

SEP 8 - 1905

80

(1)

1852

Book "A"

BOOK 1852

Jan. 9/0

FIELD NOTES

Re-establishment
OF THE SURVEY OF THE

Fifth Standard Parallel North, through
Range to West, of the Gila and Salt
River Base and Meridian

1852.

1852

of the Gila and Salt River Base and Meridian,

AS SURVEYED BY

John J. Fisher

United States Deputy Surveyor,

Under his Contract No. 134, dated

June 7th

1885
189

Survey commenced

July 13th

1905
189

Survey completed

Aug 3rd

1905
189

George O Thomas, George Cassidy
James Skelley and Benjamin Medina
Chairmen, Frank Cassidy, flyman

BOOK 1852

INDEX DIAGRAM.

Township 21 N., Range 6 W.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

1/2 *3* *3* *2* *1*
 5th St. Sec. 12, 6 W.
 Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

83
BOOK

WE, George O Thomas and George Cassidy

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

The Fifth Standard Parallel North, Group R. 6 W

Geo O Thomas, Chainman.
George Cassidy, Chainman.

Subscribed and sworn to before me this 13
day of July, 1891905



commission expires
May 17 1908

J. J. Fishes
Notary Public

WE, James Kelley and Bohumil Mudra

do solemnly swear that we will well and truly perform the duties of ^{Chainmen} ~~measurers~~ in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

The Fifth Standard Parallel North, Group R 6 W

James Kelley, ^{Chainman} ~~Measurer~~.
Bohumil Mudra, ^{Chainman} ~~Measurer~~.

Subscribed and sworn to before me this 13
day of July, 1891905



commission expires
May 17 1908

J. J. Fishes
Notary Public

WE, _____ and _____

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

_____, Axman.
_____, Axman.

Subscribed and sworn to before me this _____
day of _____, 189 _____



I, Frank Cassidy, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of The Fifth Standard Parallel North, Group R. 6 W

Frank Cassidy Flagman.

Subscribed and sworn to before me this 13
day of July, 1891905



commission expires
May 17 1908

J. J. Fishes
Notary Public

84
(10)

Chains

Survey commenced July 13, 1905, and executed with W. & L. E. Gurley Light Mountain Transit, with a Smith solar Attachment made by Young & Sons; the horizontal limb having two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the lat. and decl. arcs.

The instrument was examined and tested on the true meridian at Phoenix, found correct and was approved by the Surveyor General for Arizona, July 1st, 1905.

I begin at the standard corner of Tps. ~~20~~ and 21 N. Rgs. 5 and 6 W. G. & S. R. B. and Meridian, which is a lava stone 15x12x10 ins. above ground, firmly set, and marked and witnessed as described by the Surveyor General. Longitude 112° 50' 55" W. *Latitude 35° 7' N.*

At 12 h. l. m. t. I set off 21° 52' N. on the decl. arc and observed the sun on the meridian, the resulting lat. is 35° 7' which is 17" in excess of the true lat.

In order to test the solar apparatus by comparing the results of observations on the sun during the a. m. and p. m. hours with a true meridian determined by observation on Polaris, I proceed as follows:

At 3 h. p. m. l. m. t. I set off 35° 7' on the lat. arc and 21° 51' N. on the decl. arc, and mark the meridian thus determined by the solar, by a cross on a stone firmly set in the ground, 5.00 chs. N. of cor. *July 13, 1905*

At ~~05~~ h. ~~04.0~~ m. ~~02~~ m. l. m. t. I observed Polaris at Eastern elongation, in accordance with the instructions in the Manual and mark the line thus determined by a tack driven in a plug set in the ground 5.00 chs. N. of cor.

July 13, 1905.

July 14: At 8 h. 45 m. a. m. l. m. t. I lay off the azimuth of Polaris 1° 23' W. and mark the mer. thus determined by cutting a small groove in the stone set last evening, on which the mer. falls 0.3 ins. W. of the mark determined by the solar.

At 9 h. a. m. l. m. t. I set off 35° 7' on the lat. arc and 21° 44' N. on the decl. arc, and mark the mer. thus determined with the solar by a cross on the stone already set 5.00 chs. N. of cor.; this mark falls 0.4 ins. W. of the mer. established by the Polaris observation.

The solar apparatus by p. m. and a. m. observations defines positions for meridians about 0' 16" E. and 0' 21" W. of the mer. established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the mer. at 9 h. a. m. is N. 14° 30' W.; the angle thus determined gives the mag. decl. 14° 30' E.

From the standard cor. above described I run W. on S. bdy. Sec. 36.

Descend through scattering cedars.

29.00 Cross canon, 20 lks. wide, course S.

Ascend over rolling mountainous country.

Difference between measurements of 40.00 chs. by two set of chainmen is 13 lks.; position of middle point

By 1st. set, 39.91 chs.

By 2nd. set, 40.09 chs., the mean of which is

40.00 Set a lava stone 13x15x6 ins. 14 ins. in ground for standard 1/4 Sec. cor. marked S. C. 1/4 on N. face and raise a mound of stones 2 ft. base, 1-1/2 ft. high N. of cor.

No trees, pits impracticable.

41.50 Cross summit of ridge, course N. and S.

Descend through scattering cedars.

Difference between measurements of 80.00 chs. by two set of chainmen is 12 lks.; position of middle point

Fifth Standard Parallel North, through Range 6 West.

Chains	<p>By 1st.set, 80.06 chs. By 2nd.set, 79.94 chs., the mean of which is</p> <p>30.00 Set a lava stone 24x10x8 ins. 20 ins.in ground for standard cor.of Secs.35 and 36, marked S.C.on N. with 1 groove on E. and 5 grooves on W.faces, and raised a mound of stones 2 ft.base, 1-1/2 ft.high, N. of cor.</p> <p>Whence, A cedar 8 ins.diam.bears N.49-3/4°E. 116 lks.dist. marked T.21 N.R.6 W.S.36 B.T. A cedar 5 ins.diam.bears N.46-1/2° W. 119 lks.dist. marked T.21 N.R.6 W.S.35 B.T.</p> <p>Land mountainous. Soil, stony, 3rd.and 4th.rates. Timber, scattering cedar. Mountainous land 80.00 chs..</p>
3.00 8.00 15.00 40.00 54.00 67.00 73.83 80.00	<p>West on S.bdy.Sec.35. Over stony ground, through dense cedars. East edge canon. Cross canon, 50 lks.wide, course N.W. West wall of canon, about 150 ft.deep. Difference between measurements of 40.00 chs.by two sets of chainmen is 14 lks., position of middle point By 1st.set, 39.93 chs. By 2nd.set, 40.07 chs., the mean of which is</p> <p>Set a lava stone 24x15x10 ins. 18 ins.in ground for standard 1/4 sec.cor.marked S.C.1/4 on N.face and raise a mound of stones 2 ft.base, 1-1/2 ft.high N. of cor.</p> <p>No trees, pits impracticable. Descend over stony slope of mountain Foot of mountain, leave cedars, enter valley, course N.W. Cross road, course N.and S. Difference between measurements of 80.00 chs. by two sets of chainmen is 20 lks., position of middle point By 1st.set, 80.10 chs. By 2nd.set, 79.90 chs., the mean of which is</p> <p>Set a lava stone 20x15x8 ins. 16 ins.in ground, for standard cor.of Secs.34 and 35, marked S.C.on N., with 2 grooves on E. and 4 grooves on W.faces, and raise a mound of stones 2 ft.base, 1-1/2 ft.high N.of cor.</p> <p>No trees, puts impracticable. Land, mountainous and level. Soil, loam and rocky, 1st. and 4th.rates. Timber, cedar. Mountainous or heavily timbered land, 67.00 chs.</p>

July 14, 1905.

July 15: At 7 h.a.m.1.m.t. I set off 35° 7' on the lat. arc and 21° 36' N. on the decl. arc and determine a meridian with the solar at the standard cor.of Secs.34 and 35.

Thence I run,

Fifth Standard Parallel North, through Range 6 West.

Chains. West on S. bdy. sec. 34.
 1.00 Cross dry wash, 10 lks. wide, course N. W.
 35.00 Cross dry wash 2ch. wide, course N. E.
 38.00 Leave valley, ascend over rolling mountainous country.
 Difference between measurments of 40.00 chs., by two
 set of chainmen is 8 lks.; position of middle point
 By 1st set, 40.04 chs.
 By 2nd set, 39.96 chs.; the mean of which is
 40.00 Set a sand stone 20x10x8 ins., ^{15 ins.} in the ground, for
 standard 1/4 sec. cor., marked S.C. 1/4 on N. face; and
 raise a mound of stones, 2ft. base, 1 1/2 ft. high, N. of
 cor. No trees, pits impracticable.
 Difference between measurments of 80.00 chs., by two
 sets of chainmen, is 10 lks.; position of middle point
 By 1st set, 79.95 chs.
 By 2nd set, 80.05 chs.; the mean of which is
 80.00 Set a lava stone 16x8x6 ins., 12 ins. in ground, for
 standard cor. of secs. 33 and 34, marked S.C. on N., with
 3 grooves on E. and 3 grooves on W. faces; and raise a
 mound of stones, 2 ft. base, 1 1/2 ft. high, N. of cor.
 No trees, pits impracticable.
 Land, level and mountainous.
 Soil, loam and rocky; 1st and 3rd rate.
 Mountainous land 42.00 chs.

West on S. bdy. sec. 33.
 Over rolling mountainous country, through scattering
 cedars.
 Difference between measurments of 40.00 chs., by two
 sets of chainmen is 14 lks.; position of middle point
 By 1st set, 39.93 chs.
 By 2nd set, 40.07 chs.; the mean of which is
 40.00 Set a lava stone 16x12x8 ins., 12 ins. in the ground,
 for standard 1/4 sec. cor., marked S.C. 1/4 on N. face;
 and raised a mound of stones, 2ft. base, 1 1/2 ft. high,
 N. of cor. No trees, pits impracticable.
 A cedar 6 ins. diam., bears N. 43 1/2° W. 154 lks. dist.
 marked ~~1/4 S. 33 B.T.~~ *O. G. 1/4 O. 33 B.T.*
 Ascend over rolling mountainous country, through
 dense cedar timber.
 Difference between measurments of 80.00 chs., by two
 sets of chainmen is 6 lks.; position of middle point
 By 1st set, 40.03 chs.
 By 2nd set, 39.97 chs.; the mean of which is
 80.00 Set a lime stone 20x10x8 ins., 16 ins. in the ground,
 for standard cor. of secs. 32 and 33, marked S.C. on N.
 with 4 grooves on E. and 2 grooves on W. faces; from which
 A pine, 4 ins. diam., bears N. 4° E. 54 lks. dist.
 marked T. 21 N. R. 6 W. S. 33 B.T.
 A cedar 6 ins. diam., bears N. 58 1/4° W. 54 lks. dist.
 marked T. 21 N. R. 6 W. S. 32 B. T.
 Land mountainous.
 Soil rocky, 4th rate.
 Timber, pine and cedar.
 Mountainous or heavily timbered land 80.00.

Fifth Standard Parallel North, through Range 6 West.

Chains. West on S. bdy. sec. 32.
Descend through dense timber.

15.00 Leave timber, enter valley.
Difference between measurements of 40.00 chs., by two sets of chainmen, is 20 lks.; position of middle point
By 1st set, 40.10 chs.
By 2nd set, 39.90 chs.; the mean of which is

40.00 Set a lime stone 20x10x6 ins., 15 ins. in ground for standard 1/4 sec. cor., marked S.C. 1/4 on N. face; and raise a mound of stones 2ft. base, 1 1/2 ft. high N. of cor. No trees, pits impracticable.

55.00 Ascend, leave valley, enter timber.

60.42 Intersect east bdy. T. 20 N. R. 7 W. at S. 0° 42' E. 37.93 chs. from old closing cor. on old standard line of Tps. 20 N. Rgs. 6 and 7 W.
Difference between measurements of 60.42 chs. by two sets of chainmen, is 6 lks.; position of middle point
By 1st set, 60.45 chs.
By 2nd set, 60.39 chs.; the mean of which is

60.42 Set a lime stone 20x10x8 ins. in mound of stones, for closing cor. Tps. 20 and 21 N. R. 6 W. on the east bdy. of T. 20 N. R. 7 W., marked C.C. on E. and 6 grooves on N. E. and S. faces, from which
A cedar 8 ins. diam. bears N. 10 3/4° E. 40 lks. dist. marked C.C.T. 21 N. R. 6 W. S. 32 B. T.
A cedar 6 ins. diam. bears S. 8° E. 130 lks. dist. marked C.C.T. 20 N. R. 6 W. S. 5 B. T.

Land, level and mountainous.
Soil, loam and rocky; 1st and 4th rate.
Mountainous or heavily timbered land 20.42 chs.
July 15, 1905.

July ¹⁵~~14~~th, 1905: I set off ^{21° 34' 17"}~~21° 43'~~ on the decl. arc; and, at 12h 00m by my watch, which is 5m fast of local mean time, observe the sun on the meridian, and obtain on the lat. arc the reading 35° 6' 7" which agrees with the lat. I obtained at the standard cor. of Tps. 20 and 21 N. Rgs. 5 and 6 W. at 12h 00m on July 13.

Note. The latitude furnished me by the Surveyor General is about 3 minutes greater than that observed by me. I am satisfied that my instrument is in perfect adjustment.

GENERAL DESCRIPTION.

Through range 6W this line runs over mountain ridges and canons, having a northerly trend and crosses narrow valleys, there is no water.

The north western portion of T. 20 N. and the south western portion of T. 21 N. R. 6 W. is heavily timbered with a fair quality of pine and cedar.

John Fisher
U.S. Deputy Surveyor.

LIST OF NAMES

A list of the names of the individuals employed by John J. Fisher, United States Deputy Surveyor, to assist in running, measuring, and

marking the lines and corners described in the foregoing field notes of the survey of the

Fifth Standard Parallel North, Township R. 6 W. showing the respective capacities in which they acted:

George O Thomas, Chainman.

George Cassidy, Chainman.

James Skelley, ~~Chainman~~ Monumentman.

Bohumil Mudra, ~~Chainman~~ Monumentman.

....., Axman.

....., Axman.

Frank Cassidy, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John J. Fisher, United States Deputy Surveyor, in surveying all

those parts or portions of the Fifth Standard Parallel North,
Township R. 6 W.

..... of the Gila & Salt
River meridian, Territory of Arizona, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Arizona.

Geo O Thomas, Chainman.

George Cassidy, Chainman.

James Skelley, ~~Chainman~~ Monumentman.

Bohumil Mudra, ~~Chainman~~ Monumentman.

....., Axman.

....., Axman.

Frank Cassidy, Flagman.

Subscribed and sworn to before me this 3rd day of August, 1891908



J. J. Fisher
Notary Public

My commission expires
May 9, 1908

BOOK 1852

I, John J. Fisher, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls United States Surveyor General for Arizona, bearing date of the 7th day of June, 1905, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of The Fifth Standard Parallel North, through R. 6 W.

Row of the Gila Salt meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

John J. Fisher
United States Deputy Surveyor.

Subscribed by said John J. Fisher, and sworn to before me }
this 7th day of September, 1905

J. M. Watts
Clerk U. S. Court



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

The foregoing field notes of the survey of Phoenix, Arizona Dec 20th 1905, 189
through Range 6 West of the Gila and Salt River Base
and Meridian, in the territory of Arizona

executed by John J. Fisher U. S. deputy surveyor
under his contract No. 134, dated June 7th 1905, 189, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.