710	−40547		h		+43763	−39127
	l		+11715	+47166		l		+11686	+48566
	m		+35277	+44252		m		+35256	+45666

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Dec. 6	H				Dec. 6	C
753 E.	a	6 8 0	−41442	−46027	767 W.	a	13 24 6	−41363	− 4503
	b		−39701	−23215		b		−39650	+18342
	c		−10578	−37930		c		−10529	+ 3612
	d		− 5821	−18973		d		− 5776	+22583
	e		+25475	−62407		e		+25561	−20816
	f		+32008	+18864		f		+32017	+60526
	g		+36069	−61419		g		+36176	−19827
	h		+43728	−38891		h		+43780	+ 2745
	l		+11680	+48777		o		+47043	−21398
	m		+35243	+45864		p		−10264	−35277
			Dec. 6	C				Dec. 6	H
754 E.	a	6 11 0	−41390	−45784	768 W.	a	13 27 6	−41384	− 4166
	b		−39670	−22954		b		−39660	+18651
	c		−10568	−37688		c		−10549	+ 3936
	d		− 5797	−18731		d		− 5780	+22908
	e		+25527	−62147		e		+25535	−20502
	f		+32017	+19172		f		+31998	+60798
	g		+36117	−61139		g		+36154	−19513
	h		+43774	−38617		h		+43753	+ 3040
	l		+11683	+49075		o		+47040	−21102
	m		+35250	+46161		p		−10293	−34966
			Dec. 6	H				Dec. 6	C
764 W.	a	13 14 36	−41319	− 5408	769 W.	a	13 30 0	−41404	− 3903
	b		−39586	+17439		b		−39684	+18948
	c		−10474	+ 2684		c		−10576	+ 4200
	d		− 5704	+21641		d		− 5812	+23192
	e		+25596	−21785		e		+25524	−20230
	f		+32128	+59535		f		+31962	+61088
	g		+36201	−20807		g		+36144	−19238
	h		+43834	+ 1753		h		+43744	+ 3326
	o		+47074	−22400		o		+47009	−20818
	p		−10220	−36214		p		−10306	−34677
			Dec. 6	C				Dec. 6	H
765 W.	a	13 18 0	−41337	− 5073	770 W.	a	13 32 36	−41428	− 3622
	b		−39604	+17761		b		−39692	+19233
	c		−10504	+ 3008		c		−10585	+ 4475
	d		− 5735	+21980		d		− 5810	+23444
	e		+25579	−21454		e		+25491	−19975
	f		+32076	+59868		f		+31977	+61324
	g		+36199	−20476		g		+36105	−18993
	h		+43822	+ 2077		h		+43724	+ 3549
	o		+47077	−22048		o		+46945	−20561
	p		−10252	−35882		p		−10379	−34430
			Dec. 6	H				Dec. 6	C
766 W.	a	13 21 15	−41347	− 4754	771 W.	a	13 36 12	−41444	− 3271
	b		−39611	+18082		b		−39729	+19583
	c		−10516	+ 3343		c		−10601	+ 4838
	d		− 5746	+22311		d		− 5836	+23825
	e		+25554	−21117		e		+25463	−19626
	f		+32055	+60199		f		+31972	+61715
	g		+36182	−20150		g		+36099	−18641
	h		+43787	+ 2425		h		+43710	+ 3939
	o		+47058	−21714		o		+46959	−20217
	p		−10265	−35547		p		−10365	−34075

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Dec. 6	H				Dec. 7	C
772 W.	a	13 38 53	−41448	− 2981	777 E.	a	5 48 47	−19980	−62232
	b		−39703	+19881		b		−15764	−32934
	c		−10615	+ 5108		c		−11553	−46966
	d		− 5845	+24103		d		− 2589	−32914
	e		+25446	−19364		e		− 1628	−28740
	f		+31933	+61957		f		+11498	+ 7720
	g		+36054	−18361		g		+21743	−18554
	h		+43690	+ 4194		h		+60660	−26334
	o		+46923	−19937		l		+12149	+71085
	p		−10392	−33775		m		+22756	+72024
			Dec. 6	C				Dec. 7	H
773 W.	a	13 42 8	−41479	− 2675	778 E.	a	5 51 36	−20039	−62012
	b		−39733	+20202		b		−15794	−32690
	c		−10646	+ 5439		c		−11610	−46743
	d		− 5891	+24424		d		− 2637	−32659
	e		+25411	−19024		e		− 1663	−28518
	f		+31909	+62338		f		+11476	+ 7966
	g		+36038	−18028		g		+21702	−18310
	h		+43686	+ 4548		h		+60620	−26129
	o		+46895	−19616		l		+12178	+71338
	p		−10393	−33498		m		+22766	+72288
			Dec. 6	H				Dec. 7	C
774 W.	a	13 45 8	−41506	− 2377	779 E.	a	5 54 36	−20063	−61736
	b		−39771	+20500		b		−15828	−32408
	c		−10670	+ 5718		c		−11633	−46469
	d		− 5902	+24713		d		− 2654	−32390
	e		+25422	−18743		e		− 1691	−28234
	f		+31910	+62614		f		+11457	+ 8241
	g		+36017	−17762		g		+21682	−18024
	h		+43660	+ 4817		h		+60589	−25837
	o		+46902	−19364		l		+12148	+71595
	p		−10424	−33195		m		+22750	+72532
			Dec. 7	C				Dec. 7	H
775 E.	a	5 42 43	−19962	−62798	780 E.	a	5 59 8	−20090	−61285
	b		−15735	−33463		b		−15829	−31989
	c		−11533	−47512		c		−11644	−46005
	d		− 2565	−33441		d		− 2667	−31954
	e		− 1607	−29262		e		− 1698	−27791
	f		+11531	+ 7170		f		+11461	+ 8651
	g		+21757	−19083		g		+21658	−17609
	h		+60691	−26875		h		+60589	−25420
	l		+12217	+70556		l		+12151	+72021
	m		+22815	+71512		m		+22737	+72972
			Dec. 7	H				Dec. 7	C
776 E.	a	5 46 0	−19991	−62505	781 E.	a	6 1 53	−20071	−61075
	b		−15756	−33182		b		−15829	−31759
	c		−11564	−47231		c		−11635	−45798
	d		− 2592	−33156		d		− 2667	−31726
	e		− 1619	−28994		e		− 1699	−27547
	f		+11504	+ 7467		f		+11424	+ 8902
	g		+21722	−18800		g		+21652	−17362
	h		+60656	−26606		h		+60569	−25159
	l		+12196	+70853		l		+12085	+72263
	m		+22789	+71793		m		+22666	+73206

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900 Dec. 7	H				1900 Dec. 7	C
782 E.	a	6 4 46	−20097	−60785	797 W.	a	13 7 8	−21885	−19965
	b		−15854	−31491		b		−17711	+ 9416
	c		−11666	−45544		c		−13498	− 4670
	d		− 2698	−31461		d		− 4537	+ 9432
	e		− 1710	−27294		e		− 3563	+13603
	f		+11431	+ 9166		f		+ 9542	+50091
	g		+21640	−17097		g		+19778	+23824
	h		+60560	−24894		h		+58715	+16023
	l		+12124	+72538		o		+70797	−23600
	m		+22707	+73480		p		+38071	−35224
			Dec. 7	C				Dec. 7	H
783 E.	a	6 7 54	−20112	−60508	798 W.	a	13 10 8	−21939	−19639
	b		−15871	−31186		b		−17751	+ 9737
	c		−11676	−45230		c		−13531	− 4350
	d		− 2699	−31170		d		− 4564	+ 9754
	e		− 1729	−27008		e		− 3590	+13899
	f		+11427	+ 9450		f		+ 9528	+50371
	g		+21642	−16807		g		+19752	+24118
	h		+60544	−24622		h		+58693	+16328
	l		+12119	+72797		o		+70733	−23270
	m		+22712	+73752		p		+37984	−34901
			Dec. 7	C				Dec. 7	C
784 E.	a	6 11 8	−20082	−60205	799 W.	a	13 12 46	−21967	−19384
	b		−15852	−30912		b		−17774	+ 9982
	c		−11662	−44945		c		−13562	− 4104
	d		− 2693	−30876		d		− 4600	+10007
	e		− 1732	−26721		e		− 3626	+14150
	f		+11402	+ 9753		f		+ 9450	+50638
	g		+21626	−16509		g		+19716	+24389
	h		+60554	−24301		h		+58631	+16598
	l		+12068	+73111		o		+70707	−22992
	m		+22648	+74063		p		+37987	−34630
			Dec. 7	H				Dec. 7	H
785 E.	a	6 14 0	−20108	−59964	800 W.	a	13 16 5	−21984	−19019
	b		−15874	−30657		b		−17797	+10338
	c		−11668	−44703		c		−13582	− 3746
	d		− 2715	−30624		d		− 4615	+10357
	e		− 1756	−26474		e		− 3640	+14516
	f		+11405	+10017		f		+ 9465	+50993
	g		+21606	−16290		g		+19702	+24724
	h		+60516	−24059		h		+58621	+16926
	l		+12074	+73389		o		+70676	−22693
	m		+22664	+74320		p		+37939	−34300
			Dec. 7	H				Dec. 7	C
796 W.	a	13 4 11	−21880	−20226	801 W.	a	13 19 5	−22029	−18717
	b		−17693	+ 9130		b		−17840	+10671
	c		−13480	− 4929		c		−13628	− 3427
	d		− 4502	+ 9166		d		− 4661	+10658
	e		− 3545	+13299		e		− 3694	+14832
	f		+ 9564	+49774		f		+ 9416	+51332
	g		+19814	+23506		g		+19654	+25032
	h		+58735	+15724		h		+58604	+17200
	o		+70780	−23879		o		+70621	−22382
	p		+38064	−35491		p		+37906	−34005

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Dec. 7	H				Dec. 7	H
802 W.	a	13 21 50	−22074	−18421	806 W.	a	13 34 10	−22233	−17198
	b		−17861	+10939		b		−18003	+12167
	c		−13654	− 3142		c		−13799	− 1892
	d		− 4692	+10945		d		− 4803	+12193
	e		− 3721	+15101		e		− 3839	+16342
	f		+ 9401	+51580		f		+ 9241	+52842
	g		+19640	+25313		g		+19498	+26563
	h		+58553	+17474		h		+58427	+18743
	o		+70587	−22120		o		+70478	−20809
	p		+37867	−33727		p		+37768	−32442
			Dec. 7	C				Dec. 24	C
803 W.	a	13 25 5	−22074	−18107	895 E.	a	5 47 25	−39858	+ 3098
	b		−17892	+11241		b		−20551	−71579
	c		−13693	− 2814		c		−21934	−26632
	d		− 4711	+11264		d		−18607	+22233
	e		− 3738	+15425		e		+13838	−51904
	f		+ 9364	+51901		f		+21166	−59820
	g		+19603	+25634		g		+23320	−64995
	h		+58504	+17829		h		+24588	+13464
	o		+70552	−21771		i		+52431	−16325
	p		+37835	−33371		j		+ 1614	−26864
						l		−14556	+48040
						m		−35701	+35458
			Dec. 7	H				Dec. 24	H
804 W.	a	13 28 0	−22097	−17804	896 E.	a	5 51 12	−40170	+ 3490
	b		−17923	+11553		b		−20829	−71127
	c		−13701	− 2524		c		−22227	−26220
	d		− 4739	+11570		d		−18918	+22606
	e		− 3781	+15742		e		+13536	−51487
	f		+ 9312	+52201		f		+20866	−59392
	g		+19573	+25932		g		+23022	−64543
	h		+58498	+18132		h		+24250	+13874
	o		+70532	−21456		i		+52124	−15868
	p		+37815	−33087		j		+ 1306	−26460
						l		−14878	+48426
						m		−36038	+35832
			Dec. 7	C				Dec. 24	C
805 W.	a	13 31 5	−22142	−17492	897 E.	a	5 53 25	−40378	+ 3689
	b		−17957	+11864		b		−20976	−70892
	c		−13741	− 2218		c		−22409	−26003
	d		− 4793	+11891		d		−19122	+22833
	e		− 3817	+16033		e		+13388	−51244
	f		+ 9268	+52495		f		+20720	−59132
	g		+19522	+26248		g		+22885	−64308
	h		+58454	+18464		h		+24035	+14130
	o		+70493	−21122		i		+51945	−15613
	p		+37791	−32743		j		+ 1132	−26197
						l		−15102	+48628
						m		−36262	+36014

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900					1900	
			Dec. 24	H				Dec. 24	H
898 E.	a	5 56 46	−40666	+ 4080	908 W.	a	12 35 0	−74702	+48382
	b		−21270	−70532		b		−55309	−26212
	c		−22705	−25625		c		−56767	+18698
	d		−19433	+23205		d		−53484	+67505
	e		+13089	−50869		e		−20998	− 6558
	f		+20414	−58789		f		−13661	−14472
	g		+22575	−63942		g		−11469	−19653
	h		+23762	+14478		h		−10340	+58797
	i		+51655	−15256		i		+17521	+29091
	j		+ 825	−25847		j		−33248	+18467
	l		−15376	+49014		o		+14243	−68714
	m		−36538	+36419		p		+25195	−41012
			Dec. 24	C				Dec. 24	C
899 E.	a	5 59 54	−40928	+ 4403	909 W.	a	12 38 0	−74968	+48740
	b		−21556	−70207		b		−55578	−25824
	c		−22980	−25300		c		−57023	+19064
	d		−19669	+23543		d		−53735	+67862
	e		+12807	−50555		e		−21275	− 6198
	f		+20154	−58466		f		−13932	−14106
	g		+22310	−63654		g		−11751	−19287
	h		+23513	+14822		h		−10618	+59120
	i		+51373	−14934		i		+17249	+29411
	j		+ 578	−25528		j		−33514	+18823
	l		−15634	+49349		o		+13958	−68378
	m		−36805	+36741		p		+24880	−40668
			Dec. 24	H				Dec. 24	H
900 E.	a	6 3 15	−41196	+ 4757	910 W.	a	12 40 36	−75174	+49057
	b		−21822	−69845		b		−55826	−25528
	c		−23259	−24940		c		−57233	+19388
	d		−19956	+23893		d		−53970	+68163
	e		+12527	−50178		e		−21501	− 5893
	f		+19879	−58084		f		−14188	−13820
	g		+22036	−63276		g		−11956	−19032
	h		+23235	+15181		h		−10816	+59371
	i		+51121	−14577		i		+17019	+29692
	j		+ 313	−25147		j		−33738	+19156
	l		−15898	+49691		o		+13698	−68040
	m		−37071	+37082		p		+24623	−40337
			Dec. 24	C				Dec. 24	C
901 E.	a	6 5 58	−41416	+ 5060	911 W.	a	12 44 47	−75573	+49542
	b		−22084	−69554		b		−56224	−25055
	c		−23472	−24641		c		−57653	+19844
	d		−20160	+24186		d		−54340	+68668
	e		+12276	−49910		e		−21886	− 5410
	f		+19622	−57834		f		−14549	−13337
	g		+21770	−63017		g		−12381	−18548
	h		+23028	+15449		h		−11215	+59923
	i		+50881	−14332		i		+16652	+30195
	j		+ 63	−24880		j		−34129	+19610
	l		−16094	+49990		o		+13329	−67594
	m		−37254	+37400		p		+24255	−39910

TABLE V. — PARALLAX PLATE MEASURES — Continued.

PLATE No.	STAR.	P. S. T.	x	y	PLATE No.	STAR.	P. S. T.	x	y
			1900 Dec. 24	H				1900 Dec. 24	H
912 W.	a	12 48 11	−75902	+49895	914 W.	a	12 54 11	−76476	+50602
	b		−56512	−24679		b		−57068	−23972
	c		−57961	+20214		c		−58514	+20914
	d		−54688	+69025		d		−55256	+69722
	e		−22206	− 5026		e		−22748	− 4325
	f		−14862	−12944		f		−15433	−12238
	g		−12689	−18147		g		−13242	−17439
	h		−11581	+60352		h		−12094	+60989
	i		+16315	+30590		i		+15770	+31280
	j		−34448	+19976		j		−35006	+20687
	o		+13056	−67193		o		+12486	−66492
	p		+23963	−39468		p		+23404	−38791
			Dec. 24	C					
913 W.	a	12 51 8	−76155	+50245					
	b		−56770	−24330					
	c		−58217	+20573					
	d		−54937	+69358					
	e		−22465	− 4675					
	f		−15122	−12599					
	g		−12942	−17762					
	h		−11837	+60717					
	i		+16053	+30919					
	j		−34704	+20333					
	o		+12761	−66866					
	p		+23674	−39136					

Table VI. — Parallax Plate Constants.

Date.	Plate No.	Plate Constants.		Standard Constants.		Refraction Constants.		
		p	r	p	r	M_x	M_y, N_x	N_y
Oct. 6 E.	92	−.000304	+.000067			+.000769	−.000211	+.000329
	93	+ 87	+ 146			752	201	323
	94	− 438	+ 241			738	191	318
	95	+ 449	− 124			693	162	303
	96	+ 209	− 336			680	153	298
			I	+.000071	+.000564			
			II	+ 14	+ 643			
W.	104	+ 30	− 276			352	− 2	247
	105	− 23	+ 451			360	0	"
	106	+ 15	+ 11			368	+ 2	"
	107	+ 446	+ 462			382	6	"
	108	− 446	− 644			386	7	"
			I	−.000063	+.001160			
			II	− 206	+ 1111			
Oct. 12 E.	134	+ 33	− 448			486	− 39	251
	135	− 189	− 661			514	54	258
	136	+ 66	− 326			551	74	267
	137	+ 68	+ 730			616	115	284
	138	+ 148	− 63			653	137	294
	139	+ 256	+ 344			736	188	315
	140	− 367	+ 440			773	208	326
			I	+.000111	+.000646			
			II	− 184	+ 519			
W.	145	+ 115	+ 170			389	+ 2	246
	146	+ 253	+ 117			396	4	"
	147	− 312	+ 60			410	8	247
	148	− 70	− 346			421	12	"
			I	−.000433	+.000854			
			II	− 260	+ 983			
Oct. 13 E.	150	− 618	− 345			994	− 382	440
	151	+ 568	+ 91			968	338	426
	152	+ 125	− 3			949	310	415
	153	− 86	+ 249			866	275	367
			I	−.001840	−.002722			
			II	− 1533	− 3078			
W.	163	− 532	+ 266			408	+ 7	245
	164	− 110	+ 107			412	9	245
	165	− 627	− 71			420	12	246
	166	+ 118	− 95			437	19	247
	167	+ 295	− 175			443	21	247
	168	+ 336	− 241			460	27	248
	169	+ 487	+ 210			466	29	249
			I	−.001376	−.003080			
			II	− 1192	− 2800			
Oct. 14 E.	170	+ 197	− 153			861	− 274	365
	171	+ 276	− 385			847	264	360
	172	+ 29	+ 699			828	250	353
	173	+ 68	+ 111			765	206	329
	174	− 412	+ 199			751	197	323
	175	− 133	− 135			708	167	307
	176	+ 195	− 343			694	157	302
	177	− 64	0			649	126	284
	178	−.000157	.000000			+.000634	−.000115	+.000278
			I	−.000330	−.000661			
			II	− 913	+ 17			

TABLE VI. — PARALLAX PLATE CONSTANTS — Continued.

DATE.	PLATE NO.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N_y
Oct. 14 W.	187	−.000007	−.000192			+.000400	+.000004	+.000245
	188	− 255	− 301			406	6	245
	189	+ 48	− 3			416	10	246
	190	+ 262	+ 221			438	18	247
	191	− 306	− 171			444	20	247
	192	+ 255	+ 81			460	26	248
	193	+ 9	+ 368			467	28	248
				I	−.000714	−.000379		
				II	− 1085	− 386		
Oct. 15 E.	195	+ 203	+ 279			830	− 249	349
	196	+ 3	− 167			809	234	341
	197	− 76	− 286			761	201	323
	198	− 296	+ 836			747	192	318
	199	+ 59	− 458			715	169	306
	201	+ 147	− 205			667	135	288
	202	− 39	+ 14			652	125	282
				I	−.000648	−.000114		
				II	− 765	− 20		
W.	213	+ 52	− 1008			408	+ 5	246
	214	− 154	+ 658			414	7	246
	215	− 161	− 902			420	9	247
	216* I	− 333	+ 2472			441	17	248
	216* II	− 326	+ 2521					
	217* I	− 375	+ 2309			446	19	248
	217* II	− 344	+ 2312					
	218* I	− 729	− 2967			462	25	249
	218* II	− 474	− 3110					
	219	+ 338	+ 258			470	28	249
	220	− 325	+ 856			485	34	250
	221	+ 284	+ 140			491	36	251
				I	−.000044	−.000947		
				II	− 45	− 976		
Oct. 16 E.	222	− 283	+ 204			866	− 276	365
	223	− 97	− 682			846	262	357
	224	− 138	+ 637			822	245	347
	225	− 401	+ 31			781	216	331
	226	+ 224	+ 577			758	200	322
	227	+ 281	− 836			724	176	309
	228	+ 279	+ 466			710	166	304
	230	+ 135	− 374			657	128	282
				I	+.000076	+.002436		
				II	− 222	+ 2646		
W.	239	− 50	+ 114			443	+ 17	245
	240	− 171	− 72			452	21	246
	241	− 48	+ 259			464	26	247
	242	+ 195	− 174			478	32	248
	243	− 322	+ 29			485	35	249
	244	+.000406	−.000181			+.000499	+.000041	+.000250
				I	−.000503	+.002124		
				II	− 877	+ 2406		

* Indicates that plates were reduced direct and not through the standard.

TABLE VI. — PARALLAX PLATE CONSTANTS — Continued.

DATE.	PLATE No.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N_y
Oct. 21 E.	247	− 39	− 334			+.000786	−.000212	+.000326
	248	+ 122	+ 316			775	204	322
	250	− 20	+ 199			719	166	302
	251	− 68	− 221			694	149	294
	252	− 107	− 283			679	138	289
	253	− 30	+ 235			647	116	278
	254	+ 109	+ 105			634	108	273
				I	−.000100	+.000554		
				II	− 67	+ 585		
W.	264	+ 19	+ 26			475	+ 23	248
	265	+ 450	− 328			483	27	249
	266	− 16	− 92			491	31	250
	267	+ 34	+ 71			514	42	253
	268	+ 204	+ 10			520	45	254
	269	− 346	+ 147			543	55	257
	270	− 197	+ 34			550	59	258
	271	− 174	+ 147			568	68	260
				I	−.000057	−.000242		
				II	− 59	− 252		
Oct. 24 E.	275	− 6	+ 262			708	− 147	296
	276	− 29	− 233			698	139	293
	277	+ 176	− 32			687	131	290
	278	− 118	+ 19			656	111	280
				I	+.000099	−.002253		
				II	+ 266	− 2211		
W.	291	− 313	− 277			485	+ 25	248
	292	− 36	+ 104			494	29	250
	293	+ 42	− 278			504	33	251
	294	− 63	− 39			532	47	256
	295	+ 227	+ 30			541	51	257
	296	+ 188	+ 270			568	62	261
	297	− 126	+ 246			577	66	263
	298	+ 66	− 39			600	76	267
				I	−.000892	−.003314		
				II	− 715	− 3189		
Oct. 26 E.	319	− 75	− 157			719	− 155	298
	320	− 100	+ 495			708	148	295
	321	+ 137	+ 267			699	143	293
	322	− 111	− 111			675	130	286
	323	+ 163	− 191			663	123	283
	324	− 8	+ 213			642	109	277
	325	− 19	− 86			631	102	274
	326	+ 251	+ 99			606	86	267
	327	− 236	− 480			593	75	264
				I	−.000579	−.001986		
				II	− 700	− 2255		
W.	336	− 122	+ 180			549	+ 49	257
	337	− 115	+ 370			559	55	259
	338	− 13	− 273			569	61	261
	339	− 16	− 240			594	76	266
	340	− 266	+ 99			604	82	268
	341	+ 583	− 310			629	96	274
	342	− 39	− 40			639	101	276
	343	+ 88	− 36			666	117	282
	344	−.000148	+.000242			+.000677	+.000122	+.000284
				I	+.000027	−.002976		
				II	− 392	− 3326		

TABLE VI. — PARALLAX PLATE CONSTANTS — Continued.

DATE.	PLATE NO.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N_y
Oct. 29 E.	345	+.000007	+.000340			+.000648	−.000116	+.000286
	346	+ 217	+ 971			642	111	284
	347	− 263	− 1044			635	105	281
	348	− 69	+ 782			620	91	276
	349	+ 279	− 1229			613	84	273
	350	− 180	+ 1438			598	71	268
	351	+ 18	− 1257			592	65	266
				I	−.000022	+.000864		
				II	− 219	+ 1016		
W.	357	+ 4	+ 397			655	+ 103	279
	358	+ 36	− 1248			668	110	282
	359	− 50	+ 838			680	118	286
				I	+.000199	−.000373		
				II	− 27	− 197		
Nov. 3 E.	396	− 117	+ 516			619	− 90	264
	397	− 19	+ 660			610	85	263
	398	− 205	− 329			601	80	261
	399	− 241	− 256			583	71	258
	400	+ 309	+ 210			571	64	256
	401	− 39	− 277			553	55	253
	402	+ 198	− 199			544	50	252
	404	+ 94	− 312			516	34	247
				I	−.000024	+.002442		
				II	+ 115	+ 2803		
W.	417	− 92	+ 23			751	+ 179	307
	419	+ 87	+ 273			781	203	322
	420	+ 158	− 184			806	224	334
	421	− 229	− 394			826	240	344
	422	+ 174	− 138			851	261	357
	423	+ 21	− 271			866	273	364
	424	+ 50	+ 148			891	294	377
	425	− 221	+ 298			906	306	384
	426	+ 45	+ 267			921	318	393
				I	−.000511	+.000423		
				II	− 460	+ 908		
Nov. 10 E.	472	− 237	+ 153			531	− 39	250
	473	+ 208	− 356			524	36	250
	474	− 256	− 110			517	33	250
	475	+ 147	+ 318			499	25	248
	476	− 153	− 15			492	23	248
	477	+ 47	+ 39			475	16	246
	478	+ 234	+ 7			470	12	245
				I	−.000431	−.003298		
				II	− 722	− 3472		
W.	495	+ 86	+ 127			679	+ 126	281
	496	− 143	− 235			696	139	288
	498	+ 272	+ 106			730	166	303
	501	−.000226	+.000011			+.000786	+.000212	+.000328
				I	−.000535	−.005173		
				II	− 743	− 5356		

TABLE VI. — PARALLAX PLATE CONSTANTS — Continued.

DATE.	PLATE No.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N_y
Nov. 28 E.	615	−.000112	+.000031			+.000374	+.000009	+.000247
	616	− 57	− 116			370	10	"
	617	− 235	− 283			366	11	"
	618	− 7	− 131			361	12	248
	619	+ 172	+ 160			357	12	"
	620	+ 27	+ 199			351	13	"
	621	+ 275	+ 71			347	14	249
	622	+ 8	− 39			345	14	"
	623	+ 72	+ 3			340	15	250
	624	− 65	+ 273			336	16	"
	625	− 57	− 151			335	17	251
				I	+ .000067	−.001158		
				II	− 84	− 1159		
W.	635	− 108	+ 270			654	+ 116	282
	637	− 63	− 337			682	136	292
	639	+ 93	+ 454			715	159	305
	640	+ 77	− 235			724	165	309
	643	− 124	− 281			827	240	349
	644	− 83	+ 50			841	250	355
	647	+ 193	+ 80			883	280	372
				I	−.0000456	−.000919		
				II	− 546	− 836		
Nov. 29 E.	648	+ 13	+ 611			380	+ 7	247
	649	+ 17	+ 93			377	7	"
	650	+ 97	− 41			371	8	"
	651	− 6	− 378			368	9	248
	652	− 24	− 125			363	10	"
	653	− 273	+ 372			359	11	"
	654	+ 30	− 241			355	12	"
	655	+ 106	− 193			351	12	249
	656	− 24	+ 84			347	13	"
	657	− 10	− 31			343	14	"
	658	+ 69	− 105			338	15	"
				I	−.0000165	−.004367		
				II	− 320	− 4394		
W.	668	− 124	+ 227			646	114	280
	669	− 79	+ 27			659	123	284
	670	− 84	+ 316			672	131	288
	671	− 218	+ 181			685	140	292
	672	+ 410	− 6			698	149	296
	673	+ 318	− 348			711	156	301
	674	− 173	+ 145			728	168	307
	675	− 48	+ 192			741	177	311
	676	− 70	− 465			754	185	315
	677	− 99	− 18			767	194	319
	678	+ 188	− 264			+.000779	+.000203	+.000324
				I	− .000400	−.004124		
				II	− 402	− 4273		

TABLE VI. — PARALLAX PLATE CONSTANTS — Continued.

DATE.	PLATE NO.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N^y
Dec. 5 E.	713	−.000195	+.000232			+.000346	+.000008	+.000245
	714	− 70	+ 123			342	8	"
	715	+ 229	+ 269			338	9	"
	716	+ 429	− 352			334	9	"
	717	− 505	− 365			330	10	246
	718	+ 124	+ 145			328	10	"
	719	+ 3	+ 144			325	11	"
	720	+ 274	+ 4			320	11	247
	721	− 208	− 18			316	12	"
	722	+ 278	+ 28			314	13	"
	723	− 355	− 233			311	13	"
			I	−.000818	−.001918			
			II	− 618	− 1818			
W.	733	+ 78	− 83			609	101	274
	734	− 152	+ 155			621	108	278
	735	+ 241	− 35			633	116	282
	736	− 399	+ 395			645	124	285
	737	+ 119	− 52			657	132	289
	738	+ 2	− 97			669	140	293
	739	+ 47	+ 320			681	147	296
	740	− 106	− 325			693	155	300
	741	+ 149	+ 151			705	163	304
	742	+ 55	+ 168			717	171	307
	743	+ 4	− 613			730	178	310
			I	−.000648	−.001038			
			II	− 365	− 957			
Dec. 6 E.	744	+ 106	− 140			+.000344	+.000007	+.000245
	745	− 459	+ 636			341	7	245
	746	+ 113	− 264			338	8	245
	747	− 255	− 237			334	8	245
	748	− 72	− 95			331	9	246
	749	+ 228	− 371			328	10	246
	750	+ 18	− 132			324	10	246
	751	+ 158	− 125			321	11	246
	752	− 82	+ 455			318	11	247
	753	+ 209	− 110			314	12	247
	754	+ 25	+ 371			311	12	247
			I	−.000541	+.000226			
			II	− 807	+ 414			
W.	764	+ 8	− 459			599	98	272
	765	− 23	− 266			611	105	278
	766	+ 120	− 166			624	113	282
	767	− 51	+ 586			636	121	285
	768	+ 193	+ 315			649	129	289
	769	+ 15	+ 466			661	137	293
	770	+ 107	− 150			674	144	296
	771	− 193	− 7			686	152	300
	772	+ 222	− 275			699	160	304
	773	− 97	+ 71			711	168	307
	774	−.000284	−.000158			+.000724	+.000175	+.000310
			I	−.000876	+.001243			
			II	− 781	+ 1323			

TABLE VI. — PARALLAX PLATE CONSTANTS — Continued.

DATE.	PLATE NO.	PLATE CONSTANTS.		STANDARD CONSTANTS.		REFRACTION CONSTANTS.		
		p	r	p	r	M_x	M_y, N_x	N_y
Dec. 7 E.	775	−.000062	+.000159			+.000339	+.000007	+.000246
	776	+ 11	+ 59			336	7	"
	777	+ 89	+ 186			333	8	"
	778	− 144	− 164			329	8	247
	779	− 143	− 62			326	9	"
	780	+ 46	− 456			322	10	"
	781	+ 42	+ 222			318	10	"
	782	− 51	− 36			315	11	248
	783	− 57	− 281			312	12	"
	784	+ 94	+ 287			308	12	"
	785	+ 131	+ 127			305	12	"
				I	−.000152	+.000077		
				II	− 432	+ 142		
W.	796	+ 148	− 63			579	88	269
	797	− 165	+ 352			591	94	272
	798	− 91	− 37			603	101	275
	799	+ 70	+ 437			614	108	279
	800	+ 53	− 20			626	115	282
	801	− 275	− 248			638	122	285
	802	+ 30	− 535			649	129	289
	803	+ 231	− 66			661	136	292
	804	+ 118	+ 125			673	143	295
	805	+ 217	+ 269			684	150	298
	806	− 315	− 212			695	157	301
				I	−.000647	+.001176		
				II	− 798	+ 1346		
Dec. 24 E.	895	− 243	− 584			291	0	250
	896	+ 148	− 167			289	0	"
	897	+ 31	+ 523			288	0	"
	898	− 4	+ 357			285	1	"
	899	− 55	+ 104			283	1	251
	900	+ 18	+ 211			281	1	"
	901	+ 92	− 461			279	2	"
				I	−.000439	−.001611		
				II	− 650	− 1980		
W.	908	− 93	+ 244			704	185	325
	909	+ 160	− 25			722	196	331
	910	+ 25	− 327			740	208	337
	911	− 229	− 349			763	223	346
	912	+ 11	+ 139			781	234	352
	913	+ 185	+ 96			799	246	359
	914	− 60	+ 175			+.000816	+.000257	+.000366
				I	−.000199	+.000522		
				II	− 410	+ 432		

TABLE VII.—PARALLAX MEAN PLACES, REDUCTION TO APPARENT PLACE, AND PARALLAX CORRECTIONS.

DATE.	PLATE No.	BERLIN M. T.	MEAN α 1900. 0.		MEAN δ 1900. 0.		REDUCTION TO APPARENT PLACE.		PARALLAX Δ.		π f.
			FIRST DETERMINATION.	SECOND DETERMINATION.	FIRST DETERMINATION.	SECOND DETERMINATION.	α	δ	α	δ	
		h m s	h m s	s	° ′ ″	″					
Oct. 6 E.	92	17 21 41	2 43 41.1056	41.1015	46 52 59.930	59.963	+6.0961	+13.162	−1.2563	+5.149	1.46
	93	24 35	.0685	.0690	55 2.637	2.669	6.0962	13.162	1.2534	5.028	1.46
	94	27 22	.0404	.0402	5.333	5.335	6.0964	13.162	1.2506	4.916	1.46
	95	36 35	40.9633	40.9595	14.117	14.100	6.0965	13.161	1.2397	4.539	1.44
	96	39 36	.9234	.9135	16.740	16.746	6.0966	13.161	1.2357	4.418	1.44
W.	104	25 34 50	2 43 34.6084	34.6084	46 59 28.458	28.393	+6.1138	+13.222	+0.8823	−0.184	1.03
	105	39 47	.5509	.5489	32.765	32.758	6.1140	13.223	0.9024	0.040	1.05
	106	44 25	.4719	.4750	36.602	36.557	6.1142	13.223	0.9207	+0.098	1.07
	107	53 10	.3565	.3590	44.482	44.418	6.1144	13.224	0.9542	0.365	1.11
	108	56 47	.3313	.3276	47.805	47.811	6.1146	13.225	0.9679	0.480	1.13
Oct. 12 E.	134	16 19 46	2 41 18.0924	18.1048	48 56 29.784	29.951	+6.3931	+14.422	−1.4225	+6.830	1.59
	135	22 33	.0236	.0294	32.018	32.089	6.3932	14.423	1.4222	6.701	1.59
	136	26 10	17.8602	17.8698	35.186	35.216	6.3933	14.423	1.4216	6.535	1.59
	137	33 43	.7153	.7224	41.933	41.959	6.3935	14.424	1.4189	6.186	1.59
	138	37 43	.6047	.6032	45.326	45.399	6.3936	14.425	1.4169	6.002	1.59
	139	47 0	.3888	.3831	53.772	53.663	6.3940	14.427	1.4106	5.577	1.58
	140	50 40	.2625	.2722	56.592	56.616	6.3941	14.428	1.4075	5.410	1.58
W.	145	25 33 35	2 41 1.1868	1.1815	49 4 17.640	17.724	+6.4120	+14.522	+1.0925	+0.107	1.22
	146	37 18	1.0570	1.0483	20.697	20.751	6.4120	14.523	1.1075	0.240	1.24
	147	45 22	0.8157	0.8043	27.049	27.120	6.4123	14.524	1.1391	0.534	1.27
	148	51 22	0.6330	0.6255	31.955	31.947	6.4125	14.526	1.1615	0.758	1.30
Oct. 13 E.	150	16 8 44	2 40 39.5839	39.6007	49 16 13.246	13.057	+6.4411	+14.665	−1.4154	+7.165	1.61
	151	12 58	.5127	.5288	17.191	17.049	6.4412	14.666	1.4157	6.966	1.61
	152	15 33	.4309	.4501	19.752	19.615	6.4412	14.667	1.4156	6.844	1.61
	153	28 44	.0330	.0565	30.675	30.560	6.4414	14.668	1.4122	6.372	1.61
W.	163	25 40 33	2 40 20.4728	20.4651	49 24 8.443	8.563	+6.4604	+14.787	+1.1590	+0.427	1.29
	164	43 10	.3648	.3683	10.563	10.697	6.4604	14.787	1.1691	0.551	1.30
	165	46 55	.2608	.2620	13.553	13.739	6.4606	14.788	1.1833	0.695	1.31
	166	54 35	19.9894	19.9902	19.443	19.541	6.4607	14.789	1.2114	0.991	1.34
	167	57 33	.8684	.8734	21.477	21.621	6.4609	14.790	1.2220	1.109	1.36
	168	26 5 35	.6277	.6347	27.880	27.989	6.4611	14.791	1.2494	1.430	1.38
	169	8 33	.5282	.5323	30.394	30.503	6.4613	14.792	1.2591	1.551	1.40
Oct. 14 E.	170	16 23 10	2 39 56.1013	56.0907	49 35 59.535	59.292	+6.4893	+14.952	−1.4718	+6.290	1.63
	171	26 10	55.9914	55.9808	36 1.902	1.604	6.4893	14.952	1.4704	6.147	1.62
	172	30 22	.8638	.8494	5.567	5.378	6.4894	14.953	1.4680	5.947	1.62
	173	43 43	.4593	.4344	17.246	16.917	6.4896	14.954	1.4571	5.315	1.61
	174	46 35	.3214	.3181	19.579	19.328	6.4898	14.955	1.4541	5.179	1.61
	175	55 35	.0379	.0274	27.302	27.079	6.4900	14.956	1.4431	4.756	1.59
	176	58 50	54.9495	54.9355	30.110	29.807	6.4901	14.957	1.4387	4.605	1.59
	177	17 8 26	.6274	.6138	38.060	37.836	6.4905	14.960	1.4238	4.160	1.57
	178	11 26	.4963	.4968	40.577	40.218	6.4907	14.963	1.4186	4.021	1.57
W.	187	25 31 18	2 39 35.8295	35.8170	49 43 25.957	25.935	+6.5073	+15.063	+1.1616	+0.206	1.28
	188	34 23	.7168	.7140	28.190	28.268	6.5073	15.064	1.1740	0.322	1.29
	189	39 20	.5386	.5334	31.979	31.984	6.5075	15.065	1.1935	0.511	1.32
	190	49 50	.1679	.1617	40.028	40.123	6.5078	15.068	1.2332	0.924	1.36
	191	52 50	.0561	.0489	42.477	42.566	6.5079	15.068	1.2439	1.044	1.37
	192	26 1 0	34.7483	34.7376	48.695	48.725	6.5081	15.070	1.2723	1.377	1.40
	193	4 11	.6438	.6351	50.782	50.859	6.5082	15.071	1.2830	1.508	1.41

TABLE VII. — PARALLAX MEAN PLACES, REDUCTION TO APPARENT PLACE, AND PARALLAX CORRECTIONS — Continued.

Date.	Plate No.	Berlin M. T.	Mean α 1900. o.		Mean δ 1900. o.		Reduction to Apparent Place.		Parallax Δ.		π f.
			First Determination.	Second Determination.	First Determination.	Second Determination.	α	δ	α	δ	
		h m s	h m s	s	° ′ ″	″					
Oct. 15 E.	195	16 23 0	2 39 8.4177	8.4139	49 55 9.116	9.118	+6.5359	+15.244	−1.4961	+6.090	1.64
	196	27 33	8.2596	.2531	12.933	12.931	6.5360	15.245	1.4932	5.870	1.64
	197	37 50	7.9055	7.8993	21.716	21.723	6.5363	15.245	1.4845	5.375	1.63
	198	40 46	7.7892	.7883	24.183	24.150	6.5364	15.247	1.4816	5.234	1.63
	199	47 50	7.5374	.5301	29.980	29.997	6.5366	15.247	1.4732	4.896	1.62
	201	58 18	7.1580	.1539	38.749	38.765	6.5369	15.250	1.4584	4.400	1.60
	202	17 1 23	7.0342	.0329	41.408	41.389	6.5371	15.251	1.4534	4.256	1.59
W.	213	25 30 33	2 38 46.4088	46.4035	50 2 25.388	25.378	+6.5537	+15.360	+1.1989	+0.281	1.31
	214	33 33	.2930	.2906	27.535	27.535	6.5537	15.360	1.2110	0.400	1.33
	215	36 18	.1801	.1782	29.822	29.827	6.5538	15.361	1.2218	0.508	1.34
	216	45 59	45.7932	45.7885	37.620	37.744	6.5540	15.363	1.2587	0.896	1.38
	217	48 21	.7131	.7047	39.445	39.481	6.5542	15.363	1.2674	0.992	1.39
	218	55 50	.4268	.3976	43.917	43.987	6.5544	15.363	1.2938	1.301	1.42
	219	59 21	.2560	.2533	46.811	46.787	6.5544	15.365	1.3057	1.449	1.43
	220	26 6 23	44.9824	44.9852	51.695	51.806	6.5547	15.366	1.3288	1.749	1.45
	221	9 11	.8714	.8839	54.270	54.283	6.5548	15.366	1.3377	1.869	1.46
Oct. 16 E.	222	16 11 10	2 38 16.7238	16.7111	50 13 44.090	44.166	+6.5813	+15.546	−1.5263	+6.456	1.66
	223	15 20	.5313	.5199	47.587	47.700	6.5815	15.548	1.5245	6.251	1.66
	224	20 20	.3541	.3441	51.713	51.772	6.5816	15.549	1.5217	6.006	1.66
	225	28 50	.0102	15.9997	58.649	58.748	6.5819	15.550	1.5151	5.588	1.65
	226	33 33	15.8289	.8123	14 2.493	2.601	6.5820	15.551	1.5107	5.358	1.65
	227	40 33	.5630	.5526	8.224	8.298	6.5822	15.552	1.5028	5.017	1.64
	228	43 23	.4474	.4321	10.607	10.741	6.5823	15.552	1.4993	4.880	1.63
	230	54 21	.0287	.0140	19.714	19.776	6.5827	15.554	1.4833	4.540	1.62
W.	239	25 45 36	2 37 51.7675	51.7684	50 21 11.066	11.042	+6.5992	+15.677	+1.2975	+1.015	1.41
	240	49 47	.5952	.5918	14.090	14.012	6.5993	15.677	1.3126	1.191	1.43
	241	54 35	.3819	.3836	17.635	17.567	6.5995	15.678	1.3293	1.395	1.45
	242	26 0 43	.1297	.1291	22.147	22.097	6.5997	15.680	1.3498	1.661	1.47
	243	3 43	50.9997	.0011	24.179	24.134	6.5998	15.681	1.3594	1.792	1.48
	244	9 35	.7509	50.7548	28.309	28.255	6.6000	15.682	1.3777	2.052	1.50
Oct. 21 E.	247	15 57 35	2 32 48.2349	48.2346	51 40 4.074	4.067	+6.7901	+17.291	−1.6565	+5.968	1.75
	248	16 0 11	.0844	.0827	5.729	5.642	6.7902	17.292	1.6545	5.830	1.75
	250	13 27	47.3548	47.3573	15.332	15.308	6.7905	17.295	1.6404	5.132	1.73
	251	19 18	.0436	.0459	19.417	19.377	6.7907	17.297	1.6323	4.825	1.73
	252	22 59	46.8464	46.8477	22.273	22.200	6.7907	17.297	1.6269	4.634	1.72
	253	30 26	.4092	.4170	27.536	27.506	6.7910	17.300	1.6143	4.347	1.71
	254	33 36	.2492	.2487	29.801	29.790	6.7910	17.302	1.6084	4.084	1.70
W.	264	25 33 10	2 32 13.9276	13.9334	51 46 27.695	27.731	+6.8051	+17.449	+1.4623	+1.305	1.54
	265	35 59	.7707	.7683	29.701	29.597	6.8052	17.440	1.4724	1.437	1.55
	266	38 59	.5962	.6006	31.176	31.170	6.8053	17.441	1.4829	1.578	1.56
	267	47 34	.0876	.0855	36.444	36.433	6.8055	17.443	1.5114	1.988	1.59
	268	49 49	12.9390	12.9388	37.888	37.873	6.8055	17.444	1.5186	2.098	1.60
	269	58 42	.4365	.4323	43.147	43.086	6.8057	17.446	1.5453	2.531	1.63
	270	26 1 29	.2889	.2861	45.008	45.040	6.8058	17.446	1.5532	2.669	1.64
	271	8 22	11.8872	11.8824	48.993	48.989	6.8060	17.449	1.5718	3.013	1.66
Oct. 24 E.	275	16 0 55	2 28 37.2076	37.2125	52 25 3.162	3.109	+6.8939	+18.527	−1.7172	+4.964	1.79
	276	3 33	.0489	.0537	4.848	4.690	6.8940	18.527	1.7133	4.821	1.78
	277	6 33	36.8706	36.8724	6.543	6.494	6.8940	18.527	1.7085	4.657	1.78
	278	14 59	.3108	.3157	12.071	11.943	6.8941	18.530	1.6936	4.202	1.76

TABLE VII. — PARALLAX MEAN PLACES, REDUCTION TO APPARENT PLACE, AND PARALLAX CORRECTIONS — Continued.

DATE.	PLATE No.	BERLIN M. T.	MEAN α 1900. 0.		MEAN δ 1900. 0.		REDUCTION TO APPARENT PLACE.		PARALLAX Δ.		π f.
			FIRST DETERMINATION.	SECOND DETERMINATION.	FIRST DETERMINATION.	SECOND DETERMINATION.	α	δ	α	δ	
		h m s	h m s	s	° ′ ″	″					
Oct. 24 W.	291	25 22 27	2 27 58.5423	58.5289	52 30 30.002	30.102	+6.9061	+18.698	+1.5543	+1.422	1.60
	292	25 20	.3330	.3214	31.548	31.624	6.9061	18.700	1.5647	1.565	1.62
	293	28 27	.1372	.1256	33.243	33.367	6.9062	18.701	1.5756	1.720	1.63
	294	37 35	57.5262	57.5157	38.053	38.157	6.9065	18.703	1.6059	2.182	1.67
	295	40 17	.3605	.3497	39.454	39.480	6.9065	18.704	1.6143	2.319	1.67
	296	48 42	56.7736	56.7604	43.750	43.829	6.9067	18.706	1.6393	2.753	1.70
	297	51 42	.5928	.5836	45.189	45.344	6.9067	18.707	1.6477	2.910	1.71
	298	58 49	.1087	.1013	49.027	49.078	6.9069	18.710	1.6664	3.284	1 73
Oct. 26 E.	319	15 45 43	2 25 30.3105	30.3138	52 51 25.561	25.611	+6.9520	+19.404	−1.7767	+5.205	1.83
	320	48 23	.1357	.1440	26.884	26.966	6.9520	19.406	1.7732	5.064	1.82
	321	50 50	29.9666	29.9676	28.409	28.512	6.9521	19.407	1.7695	4.927	1.82
	322	57 26	.5160	.5179	32.284	32.368	6.9521	19.408	1.7587	4.558	1.81
	323	16 0 37	.2974	.3023	34.105	34.209	6.9523	19.409	1.7529	4.382	1.80
	324	6 33	28.8793	28.8848	37.409	37.515	6.9524	19.411	1.7414	4.149	1.79
	325	9 26	.6641	.6712	39.183	39.234	6.9525	19.412	1.7353	3.896	1.78
	326	16 26	.1724	.1759	43.298	43.375	6.9526	19.414	1.7195	3.514	1.77
	327	20 10	27.9110	27.9183	45.391	45.414	6.9527	19.415	1.7103	3.311	1.76
W.	336	25 32 33	2 24 46.6903	46.6943	52 56 30.730	30.643	+6.9625	+19.595	+1.6746	+2.436	1.72
	337	35 43	.4599	.4625	32.281	32.181	6.9625	19.596	1.6842	2.603	1.73
	338	38 50	.2510	.2494	33.739	33.651	6.9625	19.598	1.6934	2.770	1.74
	339	46 22	45.7044	45.7126	37.057	36.993	6.9627	19.599	1.7142	3.175	1 76
	340	49 21	.4975	.5034	38.241	38.177	6.9627	19.601	1.7219	3.338	1.77
	341	56 50	44.9476	44.9642	41.884	41.877	6.9629	19.602	1.7400	3.747	1.79
	342	59 43	.7313	.7410	42.964	42.899	6.9629	19.603	1.7465	3.905	1.79
	343	26 7 59	.1419	.1504	46.861	46.746	6.9631	19.605	1.7635	4.364	1.81
	344	11 10	43.9282	43.9408	48.205	48.180	6.9631	19.608	1.7694	4.543	1.82
Oct. 29 E.	345	15 42 50	2 20 21.0614	21.0618	53 25 26.783	26.818	+7.0174	+20.817	−1.8320	+4.441	1.86
	346	45 22	20.8674	20.8659	27.968	28.014	7.0174	20.818	1.8270	4.296	1.86
	347	48 35	.6167	.6117	29.640	29.656	7.0174	20.820	1.8204	4.115	1.85
	348	55 21	.0961	.0902	32.651	32.678	7.0176	20.821	1.8052	3.725	1.83
	349	58 43	19.8560	19.8463	34.419	34.478	7.0176	20.822	1.7972	3.534	1.83
	350	16 5 18	.3185	.3152	37.530	37.595	7.0176	20.824	1.7801	3.163	1.81
	351	8 11	.1073	.0990	38.944	39.004	7.0176	20.826	1.7723	3.003	1.80
W.	357	25 46 29	2 19 31.7521	31.7677	53 29 37.119	37.156	+7.0244	+21.031	+1.8309	+4.115	1.86
	358	49 11	.5609	.5717	38.102	38.098	7.0244	21.029	1.8366	4.270	1.86
	359	53 0	.2575	.2684	39.556	39.540	7.0244	21.028	1.8442	4.492	1.87
Nov. 3 E.	396	15 21 43	2 10 49.0654	49.0714	54 4 55.447	55.270	+7.0653	+23.336	−1.9332	+4.016	1.93
	397	24 36	48.8204	48.8230	56.189	56.076	7.0653	23.336	1.9263	3.842	1.93
	398	27 33	.5631	.5591	57.044	56.869	7.0653	23.337	1.9190	3.666	1.92
	399	34 0	.0147	.0277	58.976	58.819	7.0653	23.339	1.9018	3.281	1.90
	400	37 10	47.7205	47.7235	5 0.013	59.850	7.0654	23.340	1.8898	3.035	1.89
	401	43 23	.2099	.2092	1.768	1.670	7.0654	23.341	1.8739	2.727	1.87
	402	46 33	46.9032	46.9124	2.763	2.619	7.0654	23.343	1.8639	2.543	1.87
	404	56 47	.0275	.0303	5.725	5.606	7.0654	23.345	1.8287	1.953	1.83
W.	417	25 49 22	2 9 52.6033	52.6161	54 7 14.649	14.584	+7.0650	+23.566	+2.0018	+6.148	2.00
	419	55 46	.0495	.0681	15.753	15.736	7.0650	23.569	2.0079	6.549	2.01
	420	26 0 28	51.6625	51.6780	16.424	16.462	7.0649	23.569	2.0114	6.844	2.01
	421	4 10	.3486	.3461	16.816	16.926	7.0650	23.570	2.0135	7.076	2.01
	422	9 33	50.9220	50.9343	17.871	17.831	7.0649	23.571	2.0157	7.415	2.01
	423	12 22	.6762	.6896	18.222	18.269	7.0649	23.572	2.0163	7.593	2.01
	424	17 43	.2138	.2105	19.101	19.116	7.0649	23.574	2.0168	7.929	2.01
	425	20 33	49.9753	49.9877	19.162	19.344	7.0648	23.575	2.0165	8.107	2.01
	426	23 33	.7364	.7458	19.977	20.049	7.0648	23.576	2.0160	8.297	2.01

TABLE VII. — PARALLAX MEAN PLACES, REDUCTION TO APPARENT PLACE, AND PARALLAX CORRECTIONS — Continued.

DATE.	PLATE NO.	BERLIN M. T.	MEAN α 1900. 0.		MEAN δ 1900. 0.		REDUCTION TO APPARENT PLACE.		PARALLAX Δ.		π f.
			FIRST DETERMINATION.	SECOND DETERMINATION.	FIRST DETERMINATION.	SECOND DETERMINATION.	α	δ	α	δ	
		h m s	h m s	s	° ′ ″	″					
Nov. 10 E.	472	15 10 11	1 56 30.2241	30.2162	54 20 3.974	4.040	+6.9870	+26.960	−1.9708	+2.298	1.96
	473	13 10	29.9293	29.9319	3.641	3.799	6.9870	26.961	1.9597	2.116	1.95
	474	16 12	.6996	.6911	4.089	4.042	6.9870	26.961	1.9480	1.931	1.94
	475	23 29	.0360	.0185	3.885	3.975	6.9870	26.961	1.9185	1.493	1.91
	476	26 0	28.8293	28.8218	4.015	4.141	6.9871	26.960	1.9079	1.342	1.89
	477	32 11	.2639	.2569	4.081	4.139	6.9871	26.960	1.8808	0.978	1.87
	478	35 10	27.9868	27.9748	3.952	4.118	6.9871	26.960	1.8673	0.804	1.86
W.	495	24 49 44	1 55 36.9579	36.9497	54 19 22.443	22.403	+6.9773	+27.167	+2.1070	+5.295	2.09
	496	53 0	.6546	.6451	21.870	21.995	6.9773	27.167	2.1131	5.521	2.10
	498	25 1 47	35.8877	35.8842	20.514	20.623	6.9773	27.169	2.1266	6.090	2.11
	501	14 10	34.8473	34.8409	18.824	18.860	6.9772	27.169	2.1404	6.914	2.13
Nov. 28 E.	615	14 50 29	1 28 53.0867	53.0907	51 17 3.290	3.239	+6.2881	+33.752	−1.6385	−1.189	1.75
	616	53 29	52.9857	52.9846	1.341	1.264	6.2881	33.752	1.6184	1.344	1.72
	617	56 11	.8809	.8797	16 59.488	59.452	6.2880	33.753	1.6000	1.484	1.70
	618	59 22	.7626	.7651	57.292	57.191	6.2879	33.753	1.5782	1.646	1.68
	619	15 2 11	.6424	.6483	55.247	55.183	6.2878	33.754	1.5585	1.788	1.66
	620	5 43	.5180	.5198	52.854	52.789	6.2877	33.755	1.5336	1.963	1.64
	621	8 43	.4013	.4032	50.670	50.564	6.2876	33.754	1.5121	2.108	1.61
	622	11 22	.3166	.3175	48.955	48.841	6.2876	33.755	1.4930	2.233	1.59
	623	14 18	.1974	.1979	46.913	46.839	6.2875	33.755	1.4714	2.375	1.57
	624	17 33	.0749	.0739	44.697	44.602	6.2874	33.756	1.4474	2.527	1.54
	625	20 22	51.9730	51.9693	42.806	42.724	6.2873	33.757	1.4262	2.656	1.52
W.	635	22 57 35	1 28 34.6934	34.6934	51 10 53.706	53.706	+6.2736	+33.823	+2.1569	+5.742	2.30
	637	23 3 18	....	.5057	.....	49.113	6.2733	33.824	2.1706	6.138	2.32
		23 3 34	.4884	....	48.894	.....			2.1713	6.158	
	639	10 24	.2537	.2724	43.335	43.500	6.2732	33.826	2.1858	6.636	2.34
	640	12 27	.2109	.2212	41.405	41.340	6.2731	33.825	2.1897	6.779	2.34
	643	34 34	33.5312	33.5416	23.423	23.538	6.2725	33.828	2.2216	8.347	2.37
	644	37 34	.4500	....	20.845	.....	6.2723	33.829	2.2243	8.562	2.38
		38 10	....	.4270	.....	20.301			2.2247	8.603	
	647	46 34	.1577	.1623	13.635	13.659	6.2721	33.829	2.2301	9.205	2.38
Nov. 29 E.	648	14 41 22	1 28 12.3428	12.3442	50 59 5.268	5.221	+6.2467	+33.946	−1.6646	−0.843	1.79
	649	44 0	.2753	.2713	3.466	3.423	6.2466	33.946	1.6475	0.983	1.77
	650	47 28	.1521	.1485	0.871	0.864	6.2465	33.947	1.6243	1.165	1.74
	651	50 0	.0780	.0807	58 59.348	59.303	6.2464	33.947	1.6074	1.296	1.72
	652	53 21	11.9659	11.9682	56.897	56.833	6.2464	33.946	1.5845	1.468	1.70
	653	56 28	.8530	.8505	54.627	54.607	6.2463	33.948	1.5630	1.628	1.68
	654	59 36	.7403	.7444	52.361	52.310	6.2461	33.948	1.5411	1.784	1.65
	655	15 2 21	.6569	.6571	50.357	50.286	6.2461	33.948	1.5215	1.916	1.63
	656	5 35	.5626	.5636	48.052	48.027	6.2460	33.949	1.4982	2.073	1.61
	657	8 22	.4636	.4651	45.962	45.926	6.2459	33.949	1.4781	2.205	1.59
	658	11 11	.3692	.3700	43.838	43.773	6.2458	33.949	1.4573	2.338	1.56
W.	668	22 51 21	1 27 56.0922	56.0950	50 52 41.048	41.023	+6.2323	+34.011	+2.1478	+5.734	2.31
	669	54 11	.0051	.0115	38.579	38.534	6.2321	34.011	2.1550	5.931	2.32
	670	57 33	55.9336	55.9351	35.839	35.877	6.2320	34.012	2.1630	6.164	2.33
	671	23 0 21	.8655	.8689	33.680	33.402	6.2320	34.012	2.1693	6.359	2.33
	672	3 36	.7595	.7672	30.828	30.852	6.2319	34.013	2.1764	6.587	2.34
	673	6 43	.6854	.6855	28.130	28.138	6.2318	34.013	2.1826	6.805	2.35
	674	10 11	.5958	.5989	25.273	25.225	6.2317	34.013	2.1891	7.049	2.35
	675	13 28	.5007	.5038	22.359	22.327	6.2316	34.014	2.1948	7.281	2.36
	676	16 29	.4254	.4269	19.983	19.957	6.2315	34.014	2.1996	7.494	2.37
	677	19 43	.3377	.3431	17.091	17.008	6.2314	34.015	2.2044	7.724	2.37
	678	22 36	.2652	.2683	14.587	14.567	6.2313	34.016	2.2082	7.928	2.37

TABLE VII. — PARALLAX MEAN PLACES, REDUCTION TO APPARENT PLACE, AND PARALLAX CORRECTIONS — Continued.

DATE.	PLATE No.	BERLIN M. T.	MEAN α 1900. 0.		MEAN δ 1900. 0.		REDUCTION TO APPARENT PLACE.		PARALLAX Δ.		π f.
			FIRST DETERMINATION.	SECOND DETERMINATION.	FIRST DETERMINATION.	SECOND DETERMINATION.	α	δ	α	δ	
		h m s	h m s	s	° ′ ″	″					
Dec. 5 E.	713	14 37 35	1 26 27.1653	27.1662	48 58 47.638	47.647	+6.0180	+34.709	−1.4888	−1.198	1.66
	714	40 18	.1794	.1809	45.792	45.831	6.0180	34.710	1.4697	1.328	1.64
	715	43 35	.1565	.1665	42.912	42.945	6.0179	34.710	1.4462	1.483	1.62
	716	46 35	.1388	.1478	40.303	40.314	6.0178	34.711	1.4245	1.623	1.60
	717	49 11	.1468	.1533	38.422	38.557	6.0178	34.710	1.4055	1.743	1.57
	718	52 0	.1128	.1285	35.766	35.863	6.0177	34.710	1.3848	1.870	1.55
	719	55 0	.0957	.1073	33.215	33.241	6.0177	34.710	1.3623	2.004	1.52
	720	58 28	.0809	.0911	30.318	30.316	6.0177	34.711	1.3363	2.155	1.49
	721	15 1 43	.0640	.0764	27.367	27.418	6.0176	34.710	1.3114	2.295	1.47
	722	4 29	.0423	.0502	25.204	25.208	6.0175	34.710	1.2902	2.411	1.44
	723	7 43	.0433	.0531	22.479	22.546	6.0174	34.711	1.2652	2.545	1.42
W.	733	22 14 36	1 26 24.8148	24.8134	48 51 49.771	49.672	+6.0065	+34.730	+2.0740	+5.641	2.32
	734	17 29	.8064	.8136	47.097	46.980	6.0064	34.730	2.0825	5.837	2.33
	735	20 36	.8129	.8125	43.959	43.831	6.0063	34.731	2.0912	6.048	2.34
	736	23 36	.7981	.8120	41.034	40.952	6.0063	34.732	2.0994	6.252	2.36
	737	26 11	.8345	.8333	38.692	38.448	6.0062	34.731	2.1061	6.430	2.36
	738	29 11	.8140	.8178	35.577	35.464	6.0061	34.731	2.1134	6.635	2.37
	739	32 43	.8177	.8279	32.261	32.175	6.0060	34.731	2.1217	6.879	2.38
	740	35 35	.8168	.8223	29.549	29.394	6.0059	34.731	2.1281	7.077	2.39
	741	38 43	.8243	.8314	26.515	26.391	6.0058	34.730	2.1346	7.295	2.39
	742	41 29	.8432	.8474	23.663	23.554	6.0057	34.731	2.1401	7.487	2.40
	743	44 35	.8324	.8336	20.738	20.599	6.0057	34.731	2.1458	7.704	2.41
Dec. 6 E.	744	14 34 35	1 26 33.1734	33.1761	48 37 5.569	5.294	+5.9846	+34.764	−1.4769	−1.098	1.66
	745	37 26	.2027	.1925	3.107	2.982	5.9846	34.764	1.4567	1.234	1.64
	746	40 29	.1639	.1706	0.118	59.981	5.9845	34.765	1.4350	1.378	1.62
	747	43 11	.1726	.1668	36 58.041	57.900	5.9844	34.765	1.4156	1.502	1.59
	748	46 11	.1716	.1736	55.264	55.115	5.9844	34.766	1.3936	1.640	1.57
	749	49 18	.1418	.1477	52.460	52.333	5.9843	34.766	1.3708	1.779	1.54
	750	52 43	.1529	.1586	49.426	49.373	5.9843	34.765	1.3453	1.930	1.52
	751	55 35	.1536	.1570	46.966	46.877	5.9842	34.766	1.3237	2.054	1.49
	752	58 41	.1473	.1467	44.263	44.149	5.9841	34.766	1.3000	2.187	1.46
	753	15 1 35	.1540	.1610	41.816	41.751	5.9840	34.766	1.2778	2.308	1.44
	754	4 35	.1360	.1414	39.187	39.078	5.9839	34.766	1.2545	2.431	1.41
W.	764	22 8 11	1 26 32.8915	32.8960	48 30 2.178	2.183	+5.9745	+34.781	+2.0575	+5.589	2.32
	765	11 35	.9109	.9101	29 58.953	58.918	5.9744	34.781	2.0678	5.818	2.33
	766	14 50	.9249	.9253	55.700	55.691	5.9743	34.782	2.0772	6.037	2.35
	767	17 41	.9364	.9416	52.892	52.890	5.9741	34.781	2.0851	6.231	2.36
	768	20 41	.9546	.9545	49.792	49.789	5.9740	34.783	2.0930	6.435	2.36
	769	23 35	.9726	.9743	47.066	47.058	5.9739	34.782	2.1004	6.633	2.37
	770	26 11	.9908	.9949	44.508	44.468	5.9738	34.783	2.1066	6.812	2.38
	771	29 47	33.0075	33.0119	40.945	43.384	5.9736	34.782	2.1149	7.060	2.39
	772	32 28	.0212	.0219	38.217	38.195	5.9735	34.782	2.1208	7.245	2.40
	773	35 43	.0450	.0496	34.976	34.988	5.9734	34.782	2.1274	7.469	2.40
	774	38 43	.0625	.0648	32.207	32.225	5.9733	34.782	2.1331	7.678	2.41
Dec. 7 E.	775	14 36 18	1 26 45.7689	45.7678	48 14 54.057	53.924	+5.9526	+34.808	−1.4318	−1.204	1.63
	776	39 35	.7909	.7903	49.295	51.370	5.9525	34.809	1.4083	1.356	1.60
	777	42 22	.7903	.7971	48.804	48.689	5.9524	34.809	1.3881	1.483	1.58
	778	45 11	.8203	.8212	48.379	46.272	5.9524	34.809	1.3675	1.609	1.55
	779	48 11	.8472	.8437	43.681	43.612	5.9523	34.808	1.3453	1.741	1.53
	780	52 43	.8446	.8505	39.461	39.348	5.9523	34.808	1.3112	1.937	1.49
	781	55 28	.8659	.8697	37.184	37.070	5.9522	34.809	1.2904	2.054	1.46
	782	58 21	.8757	.8730	34.553	34.431	5.9521	34.808	1.2682	2.174	1.44
	783	15 1 29	.8779	.8774	31.662	31.618	5.9520	34.808	1.2440	2.301	1.41
	784	4 43	.8877	.8894	28.822	28.707	5.9519	34.808	1.2186	2.432	1.38
	785	7 35	.9008	.8981	26.414	26.248	5.9519	34.808	1.1962	2.543	1.36

TABLE VII. — PARALLAX MEAN PLACES, REDUCTION TO APPARENT PLACE, AND PARALLAX CORRECTIONS — Continued.

DATE.	PLATE NO.	BERLIN M. T.	MEAN α 1900. 0.		MEAN δ 1900. 0.		REDUCTION TO APPARENT PLACE.		PARALLAX Δ.		π f.
			FIRST DETERMINATION.	SECOND DETERMINATION.	FIRST DETERMINATION.	SECOND DETERMINATION.	α	δ	α	δ	
		h m s	h m s	s	° ′ ″	″					
Dec. 7 W.	796	21 57 46	1 26 47.5192	47.5161	48 7 55.095	55.105	+5.9426	+34.820	+2.0270	+5.267	2.31
	797	22 0 43	.5346	.5304	52.298	52.328	5.9425	34.820	2.0368	5.464	2.32
	798	3 43	.5671	.5684	49.259	49.263	5.9425	34.820	2.0463	5.662	2.33
	799	6 21	.5996	.5972	46.706	46.729	5.9424	34.821	2.0542	5.839	2.33
	800	9 40	.6157	.6143	43.245	43.278	5.9423	34.821	2.0640	6.062	2.34
	801	12 40	.6616	.6599	40.212	40.221	5.9423	34.820	2.0724	6.265	2.35
	802	15 25	.6908	.6830	37.443	37.450	5.9422	34.820	2.0798	6.452	2.37
	803	18 40	.7098	.7075	34.263	34.271	5.9422	34.821	2.0882	6.672	2.38
	804	21 35	.7337	.7331	31.295	31.321	5.9422	34.822	2.0954	6.872	2.38
	805	24 40	.7722	.7519	28.227	28.246	5.9421	34.822	2.1026	7.083	2.39
	806	27 45	.8165	.8119	25.251	25.219	5.9420	34.822	2.1094	7.295	2.40
Dec. 24 E.	895	14 41 0	1 46 6.6864	6.6849	41 18 8.717	8.588	+5.6240	+32.808	−0.9334	−0.279	1.20
	896	44 47	6.9589	6.9580	4.726	4.608	5.6240	32.808	.9045	.392	1.16
	897	47 0	7.1258	7.1274	2.355	2.342	5.6239	32.807	.8875	.455	1.14
	898	50 21	7.3821	7.3795	17 58.749	58.677	5.6239	32.807	.8617	.550	1.10
	899	53 29	7.6065	7.6073	55.596	55.477	5.6239	32.805	.8372	.636	1.07
	900	56 50	7.8460	7.8432	52.014	51.968	5.6238	32.804	.8108	.726	1.04
	901	59 34	8.0375	8.0341	49.303	49.159	5.6238	32.804	.7895	.795	1.01
W.	908	21 28 35	1 46 36.9425	36.9477	41 10 43.025	43.081	+5.6211	+32.734	+1.8926	+8.605	2.43
	909	31 35	37.1855	37.1902	39.510	39.641	5.6212	32.734	1.8996	8.790	2.44
	910	34 11	37.3813	37.3896	36.708	36.724	5.6211	32.734	1.9054	8.951	2.44
	911	38 22	37.7132	37.7201	32.031	32.076	5.6210	32.733	1.9143	9.211	2.46
	912	41 46	37.9905	37.9963	28.110	28.153	5.6210	32.732	1.9210	9.422	2.46
	913	44 43	38.2190	38.2249	24.660	24.702	5.6210	32.732	1.9264	9.608	2.47
	914	47 46	38.4720	38.4764	21.186	21.267	5.6210	32.731	1.9318	9.799	2.48

TABLE VIII. — PARALLAX TRUE PLACES AND CORRECTIONS TO EPHEMERIS.

DATE.	PLATE No.	OBSERVED α. FIRST DETERMINATION.	OBSERVED α. SECOND DETERMINATION.	EPHEMERIS α.	INTERVAL.	INTERVAL CORRECTIONS TO EPHEMERIS.	OBLIQUITY ECLIPTIC CORRECTIONS TO EPHEMERIS.	PERTURBATION CORRECTIONS TO EPHEMERIS.	O–E FIRST DETERMINATION.	O–E SECOND DETERMINATION.
1900		h m s	h m s	h m s	h	s	s	s	s	s
Oct. 6 E.	92	2 43 45.9454	2 43 45.9413	2 43 46.0058			−.0180	+.0026	−.0450	−.0491
	93	45.9113	45.9118	45.9816			"	"	549	544
	94	45.8862	45.8860	45.9582			"	"	566	568
	95	45.8201	45.8163	45.8813			"	25	457	495
	96	45.7843	45.7744	45.8558			"	"	560	659
W.	104	2 43 41.6045	2 43 41.6045	2 43 41.6644	8.2	−.0024	−.0180	+.0019	−.0414	−.0414
	105	41.5673	41.5653	.6185	8.2		"	"	327	347
	106	41.5068	41.5099	.5755	8.3		"	"	502	471
	107	41.4251	41.4276	.4942	8.3		"	"	506	481
	108	41.4138	41.4101	.4606	8.3		"	18	282	319
Oct. 12 E.	134	2 41 23.0630	2 41 23.0754	2 41 23.1483			−.0210	−.0123	−.0520	−.0396
	135	22.9946	23.0004	23.0777			"	124	497	439
	136	22.8319	22.8415	22.9860			"	"	1207	1111
	137	22.6899	22.6970	22.7942			"	"	709	638
	138	22.5814	22.5799	22.6928			"	"	780	795
	139	22.3722	22.3665	22.4572			"	"	516	573
	140	22.2491	22.2588	22.3641			"	"	816	719
W.	145	2 41 8.6913	2 41 8.6860	2 41 8.7879	9.2	−.0027	−.0210	−.0131	−.0598	−.0651
	146	8.5765	8.5678	8.6894	9.2		"	"	761	848
	147	8.3671	8.3557	8.4753	9.2		"	"	714	828
	148	8.2070	8.1995	8.3163	9.0		"	"	725	800
Oct. 13 E.	150	2 40 44.6096	2 40 44.6264	2 40 44.7696			−.0212	−.0143	−.1245	−.1077
	151	44.5382	44.5543	44.6495			"	"	758	597
	152	44.4565	44.4757	44.5761			"	"	841	649
	153	44.0622	44.0857	44.2014			"	144	1036	801
W.	163	2 40 28.0922	2 40 28.0845	2 40 28.1909	9.5	−.0028	−.0216	−.0151	−.0592	−.0669
	164	27.9943	27.9978	28.1140	9.5		"	"	802	767
	165	27.9047	27.9059	28.0027	9.5		"	"	585	573
	166	27.6615	27.6623	27.7755	9.5		"	"	745	737
	167	27.5513	27.5563	27.6877	9.6		"	"	969	919
	168	27.3382	27.3452	27.4494	9.8	29	"	152	715	645
	169	27.2486	27.2527	27.3614	9.7		"	"	731	690
Oct. 14 E.	170	2 40 1.1188	2 40 1.1082	2 40 1.2188			−.0220	−.0163	−.0617	−.0723
	171	1.0103	0.9997	1.1241			"	164	754	860
	172	0.8852	0.8708	0.9917			"	"	681	825
	173	0.4918	0.4669	0.5705			"	"	403	652
	174	0.3571	0.3538	0.4799			"	"	844	877
	175	0.0848	0.0743	0.1958			"	"	726	831
	176	0.0009	39 59.9869	0.0930			"	"	537	677
	177	39 59.6941	59.6805	39 59.7898			"	"	573	709
	178	59.5684	59.5689	59.6949			"	"	881	876
W.	187	2 39 43.4984	2 39 43.4859	2 39 43.6178	9.1	.0027	−.0220	−.0171	−.0776	−.0901
	188	43.3981	43.3953	43.5168	8.8	26	"	"	770	798
	189	43.2396	43.2344	43.3549	8.9		"	"	736	788
	190	42.9089	42.9027	43.0112	8.9		"	"	606	668
	191	42.8079	42.8007	42.9129	8.9		"	"	633	705
	192	42.5287	42.5180	42.6455	8.9		"	172	750	857
	193	42.4350	42.4263	42.5414	8.9		"	"	646	733

TABLE VIII. — PARALLAX TRUE PLACES AND CORRECTIONS TO EPHEMERIS — Continued.

DATE.	PLATE NO.	OBSERVED α. FIRST DETERMINATION.	OBSERVED α. SECOND DETERMINATION.	EPHEMERIS α.	INTERVAL.	INTERVAL CORRECTIONS TO EPHEMERIS.	OBLIQUITY ECLIPTIC CORRECTIONS TO EPHEMERIS.	PERTURBATION CORRECTIONS TO EPHEMERIS.	O–E FIRST DETERMINATION.	O–E SECOND DETERMINATION.
1900		h m s	h m s	h m s	h	s	s	s	s	s
Oct. 15 E.	195	2 39 13.4575	2 39 13.4537	2 39 13.5867			−.0222	−.0185	−.0885	−.0923
	196	13.3024	13.2959	13.4289			"	"	858	923
	197	12.9573	12.9511	13.0724			"	186	743	805
	198	12.8440	12.8431	12.9708			"	"	860	869
	199	12.6008	12.5935	12.7253			"	"	837	910
	201	12.2365	12.2324	12.3617			"	187	843	884
	202	12.1179	12.1166	12.2550			"	"	962	975
W.	213	2 38 54.1614	2 38 54.1561	2 38 54.2841	9.1	−.0027	−.0226	−.0197	−.0777	−.0830
	214	54.0577	54.0553	54.1766	9.1	"	"	"	739	763
	215	53.9557	53.9538	54.0780	9.1	"	"	"	773	792
	216	53.6059	53.6012	53.7307	9.1	"	"	"	798	845
	217	53.5347	53.5263	53.6459	9.0	"	"	"	662	746
	218	53.2750	53.2458	53.3771	9.0	"	"	"	571	863
	219	53.1161	53.1134	53.2509	9.0	"	"	"	898	925
	220	52.8659	52.8687	52.9981	9.0	"	"	"	872	844
	221	52.7639	52.7764	52.8975	9.1	"	"	"	886	761
Oct. 16 E.	222	2 38 21.7788	2 38 21.7661	2 38 21.8622			−.0230	−.0213	−.0391	−.0518
	223	21.5883	21.5769	21.7048			"	"	722	836
	224	21.4140	21.4040	21.5160			"	214	576	676
	225	21.0770	21.0665	21.1944			"	"	730	835
	226	20.9002	20.8836	21.0160			"	"	714	880
	227	20.6424	20.6320	20.7511			"	"	643	747
	228	20.5304	20.5151	20.6439			"	"	691	844
	230	20.1281	20.1134	20.2296			"	"	571	718
W.	239	2 37 59.6642	2 37 59.6651	2 37 59.7931	9.3	−.0028	−.0230	−.0221	−.0810	−.0801
	240	59.5071	59.5037	59.6300	"	"	"	"	750	784
	241	59.3107	59.3124	59.4423	"	"	"	"	837	820
	242	59.0792	59.0786	59.2029	"	"	"	222	757	763
	243	58.9589	58.9603	59.0855	"	"	"	"	786	772
	244	58.7286	58.7325	58.8564	"	"	"	"	798	759
Oct. 21 E.	247	2 32 53.3685	2 32 53.3682	2 32 53.5497			−.0252	−.0313	−.1247	−.1250
	248	53.2201	53.2184	53.4105			"	"	1339	1356
	250	52.5049	52.5074	52.7002			"	"	1388	1363
	251	52.2020	52.2043	52.3867			"	"	1282	1259
	252	52.0102	52.0115	52.1896			"	314	1228	1215
	253	51.5859	51.5937	51.7902			"	"	1477	1399
	254	51.4318	51.4313	51.6209			"	"	1325	1330
W.	264	2 32 22.1950	2 32 22.2008	2 32 22.3915	9.5	−.0028	−.0256	−.0321	−.1360	−.1302
	265	22.0483	22.0459	22.2373	"	"	"	"	1285	1309
	266	21.8844	21.8888	22.0731	"	"	"	"	1282	1238
	267	21.4045	21.4024	21.6029	"	"	"	"	1379	1400
	268	21.2631	21.2629	21.4799	"	"	"	"	1563	1565
	269	20.7875	20.7833	20.9933	"	"	"	"	1453	1495
	270	20.6479	20.6451	20.8407	"	"	"	322	1322	1350
	271	20.2650	20.2602	20.4635	"	"	"	"	1379	1427
Oct. 24 E.	275	2 28 42.3843	2 28 42.3892	2 28 42.6110			−.0270	−.0373	−.1624	−.1575
	276	42.2296	42.2344	42.4465			"	"	1526	1478
	277	42.0561	42.0579	42.2593			"	"	1389	1371
	278	41.5113	41.5162	41.7322			"	"	1566	1517

TABLE VIII. — PARALLAX TRUE PLACES AND CORRECTIONS TO EPHEMERIS — Continued.

DATE.	PLATE No.	OBSERVED α. FIRST DETERMINATION.	OBSERVED α. SECOND DETERMINATION.	EPHEMERIS α.	INTERVAL.	INTERVAL CORRECTIONS TO EPHEMERIS.	OBLIQUITY ECLIPTIC CORRECTIONS TO EPHEMERIS.	PERTURBATION CORRECTIONS TO EPHEMERIS.	O–E FIRST DETERMINATION.	O–E SECOND DETERMINATION.
1900		h m s	h m s	h m s	h	s	s	s	s	s
Oct. 24 W.	291	2 28 7.0027	2 28 6.9893	2 28 7.2247	9.6	−.0028	−.0270	−.0381	−.1541	−.1675
	292	6.8038	6.7922	7.0415	"	"	"	"	1698	1814
	293	6.6190	6.6074	6.8436	"	"	"	"	1567	1683
	294	6.0386	6.0281	6.2624	"	"	"	"	1559	1664
	295	5.8813	5.8705	6.0908	"	"	"	"	1416	1524
	296	5.3196	5.3064	5.5553	"	"	"	"	1678	1810
	297	5.1472	5.1380	5.3645	"	"	"	"	1494	1586
	298	4.6820	4.6746	4.9117	"	"	"	382	1617	1691
Oct. 26 E.	319	2 25 35.4858	2 25 35.4891	2 25 35.7341			−.0280	−.0412	−.1791	−.1758
	320	35.3145	35.3228	35.5642			"	"	1805	1722
	321	35.1492	35.1502	35.3979			"	"	1795	1785
	322	34.7094	34.7113	34.9495			"	"	1709	1690
	323	34.4968	34.5017	34.7331			"	"	1671	1622
	324	34.0903	34.0958	34.3300			"	"	1705	1650
	325	33.8813	33.8884	34.1341			"	"	1836	1765
	326	33.4055	33.4090	33.6583			"	"	1836	1801
	327	33.1534	33.1607	33.4046			"	"	1820	1747
W.	336	2 24 55.3274	2 24 55.3314	2 24 55.5779	9.8	−.0029	−.0280	−.0416	−.1780	−.1740
	337	55.1066	55.1092	55.3594	"	"	"	"	1803	1777
	338	54.9069	54.9053	55.1444	"	"	"	"	1650	1666
	339	54.3813	54.3895	54.6248	"	"	"	"	1710	1628
	340	54.1821	54.1880	54.4190	"	"	"	"	1644	1585
	341	53.6505	53.6671	53.9026	"	"	"	"	1796	1630
	342	53.4407	53.4504	53.7035	"	"	"	"	1903	1806
	343	52.8685	52.8770	53.1329	"	"	"	"	1919	1834
	344	52.6607	52.6733	52.9131	"	"	"	"	1799	1673
Oct. 29 E.	345	2 20 26.2468	2 20 26.2472	2 20 26.5088			−.0292	−.0462	−.1866	−.1862
	346	26.0578	26.0563	26.3184			"	"	1852	1867
	347	25.8137	25.8087	26.0767			"	"	1876	1926
	348	25.3085	25.3026	25.5686			"	"	1847	1906
	349	25.0764	25.0667	25.3154			"	"	1636	1733
	350	24.5560	24.5527	24.8208			"	"	1894	1927
	351	24.3526	24.3443	24.6040			"	"	1760	1843
W.	357	2 19 40.6074	2 19 40.6230	2 19 40.8983	9.9	−.0029	−.0296	−.0466	−.2118	−.1962
	358	40.4219	40.4327	40.6931	"	"	"	"	1921	1813
	359	40.1261	40.1370	40.4029	"	"	"	"	1977	1868
Nov. 3 E.	396	2 10 54.1975	2 10 54.2035	2 10 54.4987			−.0320	−.0531	−.2161	−.2101
	397	53.9594	53.9620	54.2583			"	"	2138	2112
	398	53.7094	53.7054	54.0125			"	"	2180	2220
	399	53.1782	53.1912	53.4747			"	"	2114	1984
	400	52.8961	52.8991	53.2105			"	"	2293	2263
	401	52.4014	52.4007	52.6921			"	532	2055	2062
	402	52.1047	52.1139	52.4280			"	"	2381	2289
	404	51.2642	51.2670	51.5744			"	"	2250	2222
W.	417	2 10 1.6701	2 10 1.6829	2 10 2.0147	10.5	.0000	−.0320	−.0536	−.2590	−.2462
	419	1.1224	1.1410	1.4779	"	"	"	"	2699	2513
	420	0.7388	0.7543	1.0837	"	"	"	"	2593	2438
	421	0.4271	0.4246	0.7734	"	"	"	"	2607	2632
	422	0.0026	0.0149	0.3219	"	"	"	"	2337	2214
	423	9 59.7574	9 59.7708	0.0856	"	"	"	"	2426	2292
	424	59.2955	59.2922	9 59.6371	"	"	"	"	2560	2593
	425	59.0566	59.0690	59.3998	"	"	"	"	2576	2452
	426	58.8172	58.8266	59.1480	"	"	"	"	2452	2358

TABLE VIII. — PARALLAX TRUE PLACES AND CORRECTIONS TO EPHEMERIS — Continued.

DATE.	PLATE NO.	OBSERVED α.		EPHEMERIS α.	INTERVAL.	INTERVAL CORRECTIONS TO EPHEMERIS.	OBLIQUITY ECLIPTIC CORRECTIONS TO EPHEMERIS.	PERTURBATION CORRECTIONS TO EPHEMERIS.	O–E	
		FIRST DETERMINATION.	SECOND DETERMINATION.						FIRST DETERMINATION.	SECOND DETERMINATION.
1900		h m s	h m s	h m s	h	s	s	s	s	s
Nov. 10 E.	472	1 56 35.2403	1 56 35.2324	1 56 35.5503			−.0360	−.0610	−.2130	−.2209
	473	34.9566	34.9592	35.2962			"	"	2426	2400
	474	34.7386	34.7301	35.0380			"	"	2024	2109
	475	34.1045	34.0870	34.4180			"	"	2165	2340
	476	33.9085	33.9010	34.2035			"	"	1980	2055
	477	33.3702	33.3632	33.6778			"	"	2106	2176
	478	33.1066	33.0946	33.4243			"	"	2207	2327
W.	495	1 55 46.0422	1 55 46.0340	1 55 46.3127	9.6	.0000	−.0360	−.0610	−.1735	−.1817
	496	45.7450	45.7355	46.0216	"	"	"	"	1796	1891
	498	44.9916	44.9881	45.2910	"	"	"	"	2024	2059
	501	43.9649	43.9585	44.2409	"	"	"	"	1790	1854
Nov. 28 E.	615	1 28 57.7363	1 28 57.7403	1 28 58.0156			−.0430	−.1112	−.1251	−.1211
	616	57.6554	57.6543	57.9230			"	"	1134	1145
	617	57.5689	57.5677	57.8399			"	"	1168	1180
	618	57.4723	57.4748	57.7420			"	"	1155	1130
	619	57.3717	57.3776	57.6553			"	"	1294	1235
	620	57.2721	57.2739	57.5467			"	"	1204	1186
	621	57.1768	57.1787	57.4549			"	"	1239	1220
	622	57.1112	57.1121	57.3730			"	1113	1075	1066
	623	57.0135	57.0140	57.2832			"	"	1154	1149
	624	56.9149	56.9139	57.1832			"	"	1140	1150
	625	56.8341	56.8304	57.0967			"	"	1083	1120
W.	635	1 28 43.1239	1 28 43.1239	1 28 43.3897	8.3	+.0014	−.0430	−.1119	−.1123	−.1123
	637	42.9330	.....	43.2146	"	"	"	"	1281	....
	637	.....	42.9496	43.2231	"	"	"	"	....	1200
	639	42.7127	42.7314	43.0151	"	"	"	"	1489	1302
	640	42.6737	42.6840	42.9553	"	"	"	"	1281	1178
	643	42.0253	42.0357	42.3101	"	"	"	"	1313	1209
	644	41.9466	.....	42.2224	"	"	"	"	1223	....
	644	.....	41.9240	42.2056	"	"	"	"	....	1281
	647	41.6599	41.6645	41.9593	"	"	"	"	1459	1413
Nov. 29 E.	648	1 28 16.9249	1 28 16.9263	1 28 17.2175			−.0430	−.1132	−.1364	−.1350
	649	16.8744	16.8704	17.1485			"	"	1179	1219
	650	16.7743	16.7707	17.0576			"	"	1271	1307
	651	16.7170	16.7197	16.9916			"	"	1184	1157
	652	16.6278	16.6301	16.9035			"	"	1195	1172
	653	16.5363	16.5338	16.8220			"	"	1295	1320
	654	16.4453	16.4494	16.7405			"	"	1390	1349
	655	16.3815	16.3817	16.6682			"	"	1305	1303
	656	16.3104	16.3114	16.5836			"	"	1170	1160
	657	16.2314	16.2329	16.5108			"	"	1232	1217
	658	16.1577	16.1585	16.4374			"	1133	1234	1226
W.	668	1 28 4.4723	1 28 4.4751	1 28 4.7618	8.2	+.0014	−.0430	−.1139	−.1340	−.1312
	669	4.3922	4.3986	4.6920	"	"	"	"	1443	1379
	670	4.3286	4.3301	4.6092	"	"	"	"	1251	1236
	671	4.2668	4.2702	4.5403	"	"	"	"	1180	1146
	672	4.1678	4.1755	4.4602	"	"	"	"	1369	1292
	673	4.0998	4.0999	4.3834	"	"	"	"	1281	1280
	674	4.0166	4.0197	4.2987	"	"	"	"	1266	1235
	675	3.9271	3.9302	4.2176	"	"	"	"	1350	1319
	676	3.8565	3.8580	4.1437	"	"	"	"	1317	1302
	677	3.7735	3.7789	4.0642	"	"	"	"	1352	1298
	678	3.7047	3.7078	3.9934	"	"	"	"	1332	1301

TABLE VIII. — PARALLAX TRUE PLACES AND CORRECTIONS TO EPHEMERIS — Continued.

DATE.	PLATE NO.	OBSERVED α. FIRST DETERMINATION.	OBSERVED α. SECOND DETERMINATION.	EPHEMERIS α.	INTERVAL.	INTERVAL CORRECTIONS TO EPHEMERIS.	OBLIQUITY ECLIPTIC CORRECTIONS TO EPHEMERIS.	PERTURBATION CORRECTIONS TO EPHEMERIS.	O–E FIRST DETERMINATION.	O–E SECOND DETERMINATION.
1900		h m s	h m s	h m s	h	s	s	s	s	s
Dec. 5 E.	713	1 26 31.6945	1 26 31.6954	1 26 32.0194			−.0430	−.1231	−.1588	−.1579
	714	31.7277	31.7292	32.0242			"	"	1304	1289
	715	31.7282	31.7382	32.0300			"	"	1357	1257
	716	31.7321	31.7411	32.0358			"	"	1376	1286
	717	31.7591	31.7656	32.0408			"	"	1156	1091
	718	31.7457	31.7614	32.0462			"	"	1344	1187
	719	31.7511	31.7627	32.0515			"	"	1343	1227
	720	31.7623	31.7725	32.0582			"	"	1298	1196
	721	31.7702	31.7826	32.0646			"	"	1283	1159
	722	31.7696	31.7775	32.0700			"	"	1343	1264
	733	31.7955	31.8053	32.0763			"	"	1147	1049
W.	733	1 26 32.8953	1 26 32.8939	1 26 33.1924	8. 6	+.0015	−.0430	−.1234	−.1322	−.1336
	734	32.8953	32.9025	33.2020	"	"	"	"	1418	1346
	735	32.9104	32.9100	33.2121	"	"	"	"	1368	1372
	736	32.9038	32.9177	33.2221	"	"	"	"	1534	1395
	737	32.9468	32.9456	33.2309	"	"	"	"	1192	1204
	738	32.9335	32.9373	33.2409	"	"	"	"	1425	1387
	739	32.9454	32.9556	33.2525	"	"	"	"	1422	1320
	740	32.9508	32.9563	33.2622	"	"	"	"	1465	1410
	741	32.9647	32.9718	33.2731	"	"	"	"	1435	1364
	742	32.9890	32.9932	33.2824	"	"	"	"	1285	1243
	743	32.9839	32.9851	33.2928	"	"	"	"	1440	1428
Dec. 6 E.	744	1 26 37.6811	1 26 37.6838	1 26 37.9703			−.0430	−.1241	−.1221	−.1194
	745	37.7306	37.7204	37.9889			"	"	0912	1014
	746	37.7134	37.7201	38.0084			"	"	1279	1212
	747	37.7414	37.7356	38.0260			"	"	1175	1233
	748	37.7624	37.7644	38.0452			"	"	1157	1137
	749	37.7553	37.7612	38.0652			"	"	1428	1369
	750	37.7919	37.7976	38.0875			"	"	1285	1228
	751	37.8141	37.8175	38.1062			"	"	1250	1216
	752	37.8314	37.8308	38.1263			"	"	1278	1284
	753	37.8602	37.8672	38.1455			"	"	1182	1112
	754	37.8654	37.8708	38.1651			"	"	1326	1272
W.	764	1 26 40.9235	1 26 40.9280	1 26 41.2225	8.6	+.0015	−.0430	−.1244	−.1331	−.1286
	765	40.9531	40.9523	41.2490	"	"	"	"	1300	1308
	766	40.9764	40.9768	41.2748	"	"	"	"	1325	1321
	767	40.9956	41.0008	41.2980	"	"	"	"	1365	1313
	768	41.0216	41.0215	41.3215	"	"	"	"	1340	1341
	769	41.0469	41.0486	41.3441	"	"	"	"	1313	1296
	770	41.0712	41.0753	41.3649	"	"	"	"	1278	1237
	771	41.0960	41.1004	41.3935	"	"	"	"	1316	1272
	772	41.1155	41.1162	41.4148	"	"	"	"	1334	1327
	773	41.1458	41.1504	41.4410	"	"	"	"	1293	1247
	774	41.1689	41.1712	41.4650	"	"	"	"	1302	1279
Dec. 7 E.	775	1 26 50.2897	1 26 50.2886	1 26 50.5778			−.0430	−.1251	−.1200	−.1211
	776	50.3351	50.3345	50.6143			"	"	1111	1117
	777	50.3546	50.3614	50.6454			"	"	1227	1159
	778	50.4052	50.4061	50.6766			"	"	1033	1024
	779	50.4542	50.4507	50.7098			"	"	0875	0910
	780	50.4857	50.4916	50.7597			"	"	1059	1000
	781	50.5277	50.5315	50.7903			"	"	0945	0907
	782	50.5596	50.5569	50.8224			"	"	0947	0974
	783	50.5859	50.5854	50.8572			"	"	1032	1037
	784	50.6210	50.6227	50.8932			"	"	1041	1024
	785	50.6565	50.6538	50.9251			"	"	1005	1032

TABLE VIII. — PARALLAX TRUE PLACES AND CORRECTIONS TO EPHEMERIS — Continued.

DATE.	PLATE NO.	OBSERVED α.		EPHEMERIS α.	INTERVAL.	INTERVAL CORRECTIONS TO EPHEMERIS.	OBLIQUITY ECLIPTIC CORRECTIONS TO EPHEMERIS.	PERTURBATION CORRECTIONS TO EPHEMERIS.	O–E	
		FIRST DETERMINATION.	SECOND DETERMINATION.						FIRST DETERMINATION.	SECOND DETERMINATION.
1900		h m s	h m s	h m s	h	s	s	s	s	s
Dec. 7 W.	796	1 26 55.4888	1 26 55.4857	1 26 55.7611	7.4	+.0013	−.0430	−.1254	−.1052	−.1083
	797	55.5139	55.5097	55.7977	"	"	"	"	1167	1209
	798	55.5559	55.5572	55.8355	"	"	"	"	1125	1112
	799	55.5962	55.5938	55.8680	"	"	"	"	1047	1071
	800	55.6220	55.6206	55.9092	"	"	"	"	1201	1215
	801	55.6763	55.6746	55.9468	"	"	"	"	1034	1051
	802	55.7128	55.7050	55.9810	"	"	"	"	1011	1089
	803	55.7402	55.7379	56.0218	"	"	"	"	1145	1168
	804	55.7713	55.7707	56.0582	"	"	"	"	1198	1204
	805	55.8169	55.7966	56.0968	"	"	"	"	1128	1331
	806	55.8679	55.8633	56.1354	"	"	"	"	1004	1050
Dec. 24 E.	895	1 46 11.3770	1 46 11.3755	1 46 11.6016			−.0360	−.1219	−.0667	−.0682
	896	11.6784	11.6775	11.9066			"	"	703	712
	897	11.8622	11.8638	12.0854			"	"	653	637
	898	12.1443	12.1417	12.3557			"	"	535	561
	899	12.3932	12.3940	12.6085			"	"	574	566
	900	12.6590	12.6562	12.8787			"	"	618	646
	901	12.8718	12.8684	13.0992			"	"	695	729
W.	908	1 46 44.4562	1 46 44.4614	1 46 44.6684	6.8	+.0012	−.0360	−.1216	−.0558	−.0506
	909	44.7063	44.7110	44.9131	"	"	"	"	504	457
	910	44.9078	44.9161	45.1254	"	"	"	"	612	529
	911	45.2485	45.2554	45.4668	"	"	"	"	619	550
	912	45.5325	45.5383	45.7447	"	"	"	"	558	500
	913	45.7664	45.7723	45.9857	"	"	"	"	629	570
	914	46.0248	46.0292	46.2346	"	"	"	"	534	490

TABLE IX. — STAR POSITIONS USED IN PARALLAX WORK.

DATE.	STAR.	α 1900. o.	δ 1900. o.	AUTHORITY.	DATE.	STAR.	α 1900. o.	δ 1900. o.	AUTHORITY.
		h m s	° ′ ″				h m s	° ′ ″	
Oct. 6	a	2 43 18.309	46 50 22.46	A. R. Hinks	Oct. 15	a	2 38 16.158	49 54 5.66	A. R. H.
	b	43 17.367	47 1 15.55	Crossley		b	38 30.805	57 9.06	"
	c	43 20.313	46 57 54.98	"		f	39 14.377	51 57.83	"
	d	43 34.583	59 53.10	A. R. H.		g	34.881	53 7.32	"
	e	43 42.884	52 3.37	"		h	39.059	58 56.52	"
	f	43 48.042	47 10.04	"		i	48.887	50 0 33.83	"
	g	43 54.418	47 3 31.10	"		n	39 59.657	49 53 16.32	"
	h	44 11.017	46 51 32.13	"		o	38 27.981	50 7 30.26	"
	i	44 28.897	57 24.77	"					
	l	43 57.585	42 12.97	"					
	m	43 8.890	45 22.37	"					
	n	43 38.445	47 10 59.10	"					
	o	43 4.018	10 4.25	"					
Oct. 12	a	2 40 25.259	49 6 4.83	A. R. H.	Oct. 16	a	2 37 18.440	50 24 35.32	A. R. H.
	b	40 46.648	6 17.80	"		b	40.523	12 16.20	"
	c	40 55.416	1 57.98	"		c	42.353	16 1.70	"
	d	40 58.831	48 53 55.59	"		d	37 53.126	17 27.92	"
	e	41 20.447	49 2 11.39	"		e	38 4.868	18 13.28	"
	f	41 26.331	48 51 22.98	"		f	7.661	25 43.50	"
	g	42 15.629	49 4 0.13	"		g	12.844	17 43.40	"
	m	41 25.409	48 48 6.34	"		h	25.133	19 33.28	"
	n	41 58.921	46 7.19	"		i	50.890	14 59.57	Crossley
	o	40 8.385	49 8 23.94	"		l	49.781	11 8.68	A. R. H.
	p	41 57.534	12 53.17	"		m	38 27.981	7 30.26	"
						n	37 21.625	27 1.16	"
						o	37 56.528	29 42.10	"
Oct. 13	b	2 39 33.241	49 21 32.44	Crossley	Oct. 21	a	2 31 44.838	51 49 24.71	Crossley
	c	40 15.60	25 18.6	A. R. H.		b	32 2.918	45 47.04	A. R. H.
	e	40 39.87	23 31.5	"		c	14.579	41 48.94	"
	f	40 48.788	15 56.47	"		d	25.609	54 29.59	"
	g	40 53.454	21 21.82	Crossley		e	30.685	36 59.21	"
	h	40 54.71	27 15.8	A. R. H.		f	32 58.211	37 33.41	"
	m	40 8.366	8 23.49	Crossley		g	33 11.541	43 54.78	"
	o	39 30.284	30 30.85	A. R. H.		h	21.596	42 33.83	"
						l	30.965	37 3.48	"
						m	33 33.411	34 27.55	"
						n	31 33.302	57 12.78	"
						o	32 39.465	56 36.85	"
Oct. 14	a	2 38 51.599	49 34 54.85	A. R. H.	Oct. 24	a	2 27 16.861	52 23 26.00	A. R. H.
	b	39 16.705	38 24.00	Crossley		b	36.495	33 17.66	"
	c	30.284	30 30.85	A. R. H.		c	44.893	24 21.73	Crossley
	d	31.890	40 45.31	"		d	27 52.139	19 30.16	A. R. H.
	e	37.704	47 29.68	"		e	28 18.595	30 38.02	"
	f	42.818	43 41.21	"		f	20.788	27 54.33	"
	g	39 58.380	37 8.87	"		g	24.692	33 51.33	"
	h	40 1.623	47 58.01	"		h	40.461	30 47.99	"
	i	23.334	40 4.66	"		i	28 54.428	22 16.70	"
	m	40 53.14	37 33.1	"		j	29 3.641	27 47.12	"
	o	39 59.431	51 17.06	"		l	24.847	16 20.87	"
						m	29 19.304	21 18.78	"
						n	27 7.387	35 33.15	"
						o	27 40.966	38 51.82	"

TABLE IX. — STAR POSITIONS USED IN PARALLAX WORK — Continued.

DATE.	STAR.	α 1900. 0.	δ 1900. 0.	AUTHORITY.	DATE.	STAR.	α 1900. 0.	δ 1900. 0.	AUTHORITY.
		h m s	° ′ ″				h m s	° ′ ″	
Oct. 26	a	2 24 24.576	52 55 11.43	A. R. H.	Nov. 29	a	1 26 48.651	50 58 5.12	A. R. H.
	b	55.838	57 9.21	"		b	27 14.732	53 1.02	"
	c	58.712	54 53.96	"		c	27 16.032	52 13.88	"
	d	24 58.963	47 47.91	Crossley		d	28 23.488	51 1 26.91	"
	f	25 29.245	56 55.78	A. R. H.		e	29.882	50 59 23.74	"
	g	32.083	51 50.15	Crossley		f_1	32.652	48 54.39	Crossley
	h	31.215	45 43.48	"		f_2	32.660	48 54.70	A. R. H.
	l	25 59.857	46 26.08	A. R. H.		g	42.774	55 19.67	Crossley
	m	26 7.886	49 30.40	"		h	48.374	56 44.66	A. R. H.
	n	24 30.170	53 3 22.93	"		l	28 18.361	51 5 42.97	"
	o	23 57.327	0 46.23	"		m	27 36.907	9 21.30	"
						n	30.022	50 42 0.70	"
						o	27 10.929	43 20.01	"
Oct. 29	a	2 19 3.966	53 26 53.95	A. R. H.	Dec. 5	a	1 25 51.471	48 51 2.88	A. R. H.
	b	14.044	23 31.32	"		b	26 12.465	47 54.65	"
	c	17.214	30 18.25	"		c	24.964	57 53.26	"
	d	19 41.747	28 41.11	"		d	30.780	54 14.85	"
	e	20 4.053	31 43.54	"		e	40.665	59 53.03	"
	f	18.659	28 37.59	"		f	26 49.138	49 4 59.76	"
	g	17.698	27 19.21	"		g	27 3.377	48 51 11.90	Crossley
	h	36.315	28 13.95	"		h	27 30.167	58 56.58	A. R. H.
	i	39.714	23 34.51	"		l	26 50.532	49 10 55.87	"
	l	20 31.617	17 3.80	"		o	26 44.949	48 44 41.31	"
	m	21 21.501	24 58.65	"		p	27 8.327	44 12.21	"
	o	18 34.133	37 27.52	"					
	p	18 45.287	27 7.74	"					
Nov. 3	a	2 9 41.252	54 1 3.75	A. R. H.	Dec. 6	a	1 25 52.056	48 29 8.45	A. R. H.
	b	9 45.601	7 50.31	"		b	53.842	32 53.38	"
	d	10 4.731	8 14.72	"		c	26 22.548	30 28.64	"
	e	10 42.388	7 36.29	"		d	27.341	33 35.32	"
	f	11 2.288	6 21.36	"		e	58.064	26 27.72	"
	h	11 6.889	0 3.10	"		f	27 4.931	39 47.14	"
	l	11 54.635	2 11.30	"		g	8.541	26 36.90	"
	m	12 6.458	5 44.66	"		h	16.197	30 18.69	"
	o	9 16.540	10 38.08	"		l	26 44.949	44 41.31	"
	p	8 33.545	11 47.76	"		m	27 8.327	44 12.21	"
						o	27 19.261	26 21.16	"
Nov. 10	a	1 55 16.378	54 21 59.01	Crossley	Dec. 7	a	1 26 25.959	48 4 36.11	A. R. H.
	b	16.978	18 36.86	A. R. H.		b	30.209	9 25.01	"
	c	25.248	14 33.59	"		c	34.284	7 6.50	"
	d	47.394	18 12.56	"		d	43.127	9 25.10	"
	e	55 51.131	23 40.71	"		e	26 44.108	10 5.97	"
	f	56 34.218	28 59.22	Crossley		f	27 7.068	11 46.14	"
	g	35.581	25 31.23	A. R. H.		g	26 57.140	16 4.51	"
	h	56 42.921	22 33.93	"		h	27 45.245	10 28.54	"
	l	57 12.806	20 10.09	"		l	26 58.064	26 27.72	"
	m	57 42.971	22 39.69	"		m	27 8.541	26 36.90	"
	p	55 0.636	21 3.05	"		p	27 24.625	2 5.53	(*)
Nov. 28	a	1 27 42.885	51 16 47.67	Crossley	Dec. 24	a	1 45 31.946	41 18 37.87	A. R. H.
	c	28 34.347	12 10.95	A. R. H.		b	48.725	6 24.92	"
	e	29 3.560	7 46.25	"		c	47.579	13 46.44	"
	f	29 16.310	6 55.65	"		d	50.488	21 46.48	"
	g	29 25.865	10 54.25	"		e	46 18.675	9 38.34	"
	h	29 41.498	16 52.75	"		f	25.027	8 20.77	(*)
	m	28 39.500	28 49.68	"		g	26.888	7 29.69	Crossley
	n	28 18.361	5 42.97	"		i	52.327	15 29.08	"
	o	27 36.907	9 21.30	"		j	8.058	13 44.52	A. R. H.
						l	45 54.028	26 0.27	"
						m	45 35.559	23 55.83	"
						p	46 58.670	3 59.68	"

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TABLE X.—SELECTIONS OF STARS USED IN REDUCTIONS.

DATE.	FIRST SOLUTION.		SECOND SOLUTION.
Oct. 6	*a b c d e f g h i*	East	*a b c d e f g h i l m*
		West	*a b c d e f g h i n o*
12	*a b c d e f g*	E.	*a b c d e f g m n*
		W.	*a b c d e g o p*
13	*b c e f g h*	E.	*b c e f g h m*
		W.	*b c e f g h o*
14	*a b c d e f g h i*	E.	*b c d g i m*
		W.	*b d e f h o*
15	*a b f g h i*	E.	*a b f g h i n*
		W.	*a b h i o*
16	*a b c d e f g h i*	E.	*b d e g i l m*
		W.	*a b c e f g h n o*
21	*a b c d e f g h*	E.	*b c e f g h l m*
		W.	*a b c d e f h n o*
24	*a b c d e f g h i j*	E.	*b d e g h i j l m*
		W.	*b c e f g h n o*
26	*a b c d e f g h*	E.	*b c d f g h l m*
		W.	*a b c f g n o*
29	*a b c d e f g h i*	E.	*c d e f g h i l m*
		W.	*a b c d e f g i o p*
Nov. 3	*a b c d e f h*	E.	*a b d e f h l m*
		W.	*a b d e o p*
10	*a b c d e f g h*	E.	*a d e g h l m*
		W.	*a b c e f g p*
28	*a c e f g h*	E.	*a c e f g h m*
		W.	*a c e f g n o*
29	*a b c d e f g h*	E.	*a b c d e f g h l m*
		W.	*a b c d e f g h n o*
Dec. 5	*a b c d e f g h*	E.	*a b c d e f l*
		W.	*a b c d e g o p*
6	*a b c d e f g h*	E.	*a b c d f l m*
		W.	*a b c d e g h o*
7	*a b c d e f g h*	E.	*a b c d e f g l m*
		W.	*a b c d e f g p*
24	*a b c d e f g i j*	E.	*a c d e h i j l m*
		W.	*e f g i j p*

TABLE XI. — DERIVATIONS OF CORRECTIONS TO ASSUMED PARALLAX.

DATE.	NOS. PLATES COMBINED.		$(E-W)^s$.		15 cos δ	$(E-W)''$.		Σ π f.	Δ π.		WEIGHT.
	EAST.	WEST.	FIRST DETERMINATION.	SECOND DETERMINATION.		FIRST DETERMINATION.	SECOND DETERMINATION.		FIRST DETERMINATION.	SECOND DETERMINATION.	
			s	s		"	"		"	"	
Oct. 6	92	104	−.0036	−.0077	10.24	−.0369	−.0788	2.49	−.015	−.032	12.5
	93	105	− 222	− 197		−.2273	−.2017	2.51	− 91	− 80	17.6
	94	106	− 64	− 97		− 655	− 993	2.53	− 26	− 39	12.7
	95	107	+ 49	− 14		+ 502	− 143	2.55	+ 20	− 6	15.3
	96	108	− 278	− 340		−.2847	−.3482	2.57	− 111	− 135	12.8
									−.045	−.058	
Oct. 12	134	145	+.0078	+.0255	9.84	+.0768	+.2509	2.81	+.027	+.090	22.5
	135, 6	146	− 91	+ 73		− 895	+ 718	2.83	− 32	+ 25	22.6
	137, 8	147	− 30	+ 112		− 295	+.1102	2.86	− 10	+ 39	28.6
	139, 40	148	+ 59	+ 154		+ 581	+.1515	2.88	+ 20	+ 53	31.7
									+.001	+.052	
Oct. 13	150	163	−.0653	−.0408	9.76	−.6373	−.3982	2.90	− 220	−.137	11.6
	151	164, 5, 6, 7	+ 17	+ 152		+ 166	+.1484	2.95	+ 6	+ 50	20.7
	152	168	− 126	− 4		− 1230	− 39	2.99	− 41	− 1	17.9
	153	169	− 305	− 111		− 2977	−.1083	3.01	− 99	− 36	15.1
									−.088	−.031	
Oct. 14	170, 1, 2	187	+.0092	+.0098	9.71	+.0893	+.0952	2.90	+.031	+.033	26.1
	173	188	+ 367	+ 146		+.3564	+.1418	2.90	+.123	+ 49	14.5
	174	189	− 108	− 89		−.1049	− 864	2.93	− 36	− 30	23.4
	175	190	− 120	− 163		−.1165	−.1583	2.95	− 39	− 54	14.8
	176	191	+ 96	+ 28		+ 932	+ 272	2.96	+ 31	+ 9	11.8
	177	192	+ 177	+ 148		+.1719	+.1437	2.97	+ 58	+ 48	11.9
	178	193	− 235	− 143		−.2282	−.1389	2.98	− 77	− 47	17.9
									+.013	+.001	
Oct. 15	195	213	−.0108	−.0093	9.65	−.1042	−.0897	2.95	−.035	−.030	11.8
	196	214	− 119	− 160		−.1148	−.1544	2.97	− 39	− 52	17.8
	197	215	+ 30	− 13		+ 290	− 125	2.97	+ 10	− 4	17.8
	198	216	− 62	− 24		− 598	− 232	3.01	− 20	− 08	18.1
	199	217	− 175	− 164		−.1689	−.1583	3.01	− 56	− 53	15.1
	201	218, 19, 20	− 63	− 7		− 608	− 68	3.03	− 20	− 2	21.2
	202	221	− 76	− 214		− 733	−.2065	3.05	− 24	− 68	12.2
									−.026	−.031	
Oct. 16	222, 3	239	+.0254	+.0124	9.58	+.2433	+.1188	3.07	+.079	+.039	15.4
	224, 5	240	+ 97	+ 28		+ 929	+ 268	3.09	+ 30	+ 9	27.8
	226	241	+ 123	− 60		+.1178	− 575	3.10	+ 38	− 19	18.6
	227	242	+ 114	+ 16		+.1092	+ 153	3.11	+ 35	+ 5	15.6
	228	243	+ 95	− 72		+ 910	− 690	3.11	+ 29	− 22	15.6
	230	244	+ 227	+ 41		+.2175	+ 393	3.12	+ 70	+ 13	21.8
									+.047	+.004	
Oct. 21	247	264	+.0113	+.0052	9.29	+.1050	+.0483	3.29	+.032	+.015	23.0
	248	265	− 54	− 47		− 502	− 437	3.30	− 15	− 13	16.5
	250	266	− 106	− 125		− 985	−.1161	3.29	− 30	− 35	16.4
	251	267	+ 97	+ 141		+ 901	+.1310	3.32	+ 27	+ 39	23.2
	252	268, 9	+ 280	+ 315		+.2601	+.2926	3.34	+ 78	+ 88	23.4
	253	270	− 155	− 49		−.1440	− 455	3.35	− 43	− 14	16.7
	254	271	+ 54	+ 97		+ 502	+ 901	3.36	+ 15	+ 27	16.8
									+.009	+.015	
Oct. 24	275	291, 2	−.0004	+.0169	9.14	−.0037	+.1545	3.40	−.001	+.045	20.4
	276	293, 4	+ 37	+ 196		+ 338	+.1791	3.43	+ 10	+ 52	27.4
	277	295, 6	+ 158	+ 296		+.1444	+.2705	3.46	+ 42	+ 78	27.7
	278	297, 8	− 10	+ 121		− 91	+.1106	3.48	− 3	+ 32	27.8
									+.012	+.052	

TABLE XI. — DERIVATIONS OF CORRECTIONS TO ASSUMED PARALLAX — Continued.

DATE.	NOS. PLATES COMBINED.		$(E-W)^s$.		$15 \cos \delta$	$(E-W)''$.		$\Sigma \pi f$.	$\Delta \pi$.		WEIGHT.
	EAST.	WEST.	FIRST DETERMINATION.	SECOND DETERMINATION.		FIRST DETERMINATION.	SECOND DETERMINATION.		FIRST DETERMINATION.	SECOND DETERMINATION.	
			s	s		"	"		"	"	
Oct. 26	319	336	−.0011	−.0018	9.05	−.0100	−.0163	3.55	−.003	−.005	21.3
	320	337	− 2	+ 55		− 18	+ 498	3.55	− 1	+ 14	17.8
	321	338	− 145	− 119		−.1312	−.1077	3.56	− 37	− 30	14.2
	322	339	+ 1	− 62		+ 9	− 561	3.57	0	− 16	25.0
	323	340	− 27	− 37		− 244	− 335	3.57	− 7	− 9	14.3
	324	341	+ 91	− 20		+ 824	− 181	3.58	+ 23	− 5	21.5
	325	342	+ 67	+ 41		+ 606	+ 371	3.57	+ 17	+ 10	21.4
	326	343	+ 83	+ 33		+ 751	+ 299	3.58	+ 21	+ 8	17.9
	327	344	− 21	− 74		− 190	− 670	3.58	− 5	− 19	14.3
									+.001	−.006	
Oct. 29	345, 6	357	+.0259	+.0098	8.93	+.2313	+.0875	3.72	+.062	+.024	40.9
	347, 8	358	+ 59	− 103		+ 527	− 920	3.70	+ 14	− 25	33.3
	349, 50, 51	359	+ 214	+ 34		+.1911	+ 304	3.68	+ 52	+ 8	40.5
									+.043	+.002	
Nov. 3	396	417	+.0429	+.0361	8.80	+.3775	+.3177	3.93	+.096	+.081	27.5
	397	419	+ 561	+ 401		+.4937	+.3529	3.94	+.125	+ 90	27.6
	398	420	+ 413	+ 218		+.3634	+.1918	3.93	+ 92	+ 49	19.6
	399	421, 2	+ 358	+ 439		+.3150	+.3863	3.93	+ 80	+ 98	27.5
	400	423	+ 133	+ 29		+.1170	+ 255	3.90	+ 30	+ 7	19.5
	401	424	+ 505	+ 531		+.4444	+.4673	3.88	+.115	+ 120	19.4
	402	425	+ 195	+ 163		+.1716	+.1434	3.88	+ 44	+ 37	19.4
	404	426	+ 202	+ 136		+.1778	+.1197	3.84	+ 46	+ 31	19.2
									+.078	+.064	
Nov. 10	472, 3	495	−.0543	−.0487	8.75	−.4751	−.4261	4.05	−.117	−.105	24.3
	474	496	− 228	− 218		−.1995	−.1908	4.04	− 49	− 47	20.2
	475	498	− 141	− 281		−.1234	−.2459	4.02	− 31	− 61	24.1
	476, 7, 8	501	− 308	− 332		−.2695	−.2905	4.00	− 67	− 73	28.0
									−.066	−.071	
Nov. 28	615	635	−.0128	−.0088	9.39	−.1202	−.0826	4.05	−.030	−.020	28.4
	616	637	+ 147	+ 55		+.1380	+ 516	4.04	+ 34	+ 13	32.3
	617	639	+ 321	+ 122		+.3014	+.1146	4.04	+ 75	+ 28	16.2
	618	640	+ 126	+ 48		+.1183	+ 451	4.02	+ 29	+ 11	28.1
	619, 20	643	+ 64	− 1		+ 601	− 9	4.02	+ 15	0	44.2
	621, 2	644	+ 66	+ 138		+ 620	+.1296	3.98	+ 16	+ 33	47.8
	623, 4, 5	647	+ 333	+ 273		+.3127	+.2563	3.92	+ 80	+ 65	54.9
									+.031	+.019	
Nov. 29	648	668	−.0024	−.0038	9.45	−.0227	−.0359	4.10	−.006	−.009	24.6
	649	669	+ 264	+ 160		+.2495	+.1512	4.09	+ 61	+ 37	20.4
	650	670	− 20	− 71		− 189	− 671	4.07	− 5	− 16	16.3
	651	671	− 4	− 11		− 38	− 104	4.05	− 1	− 3	16.2
	652	672	+ 174	+ 120		+.1644	+.1134	4.04	+ 41	+ 28	20.2
	653	673	− 14	− 40		− 132	− 378	4.03	− 3	− 9	24.2
	654	674	− 124	− 114		−.1172	−.1077	4.00	− 29	− 27	28.0
	655	675	+ 45	+ 16		+ 425	+ 151	3.99	+ 11	+ 4	27.9
	656	676	+ 147	+ 142		+.1389	+ 1342	3.98	+ 35	+ 34	35.8
	657	677	+ 120	+ 81		+.1134	+ 765	3.96	+ 29	+ 19	27.7
	658	678	+ 98	+ 75		+ 926	+ 709	3.93	+ 24	+ 18	19.7
									+.014	+.007	

TABLE XI. — DERIVATIONS OF CORRECTIONS TO ASSUMED PARALLAX — Continued.

DATE.	NOS. PLATES COMBINED.		(E-W)^s.		15 cos δ	(E-W)″.		Σ π f.	Δ π.		WEIGHT.
	EAST.	WEST.	FIRST DETERMINATION.	SECOND DETERMINATION.		FIRST DETERMINATION.	SECOND DETERMINATION.		FIRST DETERMINATION.	SECOND DETERMINATION.	
			s	s		″	″		″	″	
Dec. 5	713	733	−.0266	−.0243	9.86	−.2623	−.2396	3.98	−.066	−.060	27.0
	714	734	+ 114	+ 57		+.1124	+ 562	3.97	+ 28	+ 14	27.8
	715	735	+ 11	+ 115		+ 108	+.1134	3.96	+ 3	+ 29	27.7
	716	736	+ 158	+ 109		+.1558	+.1075	3.96	+ 39	+ 27	31.7
	717	737	+ 36	+ 113		+ 355	+.1114	3.93	+ 9	+ 28	23.6
	718	738	+ 81	+ 200		+ 799	+.1972	3.92	+ 20	+ 50	19.6
	719	739	+ 79	+ 93		+ 779	+ 917	3.90	+ 20	+ 24	19.5
	720	740	+ 167	+ 214		+.1647	+.2110	3.88	+ 42	+ 54	31.0
	721	741	+ 152	+ 205		+.1499	+.2021	3.86	+ 39	+ 52	23.2
	722	742	− 58	− 21		− 572	− 207	3.84	− 15	− 5	30.7
	723	743	+ 293	+ 379		+ 2889	+.3737	3.83	+ 75	+ 98	30.6
									+.018	+.028	
Dec. 6	744	764	+.0110	+.0092	9.93	+.1092	+.0914	3.98	+.027	+.023	27.9
	745	765	+ 388	+ 294		+.3853	+.2919	3.97	+ 97	+ 74	31.8
	746	766	+ 46	+ 109		+ 457	+.1082	3.97	+ 12	+ 27	27.8
	747	767	+ 190	+ 80		+.1887	+ 794	3.95	+ 48	+ 20	27.7
	748	768	+ 183	+ 204		+.1817	+.2026	3.93	+ 46	+ 52	27.5
	749	769	− 115	− 73		−.1142	− 725	3.91	− 29	− 19	31.3
	750	770	− 7	+ 9		− 70	+ 89	3.90	− 2	+ 2	23.4
	751	771	+ 66	+ 56		+ 655	+ 556	3.88	+ 17	+ 14	27.2
	752	772	+ 56	+ 43		+ 556	+ 427	3.86	+ 14	+ 11	27.0
	753	773	+ 111	+ 135		+.1102	+ 1341	3.84	+ 29	+ 35	30.7
	754	774	− 24	+ 7		− 238	+ 70	3.82	− 6	+ 2	30.6
									+.023	+.022	
Dec. 7	775	796	−.0148	−.0128	10.00	−.1480	−.1280	3.94	−.038	−.032	27.6
	776	797	+ 56	+ 92		+ 560	+ 920	3.92	+ 14	+ 23	31.4
	777	798	− 102	− 47		−.1020	− 470	3.91	− 26	− 12	27.4
	778	799	+ 14	+ 47		+ 140	+ 470	3.88	+ 4	+ 12	19.4
	779	800	+ 326	+ 305		+.3260	+.3050	3.87	+ 84	+ 79	27.1
	780	801	− 25	+ 51		− 250	+ 510	3.84	− 7	+ 13	26.9
	781	802	+ 66	+ 182		+ 660	+.1820	3.83	+ 17	+ 48	23.0
	782	803	+ 198	+ 194		+.1980	+.1940	3.82	+ 52	+ 51	22.9
	783	804	+ 166	+ 167		+.1660	+.1670	3.79	+ 44	+ 44	26.5
	784	805	+ 87	+ 307		+ 870	+.3070	3.77	+ 23	+ 81	26.4
	785	806	− 1	+ 18		− 10	+ 180	3.76	0	+ 5	30.1
									+.015	+.028	
Dec. 24	895	908	−.0109	−.0176	11.28	−.1230	−.1985	3.63	−.034	−.055	25.4
	896	909	− 199	− 255		−.2245	−.2876	3.60	− 62	− 80	25.2
	897	910	− 41	− 108		− 462	−.1218	3.58	− 13	− 34	14.3
	898	911	+ 84	− 11		+ 948	− 124	3.56	+ 27	− 3	21.4
	899	912	− 16	− 66		− 180	− 744	3.53	− 5	− 21	28.2
	900	913	+ 11	− 76		+ 124	− 857	3.51	+ 4	− 24	21.1
	901	914	− 161	− 239		−.1816	−.2696	3.49	− 52	− 77	17.4
									−.019	−.042	

TABLE XII.—POSITIONS OF FAINT STARS DERIVED FROM CROSSLEY PLATES.

DATE.	PLATE NO.	STAR.	α 1900. 0.	δ 1900. 0.	NO. OF IMAGES.	REMARKS.
1900			h m s	° ′ ″		
Oct. 9	122	u	2 42 54.470	+47 53 39.89	5	
	123		.482	.85	4	
	125		.488	.75	4	
	122	x_1	2 42 48.637	47 55 5.16	5	
	123		.628	.13	4	
	125		.653	.10	4	Faint.
	122	x_2	2 42 50.090	47 55 35.92	5	
	122	y	2 43 1.157	47 56 7.79	5	
	123		.169	.94	4	
	122	z	2 43 2.621	47 54 49.92	5	
	123		.604	.82	4	
	125		.617	.71	4	Faint.
Oct. 10	129	x	2 42 14.987	48 21 47.79	3	
	130		.999	.79	5	
	131		15.005	.53	3	
Oct. 15	204	x	2 39 3.154	49 52 32.85	4	
	205		.136	.62	5	
	207		.133	.70	5	Very faint.
Oct. 16	232	x	2 38 4.007	50 17 13.90	4	Very faint.
	235		3.998	.89	4	
	236		4.002	.69	3	Very faint.
Oct. 21	258	x	2 31 35.526	51 52 23.19	2	Faint.
	266		.534	22.83	2	Very faint.
	267		.513	23.19	4	
	268		.537	22.86	1	Very faint.
	258	y	2 33 36.723	51 28 48.20	2	Faint.
	248		.739	.15	3	
	250		.718	.22	3	
Oct. 26	329	x	2 25 4.230	52 57 21.05	4	
	331		.249	20.71	3	Image I very faint.
Oct. 29	353	x	2 20 15.254	53 23 21.51	3	
	354		.214	.46	3	Faint.
	355		.207	.70	3	Faint.
	353	y	2 20 16.376	53 23 44.27	3	
	354		.378	.68	3	Faint.
	355		.365	.76	3	Faint.
	354	z	2 18 43.359	53 34 5.05	3	
	355		.370	.43	3	
Nov. 1	360	x	2 13 43.196	53 53 36.14	5	Images of plate generally distorted.
	361		.219	.13	3	
	362		.208	.16	3	
	360	y	2 14 46.894	53 54 16.04	5	Very faint and distorted.
	361		.874	.14	3	Faint.
	360	z	2 14 54.137	53 49 34.70	5	Faint and distorted.
	361		.179	.50	3	
	362		.189	.58	3	

TABLE XII. — POSITIONS OF FAINT STARS DERIVED FROM CROSSLEY PLATES — Continued.

DATE.	PLATE NO.	STAR.	α 1900. 0.	δ 1900. 0.	NO. OF IMAGES.	REMARKS.
			h m s	° ′ ″		
Nov. 2	384	x	2 13 5.086	+53 58 7.90	4	Very poor images — faint and distorted.
	385		.125	.61	4	" " " " " "
	386		.178	.87	4	" " " " " "
Nov. 3	408	x	2 10 47.656	54 3 42.91	5	
	411		.685	.92	4	
	414		.684	43.00	3	
Nov. 5	445	y	2 6 8.760	54 13 59.79	5	Image I poor.
	447		.691	14 0.01	5	
	450		.705	0.21	4	
Nov. 10	486	t	1 56 30.481	54 19 35.79	5	
	487		.475	.76	5	
	486	w	1 56 57.193	54 22 36.14	5	
	487		.182	35.58	5	
	492		.181	.55	5	
	486	x	1 55 48.955	54 20 17.09	5	
	487		.941	.08	5	
	492		.985	.12	5	
	486	y	1 55 50.385	54 20 10.29	5	
	487		.356	.30	5	
	492		.444	.66	5	Faint and distorted.
	486	z	1 55 53.842	54 20 10.92	5	
	487		.883	.70	5	
	492		.877	.88	5	
Nov. 12	518	x	1 51 43.617	54 12 11.29	3	
	519		.593	11.00	3	
	520		.583	11.26	4	
	518	z	1 52 49.954	54 14 40.58	3	
	519		.930	.66	3	
	520		.920	.74	4	
Nov. 13	538	t	1 48 46.131	54 7 32.96	3	
	538	u	1 50 57.556	54 12 0.55	3	
	539		.570	.86	5	
	540		.581	.83	5	
	538	v	1 49 10.162	54 8 21.19	3	
	539		.151	.2094	5	
	540		.164	.92	5	
	538	w	1 50 45.256	54 7 33.95	3	
	539		.239	34.21	5	
	540		.276	33.88	5	
Dec. 2	679	x	1 26 48.030	50 8 7.94	3	
	681		.051	8.33	3	
Dec. 11	848	x	1 28 54.835	46 48 35.43	5	

APPENDIX.

DESCRIPTION OF THE MEASURING-ENGINE.

This engine was constructed by the firm of Stackpole & Brother, New York, from designs by Professor William Harkness, of the U. S. Naval Observatory. As no account other than the paragraph on page 76, vol. I, Lick Observatory Publications, has been published, it seems desirable to include a short description here.

The engine is intended for the measurement of plates 6 x 6 inches or smaller, at one setting, either by rectangular or by polar coördinates, with the plates in a horizontal position only. The accompanying illustration will make plain its general features as used in the Eros work. It is of brass throughout (excepting the screws) and is very solidly built.

A micrometer-microscope and a small transit telescope are provided with the engine. The transit telescope is used to test the straightness of the slides. A spirit-level, extra microscope-objectives, and eye-pieces are also provided.

The machine is provided with a circle 12 inches in diameter, divided on silver to 5′ and read by verniers to 5″. On this circle is fastened a glass stage to carry the negative to be measured. Two slides and scales, approximately parallel to the X and Y axes, respectively, permit of the determination of both rectangular coördinates simultaneously.

The setting-telescope containing a fixed glass reticle is attached rigidly to the carriage moving along the X-axis. This carriage and its ways are in turn attached to a larger one which moves along the Y-axis. Clamps and slow-motions are provided in both cases.

The scales are of glass and read by microscopes rigidly fixed to the telescope carriages. The divisions of the glass scales are 0.02 inch apart and are identified by means of auxiliary silver scales. The microscopes for reading the glass scales have glass reticles which enable readings to be made directly to 0.001 inch and by estimation to 0.0001 inch.

Scale A is used to measure X-coördinates; scale B, to measure Y-coördinates.

The errors of scale A were investigated in the Department of Weights and Measures, U. S. Coast and Geodetic Survey. The results of the investigation are printed in vol. III, part III, of the Lick Observatory Publications.

Using scale A as a standard, the errors of divisions 100 to 260, inclusive, of scale B were determined by Dr. H. K. Palmer. These results have not been printed heretofore. They are given at the end of this paper. For the sake of convenience, the numerical results for scale A are also given.

The errors of both scales have been found to be so small, in the portions used in the Eros work, as to be negligible.

This measuring-engine had been in use for a number of years prior to the commencement of the Eros measurements. During this time several difficulties had become apparent. The one which gave most trouble was the illumination. This defect could not be remedied without reconstructing the entire stage for carrying the negatives. As the stage provided with the engine was of weak design, an entirely new one, with more convenient illumination, was made in the Lick Observatory shops and attached.

The clamps and slow-motions for the circle and its vernier were badly placed. The slow-motion screw for the *vernier* was in front where it was occasionally displaced accidentally by the observer. This was remedied. The clamp and slow-motion for the circle (and attached negative) were changed to a more convenient position.

The slides of this engine are not exactly at right angles. The deviation amounts to 11′ 30″. If we face the A scale of the engine, looking along the longer slides (Y-axis) and across the shorter slides (X-axis) the inclination is such as to cause the upper left-hand and lower right-hand angles to be less than 90°, by 11′ 30″. A negative made in the ordinary way, where proper orientation in the sky is secured by looking *through* the negative with the *film* side *away*, when placed on the engine *film* side *up* and measured, requires corrections as follows:

The X-measures are to be corrected by + Y sin I.

The Y-measures are to be multiplied by cos I, where I is the defect of inclination (11′ 30″).

The division-errors of the circle have not been determined, so far as I know, but are doubtless small. In determining the inclination of the slides, different parts of the circle were used to eliminate any such errors. No noticeable errors were found, however.

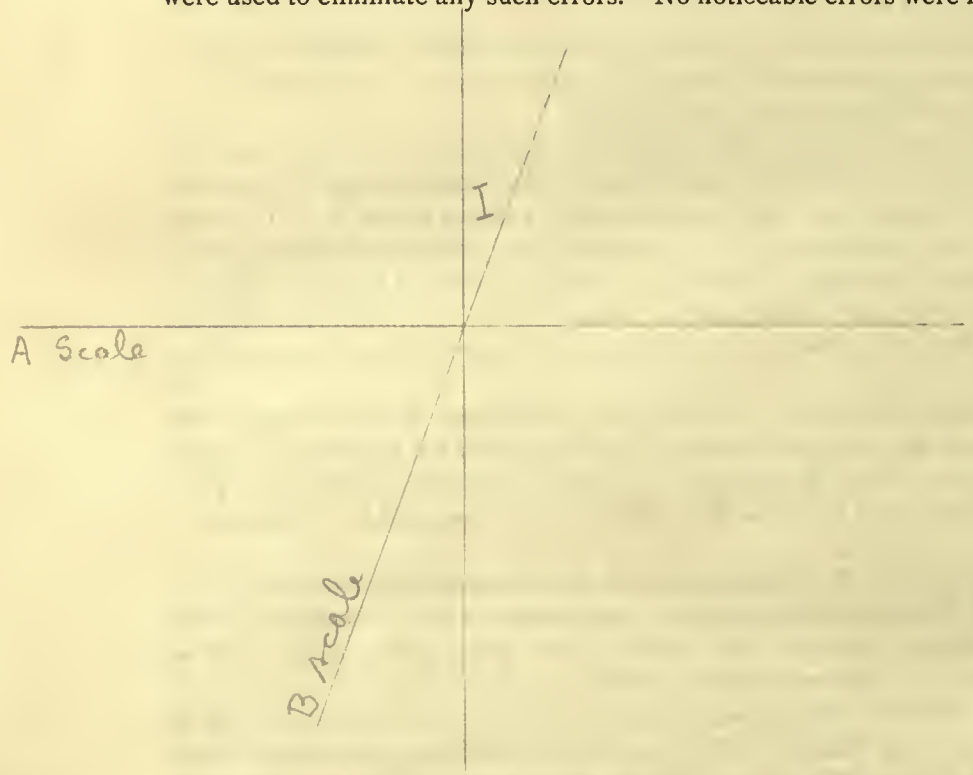

Table of Scale A of the L. O. Measuring-Engine (Stackpole).

The table gives the distance from o division to any division-mark on the scale at 16°.67 C. Let S_0 be any such distance at 16°.8 C. and S_t be the same distance at t degrees.

$$S_t = S_0\,(1 + 0.000008(t - 16°.8))$$

Scale.	Inch.	Scale.	Inch.	Scale.	Inch.	Scale.	Inch.	Scale.	Inch.	Scale.	Inch.
0	0.00000	51	1.01941	101	2.01847	151	3.01741	201	4.01636	251	5.01545
1	.01995	52	.03938	102	.03846	152	.03741	202	.03638	252	.03543
2	.03994	53	.05934	103	.05844	153	.05741	203	.05641	253	.05542
3	.05997	54	.07928	104	.07845	154	.07737	204	.07641	254	.07541
4	.07997	55	.09926	105	.09845	155	.09732	205	.09643	255	.09540
5	.09998	56	.11924	106	.11843	156	.11728	206	.11640	256	.11537
6	.11994	57	.13918	107	.13839	157	.13724	207	.13639	257	.13534
7	.13992	58	.15919	108	.15838	158	.15725	208	.15641	258	.15531
8	.15991	59	.17915	109	.17835	159	.17724	209	.17637	259	.17532
9	.17989	60	1.19916	110	2.19836	160	3.19723	210	4.19639	260	5.19532
10	0.19988										
11	0.21991	61	1.21918	111	2.21831	161	3.21715	211	4.21632	261	5.21531
12	.23995	62	.23918	112	.23825	162	.23713	212	.23628	262	.23530
13	.25999	63	.25917	113	.25827	163	.25711	213	.25623	263	.25528
14	.27996	64	.27912	114	.27823	164	.27713	214	.27619	264	.27526
15	.29990	65	.29912	115	.29818	165	.29713	215	.29619	265	.29523
16	.31988	66	.31911	116	.31813	166	.31712	216	.31617	266	.31519
17	.33987	67	.33910	117	.33812	167	.33705	217	.33615	267	.33516
18	.35984	68	.35908	118	.35813	168	.35705	218	.35617	268	.35515
19	.37981	69	.37904	119	.37810	169	.37704	219	.37610	269	.37512
20	0.39978	70	1.39905	120	2.39805	170	3.39704	220	4.39606	270	5.39513
21	0.41980	71	1.41903	121	2.41801	171	3.41699	221	4.41603	271	5.41512
22	.43978	72	.43898	122	.43800	172	.43702	222	.43600	272	.43514
23	.45977	73	.45899	123	.45790	173	.45701	223	.45596	273	.45510
24	.47979	74	.47895	124	.47791	174	.47701	224	.47596	274	.47506
25	.49976	75	.49888	125	.49788	175	.49695	225	.49593	275	.49506
26	.51974	76	.51888	126	.51784	176	.51694	226	.51593	276	.51507
27	.53973	77	.53887	127	.53782	177	.53692	227	.53587	277	.53504
28	.55975	78	.55888	128	.55780	178	.55691	228	.55591	278	.55509
29	.57973	79	.57887	129	.57778	179	.57693	229	.57585	279	.57510
30	0.59969	80	1.59882	130	2.59777	180	3.59689	230	4.59581	280	5.59512
31	0.61968	81	1.61881	131	2.61775	181	3.61690	231	4.61583	281	5.61515
32	.63964	82	.63878	132	.63774	182	.63688	232	.63580	282	.63517
33	.65962	83	.65878	133	.65774	183	.65690	233	.65576	283	.65515
34	.67959	84	.67877	134	.67772	184	.67689	234	.67570	284	.67514
35	.69955	85	.69879	135	.69767	185	.69683	235	.69571	285	.69521
36	.71958	86	.71875	136	.71763	186	.71682	236	.71568	286	.71519
37	.73956	87	.73876	137	.73758	187	.73677	237	.73568	287	.73520
38	.75955	88	.75872	138	.75757	188	.75673	238	.75568	288	.75519
39	.77956	89	.77867	139	.77757	189	.77669	239	.77568	289	.77514
40	0.79951	90	1.79867	140	2.79756	190	3.79668	240	4.79570	290	5.79514
41	0.81952	91	1.81867	141	2.81756	191	3.81665	241	4.81564	291	5.81516
42	.83948	92	.83862	142	.83754	192	.83664	242	.83564	292	.83517
43	.85946	93	.85863	143	.85752	193	.85658	243	.85558	293	.85517
44	.87947	94	.87859	144	.87750	194	.87656	244	.87562	294	.87523
45	.89947	95	.89861	145	.89745	195	.89654	245	.89558	295	.89524
46	.91947	96	.91858	146	.91745	196	.91652	246	.91553	296	.91520
47	.93948	97	.93854	147	.93741	197	.93647	247	.93551	297	.93517
48	.95946	98	.95854	148	.95739	198	.95644	248	.95549	298	.95518
49	.97944	99	.97851	149	.97739	199	.97645	249	.97552	299	.97516
50	0.99943	100	1.99848	150	2.99741	200	3.99641	250	4.99547	300	5.99515
	± 1		± 3		± 3		± 4		± 5		± 5

TABLE OF SCALE B OF THE L. O. MEASURING-ENGINE (STACKPOLE) — Continued.

SCALE.	INCH.	SCALE.	INCH.	SCALE.	INCH.	SCALE.	INCH.
100	2.00000	141	2.82053	181	3.62124	221	4.42187
101	.02007	142	.84063	182	.64124	222	.44193
102	.04006	143	.86064	183	.66127	223	.46196
103	.06006	144	.88064	184	.68130	224	.48202
104	.08007	145	.90070	185	.70129	225	.50205
105	.10009	146	.92069	186	.72127	226	.52205
106	.12014	147	.94075	187	.74133	227	.54202
107	.14016	148	.96074	188	.76133	228	.56203
108	.16019	149	.98071	189	.78137	229	.58208
109	.18021	150	3.00078	190	3.80136	230	4.60208
110	2.20022						
111	2.22022	151	3.02071	191	3.82140	231	4.62209
112	.24020	152	.04081	192	.84141	232	.64212
113	.26024	153	.06082	193	.86146	233	.66215
114	.28031	154	.08080	194	.88150	234	.68214
115	.30028	155	.10085	195	.90145	235	.70212
116	.32036	156	.12085	196	.92146	236	.72217
117	.34036	157	.14095	197	.94146	237	.74222
118	.36035	158	.16093	198	.96149	238	.76221
119	.38039	159	.18091	199	.98158	239	.78228
120	2.40037	160	3.20097	200	4.00155	240	4.80232
121	2.42036	161	3.22095	201	4.02157	241	4.82235
122	.44041	162	.24102	202	.04165	242	.84236
123	.46042	163	.26099	203	.06170	243	.86237
124	.48043	164	.28099	204	.08172	244	.88239
125	.50042	165	.30100	205	.10174	245	.90238
126	.52037	166	.32101	206	.12169	246	.92237
127	.54046	167	.34105	207	.14174	247	.94239
128	.56048	168	.36107	208	.16174	248	.96234
129	.58048	169	.38105	209	.18176	249	.98239
130	2.60049	170	3.40113	210	4.20176	250	5.00238
131	2.62051	171	3.42116	211	4.22177	251	5.02242
132	.64056	172	.44123	212	.24175	252	.04251
133	.66050	173	.46120	213	.26172	253	.06256
134	.68050	174	.48120	214	.28179	254	.08254
135	.70055	175	.50122	215	.30180	255	.10256
136	.72056	176	.52120	216	.32179	256	.12258
137	.74059	177	.54127	217	.34180	257	.14263
138	.76061	178	.56120	218	.36185	258	.16264
139	.78063	179	.58123	219	.38190	259	.18265
140	2.80060	180	3.60118	220	4.40191	260	5.20261