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the State of _____

EXECUTED BY

*the capacity of U. S. Surveyor*___, *under instructions dated* _____, *191*___,

ued by the United States Surveyor General to govern surveys included in

oup No. _____, *which were approved by the Commissioner of the General Land*

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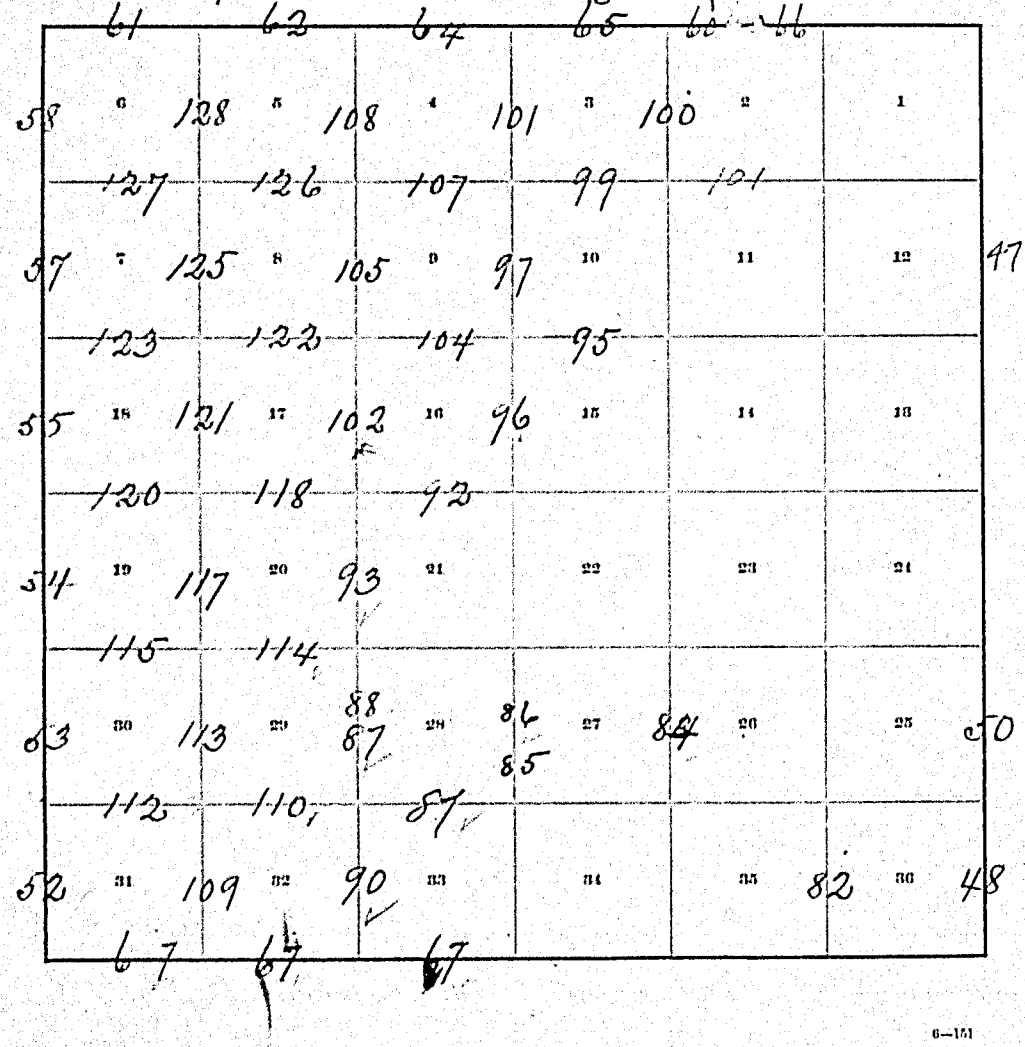

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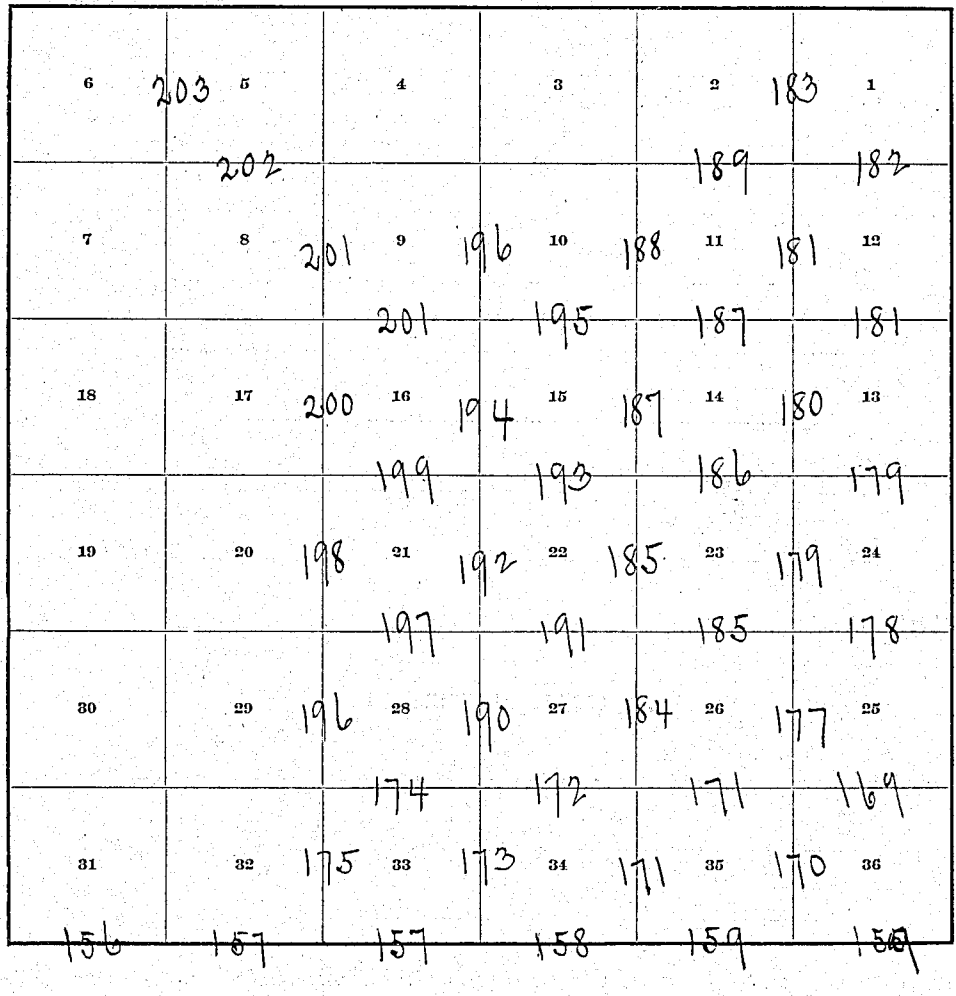

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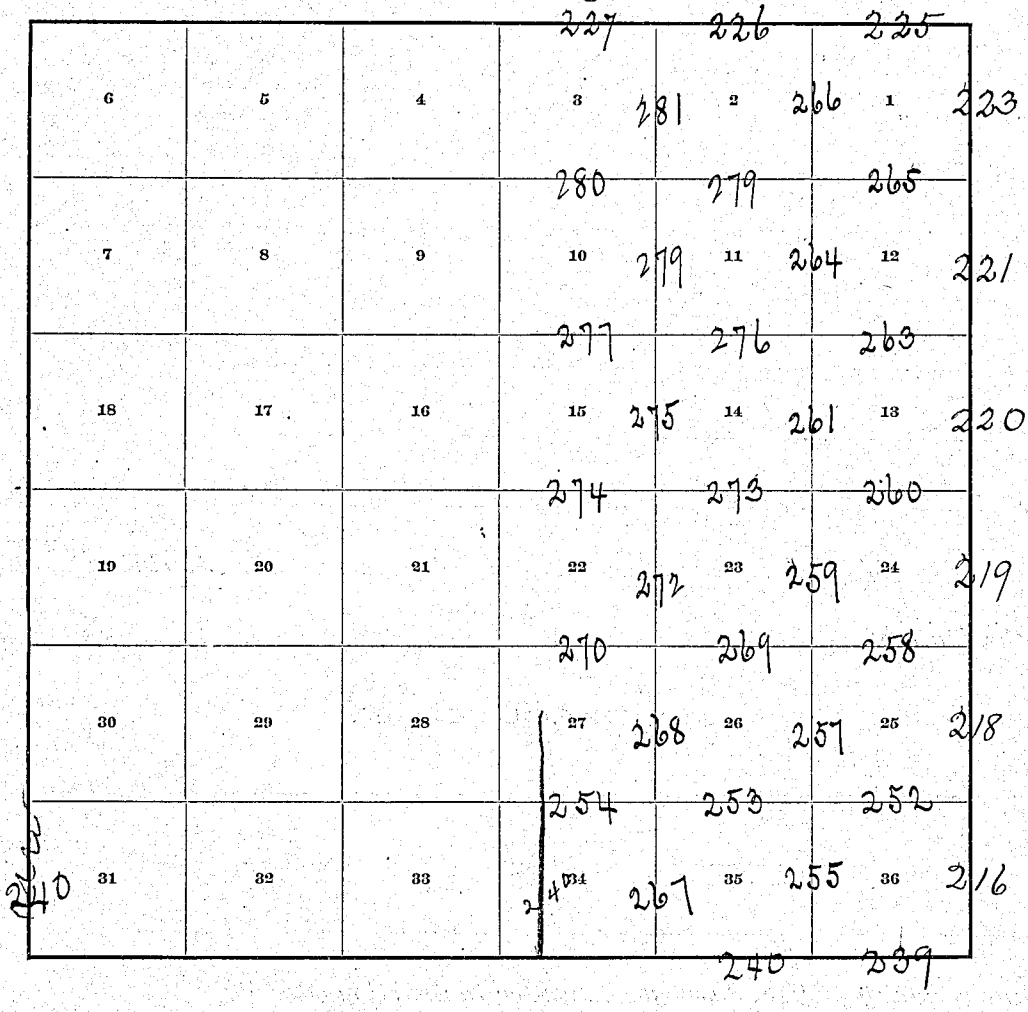

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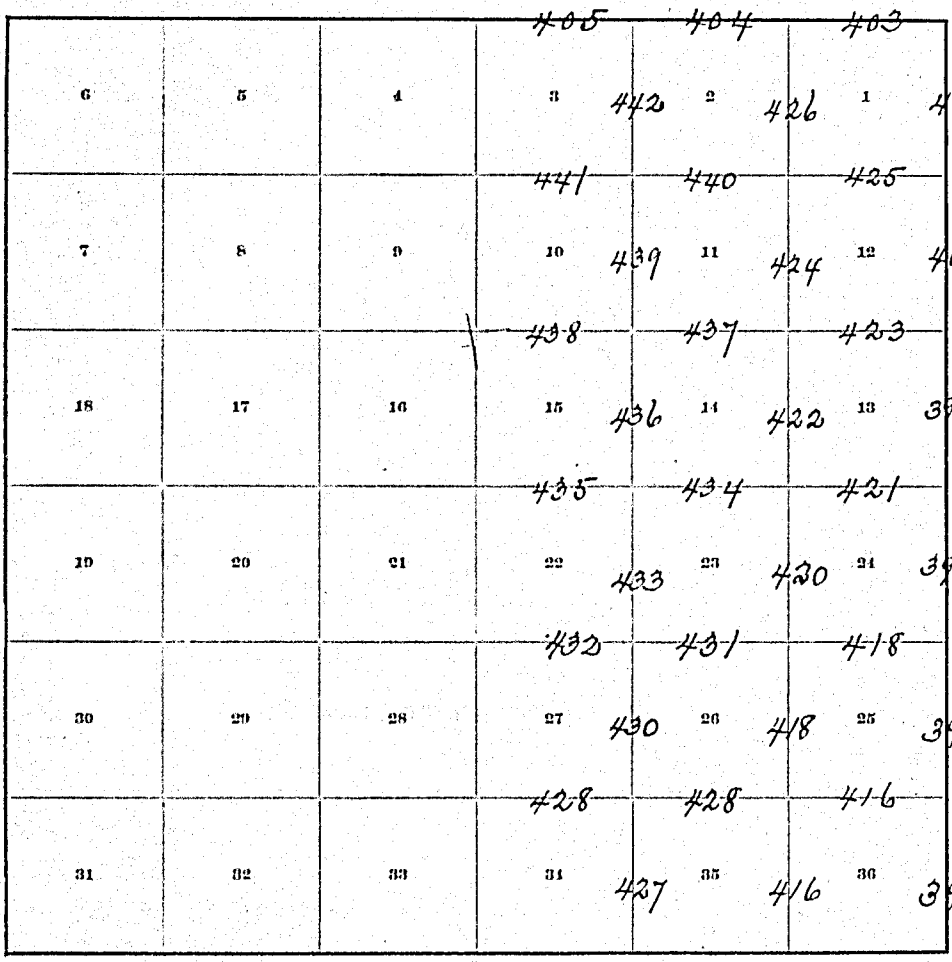

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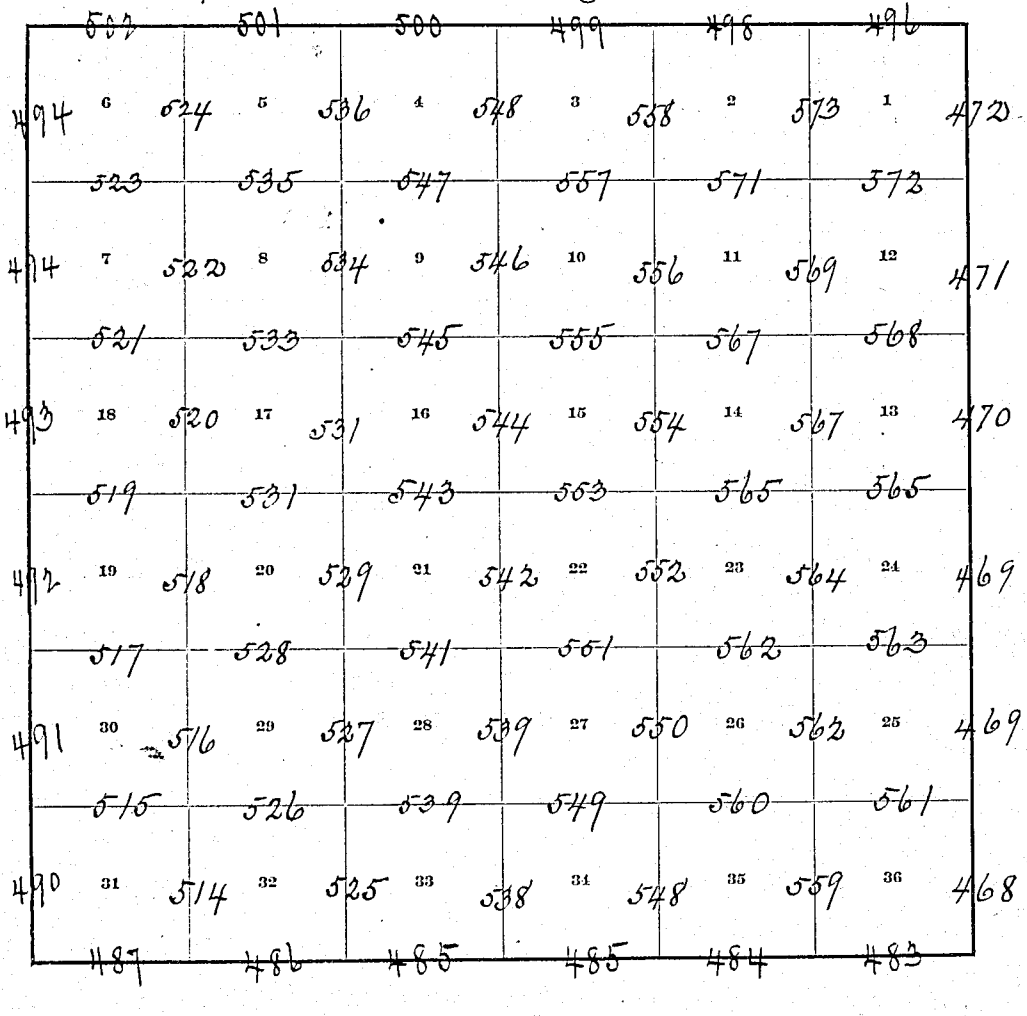

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Filed March 19, 1906.

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FIELD NOTES

RE-
OF THE SURVEY OF THE

EIGHTH STANDARD PARALLEL SOUTH THROUGH RANGE SIXTEEN WEST

Of the SALT LAKE BASE AND *Meridian,*

IN THE STATE OF UTAH.

AS SURVEYED BY

JOHN H. CLARK, *United States Deputy Surveyor,*

nder his Contract No. 288, *dated* May 4, *190*5.

rvey commenced December 2, *190* 5.

rvey completed December 5, *190* 5.

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NAMES AND DUTIES OF ASSISTANTS.

S. R. Pratt,	Chainman.	1st set.
O. R. Norton,	Chainman.	
Aza Smith,	Chainman	2nd set.
John H. Bowler,	Chainman	
Aza Smith,	Moundman	
O. R. Norton,	Moundman	
John H. Bolwer,	Axman	
S. R. Pratt,	Axman.	
G. A. Lemmon,	Flagman.	

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BOOK 4-570

PRELIMINARY OATHS OF ASSISTANTS.

We, L. R. Pratt, O. R. Norton, John H. Bowler and Aza Smith

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 Eighth Std. Parallel S. through Range 16 West S.L.B.&M. Ute

L. R. Pratt, Chainman.

O. R. Norton, Chainman.

Subscribed and sworn to before me this 2nd day of December, 1905

John H. Bowler Chainman

Aza Smith Chainman

John J. Clark U.S. Deputy Surveyor

SEAL

We, Aza Smith and O. R. Norton

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of the Eighth Std. Parallel S. through Range 16 West S.L.B.&M. Ute

Aza Smith, Moundman.

O. R. Norton, Moundman.

Subscribed and sworn to before me this 2nd day of December, 1905

John J. Clark U.S. Deputy Surveyor.

SEAL

We, John H. Bowler and L. R. Pratt

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 the Eighth Standard Parallel South through Range 16 West S.L.B.&M. Ute

John H. Bowler, Axman.

L. R. Pratt, Axman.

Subscribed and sworn to before me this 2nd day of December, 1905

John J. Clark U.S. Deputy Surveyor

SEAL

I, G. A. Sommers, 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 Eighth Standard Parallel S. through Range 16 West S.L.B.&M. Ute

G. A. Sommers, Flagman.

Subscribed and sworn to before me this 2nd day of December, 1905

John J. Clark U.S. Deputy Surveyor

SEAL

26A

FILED
MAR 19 1906

There being no Notary Public or other Officer authorized to administer Oaths, without my going to great expense and delay, I will administer all Preliminary Oaths of Assistants required to complete the surveys under my contract #-288.

J. W. McClain

U.S. Deputy Surveyor.

Gunlock, Utah.
November 30, 1905.

See Letter
7950

Resurvey of the Eighth St. . Parallel S. through Range 16 West.

Chains.

Survey commenced Dec. 2, 1905, and executed with a W.& L.E.Gurley heavy engineer's transit with solar attachment; the horizontal limb is providedwith two double verniers placed opposite to each other and reading to single minutes of arc; the lat. and decl. arcs reading to 30" of arc. The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the Surveyor-General for Utah, October 31st. 1905.

I begin at the temp. reestablished Standard cor. of Tps. 40 S. Rs. 16 and 17 W. set by me on a random line from the interior of Tp. 40 S. R. 17 W.

I test the transit for level and collimation errors;then in order to test the solar apparatus by comparing the results of observations on the sun during a.m. and p.m. hours with a true meridian determined by observations on Polaris I proceed as follows:

At 2h 49½m p.m. l.m.t. I set off 37° 17.3'N. on the lat. arc; 21°56'S. on the decl. arc; and determine a true meridian whit the solar, marking a point in the same by a tack in a peg firmly set in the ground 5 chs. N. of my station.

Dec. 2, 1905.

Dec. 3,1905: At 2h 36m a.m.l.m.t. I observe Polaris at western elong. in accordance with instructions in the manual and mark a point in the line thus determined by a tack driven in a peg set 5 chs. N. of my station.

At 8h 40m a.m.l.m.t. I set off the azimuth of Polaris 1°30½' to the east and mark the true meridian thus determined by a tack driven in the peg set yesterday on which the meridian falls 0.3 ins. west of the mark determined by the solar.

At 8h50m a.m.l.m.t. II set off 37°17.3'n. on the lat. arc; 22°2½'S. on the decl. arc; and determine a true meridian with the solar, marking a point of the same by a nail in the peg set 5 chs. N. of my station, on which the

Resurvey of the Eighth St. N. Parallel S. through Range 16 West.

Chains.

meridian falls 0.3 ins. west of the meridian determined by by observations on Polaris.

The solar apparatus By a.m. and p.m. observations defines positions for meridians 0'16" west and east respectively of the meridian determined by observations on Polaris. I therefore, consider the adjustments of the instrument as satisfactory.

The magnetic bearing of the true meridian at 9h a.m. is N.16°W, which gives the mag.decl. as 16°E.

Preliminary to the survey of Tp. 40 S. R. 17 W. I run East on a blank line along the south bdy. of Tp 40 S. R. 16 W. and find no corners set till at

247.50 I find the old established W.C. to St'D. cor. of secs. 33 and 34, 7.03 chs. South.

Dec. 4, 1905.

Dec. 5, 1905: At 2h 28 m. a.m. l.m.t. I observe Polaris at a point 2.03ft. N. of the W.C. to the St'd. cor. of secs. 33 and 34, in accordance with instructions in the manual and mark a point in the line thus determined by driving a tack in a peg firmly set in the ground 5 chs. N. of the instrument. Longitude 113 34'57"W. Lat.37 17'18" N.

At 8h a.m. I set off the azimuth of Polaris 1° 33.5' to the east and mark a point in the true meridian thus determined by a tack in a peg set east of the one set this morning.

I turn off an angle 89°59'7from the meridian to the west, and resurvey

N.89°59'7W. on a secant through sec. 34.

Through dense brush and scattering timber.

Descend into canyon.

Difference bet, measurements of 7.50 chs. by two sets of chainmen is 00 lks.

7.50 Im possible to set a cor. on account of ledges.

Land mountainous.

Resurvey of the Eighth St.. Parallel S. through Range 16 West.

Chains.	
	Soil, rock and gravel; worthless.
	Timber, scattering cedar and pinon pine.
	Brush, black-brush, sage, deer and bitter bush.
	Mountainous land or land covered with dense brush on
	7.50 chs.
	West on the secant through sec. 33.
	Over mountainous land.
10.00	Bottom of Canyon 100 ft. deep drs. S. Ascend abruptly.
24.30	Leave canyon. Enter scattering cedar and pinon pine and dense brush. Ascend very gradually up small mountain valley, drs. N.E.
39.27	Top of small ridge, bears N.10°W. and S.10°E.
	Difference bet. measurements of 40.00 chs. by two sets. of chainmen is 6 lks; position of middle point,
	By first set 39.97 chs.
	By second set 40.03 chs. the mean of which is
40.00	S. 1.91 ft. from the secant. Set a sandstone 14x8x5 ins. 9 ins. in ground for Standard
	¼ sec. cor. marked S C 1/4 on N. face; from which,
	A pinon pine 6 ins. in dia. bears N.75°W. 167 lks.dist., marked S C ¼ S 33 B T.
	Raise a mound of stone 2ft. base and 1½ ft. high, 3 ft. north of cor.
41.00	Across head of small hollow, drs. S.80°E.
53.75	Top of sand hill, bears N. and S. Descend 25 ft.
61.30	Bottom of hollow, drs. N. Ascend 25 ft.
65.50	Top of ridge, brs. N. and S. Descend .
69.50	Along head of hollow, drs. N.E.
79.00	Ascend abruptly.
	Difference bet. measurements of 80.00 chs. by two sets of chainmen is 8 lks.; position of middle point,
	By first set 79.96, chs.
	By second set 80.04 chs, the mean of which is,
80.00	S. 1.52 ft. from the secant. Set a sandstone .24x6x4 ins, 18 ins. in ground for Standard cor. of secs. 32 and 33, marked S C on N. and two grooves

Chains.

on the west and four grooves on the east faces; from which,

A pinon pine 8 ins. in dia. bears N.4°E. 48 lks. dist. marked T 40 S R 16 W S 33 B T.

No other trees convenient to mark; raise a mound of stone 2 ft. base and 1½ ft. high 3 ft. north of corner.

Land Mountainous.

Soil, sand and gravel; 3rd and 4th rates.

Timber, cedar and pinon pine.

Brush, black-brush, sage, mountain rush, deer, bitter bush, oose and cacti.

Mountainous land or land covered with heavy brush on 80.00 chs.

Dec. 5, 1905: At 9h 50½m. a.m. l.m.t. I set off 37° 17.3'N. on the lat. arc; 22°19½'S. on the decl. arc; and determine a true meridian with the solar at the St'd. cor. of secs. 32 and 33.

N.89°59.3'W. on the secant through sec. 33.

Over mountainous land. Dense brush and scattering cedar and pinon pine.

3.00 Head of canyon 1000 ft. deep, drs. Southerly.

3.25 Top of ridge, bears N. and S. from main ridge on S. Descend 66 ft.

22.00 Bottom of valley, dry wash, drs. N.E. Ascend gradually.

27.00 Descend 30 ft.

32.00 Bottom of hollow, drs. N.30°E. Ascend

37.00 Descend 35 ft.

Difference bet. measurements of 40.00 chs. by two sets of chainmen is 8 lks.; position of middle point.

By first set 40.04 chs.

By second set 39.96 chs., the mean of which is S.0.89 ft. from the secant.

40.00 Set a sandstone 18x10x6 ins. 12 ins. in ground for St'd. ¼ sec. cor. marked S C ¼ on N. face; from which

A

Resurvey of the Eighth St. Parallel South through Range 16 West.

Chains.	
	A cedar 12 ins. in dia. bears North 11 lks. dist.; marked S C ¼ S 32 B T.
	Raise a mound of stone 2 ft. base and 1½ ft. high 3 ft. north of corner.
42.50	Bottom of dry wash, 5 ft. deep 25 lks. wide, in bottom of hollow, drs. N.E. Ascend.
48.25	Old road from Diamond Valley to hills, brs. N.W. and S.E.
52.50	Same road, dugway, bears N.E. and S.W.
53.10	Top of ridge, bet. two peaks, bears S.E. and N. Canon 1000 ft. deep heads 2 chs. S. Descend abruptly 125 ft.
54.70	Same dugway, brs. S.E. and N.W.
60.00	Bottom of gulch, drs. northerly.
72.00	Top of hill, bears S.20°W. and N.10°E. Descend 150 ft.
77.00	Bottom of hill; mountain valley, drs. N.10°E.
	Difference bet. measurements of 80.00 chs. by two sets of chainmen is 12 lks., position of middle point,
	By first set 80.06, chs.
	By second set 79.94 chs., the mean of which is,
80.00	Set a sandstone 28x6x4 ins. 21 ins. in ground for Standard cor. of secs. 31 and 32, marked S.C. on N. and one groove on the west and five grooves on the east faces; from which,
	A cedar 14 ins. in dia. bears N.62°W. 194 lks. dist., marked T 40 S R 16 W S 31 B T.
	No other trees convenient to mark; raise a mound of stone 2 ft. base and 1½ ft. high 3 ft. north of corner.
	Land mountainous.
	Soil, sand gravel and sandy loam; 3rd and 1st rates.
	Timber, cedar and pinon pine.
	Brush, black-brush, sage, mountain rush, rabbit, deer, bitter bush, scrub oak, oose and cacti.
	Mountainous land or land covered with dense brush on 80.00 chs.

Resurvey of the Eighth St. N. Parallel S. through Range 16 West.

Chains.	
	At the St'd cor. of secs. 31 and 32 I set off 22°20½'S. on the decl. arc; and at 11h 50½' a.m. l.m.t. observe the sun on the meridian; the latitude resulting is 37° 17¼' N. which is very nearly the correct lat.
	N.89°58.6'W. on the secant south of sec. 31.
	Through dense brush and scattering cedar.
1.15	Dry wash, 3 ft. deep, 25 lks. wide, drs. N.10°E. in bottom of valley. 1st rate sandy loam.
7.50	Ascend abruptly 300 ft.
18.20	Top of rocky ridge, bears N.5°W. and S. 5°E. Descend abruptly 350 ft.
29.50	Bottom of gulch, drs. S.W. Ascend abruptly 400 ft.
39.50	Top of rocky ridge, brs. N.20°E. and S.20°W. Descend abruptly 500 ft.
	Difference bet. measurements of 40.00 chs. by two sets of chainmen is 14 lks.; position of middle point is
	By first set 40.07 chs.
	By second set 39.93 chs. the mean of which is,
40.00	N. 1.14 ft. of the secant.
	Set a sandstone 24x12x6 ins. 18 ins in ground for St'd. ¼ sec. cor. marked S C 1/4 on the north face; raise a mound of stone 2 ft. base and 1½ ft. high 3 ft. north of corner.
	Pits impracticable.
55.00	Bottom of Water Pocket Canyon, drs. S.W. Ascend abruptly 400 ft.
68.50	Top of rocky ridge, bears N. 15°E. and S.25°W. Descend. abruptly.
80.00	At a point 7.00 chs. S. of the temp. standard cor. of secs. 31 and 36.
	N.2.54 ft. of the secant.
	Set a sandtone 22x8x6 ins. 16 ins. in ground for St'd. cor. of Tps. 40 S. Rs. 16 and 17 W., marked with six grooves on the north, east and west faces; and S C on the north face; from which,

Resurvey of the Eighth St. . Parallel S. through Range 16 West.

Chains.

A cedar, branching, 6 ins. in dia. brs. N. 2°W. 66 lks. dist., marked T 40 S R 17 W S 36 B T. .

A cedar 12 ins. in dia. bears N. 47°E. 101 lks. dist., marked T 40 S R 16 W S 31 B T. .

Raise a mound of stone 2 ft. base and 1½ ft. high 3 ft. north of corner.

Land very rough and mountainous.

Soil, sandy loam and gravel; 1st and 4th rates.

Brush, black-brush, sage, deer, mountain rush, rabbit, scrub oak, oose and cacti.

Timber, cedar and pinon pine.

Mountainous land and land covered with heavy brush on 80.00 chs.

Jno. H. Clark

U. S. Deputy Surveyor.

Dec. 5th, 1905.

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Page

General Description of the Eighth Std. Parallel S. through R. 16 W.

The country is wholly mountainous, part of the line running along the edge of what is known as the " jump off" where thecounntry falls off to the south to form the protected benches and valleys of the southern part of Washington County. The main formatiom is sandstone and the soil is thus principally sand. Deep sand is found along the first 1 and half miles of this resurvey, the sand giving way to the sand rocks and cliffs of the last mile and a half, where are found the only deep canyons not draining directly to the great drainage basin of the south. Because of the ability of the soil to hold water, grass and edible brush grow luxuriantly along most of the sandy part of the line.

Cedar and pinon pine timber are fairly abundant, but much of the latter has been cut clean by charcoal burners. Much of the cedar is of commercial value. A few yellow pine are found in the deeper and more protected gulches. Most of the country is practically inaccessable to wagons or even pack animals.

Ledges of fine sandstone of high commercial value exist in places but distant from the line; the stone is white and grey and of a fine smooth texture. Brownstone float was found but no ledges encountered. No mineral formations or veins or floats were noticed.

There is no water within miles of the line, only a few pockets being found in Water Pocket Canyon; Thes e pockets, however are soon exhausted.

No agricultural land exists. No mineral locations were noticed.

John H. Clark

U.S.Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by John H Clark, 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 Resurvey of the Eighth Standard Parallel S. through Range 16 W. S.L.B.&M. Ellis showing the respective capacities in which they acted:

S. R. Pratt } 1st set — Aza Smith } 2nd set, Chainman.
O. R. Norton } 1st set — John H Bowler } 2nd set, Chainman.
Aza Smith, Moundman.
O. R. Norton, Moundman.
John H Bowler, Axman.
S. R. Pratt, Axman.
G. A. Lemmon, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John H. Clark, United States Deputy Surveyor, in surveying all those parts or portions of the Resurvey of the Eighth Standard Parallel South through Range 16 West of the Salt Lake Basin meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said resurvey 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 Utah

S. R. Pratt — Aza Smith, Chainman.
O. R. Norton — John H Bowler, Chainman.
Aza Smith, Moundman.
O. R. Norton, Moundman.
John H Bowler, Axman.
S. R. Pratt, Axman.
G. A. Lemmon, Flagman.

Subscribed and sworn to before me this 28th day of February, 1906
My Commission Expires Feby 12th 1910
W. F. Sargent
Notary Public

SEAL

6—151

BOOK A-370

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, John H. Clark, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson United States Surveyor General for Utah, bearing date of the 4 day of May, 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 Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Resurvey of the Eighth Standard Parallel South through Range 16 West

of the Salt Lake base & meridian, in the State of Utah, which are represented in the foregoing field notes as having been resurveyed by me, and under my direction; and I do further solemnly swear that all the corners of said resurvey 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 Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such resurvey; 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 H. Clark
United States Deputy Surveyor.

Subscribed by said John H. Clark, and sworn to before me this 28 day of February, 1906

Hans P. Ipson
Clerk of 6th Judicial District Court.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Salt Lake City, Utah, June 9, 1906.

The foregoing field notes of the resurvey of the Eighth Standard Parallel South through Range 16 West of the Salt Lake Base and Meridian, Utah

executed by John H. Clark under his contract No. 288, dated May 4th, 1905, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the resurveys they describe, are hereby approved.

Thomas Hull
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.

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Page

4—679. Filed October 24, 1911.

BOOK A-370

B.

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RETRACEMENT AND RESURVEY OF EAST AND FRAC'L NORTH

AND

SURVEY OF WEST AND FRAC'L NORTH

BOUNDARIES

O F

TOWNSHIP NO. 40 SOUTH

RANGE NO.17 WEST

Of the SALT LAKE BASE AND *Meridian,*

U T A H.

AS SURVEYED BY

JOHN H.CLARK, *United States Deputy Surveyor,*

Under his Contract No. 288, *dated* May 4, *19* 05,

Retracement and
Survey commenced December 13, *19* 05

Survey completed June 8, *19* 11.

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BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

1905:

S.R.Pratt,	Chainman,
O.R.Norton,	Chainman.
Aza Smith,	Moundman.
John H.Bowler,	Axman.
G.A.Lemmon,	Flagman.

1911:

John H.Bowler,	Chainman.
Francis J.Bowler,	Chainman.
Francis W.Leavitt,	Moundman.
Milton D.Bowler,	Moundman.
Henry Hunt,	Axman.

6—151

John R.Hunt,	Flagman.

BOOK A-370

INDEX DIAGRAM.

Township 40 N., *Range* 17 W.

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

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, J. R. Pratt and O. R. Norton

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 retracement of the survey of East Boundary of Township 4 South Range 17 West S.L.B.&M. Utah

J. R. Pratt, Chainman.

O. R. Norton, Chainman.

Subscribed and sworn to before me this 12th day of December, 1905

SEAL

John H. Clark
U. S. Deputy Surveyor

WE, Aza Smith and

do solemnly swear that we will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the retracement and resurvey of the East Boundary of Township 4 South Range 17 West S.L.B.&M. Utah

Aza Smith, Moundman.

, Moundman.

Subscribed and sworn to before me this 12th day of December, 1905

SEAL

John H. Clark
U. S. Deputy Surveyor

WE, John H. Bowler and

do solemnly swear that we will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the retracement and survey of the East Boundary of Township 4 South Range 17 West S.L.B.&M. Utah

John H. Bowler, Axman.

, Axman.

Subscribed and sworn to before me this 12th day of December, 1905

SEAL

John H. Clark
U. S. Deputy Surveyor

I, G. A. Lemmon, 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 retracement and survey of East Boundary of Tp. 4 S. R. 17 W. S.L.B.&M. Utah

G. A. Lemmon, Flagman.

Subscribed and sworn to before me this 12th day of December, 1905

SEAL

John H. Clark
U. S. Deputy Surveyor

BOOK A-370

INDEX DIAGRAM.

Township....., *Range*.....

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

Meanders Page.....

BOOK A-370

PRELIMINARY OATHS OF ASSISTANTS.

WE, John H. Bowler and Francis J. Bowler do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon 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 West and North Boundaries of T. 11 S. R. 17 W. Salt Lake Base and Mer

John H. Bowler, Chainman.

Francis J. Bowler, Chainman.

Subscribed and sworn to before me this 1 day of June, 1901

SEAL

John H. Clark
U. S. Deputy Surveyor.

WE, Francis M. Leavitt and Milton D. Bowler do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of West and North Boundaries of T. 11 S. R. 17 W. Salt Lake Base and Meridian

Francis M. Leavitt, Moundman.

Milton D Bowler, Moundman.

Subscribed and sworn to before me this 1 day of June, 1901

SEAL

John H. Clark
U. S. Deputy Surveyor

WE, Henry Hunt 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 the West and North Boundaries of T. 11 S. R. 17 W. Salt Lake Base and Meridian

Henry Hunt, Axman.

..... Axman.

Subscribed and sworn to before me this 1 day of June, 1901

SEAL

John H. Clark
U. S. Deputy Surveyor

I, John R. Hunt, 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 West and North Boundaries of Township 11 S. R. 17 W. S. L. Base and Me

John R. Hunt, Flagman.

Subscribed and sworn to before me this 1 day of June, 1901

SEAL

John H. Clark
U. S. Deputy Surveyor

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BOOK A-370

RETRACEMENT AND RESURVEY OF THE EAST BDY.OF T.40 S., R.17 W.

Chains. Survey commenced Dec.13,.1905, and executed with the instrument described in book "A"of this survey.

I begin at the old established cor.of Tps.39 and 40 S. Rs.16 and 17 W., a trachyte stone 24 x 15 x 2 ins. marked with six notches on each edge, and having a mound of stone alongside.

At 8h 54m a.m.l.m.t., I set off 37° 22'N.on the lat.arc; 23° 6'S.on the decl.arc; and determine a true meridian with the solar. Thence I run

South on a retracement bet.secs.1 and 6; and at

40.42 The ¼ sec.cor.bet.secs.1 and 6, which is a trachyte stone 12 x 8 x 6 ins.above ground, marked and witnessed as described by the surveyor general, falls E. 12 lks. The course of this half mile is therefore S. 0° 10'E.and dist.40.42 chs.

80.42 The cor of secs.1,6,7, and 12, a trachyte boulder in place, 4 x 2 x 1 ft. above ground, marked and witnessed as described by the surveyor-general, falls E. 158 lks. The course of this half mile is, therefore, S.2° 05'E.and dist.40.03 chs.

120.70 The ¼ sec.cor.bet.secs.7 and 12, a trachyte stone 15 x 10 x 6 ins.above ground, marked and witnessed as described by the surveyor general falls E.172 lks. The course of this half mile is S.0° 12'E., and distance is 40.28 chs.

160.55 The cor.of secs.7,12,13, and 18, a red lava rock, 12 x 10 x 5 ins.above ground, marked and witnesseed as described by the surveyor-general, falls E.175 lks. The course of this half mile is, therefore, S.0° 03'E.,and distance 39.85 chs.

200.29 The ¼ sec.cor.bet.secs.13 and 18, a red trachyte stone 12 x 8 x 5 ins.above ground, marked and witnessed as described by the surveyor-general, falls E.100 lks. The course of this half mile is therefore S.1° 05'W.,

RETRACEMENT AND RESURVEY OF THE EAST BDY. OF T.40 S., R.17 W.

Chains.	
	and distance 39.75 chs.
240.30	The cor. of secs.13,18,19 and 24, badly dilapidated.
	The course of this half mile is therefore S.1° 26'W. and the distance 40.02 chs.
	I re-establish this sec.cor. as follows:
	Set a trachyte stone 18 x 8 x 6 ins., 12 ins. in ground, for re-established cor. of secs.13,18,19, and 24, marked with three notches on the north and south edges; raise a mound of stone 2 ft. base and 1½ ft. high 3 ft. west of corner. Pits impracticable.
280.15	The ¼ sec.cor.bet.secs.19 and 24, no marks visible. I re-establish as follows:
	Set a trachyte stone 20 x 10 x 6 ins., 15 ins. in ground for re-established ¼ sec.cor., marked ¼ on W.face; raise a mound of stone 2 ft. base and 1½ ft. high 3 ft. west of corner. Pits impracticable.
320.08	The cor. of secs.19,24,25 and 30, a trachyte stone 10 x 8 x 6 ins. above ground, marked as described by the surveyor general; raise a mound of stone 2 ft. base, and 1½ ft. high 3 ft. west of cor.
360.00	No cor. to be found.
	Set temp. ¼ sec.cor.
400.00	No traces of the cor. of secs.25,30,31, and 36,
	Set temp. sec.cor.
440.00	No traces of ¼ sec.cor.bet.secs.31 and 36,
	Set temp. ¼ sec.cor.
487.03	The re-established standard cor. of secs.31 and 36.
	Dec.13, 1905.

6

Dec.15, 1905: At 9h 55m a.m.l.m.t., I set off 37° 17.3' N. on the lat.arc, 23° 14'S. on the decl.arc; and determine a true meridian with the solar at the standard cor. of secs.31 and 36. thence I run

North on a true line on a resurvey bet.secs.31 and 36,

RETRACEMENT AND RESURVEY OF THE EAST BDY.OF T.40 S., R.17 W.

Chains.	
	Through medium heavy timber (cedar and pinon) and dense brush.
7.75	Dry wash 4 ft.deep, 50 lks.wide, drs.W.
22.00	Dry wash 4 ft.deep, 35 lks.wide, drs.W.
	Ascend 50 ft.
23.50	Top of small knoll; descend.
25.00	Dry wash 3 ft.deep, 25 lks.wide, drs.SW.
	Ascend 100 ft.
32.50	Top of hill, brs.E.and N.80°W. Descend 100 ft.
39.00	Bottom of gulch, drs.W. Ascend 75 ft.
46.95	I again look for old cor., but not finding it,
	Set a sandstone 24 x 8 x 4 ins., 18 ins.in ground,for ¼ sec.cor.,marked ¼ on W.face; from which
	A cedar 18 ins.in dia.brs.S.5°W.22 lks.dist.marked ¼ S 36 B T
	A pinon pine 8 ins.in dia.brs.S.80°E.75 lks.dist., marked ¼ S 31 B T
	Raise a mound of stone 2 ft.base and 1½ ft.high 3 ft. west of cor.
	Along head of hollow, drs.SW.
54.00	Top of ridge, brs.E.and W.and SE.
	Descend gradually.
69.00	Bottom of hollow, drs.N.15°E. Ascend 75 ft .
76.50	Top of ridge bears NE.and SW. Descend 40 ft.
86.95	I again look for old cor., but finding none,
	Set a sandstone 24 x 12 x 4 ins., 18 ins.in ground, for cor.of secs.25,30,31, and 36, marked with five notches on the north and one notch on the south edges; from which
	A cedar 10 ins.dia.brs.S.6°W.42 lks.dist. marked T 40 S R 17 W S 36 B T
	A cedar 14 ins.in dia.brs.S.45°E.75 lks.dist. marked T 40 S R 16 W S 31 B T
	A pinon pine 6 ins.in dia.brs.N.75°E.39 lks.dist marked T 40 S R 16 W S 30 B T

RETRACEMENT AND RESURVEY OF THE EAST BDY.OF T.40 S., R.17 W.

Chains. No other trees convenient to mark; raise a mound of stone 2 ft.base and 1½ ft.high 3 ft.west of cor.

Land, mountainous.

Soil, gravel and sandy gravel; 4th and 2nd rates.

Timber, cedar and pinon pine.

Brush, black brush, sage, mountain rush, deer, rabbit, cacti, scrub oak, and oose.

Mountainous land or land covered with dense brush on 86.95 chs.

Dec.15, 1905: At the re-established cor.of secs.25,30,31 and 36, I set off 23° 15'S.on the decl.arc; and at 11h 55m.a.m.l.m.t., observe the sun on the meridian; the resulting lat.is 37° 18'N.which is the correct lat.very nearly. Thence I run

North on a resurvey bet.secs.25 and 30

Through cedar and pinon timber and heavy brush.

10.00 Descend abruptly 100 ft.and leave hill brs.N.15°E.and S. 15°W.Leave timber brs.NE.and S.15°W.

25.00 Over sandy bottom of hollow, drs.SW.

40.00 Set a sandstone 36 x 12 x 6 ins., 27 ins.in ground for re-established ¼ sec.cor., marked ¼ on west face; dig pits 18 x 18 x 12 ins.N.and S.of stone 3 ft.dist.; and raise a mound of earth 3½ ft.base, 1½ ft.high 3 ft. west of cor.

45.00 Dry wash in bottom 5 ft.deep, 50 lks.wide, drs.southwesterly to form N.branch of Sand Cove Wash.Ascend gradually

80.00 The cor.of secs.19,24,25, and 30.

Land, mountainous to nearly level.

Soil,gravel and sand; 4th rate.

Timber, cedar and pinon pine.

Brush, black brush, sage, rabbit, mountain rush, deer, oose,scrub oak, and cacti.

Mountainous land or land covered with heavy brush on

West BOUNDARY OF T. 40 S., R. 17 W.

Survey commenced June 2, 1911, and executed with a Young and Sons light mountain transit No.8505 with horizontal verniers reading to single minutes of arc, and solar attachments with latitude and declination verniers reading to single minutes of arc.

At 4 h. p.m.l.m.t. I set off 37°17' N. on the lat. arc, 22°09' N. on the decl. arc, and determine a meridian with the solar at the Standard cor. to Tp. 40 S., Rs.17 and 18 W., which is an iron post, 3 ins. in diam. 12 ins. above ground, marked and witnessed as described by the Surveyor General, and mark a point thereof with a tack driven in a peg set 5 chains north of my station.

June 3, 1911: At 2 h. 49 m. a.m.l.m.t. by my watch, which is correct local mean time, I observe Polaris at eastern elongation and mark a point in the direction thus obtained by a tack driven in a stake set 5 chs. north of my station.

At 8 h. 45 m., a.m.l.m.t. I set off the azimuth of Polaris at 1° 27.6' to the west and mark a point in the true meridian thus obtained by a tack driven in a stake set 5 chs. north of my station. This mark falls 0.85 ins. east of the mark obtained yesterday p.m. by solar observation. The magnetic bearing of said true meridian is N. 16°29' W., which gives the mag. decl. 16°29' E.

At 9 h. a.m.l.m.t. I set off 37°17' N. on the lat. arc. 22°15' N. on the decl. arc; and determine a meridian with the solar and mark a point thereof with a tack driven in a peg set 5 chs. N. of my station. This mark falls 12 ins. east of the meridian established by Polaris observation. The solar by p.m. and a.m. observations defines points for meridian 45" west and 60" east of the meridian established by Polaris observation, therefore, I deem the adjustments of the transit satis-

WEST BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
	factory.
	North on a true line bet. secs.31 & 36, Rs.17 & 18 W.
	Through scattering cedar and heavy brush.
	Descend gradually.
12.00	Bottom of Dry Wash drains N. 25°E.
	Ascend abruptly.
16.50	Top of ridge, 40 ft. high, bears E. and N. 25° E.
	Descend.
24.30	Bottom of hollow, 60 ft. deep, drains NE.
	Ascend.
33.50	Top of ridge, bears NE. and SW.
	Descend gradually.
38.00	Dry Wash drains E. and NE.
	Ascend 50 ft.
40.00	Set a sandstone 16x10x6 ins., 10 ins. in ground, for $\frac{1}{4}$ sec.cor. to secs. 31 and 36, marked $\frac{1}{4}$ on west face. No trees convenient to mark, raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
48.00	Top of ridge, bears NE. and SW.
	Descend 75 ft.
63.00	Bottom of hollow, drains SE.
	Dry Wash, 8 ft. deep, 100 lks. wide, in bottom.
	Ascend gradually.
76.50	Leave scattering cedar.
80.00	Foot of ridge.
	Set a sandstone, 18x8x6 ins., 12 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked with one notch on S. and 5 notches on N. edges; from which
	A cedar 10 ins. diam. bears N. 41°45'W., 38 lks. dist., marked T 40 S R 18 W S 25 B T.
	A cedar 8 ins. diam. bears S. 21°30'W. 58 lks. dist., marked T 40 S R 18 W S 36 B T.
	A pinon, 12 ins. diam. bears S. 48° E. 189 lks. dist., marked T 40 S R 17 W S 31 B T.
	No other trees within limits.

WEST BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
	Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous.
	Soil, gravel, rock and sand, 4th rate.
	Timber, scattering cedar.
	Brush: black-brush, sage, rabbit, deer, cacti, and oose.
	Mountainous land or land covered with dense brush on 80.00 chs.
	North on a true line bet. secs. 25 and 30.
	Ascend through brush.
12.00	Top of hill, 100 ft. high, bears N. 80°W. and S. 80°E.
	Over level hilltop. Very scattering cedar.
28.00	Descend abruptly 100 ft.
37.00	Bottom of Magonice Wash.
	Dry Wash 75 lks. wide, 6 ft. deep, in bottom, drains S.80° E. Ascend gradually.
40.00	Set a limestone, 20x8x6 ins., 15 ins. in the ground, for ¼ sec.cor., marked ¼ on west face; raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
41.00	Wood road from Gunlock, bears N. 80°W. and S.80°E.
44.30	Ascend abruptly.
56.00	Top of ridge, bears SE. and NW., 75 ft. high.
	Descend abruptly.
58.75	Bottom of gully, drains N. 80° E.
	Ascend abruptly 50 ft.
63.00	Top of ridge, bears E. and W. Descend.
65.00	Small dry wash, drains NE. 2 ft. deep, 25 lks. wide.
	Ascend.
70.00	Top of ridge, bears NE. and SW. Descend 80 ft.
80.00	Set a granite stone 18x10x8 ins. 12 ins. in the ground for cor. of secs. 19, 24, 25 & 30, marked with 2

CHAINS	
	notches on S. and four notches on N. edges; from which
	A cedar 14 ins. diam. bears N. 13°W. 156 lks. dist., marked T 40 S R 18 W S 24 B T.
	A cedar 10 ins. diam. bears S. 37°W. 30 lks. dist., marked T 40 S R 18 W S 25 B T.
	A cedar 10 ins. diam. bears S. 39°E. 204 lks. dist., marked T 40 S R 17 W S 30 B T.
	No other trees within limits.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor., 3 ft. dist.
	Land, mountainous.
	Soil: gravel, rock and sand, 4th and 2d rates.
	Timber: very scattering cedar, and few pinon pine.
	Brush: black-brush, sage, cacti, rabbit, deer and oose.
	Mountainous land or land covered with brush on 80.00. chs.
	June 3: At this point at 11 h. 58 m., a.m.l.m.t. I set off 22°15' N. on the decl. arc, and observe the sun on the meridian. The resulting lat. is 37°19' which is the correct lat. very nearly.
	North on a true line bet. secs. 19 and 24.
	Over mountainous land through brush and scattering cedar.
13.00	Wood road from Gunlock bears SE. and NW.
14.00	Dry Wash, 4 ft. deep, 10 lks. wide, in bottom of Lime Kiln Wash drains SE. Ascend.
21.00	Gully, 15 ft. deep, 150 lks. wide, drains S. 5° E.
26.00	Bottom of gully, drains S. 75°W. then S.
27.00	Leave gully, Ascend gradually.
35.00	Along sidehill.
40.00	Set a sandstone, 18x10x10 ins., 12 ins. in the ground, for ¼ sec.cor., marked ¼ on W. face; from which
	A pinon, 10 ins. diam. bears S. 37°E. 127 lks.

WEST BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
	dist., marked $\frac{1}{4}$ S 19 B.T.
	A cedar, 12 ins. diam., bears S. 17° W., 128 lks. dist., marked $\frac{1}{4}$ S 24.B T.
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
48.15	Bottom of hollow, 50 ft. deep, drains S. 10° E., and southeasterly. Ascend 300 ft.
80.00	Set a sandstone, 16x8x6 ins., 11 ins. in the ground, marked with 3 notches on south and 3 notches on north edges for cor. to secs. 13, 18, 19 and 24; from which
	A cedar 12 ins. diam. bears S. 30° E. 196 lks. dist., marked T 40 S R 17 W S 19 B T.
	A cedar 12 ins. diam. bears N. 86° W. 263 lks. dist., marked T 40 S R 18 W S 13 B T.
	A cedar, 18 ins. diam. bears S. 32°W. 209 lks. dist., marked T 40 S R 18 W S 24 B T.
	No other trees within limits.
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
	Land, rough and mountainous.
	Soil, gravel, rock and sand, 4th and 2d rates.
	Timber, scattering cedar and pinon pine.
	Mountainous land or land covered with dense brush on 80.00 chs.
	June 3: At 4 h. p.m.l.m.t. I set off 22°17' N. on the declination arc, 37°20' N. on the lat. arc; and determine a meridian with the solar. Thence I run North on a true line bet. secs. 13 and 18.
	Over mountainous land through cedar and brush.
2.47	Top of hill, bears SE. and NW., 300 ft. high. Descend.
19.50	Bottom of branch of Miner's Canyon, drains S. 80° E. Ascend.
26.00	Ascend abruptly.

WEST BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
35.00	Top of hill, 300 ft. high, bears W. and E. for 5 chs. then S.
40.00	On a ledge of granite.
	Set a granite stone, 18x6 x6 ins., 12 ins. in the ground for ¼ sec.cor., marked ¼ on W. face; from which
	A cedar, 6 ins. diam. bears S. 52°W., 78 lks. dist., marked ¼ S 13 B T.
	A cedar 6 ins. diam. bears S. 32° E. 49 lks. dist., marked ¼ S 18 B T.
42.50	Along west side of small hollow, 25 ft. deep, drains SE.
	Ascend.
59.35	Top of hill, 300 ft. above canyon, bears SE. and NW.
	Descend abruptly along west side of Miner's Canyon.
77.00	Bottom small side canyon, drains SE. Ascend 50 ft.
79.75	Top of small ridge, bears NW. and SE.
80.00	Set a sandstone, 20x6x6 ins., 15 ins. in the ground for cor. of secs. 7, 12, 13 and 18, marked with 4 notches on south and 2 notches on north edges; from which
	A cedar, 14 ins. diam. bears S. 58° W. 71 lks. dist., marked T 40 S R 18 W S 13 B T.
	A pinon, 10 ins. diam. bears N. 75° E., 12 lks. dist., marked T 40 S R 17 W S 7 B T. No other trees within limits.
	Raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Land, rough and mountainous.
	Soil, gravel and rock, 3d rate.
	Timber, medium heavy to scattering cedar and pinon pine,
	Brush: black-brush, sage, deer, bitter-bush, cacti and oose.
	Mountainous land or land covered with timber or brush on 80.00 chs.

June 3, 1911.

June 5, 1911: At this point at 8 h. a.m.l.m.t. I set

WEST BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
	off 22°29' N. on the decl. arc, 37°31' N. on the lat. arc; and determine a meridian with the solar. North on a true line bet. secs. 7 and 12.
	Over mountainous land, through dense brush and scattering cedar and pinon pine.
3.38	Top of small ridge, 20 ft. high, bears SE. and NW.
	Descend.
15.25	Bottom of canyon, drains S. Ascend on E. side.
20.00	Top of point of ridge, bears E. and W. Descend 25 ft.
23.50	Bottom of canyon, drains S. 3° W. Ascend 100 ft.
40.00	On rocky point.
	Set a granite stone, 16x10x6 ins., 11 in.s. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on west face; from which
	A cedar, 10 ins. diam. bears S. 3° W. 93 lks. dist., marked $\frac{1}{4}$ S 12 B T.
	A cedar, 6 ins. diam., bears S. 21°E. 137 lks. dist., marked $\frac{1}{4}$ S 7 B T.
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high. W. of cor.
41.00	Top of ridge, bears E. and W.
	Descend 30 ft. along W. side of ridge.
45.00	Bottom of small gully, drains SW. Ascend.
63.00	Top of main ridge, bears E. and W. Descend 200 ft.
74.50	Bottom of canyon, drains S. 10° E.
	Ascend abruptly.
80.00	Set a granite stone, 16x10x8 ins., 11 in.s in the ground, for cor. to secs. 1, 6, 7 and 12, marked with 5 notches on south and 1 notch on north edges; from which
	A cedar 6 ins. diam. bears N. 20°W. 70 lks. dist., marked T 40 S R 18 W S 1 B T.
	A cedar 11 ins. diam., bears S. 41°E. 148 lks. dist., marked T 40 S R 17 W S 7 B T.

WEST BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
	A cedar 5 ins. diam. bears S. 49°W. 64 lks. dist., marked T 40 S R 18 W S 12 B T.
	No other trees convenient to mark;; raise a mound of stone, 2 ft. base, 1½ ft. high. W. of cor., 3 ft. dist.,
	Land, rough and mountainous.
	Soil: granite, gravel, 4th rate.
	Timber, scattering cedar and pinon pine.
	Brush: black-brush, deer, sage, bitter-bush, cacti, and oose.
	Mountainous land and land covered with dense brush on 80.00 chs.
	June 5: At 11 h. 58 m., a.m.l.m.t. I set off 22°30' N. on the decl. arc, and observe the sun on the meridian. The resulting lat. is 37°22' which is the correct lat. very nearly.
	North on a true line bet. secs. 1 and 6.
	Over mountainous land through scattering timber and brush.
	Ascending.
24.00	Top of hill, 300 ft. above bottom of canyon, bears NW. and SE., descending abruptly into hollow.
33.00	Bottom of hollow, drains SE. Ascend 150 ft.
40.00	Top of ridge, bears NW. and SE.
	Set a granite stone 18x6x6 ins., 12 ins. in the ground for ¼ sec.cor., marked ¼ on W. face; from which
	A cedar 4 ins. diam. bears S. 50° E. 45 lks. dist., marked ¼ S 6 B T.
	A cedar 5 ins. diam. bears S. 44° W. 50 lks. dist., marked ¼ S 1 B T.
	I raise a mound of stone 2 ft. base, 1½ ft. high, 3 ft. W. of cor.
54.00	Bottom of hollow, drains E. Ascend 100 ft.
59.00	Top of ridge, bears E. and W. Descend.

WEST BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
60.00	Dry Wash, 5 ft. deep, 25 lks. wide, drains E.
	Ascend.
69.00	Ascend abruptly 100 ft.
77.50	Top of ridge, bears easterly and westerly.
	Descend.
79.00	Bottom of small hollow, drains SE.
	Ascend abruptly.
80.00	On abrupt slope.
	Set temp. cor. of Tps. 39 and 40 S., Rs.17 and 18 W.
	June 5, 1911.
	June 7, 1911:
	At 8 h. a.m.l.m.t. I set off 22° 42' N. on the decl. arc, 37° 22½' N. on the lat. arc, and determine a meridian with the solar.
	From the temp. cor., which I destroy, I run Nbrth on a true line with continuous measurement.
87.25	Top of ridge, 200 ft. high, bears SE. and N.Westerly.
	Descend 55 ft.
88.15	The corner of Tps. 39 and 40 S., Rs. 17 and 18 W., set by me in the survey of the North bdy. of this Tp.and described in the notes of that line.
	Land, mountainous.
	Soil, gravel, 3d and 4th rates.
	Timber, scattering cedar and pinon pine.
	Brush, black-brush, sage, deer, mountain-rush, scrub oak, rabbit, grapevine, oose and cacti.
	Mountainous land or land covered with dense brush on 88.15 chs.
	June 7, 1911.

For General Description see notes of the subdivision of this township.

NORTH BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
	June 6, 1911:
	I begin at the ¼ sec.cor. bet. secs. 2 and 35, the cor. of secs. 2, 3, 34 and 35 not being found, this ¼ sec. cor. being delapidated, I re-establish it as follows:
	Set a black volcanic rock, 18x10x5 ins., 12 ins. in the ground, marked ¼ on north face, there being a mound of stone, 2 ft. base, 1½ ft. high, N. of cor., 3 ft. dist.
	At the above described ¼ sec.cor. at 8 h. a.m.l.m.t. I set off 22° 36' N. on the decl. arc, 37° 22½' N. on the lat. arc; and determine a meridian with the solar, thence I run
	West on a resurvey line bet. secs. 2 and 35.
30.10	Ravine drains S. Descend through dense brush.
40.00	No trace of the old established cor. for secs. 2, 3, 34 and 35, being found, I re-establish the same as follows:
	Set a granite stone 18x3x6 ins., 12 ins. in the ground, for cor. of secs. 2, 3, 34 and 35, marked with 2 notches on east and 4 notches on west edges; from which
	A cedar, 10 ins. diam. bears N. 35°W. 40 lks. dist., marked T 39 S R 17 W S 34 B T.
	A cedar, 10 ins. diam. bears N. 35° E. 50 lks. dist., marked T 39 S R 17 W S 35 B T.
	A cedar, 11 ins. diam. bears S. 70°E. 20 lks.dist. marked T 40 S R 17 W S 2 B T.
	A cedar, 8 ins. diam. bears S. 60°W. 80 lks. dist. marked T 40 S R 17 W S 3 B T.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, broken.
	Soil, 2d rate, gravel.
	Timber, scattering cedar.
	Brush: black-brush, sage, deer, cacti, and ooze.

SURVEY OF THE NORTH BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
	Mountainous land or land covered with dense brush on 40.00 chs.
	From the cor. above described, I run
	West on a random line along N. Bdy. of T. 40 S., R. 17 W.
	setting temp. ¼ and sec. cors. at intervals of 40 chs. and at
322.28	Intersect the W. bdy. of Tp. 8 15 chs. N. of the temp. cor. of Tps. 39 and 40 S., Rs. 17 & 18 W.
	At this point of intersection I establish the true cor. of Tps. 39 and 40 S., Rs. 17 and 18 W., as follows:
	Set a flint stone, 22x8x6 ins., 14 ins. in the ground for cor. of Tps. 39 and 40 S., Rs. 17 and 18, W., marked with 6 notches on north, south, east and west edges; from which
	A pinon, 12 ins. diam., bears S. 77°E. 352 lks. dist., marked T 40 S R 17 W S 6 B T.
	A pinon, 6 ins. diam. bears N. 88° E. 145 lks. dist., marked T 39 S R 17 W S 31 B T.
	No other trees in vicinity; raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor., 3 ft. dist.
	June 6, 1911.
	June 7, 1911:
	East on a true line bet. secs. 6 and 31.
	Descend abruptly through heavy brush, 50 ft.
4.50	Bottom of gully, drains SE. Ascend abruptly 75 ft.
10.60	Top of ridge, bears NW. and SE.
	Descend abruptly 100 ft.
20.00	Foot of ridge, descend gradually, enter heavy timber, cedar and pinon pine, bears N. and S.
30.00	In small hollow at junction of two hollows, one drains from SW. and other from NW.
	Ascend along S. side of hollow.
42.28	On ridge, bears NE. and SW.

SURVEY OF THE NORTH BOUNDARY OF T. 40 S., R.17 W.

CHAINS	
	Set a granite stone 16x6x6 ins., 11 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; from which
	A cedar, 10 ins. diam. bears N. 57 lks.dist., marked $\frac{1}{4}$ S 31 B T.
	A pinon, 5 ins. diam. bears S. 10° E. 79 lks. dist., marked $\frac{1}{4}$ S 6 B T.
62.00	Ridge, bears SE. Descend 55 ft.
68.50	Bottom of hollow, drains SE. Ascend abruptly 60 ft.
74.00	Along top of ridge, bears SE. and NW.
78.00	Descend abruptly 75 ft.
81.70	Bottom of Grape Vine Wash, small seep of water, drains SE Ascend abruptly.
82.28	On steep slope of Grape Vine Wash.
	Set a granite stone 16x8x6 ins., 11 ins in the ground, for cor. of secs. 5, 6, 31 and 32, marked with 5 notches on east and 1 notch on west edges; from which
	A pinon, 10 ins. diam. bears N. 25°W. 62 lks. dist., marked T 39 S R 17 W S 31 B T.
	A pinon. 11 ins. diam. bears N. 35° E. 137 lks. dist., marked T 39 S R 17 W S 32 B T.
	No other trees available; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor., 3 ft. dist.
	Land, mountainous.
	Soil, granite, gravel, 2d and 3d rates.
	Timber, cedar and pinon-pine.
	Brush: Black-brush, sage, deer, scrub-oak, bitter-bush and grape vine.
	Mountainous land and land covered with heavy timber or dense brush on 82.28 chs.

East on a true line bet. secs. 5 and 32.

Over mountainous land, through medium heavy timber and heavy brush. Ascend 30 ft.

2.75 Leave Grape Vine Wash. Ascending gradually.

SURVEY OF THE N.BDY. OF T. 40 S., R. 17 W.

CHAINS	
4.50	Top of small ridge bears SE. and NW. Descend 75 ft.
11.00	Bottom of hollow, drains SE.. Ascend 75 ft.
13.00	Top of ridge bears SE. and NW. Descend.
14.80	Wood road from Gunlock bears SE. and NW.
16.00	Bottom of hollow, drains SE. Ascend gradually 50 ft.
21.00	Top of ridge bears SE. and NW. Descend gradually 75 ft.
27.00	Bottom of hollow drains SE. Ascend gradually 75 ft.
38.50	Top of point of ridge, bears SE. and NW.
	Descend gradually.
40.00	Set a granite stone 18x8x6 ins., 12 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; from which
	A cedar, 8 ins. diam., bears N. 25°W. 110 lks. dist., marked $\frac{1}{4}$ S 32 B T.
	A cedar, 11 ins. diam., bears S. 35°E. 150 lks. dist., marked $\frac{1}{4}$ S 5 B T.
48.50	Bottom of hollow, drains SE.
	Wood road from Gunlock bears SE. and NW.
	Ascend gradually 50 ft.
	Leave timber bears SE. and NW.
57.50	Top of S. point of ridge, bears SE. and NW.
68.20	Descend abruptly 35 ft. into Toban Wash, drains southerly.
70.00	Bottom of wash. Ascend abruptly.
74.00	Leave Toban Wash, NW. end of Cactus Flat.
	Ascend gradually.
80.00	Set a granite stone 16x8x8 ins., 12 ins. in the ground for cor. of secs. 4, 5, 32 and 33, marked with 4 notches on east and 2 notches on west edges; from which
	A cedar 14 ins. diam. bears N. 36°E. 161 lks. dist., marked T 39 S R 17 W S 33 B T.
	A cedar, 16 ins. diam. bears S. 84° E. 133 lks. dist., marked T 40 S R 17 W S 4 B T.
	A cedar, 18 ins. diam. bears N. 59°W. 183 lks.

NORTH BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
	dist., marked T 39 S R 17 W S 32 B T.
	A cedar, 10 ins. diam. bears S. 45°30' W. 238 lks. dist., marked T 40 S R 17 W S 5 B T.
	Land, rough and hilly.
	Soil, granite, gravel and gravel loam, 4th and 2d rates.
	Timber, cedar and pinon pine.
	Brush, black-brush, sage, scrub oak, deer, bitter bush and cacti.
	Mountainous land or land covered with timber or brush on 80.00 chs.
	June 7: At this point I set off 22° 43' N. on the decl. arc and at 11 h 58 m a.m.l.m.t. observe the sun on the meridian. The resulting lat. is 37° 22½' N., which is the correct lat.
	East on a true line bet. secs. 4 and 33.
	Ascend 80 ft. through scattering cedar and pinon pine, and heavy black brush and cacti.
12.00	Top of ridge, bears SE. and NW. over Toban Bench.
16.00	Descend abruptly 40 ft.
19.50	Bottom of hollow.
23.50	Over level ground. Very scattering cedar.
40.00	Set a black basalt rock, 16x8x6 ins., 11 ins. in the ground for ¼ sec.cor., marked ¼ on N. face; from which
	A cedar 6 ins. diam. bears N. 41° W. 149 lks. dist., marked ¼ S 33 B T.
	A cedar, 10 ins. diam. bears S. 15°E. 120 lks. dist., marked ¼ S 4 B T.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor., 3 ft. dist.
57.50	Descend abruptly 50 ft.
65.75	Bottom of hollow, drains S.50° E.
	Ascend abruptly 50 ft.
73.00	Top of bench bears S. 60°E. and NW.

NORTH BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
	Brush low and scrubby but dense, Cedar very scattering.
80.00	On gentle eastern slope.
	Set a granite stone 18x8x6 ins., 12 ins. in the ground for cor. of secs. 3, 4, 33 and 34, marked with 3 notches on east and 3 notches on west edges; from which
	A cedar, 10 ins. diam. bears S. 80° W. 200 lks. dist., marked T 40 S R 17 W S 4 B T.
	A cedar, 11 ins. diam. bears N. 72°W. 222 lks. dist., marked T 39 S R 17 W S 33 B T.
	A cedar, 9 ins. diam. bears S. 36° E. 200 lks. dist., marked T 40 S R 17 W S 3 B T.
	Raise a mound of stone 2 ft. base, 1½ ft. high. W. of cor., 3 ft. dist.
	Land, hilly to level.
	Soil, gravel and gravel loam, 3d and 2d rates.
	Timber, very scattering cedar.
	Brush, black brush, sage, cacti, rabbit, and bitter bush.
	Land, mountainous or covered with brush on 80.00 chs.

June 7: At the cor. of secs. 3, 4, 33 and 34 at 2 h. p.m.l.m.t. I set off 22°43' N. on the decl. arc. 37°22½' N. on the lat. arc; and determine a true meridian with the solar.

Thence I run

East on a true line bet. secs. 3 and 34.

Through brush and scattering cedar.

Descend very gradually.

10.00	Bottom of hollow, drains SE. Ascend 50 ft.
13.00	Top of ridge, bears SE. and NW. Descend 100 ft.
18.80	Bottom of Cottonwood Wash drains SE. Ascend 50 ft.
28.20	Top of ridge, bears N. and S.; turns E. 5 chs. south. Desdend 50 ft.

NORTH BOUNDARY OF T. 40 S., R. 17 W.

CHAINS	
34.00	Small valley, bears SE. and NW. Medium heavy cedar.
40.00	Set a granite stone 20x8x8 ins., 15 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; from which A cedar 11 ins. diam. bears S. 84°W. 26 lks. dist., marked $\frac{1}{4}$ S 3 B T. A cedar 18 ins. diam. bears N. 45°E. 87 lks. dist., marked $\frac{1}{4}$ S 34 B T Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, 3 ft. N. of cor.
47.50	Leave valley and ascend 50 ft.
51.00	To N. point of ridge, bears NW. and SE. Descend along broken N. slope of hill.
68.00	Small gully, 15 ft. deep, drains N. Descend.
69.25	Bottom of gully. Ascend.
70.00	Leave gully, and descend gradually.
80.00	The cor. of secs. 2, 3, 34 and 35, previously deseribed. Land, hilly. Soil, gravel and sandy loam, 2d and 3d rates. Timber, cedar and pinon pine. Brush, black brush, sage, deer, bitter bush, cacti and scrub oak. Mountainous land or land covered with brush on 80.00 chs.

June 7, 1911.

RETRACEMENT NORTH BDY. OF T. 40 S., R. 17 W.

Thence I go to the $\frac{1}{4}$ sec.cor. bet. secs. 2 and 35 on the N. bdy. of the Tp. restored by me and previously described.

June 8: At 8 h. a.m.l.m.t. I set off 24°48' N. on the decl. arc, 37°22½' N. on the lat. arc; and determine a meridian with the solar. Thence

Easton a retracement line bet. secs. 2 and 35.

40.00	Point falls on old bed of creek. No signs of old sec.cor.

Thence East in continuous measurement bet. secs. 1 & 36.

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RETRACEMENT NORTH BDY.OF T.40 S.,R.17 W.

CHAINS.

79.44 The 1/4 sec.cor.bet.secs.1 and 36 falls south 65 lks. It is a black basalt rock 5 x 12 x 14 ins.above ground, marked and witnessed as described by the surveyor general.

119.40 The cor.to Tps.39 and 40 S., Rs.16 and 17 W., falls south 98 lks. It is a trachyte stone 8 x 15 x 24 ins. marked and witnessed as described by the Surveyor General. This gives the bearing of this mile and a half as S.89° 32'E., and the distance 119.40 chs.

RETRACEMENT EIGHTH STANDARD PARALLEL SOUTH.

There being an apparent difference of 1.68 chs. in the length of this line over the Eighth Standard Parallel South as surveyed by Messrs.Chamberlin and Winwood, I go to the standard cor.of Tps.40 S.and 41 S., Rs.17 and 18 W.

June 8: At 3 h.p.m.l.m.t., I set off 22° 49'N on the decl.arc; 37°17'N.on the lat.arc; and determine a meridian with the solar. Thence I run

East on the S.bdy.of sec.31, and at

40.17 The standard 1/4 sec.cor.falls south 5 lks.

80.43 The standard cor.to secs.31 and 32 falls south 9 lks.

Thence east on S.bdy.of sec.32,

46.15 The standard 1/4 Sec.cor.falls south 5 lks.

80.42 The standard cor.of secs.32 and 33 falls S.10 lks.

Thence east on S.bdy.of sec.33,

40.14 The standard 1/4 cor.falls south 3 lks.

80.45 The standard cor.to secs.33 and 34 falls S.7 lks.

This accounts for 1.30 chs.

June 8, 1911.

For general description see notes of the subdivision of this township.

BOUNDARIES OF TP. 40 S., R. 17 W.

LATITUDES, DEPARTURES AND CLOSING ERRORS.

Line Designated	True Bearing	Dist.	Latitudes		Departures	
			N.	S.	E.	W.
		chs.	chs.	chs.	chs.	chs
8th Stand.Par.S.	West	240.00				240.0
Retr.8th.Stand.Par.S.	West	241.30				241.3
W.Bdy.Tp.40 S.,R.17 W.	North	488.15	488.15			
N.Bdy.Tp.40 S.R.17 W.	East	362.38			362.38	
Ret.N.Bdy.Tp.40 S.R.17W	S.89°32'E.	119.40		.98	119.40	
E.Bdy.Tp.40 S.,R.17 W.						
1st ½ Mile	S.0°10'E.	40.42		40.42	.12	
2nd " "	S.2°05'E.	40.03		40.00	1.46	
3d " "	S.0°12'E.	40.28		40.28	.14	
4th " "	S.0°03'E.	39.85		39.85	.03	
5th " "	S.1°05'W.	39.75		39.74		0.7
6th " "	S.1°26'W.	40.02		40.00		1.0
7th " "	South	39.85		39.85		
8th " "	South	39.93		39.93		
5th Mile	South	80.00		80.00		
6th "	South	86.95		86.95		
Convergency					00.55	
Totals			488.15 488.00	488.00	483.98 483.05	483.0
Error in lat. and dep.			.15		.93	

John H. Clark

U. S. Deputy Surveyor.

There being no Notary Public, or other Public officer authorized to administer oaths, within a reasonable distance and as great delay and expense would be entailed in going before one, I administered the preliminary and final oaths to assistants in the survey of the West and North Boundaries of Township 40 S. R. 17 W.

John W. Clark

U. S. Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by John H. Clark, 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~~ Retracement and Resurvey of the East Boundary of Tps. 4 & 5 S. R. 17 W. S.L.B.M. showing the respective capacities in which they acted:

S. R. Pratt, *Chainman.*
O. R. Norton, *Chainman.*
Aza Smith, *Moundman.*
[illegible], *Moundman.*
John H. Bowler, *Axman.*
[illegible], *Axman.*
G. A. Semmon, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John H. Clark, United States Deputy Surveyor, in surveying all those parts or portions of the Retracement and Resurvey of the East Boundary of Townships 4 & 5 South Range 17 West of the Salt Lake Basel meridian, State of Utah, 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 Utah.

S. R. Pratt, *Chainman.*
O. R. Norton, *Chainman.*
Aza Smith, *Moundman.*
[illegible], *Moundman.*
John H. Bowler, *Axman.*
[illegible], *Axman.*
G. A. Semmon, *Flagman.*

Subscribed and sworn to before me this 28th day of February, 1906.
My Commission Expires Feby 12 1910

SEAL

W. Taggart
Notary Public

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, John H. Clark, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward Anderson, United States Surveyor General for Utah, bearing date of the 1st day of May, 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 Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Retracement and Resurvey of the East Boundary of Township Forty South Range Seventeen West of the Salt Lake Base and Meridian, in the State of Utah, 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 Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such retracement 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 H. Clark
United States Deputy Surveyor.

Subscribed by said John H. Clark, and sworn to before me this 28 day of February, 1906

SEAL

Hans P. Gram
Clerk of 6th Judicial
District Court.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 9, 1906.

The foregoing field notes of the retracement survey & resurvey of the East Boundary of Township 40 South Range 17 West of the Salt Lake Base and Meridian, Utah

executed by John H. Clark under his contract No. 288, dated May 4th, 1905, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the plats and surveys they describe, are hereby approved.

Thomas Cull
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.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by John H. Clark, 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 West and North Boundaries of Township 4 South Range 17 West Salt Lake Base and Meridian showing the respective capacities in which they acted:

John H. Bowler, *Chainman.*
Francis J. Bowler, *Chainman.*
Francis N. Leavitt, *Moundman.*
Milton P. Bowler, *Moundman.*
Henry Hunt, *Axman.*
, *Axman.*
John R. Hunt, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John H. Clark, United States Deputy Surveyor, in surveying all those parts or portions of the West and North Boundaries of Township 4 South of Range 17 West of the Salt Lake base and meridian, State of Utah, which are represented on 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 Utah

John H. Bowler, *Chainman.*
Francis J. Bowler, *Chainman.*
Milton P Bowler, *Moundman.*
Francis N Leavitt, *Moundman.*
Henry Hunt, *Axman.*
, *Axman.*
John R. Hunt, *Flagman.*

Subscribed and sworn to before me this 21 day of June, 1901.

SEAL

John H. Clark
U. S. Deputy Surveyor

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, John H Clark United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H Anderson United States Surveyor General for Utah, bearing date of the 4 day of May, 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 Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of West and North Boundaries of Township 40 South Range 17 West of the Salt Lake base and meridian, in the State of Utah, 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 Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

John H Clark
United States Deputy Surveyor.

Subscribed by said John H. Clark, and sworn to before me this 17 day of Sept, 1911

Fuller S Broadbent
Clerk of Court

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 4, 1912 190

The foregoing field notes of the ~~survey of~~ retracement and resurvey of fractional North and survey of West and fractional North Boundaries of Township No. 40 South, Range No. 17 West of the Salt Lake Base and Meridian, Utah,

executed by John H. Clark under his contract No. 288, dated May 4, 1905 having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Thomas Hill
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.

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Filed October 24-1911.

4—679.

BOOK A-370

6.

FIELD NOTES

OF THE SURVEY OF THE

Subdivisions of Township
40 South, Range 17 W

Of the Salt Lake Base and Meridian,
Utah

AS SURVEYED BY

John S. Clark, United States Deputy Surveyor,

Under his Contract No. 288, dated May 4, 1905

Survey commenced December 16, 1905

Survey completed June 20, 1906

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BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

John H. Bowler	Chainman
Francis J. Bowler	Chainman
Francis H. Leavitt	Rodsman
Milton D. Bowler	Rodsman
Henry Hunt	Axeman
Chas R. Hunt	Flagman

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BOOK A-370

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Meanders Page.....

BOOK A-370

PRELIMINARY OATHS OF ASSISTANTS.

WE, John H. Bowler and Francis J. Bowler do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon 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 subdivisions of Tp. 4 S. R. 1 W. Salt Lake Base & Meridian.

John H. Bowler, Chainman.
Francis J. Bowler, Chainman.

Subscribed and sworn to before me this 1 day of June, 1901.

SEAL

John H. Clark
U. S. Deputy Surveyor

WE, F. W. Leavitt and Milton D. Bowler do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of subdivisions of Tp. 4 S. R. 1 W. Salt Lake Base and Meridian.

F. W. Leavitt, Moundman.
Milton D. Bowler, Moundman.

Subscribed and sworn to before me this 1 day of June, 1901.

SEAL

John H. Clark
U. S. Deputy Surveyor

WE, Henry Hunt 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 the subdivisions of Tp. 4 S. R. 1 W. Salt Lake Base & Meridian.

Henry Hunt, Axman.
....., Axman.

Subscribed and sworn to before me this 1 day of June, 1901.

SEAL

John H. Clark
U. S. Deputy Surveyor

I, John R. Hunt, 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 subdivisions of Tp. 4 S. R. 1 W. Salt Lake Base & Meridian.

John R. Hunt, Flagman.

Subscribed and sworn to before me this 1 day of June, 1901.

SEAL

John H. Clark
U. S. Deputy Surveyor

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SURVEY OF SUBDIVISION OF TOWNSHIP 40 S., R. 17 W.

Survey commenced December 16, 1905, and executed with the instrument described in Book "A" of this survey.

I examine the transit and finding the level and collimation perfect, to test the solar apparatus by testing its indications resulting from solar observations made during a.m. and p.m. hours, with a true meridian determined by observations on Polaris, I proceed as follows:

At the established standard cor. of secs. 35 and 36, a sandstone set by me is the survey of the Eighth Standard Parallel South, which was afterwards re-established in the same place in 1909, by Deputies Winwood and Chamberlin, Cont.No.314, and described in their notes of the Eighth Standard Parallel South, at 2 h. 55½M., p.m. l.m.t., I set off 37°17' N. on the lat. arc, 23°17' S. on the decl. arc; and mark the meridian thus determined with the solar, by a nail driven in a peg firmly set 5.00 chs. north of my station.

December 16, 1905.

December 17, 1905: At 1 h. 41m., a.m.l.m.t., I observe Polaris at western elongation in accordance with instructions in the Manual, and mark the line thus determined by a nail driven in a stake firmly set 5.00 chs. north of the instrument, Long. 113°39'25" W., Lat. 37°17'18" N.

At 2 h. a.m.l.m.t. I lay off the azimuth of Polaris 1°30.5' to the east, and mark the meridian thus determined by driving a nail in the peg set yesterday p.m. on which the meridian falls 0.2 ins. west of the mark determined by the solar.

At 9 h. a.m.l.m.t. I set off 37°17' N. on the lat. arc; 23°19' S. on the decl. arc; and mark the meridian determined with the solar by a nail driven in the stake already set 5.00 chs. north of my station, on which the mark falls 0.4 ins. west of the mark determined by Po-

laris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridian 11" east, and 21" west of the meridian established by Polaris observations, therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the meridian at 9 h. a.m. is N. 16°W., the angle thus determined gives the mag.decl. 16° E.

From this corner I run

N. 0° 01' W. on a random line bet. secs. 35 & 36.

40.00 Set temp. ¼ sec.cor.

87.43 Intersect the east and west line at the cor. of secs. 25, 26, 35 and 36, a trachyte stone 4x10x6 ins. above ground, marked and witnessed as described by the Surveyor General; from which I return

S. 0°01' E. on a true line bet. secs. 35 & 36.

Ascend gradually up hollow through heavy brush and scattering cedar and pinon pine.

10.00 Ascend abruptly along east side of hollow.

Enter heavy cedar and pinon timber, bears NE. and SW.

14.50 Top of ridge, bears E. and W.

Descend 50 ft.

23.50 Ascend abruptly.

33.00 Top of point 200 ft. high, bears E. and W. along rough west slope and main hill.

38.50 Ascend abruptly over ledge, 20 ft. high.

40.00 Top of ledge, bears east and westerly.

Set a sandstone 18x8x6 ins., 12 ins. in ground for ¼ sec.cor., marked ¼ on W. face, from which

A pinon pine 8 ins. diam., bears N. 85° E. 5 lks. dist., marked ¼ S 36 B T.

No other trees convenient to mark, raise a mound of stone 2 ft. base, 1½ ft. high. W. of cor., 3 ft. dist.,

42.50 Top of ridge, bears S. 75°E. and W.

SURVEY OF SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
	Descend gradually.
51.00	Ascend very abruptly.
58.75	Top of ridge of hill, 300 ft. high, bears E. and W., turning to the NE. 3 chs. E. Descend abruptly 30 ft.
70.00	Bottom of hollow, drains E.
	Ascend abruptly 25 ft.
78.75	Top of ridge, bears E. and W. Descend abruptly 150 ft.
85.50	Bottom of gully drains westerly. Ascend 30 ft.
87.43	The cor. of secs. 35 and 36.
	Land, rough and mountainous.
	Soil, sand, gravel and rock, 2nd rate and worthless.
	Timber, cedar and pinon pine.
	Brush, sage, blackbrush, rabbit, deer, scrub oak, bitter bush and some oose.
	Mountainous land and land covered with heavy timber on 77.43 chs., with dense brush on 87.43 chs.

December 17: At 11 h. 56 m., a.m.l.m.t., I set off 37° 19' N. on the lat. arc; 23°20'S. on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 22, 23, 26 and 27, a trachyte stone 4x9x6 ins. above ground, marked and witnessed as described by the Surveyor General, thence I run

S. 0° 01' E. on a random line bet. secs. 26 & 27.

40.00	Set temp. $\frac{1}{4}$ sec.cor.
70.00	Impossible to run further south on this line on account of impassable gulches and ledges.
	Set temp. witness cor.
	A line bet. secs. 26 and 35, being impossible in place, I go to the temp. $\frac{1}{4}$ sec.cor. set in running south and run east on a check line through the middle of sec. 26 and at
80.09	Intersect the N. and S. line at the $\frac{1}{4}$ sec.cor. bet. secs. 25 and 26, a trachyte stone 12x10x6 ins. above ground,

CHAINS

marked and witnessed as described by the Surveyor General. The line bet.secs. 26 and 35, thus being shown to be within the limits of alinement and length, I return to the temp. W.C. to cor. of secs. 26, 27, 34 and 35, which I establish as follows:

Set a sandstone, 18x8x8 ins., 12 ins. in the ground for witness cor. to cor. of secs. 26, 27, 34 and 35, marked W.C. on NE. face, and one notch on the south and two notches on the east edges; from which

A ledge, 12 ft. high, bears N. 80°W. 10 lks. dist., marked W C T 40 S R 17 W S 27 B O

Raise a mound of stone, 2 ft. base, 1½ ft. high, 3 ft. west of cor.

From the above described witness cor. I run N. 0° 01' W. on a true line bet. secs. 26 and 27.

Descend very abruptly 200 ft. along east face of rocky hill, through scattering cedar and dense brush.

17.50 Foot of hill, across Sand Cove Wash.

20.00 Dry Wash, 150 lks. wide, 12 ft. deep, drains W.

Ascend gradually. Sandy soil.

30.00 Set a sandstone 16x8x5 ins., 11 ins. in ground for ¼ sec.cor., marked ¼ on W. side, from which

A cedar, 8 ins. diam. bears N. 80° E. 35 lks. dist., marked ¼ S 26 B T.

No other trees convenient to mark; raise a mound of stone, 2 ft. base, 1½ ft. high, 3 ft. W. of cor.

40.00 Ascend 30 ft. over sandstone ledge.

43.50 Top of ledge bears E. and W. Descend 35 ft.

47.50 Dry Wash, 25 lks. wide, 4 ft. deep, drains W. then S. westerly.

Ascend abruptly 25 ft. over black basalt ledge.

49.00 Ascend gradually. No trees.

58.00 Small flat bears east and west.

63.00 Leave sandy flat and ascend about 70 ft. to volcanic bench.

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS

70.00 The cor.of secs. 22, 23, 26 and 27.

Land, mountainous to rolling, but broken.

Timber, scattering cedar and a few pinon pine.

Brush, black brush, sage, rabbit, deer and bitter ush, scrub oak, oose and cacti.

Mountainous land or land covered with heavy brush on 80.00 chs.

December 17, 1905.

Dec.18, 1905: On account of extremely rough country the line bet. secs. 34 and 35, cannot be run.

June 10, 1911: At 8 h. a.m.l.m.t. I set off 37°18½' N. on the lat. arc; 22°59' N. on the decl. arc; and determine a true meridian with the solar at the ¼ sec. cor. bet. secs. 27 and 28, which being delapidated, I reestablish as follows:

Set a sandstone 18x10x6 ins. 12 ins. in the ground for ¼ sec.cor. marked ¼ on W. side; raise a mound of stone 2 ft. base, 1½ ft. high, west of cor., 3 ft. dist., Pits impracticable.

From the above described ¼ sec.cor., I run S. 0° 01' E. on a random line bet. secs. 27 & 28.

40.00 Set temp. cor. of secs. 27, 28, 33 and 34.

The line bet. secs. 27 and 34 being impossible in place I run from the ¼ sec.cor. bet. secs. 27 and 28.east on a check line through middle of sec. 27 and at

79.88 Intersect the N. and S. line 12 lks. N. of the ¼ sec. Cor. bet. secs. 26 and 27. The line bet. secs. 27 and 34 thus being shown to be within the limits of length and alinement, I return to the temp. cor.of secs. 27, 28, 33 and 34, which I establish as follows:

SURVEY OF THE SUBDIVISION OF Tp. 40 S., R. 17 W.

CHAINS	
	Set a sandstone 24x8x6 ins. 18 ins. in ground for cor. of secs. 27, 28, 33 and 34, marked with one notch on south, and 3 notches on east edges; from which
	A pinon, 14 ins. diam., bears N. 14°30'W. 132 lks. dist., marked T 40 S R 17 W S 28 B T.
	A cedar, 12 ins. diam. bears S. 50°W. 106 lks. dist., marked T 40 S R 17 W S 33 B T.
	A pine, 11 ins. diam., bears S. 46°E. 74 lks. dist. marked T 40 S R 17 W S 34 B T.
	A cedar, 12 ins. diam. bears N. 41°E. 117 lks. dist. marked T 40 S R 17 W S 27 B T.
	Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
	From the above described cor., I run
	N. 0°01'W. on a trueline bet. secs. 27 & 28.
	Through brush and scattering cedar and pine.
	Descend gradually.
11.00	Bottom of Sand Cove Wash, drains W.
	Ascend abruptly 30 ft.
17.00	Top of volcanic ridge, bears E. and W. with ridge running N. Over rough volcanic rock.
29.00	Top of volcanic ridge, bears NE. and SW. Descend. abruptly into branch of Sand Cove Wash, 50 ft. deep.
33.80	Bottom of gulch, drains SW. Ascend abruptly.
40.00	The ¼ sec.cor. bet. secs. 27 and 28.
	Land, rough and broken.
	Soil, sand and lava.
	Timber, scattering cedar and pinon, pine.
	Brush, black-brush, sage rabbit, deer and bitter bush, oose and cacti.
	Mountainous land or land covered with dense brush on 40.00 chs. June 10, 1911.

The Red Bluffs over which the line bet. secs. 33 and 34 runs are unsurveyable so that the line cannot be run.

SURVEY OF THE SUBDIVISION OF TP. 40 S., R. 17 W.

CHAINS	
	June 11, 1911: At 7 h. a.m.l.m.t. I set off 23°04' N. on the decl. arc; 37°19' N. on the lat. arc; and determine a meridian with the solarat the old cor. secs. 20, 21, 28 and 29.
	Thence I retrace.
	South bet. secs. 28 and 29.
40.00	In old bed of Santa Clara Creek.
	Old ¼ sec.cor. cannot be located. Set temp. ¼ sec.cor.
	Thence S.0°02'E. with continuous measurement.
80.00	Point falls on overflow area of Santa Clara Creek.
	At a point 245 lks. E. of true point set temp. W.C. to cor. of secs. 28, 29, 32 and 33.
	Thence I run
	East on a random line bet. secs. 28 and 33 from true cor. point.
79.08	Intersect the N. and S. line 8 lks. N. of the cor. of secs. 27, 28, 33 and 34; whence I return,
	N.89°56'W. on a true line bet. secs. 28 & 33.
	Through heavy brush and scattering timber.
.10	Dry wash, drains N. 10° W., 3 ft. deep, 20 lks. wide.
4.00	Ascend very abruptly 250 ft. over sandstone ledges.
13.50	Top of hill, bears N. and S. Extends N. only 5 chs.
16.00	Descend abruptly 300 ft.
26.25	Foot of hill, dry wash, 25 lks. wide, 4 ft. deep, drains N.
	Over level volcanic flat. Leave timber bears N. and S.
30.00	Edge of Sand Cove wash, 75 ft. deep, drains S. 15° W.
32.00	Bottom of wash. Ascend abruptly. Basalt ledges.
36.00	Leave wash and ascend gradually. Very rocky.
39.54	Set a trachyte stone 18x10x8 ins., 12 ins. in ground, for ¼ sec.cor. marked ¼ on N. face; raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor. Pits impracticable.on account of rocks.
47.00	Top of bench. Nearly level. Gentle slope to west.

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS

Good soil with good indications of good growth of grass.

88.75 Canyon of the Santa Clara River. Descend 200 ft. over volcanic bluffs.

76.63 At foot of hill and point for W. C. to secs. 28, 29, 32 and 33.

Telephone line bears E. and S.

76.95 Santa Clara Creek, flows southerly. Stream of clear water 75 lks. wide, and 1 ft. deep.

78.60 On gravel bottom lands.

79.08 Point for true cor. Whence I return S. 89°56'E.

76.63 Set a sandstone 24x10x6 ins., 18 ins. in ground for W.C. to cor. of secs. 28, 29, 32 and 33. marked with four notches on E. and one notch on S. and W.C. on NE. face.

No trees available to mark.

Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor., 3 ft. dist. Pits impracticable.

Land, mountainous.

Soil, rock, gravel and sandy clay; 4th and 3d rates.

Timber, cedar and pinon pine.

Brush, black-brush, sage, rabbit, deer and bitter bush, ooze and cacti.

Mountainous land or land covered with dense brush on 79.08 chs.

June 11: At 3 h. p.m.l.m.t. I set off 37°18' N. on the lat. arc, 83°04'W. on the decl. arc; and determine a meridian with the solar at the above described point for true cor. Thence I run

N. 0°03'W. on a true line bet. secs. 28 & 29.

3.00 Santa Clara Creek, 100 lks. wide, 2 ft. deep, drs. SE. & S.

5.00 Leave Creek and enter willows.

6.00 Road from Gunlock to Shem bears southerly and northeasterly.

13.00 Wire fence, bears E. and W. Enter land of E.W.Leavitt.

32.00 Same road bears southeasterly and northwesterly.

SURVEY OF SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
37.00	Leave field.
37.75	Santa Clara Creek drains W. 100 lks. wide, and 2 ft. deep.
40.00	The temp. ¼ sec.cor. which I established as the ¼ sec. cor. to secs. 28 and 29. It is a boulder, 26x14x8 ins. set 18 ins. in the ground, marked ¼ on west face; from which
	A cottonwood, 24 ins. diam., bears S. 19°W. 93 lks. dist., marked ¼ S 29 B T; raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
	No other trees within limits.
	Thence North on resurvey line with continuous measurement.
	Over old river bed.
44.00	Road to Gunlock bears NE. and SW.
47.00	Leave field. Ascend.
52.00	Over rolling bench, through brush.
79.00	Road from Gunlock to Miner's Canyon bears NW. and SE.
80.00	The cor. of secs. 20, 21, 28 and 29.
75.00	Land, level to broken.
5.00	Soil, sandy loam and gravel, 2d and 3d rates.
	Timber, cottonwoods.
	Brush, Willow, sage, black-brush, and rabbit brush.
	Mountainous land or land covered with dense brush on 75.00 chs.
	June 11, 1911.

June 12, 1911: At 7 h. a.m.l.m.t. I set off 37°17' N. on lat. arc, 23°8' N. on decl. arc; and determine a meridian with the solar. As the line bet. secs. 32 and 33 passes over volcanic bluffs, from the standard cor. of secs. 32 and 33, which is an iron post, 3 ins. diam., 12 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General, I offset W. 7.00 chs. thence run N. 0° 01'W. bet. secs. 32 and 33 on a random line.

40.00	Set temp. ¼ sec.cor.
	Creek.

CHAINS	
	East . 7.00 chs. thence N. 0° 01'W.
87.78	Intersect the east and west line 60 lks. west of the W.C. cor. of secs. 28, 29, 32 and 33.
	The falling being out of limit from the point for cor. of secs. 28, 29, 32 and 33, I run S.0°01'E. on true line bet.secs.32 and 33.
3.50	Santa Clara Creek, 1 ft. deep, 1 ch. wide, drains SW.
	Enter cottonwoods, willows and brush.
15.00	Ascend abruptly 20 ft. and leave Santa Clara Creek wash, drains SW. then S. 5° W.
22.00	Top of point of small ridge, bears E. and W.
	Joshua Leavitt's SE. cor. of field bears NW. 5.50 chs., dist. across river.
	Descend.
33.00	Enter J. H. Bowler's field, Fence bears E. and W.
33.00	Leave field, fence bears E. and W.
35.00	Dry wash, 25 lks. wide, 4 ft. deep, drains W.
	Ascend gradually.
37.00	Telephone line bears SW. and NE.
40.00	Set a granite stone 18x8x4 ins., 12 ins. in ground at foot of volcanic bluffs, mkd. $\frac{1}{4}$ on W. face; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, 3 ft. W. of cor. Pits impracticable.
	The further extension of the line in place being impossible, I offset W. 7.00 chs.
	Thence I run S. 0°01'E. on offset line.
46.75	Irrigation ditch, 6 lks. wide, drains SW.
	Few cottonwoods.
46.83	Road from Gunlock to Shem, bears NE. and SW.
48.00	Ascend abruptly 50 ft.
49.00	Top of point, projects E. Descend.
50.00	Telephone line bears southwesterly and northeasterly.
52.00	Ascend gradually over small bench at foot of bluffs.
53.00	George H. Bowler's house bears W. 9.00 chs.
57.50	On top of bench 50 ft. high, C.Y.Pulsipher's house

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
	bears west. 7.50 chs.
79.00	Descend abruptly 35 ft.
81.00	Bottom of Sand Cove Wash, drains W. Ascend 40 ft.
83.50	Leave wash.
87.78	Offset East 5.15 chs. to
84.28	The standard cor. of secs. 32 and 33.
3.50	7.00 chs. to point for closing cor. 1.85 chs. E. of standard cor. to secs. 32 and 33.
	Set a sandstone 24x12x6 ins., set 16 ins. in mound of stone, for closing cor. of secs. 32 and 33, marked with C C on North, 4 grooves on east and 2 grooves on west faces; raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
	Destroy all marks on the old standard cor., leaving it as a witness point for the closing cors. from the north and south.
	Land, rough and broken.
	Soil, on bottom sandy loam, 1st rate. On benches gravel; 2d rate on hill, volcanic rock, worthless.
	Timber, cottonwood.
	Brush, black-brush, sage, rabbit and willows.
	Land, mountainous or covered with heavy brush on 84.28 chs.

June 12: At 2 h. p.m.l.m.t. I set off 37°19' N. on the lat. arc, 23°08' W. on the decl. arc; and determine a meridain with the solar at the old cor.of secs. 20, 21, 28 and 29.

Thence I run

N. 0° 01' W. on a random line bet. secs.20 and 21.

40.00 Set temp. ¼ sec.cor.

80.00 Set temp. sec.cor. of secs. 16, 17, 20 and 21.

From this temp. cor. I run

East on a random line bet. secs. 16 and 21.

40.00 Set temp. ¼ sec.cor.

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
79.01	Intersect the N. and S. line 53 lks. N. of the cor. of secs. 15, 16, 21 and 22, a sandstone 10x8x6 ins. above ground, marked and witnessed as described by the Surveyor General, from which I return West on a true line bet. secs. 16 and 21.
	Ascend through scattering cedar and pinon timber and brush.
80.00	Ascend abruptly.
84.00	Top of ridge, 75 ft. high, bears N. 15° W. and S. 15° E. Descend along S. slope of main hill, very scattering cedar.
39.50½	Set a sandstone 18x10x6 ins., 12 ins. in ground, for ¼ sec. cor., marked ¼ on west face; raise a mound of stone 2 ft. base, 1½ ft. high, 3 ft. W. of cor. Pits impracticable.
42.00	Bottom of hollow, drains SE. Ascend abruptly.
47.00	Top of point of ridge, 60 ft. high, bears NE. and SW. Descend.
51.00	Bottom of hollow, 40 ft. deep, drains NE. Ascend abruptly.
55.00	Top of ridge, 75 ft. high, bears NE. and SW. Descend 60 ft.
60.00	Bottom of hollow, drains NE.
74.00	Top of ridge, 100 ft. high, bears NE. and SW. Descend.
77.20	Bottom of hollow, 15 ft. deep, drains NE. Ascend 35 ft.
79.01	On east slope of ridge. Set a sandstone, 18x10x6 ins., 12 ins. in ground for cor. of secs. 16, 17, 20 and 21, marked with 3 notches on the S. and 4 notches on the E. edges; raise a mound of stone 2 ft. base, 1½ ft. high, 3 ft. west of cor. Pits impracticable.
	Land, rough and mountainous.
	Soil, gravel, 3d rate.
	Timber, scattering cedar and pinon pine.

SURVEY OF SUBDIVISION OF T. 40 S., R. 17 WEST.

CHAINS	
	Brush, black-brush, sage, rabbit, deer, bitter brush, and cacti.
	Mountainous land or land covered with heavy brush on 79.01 chs.
	Thence I run
	S. 0° 01' E. on atrue line bet. secs. 20 and 21.
	Ascend abruptly 25 ft. through heavy brush.
3.55	Top of ridge, bears W. and NE.
	Descend along side of gulch.
11.00	Bottom of head of gulch 50 ft. deep, drains NE.
	Ascend.
15.00	Top of main hill, bears E. and W.
	Descend abruptly 300 ft.
27.00	Bottom of gully at foot of hill, drains SW. Ascend 20 ft.
27.75	Leave gully and descend gradually.
39.00	Descend into small gully.
39.47	Set a sandstone 20x9x6 ins., 15 ins. in ground for ¼ sec.cor., mkd. ¼ on west face; raise a mound of stone 2 ft. base, 1½ ft. high, 3 ft. W. of cor. pits impracticable.
40.50	Bottom of gully, drains SW. Ascend 15 ft.
41.00	Leave gully.
41.50	Descend gradually.
60.20	Small ridge, bears W. and E. then southeasterly.
	Descend over broken bench.
74.20	Small reef of rock, bears S. 75° E., and N. 75°W.
	Descend into small hollow, drains southeasterly.
79.47	The cor. of secs. 20, 21, 28 and 29.
	Land, rough and mountainous to broken bench.
	Soil, gravel, 4th rate.
	Timber, very scattering cedar.
	Brush, black-brush, sage, deer, bitter brush, ooze, cacti.

SURVEY OF SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
	Mountainous land or land covered with heavy brush on 79.47 chs.
	As both the north and west bdys. of sec.21 do not close within limits, I retrace,
	From the cor. of secs. 30, 21, 28 and 29.
	East along south boundary of sec.21.
59.00	Find the W.C. to cor. of secs. 21, 22, 27 and 28, at foot of ledges.
	It is a boulder 8x6x4 ft. above ground, marked and witnessed as described by the Surveyor General.
	Thence N. on offset retracement.
20.00	Offset East for 20 chs. to point of another W.C. to cor. of secs. 21, 22, 27 and 28.
	A sandstone 8x8x6 ins. above ground, marked and witnessed as described by the Surveyor General.
	Thence I run North and at
59.45	Intersect the cor. of secs. 15, 16, 21 and 22,
	Which gives the length of the south boundary of this sec. as 79.00 chs. and the east boundary as 79.45 chs.
	June 12, 1911.
	June 13, 1911: At 7 h. a.m..l.m.t. I set off 37°20' N. on the lat. arc, 23°13'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.
	Thence I run
	N. .0° 01' W. on arandom line bet. secs. 15 and 16.
40.00	Set temp. ¼ sec.cor.
80.00	Set temp. cor. of secs. 9, 10, 15 and 16, from which I run East on a random line bet. secs. 10 and 15.
40.00	Set temp. ¼ sec.cor.
79.90	Intersect the N. and S. line, 20 lks. S. of the cor. of secs. 10, 11, 14 and 15, a trachyte stone 10x9x6

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
	ins. above ground, marked and witnessed as described by the Surveyor General, from whence I return.
	At this point at 11 h. 59m. a.m. I set off 23°12' on decl. arc, and observe the sun on the meridian. The resulting lat. is 37°31', which is the correct lat.
	S.89°51'W. on a true line bet. secs.10 and 15.
	Ascend gradually through scattering timber and heavy brush.
8.00	Top of knoll, bears SE. and NW. Descend 50 ft.
14.00	Wash, drains SE. Ascend over broken hill side.
39.95	Set a sandstone 16x12x6 ins., 11 ins. in ground, marked $\frac{1}{4}$ on N. face; raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.
	A cedar, 6 ins. diam. bears N. 70°W. 60 lks. dist., marked $\frac{1}{4}$ S 10 B T. No other trees within limits.
43.00	Top of hill, 200 ft. high, bears N. and S. Descend.
51.00	Bottom of hollow, drains S. Ascend 50 ft.
55.00	Top of small ridge, bears N. and S. Descend.
59.00	Bottom of hollow, drains S. Ascend.
78.00	Top of hill, bears S. 30° E., and northerly.
	Descend gradually.
79.90	The temp. cor. of secs. 9, 10, 15 and 16.
	Set a granite stone 18x10x10 ins., 12 ins. in ground, for true cor., marked with 3 notches on east and 4 notches on the south edges; from which
	A cedar, 10 ins. diam. bears S. 30° E., 223 lks. dist., marked T 40 S R 17 W S 15 B T.
	A cedar 9 ins. diam. bears S. 42° W. 184 lks. dist., marked T 40 S., R. 17 W S 16 B T.
	A cedar, 11 ins. diam. bears N. 65°W. 210 lks. dist., marked T 40 S R 17 W S 9 B T.
	No other bearing trees within limits.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous.

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS Soil, granite gravel; 3d rate.

Timber, scattering cedar and pinon pine.

Brush: black-brush, sage, bitter-brush, deer and cacti.

Mountainous land or land covered with dense brush on 79.90 chs.

June 13: At 3 h. p.m.l.m.t. at this cor. I set off 37° 31 on the lat. arc, 23°12' N. on the decl. arc; and determine a meridian with the solar. Thence I run

S. 0° 01' E. on a true line bet. secs.15 & 16.

Descend gradually along west slope of hill through heavy brush and scattering cedar and pinon pine.

33.00 Descend abruptly over rough hillside, 200 ft.

40.00 Set a sandstone, 13x13x10 ins., 22 ins. in the ground, for ¼ sec.cor. of secs. 15 and 16, marked ¼ on S. face; from which

A cedar 17 ins. diam. bears N. 65°E. 87 lks. dist., marked ¼ S 15 B T.

A cedar, 8 ins. diam. bears W. 4° W. 16 lks. dist., marked ¼ S 16 B T

Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor., 3 ft. dist.

41.50 Enter willows and cottonwoods, bears SE. and NW.

42.00 Tobar Wash, 10 ft. deep, Small stream pure water 2 ins. deep.

43.00 Road from Gunlock to Grapevine Wash, bears NW. and SE. turns S. 60 lks.

44.00 Leave Wash.

Run along west edge. Mica and black sand in stream.

47.50 Leave bank of Wash. Wire fence bears W. and S.

Enter field of Joshua Leavitt.

50.00 Wire fence bears SE and NW. Leave field.

Ascend 60 ft.

55.00 Ascend more gradually.

58.00 Top of ridge, bears E. and W. Descend abruptly.

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
	A. Hunt's field or 1½ acres bears E. 12 chs.
63.00	Bottom of gulch, 60 ft. deep, drains E. Ascend abruptly.
65.00	Top of ridge, bears E. and W. Descend abruptly 40 ft.
67.00	Bottom of gulch, drains E. Ascend abruptly.
70.00	Top of ridge, near E. point, bears E. and W.
72.00	Descend abruptly 40 ft.
74.75	Bottom of gulch, drains E. Ascend abruptly.
77.00	Top of point of ridge, bears NE. and S.W. Descend.
80.00	The cor. of secs. 15, 16, 21 and 22, previously described.
	Land, rough and mountainous.
	Soil, on hill, 4th rate gravel; in wash 1st rate, loam.
	Timber, scattering cedar and pinon pine, ash and cottonwood.
	Brush: black-brush, sage, rabbit, deer, oak and willow.
	Mountainous land or land covered with brush on 80 chs.

	From the cor. of secs. 9, 10, 15 and 16, I run N. 0° 01' W. on a true line bet. secs. 9 and 10.
	Along side of hill, through scattering timber and scrubby brush.
5.00	Descend 25 ft.
8.00	Bottom of small gully, drains W. Ascend.
21.50	Descend 35 ft. over head of gully.
23.00	Bottom of gully, drains SW. Ascend abruptly.
25.00	Top of ridge, bears SW. and NE. Descend 40 ft.
28.50	Bottom of hollow, drains S. 35° W. A few cottonwood. Ascend.
36.50	Leave hollow, Over broken but level bench, bears N.& S.
40.00	Set a granite stone, 16x8x8 ins., 11 ins., in the ground for ¼ sec.cor., marked ¼ on W. face.
	A cedar, 8 ins. diam. bears S. 60° E. 53 lks.dist., marked ¼ S 10 B T. No other trees within limits.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, west

SURVEY OF SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
	of cor. Pits impracticable.
53.00	Descend abruptly 40 ft.
54.00	Bottom of gully, drains SW. Ascend.
55.00	Top of point of ridge, bears NE. and SW. Descend 30 ft.
57.00	Bottom of hollow, drains SW. Ascend abruptly 40 ft.
60.50	Leave hollow.
70.50	Descend abruptly, 40 ft.
74.00	Bottom of gully, drains SW. Ascend abruptly.
78.00	Leave gully, Over point of broken bench, bears E.& W.
79.60	Descend 10 ft.
80.00	On slope of gully,
	Set a granite stone 18x10x6 ins., 12 ins. in the ground, for cor. of secs. 3, 4, 9 and 10, marked with five notches on south and three notches on east edges; from which
	A cedar, 10 ins. diam., bears N. 52°W. 116 lks. dist., marked T 40 S R 17 W S 4 B T.
	A cedar, 10 ins. diam. bears S. 50°W. 47 lks. dist., marked T 40 S R 17 W S 9 B T.
	No other trees convenient.
	Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor., 3 ft. dist.
	Land, rough and broken.
	Soil, gravel, 2d and 3d rates.
	Timber, scattering cedar and pinon pine.
	Brush, black-brush, sage, rabbit, deer, mountain rush, cacti and bitter bush.
	Mountainous land or land covered with heavy brush on 80.00 chs.
	June 13, 1911.

June 14: At cor. to secs. 3, 4, 9 and 10, at 7 h. a.m. l.m.t I set off 23°15'N. on the decl. arc; 37°22'N. on the lat. arc; and determine a meridian with the solar.

Thence I run

N. 89°51'E. on a random line bet. secs. 3 and 10.

40.00 Set temp. ¼ sec.cor.

SURVEY OF SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
79.85	Intersect the N. and S. line 25 lks. N. of the cor. of secs. 2, 3, 10 and 11, a sandstone, 12x12x6 ins. above ground, marked and witnessed as described by the Surveyor General. Whence I return.
	N.89°58'W.on a true line bet.secs.3 and 10.
	Ascend gradually. Scattering cedar and pinon pine and heavy brush.
13.00	Descend across small landslide on S. face of hill.
16.50	Across slide, Descend abruptly.
19.50	Bottom of Cottonwood Wash, drains southeasterly.
24.00	Leave wash, Ascend 20 ft.
28.00	Top of point of ridge, bears N. and S. Descend 20 ft.
33.00	Bottom of branch hollow, drains N.
33.50	Ascend.
39.92½	Set a granite stone 16x11x5 ins., 11 ins. in ground for ¼ sec.cor., marked ¼ on N. face; raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
58.00	Top of hill, 300 ft. high, bears S. 15°E. and N.15°W. Very thick brush.
65.00	Descend abruptly, 100 ft.
73.50	Bottom of gully, drains SW. Ascend abruptly 25 ft.
74.50	Top of sand ridge, bears N. and S. Descend abruptly.
76.00	Bottom of gully, 35 ft. deep, drains SW. Ascend abruptly.
78.00	Leave gully, descend gradually.
79.00	Descend abruptly into gully, drains W.
79.85	The cor. of secs. 3, 4, 9 and 10.
	Land, mountainous.
	Soil, gravel and sandy gravel, 3d rate.
	Timber, scattering cedar and pinon pine.
	Brush: black-brush, sage, rabbit, bitter bush, deer, cacti and mountain rush.
	Mountainous land or land covered with heavy brush on 79.85 chs.

SURVEY OF SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
	June 14: At the cor.of secs. 2, 3, 10 and 11, at 11 h. 59 m., a.m.l.m.t. I set off 23°15'N. on the decl. arc, and observe the sun on the meridian. The resulting lat. is 37°22' N., which is the correct lat.
	North on a random line bet. secs.2 and 3.
40.00	Set temp. ¼ sec.cor.
80.30	Intersect the N. bdy. of Tp., 122 lks. west of the cor. of secs. 2, 3, 34 and 35, re-established by me and previously described. I obliterate all marks pertaining to secs.2 and 3, and set a closing cor. to cor. of secs. 2 and 3. It is a granite stone 20x 12x8 ins., set 15 ins. in the ground, marked C C on south with 2 grooves on east and 4 grooves on west faces; from which,
	A cedar, 11 in. diam., bears S. 77°E. 44 lks. dist., marked T 40 S R 17 W S 2 B T.
	A cedar, 10 ins. diam. bears S. 27°W. 78 lks. dist., marked T 40 S R 17 W S 3 B T.
	Raise a mound of stone 2 ft. base, 1½ ft. high, S. of cor. Whence
	I return S. on a true line bet. secs. 2 and 3.
	Through medium heavy cedar and pinon and heavy brush.
	Ascend.
1.25	Top of small bench.
15.00	Ascend 35 ft.
17.00	Top of hill, bears S. 80° E. and N. 80°W. Descend, slightly.
40.30	Set a sandstone 18x10x5 ins., 12 ins. in the ground for ¼ sec.cor., marked ¼ on W. face; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor., 3 ft.dist.
43.50	Ascend 30 ft.
45.00	Top of ridge, bears N. 65°W. and S. 65° E. Descend gradually.
73.00	Small wash, drains S. 60° E., 5 ft. deep, 1 ch. wide.

CHAINS	
74.00	Ascend gradually.
80.30	The cor. of secs. 2, 3, 10 and 11.
	Land, rolling.
	Soil, sandy gravel, 2d rate.
	Timber, medium heavy cedar and pinon pine.
	Brush, black brush, sage, rabbit, deer, mountain rush, and bitter bush.
	Land, covered with medium heavy brush on 80.30 chs.
	Since sec.2 does not close within the limits, I begin at the cor. of secs. 2, 3, 10 and 11, and retrace.
	East on S. bdy. of sec. 2, and at
80.95	Find the old cor.to secs. 1, 2, 11 and 12.
	The error in closure therefore existing in the old work.

June 14: At the cor. of secs. 3, 4, 9, and 10, at 2 h. 30m., p.m., I set off 23° 15' N. on the decl. arc, 37° 22' N. on the lat. arc; and determine a meridian with the solar. Thence I run

N. 0° 01' W. on a random line bet. secs.3 & 4.

40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.18	Intersect the N. bdy. of Tp. 108 lks. west of the cor. of secs. 3, 4, 33 and 34, heretofore described, I obliterate all marks on same pertaining to secs. 3 and 4, and set a closing cor. to secs. 3 and 4. It is a granite stone 18x12x6 ins., set 12 ins. in ground, marked C C on S. and 3 grooves on E. and W. faces; from which
	A cedar, 12 ins. diam. bears S. 70°W. 93 lks. dist., marked T 40 S R 17 W S 4 B T.
	A cedar, 10 ins. diam. bears S. 52°E. 280 lks. dist., marked T 40 S R 17 W S 3 B T.
	Thence S. 0° 01' E. on a true line bet. secs. 3 and 4.
	Through dense brush and scattering cedar and pinon pine.
4.50	Descend 30 ft.
10.25	Bottom of hollow, drains S. 75° E. Ascend.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
16.00	Top of ridge, bears SE. and NW. Descend 40 ft.
20.00	Bottom of hollow, drains SE. Ascend.
29.00	Top of ridge, bears SE. and NW. Descend 40 ft.
35.50	Bottom of hollow, drains SE. Ascend.
40.18	Set a sandstone, 18x10x10 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec., marked $\frac{1}{4}$ on west face; from which A cedar, 10 ins, diam., bears S. 76°W. 200 lks. dist., marked $\frac{1}{4}$ S 4 B T. A cedar, 9 ins. diam. bears N. 69°E. 88 lks. dist. marked $\frac{1}{4}$ S 3 B T.
42.00	Top of ridge, bears SE. and NW. Descend 40 ft.
50.00	Bottom of hollow, drains SE. Ascend.
61.50	Descend abruptly 100 ft. from hill bears SE. and NW.
68.00	Descend abruptly 35 ft. into gully.
70.00	Bottom, drains SW. Ascend abruptly.
71.00	Leave gully. Over broken bench. No trees.
77.70	Descend abruptly 50 ft.
79.50	Bottom of gully, drains W. Ascend 30 ft.
80.18	The cor. of secs. 3, 4, 9 and 10.

Land, rough and hilly.

Soil, gravel, 3d rate.

Timber, cedar and pinon pine, very scattering.

Brush, black-brush, sage, rabbit, bitter cacti bush and deer and some oose.

Mountainous land or land covered with brush dense on 80.18 chs.

June 14, 1911.

June 5, 1911:- At 8 h. a.m.l.m.t. I set off 23°18' N. on the decl. arc, 37°20' N. on the lat. arc; and determine a meridian with the solar at the cor.of secs. 16, 17, 21 and 28. Thence I run

N. 0° 01' W. on a true line bet. secs.16 & 17.

Through scattering cedar and heavy brush. Descend 250 ft.

12.75	Bottom of hollow, drains S. 80° E.

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
14.77	Ascend abruptly 250 ft.
27.75	Top of hill, bears S. 85°E. and N. 85° W. Desc.150 ft.
34.50	Bottom of hollow, drains NE. Ascend 50 ft.
40.00	Set a sandstone, 16x8x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on west face; from which A cedar, 10 ins. diam. bears East 113 lks. dist., marked $\frac{1}{4}$ S 16 B T. No other trees near enough to mark; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
41.00	Top of ridge, bears SW. and NE.
	Descend over rolling country.
45.00	Enter little heavier cedar and pinon timber, bears E. and W.
70.50	Bottom of hollow, drains E. Ascend 30 ft.
78.00	Top of ridge, bears E. and W. Descend gradually.
80.00	Set a sandstone 14x8x8 ins., 9 ins. in the ground, for cor. of secs. 8, 9, 16 and 17, marked with four notches on south and four notches on the east edges; from which A cedar. 10 ins. diam. bears S. 87°30'W. 41 lks. dist., marked T 40 S R 17 W S 17 B T. A cedar, 8 ins. diam. bears N. 64°30'W. 48 lks. dist., marked T 40 S R 17 W S 8 B T. A cedar, 10 ins. diam. bears S. 7°E. 92 lks. dist., marked T 40 S R 17 W S 16 B T. No other trees within limits. Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
	Land, mountainous to rolling.
	Soil, gravel and gravel loam; 4th and 2d rates.
	Timber, cedar and a few pinon pine.
	Brush, black brush, sage, rabbit, deer, bitterbush, mountain rush, cacti and oose.
	Mountainous land or land covered with dense brush on 80.00 chs.

CHAINS	
	Thence east on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec.cor.
79.08	Intersect the N. and S.line, 9 lks. N. of the cor. of secs.9, 10, 15 and 16; from which
	I return N.89°56'W. on a true line bet.secs.9 & 16.
	Through heavy brush and scattering cedar and pinon.
	Descend abruptly 150 ft.
9.75	Gully in side of hill, 25 ft. deep, 2 chs. wide,
	drains SW.
12.00	Small bench, bears N. and S.
15.00	Descend 15 ft. from bench.
16.00	On level of bottom of Toban Wash, bears S. 20°E. and
	N. 20° W.
21.85	Road from Gunlock to Grape Vine Wash, bears S.20°E.
	and N. 20° W.
26.00	Dry wash 9 ft. deep, 75 lks. wide, drains SE.
27.00	Very tall and heavy rabbit brush.
32.50	Along foot of hill.
	Enter heavy scrub oak, bears N. and S.
36.00	Ascend 25 ft. Leave heavy rabbit brush.
38.60	Top of point of ridge, bears N. and S.
	Descend into side hollow.
39.25	Bottom of hollow, drains N.85°E.
	Leave heavy scrub oak.
39.08	Set a sandstone 18x10x8 ins., 12 ins. in the ground
	for ¼ sec.cor., marked ¼ on N. face; from which
	A cedar, 10 ins. diam. bears S.60°E., 27 lks. dist.
	marked ¼ S 16 B T.
	No other trees available to mark; raise a mound of
	stone, 2 ft. base, 1½ ft. high, 3 ft. N. of cor.
	Pits impracticable. Ascend gradually up hollow.
41.50	Forks of hollow; one drains from W. other from S.25°W.
	Ascend up hollow. Medium heavy cedar, bears N. and S.
46.50	Top of ridge at head of hollow, bears N. and S.
49.00	Descend abruptly 25 ft.

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
50.00	On level bottom of hollow.
53.00	Dry wash, 10 ft. deep, drains N. 45° E.
54.50	Across wash. Ascend abruptly 25 ft.
57.25	Top of S. point of ridge, bears N. and S. Descend.
58.00	Dry wash in bottom of same hollow, drains SE. 6 ft. deep, 50 lks. wide.
59.60	Same wash, drains N. 40 lks. wide, 5 ft. deep, Ascend 25 ft.
64.00	Leave hollow, Along gentle slope N. of small hill.
75.00	Leave medium heavy timber, bears N. and S.
79.08	The cor. of secs. 8, 9, 16 and 17.
	Land, mountainous to hilly.
	Soil, gravel and sandy loam; 4th and 1st rates.
	Timber, scattering to medium heavy cedar and pinon pine.
	Brush. black brush, sage, rabbit, scrub oak, deer, mountain rush, cacti, and bitter bush.
	Mountainous land or land covered with brush on 79.08 chs.

June 15: At this point at 12 M. l.m.t. I set off 23° 18' N. on the decl. arc, and observe the sun on the meridian. The resulting lat. is 37°21' N., which is the correct lat. very nearly.

From the cor. of secs. 8, 9, 16 and 17, I run

N. 0°01'W. on a true line bet. secs. 8 and 9.

	Through heavy brush and scattering cedar and pinon pine.
	Descend gradually.
10.60	Bottom of S. fork of Toban Wash, dry wash, drains E., 3 ft. deep, 25 lks. wide, Ascend gradually 45 ft.
25.00	Top of small knoll. Descend 40 ft.
30.00	Bottom of small hollow, 1½ chs. E. of head, drains SE. Ascend 40 ft.
33.00	Top of knoll, Descend.
36.75	Bottom of hollow, drains SE. Ascend abruptly 50 ft.
39.00	Top of ridge, bears SE. and NW.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
	Descend gradually 40 ft.
40.00	Set a granite stone, 14x8x6 ins., 9 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on west face; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor., 3 ft. dist., from which
	A cedar, 12 ins. diam., bears S. 34°30'W. 84 lks. dist., marked $\frac{1}{4}$ S 8 B T.
	A cedar, 20 ins. diam. bears S. 37' E. 99 lks. dist., marked $\frac{1}{4}$ S 9 B T.
43.00	Bottom of gully, drains SE. Ascend abruptly 50 ft.
53.00	Top of ridge, bears NW. and SE.
53.30	Descend very abruptly 100 ft.
61.50	Bottom of hollow, heads 5 chs. W., drains E.
	Ascend abruptly.
63.50	Top of ridge, 60 ft. high, bears E. and W., along east side of ridge.
73.00	Descend abruptly into Toban Wash, 60 ft. deep.
78.50	Bottom. Road from Gunlock bears NW. and SE.
79.50	Ascend abruptly 5 ft.
80.00	On small bench, on edge of Toban Wash, bears NW.& SE.
	Set a granite stone, 16x8x8 ins., 11 ins. in the ground, for cor. of secs. 4, 5, 8 and 9, marked with 5 notches on south and 4 notches on east edges; from which
	A cedar, 10 ins. diam. bears S. 72°E. 118 lks. dist., marked T 40 S R 17 W S 9 B T.
	A cedar, 11 in.s. diam., bears S. 24° W., 114 lks. dist., marked T 40 S R 17 W S 8 B T.
	A cedar, 16 ins. diam. bears N. 50°E. 68 lks.dist., marked T 40 S R 17 W S 4 B T.
	A cedar, 10 ins. diam. bears N. 21°W. 100 lks. dist, marked T 40 S R 17 W S 5 B T.
	Land, rough and hilly.
	Soil, gravel, 3d and 4th rates.
	Timber, scattering cedar and pinon pine.

SURVEY OF THE SUBDIVISION OF T. 40 S., R. 17 W.

CHAINS	
	Brush, black brush, sage, mountain-rush, and bitter bush.
	Mountainous land or land covered with dense brush on 80.00 chs.
	S. 89°56'E. on a random line bet. secs.4 & 9.
40.00	Set temp. ¼ sec.cor.
79.09	Intersect the N. and S. line 5 lks. N. of the cor. of secs. 3, 4, 9 and 10. Whence I return N.89°54'W. on a true line bet. secs. 4 & 9.
	Through dense brush and scattering timber.
	Descend along side of gully.
3.00	Gully turns SW. Ascend abruptly 25 ft.
5.00	Top of point of ridge, bears N. and SW.
	Descend over broken ground of East Branch of Toban Wash.
18.50	Bottom of gully, drains S.30°E. Ascend 30 ft.
23.00	Top of point of ridge, bears NW. and SE.
	Descend abruptly.
25.00	Bottom of hollow.
28.00	Dry wash, 4 ft. deep, 25 lks. wide, drains SE. Ascend.
29.00	Top of small ridge, bears N. and S. Descend 30 ft.
31.00	Bottom of gully, drains SE.
	Ascend abruptly 35 ft.
34.00	Top of ridge, bears NW. and SE.
	Descend abruptly 30 ft.
35.00	Bottom of dry wash, 5 ft. deep, 25 lks. wide, in bottom of gully, drains SE.
	Ascend abruptly 30 ft.
39.09	Set a grantite stone, 14x8x6 ins. 9 ins. in the ground for ¼ sec.cor., marked ¼ on N. face; from which
	A cedar, 12 ins. diam. bears S. 34°E. 62 lks. dist., marked ¼ S 9 B T.
	A cedar 16 ins. diam. bears N.78°W. 68 lks. dist., marked ¼ S 4 B T.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
40.00	Top of ridge at S. point, bears NW. and SE. Descend.

CHAINS	
42.00	Bottom of wash, drains SE.
	Ascend abruptly 35 ft.
47.00	Leave east branch of Toban Wash, over Cactus Flat, bears NW. and SE. Thick cacti.
60.00	Descending gradually.
72.00	Descending abruptly into Toban Wash, 75 ft.
79.09	The cor. of secs. 4, 5, 8 and 9.
54.09 / 25.00	Land, very rough and broken to rolling.
	Soil, gravel, 3d rate.
	Timber, scattering cedar and pinon pine.
	Brush, black brush, sage, rabbit, mountain rush, cacti, bitter-bush, deer and scrub-oak.
	Mountainous land or land covered with brush on 54.09 chs.

June 15: At this point at 5 h. p.m.l.m.t. I set off 37° 22' N. on the lat. arc, 23°20'S. on the dec. arc; and determine a meridian with the solar. Thence I run

N. 0° 01'W. on a random line bet. secs. 4 & 5.

40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.11	Intersect the N. bdy. of Tp., 3 lks. W. of the cor. to secs. 4, 5, 32 and 33, set by me and previously described. Whence I return

South on a true line bet. secs. 4 and 5.

Over gentle south slope of Cactus Flat.

Through scattering cedar and pinon pine and heavy brush.

40.11	Set a granite stone 16x8x6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on west face; from which

A cedar 8 ins. diam., bears N. 42°30'W. 40 lks. dist., marked $\frac{1}{4}$ S 5 B T.

A cedar 8 ins. diam. bears N. 78°E. 204 lks. dist., marked $\frac{1}{4}$ S 4 B T.

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

66.50	Descend gradually. Leave Cactus Flat.

CHAINS	
75.00	Descend abruptly.
80.11	The cor.of secs. 4, 5, 8 and 9.
	Land,level to rolling.
	Soil, granite, gravel, 3d rate.
	Timber, scattering cedar and a few pinon pine.
	Brush, black brush, cacti, sage, mountain-rush, rabbit, and bitter-bush.
	Land covered with dense brush on 80.11 chs.
	June 15, 1911.

June 16, 1911: At 8 h. a.m.l.m.t. at the standard cor. of secs. 31 and 32, which is an iron post, 3 ins.diam., 12 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General, I set off 37°17' E. on the lat. arc, 23°21' N. on the decl. arc; and determine a meridian with the solar. Thence I run N. 0°02'W. on a true line bet.secs.31 & 32.

Over sandy bench, heavy brush and scattering cedar.

32.00	Ascend 35 ft.
36.50	Top of ridge, bears NW. and SE. Descend.
40.00	Set a sandstone, 12x8x6 ins., 8 ins. in the ground for ¼ sec.cor., marked ¼ on west face; raise a mound of stone 3 ft. base, 1½ ft. high, west of cor. Pits impracticable.
45.50	Descend abruptly into Magonice Wash, 40 ft.
54.00	Bottom of Wash, drains SE.
	Ascend abruptly over broken sandstone ledges.
58.00	Ascend gradually.
70.50	Descend abruptly 25 ft. into gully.
72.00	Bottom of gully, drains SW. Ascend 50 ft.
75.00	Top of rocky knoll,
	Descend along head of gully, drains SW.
76.00	Descend 15 ft.
77.00	Ascend over limestone ledge, bears NW. and SE.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS

80.00 Set a limestone 16x10x5 ins., 11 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked with 1 notch on the south and 5 notches on the east edges; raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.

Land, level on first half; broken and mountainous on last.

Soil, sand and gravel; 4th rate.

Timber, cedar and pinon pine, very scattering.

Brush, black-brush, sage, mountain-rush, rabbit, deer, bitter bush, cacti and oose.

Mountainous land or land covered with heavy brush on 80.00 chs.

From the cor. of secs.29, 30, 31 and 32, I run East on a random line bet. secs.29 and 32.

40.00 Set temp. ¼ sec.cor.

84.73 Intersect N. and S. line, 7.81 chs. south of the W.C. for cor. of secs. 28, 29, 32 and 33, making the true length of the line 82.28 chs.

From the true cor. point 245 lks. W. of W.C., I run West on a true line bet. secs.29 and 32.

.05 Road from Gunlock to Shem bears N. and S.

.60 Fence of Joshua Leavitt's field, bears N. and S.

Enter cottonwoods and willows.

10.30 Wire fence, bears N. and S. Leave J. Leavitt's field.

Leave willows and cottonwoods. Ascend 100 ft.

Dense brush.

23.00 Along N. side of hollow, drains SE. Scattering cedar.

39.90 Top of ridge, bears N. and S.; thence easterly1

Descend.

40.00 Set a conglomerate stone, 16x10x6 ins., 11 ins. in the ground for ¼ sec.cor., marked ¼ on N. face; from which

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS

A pinon, 14 ins. diam. bears N.70°W. 137 lks. dist., marked $\frac{1}{4}$ S 29 B T.

A pinon, 15 ins. diam. bears S. 16°W., 118 lks. dist., marked $\frac{1}{4}$ S 32 B T.

Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, 3 ft. N. of cor.

June 16: At this point, at 12 M.l.m.t., I set off 23° 21' N. on the decl.arc and observe the sun on the meridian. The resulting lat. is 37°18'N., which is the correct lat. very nearly.

46.00 Bottom of hollow, drains N.E. Ascend 150 ft.

70.50 Top of main hill, bears NW. and SE.

Descend very abruptly.

82.28 Intersect the N. and S. line N.0°02'W. from the cor. of secs. 29, 30, 31 and 32, 7.81 chs.

59.28

23.00

Set a sandstone, 24x10x8 ins., 18 ins. in the ground, for C.C. to cor. of secs. 29 and 32, marked with C. C. on the E. face and 1 groove on the S. and 5 grooves on the north faces; from which

A pinon, 14 ins. diam. bears S. 3°15'E. 256 lks. dist., marked T 40 S R 17 W S 32 B T.

No other trees within limits.

Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, 3 ft. east of cor., and destroy all marks on old cor. pertaining to secs. 29 and 32.

Land, level to mountainous.

Soil, sandy loam, 1st rate, and gravel, 4th rate.

Timber, cottonwoods and very scattering cedar.

Brush, black-brush, sage, rabbit, willows, cacti, mountain-rush, and oose.

Mountainous land or land covered with heavy brush on 59.28 chs.

From the cor. of secs. 30 and 31, I run

West on a random line bet. secs. 30 and 31.

SURVEY OF THE SUBDIVISIONS OF T.40 S., R. 17 W.

CHAINS	
40.00	Set temp. ¼ sec.cor.
80.40	Intersect the West bdy. of Tp. at cor. of secs. 25, 30, 31 and 36, set by me and previously described.
	Thence I return East on a true line bet.secs.30 & 31.
	Through scattering cedar and dense brush.
	Ascend gradually.
12.00	Leave scattering cedar. bears N. and S.
	Descend gradually.
32.00	Bottom of Magonice Wash, S. Fork, drains SE.
	Descend gradually.
40.40	Set a sandstone 18x10x6 ins., 12 ins. in the ground, for ¼ sec.cor., marked ¼ on N. face. Raise a mound of stone, 2 ft. base, 1½ ft. high, 3 ft. N. of cor. Pits impracticable.
49.50	Descend abruptly into North Fork of Magonice Wash, 100 ft. deep.
60.00	Dry wash, 5 ft. deep, 1 ch. wide, drains SE.
	Ascend over broken hillside.
78.00	Small ridge, bears NW. and SE.
	Descend 30 ft.
80.40	The cor of secs. 30 and 31.
	Land, mountainous.
	Soil, sand and gravel; 4th rate.
	Timber, scattering cedar.
	Brush, sage, black brush, mountain-rush, rabbit, bitter-bush, deer, cacti and oose.
	Mountainous land or land covered with dense brush, on 80.40 chs.

June 16: At 5 h. p.m.l.m.t. I set off 23°22'N. on the decl. arc, 37°18' N. on the lat. arc; and determine a meridian with the solar. Thence I run

N.0°02'W. on a true line bet. secs. 30 and 32.

Ascend, through heavy brush.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS

7.81 The C.C. of secs. 29 and 32.

N. 0° 02' W. bet. secs. 29 and 30, with continuous measurements. Ascend abruptly.

9.50 Top of hill, 150 ft. high, bears S. 80°E. and N.80°W. Descend.

14.00 Bottom of gulch, drains NE., 75 ft. deep. Ascend abruptly.

19.00 Top of ridge, bears SW. and NE. Descend 130 ft.

36.30 Bottom of hollow, drains NE. Ascend abruptly 75 ft.

39.30 Top of ridge, bears E. and W. Descend 75 ft. Scattering cedar.

40.00 Set a sandstone, 16x11x5 ins., 11 ins. in the ground, for ¼ sec.cor., marked ¼ on west face; from which

A cedar, 8 ins. diam. bears N. 11° W. 143 lks. dist., marked ¼ S 30 B T.

A cedar, 10 ins. diam., bears N. 35° 40'E. 161 lks. dist., marked ¼ S 29 B T.

Raise a mound of stone,and earth, 3 ft. base, 2 ft. high, 3 ft. W. of cor. Pits impracticable.

46.50 Road from Gunlock to hills.

48.00 Dry wash in bottom of hollow, 3 ft. deep, 15 lks. wide, drains E. Ascend 60 ft.

55.00 Top of ridge, bears N. 85° W.and S.85° E. Descend gradually.

63.00 Bottom of small hollow. Ascend abruptly over rough hill.

80.00 Set a sandstone 18x8x6 ins., 12 ins. in the ground, for cor. of secs. 19, 20, 29 and 30, marked with 2 notches on the south and 5 notches on the east edges; raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor., 3 ft. dist.; fromwhich

A cedar 6 ins. diam. bears N. 86°W. 18 lks. marked T 40 S R 17 W S 19 B T.

CHAINS

No other trees within limits.

Land, rough and mountainous.

Soil, gravel; 4th rate.

Timber, scattering cedar and pinon pine.

Brush, black-brush, sage, bitter-bush, mountain-rush, and cacti.

Mountainous land or land covered with dense brush on

80.00 chs.

June 16, 1911.

June 17: At 7 h. a.m.l.m.t. I set off 23°23'N. on the decl. arc; 37°19' N. on the lat. arc; and determine a meridian with the solar. Thence I run

East on a random line bet. secs. 20 & 29.

40.00 Set temp. ¼ sec.cor.

82.36 Intersect the N. and S. line 8.10 chs. S. of the cor. of secs. 20, 21, 28 and 29, from which I return,

West on a true line bet. secs. 20 & 29.

Through heavy brush and scattering timber.

Ascend 25 ft.

1.00 Old wood road from Gunlock to Miner's Canyon, bears SE. and NW.

1.80 Top of ridge, bears NW. and SE.

Descend over broken bench.

16.00 Descend abruptly into small canyon 50 ft. deep.

32.50 Bottom of canyon, drains SE. Ascend abruptly.

32.35 Leave canyon. Ascend gradually.

33.00 Top of ridge, bears SW. and NE.

Descend into small hollow.

38.00 Bottom of hollow, drains NE. Ascend gradually.

40.00 Set a sandstone, 18x10x4 ins., 12 ins. in the ground for ¼ sec.cor., marked ¼ on N. face; from which;

A cedar, 18 ins. diam. bears N. 63°30'W., 84 lks. dist., marked ¼ S 30 B T.

A cedar, 9 ins. diam. bears S. 66°W., 112 lks.

SURVEY OF THE SUBDIVISION OS T. 40 S., R. 17 W.

CHAINS	
	dist., marked ¼ S 29 B T.
	Raise a mound of stone 2 ft. base, 1½ft. high., N. of cor.
68.00	Top of main hill, bears SE. and NW.
	Descend abruptly 150 ft. into Miner's Canyon.
76.00	Bottom of canyon, drains S. 25° E.
77.25	Over small elbow.
78.00	Descend 8 ft. into same wash, drains N. 60° E.
80.50	Ascend west side of canyon.
83.36	Intersect N. and S. line N. 0° 02' W. 8.10 chs. from the cor. of secs. 19, 20, 29 and 30.
	Set a sandstone 16x8x6 ins., 11 ins. in the ground for C C of secs. 20 and 29, marked C. C. on east with 2 grooves on S. and 4 grooves on north faces; from which
	A cedar 14 ins. diam. bears S. 41°30'E. 94 lks. dist., marked T 40 S R 17 W S 29 B T.
	No other trees convenient to mark. Raise a mound of stone, 3 ft. base, 2 ft. high, 3 ft. E. of cor.
	Destroy all marks on old cor. pertaining to secs. 20 and 29.
	Land, broken to mountainous.
	Soil, gravel, 4th rate.
	Timber, scattering cedar and pinon pine.
	Brush, black-brush, sage, mountain-rush, deer, bitter-bush, scrub-oak, cacti, and ooze.
	Mountainous land on 83.36 chs.

June 17: At 10 h. a.m.l.m.t. I set off 37°19'N. on the lat. arc, 23° 23' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19 & 30.

Thence I run

West on a random line bet. secs. 19 and 30.

40.00	Set temp. ¼ sec. cor.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
80.34	Intersect the west bdy. of Tp. 9 lks. N. of the cor. of secs. 19, 24, 25 and 30, set by me and previously described.
	June 17: At this point at 12 M.l.m.t., I set off 23° 23' E. on decl.arc and observe the sun on the meridian. The resulting lat. is 37°19'N. which is the correct lat. very nearly.
	Thence N. 89°56'E. on a true line bet.secs.19 & 30.
	Through scattering cedar and pinon timber and brush.
	Descend gradually.
4.50	Road from Gunlock up Lime Kiln Wash, bears SE. and N. 20° W.
5.00	Dry wash, in bottom of Lime Kiln Wash, drains SE., 1.00 ch. wide, 4 ft. deep.
	Ascend gradually 100 ft. over broken ground.
38.00	Top of ridge, bears N.10°E. and S.10° W. Ascend 20 ft.
40.34	Set a sandstone 16x8x8 ins., 11 ins. in the ground, for ¼ sec.cor., marked with ¼ on N. face; from which
	A cedar, 8 ins. diam., bears N. 30°E. 98 lks. dist., marked ¼ S 19 B T.
	A cedar, 9 ins. diam. bears S. 10°30' E. 84 lks. dist., marked ¼ S. 30 B T.
	Raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.
40.60	Small dry wash, drains S. 30° W. Ascend gradually.
42.60	Top of main hill, bears NW. and SE.
	Descend abruptly 100 ft.
53.00	Flat, bears NW. and SE. No trees. Descend gently. Few brush.
61.00	Wash, 5 ft. deep, 30 lks. wide, drains SE.
76.00	Leave flat.
	Enter scattering cedar and pinon timber, bears NW.& S. Ascend.
80.34	The cor. of secs. 19 and 30.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
	Land, mountainous to level.
	Timber, scattering cedar and pinon pine.
	Brush, black-brush, sage, rabbit, mountain-rush, deer, bitter-bush, cacti and oose.
	Mountainous land on 56.34 chs.
	June 17: At this point at 3h. p.m., l.m.t. I set off 37° 19' N. on the lat. arc; 23°23' N. on the decl. arc; and determine a meridian with the solar. Thence I run N. 0° 02'W. on a true line bet.secs.19 & 29.
	Scattering cedar and pinon pine and heavy brush.
4.50	Top of hill, bears SE. and NW.
	Descend abruptly 100 ft. into Miner's Canyon.
8.10	The C,C. of secs. 20 and 29, thence N. 0°02'W. on true line bet. secs.19 & 20, with continuous measurement.
20.00	Bottom of Miner's Canyon, drains S. 2° E.
	Ascend abruptly 85 ft. Scattering cedar and pinon pine,
27.00	Leave canyon. Ascend gradually.
29.00	Road from Gunlock to Miner's Canyon, bears S. 30°E. and NW.
39.50	Top of hill, bears N. 65°W. and S. 65° E. Descend.
40.00	Set a sandstone, 16x8x5 ins., 11 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; from which
	A cedar, 4 ins. diam. bears S. 13°E. 61 lks. dist., marked $\frac{1}{4}$ S 20 B.T.
	A cedar, 6 ins. diam. bears S. 36° W. 176 lks. dist., marked $\frac{1}{4}$ S 19 B T.
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
46.50	Bottom of hollow, drains E. Ascend abruptly 30 ft.
47.50	Small bench, bears E. and W. Ascend gradually.
59.00	Ascend abruptly 250 ft.
72.00	Top of mountain, bears E. and W. then NW. Descend.

CHAINS

79.00 Small hollow, drains NW.

80.00 Set a sandstone, 18x8x8 ins., 11 ins. in the ground, for cor. of secs. 17, 18, 19 and 20, marked with 3 notches on the S. and 5 notches on the E. edges; from which

A cedar, 6 ins. diam. bears S. 83° W. 77 lks. dist., marked T 40 S R 17 W S 19 S T.

Raise a mound of stone 3 ft. base, 1½ ft. high, W. of cor., 3 ft. dist. No other trees within limits.

Land, rough and mountainous.

Soil, gravel, 4th rate.

Timber, cedar and pinon pine.

Brush, black-brush, sage, deer, mountain-rush, rabbit, bitter- bush, cone, scrub-oak, and cacti.

Mountainous land on 80.00 chs.

June 17, 1911.

June 18, at 7 h. a.m.l.m.t I set off 37°30' N. on the lat. arc, 23°25' N. on the decl. arc; and determine a meridian with the solar. Thence I run

East on a random line bet. secs. 17 & 20.

40.00 Set temp. ¼ sec.cor.

63.38 Intersect the N. and S. line, 7.70 chs. S. of the cor. of secs. 16, 17, 20 and 21, from which I return

West on a true line bet. secs.17 and 20.

Over mountainous land through dense brush and scattering cedar.

1.25 Top of ridge, bears N. and S. Descend abruptly 60 ft.

2.00 Bottom of gulch, drains N. Ascend abruptly.

10.00 Top of ridge, bears N. and S. Descend abruptly 50 ft.

12.00 Bottom of gulch, drains N. Ascend abruptly.

22.00 Top of ridge, bears NW. and SE.

Descend abruptly 50 ft.

31.00 Bottom of gulch, drains NW. Ascend abruptly.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS

40.00 Set a sandstone, 16x10x5 ins., 11 ins. in the ground for ¼ sec.cor., marked ¼ on N. face; raise a mound of stone, 2 ft. base, 1½ ft. high, 3 ft. N. of cor. Pits impracticable.

Ascend gradually.

46.00 Top of small ridge, bears NW. and SE.

Along north slope of main hill.

65.00 Descend abruptly 100 ft.

76.00 Bottom of hollow, drains N. 35° W. Ascend 25 ft.

79.00 Top of ridge, bears N. 10°W., and S. 10° E. Descend.

82.28 N. 0° 02' W. from the cor. of secs. 17, 18, 19 and 20, 7.70 chs.

Set a sandstone, 16x8x6 ins., 11 ins in the ground for C C to secs. 17 and 20, marked CC on east, 3 grooves on the north and 3 grooves on the south faces; from which

A cedar 8 ins. diam. bears S. 86°E. 253 lks. dist. marked T 40 S R 17 W S 20 B T.

A cedar, 11 ins. diam. bears N. 58°30'E. 346 lks. dist., marked T 40 S R 17 W S 17 B T.

Destroy all marks on old cor. pertaining to secs. 17 & 20.

Land, mountainous.

Soil, gravel, 4th rate.

Timber, very scattering cedar.

Brush, black-brush, sage, mountain rush, bitter-bush, and deer.

Mountainous land, or land covered with dense brush on 82.28 chs.

June 18: At 12 h. 1 m. p.m.l.m.t I set off 23°25'N. on the decl. arc; and observe the sun on the meridian at the cor. of secs. 18 and 19. The resulting lat. is 37°30' N. which is the correct lat. approximately.

Thence S.89°56'W. on a random line bet.secs.12 & 19.

40.00 Set temp. ¼ sec.cor.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
80.30	Intersect the W. bdy. of tp., 6 lks. N. of the cor. of secs. 13, 18, 19 and 24, set by me and previously described. Thence I run
	N.89°53'E. on a true line bet.secs.18 & 19.
	Through dense brush and scattering cedar.
2.30	Descend 200 ft. along NE. slope of high hill.
20.00	Bottom of small gully, drains N.
	Ascend abruptly 50 ft.
32.00	Top of ridge, bears N. and S.
	Descend abruptly 80 ft. over very rough ground.
40.30	Set a granite stone, 18x10x4 ins., 12 ins. in the ground for ¼ sec.cor., marked ¼ on N. face; from which
	A cedar 10 ins. diam. bears S. 25°W. 119 lks. dist., marked ¼ S 19 B T.
	A cedar, 14 ins. diam. bears N. 45°E. 87 lks. dist., marked ¼ S 18 B T.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
41.20	Bottom of Miner's Canyon, drains S. 25° E.
	Ascend very abruptly 175 ft.
50.00	Top of point of ridge, bears NW. and SE.
	Descend 150 ft.
60.00	Bottom of big gulch, drains S.
	Ascend abruptly 100 ft.
70.00	Top of ridge, bears NW. and SE. Descend 30 ft.
78.00	Bottom of small hollow, course NW. Ascend gradually.
80.30	The cor. to secs. 18 and 19.
	Land, very rough and mountainous.
	Soil, granite, gravel, 4th rate.
	Timber, very scattering cedar.
	Brush, black-brush, sage, deer, rabbit, mountain-rush, bitter-bush, cacti and oose.
	Mountainous land on 80.30 chs.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
	June 18: At 4 h. p.m. l.m.t. I set off 37°30' N. on the lat. arc, 23°25' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 18 and 19. Thence I run
	N. 0° 02' W. on atrue line bet. secs.18 and 20.
	Through brush and scattering cedar.
	Ascend abruptly.
6.00	Along west slope of small ridge, bears E. and W.
	Descend.
7.70	The C C of secs. 17 and 20.
	N. 0° 02'W. bet. secs.17 & 18, with continuous measurement.
10.00	Bottom of hollow, drains SW.
	Enter heavier cedar,,bears NE. and SW.
	Ascend gradually up west side of small hollow, drains S. 20° W.
36.00	Descend gradually along west side of wash.
40.00	Set a sandstone 18x 9x5 ins., 8 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; from which
	A cedar, 6 ins. diam. bears S. 81°W. 101 lks. dist., marked $\frac{1}{4}$ S 18 B T.
	A cedar, 10 ins. diam. bears S. 75°E. 22 lks. dist., marked $\frac{1}{4}$ S 17 B T.
45.00	Top of small hill, bears E. and W.
47.70	Small wash, drains SE.
53.00	Ridge, bears E. and W. Division of drainage. Descend.
65.00	Bottom of hollow, drains NE. Ascend gradually.
70.00	Top of small ridge, bears NW. and SE. Descend 25 ft.
75.80	Bottom of hollow, drains NE. Ascend.
78.00	Top of E. point of small ridge, bears NE. and SW.
	Descend.
79.40	Bottom of hollow, drains easterly. Ascend.
80.00	Set a granite stone, 16x11x4 ins., 11 ins. in the ground for cor. to secs. 7, 8, 17 and 18, marked

CHAINS

with 4 notches on S. and 5 notches on E. edges;
from which
A cedar 16 ins. diam. bears S. 85°W. 250 lks.
dist., marked T 40 S R 17 W S 16 B T.
No other trees within limits. Raise a mound of stone
2 ft. base, 1½ ft. high, W. of cor.
Land, hilly to rolling.
Soil, gravel and sandy loam, 4th and 3d rates.
Timber, cedar with a few pinon pine.
Brush, black-brush, mountain-rush, bitter-bush and cacti.
Land, rolling to hilly on 80.00 chs.

June 18, 1911.

June 19: At 7 h. a.m.l.m.t. I set off 23°27' N. on the decl. arc, 37°21' N. on the lat. arc; and determine a meridian with the solar. Thence I run
East on a random line bet. secs. 8 and 17.

40.00 Set temp. ¼ sec.cor.

82.24 Intersect the N. and S. line 7.60 chs. S. of the cor. of secs. 8, 9, 16 and 17, whence I return
West on a true line bet. secs.8 and 17.

Through heavy brush and scattering cedar and pinon timber.
Along gentle slope on S. side of S. branch of Toban Wash.

20.00 Small wash, drains NE. Ascend gradually.

40.00 On east slope of hill.
Set a sandstone, 14x8x6 ins., 9 ins. in the ground, marked ¼ on N. face; from which
A cedar 5 ins. diam. bears N. 64°E. 168 lks. dist., marked ¼ S 8 B T.
A cedar, 6 ins. diam. bears S. 19°E., 23 lks. dist. marked ¼ S 17 B T.

47.00 Top of knoll, descend 75 ft.

53.00 Bottom of hollow, drains SE. Ascend 75 ft.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
60.00	Top of ridge, bears SE. and NW.
68.00	Descend along south slope.
82.24	N. 0°02'W. of the cor. of secs.7,8,17 and 18, 7.60 chs.. Set a sandstone 14x8x6 ins., 9 ins. in the ground for C.C. of secs. 8 and 17, marked with 2 grooves on N. and C C. on east and 4 grooves on south faces; from which A cedar 12 ins. diam., bears S. 75°E., 398 lks. dist., marked T. 40 S.R., 17 W S 17 B T. Raise a mound of stone, 3 ft. base, 2 ft. high, east of cor., 3 ft. dist. No other trees within limits. Destroy all marks on old cor. pertaining to secs.8 & 17. Land, level to hilly. Soil, sandy loam, and gravel; 2d and 3d rates. Timber, very scattering cedar and few pinon pines. Brush: black-brush, sage, mountain-rush, bitter-bush, and cacti. Land, rolling to hilly on 82.24 chs.

June 19: At 12 h. 1 m., p.m.l.mt. I set off 23°26' N. on the decl. arc and observe the sun on the meridian at the cor. to secs. 7 and 18. The resulting lat. is 37°21' N., which is the correct lat. very nearly.

Thence I run

S. 89°53'W. on a random line bet.secs.7 and 18.

40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.20	Intersect the W. bdy: of Tp. 2 lks. N. of the cor. to secs.7, 12, 13 and 18, set by me and previously described. Thence I return

N.89°52'E. on a true line bet.secs.7 and 18.

Through scattering cedar and heavy brush.

4.20	Bottom of wash in Miner's Canyon, drains southwesterly. Ascend abruptly 250 ft.
13.40	Top of hill, bears SE. and NW. Descend 100 ft.
20.50	Bottom of hollow, drains SE. Ascend.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
24.50	Top of hill, beare SE. and NW.
29.70	Bottom hollow drains SE. Ascend 100 ft.
34.90	Top of ridge, beare NW. and SE. Descend 100 ft.
40.20	Set a sandstone, 16x8x5 ins., 11 ins. in the ground for ¼ sec.cor., marked ¼ on N. face; raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor. No trees. Pits impracticable.
46.00	Top of hill, beare SE. and NW. Descend 100 ft.
57.00	Headof hollow, drains S. 20° E. Ascend 75 ft.
59.00	Top of hill, bears S. 20° E. and N. 20° W. Descend gradually.
62.00	Small hollow, heads N. 2 chs., drains N. 88° E. Descend gradually along south slope of ridge, bears N. 88° E. and S. 88° W.
78.00	Bottom of hollow, drains S. 88° E.
79.60	Leave wash.
80.20	The cor.of secs. 7 and 18. Land, mountainous to hilly. Soil, gravel; 4th rate. Timber, scartering cedar. Brush: black-brush, sage, deer, mountain-rush, bitter-bush, rabbit, cacti and oose. Mountainous land or land covered with heavy brush on 80.20 chs.

June 19: At 3 h. p.m.l.m.t. I set off 23° 26' N. on the decl. arc, 37°21' N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 7 and 18. Thence I run

N. 0°02'W. on a true line bet. secs. 7 & 17.

Through heavy brush and scattering timber. Ascend.

2.00	Top of ridge, bears S. 88°W. and N. 88°E. Descend 25 ft.
6.00	Bottom of hollow, drains E. Ascend.
7.60	The C.C. of secs. 8 & 17.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
	N. 0° 02'W. bet. secs.7 & 8, with continuous measurement.
9.00	Top of ridge, bears S. 80° E. and N. 80° W.
	Descend gradually.
15.00	Bottom of hollow, 35 ft. deep, drains E.
	Ascend gradually.
20.00	Top of ridge, bears SE. and NW. Descend gradually.
27.00	Ascend gradually 30 ft.
34.00	Top of ridge, bears SE. and NW.
	Descend gradually 40 ft.
39.00	Bottom of small hollow, drains S. 30° E.
40.00	Set a sandstone, 14x8x6 ins., 9 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; from which
	A cedar 4 ins. diam. bears S. 65°W. 56 lks. dist., marked $\frac{1}{4}$ S 7 B T.
	A cedar, 6 ins. diam. bears S. 50°E. 139 lks. dist., marked $\frac{1}{4}$ S 8 B T.
42.00	Ascend gradually over rolling country.
62.00	Top of small ridge, bears SE. and NW. Descend.
72.00	Bottom of hollow, drains SE.
78.00	Top of ridge, bears S. 60° E. and N. 60° W.
	Descend 30 ft.
80.00	Set a granite stone 16x8x5 ins., 11 ins. in the ground for cor. of secs. 5, 6, 7 and 8, marked with 5 notches on south and 5 notches on east edges; from which
	A cedar, 12 ins. diam. bears N. 66°W. 36 lks. dist., marked T 40 S R 17 W S 6. B T.
	A cedar, 8 ins. diam. bears S. 5°W., 84 lks. dist., marked T 40 S R 17 W S 7. B T.
	No other trees convenient to mark.
	Raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
	Land, rolling to hilly.
	Soil, sandy gravel, 3d and 4th. rates.
	Timber, scattering cedar and a few pinon pine.

CHAINS	
	Brush, black-brush, sage, rabbit, deer, mountain-rush, bitter-bush, cacti and oose.
	Land, hilly on 80.00 chs.
	Mountainous land or land covered with dense undergrowth 80.00 c
	June 19: At this point at 5 h. p.m.l.m.t. I set off 23°27' N. on the decl.arc, 37°22' N. on the lat. arc, and determine a meridian with the solar. Thence I run
	East on a random line bet.secs.5 and 8.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
82.20	Intersect the N. and S. line 7.71 chs. S. of the cor. of secs. 4, 5, 8 and 9, from which I return
	West on a true line bet. secs.5 and 8.
	Through scattering cedar and pinon and heavy brush.
.70	Bottom of Toban Wash, bears NW. and SE.
1.50	Road from Gunlock to Grape Vine Wash.
4.00	Ascend abruptly 75 ft.
11.00	Leave Toban Wash.
20.00	Top of ridge, bears SE. and NW.
24.00	Over rolling bench.
33.00	Descend 50 ft. Leave flat.
36.50	Foot of hill.
40.00	On level bottom of hollow, drains SE.
	Set a sandstone, 18x10x6 ins., 12 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; from which
	A cedar 10 ins. in diam. bears S.58°W. 191 lks. dist., marked $\frac{1}{4}$ S 8 B T.
	A cedar 10 ins. in diam., bears N. 79°W. 143 lks. dist., marked $\frac{1}{4}$ S 5 B T.
49.00	Leave hollow. Ascend.
54.00	Small ridge, bears SE. and NW.
70.00	Ascend 40 ft.
73.00	Top of ridge, bears SE. and NW. Descend 40 ft.
77.00	Hollow, drains SE. Ascend gradually 30 ft.
82.20	At a point 7.71 chs. N. 0°02' W. of the cor. to secs.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS

5, 6, 7 and 8,

Set a sandstone 20x10x6 ins., 15 ins. in the ground for C.C. of secs. 5 and 8, marked with C.C. on east, 1 groove on N. and 5 grooves on S. faces; from which A cedar, 9 ins. diam. bears N. 51°E.89 lks. dist., marked T 40 S R 17 W S 5 B T.

A cedar, 8 ins. diam. bears S. 65° E. 15 lks. dist., marked T 40 S R 17 W S 8 B T.

Raise a mound of stone 2 ft. base, 1½ ft. high. E. of cor. and destroy all marks on old cor. pertaining to secs.5 and 6.

Land, broken to rolling.

Soil: gravel and sandy gravel; 4th and 2nd rates.

Timber, cedar and pinon pine.

Brush, black-brush, sage, mountain-rush, deer, bitter-bush, scrub-oak, rabbit, cacti and cose.

Land, covered with light brush on 82.20 chs.

June 19, 1911.

June 20, 1911: At 8 h. a.m.l.m.t. I set off 23°27' N. on the decl. arc; 37° 32' N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 6 and 7. Thence I run

S.89°52'W. on a random line bet. secs.6 and 7.

40.00 Set temp. ¼ sec.cor,

80.28 Intersect the W. bdy. of T. 7 lks. S. of the cor. of secs. 1, 6, 7 and 12, set by me.

Whence I return,

N. 89°55'E, on a true line bet.secs.6 & 7.

Ascend abruptly through heavy brush and scattering cedar.

24.00 Top of hill, 300 ft. high, bears NW. and SE. Descend.

40.28 Set a granite stone, 18x 9x5 ins., 12 ins. in the ground for ¼ sec.cor., marked ¼ on N. face.

No trees within limits. Raise a mound of stone, 3 ft.

CHAINS	
	base, 1½ ft. high, N. of cor., 3 ft. dist.
40.60	Bottom of hollow, drains SE. Ascend.
45.00	Top of hill, bears SE. and NW. Descend 100 ft.
67.00	Bottom of hollow, drains SE. Ascend 65 ft.
70.00	Top of ridge, bears N. and SE. Ascend 50 ft.
73.00	Bottom of hollow, drains SE. Ascend 65 ft.
78.00	Top of ridge, bears SE. and NW. Descend 60 ft.
80.38	The cor. of secs. 6 and 7.
	Land, mountainous.
	Soil, granite, gravel, 4th rate.
	Timber, scattering cedar and pinon.
	Brush: black-brush, sage, deer, mountain-rush, rabbit, scrub-oak, bitter-bush, cacti and oose.
	Mountainous land on 80.38 chs.

From the cor. of secs. 6 and 7, I run N. 0°02'W. on a random line bet.secs.6 and 8.

7.71	The C C of secs. 5 and 8.
	Then bet. secs. 5 and 6, with continuous measurement.
40.00	Set temp. ¼ sec.cor.
88.08	Intersect the N. bdy. of T. 2.39 chs. west of the cor. of secs. 5, 6, 31 and 32, set by me and previously described. Destroy all marks on old cor. pertaining to secs. 5 and 6.
	Set a sandstone, 5x9x24 ins., 18 ins. in the ground, for C.C. of secs. 5 and 6, marked with 5 grooves on the E. and 1 groove on the W. and CC on south faces; from which
	A pinon, 12 ins. in diam. bears S. 45°W. 58 lks. dist., marked T 40 S R 17 W S 6 B T.
	A pinon, 11 ins. in diam. bears S. 14°E. 47 lks. dist., marked T 40 S R 17 W S 5 B T.
	Raise a mound of stone, 3 ft. base, 2 ft. high, S. of cor.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
	S. 0° 02' E. on a trueline bet. secs. 5 & 6.
	Ascend abruptly 30 ft.
1.00	Top of ridge, bears SE. and NW.
	Leave Grape Vine Wash.
	Heavy cedar, bears NW. and SE.
	Descend 75 ft.
13.00	Bottom of Oak Patch Wash, drains NE.
	Ascend.
17.00	Top of ridge, bears NE. and SW.
	Descend abruptly 30 ft.
36.90	Bottom of gully, drains N. 75° E.
	Ascend.
	Leave heavy timber.
40.00	Top of hill, bears E. and W.
	Descend 80 ft.
47.00	Bottom of hollow, drains NE.
	Ascend 60 ft.
48.08	Set a granite stone, 16x9x8 ins., 11 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; from which
	A cedar, 6 ins. diam. bears N. 59° W. 95 lks. dist., marked $\frac{1}{4}$ S 6 B T.
	A cedar, 4 ins. diam. bears N. 23° E. 59 lks. dist., marked $\frac{1}{4}$ S 5 B T.
	Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
50.00	Top of saddle ridge, bears N. 80° E. and S. 80° W.
	Descend 100 ft.
68.00	Bottom of hollow, drains N. 80° E.
	Ascend abruptly 50 ft.
71.00	Top of ridge, at east end of saddle, bears S. 70°E. and N. 70° W.
	Descend 50 ft.
78.00	Bottom of hollow, drains SE. Ascend gradually.

SURVEY OF THE SUBDIVISIONS OF T. 40 S., R. 17 W.

CHAINS	
80.37	The C.C. of secs. 5 and 8.
	Thence bet. secs. 6 and 8. Ascending.
88.08	The cor. of secs. 6 and 7.
	Land, mountainous.
	Soil, gravel and rock, 4th rate.
	Timber, heavy to very scattering cedar and pinon pine.
	Brush: sage, black-brush, deer , scrub-oak, bitter-bush, mountain-rush, crab apple, cacti and ooze.
	Mountainous land or land covered with heavy brush or heavy timber, on 88.08 chs.

June 20, 1911.

GENERAL DESCRIPTION.

The land in this township is volcanic in character and on that account has no marked difference except those parts divided by the Santa Clara River; the land east of the river being a volcanic bench except for the part comprised in the south tier of sections which is a very rough sandstone formation producing formidable hills and cliffs. The part west of the river is a very hilly sandstone and granite formation. The soil of the bottom lands of the Santa Clara river is a rich sandy loam producing three crops in succession each season. Small pieces of land in the Toban Wash and along the Mogatsie Creek outside of this contract, are the only remaining lands within the township capable of being farmed. While the soil of the washes in the western portion of the township is quite rich, lack of water makes it valueless other than

GENERAL DESCRIPTION OF TP. 40 S., R. 17 W.

for the fair growth of grass it produces. The soil of the volcanic bench is a second rate, sandy clay and gravel, producing agood growth of grass. The soil of the hilly portion of the western part of the township is a second and fourth rate granite gravel, producing only a fair growth of grass.

Cottonwoods grow profusely along the Santa Clara River and portions of the Toban and Grape Vine Washes. A few ash are found in Toban Wash and along the Santa Clara River. Cedar, while the predominating timber, is only of a scattering growth gaining in number toward the NW. part of the township. Pinon pine is scarce; the only place where it grows in any quantity being in the very rough southern part of the township east of the Santa Clara River. In no part of the township do trees grow in commercial quantities.

From surface indications large bodies of fine sandstone underlie portions of the township but no development has taken place. Mica and black sand in the stream beds and in some of the dry washes indicate the presence of valuable minerals. Copper has been found in the hills north and west of the township.

Only a narrow portion of this township is watered. The Santa Clara river bottom lands, the only irrigable part of the township within this contract of any importance, is nowhere over half a mile in breadth and seldom more than half of that. A small stream of water is found in the lower part of Toban Wash, but the narrowness of the wash prohibits the use of the water on more than five acres. The only remaining water in the township under this contract is a seep of mineral water in Grape Vine Wash in secs. 5 and 6. not seen from line.

GENERAL DESCRIPTION OF T. 40 S., R. 17 W.

There are four settlers in secs.33: George H. Bowler who with his brother holds about 15 acres of land along the east bank of the Santa Clara River about in the middle of the sec.; C. Y. Pulsipher, whose land joins Bowler's on the west embracing about 15 acres. Both these holdings are improved and the holders reside there during the greater part of the year. John H. Bowler has three acres along the east bdy. of the sec. in the SE. ¼ of the NE.¼; he does not reside on it. Joshua Leavitt has a valuable piece of land on the line between secs. 29 and 33 of about 18 acres; it is highly improved but he does not live on it. He also has a small fenced field on line between secs. 15 and 16.

E. W. Leavitt has a 12 acre piece of improved land between secs. 28 and 29 lying just south of the ¼ sec.cor.

Amos Hunt has three acres of land in Toban Wash in sec.15. Neither Hunt nor E. W. Leavitt reside on their holdings.

James Chadburn has no land within this township and he could not be located.

VALUE OF IMPROVEMENTS ON SETTLERS LANDS.

Bowler, George H., house, corral, orchard, fence, etc. $700.00

GENERAL DESCRIPTION OF T. 40 S., R. 17 W.

Pulsipher, C. Y. house, corral, orchard, fences, etc.	$600.00
Bowler, J. H., fence, etc..	75.00
Leavitt, Joshua, orchard, corral, fences, etc.	550.00
Leavitt, F. W., orchard, fence, etc.	300.00
Hunt, Amos, fence	25.00

John H. Clark

U. S. Deputy Surveyor.

There being no Notary Public, or other Public officer authorized to administer oaths, within a reasonable distance and as great delay and expense would be entailed in going before one, I administered the preliminary and final oaths to assistants in the survey of the Subdivisions of Township 40 S. R. 17 W.

John H. Clark

U. S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by John H. Clark, 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 subdivisions of Tp. No. 5 R. 17 W. Salt Lake Base and Meridian, showing the respective capacities in which they acted:

John H. Bowler, Chainman.
Francis J. Bowler, Chainman.
F. W. Leavitt, Moundman.
Wilson D. Bowler, Moundman.
Henry Hunt, Axman.
, Axman.
John R. Hunt, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John H. Clark, United States Deputy Surveyor, in surveying all those parts or portions of the Subdivisions of Tp. No. 5 R. 17 W. of the Salt Lake base and meridian, Utah of Utah, which are represented on 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 Utah.

John H. Bowler, Chainman.
Francis J. Bowler, Chainman.
Francis W. Leavitt, Moundman.
Milton D Bowler, Moundman.
Henry Hunt, Axman.
, Axman.
John R. Hunt, Flagman.

Subscribed and sworn to before me this 21 day of June, 1901.

SEAL

John H. Clark
U. S. Deputy Surveyor

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, John H. Clark, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward D. Anderson United States Surveyor General for Utah, bearing date of the 4 day of May, 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 Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivisions of Townships 40 South of Range 17 West

of the Salt Lake base and meridian, in the State of Utah, 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 Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

John H. Clark
United States Deputy Surveyor.

Subscribed by said John H. Clark, and sworn to before me this 12 day of Sept, 1905

Julian A. Broadbent
Clerk of Court.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 4, 1902.

The foregoing field notes of the survey of the subdivisional lines of Township No.40 South, Range No.17 West of the Salt Lake Base and Meridian, Utah,

executed by John H.Clark under his contract No. 228, dated May 4, 1905, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Thomas Bell
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.

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BOOK A-370

FIELD NOTES

M. S. B.

OF THE SURVEY OF THE

NORTH BOUNDARY

OF

TOWNSHIP NO. 12 SOUTH

RANGE NO. 19 WEST

Of the SALT LAKE BASE AND *Meridian,*

STATE OF UTAH

AS SURVEYED BY

HARRY A. RAGER, *United States Deputy Surveyor,*

Under his Contract No. 294, *dated* April 16th, *19* 06

Survey commenced Sept. 8th, *19* 07

Survey completed Sept. 9th, *19* 07

6—151

high 2-00-00

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BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

J.S.Johnson,	Chainman.
Frank T.Koehler,	Chainman.
Frank T.Koehler,	Moundman.
Henry Davis,	Flagman.

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BOOK A-370

INDEX DIAGRAM.

*Township*_____, *Range*_____

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*Meanders Page*_____

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BOOK A-370

PRELIMINARY OATHS OF ASSISTANTS.

WE, J. S. Johnson and Frank J. Koehler

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon 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 N. Bdy. of T. 17 S. R 19 W. and W. Bdy. of T. 14 S. R 18 W. of the Salt Lake Base and Meridian Utah

J. S. Johnson, Chainman.

Frank J. Koehler, Chainman.

Subscribed and sworn to before me this 25th day of August, 1907

SEAL

Harry A Cager
U. S. Deputy Surveyor

I WE, Frank J. Koehler and

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey of N. Bdy. of T. 17 S. R 19 W. and W. Bdy. of T. 14 S. R 18 W. of the Salt Lake Base and Meridian Utah

Frank J. Koehler, Moundman.

, Moundman.

Subscribed and sworn to before me this 25th day of August, 1907

SEAL

Harry A Cager
U. S. Deputy Surveyor

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 , 190

SEAL

I, Henry Davis, 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 N. Bdy. T. 17 S. R. 19 W. and W. Bdy. of T. 14 S. R 18 W. of the Salt Lake Base and Meridian, Utah.

Henry Davis, Flagman.

Subscribed and sworn to before me this 25th day of August, 1907

SEAL

Harry A Cager
U. S. Deputy Surveyor

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NORTH BOUNDARY OF T. 12 S., R. 19 W.

Survey commenced Sept.8, 1907, and executed with a Keuffel and Esser light mountain transit, No. 12377, the horizontal limb being provided with two double verniers placed opposite to each other reading to single minutes of arc.

I begin at the cor.of secs.2,3,34, and 35 on the N.bdy. of the Tp., in lat.39° 48' 40" N., longitude 113° 57' 12" W., which is a quartzite stone 8 x 8 x 6 ins.above ground marked and witnessed as described by the surveyor general. At this cor.at 8 h. 19 m.p.m., by my watch which is 4m.00s.slow of l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark the point thus determined by a tack driven in a stake set in the ground 5 chs.N.of my station.

Sept.8, 1907.

Sept.9, 1907: At 8 h. 00 m.a.m.l.m.t., I lay off the azimuth of Polaris 1° 33' to the west, and mark the meridian thus determined by a tack driven in a stake set firmly in the ground W.of the point established last night. The magnetic bearing of the true meridian is N. 17° 15'W., which gives the magnetic decl.17° 15'E.

Thence I run

East on a true line bet.secs.2 and 35,

Ascend through pines, aspens, and mahogany timber; over almost impassable W.slope of Ibapah Peak.

21.50 Knowing that the ¼ sec.cor.could not be safely set at its point as the land from this point east is very steep and covered with loose slide rock, at this point I mark an aspen 5 ins.diam., marked W C ¼ S 35 on N. and 2 on S.sides; from which

An aspen 4 ins.diam.brs.N.5° E. 10 lks.dist., marked W C ¼ S 35 B T

An aspen 4 ins.diam.brs.S.11° E. 12 lks.dist.

Chains.	
	marked W C $\frac{1}{4}$ S 2 B T
40.00	Falls on steep rocky slope and cor.could not be set.
80.00	Falls on steep precipitous W.side of Ibapah Peak and cor.could not be set. Witness cor.set 8.15 chs.E.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, pines, aspens and mahogany on 80.00 chs.
	Mountainous land on 80.00 chs.

East on a true line bet.secs.1 and 36,

Ascend steep and precipitous W.slope of Ibapah Peak; through dense pines, aspens, and mahogany.

8.15 Top of precipitous ascent, bearing N. and S.; begin more gradual ascent.

Set a granite stone 24 x 18 x 12 ins., 18 ins.in the ground, for witness cor.of secs.1,2,35, and 36, marked W C on NE.face, with 5 notches on W. and 1 notch on E. edges; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high W.of cor.Pits impracticable.

No suitable bearing trees available.

18.30 Top of divide between Granite Canyon and Deep Creek, bears N. and S., 2000 ft.above the cor.of secs.2,3,34, and 35. Ibapah Peak bears north about 18 chs.dist.Begin precipitous descent over cliff and slide rock.

26.00 Bottom of ravine drains S.300 ft.below top of ridge; ascend.

Leave dense pine, aspen and mahogany timber, enter scattering pine, aspen and mahogany timber, bears N. and S.

30.50 Top of ridge bears N. and S., 100 ft.above bottom of ravine; descend.

40.00 Set a granite stone 20 x 8 x 6 ins., 15 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high N.of cor. Pits

NORTH BOUNDARY OF T. 12 S., R. 19 W.

Chains.

impracticable.

77.00 Begin moreprecipitous descent bears N. and S.

80.00 Being unable to run a line north on the E.bdy.of Tp. 11 S., R. 19 W.; therefore, being unable to place this cor.at the intersection of the two boundaries, at this point I set a granite stone 20 x 12 x 8 ins., 15 ins.in the ground, for cor.of Tps.11 and 12 S.,. Rs.18 and 19 W., marked 11 S on NE., 18 W on SE., 12 S on SW, and 19 W on NW.faces, with 6 notches on each edge; and raise a mound of stone 2 ft.base, 1½ ft.high S.of the cor.. Pits impracticable.

Land, mountainous.

Soil, rocky and stony; 4th rate.

Timber, dense pines, aspens and mahogany on 26.00 chs.; scattering pines, aspens and mahogany on 54.00 chs.

Mountainous land on 80.00 chs.

Sept.9, 1907.

U.S.Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Henry A. Cayer, 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 N. ½ Bdy. of T. 12 S. R. 17 W. and W. ½ Bdy. of T. 11 S. R. 18 W. of the Salt Lake Base and Meridian, Utah showing the respective capacities in which they acted:

J. L. Johnson, Chainman.
Frank J. Koehler, Chainman.
Frank J. Koehler, Moundman.
, Moundman.
, Axman.
, Axman.
Henry Davis, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Henry A. Cayer, United States Deputy Surveyor, in surveying all those parts or portions of the N. ½ Bdy. of T. 12 S. R. 17 W. and the W. ½ Bdy. of T. 11 S. R. 18 W. of the Salt Lake Base and Meridian, State of Utah, 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 Utah.

J. L. Johnson, Chainman.
Frank J. Koehler, Chainman.
Frank J. Koehler, Moundman.
, Moundman.
, Axman.
, Axman.
Henry Davis, Flagman.

Subscribed and sworn to before me this 25th day of September, 1905.

SEAL.

Henry A. Cayer
U.S. Deputy Surveyor

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harry A.Rager, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Thomas Hull United States Surveyor General for Utah, bearing date of the 16th day of April, 1906, 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 Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the North Boundary of Township No.12 South, Range No.19 West and the West Boundary of Township No.14 South, Range No.18 West of the Salt Lake Base and meridian, in the State of Utah, 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 Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

in books "A" and "D"

Harry A.Rager
United States Deputy Surveyor.

Subscribed by said Harry A.Rager, and sworn to before me this 12th day of August, 1908.

Thomas Hull
U.S.Surveyor-General for Utah.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, May 1, 1912~~09~~

The foregoing field notes of the survey of the North Boundary of Township No. 12 South, Range No.19 West of the Salt Lake Base and Meridian, Utah,

executed by Harry A.Rager under his contract No. 294, dated April 16, 1906, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Thomas Hull
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.

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"B"

M.S.B.

BOOK A-370

FIELD NOTES

OF THE SURVEY OF THE

RETRACEMENT AND RESURVEY OF THE

SOUTH BOUNDARY

OF

TOWNSHIP NO. 12 SOUTH

RANGE NO. 18 WEST

Of the SALT LAKE BASE AND *Meridian,*

STATE OF UTAH

AS SURVEYED BY

Harry A. Rager, *United States Deputy Surveyor,*

Under his Contract No. 294, *dated* April 16, 1906

Survey commenced Sept. 29th, 1907,

Survey completed Sept. 30th, 1907.

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Rec high 6-05-37

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BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

J.S.Johnson,	Chainman.
Frank T.Koehler,	Chainman.
J.S.Johnson,	Moundman.
Henry Davis,	Flagman.

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BOOK A-370

INDEX DIAGRAM.

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PRELIMINARY OATHS OF ASSISTANTS.

WE, J. A. Johnson and Frank J. Koehler do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon 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~~ Retracement and Resurvey of the S. Bdy. of T. 17 S. R. 18 W. of the Salt Lake Base and Meridian Utah

J. S. Johnson, Chainman.

Frank J. Koehler, Chainman.

Subscribed and sworn to before me this 25th day of August, 1907

SEAL

Harry A. Rogers
U. S. Deputy Surveyor

I WE, J. A. Johnson and

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the ~~survey of~~ Retracement and Resurvey of S. Bdy. of T. 17 S. R. 18 W. of the Salt Lake Base and Meridian Utah

J. S. Johnson, Moundman.

, Moundman.

Subscribed and sworn to before me this 25th day of August, 1907

SEAL

Harry A. Rogers
U. S. Deputy Surveyor

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 , 190

SEAL

I, Henry Davis, 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~~ Retracement and Resurvey of the S. Bdy. of T. 17 S. R. 18 W. of the Salt Lake Base and Meridian Utah

Henry Davis, Flagman.

Subscribed and sworn to before me this 25th day of August, 1907

SEAL

Harry A. Rogers
U. S. Deputy Surveyor

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RETRACEMENT AND RESURVEY OF S. BDY. OF T. 12 S., R. 18 W.

CHAINS

Survey commenced Sept. 29, 1907, and executed with a Keuffel and Esser light mountain transit No.12377, the horizontal limb being provided with two double verniers placed opposite to each other, reading to single minutes of arc. At the cor. of Tps. 12 and 13 S., Rs. 17 and 18 W., on the Willow Springs Guide Meridian which is a quartzite stone 10x16x10 ins., above ground, marked and witnessed as described by the Surveyor General, lat. 39°43'27" N., long. 113° 48' 14" W., at 6 h. 57 m., p.m., by my watch, which is 4 m. 00 s. slow of l.m.t., I observe Polaris at E. elongation in accordance with instructions in the Manual and mark the line this determined by a tack driven in a wooden peg set in the ground 5 chs. N. of my station.

Sept. 29, 1907.

Sept. 30, 1907: At 8 h. 00 m., a.m.l.m.t I lay off the azimuth of Polaris 1° 33' to the west and mark the meridian thus determined by a tack driven in a stake set firmly in the ground W. of point established last night. The magnetic bearing of the true meridian is N. 17°15' W., which gives the magnetic dec.17°15' E.

From this cor. I run

West on a retracement line bet.secs.1 & 36.

Ascend over rolling, broken country through dense shadscale.

No trace of old ¼ sec.cor. or sec. cors. could be found, until at

245.37 Fall 156 lks. N. of a stone firmly set, which is a quartzite stone 8x18x10 ins., above ground set and witnessed as described by the Surveyor General, but having no marks visible, but as the topography as originally returned and as found practically agree- in to this point, I decide that the stone is the cor.

CHAINS	
	of secs. 3, 4, 33 & 34, the course of this line is therefore S. 89°38' W.
	I continue West, on a retracement line,
	No traces of old ¼ sec. or sec.cors. could be found until at
240.00	I intersect the cor. of Tps. 12 and 13 S., Rs. 18 and 19 W., which is a quartzite stone 7x17x7 ins. above ground, marked and witnessed as described by the Surveyor General.
	Thence I run
	East on a true resurvey line bet.secs.6 & 31.
	Descend along precipitious and almost impassable SW. slope of Birch Canyon over cliffs and loose slide rock.
40.00	No trace of old cor. could be found in the radius of 5 chs. and as the topography in no way agrees with the original notes showing that the line probably was never run, I set a quartzite stone 18x12x8 ins., 12 ins.in the ground for ¼ sec.cor., marked ¼ on N. face and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
75.00	Bottom of Birch Creek Canyon.Spring branch 5 lks. wide 6 ins. deep, drains SE. 1000 ft. below Tp. Cor. begin precipitious ascent over cliffs and loose slide rock.
80.00	Set a quartzite stone 30x18x8 ins., 15 ins. in the ground, for cor. of secs. 5, 6, 31 and 32, marked with 5 notches on W. and 1 notch on W. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
	No trace of old cor. could be found as the original notes claimed it to be on the other side of the creek and were not consistent.
	Land, mountainous.
	Soil, rocky; 4th rate.
	No timber.

RETRACEMENT AND RESURVEY OF S. BOUNDARY OF T. 12 S., R. 18 W.

CHAINS	
	Mountainous land on 80.00 chs.
	East on a true resurvey line bet.secs.5 & 32.
	Ascend steep NE. side of Birch Creek over cliffs and loose slide rock.
26.00	Point of rocky Spur projects SE.400 ft. above Birch Creek, descend.
36.00	Bottom of ravine drains SE.100 ft. below top of spur, ascend.
40.00	Set a shale rock 18x8x6 ins., 12 ins. in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
	No trace of old cor. could be found.
43.00	Top of spur projects SE., 100 ft. above bottom of gulch, descend.
50.00	Bottom of ravine, drains SE., 250 ft. below top of spur, ascend.
60.00	Top of spur, projects SE 100 ft. above bottom of ravine, descend.
78.00	Bottom of gulch, drains SE. 150 ft. below top of spur, ascend.
80.00	Set a shale rock 18x8x8 ins., 12 ins. in the ground for cor. of secs. 4, 5, 32 and 33, marked with 4 notches on E. and 2 notches on W. edges, and raised a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	No trace of old cor. could be found.
	Land, mountainous. Soil, rocky; 4th rate.
	No timber. Mountainous land on 80.00 chs.
	East on a true resurvey line bet.secs. 4 & 33.
	Ascend along foot of high mountain.
3.00	Top of spur, projects SE. 30 ft. above sec.cor., descend, enter dense shadscale undergrowth N. and S.

RESURVEY OF THE S. BDY. OF T. 12 S., R. 18 W.

CHAINS

5.00 Bottom of ravine drains SE. 100 ft. below top of spur, ascend.

8.00 Top of spur projects SE. 50 ft. above bottom of ravine, descend.

32.00 Bottom of gulch, drains SE. 200 ft. below top of spur, ascend.

36.00 Small ridge, bears NW. and SE. 100 ft. above bottom of gulch, descend.

40.00 Set a granite stone 18x8x6 ins., 12 ins. in the ground for ¼ sec.cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable. No trace of old ¼ sec.cor.

56.00 Bottom of gulch drains SE. 200 ft. below top of ridge, ascend.

59.00 Small spur projects SE. 50 ft. above bottom of gulch, descend.

80.00 Intersect the cor. of secs. 3, 4, 33 and 34, which I mark with 3 notches on E. and W. edges.

Land, mountainous.

Soil, rocky and stone; 4th rate.

No timber.

Dense undergrowth on 78.00 chs.

Mountainous land on 80.00 chs.

N.89°38'E. on a true resurvey line bet.secs.3 & 34.

Descend through dense shadscale undergrowth.

1.50 Bottom of Trout Creek 6 lks. wide, 6" deep, drains SE.

6.50 Old wagon road bears N.15°W. and SE.

40.89½ Set a quartzite stone 18x10x6 ins., 12 ins. in the ground for ¼ sec.cor., marked ¼ on N. face and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable. No trace of old cor.could be found.

47.00 Dry wash 10 lks. wide drains SE.

70.50 Dry wash, 10 lks. wide, drains SE.

CHAINS

81.79 Set a quartzite stone 20x12x6 ins., 15 ins. in the ground for cor. of secs. 2, 3, 34 and 35, marked with 3 notches on E. and 4 notches on W. edges; and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

No trace of old cor. could be found.

Land, mountainous.

Soil, stony; 4th rate.

No timber, undergrowth shadscale.

Dense undergrowth on 81.79 chs.

Mountainous land on 81.79 chs.

N. 89°38' E. on a true line bet secs. 2 & 35.

Descend over rolling, broken country, through dense shadscale undergrowth.

22.00 Dry wash drains SE.

40.89½ Set a quartzite stone 20x15x10 ins., 15 ins. in the ground for ¼ sec.cor., marked ¼ on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.

79.50 Dry wash, drains SE.

81.79 Set a quartzite stone 18x12x6 ins., 12 ins. in the ground for cor.of secs. 1, 2, 35 and 36, marked with 1 notch on E. and 5 notches on W. edges, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

No traces of old ¼ or sec.cor.could be found along this line.

Land, mountainous.

Soil, stony and sandy, 4th rate.

No timber, undergrowth shadscale.

Dense undergrowth on 81.79 chs.

Mountainous land on 81.79 chs.

N.89°38'E. on a true resurvey line bet secs 1 & 36

COAST	
	Descend over rough, broken country, through dense chaparral undergrowth.
30.00	Dry wash course SE.
40.69½	Top of ridge bears NW. and SE. 150 ft. above cor., descend.
	Set a limestone 15x10x5 ins., 10 ins. in the ground for ¼ sec.cor., marked ¼ on N. face and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
	No trace of old cor. could be found.
53.00	Begin more abrupt descent bears N. and S.
61.00	Bottom of abrupt descent bears N. and S. 150 ft. below beginning, descend gradually.
81.79	The cor. of Tps. 12 and 13 S., Rs. 17 and 18 W.
	Land, mountainous.
	Soil, sandy and stony ; 4th rate.
	No timber.
	Dense undergrowth on 81.79 chs.
	Mountainous land on 81.79 chs.

Sept. 30, 1907.

For General Description see notes of Subdivisions of T. 12 S., R. 18 W., in Book "C".

U. S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harry A Rogers, 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 Retracement and Resurvey of the 1st Bdy of T 12 S R 18 W of the Salt Lake Base and Meridian, Utah showing the respective capacities in which they acted:

J S Johnson, *Chainman.*
Frank T Koehler, *Chainman.*
J S Johnson, *Moundman.*
Moundman.
Axman.
Axman.
Henry Davis, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harry A Rogers, United States Deputy Surveyor, in surveying all those parts or portions of the Retracement and Resurvey of the West 1st Bdy of T 12 S R 18 W.

of the Salt Lake Base and meridian, State of Utah, 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 Utah

J S Johnson, *Chainman.*
Frank T Koehler, *Chainman.*
J S Johnson, *Moundman.*
Moundman.
Axman.
Axman.
Henry Davis, *Flagman.*

Subscribed and sworn to before me this 25th day of September, 1908

SEAL

Harry A Rogers
U S Deputy Surveyor

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harry A.Rager, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Thomas Hull United States Surveyor General for U t a h, bearing date of the 16th day of April, 1906, 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 U t a h, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the retracement and resurvey of the South Boundary of Township No. 12 South, Range No. 18 West

of the Salt Lake Base and meridian, in the State of Utah, 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 Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such ~~survey~~ retracement and resurvey.

Harry A Rager
United States Deputy Surveyor.

Subscribed by said Harry A.Rager, and sworn to before me this 2d day of September, 1908.

Thomas Hull
U.S.Surveyor-General
for Utah.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, May 1, 1912.

The foregoing field notes of the survey of retracement and resurvey of the South Boundary of Township No.12 South, Range No. 18 West of the Salt Lake Base and Meridian, Utah,

executed by Harry A.Rager under his contract No. 294, dated April 16, 1908, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and resurveys they describe, are hereby approved.

Thomas Hull
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

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"C"
BOOK A-370

M.S.B.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION LINES

O F

TOWNSHIP NO. 12 SOUTH

RANGE NO. 18 W.

Of the SALT LAKE BASE AND *Meridian,*

STATE OF UTAH,

AS SURVEYED BY

Harry A. Rager, *United States Deputy Surveyor,*

Under his Contract No. 294, *dated* April 16, *19*06,

Survey commenced Oct. 1, *19*07.

Survey completed June 3, *19*09.

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high 40-62-32 closing 14.74

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

J.S.Johnson, Chainman.

Robert C.McFarland, Chainman.

Frank T.Koehler, Moundman.

Henry Davis, Flagman.

BOOK A-370

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BOOK A-370

PRELIMINARY OATHS OF ASSISTANTS.

WE, J. S. Johnson and Robt C. McFarland do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon 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 Subdivision Lines of T 1 S. R 1 W Salt Lake Base and Meridian Utah

J. S. Johnson, Chainman.

Robert C McFarland, Chainman.

Subscribed and sworn to before me this 25th day of August, 1907

SEAL

Harry A Roger
U. S. Deputy Surveyor

WE, Frank T. Koehler and ..... do solemnly swear that ~~we~~ will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey of Subdivision Lines of T 1 S. R 1 W. Salt Lake Base and Meridian Utah

Frank T. Koehler, Moundman.

....., Moundman.

Subscribed and sworn to before me this 25th day of August, 1907

SEAL

Harry A Roger
U. S. Deputy Surveyor

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 ....., 190

SEAL

I, Henry Davis, 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 Subdivision Lines of T 1 S. R 1 W. of the Salt Lake Base and Meridian, Utah

Henry Davis, Flagman.

Subscribed and sworn to before me this 25th day of August, 1908

SEAL

Harry A Roger
U. S. Deputy Surveyor

6-151

Survey commenced Oct.1, 1907, and executed with a Keuffel and Esser light mountain transit, No.12377. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc, which is the least count of the verniers of the latitude and declination arcs.

At the cor.of secs.25,30,31, and 36, on the Willow Springs Guide Meridian, which is a quartzite stone 5 x 10 x 6 ins.above ground, marked and witnessed as described by the surveyor general; lat.39° 44" 19" N.; long.113° 48" 14" W., at 6 h. 49 m.p.m.by my watch - which is 4 m. 00 s.slow of local mean time I observe Polaris at eastern elongation in accordance with instructions in the Manual; and mark a point in the line thus determined by a tack driven in a stake set in the ground 5 chs.N.of my station.

Oct .1, 1907.

Oct.2:: At 8 h. 0 m.a.m.l.m.t.I lay off the azimuth of Polaris 1° 33" to the west, and mark the meridian thus determined by a tack driven in a stake firmly set in the ground west of the point established last night.

The magnetic bearing of the true meridian is N.17° 30' W., which gives the mag.decl.17° 30'E.

I retrace the Willow Springs Guide Meridian through T. 12 S., and find it to be as returned in the notes of original survey.

On account of the S.bdy.of the Tp.being defective, I run

West on a true sectional correction line

Bet.secs.25 and 36,

Ascend over rolling broken country; through dense shadscale and greasewood.

32.00 Dry wash, 15 lks.wide, drains SE.

40.00 Set a limestone 24 x 10 x 8 ins., 18 ins.in the ground,

Chains.

for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.Pits impracticable.

80.00 Set a quartzite stone 14 x 8 x 6 ins., 9 ins.in the ground, for cor.of secs.25,26,35, and 36, marked with 1 notch on S. and E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.

Land, broken and rolling.

Soil, sandy and stony; 4th rate.

No timber.

Undergrowth, shadscale and greasewood.

Dense undergrowth on 80.00 chs.

South on a random line bet.secs.35 and 36,

40.00 Set temp. ¼ sec.cor.

80.36 Intersect the S.bdy.of the Tp.162 lks.N.89° 38'E.of the cor.of secs.1,2,35, and 36, heretofore described.

At my point of intersection I set a sandstone 24 x 10 x 6 ins., 18 ins.in the ground, for closing cor.of secs. 35 and 36, marked C C on N., with 1 groove on E. and 5 grooves on W.faces; and raise a mound of stone 2 ft. base, 1½ ft.high N.of cor. Pits impracticable.

I destroy all marks on the old cor.pertaining to secs. 35 and 36. Thence I run

North on a true line bet.secs.35 and 36,

Ascend over rolling broken country; through dense shadscale and sagebrush.

15.00 Top of ascent bears E. and W., 50 ft.above sec.cor.

Desc nd.

20.00 Dry wash, drains E.; ascend.

33.00 Top of ascent, bearing E. and W.; descend.

34.50 Bottom of gulch, draining E., 50 ft.below top of ascent.

Ascend.

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
40.36	Set a quartzite stone 14 x 8 x 6 ins., 9 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.. Pits impracticable.
71.50	Dry wash, draining E.
75.00	Top of ascent, bearing E. and W.. Descend.
80.36	The cor.of secs.25,26,35, and 36.
	Land,. broken and rolling.
	Soil, stony and sandy; 4th rate.
	No timber.
	Undergrowth, shadscale and sagebrush.
	Dense undergrowth on 80.36 chs.

West on a sectional correction line bet.secs.26 and 35,

Ascend over rolling broken country; through dense shadscale and sagebrush.

40.00	Set a quartzite stone 20 x 10 x 8 ins., 15 ins.in the ground, for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor. Pits impracticable.
80.00	Set a quartzite stone, 14 x 8 x 6 ins., 9 ins.in the ground, for cor.of secs.26,27,34, and 35, marked with 1 notch on S. and 2 notches on E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
	Land,. broken and rolling.
	Soil, stony and sandy;. 4th rate.
	No timber.
	Undergrowth shadscale and sagebrush.
	Dense undergrowth on 80.00 chs.

South on a random line bet.secs.34 and 35,

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.64	Intersect the S.bdy.of Tp. 3.28 chs.N.89° 38'E.of the cor.of secs.2,3,34, and 35, heretofore described. At my point of intersection I
	Set a quartzite stone 20 x 10 x 6 ins., 15 ins.in the ground, for closing cor.of secs.34 and 35, marked C C on N., with 2 grooves on E. and 4 grooves on W.faces; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high N.of cor. Pits impracticable.
	I destroy all marks on old corner pertaining to secs.34 and 35. Thence I run
	North on true line bet.secs.34 and 35,
	Ascend over rolling, broken country, through dense shadscale and sagebrush.
25.50	Dry wash, 10 lks.wide, drains E.
40.64	Set a quartzite stone 20 x 8 x 6 ins., 15 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high W.of cor.Pits impracticable.
55.00	Dry wash, drains E.
80.64	The cor.of secs.26,27,34, and 35.
	Land, broken and rolling.
	Soil, stony and sandy; 4th rate.
	No timber.
	Undergrowth, shadscale and greasewood.
	Dense undergrowth on 80.64 chs.

	West on a sectional correction line bet.secs.27 and 34,
	Ascend over rough, broken country; through dense shadscale and greasewood undergrowth.
40.00	Set a quartzite stone 20 x 8 x 5 ins., 15 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high N.of cor. Pits impracticable.

Chains.

75.00 Enter scattering cedars and pines.

80.00 Set a quartzite stone 14 x 10 x 8 ins., 9 ins.in the ground, for cor.of secs.27,28,33, and 34,. marked with 1 notch on S. and 3 notches on E.edges; and raise a mound of stone 2 ft.base,. 1½ ft.high W.of cor.Pits impracticable.

June 1, 1909.: The Examiner having found four suitable bearing trees, I mark same as follows:

A pine 10 ins.dia.bears S.18° E. 159 lks.dist. marked T 12 S R 18 W S 34 B T

A cedar 8 ins.dia.bears S.33° 30'W.. 99 lks.. dist., marked T 12 S R 18 W S 33 B T

A cedar 5 ins.dia.bears N.69° E. 72 lks.dist. marked T 12 S R 18 W S 27 B T

A cedar 8 ins.dia.bears N.43° 45'W.. 93 lks.. dist., marked T 12 S R 18 W S 28 B T

Land,. broken and rolling.

Soil,. sandy. and stony;: 4th rate.

Timber,. scattering cedar and pine..

Dense undergrowth of shadscale and greasewood 80.00 chs.

June 1, 1909..

Oct.2,. 1907::

South on a random line bet.secs.33 and 34,

40.00 Set temp.¼ sec.cor.

80.81 Intersect the S.bdy.of the Tp.. N.89° 38'E.4.80 chs.E.of the cor.of secs.3,4,33, and 34, marked and witnessed as described by the surveyor general. At my point of of intersection I

Set a quartzite stone 18 x 12 x 5 ins., 12 ins.in the ground, for closing cor.of secs.33 and 34, marked C C on N., with 3 grooves on E. and W.faces; and raise a mound of stone 2 ft.base,. 1½ ft.high N.of cor. Pits

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	impracticable.
	I destroy all marks on old corner pertaining to secs. 33 and 34 .
	Thence I run .
	North on a true line bet.secs.33 and 34,
	Ascend over rough rocky ground; through dense shadscale and sagebrush and scattering cedars and pines..
5.25	Wagon road bears NW. and SE..
40.81	Set a sandstone 14 x 8 x 8 ins., 9 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.. Pits impracticable.
69.81	Wire fence bears NW. and SE.
78.00	Wire fence bears NW. and SE.
80.81	The cor.of secs.27,28,33, and 34.
	Land,. broken and rolling.
	Soil, rocky and sandy; 4th rate.
	Timber, scattering cedars and pines..
	Undergrowth, shadscale and sagebrush.
	Dense undergrowth 80.81 chs..

	West on a sectional correction line bet.secs.28 and 33,.
	Ascend over rocky broken ground; through dense shadscale and sagebrush undergrowth, and scattering cedars and pines.
4.75.	Wagon road bears NE. and SW..
5.00	Log cabin of Albert Ross bears north 1.15 chs.dist.
6.00	Rock cabins of H.J.Meyer bear south 50 and 75 lks.dist.
23.00	Trout Creek, 15 lks.wide, 6 ins.deep, drains SE.; begin more abrupt ascent bearing N.. and S.
40.00	Set a quartzite stone 18 x 8 x 6 ins., 12 ins.in the ground for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor. Pits

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains	
	impracticable.
50.00	Top of ridge spur projecting SE., 200 ft. above Trout Creek; descend.
58.40	Bottom of gulch drainins SE., 150 ft. below top of spur; ascend.
80.00	Set a quartzite stone 20 x 10 x 6 ins., 15 ins. in the ground, for cor. of secs. 28, 29, 32, and 33, marked with 1 notch on S. and 4 notches on E. edges; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and stony; 4th rate.
	Timber, scattering cedar and pine.
	Undergrowth shadscale and sagebrush.
	Mountainous land, covered with dense undergrowth 80.00 chs.

South on a random line bet. secs. 32 and 33,

40.00	Set temp. ¼ sec. cor.
80.70	Intersect S. bdy. of Tp. 5.04 chs. E. of the cor. of secs. 4, 5, 32, and 33, heretofore described.

June 1, 1909: The Examiner having found no closing cor. for secs. 32 and 33, at my point of intersection I Set a limestone 18 x 10 x 5 ins., 12 ins. in the ground for closing cor. of secs. 32 and 33, marked C C on N. with 4 grooves on E. and 2 grooves on W. faces; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.

I destroy all marks on the old corner that pertain to secs. 32 and 33. June 1, 1909.

June 2: At the closing cor. of secs. 32 and 33, lat. 39° 43' 27" N.; long. 113° 52' 44" W., at 2 h. 46 m. a.m. by my watch, which is 4 m. 00 s. slow of l.m.t., I ob-

Chains.

serve Polaris at eastern elongation, in accordance with instructions in the Manual, and mark a point in the line thus determined by a tack driven in a stake set in the ground 5 chs. N. of my station.

At 8 h. 00 m. a.m. l.m.tt., I lay off the azimuth of Polaris 1° 32' to the W. and mark the meridian thus determined by a tack driven in a stake firmly set in the ground west of the point established last night.

The magnetic bearing of the true meridian at 7 h. 30 m. a.m., is N. 17° 30' W., which gives the magnetic decl. by the angle thus determined, 17° 30' E.

Thence I run

North on a true line bet. secs. 32 and 33,

Ascend over rough broken country; through dense shadscale and sagebrush undergrowth, and scattering cedars and pines.

4.50 Top of small spur, projects SE., 50 ft. above closing cor.

Descend.

15.00 Bottom of ravine drains SE., 150 ft. below top of spur;

Ascend.

34.50 Top of rocky ridge bearing NW. and SE., 300 ft. above bottom of ravine; descend.

40.70 Intersect the $\frac{1}{4}$ sec. cor., set by me in Oct. 2, 1907, which is a quartzite stone 20 x 8 x 8 ins., 15 ins. in the ground marked $\frac{1}{4}$ on W. face, with mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.

The Examiner found no bearing trees to this corner, therefore I mark bearing trees as follows:

A pine 16 ins. dia. bears N. 6° 30' E. 133 lks. dist., marked $\frac{1}{4}$ S 33 B T

A cedar 8 ins. dia. bears S. 52° 15' W. 172 lks. dist., marked $\frac{1}{4}$ S 32 B T

June 2, 1909.

Oct. 2, 1907: From the $\frac{1}{4}$ sec. cor. above described I con-

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	tinue my line
	North on true line bet.secs.32 and 33,
72.00	Bottom of shallow ravine, draining SE., 300 ft.below top of ridge; begin gradual ascent along rocky E.slope of mountain.
80.70	The cor.of secs.28,29,32, and 33.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering cedars and pine.
	Undergrowth shadscale and sagebrush.
	Mountainous land and dense undergrowth 80.70 chs.

Note:

The line running west between secs.29 and 32 runs over the steep slope of high mountain, and is covered with loose slide rock and could not be chained; therefore I.discontinue line at this point.

Oct.2, 1907.

Oct.3, 1907: As the sky was overcast and Polaris not visible all last night, I continue my meridian from a sight on the line established.

From the cor.of secs.25,26,35, and 36, I run

N.0° 01'W.bet.secs.25 and 26,

	Ascend gradually over rolling broken foothills; through dense shadscale and greasewood.
21.50	Dry wash, drains SE.
35.00	Wood road bears NE. and SW.
40.00	Set a quartzite stone 20 x 12 x 8 ins., 15 ins.in the ground, for ¼ sec.cor , marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
56.00	Bottom of dry wash, 30 ft.deep, 20 ft.wide, drains E.
80.00	Set a quartzite stone 15 x 10 x 5 ins., 10 ins.in the

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	ground, for cor.of secs.23,24,25, and 26, marked with 2 notches on S. and 1 notch on E.edge; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
	Land, broken and rolling.
	Soil, sandy and stony; 4th rate.
	No timber.
	Undergrowth shadscale and greasewood.
	Land covered with dense undergrowth 80.00 chs.
	East on a random line bet.secs.24 and 25,
40.00	Set temp.¼ sec.cor.
79.96	Intersect the Willow Springs Guide Meridian 5 lks.S.of the cor.of secs.19,24,25, and 30, which is a quartzite stone 5 x 8 x 6 ins., above ground, marked and witnessed as described by the surveyor general.
	Thence I run
	S.89° 58'W.on a true line bet.secs.24 and 25,
	Ascend through dense shadscale and sagebrush undergrowth; along foot hills.
35.00	Bottom of gulch drains SE., 30 ft.deep, 20 lks.wide.
39.98	Set a quartzite stone 14 x 8 x 6 ins., 9 ins.in the ground, for¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor. Pits impracticable.
79.96	The cor.of secs.23,24,25, and 26.
	Land, rolling foothills.
	Soil, sandy and stony; 4th rate.
	No timber.
	Undergrowth, shadscale and greasewood.
	Land covered with dense undergrowth 79.96 chs.

Chains.	
	N.0° 01'W.bet.secs.23 and 24,
	Ascend over rolling broken foot hills; through dense shadscale and sagebrush.
40.00	Set a quartzite stone 18 x 8 x 6 ins., 12 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
45.00	Dry wash, 30 lks.wide, 20 ft.deep, drains SE.
54.20	Dry bed of Granite Creek, 50 lks.wide, 20 ft.deep, drains E.
66.25	Dry wash, drains SE.
80.00	Set a quartzite stone 18 x 8 x 8 ins., 12 ins.in the ground, for cor.of secs.13,14,23, and 24, marked with 3 notches on S. and 1 notch on E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
	Land, rolling broken foot hills.
	Soil, stony and sandy; 4th rate.
	No timber.
	Undergrowth, shadscale and greasewood.
	Land covered with dense undergrowth 80.00 chs.

	N.89° 58'E.on a random line bet.secs.13 and 24,
40.00	Set temp.¼ sec.cor.
79.80	Intersect the Willow Springs Guide Meridian 9 lks.N.of the cor.of secs.13,18,19, and 24, which is a quartzite stone 5 x 8 x 8 ins.above ground, marked and witnessed as described by the surveyor general.
	Thence I run
	N.89° 58'W.on a true line bet.secs.13 and 24,
	Ascend along rolling foothills; through dense shadscale and sagebrush undergrowth.
39.90	Set a quartzite stone 18 x 8 x 6 ins., 12 ins.in the

Chains.	
	ground, for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.. Pits impracticable.
77.00	Dry wash, 10 lks.wide, 5 ft.deep, drains SE.
79.80	The cor.of secs.13,14,23, and 24.
	Land, broken and rolling.
	Soil, sandy and stony; 4th rate..
	No timber.
	Undergrowth, shadscale and greasewood.
	Land, covered with dense undergrowth 79.80 chs.

N.0° 01'W.bet.secs.13 and 14,

Ascend over rolling broken foothills; through dense shadscale and sagebrush undergrowth.

4.00	Dry wash, 10 lks.wide, 5 ft.deep, drains SE.
38.00	Dry wash, 30 lks.wide, 10 ft.deep, drains SE.
40.00	Set a quartzite stone 20 x 8 x 6 ins., 15 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.
67.00	Road from Granite to Trout Creek, bears E. and W.
80.00	Set a granite stone 18 x 8 x 6 ins., 12 ins.in the ground, for cor.of secs.11,12,13, and 14, marked with 4 notches on S. and 1 notch on E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.
	Land, broken and rolling.
	Soil, sandy; 4th rate.
	No timber.
	Undergrowth shadscale and greasewood.
	Dense undergrowth on 80.00 chs.

S.89° 58'E.on a random line bet.secs.12 and 13,

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
40.00	Set temp. ¼ sec.cor.
79.90	Intersect the Willow Springs Guide Meridian 5 lks.N.of the cor.of secs.7,12,13, and 18; which is a quartzite stone 6 x 8 x 6 ins. above ground, marked and witnessed as described by the surveyor general.
	Thence I run
	N.89° 56'W.on a true line bet.secs.12 and 13,
	Ascend over rolling broken foothills; through dense shadscale and greasewood undergrowth.
39.95	Set a granite stone 14 x 8 x 6 ins., 9 ins.in the ground for ¼ sec.cor., marked ¼ on N.face; dig pits 18 x 18 x 12 ins. E. and W.of stone 3 ft.dist.; and raise a mound of earth 3½ ft.base, 1½ ft.high N.of cor.
79.90	The cor.of secs.11,12,13, and 14.
	Land, broken and rolling.
	Soil, sandy; 4th rate.
	No timber. Undergrowth shadscale and greasewood.
	Undergrowth, dense, on 79.90 chs.

N.0° 01'W.bet.secs.11 and 12,

Ascend over rolling broken foothills; through dense shadscale and sagebrush undergrowth.

40.00 Set a granite stone 15 x 10 x 4 ins., 10 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; dig pits 18 x 18 x 12 ins.N. and S.of stone 3 ft.dist.; and raise a mound of earth 3½ ft.base, 1½ ft.high W.of cor.

51.00 Begin descent into gulch bearing E. and W.

53.00 Bottom of gulch draining E., 30 ft.below beginning of descent; ascend.

79.00 Begin precipitous ascent over granite cliffs and boulders bears NE. and SW.,

80.00 Set a granite stone 18 x 10 x 4 ins., 12 ins.in the ground, for cor.of secs.1,2,11, and 12, marked with 5

Chains.	
	notches on S. and 1 notch on E.edge; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
	Land, mountainous and rolling.
	Soil, sandy and stony; 4th rate.
	No timber.
	Undergrowth shadscale and greasewood.
	Dense undergrowth 80.00 chs.
	Mountainous land 1.00 ch.
	S.89° 56'E.on a random line bet.secs.1 and 12,
40.00	Set temp.¼ sec.cor.
80.00	Intersect the Willow Springs Guide Meridian 12 lks.S. of the cor.of secs.1,6,7, and 12, which is a quartzite stone 5 x 8 x 6 ins.above ground, marked and witnessed as described by the surveyor general.
	Thence I run
	S 89° 59'W.on a true line bet.secs.1 and 12,
	Ascending over rolling broken country; through dense shadscale and greasewood.
40.00	Set a cedar post 3 ft.long, 3 ins.square, 24 inches in the ground, with marked stone, for ¼ sec.cor., marked ¼ S 1 on N., S 12 on S.face; dig pits 18 x 18 x 12 ins.E.and W.of post 3 ft.dist.; and raise a mound of earth 3½ ft.base, 1½ ft.high N.of cor.
78.00	Begin precipitous ascent over granite cliffs and boulders, bears NE. and SW.
79.50	Rocky spur, projects S.150 ft.above beginning of precipitous ascent; descend.
80.00	The cor.of secs.1,2,11, and 12.
	Land, mountainous and rolling.
	Soil, sandy and rocky; 4th rate.
	No timber.
	Dense undergrowth 80.00 chs.

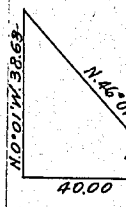
Chains.

Mountainous land 2.00 chs.

N.0° 01'W.bet.secs.1 and 2,

Ascending over granite cliffs and boulders, almost impassable. It being impossible to chain, therefore, in order to determine the distance, I triangulate as follows::

Set a flag on line on mountain bet.secs.1 and 2; then measure a base from sec.cor. N.89° 59'E.. 40.00 chs.. to a point, from which the flag bears N.46° 01'W.. From the flag E.end of base bears S.46° 01'E..; therefore the distance is tan.44° x base, or .96569 x 40.00= 38.63 chs., making the distance from the cor.of secs. 1.2.11, and 12 38.63 chs.



38.63 Top of ridge, 300 ft.above sec.cor., bearing NE.. and SW.; descend.

40.00 Point for ¼ sec.cor.falls on a granite boulder 6 x 6 x 5 ft.above ground. At the exact cor.point I cut a cross (X) with ¼ W.of the cross for ¼ sec.cor., and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.

Pits impracticable.

Note:

As the line continues over high cliffs and boulders that are impassable; and, as I could not see my triangulation point any farther along this line, and an offset impossible, I abandon the line at this point.

Land, mountainous.

Soil, rocky; 4th rate.

No timber.

Mountainous land 40.00 chs.

October 3, 1907.

October 3, 1907.: At the cor.of secs.26,27,34, and 35, lat.39° 44' 19" N.; long. 113° 50' 29" W., at 6 h.. 41 m..

Chains.

p.m.by my.watch, which is 4 m.. 00 s.. slow of l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions and mark the meridian thus determined by a tack driven in a stake firmly set in the ground 5 chs.N.of my station.

Oct.4, 1907: At 8 h.. 00 m.a.m.l.m.t., I lay off the azimuth of Polaris 1° 33' to the west, and mark the meridian thus determined by a tack driven in a stake firmly set in the ground west of the point established last night.

The magnetic bearing of the true meridian is N.17° 30'W. which gives the mag.decl.17° 30'E.

Thence I run

N.0° 01'W.bet.secs.26 and 27,

Ascend over rough,. broken country through dense shadscale and sagebrush undergrowth.

20.00 Dry wash, 10 lks.wide, 5 ft.deep, drains E.

21.25 Wagon road bears E. and W.; used as wood road.

40.00 Set a quartzite stone 20 x 10 x 4 ins., 15 ins.in the ground for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base,. 1½ ft.high W.of cor. Pits impracticable.

41.25 Dry wash 10 lks.wide, 5 ft.deep, drains E.

49.00 Begin descent to gulch, bears E.. and W.

50.50 Bottom of gulch, 30 ft.below beginning of descent, drains E.; ascend.

80.00 Set a quartzite stone 15 x 10 x 5 ins., 10 ins.in the ground, for cor.of secs.22,23,26 and 27, marked with 2 notches on S. and E.edges; and raise a mound of stone 2 ft.base,. 1½ ft.high W.of cor.. Pits impracticable.

Land, broken and rolling.

Soil,. sandy and stony; 4th rate.

No timber.

Undergrowth shadscale and greasewood.

Land covered with dense undergrowth 80.00 chs.

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	East on a random line bet.secs.23 and 26,
40.00	Set temp.¼ sec.cor.
80.08	Intersect N. and S.line 8 lks.S.of the cor.of secs.23,24, 25 and 26. Thence I run
	S.89° 57'W.on a.true line bet.secs.23 and 26,
	Ascend over rolling broken country; through dense shadscale and sagebrush undergrowth.
40.04	Set a quartzite stone 18 x 10 x 6 ins., 12 ins.in the ground, for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.Pits impracticable.
54.00	Bottom of gulch draining NE.
76.00	Bottom of same gulch draining SE.
80.08	The cor.of secs.22,23,26, and 27.
	Land, mountainous.
	Soil, sandy and stony; 4th rate.
	No timber.
	Undergrowth, shadscale and greasewood.
	Mountainous land, covered with dense undergrowth 80.08 chs.

	N.0° 01'W.bet.secs.22 and 23,
	Descending over rolling broken foothills; through dense shadscale undergrowth.
3.00	Bottom of gulch drains SE., 20 ft.below sec.cor.; ascend.
40.00	Set a quartzite stone 15 x 10 x 5 ins., 10 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
68.00	Begin descent into gulch draining E.
70.00	Bottom of gulch draining E., 30 ft.below beginning of descent; ascend.
80.00	Set a quartzite stone 18 x 8 x 8 ins., 12 ins.in the ground, for cor.of secs.14,15,22, and 23, marked with

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	3 notches on S. and 2 notches on E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and stony; 4th rate.
	No timber.
	Undergrowth shadscale and greasewood.
	Mountainous land covered with dense undergrowth 80.00 chs.
	N.89° 57'E.on a random line bet.secs.14 and 23,
40.00	Set temp.¼ sec.cor.
80.04	Intersect N. and S.line 15 lks.N.of the cor.of secs.13, 14,23, and 24. Thence I run
	N.89° 57'W.on a true line bet.secs.14 and 23,
	Ascend along rolling broken foothills; through dense shadscale and greasewood undergrowth.
24.00	Dry wash, 5 lks.wide, 3 ft.deep, drains SE.
40.02	Set a quartzite stone 20 x 8 x 6 ins., 15 ins.in the ground for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor. Pits impracticable.
41.00	Begin descent into dry bed of Granite Creek, bearing NW. and SE.
43.00	Bottom of dry bed of Granite Creek draining SE., 50 ft. below beginning of descent; ascend.
80.04	The cor.of secs.14,15,22, and 23.
	Land, broken and rolling.
	Soil, sandy and stony; 4th rate.
	No timber.
	Undergrowth, shadscale and greasewood.
	Dense undergrowth on 80.04 chs.

chains.	
	N.0° 01'W.bet.secs.14 and 15,
	Ascend over rolling broken foot hills; through dense shadscale and sagebrush undergrowth.
15.00	Begin descent into gulch, bearing E. and W.
18.00	Bottom of gulch draining E., 50 ft. below beginning of descent; ascend.
40.00	Set a quartzite stone 18 x 8 x 8 ins., 12 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
40.25	Bottom of Granite Creek; branch 5 lks.wide, 6 ins.deep, drains SE; sinks about 15 chs. SE.
43.00	Log cabin of William Babcock bears west 4.40 chs.
45.00	Wagon road, Granite to Trout Creek, bears NE. and SW.
52.00	Bottom of dry wash, draining E.
80.00	Set a granite stone 20 x 10 x 5 ins., 15 ins.in the ground, for cor.of secs.10,11,14, and 15, marked with 4 notches on S. and 2 notches on E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and stony; 4th rate.
	No timber.
	Undergrowth shadscale and greasewood.
	Dense undergrowth 80.00 chs.
	Mountainous land 80.00 chs.
	S.89° 57'E.on a random line bet.secs.11 and 14,
40.00	Set temp.¼ sec.cor.
79.90	Intersect N. and S.line 32 lks.S.of the cor.of secs.11, 12,13, and 14. Thence I run
	S.89° 49'W.on a true line bet.secs.11 and 14,
	Ascending; over rolling broken foothills; along SE.slope

Chains. of mountain; through dense shadscale and sagebrush undergrowth.

39.95 Set a granite stone 18 x 8 x 8 ins., 12 ins.in the ground for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.Pits impracticable.

79.90 The cor.of secs.10,11,14, and 15.

Land, mountainous.

Soil, stony and sandy; 4th rate.

No timber.

Undergrowth shadscale and greasewood.

Mountainous land covered with dense undergrowth 79.90 chs.

N.0° 01'W.bet.secs.10 and 11,

Ascend over rolling broken foot hills, near base of mountain; through dense shadscale and sagebrush undergrowth.

39.00 Begin rough and precipitous ascent; over cliffs and boulders bearing NE. and SW..

40.00 Set a granite boulder 18 x 10 x 10 ins., 12 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.

69.50 Top of high granite mountain, bearing NE. and SW., 500 ft.above ¼ sec.cor. Begin very abrupt and precipitous descent.

80.00 Set a granite stone 14 x 10 x 6 ins., 9 ins.in the ground for cor.of secs.2,3,10, and 11,marked with 5 notches on S. and 2 notches on E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.

Land, mountainous.

Soil, rocky; 4th rate.

Chains.	
	No timber.
	Undergrowth shadscale and sagebrush.
	Mountainous land, covered with dense undergrowth 80.00 chs.
	N.89° 49'E.on a random line bet.secs.2 and 11,
40.00	Set temp.¼ sec.cor.
79.80	Intersect N. and S.line, 16 lks.N.of the cor.of secs. 1,2,11, and 12. Thence I run
	S.89° 56'W.on a true line bet.secs.2 and 11,
	Ascending over granite cliffs and boulders; along N. side of canon.
14.00	Top of rocky spur, projects S., 300 ft.above sec.cor.
	Begin precipitous descent, almost impassable.
39.90	Falls on a granite cliff 20 ft.high. At the exact cor. point I chisel a cross (X) with ¼ N.of cross, for ¼ sec.cor.; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.Pits impracticable.
43.00	Bottom of canon; spring branch 1 lk.wide, 2 ins.deep, drains SE., 300 ft.below top of spur; ascend.
45.00	Top of rocky spur, projecting N.; 100 ft.above bottom of canon; descend.
48.00	Bottom of same canon as above, drains NE., 75 ft.below top of spur; ascend.
54.00	Top of cliff 50 ft.high, projecting S., 200 ft.above bottom of canon; descend.
65.00	Bottom of same canon as above, drains SE., 150 ft.below top of cliff; ascend steep S.side of canon.
79.80	The cor.of secs.2,3,10, and 11.
	Land, mountainous.
	Soil , rocky; 4th rate.
	No timber.
	Mountainous land, very rough,79.80 chs.

Chains.	Note:: Impassable mountains and cliffs cause me to discontinue my line at this point.

Oct.4, 1907: At the cor.of secs.27,28,33, and 34, in lat. 39° 44' 19" N.; long.113° 51' 37" W., at 6 h..37 m..p. m..by my watch, which is 4 m.slow of l.m.t., I observe Polaris at eastern elongation, in accordance with instructions in the Manual, and mark a point in the line thus determined by a tack driven in a stake firmly set in the ground 5 chs.N.of my station.

Oct.5, 1907: At 8 h..0 m..a.m.l.m.t., I lay off the azimuth of Polaris 1° 33' to the west, and mark the meridian thus determined by a tack driven in a stake firmly driven in the ground west of my station established last night. The magnetic bearing of the true meridian is N.17° 30'W., which gives the mag.decl. 17° 30'E.

From this cor.I run

N.0° 02'W.bet.secs.27 and 28,

Ascending along rough broken foot of mountain; through dense shadscale and sagebrush undergrowth and scattering cedars and pines.

7.00	Wagon road for wood bears NE. and SW.
25.00	Begin more abrupt ascent bearing E. and W.
25.00	[illegible]
40.00	Set a quartzite stone 14 x 8 x 6 ins., 9 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.
40.75	Top of ridge spur, projecting E., 300 ft.above beginning of more abrupt ascent; descend.
46.00	Bottom of gulch draining E., 200 ft.below top of ridge spur; ascend.
62.00	Top of spur, projecting E., 200 ft.above bottom of gulch.

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	Descend.
75.00	Bottom of gulch draining E., 200 ft. below top of spur.
	Ascend.
80.00	Set a quartzite stone 18 x 10 x 8 ins., 12 ins. in the ground, for cor. of secs. 21, 22, 27, and 28, marked with 2 notches on S. and 3 notches on E. edges; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	June 3, 1909: The examiner having found two suitable bearing trees to the cor. of secs. 21, 22, 27 and 28, I mark them as follows:
	A pine 6 ins. dia. bears S. 15° E. 310 lks. dist., marked T 12 S R 18 W S 27 B T
	A pine 4 ins. dia. bears N. 76° E. 65 lks. dist., marked T 12 S R 18 W S 22 B T
	No other suitable bearing trees available.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering cedars and pines on 80.00 chs.
	Undergrowth shadscale and greasewood.
	Mountainous land covered with dense undergrowth 80.00 chs.
	June 3, 1909.

	Oct. 4, 1907:
	East on a random line bet. secs. 22 and 27,
40.00	Set temp. ¼ sec. cor.
79.92	Intersect N. and S. line 10 lks. S. of the cor. of secs. 22, 23, 26, and 27. Thence I run
	S. 89° 56' W. on a true line bet. secs. 22 and 27,
	Ascend along rough and broken country; through dense shadscale and sagebrush undergrowth.
34.00	Top of spur, projecting SE., 300 ft. above sec. cor.
	Descend.

Chains.	
	Enter scattering cedars and pines, bearing NE. and SW.
39.96	Set a quartzite stone 20 x 8 x 6 ins., 15 ins.in the ground for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor. Pits impracticable.
46.00	Bottom of gulch drains SE., 200 ft.below top of spur. Ascend.
79.92	The cor.of secs.21,22,27, and 28.
	Land, mountainous.
	Soil, stony and sandy; 4th rate.
	Timber, scattering cedars and pines on 45.92 chs.
	Dense undergrowth of shadscale and sagebrush 79.92 chs.
	Mountainous land 79.92 chs.

N.0° 02'W.bet.secs.21 and 22,

	Ascend along rough, broken E.slope of mountain; through dense shadscale and greasewood undergrowth and scattering cedars and pines.
0.50	Top of rocky ridge spur, projecting E., 50 ft.above sec. cor. descend.
5.50	Bottom of gulch, draining E., 100 ft.below top of ridge spur; ascend.
11.80	Top of ridge, bears E. and W., 200 ft.above bottom of gulch; descend.
22.00	Bottom of gulch draining E., 100 ft.below top of ridge; ascend.
34.65	Top of ridge spur, projecting E., 200 ft.above bottom of gulch; descend.
40.00	Bottom of ravine, draining E., 100 ft.below top of ridge. Ascend.
	Set a quartzite stone 18 x 8 x 8 ins., 12 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	impracticable.
78.50	Top of spur, projecting E., 300 ft.above bottom of ravine; descend.
80.00	Set a limestone 24 x 10 x 8 ins., 18 ins.in the ground, for cor.of secs.15,16,21, and 22, marked 12 S on NE., 18 W on SE. faces, with 3 notches on S. and E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering cedars and pines.
	Undergrowth shadscale and greasewood.
	Mountainous land covered with dense undergrowth 80.00 chs.

N.89° 56'E.on a random line bet.secs.15 and 22,

40.00	Set temp.¼ sec.cor.
80.08	Intersect N. and S.line 16 lks.N.of the cor.of secs.14, 15, 22, and 23.
	Thence I run
	N.89° 57'W.on a true line bet.secs.15 and 22,
	Ascending over rough broken foothills; through dense shadscale and sagebrush undergrowth.
40.04	Set a quartzite stone 20 x 10 x 8 ins., 15 ins.in the ground, for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor. Pits impracticable.
57.00	Begin descent into gulch bears NW. and SE.
59.00	Bottom of deep gulch, draining SE., 100 ft.below beginning of descent; ascend, along N.side of spur.
	Enter scattering cedar and pine timber.
80.08	The cor.of secs.15,16,21, and 22, 400 ft.above bottom of gulch.
	Land, mountainous.

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	Soil, rocky and stony; 4th rate.
	Timber, scattering cedars and pine on 21.08 chs.
	Dense undergrowth of shadscale and sagebrush, 80.08 chs.
	Mountainous land 80.08 chs.
	Oct.4, 1907.
	Oct.6, 1907: Sky overcast and Polaris not visible.
	N.0° 02'W. bet.secs.15 and 16,
	Descend very steep side hill; through dense shadscale and sagebrush undergrowth and scattering cedars and pines.
9.50.	Bottom of deep gulch draining SE., 300 ft.below sec.cor.
	Begin precipitous and almost impossible ascent, over cliffs and boulders.
40.00	Top of rocky ridge bears E. and NW.; begin steep descent over loose slide rock and small cliffs.
	Set a quartzite stone 20 x 8 x 5 ins., 15 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high W.of cor. Pits impracticable.
79.50	Bottom of Granite Canon Creek 5 lks.wide 6 ins.deep, drains SE., 500 ft.below top of ridge; ascend.
80.00	Set a quartzite stone 18 x 8 x 8 ins., 12 ins.in the ground, for cor.of secs.9,10,15, and 16, marked with 4 notches on S. and 3 notches on E.edges; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high W.of cor.Pits impracticable.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering cedar and pines.
	Dense undergrowth of shadscale and sagebrush 80.00 chs.
	Mountainous land, 80.00 chs.

Chains.	
	S.89° 57'E.on a random line bet.secs.10 and 15,
40.00	Set temp.¼ sec.cor.
79.90	Intersect the N. and S.line, 18 lks.S.of the cor.of secs. 10,11,14, and 15. Thence I run
	S.89° 55'W.on a true line bet.secs.10 and 15,
	Ascending over granite boulders and cliffs; almost impassable; through scattering cedars and pines and dense shadscale and greasewood undergrowth.
32.50	Top of granite cliff 50 ft.high, bears N. and S., 400 ft. above sec.cor.; descend.
33.50	Ravine drai ns SE., 100 ft.below top of granite spur; ascend gradually.
39.95	Set a granite stone 20 x 12 x 6 ins., 15 ins.in the ground for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor. Pits impracticable.
41.00	Top of spur projecting S., 100 ft.above bottom of ravine; descend.
44.00	Bottom of descent draining S., 30 ft.below top of spur; ascend.
58.00	Top of rocky ridge spur, projecting SE.; descend over cliffs 200 ft.above bottom of descent.
79.90	The cor.of secs.9,10,15, and 16, 400 ft.below top of rocky ridge.
	Land, mountainous.
	Soil, stony and rocky; 4th rate.
	Timber, scattering pines and cedars on 79.90 chs.
	Dense undergrowth of shadscale and greasewood 79.90 chs.
	Mountainous land 79.90 chs.

Note:

The N.side of Granite Canon, which is an almost perpendicular cliff 200 ft.high prevented me from running north; therefore I offset west 15.00 chs.; thence N.0°

Chains. 02'W. bet.secs.9 and 10,

Ascending through dense shadscale and scattering cedar and pine.

35.50 Granite Creek, 5 lks.wide, 6 ins.deep, drains SE.

40.00 High cliffs on line prevent me from setting ¼ sec.cor. on the line bet.secs.9 and 10; therefore at this point I

Set a quartzite stone 15 x 10 x 4 ins., 10 ins.in the ground for witness ½ sec.cor., marked W C ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.

66.15 North side of Granite Canon. High cliffs and boulders prevent me from continuing on my offset line or going back to my true line; therefore at this point I

Set a granite stone 18 x 8 x 8 ins., 12 ins.in the ground for witness cor. to cor.of secs.3,4,9, and 10, marked W C on NE.face, with 5 notches on S. and 3 notches on E.edges; and raise a mound of stone 2 ft.base, 1½ ft. high W.of cor.Pits impracticable.

I discontinue my line at this point.

Land, mountainous.

Soil, stony and rocky; 4th rate.

Timber, scattering cedar and pine on 66.15 chs.

Dense undergrowth of shadscale 66.15 chs.

Mountainous land 66.15 chs.

Oct.6, 1907.

Oct.7, 1907: At the cor.of secs.28,29,32, and 33, as the sky was overcast and an observation on Polaris impossible, I continue my line from a sight on the line bet.secs.28 and 33,

Thence I run

N.0° 03'W.bet.secs.28 and 29,

Chains.	
	Descending over very steep and rough side of high mountain; through dense shadscale and sagebrush undergrowth and scattering cedars and pines.
9.00	Bottom of gulch draining E., 200 ft.below sec.cor.; ascend.
22.00	Top of ridge bearing NW. and SE., 150 ft.above bottom of gulch; descend.
40.00	Set a quartzite stone 18 x 8 x 8 ins., 12 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high W.of cor.Pits impracticable.
44.00	Bottom of Trout Creek; stream 10 lks.wide, 6 ins.deep, drains SE., 400 ft.below top of ridge; begin rough and steep ascent, over slide rock and small cliffs.
80.00	Set a quartzite stone 20 x 8 x 8 ins., 15 ins.in the ground, for cor.of secs.20,21,28, and 29, marked with 2notches on S. and 4 notches on E.edges; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high W.of cor.Pits impracticable.
	This corner is about 800 ft.above bottom of Trout Creek.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering cedar and pine on 80.00 chs.
	Dense undergrowth of shadscale and sagebrush 80.00 chs.
	Mountainous land 80.00 chs.

East on a random line bet.secs.21 and 28,

40.00	Set temp.$\frac{1}{4}$ sec.cor.
80.08	Intersect N. and S.line at the cor.of secs.21,22,27, and 28. Thence I run

West on a true line bet.secs.21 and 28,

Ascending along S.slope of spur; through dense shadscale

Chains.	
	and sagebrush undergrowth and scattering cedars and pines.
40.04	Set a quartzite stone 15 x 10 x 5 ins., 10 ins.in the ground, for ¼ sec.cor., marked ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor. Pits impracticable.
51.00	Begin more abrupt and precipitous ascent bearing NW. and SE.
78.00	Top of ridge bears NW. and SE., 500 ft.above beginning of more abrupt ascent; descend.
80.08	The cor.of secs.20,21,28, and 29.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering pine and cedars 80.08 chs.
	Dense undergrowth of shadscale and greasewood 80.08 chs.
	Mountainous land 80.08 chs.

N.0° 03'W.bet.secs.20 and 21,

	Ascending through dense shadscale and sagebrush undergrowth; through scattering cedars and pine.
5.00	Top of high ridge at junction part bears NW. and SE., and part NE. and SW.
	Begin steep and precipitous descent, over slide rock and cliffs.
25.00	Bottom of ravine draining NE., 400 ft.below top of ridge; ascend.
40.00	Set a quartzite stone 18 x 8 x 6 ins., 12 ins.in the ground for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
50.00	Top of rocky spur, projecting E., 200 ft.above bottom of gulch; descend.
68.00	Bottom of gulch draining E., 200 ft.below top of spur;

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Chains.	
	Begin steep and almostt impassable ascentt over cliffs and slide rock.
80.00	The cor.of secs.16,17,20, and 21 falls in a large rock slide and could not be set permanently. Set temp.cor. of secs.16,17,20, and 21.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering cedars and pines on 80.00 chs.
	Dense undergrowth of shadscale and sagebrush on 80.00 chs
	Mountainous land 80.00 chs.

East on a random line bet.secs.16 and 21,

40.00	Set temp.$\frac{1}{4}$ sec.cor.
80.04	Intersect N. and S.line 9 lks.N.of the cor.of secs.15, 16,21, and 22. Thence I run

N.89° 56'W.on a true line bet.secs.16 and 21,

	Ascending along steep rocky N.slope of ridge; through dense shadscale and sagebrush undergrowth; over cliffs.
10.00	Enter scattering cedars and pines bearing NW. and SE.
38.00	Top of ridge bearing N.70° W. and S.80° E., 300 ft.above sec.cor.; thence gradual ascent along S.slope of same; over slide rock and small cliffs; leave dense under-growth.
40.02	Set a quartzite stone 15 x 10 x 5 ins., 10 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.. Pits impracticable.
80.04	The temp.cor.of secs.16,17,20, and 21.
	Land, mountainous.
	Soil, stony and rocky; 4th rate.
	Timber, scattering cedars and pines on 70.04 chs.
	Dense undergrowth of shadscale and sagebrush on 38.00 chs.

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	Mountainous land 80.04 chs.
	N.0° 03'W.bet.secs.16 and 17,
	Ascend abruptly, over slide rock and small cliffs; through scattering pines and cedars.
19.70	Top of rocky ridge bearing NW., and SE., 300 ft.above sec.cor.; descend.
	Set a sandstone 20 x 10 x 6 ins., 15 ins.in the ground for witness cor.of secs.16,17,20, and 21, marked W C on NE face, with 3 notches on S. and 4 notches on E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.. Pits impracticable.
34.00	Bottom of ravine draining NE., 200 ft below top of ridge ascend.
40.00	Set a quartzite stone 14 x 8 x 6 ins., 9 ins.in the ground, for ¼ sec.cor., marked ¼ on W.face; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.. Pits impracticable.
45.00	Top of spur projects NE., 100 ft.above bottom of ravine; descend.
50.00	Bottom of gulch draining E.; spring branch 1 lk.wide, 2 ins.deep drain E., 100 ft.below top of spur; ascend.
72.00	Top of spur projects E., 200 ft.above bottom of gulch; descend.
80.00	Set a quartzite stone 18 x 8 x 8 ins., 12 ins.in the ground, for cor.of secs.8,9,16, and 17, marked with 4 notches on S. and E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering cedars and pines 80.00 chs.
	Mountainous land 80.00 chs.

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	S.89° 56'E.on a random line bet.secs.9 and 16,
40.00	Set temp.¼ sec.cor.
80.16	Intersect N. and S.line 17 lks.S.of the cor.of secs.9, 10,15, and 16. Thence I run
	S.89° 57'W.on true line bet.secs.9 and 16,
	Descend through scattering cedars and pines in Granite Canon..
0.75	Bottom of Granite Canon. Spring branch 4 lks.wide, 6 ins.deep, drains SE.; ascend.
10.00	Begin more abrupt ascent, along S.side of canon, over slide rock.
30.50	Begin abrupt and precipitous ascent, over cliffs and loose slide rock .
	Note:: Knowing the ¼ sec.cor.could not be safely set at its exact point, therefore at this point I
	Set a shalerock 18 x 8 x 6 ins., 12 ins.in the ground for witness ¼ sec.cor., marked W C ¼ on N.face; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor. Pits impracticable.
40.08	Falls on steep side hill; corner could not be set.
66.00	Top of high rocky ridge bearing NW. and SE., 1000 ft. above bottom of Granite Canon; descend.
76.50	Bottom of gulch draining SE., 150 ft.below top of ridge ; ascend abruptly.
80.16	The cor.of secs.8,9,16, and 17.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering pines and cedars on 80.16 chs.
	Mountainous land on 80.16 chs.

	N.0° 03'W.bet.secs.8 and 9,
	Descending along steep E.slope of mountain; through scattering cedars and pines;
3.50	Bottom of gulch draining SE., 50 ft.below sec.cor.

SUBDIVISIONS OF T. 12 S., R. 18 W.

Chains.	
	Ascend.
7.00	Foot of almost impassable cliffs bearing NW. and SE.
10.85	Top of cliffs and rocky ridge bears NW. and SE., 300 ft. above bottom of gulch; begin precipitous and almost impassable descent, over cliffs.
40.00	¼ sec.cor.falls on very steep mountain side, could not be set.
56.75	Bottom of abrupt descent and cliffs bearing NW. and SE. 700 ft. below top of ridge,
	Set a quartzite stone 20 x 12 x 8 ins., 15 ins.in the ground, for witness ¼ sec.cor., marked W C ¼ on W.face and raise a mound of stone 2 ft.base, 1½ ft.high W. of cor.Pits impracticable.
65.00	Bottom of Granite Canon. Spring branch 4 lks.wide, 6 ins.deep drains SE. 200 ft.below bottom of abrupt descent. Ascend.
80.00	Set a granite stone 20 x 10 x 4 ins., 15 ins.in the ground, for cor.of secs.4,5,8, and 9, marked with 5 notches on S. and 4 notches on E.edges; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.
	Land,mountainous.
	Soil, stony and rocky; 4th rate.
	Timber, scattering pines and cedars 80.00 chs.
	Mountainous land 80.00 chs.

Being unable to continue my line either north or east, on account of impassable cliffs and high mountains; and, knowing that the line running west of this point could not be run from the south bdy., I run

West on true line bet.secs.5 and 8,

Ascend gradually along N.side of Granite Canon, over huge granite boulders; through scattering cedars and pines.

SUBDIVISION OF T. 12 S., R. 18 W.

Chains	
20.00	Bottom of Granite Canon. Stream 4 lks.wide, 6 ins.deep, drains SE.; ascend.
40.00	Set a quartzite stone 24 x 20 x 18 ins., 18 ins.in the ground for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high, N. of cor. Pits impracticable.
54.00	Begin precipitous and almost impassable ascent, over granite cliffs and boulders bearing NW.and SE.
80.00	Set a granite stone 20 x 10 x 8 ins., 15 ins.in the ground, for cor.of secs.5,6,7 and 8, marked with 5 notches on S.and E.edges; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high, W.of cor. Pits impracticable.
	Land, mountainous.
	Soil, rocky and stony; 4th rate.
	Timber, scattering cedars and pines 80.00 chs.
	Mountainous land 80.00 chs.

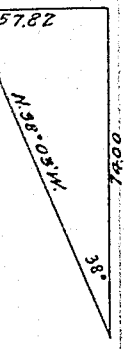
N. 0° 03'W. on a true line bet.secs.5 and 6

	Descending over granite cliffs; through scattering cedars and pines.
35.00	Bottom of South Fork of Granite Creek; spring branch 2 lks.wide, 4 ins.deep, drains E. 500 ft.below sec. cor.
40.00	Set a quartzite stone 14 x8 x 6 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high, W. of cor. Pits impracticable.
	From this corner a flag set at the cor. of Tps.11 and 12 S., Rs. 18 and 19 W., bears N.38° 03'W.
40.25	Top of small spur, projecting E., 100 ft.above South Fork of Granite Canon; descend.
42.50	North Fork of Granite Canon; spring branch 2 lks.wide, 6 ins.deep, drains SE. Begin abrupt ascent over cliffs and loose slide rock; along SE. slope of Ibapah Peak.

SUBDIVISION OF T. 12 S., R. 18 W.

Chains

114.00 Intersect a line East from the cor. of Tps. 11 and 12 S. Rs. 18 and 19 W.; therefore base equals 74.00 chs.; therefore the dist. is tan. 38° x base, or 0.78129 x 74.00, which equals 57.82, the dist. E. of the Tp.cor.



Set a granite stone 14 x 8 x 6 ins., 9 ins.in the ground for closing cor.of secs.5 and 6, marked C C on S., with 5 grooves on E. and 1 groove on W.faces; and raise a mound of stone 2 ft.base, 1½ ft.high, S. of cor. Pits impracticable.

The line between this cor. and the cor. of Tps.11 and 12 S., Rs. 18 and 19 W. lies along the steep and precipitous SE. slope of Ibapah Peak and cannot be run.

Land, mountainous.

Soil, rocky and stony; 4th rate.

Timber, scattering pines and cedars on 114.00 chs.

Mountainous land 114.00 chs.

Oct. 7, 1907.

GENERAL DESCRIPTION

This township is all mountainous, running from very high mountains to foothills. The high mountains are covered with a heavy growth of grass, which affords fine summer pasturage, while the foot hills are covered with a more hardy grass and a white sage, which affords good grazing for sheep in the winter.

The township is well watered in the western part, having numerous springs and creeks upon it.

There are no settlers upon this township. The cabins shown in Secs.15 and 28 are occupied by prospectors, who claim there is mineral in said sections; but I found no surface indications thereof.

There is a dense shadscale and sagebrush undergrowth upon nearly all the township; and scattering

SUBDIVISIONS OF T. 12 S., R. 18 W.

pine in the western portion.

The unsurveyed part of the township is all very high and rugged; and, as it is impossible for man or beast to go over it, it is of no commercial value.

U.S.Deputy Surveyor.

Note:

There being no notary public, or other officer authorized to administer oaths, within a reasonable distance, at the beginning, nor at the close of the surveys executed by me under this contract; therefore, in order to save time and expense, I administer the preliminary and final oaths of myassistants myself.

U.S.Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harry A Rager, 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 Subdivision Lines of T. 12 South Range No 18 West of the Salt Lake Base and Mer Utah showing the respective capacities in which they acted:

J. S. Johnson, *Chainman.*
Robt C McFarland, *Chainman.*
Frank T. Koehler, *Moundman.*
, *Moundman.*
, *Axman.*
, *Axman.*
Henry Davis, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harry A Rager, United States Deputy Surveyor, in surveying all those parts or portions of the Subdivision Lines of Township No 12 South Range No 18 West of the Salt Lake Base and meridian, State of Utah, 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 Utah

J. S. Johnson, *Chainman.*
Robt C McFarland, *Chainman.*
Frank T Koehler, *Moundman.*
, *Moundman.*
, *Axman.*
, *Axman.*
Henry Davis, *Flagman.*

Subscribed and sworn to before me this 25th day of November, 1907

Harry A Rager
U. S. Deputy Surveyor

SEAL

6-161

BOOK A-370

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harry A. Rager, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Thomas Hull United States Surveyor General for Utah, bearing date of the 16th day of April, 1906, 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 Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Subdivisional lines of Townsh No.12 South, Range No.18 West

of the Salt Lake Base and meridian, in the State of Utah, 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 Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Harry A Rager
United States Deputy Surveyor

Subscribed by said Harry A.Rager, and sworn to before me this 2d day of September, 1908.

Thomas Hull
U.S.Surveyor-General
for Utah.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, May 1, 1912.

The foregoing field notes of the survey of the Subdivisional lines of Township No.12 South, Range No.18 West of the Salt Lake Base and Meridian, Uta

executed by Harry A.Rager under his contract No. 294, dated April 16, 1906, having be critically examined, and the necessary corrections and explanations made, the said field notes, and t surveys they describe, are hereby approved.

Thomas Hull
United States Surveyor Gener

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 Gener

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4—679.

BOOK A-370

FILED
MAY 1 1910

A.

E.W.

FIELD NOTES

OF THE SURVEY OF THE

EAST AND NORTH BOUNDARIES

OF

TOWNSHIP NO. 20 SOUTH, RANGE NO. 1½ WEST.

o

Of the Salt Lake Base and *Meridian,*

State of Utah.

AS SURVEYED BY

o Alfredo R. Talamantes, *United States Deputy Surveyor,*

Under his Contract No. 302, *dated* March 5, *190* 8

Survey commenced June 22, *190* 9

Survey completed June 25, *190* 9

6—151

E. Bdy Max 5-48-19 Inter.

N. Bdy 2-23-02 35-00 Closing 31-17

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall	Chainman
Robert Faddis	Chainman
J. W. Simpson	Roundman
Will Bailey	Axman
Thomas R. Faddis	Flagman

BOOK A-370

INDEX DIAGRAM.

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Meanders Page ....

BOOK A 3/8

PRELIMINARY OATHS OF ASSISTANTS.

We, Rex Lowdall and Robert Faddis do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon 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 East and North Boundaries of T.20 S., R.1½ W.of the S.L.B.& M., Utah.

Rex Lowdall, Chainman

Robert Faddis, Chainman

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamantes

U.S.Deputy Surveyor.

~~We~~, I, J. W. Simpson ~~and~~ do solemnly swear that ~~I~~ will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey of the East and North Boundaries of T.20 S., R.1½ W. of the S.L.B.& M., Utah.

J. W. Simpson, Moundman

, Moundman

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamantes

U.S.Deputy Surveyor.

~~We~~, I, Will Bailey ~~and~~ do solemnly swear that ~~I~~ will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey of the East and North Boundaries of T.20 S., R.1½ West of the S.L.B. & M., Utah.

Will Bailey, Axman

, Axman

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamantes

U.S.Deputy Surveyor.

I, Thomas R. Faddis, 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 East and North Boundaries of T.20 S.,R.1½ W. of the S.L.B.& M., Utah.

Thomas R Faddis, Flagman

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamantes

U.S.Deputy Surveyor.

East Boundary of T.20 S.,R.1½ W.

Chains

Survey commenced June 22,1909, and executed with a W.& L.E.Gurley Reconnoissance Light Mountain Transit, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the Surveyor General for Utah, June 17,1909.

I examine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At my camp which is placed S.47°E. about 28.50 chs. from the N.E. cor.of T.21 S.,R.2 W.,I drive a tack in a stake firmly set in the ground; latitude 39°01'58" N., longitude 112°00'09" W.

At 4h 02m p.m.,l.m.t., I set off 39°02' N.on the latitude arc, 23°28' on the declination arc, and mark the true meridian determined with the solar by a cross on a stone firmly set 5 chs. N. of my station.

June 22, 1909

June 23: At 1h 28m,a.m.,l.m.t.I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined by a tack driven in a wooden peg in the ground 5 chs. N. of my station.

At 6 a.m., l.m.t., I lay off the azimuth of Polaris, 1° 31' to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening,

East Boundary of T.20 S., R.1½ W.

Chains

on which the meridian falls 0.25 ins. west of the mark determined by the solar.

At 8h 2m a.m., l.m.t., I set off 39°02'N. on the latitude arc; 23°27'N. on the decl. arc, and mark the true meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.3 ins. west of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines the positions for meridians, respectively about 0'13" east and 0'16" West of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h a.m. is N.16°45'W.; the angle thus determined gives the mag. decl. 16°45'E.

At 9h 2m a.m., l.m.t., I set off 39°02'N. on the lat.arc; 23°27'N. on the decl.arc, and determine a true meridian with the Solar, at the N.E.Cor. of T.21 S.,R.2 W., which is a lime shale, 9x3 ins.,10 ins. above ground, which I mark with 6 groovs on N. face for T.20 S.,R. 1½ W., from which

A pinon pine, 10 ins.diam., bears N.31°51'W. 103 lks. dist., marked C C T 20 S R 1½ W S 36 B T

A pinon pine, 8 ins.diam., bears S.75°18'W. 45 lks. dist., marked C C T 21 S R 2 W S 1 B T

From the Tp.cor. above described, I run

North, bet. secs. 31 and 36

Ascend abruptly through scattering pinon pine and broken ledges

Enter land exceptionally difficult to survey.

4.00 Face of ledge, bears N.W. and S.E.

West Boundary of T.20 S., R.1 W.

Chains	
	¼ sec. cor. for secs.31 T.20 S.,R.1 W. could not be set as the point falls on face of ledge.
4.50	Top of ledge, 50 ft. high.
	Set a sandstone , 18x14x3 ins.,12 ins.in the ground, for witness ¼ sec.cor., marked W C ¼ on W. face, one mile a mound of stone, 2 ft.base, 1½ ft.high, N.of cor. Pitts impracticable.
11.50	Top of spur, 300 ft.above canyon, projects S.E.; descend.
15.00	Head of gulch, 75 ft.below spur, drains S.E.; ascend.
28.00	Top of ridge, 175 ft.above gulch , bears N.W. and S.E.; descend abruptly.
29.00	Enter dense pinon pine and cedar, bears N.W.and S.E.
44.02	Intersect E.and W. line at west 36.40 chs. from ¼ sec. cor. bet. secs.30 and 31,which is a limestone 12x6 ins. 7 ins.above ground, marked and witnessed as described by the Surveyor General.
	At point of intersection, set a limestone, 18x12x3 ins., 12 ins.in the ground, for cor.of secs.25, 30, 31 and 36, marked with 1 notch on S., and 5 notches on W.edge, from which
	A pinon pine, 16 ins.diam.,bears S.0°00'E. 36 lks. dist.,marked T 20 S R 1 W S 31 B T
	A pinon pine, 10 ins.diam.,bears S.22°55'W. 56 lks. dist., marked T 20 S R 1½ W S 36 B T
	A pinon pine, 12 ins.diam.,bears N.0°41'W. 51 lks. dist.,marked T 20 S R 1½ W S 25 B T
	A pinon pine, 11 ins.diam.,bears N.53°37'E. 73 lks. dist.,marked T 20 S R 1 W S 30 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous land, 44.02 chs.

East Boundary of T.20 S.,R.1½ W.

Chains	
	Exceptionally difficult to survey, 44.02 chs.
	June 23: At this cor. I set off 23°27'E. on the decl. arc;and at 12h 02m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 39°02'
	North bet. secs. 25 and 30
	Descend rapidly through pinon pine and cedar, over mountainous land.
	Enter land exceptionally difficult to survey
10.00	Hollow, 450 ft. below ridge, drains E.;
	ascend.
14.50	Spur, 50 ft.above hollow, projects N.E.;
	descend.
33.00	Gulch, 550 ft.above ridge, drains S.E.;
	ascend.
33.25	Wood road, bears N.W. and S.E.
40.00	Set a sandstone, 18x16x8 ins., 12 ins.in the ground, for ¼ sec.cor.,marked ¼ on W.face; from which
	A pinon pine, 12 ins.diam.,bears N.27°35'W. 73 lks. dist.,marked ½ S 25 B T
	A pinon pine, 14 ins.diam.,bears S.18°10'E. 38 lks. dist.,marked ½ S 30 B T
43.50	Spur, 40 ft.above canyon, projects S.E.;
	descend.
46.50	Hollow, 30 ft. below spur, drains S.E.;
	ascend.
53.00	Spur, 100 ft.above hollow, projects W.;
	descend.
57.00	Hollow, 40 ft. below spur, drains W.; ascend.
80.00	Set a sandstone, 16x12x8 ins., 11 ins.in the ground, for cor.of secs.19,24,25 and 30, marked with 2 notches on S. and 4 notches on N. edge; from which
	A pinon pine, 8 ins.diam.,bears N.22°44'E. 74 lks. dist.,marked T 20 S R 1 W S 19 B T
	A pinon pine, 8 ins.diam.,bears N.19°05'W. 44 lks.

East Boundary of T.20 S.,R.1½ W.

Chains	
	dist.,marked T 20 S R 1½ W S 24 B T
	A pinon pine, 4 ins.diam.,bears S.70°00'E. 43 lks. dist.,marked T 20 S R 1 W S 30 B T
	A pinon pine, 4 ins.diam.,bears S.29°48'W. 15 lks. dist.,marked T 20 S R 1½ W S 25 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	North bet. secs. 19 and 24
	Over mountainous land; ascend through pinon pine and cedar.
	Enter land exceptionally difficult to survey.
3.00	Ridge, 250 ft.above gulch, bears N.W.and S.E.; descend.
16.00	Head of hollow, 125 ft.below ridge,drains E.; ascend.
24.00	Spur, 40 ft.above hollow, projects E.; descend.
29.00	Gulch, 75 ft.below spur, drains E.; ascend.
34.00	Top of spur, 50 ft.above gulch, projects E.; descend.
38.00	Gulch, 100 ft.below spur, drains S.E.,Wood road bears N.W. and S.E.;ascend.
40.00	Set a limestone, 16x12x8 ins., 11 ins.in the ground, for ¼ sec.cor.,marked ¼ on W. face; from which
	A pinon pine, 10 ins.diam.,bears S.42°15'E. 21 lks. dist.,marked ¼ S 19 B T
	A pinon pine, 12 ins.diam.,bears N.69°36'W. 136 lks. dist.,marked ¼ S 24 B T
61.00	Ridge, 200 ft.above gulch, bears E.and W.; descend.

East Boundary of T.20 S.,R.1½ W.

Chains	
80.00	Set a limestone, 16x14x4 ins.,14 ins.in the ground, for cor.of secs. 13,18,19 and 24, marked with 3 notches on N. and S. edges, from which
	A pinon pine, 4 ins.diam.,bears N.74°00'W. 16 lks. dist.,marked T 20 S R 1½ W S 13 B T
	A pinon pine, 4 ins.diam.,bears S.22°22'E. 18 lks. dist.,marked T 20 S R 1 W S 19 B T
	A pinon pine, 6 ins.diam.,bears S.88°00'W. 32 lks. dist.,marked T 20 S R 1½ W S 24 B T
	A cedar, 4 ins.diam.,bears N.53°10'E. 52 lks. dist.,marked T 20 S R 1 W S 18 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous land,heavily covered with timber, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.

June 23, 1909

	June 24: At 8h 02m, a.m., l.m.t., I set off 39°04'N. on the lat.arc;23°27'N. on the decl.arc, and determine a meridian with the solar at cor.of secs.13,18,19 and 24.
	Thence I run
	North bet.secs.13 and 18
	Over mountainous land; descend through pinon pine and cedar.
	Enter land exceptionally difficult to survey.
1.25	Gulch, 200 ft.below ridge, drains E.;
	ascend.
27.00	Top of spur, 110 ft.above gulch, projects N.E.;
	descend.
31.00	Gulch, 75 ft.below spur, drains N.E.;
	ascend.
40.00	Set a limestone, 20x8x8 ins.,15 ins.in the ground, for ¼ sec.cor., marked ¼ on W. face, from which

East Boundary of T.20 S.,R.1½ W.

Chains	
	A pinon pine, 10 ins.diam.,bears N.33°17'E. 26 lks. dist.,marked ¼ S 18 B T
	A pinon pine, 12 ins.diam.,bears S.43°20'W. 42 lks. dist.,marked ¼ S 13 B T
50.00	Spur, 100 ft.above ¼ sec.cor.,projects N.E.; descend.
58.00	Gulch, 125 ft. below spur, drains S.E.,Road in gulch bears N.W. and S.E.; ascend over numerous spurs and gulches and very broken land.
66.00	Spur, 175 ft.above gulch, projects N.E.; descend.
77.50	Gulch, 150 ft.below spur, drains N.E.; ascend.
80.00	Set a limestone, 20x12x12 ins., 15 ins.in the ground, for cor.of secs. 7,12,13 and 18, marked with 4 notches on S. and 2 notches on N.edge; from which
	A pinon pine, 4 ins.diam.,bears S.55°00'E. 37 lks. dist.,marked T 20 S R 1 W S 18 B T
	A pinon pine, 4 ins.diam.,bears S.54°35'W. 59 lks. dist.,marked T 20 S.R 1½ W S 13 B T
	A pinon pine, 4 ins.diam.,bears N.51°00'E. 74 lks. dist.,marked T 20 S R 1 W S 7 B T
	A pinon pine, 10 ins.diam.,bears N.25°45'W. 46 lks. dist.,marked T 20 S R 1½ W S 12 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous land,heavily covered with timber, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.

	North bet.secs. 7 and 12
	Over mountainous land, through pinon pine and cedar; ascend over broken land.
	Enter land exceptionally difficult to survey.
5.00	Spur, 200 ft.above sec.cor., projects N.E.; descend.

East Boundary of T.20 S.,R.1½ W.

Chains	
12.00	Gulch, 100 ft.below spur, drains N.E.; ascend.
20.00	Spur, 175 ft.above gulch, projects N.E.; descend.
24.00	Wood road, bears N.E. and S.W.
30.00	Canyon, 300 ft.below spur, drains N.E.; ascend.
40.00	Set a limestone, 24x10x8 ins., 18 ins.in the ground, for ¼ sec.cor.,marked ¼ on W. face; from which A pinon pine, 12 ins.diam.,bears S.23°37'E. 25 lks. dist.,marked ¼ S 7 B T A pinon pine, 10 ins.diam.,bears S.37°05'W. 103 lks. dist.,marked ¼ S 12 B T Note:- At noon hour the sky is cloudy. Solar observations not possible.
46.00	Ridge,200 ft.above gulch, bears S.E.and W. descend.
54.00	Gulch, 125 ft.below spur, drains S.E.,Wood road bears W. and S.E.; ascend
56.00	Point of spur, 30 ft.above gulch, projects S.E.; descend.
57.00	Head of ravine, 50 ft. below spur, drains S.E.; ascend.
59.00	Point of spur, 100 ft.above ravine, projects S.E.; descend.
60.00	Head of ravine, 40 ft.below spur, drains S.E.; ascend abruptly.
75.00	Ridge, 400 ft.above ravine, bears N.W.and S.E.; descend.
80.00	Set a limestone, 16x12x6 ins.,11 ins.in the ground, for cor.of secs.1,6,7 and 12, marked with 5 notches on S., and 1 notch on N.edge, from which A pinon pine, 6 ins.diam.,bears N.55°30'W. 27 lks. dist.,marked T 20 S R 1½ W S 1 B T

East Boundary of T.20 S.,R.1½ W.

Chains	
	A pinon pine, 11 ins.diam.,bears S.33°55'W. 43 lks. dist., marked T 20 S R 1½ W S 12 B T
	A pinon pine, 12 ins.diam.,bears N.89°00'E. 51 lks. dist.,marked T 20 S R 1 W S 6 B T
	A pinon pine, 12 ins.diam.,bears S.32°44'E. 50 lks. dist.,marked T 20 S R 1 W S 7 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous land, heavily covered with timber, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	North bet.secs.1 and 6
	Over rough,mountainous land; descend abruptly.
	Enter land exceptionally difficult to survey.
19.50	Gulch, 250 ft.below sec.cor.,drains E.; ascend.
23.00	Spur, 125 ft.above gulch, projects E.; descend.
31.00	Gulch, 100 ft.below spur, drains S.E.; ascend.
35.00	Spur, 175 ft.above gulch, projects S.E.; ascend along spur.
40.00	Top of spur, 220 ft.above gulch, projects S.E.; descend on east slope.
	Set a limestone, 16x12x4 ins.,11 ins.in the ground,for ¼ sec.cor.,marked ¼ on W. face, from which
	A pinon pine,10 ins.diam.,bears S.37°17'W. 37 lks. dist.,marked ¼ S 1 B T
	A pinon pine, 8 ins.diam.,bears S.81°36'E. 31 lks. dist.,marked ¼ S 6 B T
45.25	Gulch, 50 ft.below spur,drains S.60°E.; ascend.
49.00	Spur, 75 ft.above gulch,projects S.80°E.; descend.

East Boundary of T.20 S.,R.1½ W.

Chains	
58.50	Gulch, 80 ft.below spur, drains S.E.; ascend.
66.50	Ridge, 275 ft. above gulch, bears E. and W.; descend.
75.00	Gulch, 125 ft.below ridge, drains N.E.; ascend.
84.17	Intersect the North boundary due west 33.90 chs. from the ¼ sec.cor. on S. boundary of sec.31,T.19 S.,R.1 W., which is a limestone 12x4 ins.,8 ins.above ground, marked and witnessed as described by the Surveyor General.

At point of intersection, set a limestone 18x10x8 ins., 12 ins.in the ground, for cor.of Tps.19 and 20 S.,Rs.1 and 1½ W.,marked with 6 notches on each edge, from which

A pinon pine, 8 ins.diam.,bears N.72°30'W. 91 lks. dist.,marked T 19 S R 1½ W S 36 B T

A pinon pine, 10 ins.diam.,bears S.50°29'W. 45 lks. dist.,marked T 20 S R 1½ W S 1 B T

A pinon pine, 6 ins.diam.,bears S.44°52'E. 62 lks. dist.,marked T 20 S R 1 W S 6 B T

A pinon pine, 6 ins.diam.,bears N.51°55'E. 201 lks. dist.,marked T 19 S R 1 W S 31 B T

Land, mountainous.

Soil, rocky; 4th rate.

Timber, pinon pine and cedar.

Mountainous,ar heavily timbered land, 84.17 chs.

Exceptionally difficult to survey, 84.17 chs.

June 24, 1909

North Boundary of T.20 S., R.1½ W.

Chains	
	June 25,1909: At 8h 02m, a.m., l.m.t., I set off 39°07'N. on the lat.arc; 23°25'N. on the decl.arc, and determine a true meridian with the solar, at the cor.of Tps.19 and 20 S., Rs.1 and 1½ W.
	Thence I run
	West bet.secs.1 and 36
	Over mountainous land, through pinon pine and cedar; ascend.
	Enter land exceptionally difficult to survey.
5.00	Spur, 75 ft.above sec.cor., projects N.E.; descend abruptly.
11.00	Head of gulch, 110 ft.below spur, drains N.E.; ascend.
31.00	Spur, 300 ft.above gulch, projects N.; descend abruptly.
38.00	Head of gulch, 150 ft.below spur, drains N.; ascend.
40.00	Set a limestone, 16x12x12 ins., 11 ins.in the ground, for ¼ sec.cor., marked ¼ on N.face, from which
	A pinon pine, 10 ins.diam., bears S.40°36'E. 48 lks. dist., marked ¼ S 1 B T
	A cedar, 12 ins.diam., bears N.7°26'W. 29 lks. dist., marked ¼ S 36 B T
43.00	Spur, 175 ft.above gulch, projects N.; descend abruptly.
50.00	Leave pinon pine and cedar, enter dense sage brush undergrowth, bears N.and S.,
	Leave land exceptionally difficult to survey;
52.00	Draw, 250 ft.below spur, drains N.; ascend.gradually
63.00	Road, bears N.E.and S.W.; wood road.
68.00	Leave sage brush and enter dense pinon pine and cedar, bears N. and S.,
	Enter land exceptionally difficult to survey.

North Boundary of T.20 S.,R.1½ W.

Chains	
80.00	Set a limestone, 16x12x8 ins., 11 ins.in the ground, for cor.of secs.1,2,35 and 36, marked with 1 notch on E., and 5 notches on W.edge, from which
	A pinon pine, 14 ins.diam.,bears S.41°20'W. 14 lks. dist.,marked T 20 S R 1½ W S 2 B T
	A pinon pine, 12 ins.diam.,bears S.14°10'E. 32 lks. dist.,marked T 20 S R 1½ W S 1 B T
	A pinon pine, 12 ins.diam.,bears N.19°05'E. 47 lks. dist.,marked T 19 S R 1½ W S 36 B T
	A pinon pine, 8 ins.diam.,bears N.60°30'W. 148 lks. dist.,marked T 19 S R 1½ W S 35 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Undergrowth, sage brush.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 62.00 chs.
	West bet.secs. 2 and 35
	Over mountainous land;
	ascend;
	Enter land exceptionally difficult to survey.
3.00	Spur, 100 ft.above draw, projects N.E.;
	descend.
14.00	Gulch, 125 ft.below spur, drains N.30°E.;
	ascend.
17.00	Spur, 175 ft.above gulch, projects S.25°W.;
	descend.
21.00	Gulch, 50 ft.below spur, drains S.;
	ascend.
27.00	Spur, 200 ft.above gulch, projects S.;
	descend.

North Boundary of T.20 S., R.1½ W.

Chains	
33.75	Gulch, 50 ft.below spur, drains S.; ascend.
40.00	Set a limestone, 16x10x6 ins., 11 ins.in the ground, for ¼ sec.cor., marked ¼ on N.face, from which A cedar, 5 ins.diam., bears N.27°00'W. 32 lks. dist., marked ¼ S 35 B T A pinon pine, 10 ins.diam., bears S.83°12'E. 58 lks. dist., marked ¼ S 2 B T June 25: At this cor. I set off 23°25'N. on the decl. arc; and at 12h 02m p.m. l.m.t., observe the sun on the meridian; the resulting lat. is 39°07'
56.00	Spur, 125 ft.above gulch, projects S.; descend rapidly.
76.00	Commence gradual descent.
80.00	Set a limestone, 18x14x8 ins., 12 ins.in the ground, for cor.of secs. 2, 3 34 and 35, marked with 2 notches on E. and 4 notches on W.edge, from which A cedar, 6 ins.diam., bears S.8°13'W. 102 lks. dist., marked T 20 S R 1½ W S 3 B T A cedar, 6 ins. diam., bears S.52°00'E. 115 lkd. dist., marked T 20 S R 1½ W S 2 B T A cedar, 8 ins.diam., bears N.30°04'E. 206 lks.dist., marked T 19 S R 1½ W S 35 B T A cedar, 6 ins.diam., bears N.57°28'W. 228 lks.dist., marked T 19 S R 1½ W S 34 B T Land, mountainous. Soil, rocky; 4th rate Timber, pinon pine and cedar. Mountainous, or heavily timbered land, 80.00 chs. Exceptionally difficult to survey, 80.00 chs.

West bet.secs. 3 and 34

Descend through dense sage brush and scattering cedars.

North Boundary of T.20 S.,R.1½ W.

Chains	
10.00	Wide swale, drains S., also wood road, bears N. and S.; ascend
17.00	Commence abrupt ascent, enter dense pinon pine and cedar, bears N. and S.; Enter land exceptionally difficult to survey;
38.90	Ridge, 420 ft.above swale, bears N.and S.; descend abruptly
40.00	Set a sandstone, 14x8x8 ins., 9 ins.in the ground, for ¼ sec.cor.,marked ¼ on N. face, from which A pinon pine, 12 ins.diam., bears N.31°30'W. 28 lks. dist.,marked ¼ S.34 B T A pinon pine, 12 ins.diam.,bears S.8°20'E. 48 lks. dist.,marked ¼ S 3 B T
50.00	Bottom of hollow, 175 ft.below ridge, drains S.; ascend gradually, leave pinon pine and cedar, and enter dense sage brush, bears N.and S.
58.02	Intersect the W.bdy.of Tp.at S.31.17 chs:from cor.of Tps. 19 and 20 S.,R.2 W.,which is a sandstone, 16x9 ins., 20 ins.above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertaining to R.1 W. Set a limestone, 18x8x8 ins., 12 ins.in the ground, for closing cor.of Tps.19 and 20 S.,R.1½ W.,marked C C on E, with 6 grooves on N.,S. and E. faces, and raise a mound of stone, 2 ft.base, 1½ ft.high, E. of cor. Pits impracticable.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Undergrowth, sage brush.
	Mountainous or heavily timbered land,or land covered with dense undergrowth, 41.02 chs.
	Exceptionally difficult to survey, 41.02 chs.
	June 25, 1909.

Boundaries of T. 20 S., R. 1½ W.

Latitudes, Departures, and Closing Errors.

Line Designated	True Bearing	Dist.	Latitudes N.	Latitudes S.	Departures. E.	Departures. W.
		chs.	chs.	chs.	chs.	chs.
4th Standard Parallel South R.1½ W.	N.88°37'E.	40.40	0.97	.....	40.39	.....
	S.89°08'E.	39.90	.....	0.59	39.89	.....
	S.88°40'E.	39.68	.....	0.92	39.67	.....
	S.89°51'E.	40.16	.....	0.10	40.16	.....
	S.89°08'E.	39.18	.....	0.59	39.17	.....
	S.89°04'E.	18.52	.....	0.30	18.52	.....
East Boundary	North	448.19	448.19	.....	.....	.....
North Boundary	West	218.02	.....	.....	.....	218.02
West Boundary	South	447.37	.....	447.37	.....	.....
Convergency						0.25
Totals			449.16	449.87	217.80	218.27
Error in lat. and dep.				449.16		217.80
				0.71		0.47

For general description see notes of the subdivision of this township.

I destroyed all traces of the closing cors. set on the East Boundary of T.20 S.,R.2 W. by Deputies Heist and Woolley under their contract No.291.

Alfredo P Talamantes
U. S. Deputy Surveyor

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 East and North Boundaries of T. 20 S., R. 1½ W., S. L. B. & M., Utah showing the respective capacities in which they acted:

Rex Dowdall, *Chainman.*
Robert Faddis, *Chainman.*
J. M. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Faddis, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the East and North Boundaries of T. 20 S., R. 1½ W. of the Salt Lake Base and meridian, in the State of Utah, 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 Utah.

Rex Dowdall, *Chainman.*
Robert Faddis, *Chainman.*
J. M. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Faddis, *Flagman.*

Subscribed and sworn to before me this 3 day of August, 1907.

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR

I, Alfredo R. Talamantes, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from Thomas Hull, United States Surveyor General for Utah, bearing date of the 5th day of March, 1908, 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 Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the East and North Boundaries of Township 20 South, Range 1½ West of the Salt Lake Base and Meridian, in the State of Utah 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 Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Alfredo R. Talamantes
United States Deputy Surveyor

Subscribed by said Alfredo R. Talamantes, and sworn to before me this 10th day of April, 1911

Thomas Hull
U.S. Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Salt Lake City, Utah., July 24, 1911

The foregoing field notes of the survey of the East and North Boundaries of Township No. 20 South, Range No. 1½ West of the Salt Lake Base and Meridian, Utah,

executed by Alfredo R. Talamantes under his contract No. 302, dated March 5, 1908, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Thomas Hull
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

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4—679.

BOOK A-370

B.

FILED

MAY 1 1910

FIELD NOTES

OF THE SURVEY OF THE

RETRACEMENT OF

PART OF

THE 4TH STANDARD PARALLEL

SOUTH,

THROUGH R. 1½ W.

and

THE RETRACEMENT OF

PART OF

THE EAST BDY.

OF

TOWNSHIP NO. 20 SOUTH RANGE NO. 2 WEST.

Of the Salt Lake Base and *Meridian,*

U T A H.

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

Under his Contract No. 302, *dated* March 5, *190*8

Retracement
Survey commenced June 26, *190*9

Retracement
Survey completed June 26, *190*9

6—151

4th St. Par South
East Bdy

Mis.
1-57-54
78-54

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall	Chainman
Robert Faddis	Chainman
J. W. Simpson	Moundman
Will Bailey	Axman
Thomas R. Faddis	Flagman

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BOOK A-370

INDEX DIAGRAM.

Township....., *Range*.....

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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page.....

BOOK A-370

PRELIMINARY OATHS OF ASSISTANTS.

We, Rex Dowdall and Robert Faddis

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

the Retracement of Part of the 4th St.Par.S., through R.1½ W., and the Retracement of Part of the E.Bdy. of T.20 S., R.2 W., S.L.B.& M., Uta

Rex Dowdall, Chainma

Robert Faddis, Chainma

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamantes

U.S. Deputy Surveyor.

~~We~~ I, J. W. Simpson ~~and~~

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundman in the establishme of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey

the Retracement of Part of the 4th St.Par.S., through R.1½ W., and the Retracement of Part of the E.Bdy. of T.20 S., R.2 W.S.L.B.& M., Uta

J. W. Simpson, Moundm

, Moundm

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamantes

U.S. Deputy Surveyor.

~~We~~ I, Will Bailey ~~and~~

do solemnly swear that ~~we~~ I will well and truly perform the duties of axman in the establishment of corn and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the survey

the Retracement of Part of the 4th St.Par.S., through R.1½ W., and the Retracement of Part of the E.Bdy. of T.20 S., R.2 W.S.L.B.& M., Ut

Will Bailey, Axm

, Axm

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamantes

U.S. Deputy Surveyor.

I, Thomas R. Faddis, do solemnly swear that I will well and t perform the duties of flagman according to instructions given me, to the best of my skill and ability, in

survey of the Retracement of Part of the 4th St.Par.S., through R.1½W. the Retracement of Part of the E.Bdy. of T.20 S., R.2 W., S.L.B.& M.

Thomas R Faddis, Flagm

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamantes

U.S. Deputy Surveyor.

Retracement of Part of the 4th Standard Parallel South, through Range 1½ W.

Chains	
	Retracement commenced June 26, 1909. For a complete description of the instrument, see book A. I examined the adjustments of the transit and found it in perfect order, and to verify the correctness of my examination, I set the instrument on the stake driven June 22, and At 7h 02m, a.m., l.m.t., I set off 39°02'N. on the latitude arc, 23°24'N. on the decl. arc, and mark the true meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.25 ins. West of the meridian established by the Polaris observations on June 23, 1909, therefore I conclude that the adjustments of the instrument are satisfactory.
	June 26: At 8h 02m, a.m., l.m.t., I set off 39°02'N. on the latitude arc, 23°24'N. on the decl. arc, and determine a true meridian with the solar at the S.E.Cor. of T.20 S.,R.1½ W.. heretofore described.
	Thence I run
	N.89°04'W. on retracement line on S.Bdy. of Sec. 36
18.52	Intersect Standard ¼ Sec,Cor., which is a shale stone 12x10 ins., 5 ins. above ground, marked and witnessed as described by the Surveyor General.
	N.89°08'W. on S. bdy. of Sec. 36
39.18	Intersect old Standard Cor. of Secs. 32 and 33, which is a lime stone 8x7 ins., 7 ins. above ground, witnessed as described by the Surveyor General, all marks pertaining to the Sec. Cor. having been previously destroyed by Deputies Heist and Wooley., leaving the stone in place as witness to the closing cors.set on the St. line for T.21 S.,R.2 W.. I marked A P for angle point.
	N.89°51'W. on S.bdy of Secs. 36 and 35
23.44	Intersect closing cor. of Secs. 1 and 2, T.21 S., R.2 W., which is a lime stone 8x8 ins., 7 ins. above ground, marked and witnessed as described by the Surveyor

Retracement of Part of the 4th Standard Parallel South, through R.1½ W.

Chains	
	General.
40.16	Intersect the Standard ¼ Sec.Cor. of Sec. 32, which is a lime stone 8x8 ins., 5 ins. above ground, witnessed as described by the Surveyor General All marks on this cor. were previously destroyed by Deputies Heist and Wooley, and this cor. left as a witness to the closing cors. set on the St.line in T. 21 S.,R.2 W.
	S.88°40'W. on S.bdy. of Sec. 35
39.68	Fall 185 lks. S. of standard Cor. of Secs. 31 and 32, which is a sand stone 20x10 ins., 10 ins. above ground witnessed as described by the Surveyor General. All marks on this cor. were previously destroyed by Deputies Heist and Wooley, and this cor. left as witness to the closing cors. set on the St. line in T.21 S., R.2 W. I mark the cor. A P for angle point.
	Course of line is N.88°40'W. and distance 39.68 chs.

Retracement of Part of East Bdy.of T.20 S.,R.2 W.

June 26, 1909: At 2h 02m, p.m., l.m.t., I set off 39°02'N. on the lat. arc, 23°23'N. on the decl. arc, and determine a true meridian with the solar at the ¼ Sec.Cor. on the E.bdy. of Sec.36, T.20 S.,R.2 W., which is a lime stone 19x4 ins., 7 ins.above ground, marked and witnessed as described by the Surveyor General.

Thence I run

North on retracement line on E.bdy. of Sec. 36

39.99	Intersect Cor.of Secs. 25 and 36, T.20 S.,R.2 W., which is a sand stone 11x10 ins., 7 ins. above ground,marked and witnessed as described by the Surveyor General
78.54	Intersect the ¼ Sec.Cor.on E.bdy. of Sec.25, which is a sand stone 16x4 ins., 8 ins. above ground, marked and

witnessed as described by the Surveyor General.

For general description, see notes of the subdivisions of this township.

Alfredo R Talamantes
U. S. Deputy Surveyor

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 Retracement of Part of the 4th ST.Par.S., through R.1½ W., and the Retracement of Part of the E.Bdy. of T.20 S.,R.2 W.,S.L.B.& M.Utah, showing the respective capacities in which they acted:

Rex Dowdas, *Chainman.*
Robert Faddis, *Chainman.*
J. M. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Faddis, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the Retracement of Part of the 4th ST.Par.S., through R.1½ W., and the Retracement of Part of the E.Bdy. of T.20 S.,R.2 W. of the Salt Lake Base and meridian, in the State of Utah, 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 Utah

Rex Dowdas, *Chainman.*
, *Chainman.*
J. M. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
Robert Faddis, Chainman
Thomas R Faddis, *Flagman.*

Subscribed and sworn to before me this 3 day of August, 1904

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R. Talamantes, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Thomas Hull United States Surveyor General for Utah, bearing date of the 5th day of March, 1908, 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 Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the retracement of part of the Fourth Standard Parallel South through Range 1½ West; and the retracement of part of the East Boundary of Township No. 20 South, Range No. 2 West of the Salt Lake Base and meridian, in the State of Utah, 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 Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Alfredo R Talamantes
United States Deputy Surveyor.

Subscribed by said Alfredo R. Talamantes, and sworn to before me this 19 day of April, 1911.

SEAL

Thomas Hull
U.S. Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 24, 1911.

The foregoing field notes of the survey of the retracement of part of the Fourth Standard Parallel South, through Range 1½ West; and the retracement of part of the East Boundary of Township No. 20 South, Range No. 2 West of the Salt Lake Base and Meridian, Utah,

executed by Alfredo R. Talamantes under his contract No. 302, dated March 5, 1908, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements they describe, are hereby approved.

Thomas Hull
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.

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BOOK A-370

C.

FILED
MAY 9 1910

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISIONS

OF

TOWNSHIP NO. 20 SOUTH RANGE NO. 1½ WEST.

Of the Salt Lake Base and *Meridian,*

U T A H

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

Under his Contract No. 302, *dated* March 5, *190* 8

Survey commenced June 27, *190* 9

Survey completed July 5, *190* 9

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Subs Map ✓ Jutes ✓ Mins ✓
21-49-91 1-42-61 1-48-33 Closing
2-16-62

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall	Chainman
Robert Faddis	Chainman
J. W. Simpson	Moundman
Will Bailey	Axman
Thomas R. Faddis	Flagman

6—151

BOOK A-370

INDEX DIAGRAM.

*Township*_____, *Range*_____

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*Meanders Page*_____

PRELIMINARY OATHS OF ASSISTANTS.

WE, Rex Dowdall and Robert Faddis
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level t
chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; th
we will report the true distances to all notable objects, and the true lengths of all lines that we assist
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey
the Subdivisions of T. 20 S., R. 1½ W., S.L.B.& M., Utah.

Rex Dowdall, Chainma
Robert Faddis, Chainma

Subscribed and sworn to before me this 21
day of June, 1909
SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

~~WE~~, I, J. W. Simpson and
do solemnly swear that ~~we~~ I will well and truly perform the duties of moundman in the establishm
of corners, according to the instructions given ~~me~~, to the best of ~~our~~ my skill and ability, in the survey
the Subdivisions of T. 20 S., R. 1½ W., S.L.B.& M., Utah.

J. W. Simpson, Moundm
, Moundm

Subscribed and sworn to before me this 21
day of June, 1909
SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

~~WE~~, I, Will Bailey and
do solemnly swear that ~~we~~ I will well and truly perform the duties of axman in the establishment of cor
and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the surve
the Subdivisions of T. 20 S., R. 1½ W., S.L.B.& M., Utah.

Will Bailey, Axm
, Axm

Subscribed and sworn to before me this 21
day of June, 1909
SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

I, Thomas R. Faddis, do solemnly swear that I will well and
perform the duties of flagman according to instructions given me, to the best of my skill and ability, i
survey of the Subdivisions of T. 20 S., R. 1½ W., S.L.B.& M., Utah.

Thomas R Faddis, Flag

Subscribed and sworn to before me this 21
day of June, 1909
SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

6—151

Subdivision of T.20 S., R.1½ W.

Chains

Survey commenced June 27, 1909. For complete description of the instrument, see book A.

I reexamine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows: At my camp, which is S. 47°E. about 28.50 chs. from cor. of T.21 S., R.2 W. and T.20 S., R.1½ W., heretofore described, where on June 23 I established a true meridian by obs. on Polaris,

On June 27, at 4h 03m, p.m., l.m.t, I set off 39°02'N. on the lat. arc, 23°21'E. on the decl. arc, and mark the true meridian determined with the solar, by cutting a small groove in the stone set 5 chs. N. of my station on June 22nd, on which the meridian falls 0.5 ins. east of the mark determined by Polaris observations.

June 27, 1909.

June 28: At 7h 3m, p.m., l.m.t, I set off 39°02'N. on the lat. arc, 23°19'N. on the decl. arc, and mark the true meridian determined with the solar, by a groove on the stone already set 5 chs. N. of my station. This mark falls 0.25 ins. west of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines the positions for the meridians, respectively about 0'16" east and 0'13" west of the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7h 20m a.m. is N.16°45'W.; the angle thus determined gives the mag. decl. 16°45'E.

Subdivision of T.20 S.,R.14 W.

Chains	
	At 8h 03m a.m., l.m.t., I set off 39°03'N.on the lat. arc, 23°19'N. on the decl.arc, and determine a true meridian with the solar at the cor.of secs.25,30,31 and 36, set by me June 23.
	Thence I run
	West,on sectional correction line,bet. secs. 25 and 36
	Over rough, mountainous land,through dense pinon pine and cedar; descend,
	Enter land exceptionally difficult to survey;
5.00	Gulch, 50 ft.below sec.cor., drains N.E.; ascend.
12.50	Spur, 75 ft.above gulch, projects N.E.; descend
16.30	Gulch, 100 ft.above spur, drains N.E.; ascend.
24.00	Spur, 150 ft.above gulch, projects N.35°E.; continue gradual ascent along N.slope.
37.00	Commence descent.
40.00	Set a limestone, 18x8x6 ins., 12 ins.in the ground, for ¼ sec.cor.,marked ¼ on N.face, from which A pinon pine, 11 ins.diam.,bears S.73°39'W. 38 lks. dist.,marked ¼ S 36 B T A pinon pine, 10 ins.diam.,bears N.62°00'E. 86 lks. dist.,marked ¼ S 25 B T
46.00	Gulch near head, 70 ft.below spur,drains N.E.; ascend
55.00	Ridge, 150 ft.above gulch, bears N.and S.E.; descend
62.00	Commence ascent
70.00	Spur, 75 ft.above gulch, projects S.E.; descend abruptly.
75.00	Gulch, 100 ft.below spur, drains S.E. ascend
80.00	Set a sandstone, 16x14x4 ins.,11 ins.in the ground, for cor.of secs.25,26,35 and 36, marked with 1 notch on S. and E.edges, from which

Subdivision of T.20 S., R.1½ W

Chains	
	A pinon pine, 12 ins.diam., bears N.67°42'E. 39 lks. dist., marked T 20 S R 1½ W S 25 B T
	A pinon pine, 10 ins.dia., bears N.64°30'W. 43 lks. dist., marked T 20 S R 1½ W S 26 B T
	A pinon pine, 6 ins.diam., bears S.26°18'W. 36 lks. dist., marked T 20 S R 1½ W S 35 B T
	A pinon pine, 8 ins.diam., bears S.45°30'E. 82 lks. dist., marked T 20 S R 1½ W S 36 B T
	Land, mountainous.
	Soil, rocky; 4th rate
	Timber, pinon pine and cedar
	Mountainous land, or land heavily covered with timber, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	West, on sectional correction line, bet.secs 26 and 35
	Over mountainous land, through dense pinon pine and cedar; ascend abruptly;
	Enter land exceptionally difficult to survey;
16.20	Ridge, 500 ft.above gulch, bears N.and S.E.; descend abruptly
30.00	Gulch, 200 ft.below ridge, drains S.; ascend.
35.00	Spur, 100 ft.above gulch, projects S.; descend
39.00	Gulch, 55 ft.below spur, drains S.; ascend.
40.00	Set a limestone, 16x10x6 ins., 11 ins.in the ground, for ¼ sec.cor., marked ¼ on N.face, from which
	A pinon pine, 11 ins.diam., bears North 5 lks.dist., marked ¼ S 26 B T
	A pinon pine, 12 ins.diam., bears S.63°00'E. 23 lks. dist., marked ¼ S 35 B T
57.00	Spur, 150 ft.above gulch, projects S.; descend

Subdivision of T.20 S.,R.1½ W.

Chains	
71.00	Hollow, 125 ft.below spur,drains S.E.;
	ascend abruptly
78.50	Ridge, 155 ft.above hollow, bears N.and S.;
	descend abruptly
80.00	Set a limestone, 16x12x5ins., 11 ins.in the ground, for cor.of secs.26,27,34 and 35, marked with 1 notch on S. and 2 notches on E.edge, from which
	A pinon pine, 8 ins.diam.,bears N.39°00'E. 25 lks. dist.,marked T 20 S R 1½ W S 26 B T
	A pinon pine, 16 ins.diam.,bears N.21°00'W. 30 lks. dist.,marked T 20 S R 1½ W S 27 B T
	A pinon pine, 11 ins.diam.,bears S.26°30'E. 50 lks. dist.,marked T 20 S R 1½ W S 35 B T
	A pinon pine, 6 ins.diam.,bears S.24°05'W. 66 lks. dist.,marked T 20 S R 1½ W S 34 B T
	Land, mountainous
	Soil, rocky; 4th rate
	Timber, pinon pine and cedar.
	Mountainous, or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	Note:- At noon hour sky is overcast. Solar obs.impossible.
	West, on sectional correction line,bet.secs.27 and 34
	Over rough mountainous land,through pinon pine and cedar; descend abruptly;
	Enter land exceptionally difficult to survey.
19.00	Gulch, 335 ft.below ridge,drains S.;
	ascend gradually
23.50	Spur, 50 ft.above gulch, projects S.;
	descend
35.00	Hollow, 85 ft.below spur,drains S.;
	descend
40.00	Set a sandstone, 16x12x6 ins.,11 ins.in the ground, for ¼ sec.cor.,marked ¼ on N.face,from which
	A pinon pine, 10 ins.diam.,bears N.20°30'E. 28 lks. dist.,marked ¼ S 27 B T

Subdivision of T.20 S.,R.1½ W.

Chains	
	A pinon pine, 4 ins.diam., bears S.23°20'W. 26 lks. dist., marked ⅄ S 34 B T
43.00	Point of spur, 55 ft. above gulch, projects S.; descend
48.00	Hollow, 40 ft. below spur, drains S.; ascend
54.00	Spur, 50 ft. above hollow, projects S.W.; descend
57.59	Intersect the E.bdy. of T.20 S.,R.2 W. at South 37.30 chs. from cor. of secs. 25, 36, 30 and 31, which is a sandstone, 11x8 ins., 14 ins. above ground, marked and witnessed as described by the Surveyor General. Destroy all marks pertaining to secs.30 and 31
	Set a limestone,16x14x4 ins.,11 ins.in the ground for closing cor.of secs.27 and 34,marked C C on E.with 1 groove on S.and 5 grooves on N.face, from which
	A pinon pine,8 ins. diam., bears N.21°12'E. 14 lks. dist.mkd.C C T 20 S R 1½ W S 27 B T
	A pinon pine, 8 ins.diam., bears S.38°30'E. 8 lks. dist.mkd.C C T 20 S R 1½ W S 34 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 57.59 chs.
	Exceptionally difficult to survey, 57.59 chs.
	June 28, 1909

June 29: At 7h 03m,a.m.,l.m.t., I set off 39°03'N. on the lat.arc, 23°17'N. on the decl. arc, and determine a true meridian with the solar, at cor.of secs.25,26,35 and 36

Thence I run

S.0°01'E., bet. secs. 35 and 36

Over mountainous land, through pinon pine and cedar; ascend;

Subdivision of T.20 S.,R.1½ W.

Chains	
	Enter land exceptionally difficult to survey.
10.00	Spur, 175 ft. above sec. cor., projects S.E.;
	descend
14.00	Head of gulch, 50 ft. below spur, drains S.E.;
	ascend
18.00	Ridge, 100 ft. above gulch, bears N.W. and S.E.;
	descend abruptly, along west slope
31.00	Head of gulch, 350 ft. below ridge, drains S.W.;
	ascend
40.00	Set a limestone, 18x12x6 ins., 12 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 10 ins. diam., bears N.34°30'E. 36 lks. dist., marked ¼ S 36 B T
	A pinon pine, 8 ins. diam., bears N.14°22'W. 65 lks. dist., marked ¼ S 35 B T
43.09	Intersect the 4th Standard Parallel South,R.1½ W. at N.89°51'W. 22.41 chs. from the old Standard cor.of secs. 32 and 33,T.20 S.,R.1 W, heretofore described, and 17.75 chs. S.89°51'E. of the old ¼ cor. of sec. 32, heretofore described.
	Also intersect the 4th Standard Parallel South, R.1½ W. at S.89°51'E. 1.00 chs. from the closing cor. of secs. 1 and 2, T.21 S.,R.2 W., heretofore described
	At my point of intersection I set a limestone, 18x8x6 ins., 12 ins. in the ground, for closing cor. of secs. 35 and 36, marked C C on N., with 1 groove on E. and 5 grooves on W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Undergrowth, sagebrush.
	Mountainous, or heavily timbered land, or land covered with dense undergrowth, 43.09 chs.

Subdivision of T.20 S., R.1½ W.

Chains	
	Exceptionally difficult to survey, 43.09 chs.
	From cor. of secs. 25,26,35 and 36 I run
	N.0°01'W. bet. secs. 25 and 26
	Over mountainous land, through pinon pine and cedar; descend abruptly;
	Enter land exceptionally difficult to survey;
7.00	Gulch, 150 ft. below sec. cor., drains S.20°E.; ascend
26.00	Ridge, 300 ft. above gulch, bears N.W. and S.E.; thence along broken E. slope.
37.00	Commence descent
39.50	Gulch, 50 ft. deep, drains E.; ascend
39.95	Cedar, 14 ins.diam., on line; mkd. 2 notches on N.& S. sides.
40.00	Set a limestone, 18x14x4 ins., 12 ins. in the ground, for ¼ sec.cor., marked ¼ on W. face, from which
	A cedar, 6 ins. diam., bears S.45°00'E. 3 lks. dist., marked ¼ S 25 B T
	A pinon pine, 6 ins. diam., bears N.46°15'W. 36 lks. dist., marked ¼ S 26 B T
50.00	Spur, 150 ft. above gulch, projects S.E.; descend
53.00	Gulch, 50 ft. below spur, drains E.; ascend
56.00	Spur, 75 ft. above gulch, projects E.; descend
62.00	Gulch, 100 ft. below spur, drains S.E.; ascend
69.00	Spur , 125 ft. above gulch, projects E.; descend abruptly
79.50	Canyon, 550 ft. below spur, drains N.75°E.; ascend abruptly

Subdivision of T.20 S.,R.1½ W.

Chains

80.00 Set a limestone, 16x12x4 ins., 11 ins. in the ground, for cor. of secs. 23, 24, 25, and 26, marked with 2 notches on S. and 1 notch on E. edge, from which

A pinon pine, 6 ins. diam., bears N.54°14'W. 40 lks. dist., marked T 20 S R 1½ W S 23 B T

A cedar, 10 ins. diam., bears S.74°02'E. 12 lks.dist., marked T 20 S R 1½ W S 25 B T

A cedar, 6 ins. diam., bears N.28°45'E. 22 lks. dist., marked T 20 S R 1½ W S 24 B T

A pinon pine, 12 ins. diam., bears S.1°24'W. 90 lks. dist., marked T 20 S R 1½ W S 26 B T

Land, mountainous.

Soil, rocly; 4th rate.

Timber, pinon pine and cedar.

Mountainous or heavily timbered land, 80.00 chs.

Exceptionally difficult to survey, 80.00 chs.

June 29: At this cor. I set off 23°15'N. on the decl. arc, and at 12h 03m, l.m.t., I observe the sun on the meridian; the resulting lat. is 39°03'N.

East on a random line bet. sec. 24 and 25

40.00 Set a temp. ¼ sec. cor.

80.02 Intersect E. bdy. of Tp. 7 lks. S. of cor. of secs. 19, 24. 25, and 30, heretofore described.

Thence I run

S.89°57'W. on a true line bet. secs. 24 and 25

Over mountainous land, through pinon pine and cedar; descend abruptly

Enter land exceptionally difficult to survey;

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Subdivision of T.20 S., R.1½ W.

Chains	
20.00	Gulch, 200 ft.below Sec.Cor., drains S.10°E.;
	ascend
38.00	Spur, 350 ft.above gulch, projects S.E.,
	descend
40.01	Set a sandstone, 18x12x5 ins., 12 ins.in the ground, for ¼ sec.cor., marked ¼ on N. face, from which
	A pinon pine, 10 ins.diam., bears N.41°30'E. 38 lks. dist., marked ¼ S 24 B T
	A pinon pine, 12 ins.diam., bears S.64°35'E. 42 lks. dist., marked ¼ S 25 B T
55.00	Gulch, 150 ft.below spur, drains S.E.,
	ascend
77.00	Gulch, 50 ft.below spur, drains N.70°E.,
	ascend
80.02	The cor.of secs. 23, 24, 25, and 26
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous, or heavily timbered land, 80.02 chs.
	Exceptionally difficult to survey, 80.02 chs.

June 29, 1909.

June 30: At 7h 03m a.m., l.m.t., I set off 39°03'N. on the lat. arc, 23°13'N. on the decl. arc, and determine a true meridian with the solar at the cor.of secs. 23, 24, 25 and 26

Thence I run

N.0°01'W., bet. secs. 23 and 24

Over mountainous land, through pinon pine and cedar;

ascend abruptly;

Enter land exceptionally difficult to survey,

24.50	Ridge, 450 ft. above sec.cor., bears E. and W.
	descend abruptly
29.00	Gulch, 125 ft.below ridge, drains E. and S.E.;
	ascend

Subdivision of T.20 S., R.1½ W.

Chains

40.00 Set a limestone, 16x12x5 ins., 11 ins.in the ground, for ¼ sec.cor., marked ¼ on W. face, from which

A pinon pine, 14 ins.diam., bears S.57°48'W. 62 lks. dist., marked ¼ S 23 B T

A pinon pine, 6 ins.diam., bears N.60°00'E. 15 lks. dist., marked ¼ S 24 B T

44.00 Ridge, 350 ft.above gulch, bears S.E.and N.W.;

descend

53.00 Gulch, 155 ft.below ridge, drains E.;

ascend

70.00 Spur, 575 ft.above gulch, projects E.;

descend

80.00 Set a limestone, 18x10x6 ins., 12 ins.in the ground, for cor.of secs. 13,14,23 and 24, marked with 3 notches on S. and 1 notch on E. edge, from which

A pinon pine, 12 ins.diam., bears S.13°33'E. 165 lks. dist., marked T 20 S R 1½ W S 24 B T

A pinon pine, 12 ins.diam., bears S.36°36'W. 118 lks. dist., marked T 20 S R 1½ W S 23 B T

A pinon pine, 4 ins.diam., bears N.68°30'E. 40 lks. dist., marked T 20 S R 1½ W S 13 B T

A pinon pine, 4 ins.diam., bears N.13°27'W. 61 lks. dist., marked T 20 S R 1½ W S 14 E T

Land, mountainous

Soil, rocky; 4th rate.

Timber, pine, pinon pine and cedar.

Mountainous, or heavily timbered land, 80.00 chs.

Exceptionally difficult to survey, 80.00 chs.

N.89°57'E. on a random line, bet. secs. 13 and 24

40.00 Set a temp. ¼ sec. cor.

80.00 Intersect E.bdy. of Tp., 7 lks. N. of cor.of secs. 13,18, 19 and 24, heretofore described.

Subdivision of T.20 S., R.1½ W.

Chains	
	Thence I run
	West on a true line, bet. secs. 13 and 24
	Over mountainous land, through dense timber;
	ascend
	Enter land exceptionally difficult to survey
13.50	Spur, 150 ft.above sec.cor., projects N.80°E.;
	descend
35.00	Head of hollow, 50 ft.below spur, drains N.E.;
	ascend
40.00	Set limestone, 16x11x4 ins., 11 ins.in the ground, for ¼ sec.cor., marked ¼ on N. face, from which
	A pinon pine, 10 ins.diam., bears N.67°40'E. 44 lks. dist., marked ¼ S 13 B T
	A pinon pine, 8 ins.diam., bears S.10°13'E. 37 lks. dist., marked ¼ S 24 B T
42.50	Road, bears N. and S.; wood road.
44.50	Ridge, 150 ft. above hollow, bears S.E. and N.W.;
	descend along S. slope
75.50	Gulch, 200 ft.below ridge, drains S.69°E.;
	ascend
77.00	Road, bears N.69°W. and S.69°E.; wood road.
80.00	The cor.of secs. 13, 14, 23 and 24
June 30:	At this cor.I set off 23°12'N. on the decl.arc, and at 12h 03m, l.m.t., observe the sun on the meridian; the resulting lat. is 39°04'N.
	Land, mountainous
	Soil, rocky; 4th rate
	Timber, pinon pine and cedar.
	Mountainous, or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.

	N.0°01'W., bet.secs. 13 and 14
	Over rough mountainous land, through pinon pine and cedar;
	descend

Subdivision of T.20 S.,R.1½ W.

Chains	
	Enter land exceptionally difficult to survey
1.10	Gulch, 65 ft.below sec.cor., drains S.69°E.; ascend abruptly
4.50	Road, bears S.E. and N.W.; wood road.
23.00	Ridge, 850 ft.above gulch, bears N.W. and S.E.; descend gradually
32.00	Commence abrupt descent
39.00	Gulch, 500 ft.below ridge, drains E.; ascend abruptly
40.00	Set a limestone, 24x12x12 ins., 18 ins.in the ground, for ¼ sec.cor., marked ¼ on W. face, from which A pinon pine, 5 ins.diam., bears N.84°10'W. 50 lks. dist., marked ¼ S 14 B T A pinon pine, 8 ins.diam., bears S.82°35'E. 35 lks. dist., marked ¼ S 13 B T
60.00	Commence gradual ascent
73,00	Top of ridge, 510 ft.above gulch, bears N.E. and W. descend
80.00	Set a limestone 20x8x4 ins., 15 ins.in the ground, for cor. of secs. 11, 12, 13 and 14, marked with 4 notches on S. and 1 notch on E. edge, from which A red pine, 8 ins.diam., bears N.6°30'E. 46 lks. dist., marked T 20 S R 1½ W S 12 B T A pinon pine, 4 ins.diam., bears S.50°30'E. 14 lks. dist., marked T 20 S R 1½ W S 13 B T A pinon pine, 6 ins.diam., bears N.31°30'W. 51 lks. dist., marked T 20 S R 1½ W S 11 B T A mahogany, 6 ins.diam., bears S.66°55'W. 26 lks. dist., marked T 20 S R 1½ W S 14 B T
	Land,mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.

June 30, 1909

Subdivision of T.20 S.,R.1½ W.

Chains	
	July 1, 1909; At 7h 03m, a.m., l.m.t., I set off 39°05'N. on the lat.arc, 23°10'N.On the decl.arc, and determine a true meridian with the solar at the cor. of secs. 11, 12, 13, and 14
	Thence I run
	East on a random line bet.secs. 12 and 13
40.00	Set temp. ¼ sec. cor.
79.85	Intersect E.bdy.of Tp. 10 lks.S. of cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence I run
	S.89°56'W. on a true line bet.secs. 12 and 13
	Over rough mountainous land,through pinon pine and cedar; ascend
	Enter land exceptionally difficult to survey
6.00	Spur, 150 ft. above sec.cor.,projects N.E.; descend
11.00	Head of hollow, 25 ft. below spur, drains N.E.; ascend
15.00	Spur, 40 ft. above hollow, projects N.; descend
20.00	Gulch, 50 ft. below spur, drains N.40°E.; ascend abruptly
34.00	Spur, 350 ft. above gulch, projects N.E.; descend
37.00	Gulch, 300 ft. below spur, drains N.E.; ascend
39.92	Set a limestone 16x14x8 ins., 11 ins. in the ground for ¼ sec.cor., marked ¼ on N. face, from which
	A pinon pine, 4 ins. diam., bears N.4°44'W. 77 lks. dist., marked ¼ S 12 B T
	A pinon pine, 5 ins. diam., bears S.19°20'W. 163 lks. dist., marked ¼ S 13 B T
75.00	Ridge, 550 ft. above gulch, bears N.and S.; descend gradually along N.slope; enter scattering pine timber;

Subdivision of T.20 S., R.1½ W.

Chains

79.85 The cor. of secs. 11, 12, 13 and 14

Land, mountainous.

Soil, rocky; 4th rate.

Timber, pinon pine and cedar.

Mountainous or heavily timbered land, 79.85 chs.

Exceptionally difficult to survey, 79.85 chs.

July 1: At this cor. I set off 23°08'N. on the decl. arc, and at 12h 03m, l.m.t., I observe the sun on the meridian, the resulting lat. is 39°05'

N.0°01'W., bet. secs. 11 and 12

Over mountainous land, through pinon pine and cedar; descend abruptly

Enter land exceptionally difficult to survey

32.40 Gulch, 950 ft. below ridge, drains N.75°E.; ascend abruptly

40.00 Set a sand stone 20x12x6 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which

A pinon pine, 7 ins. diam., bears N.28°02'W. 65 lks. dist., marked ¼ S 11 B T

A pinon pine, 10 ins. diam., bears S.36°42'E. 32 lks. dist., marked ¼ S 12 B T

50.00 Spur, 200 ft. above gulch, projects N.87°E.; descend abruptly

66.00 Road, bears N.W. and S.E.; wood road

78.00 Enter valley, bears E. and W.; also wood road, bears N.25° W. and S.25°E.

leave timber, bears W. and S.E.; enter dense sagebrush undergrowth

Leave land exceptionally difficult to survey.

80.00 Set a sandstone 20x12x6 ins., 15 ins. in the ground, for cor. of secs. 1, 2, 11 and 12, marked with 5 notches on S. and 1 notch on E. edge, and raised a mound of stone 2 ft, base, 1½ ft. high, W. of cor.

Chains	
	Pits impracticable.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Undergrowth, sagebrush.
	Mountainous or heavily timbered land, or land heavily covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 78.00 chs.
	N.89°56'E. on a random line bet. secs. 1 and 12
40.00	Set temp. ¼ sec. cor.
79.81	Intersect E. bdy. of T., 32 lks. N. of cor. of secs. 1, 6, 7 and 12, heretofore described.
	Thence I run
	N.89°50'W. on a true line bet. secs. 1 and 12
	Over mountainous land, through pinon pine and cedar; ascend abruptly
	Enter land exceptionally difficult to survey
11.00	Top of ridge, 500 ft. above sec. cor., bears N.W. and S.E.; descend abruptly
20.00	Head of gulch, 100 ft. below ridge, drains S.; ascend abruptly
29.00	Spur, 75 ft. above gulch, projects S.; descend abruptly
39.90½	Set a sandstone 20x10x8 ins., 15 ins. in the ground, for ¼ sec.cor., marked ¼ on N. face, from which
	A pinon pine, 12 ins. diam., bears S.37°27'E. 17 lks. dist., marked ¼ S 12 B T
	A pinon pine, 10 ins. diam., bears N.64°58'E. 24 lks. dist., marked ¼ S 1 B T
45.00	Gulch, 600 ft. below spur, drains S.; ascend
70.00	Spur, 200 ft. above gulch, projects S.; descend
76.00	Leave timber, bears N. and S.; enter greaswood and sage-brush, bears N. and S.

Chains	
	Leave land exceptionally difficult to survey
79.81	Enter S.E.cor. of small valley.
76	
3-81	The cor. of secs. 1, 2, 11 and 12
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.81 chs.
	Exceptionally difficult to survey, 76.00 chs.
	July 1, 1909

July 2; At 7h 04m, a.m., l.m.t., I set off 39°06'N. on the lat.arc, 23°05'N. on the decl.arc, and determine a true meridian with the solar at the cor. of secs. 1, 2, 11 and 12

Thence I run

N.0°01'W. on a random line bet. secs. 1 and 2

40.00 Set temp. ¼ sec. cor.

83.70 Intersect N.bdy. of Tp., 19 lks. E. of cor. of secs. 1, 2, 35 and 36, heretofore described.

Thence I run

S.0°09'E. on a true line bet. secs. 1 and 2

Over mountainous land, through pinon pine and cedar; descend

Enter land exceptionally difficult to survey

8.50 Hollow, 75 ft. below sec. cor., drains E.; ascend

17.50 Low ridge, 50 ft. above hollow, bears E. and W.; descend gradually

20.00 Leave timber, enter dense sagebrush, bears N. and S.

Leave land exceptionally difficult to survey

31.50 Leave sagebrush, enter plowed land belonging to R.R.Hill, bears N.W. and S.E.

37.50 Leave plowed land belonging to R.R.Hill, enter sagebrush, bears N.E. and S.W.

39.50 Road, bears N.E. and S.W.; wood road.

Subdivision of T.20 S.,R.1½ W.

Chains

43.70 Set a sandstone 18x16x14 ins., 12 ins. in the ground,for ¼ sec. cor., marked ¼ on W.face, and raise a mound of stone 2 ft.base, 1½ ft. high, W. of cor.
Pits impracticable.

83.70 The cor.of secs. 1, 2, 11, and 12

80
63.70

Land, mountainous.
Soil, loam and rock; 1st and 4th rate.
Timber, pinon pine and cedar.
Undergrowth, sagebrush.
Mountainous or heavily timbered land, 20.00 chs.
Exceptionally difficult to survey, 20.00 chs.

July 2; At 4h 04m, p.m., l.m.t., I set off 39°03'N. on the lat.arc, 23°03'N. on the decl.arc, and determine a true meridian with the solar at the cor. of secs. 26, 27, 34 and 35
Thence I run
S.0°01'E. on a true line bet. secs. 34 and 35
Over mountainous land, through dense pinon pine and;cedar; descend abruptly
Enter land exceptionally difficult to survey

40.00 Set a sandstone 16x10x5 ins., 11 ins. in the ground for ¼ sec.cor., marked ¼ on W.face, from which
A pinon pine, 8 ins.diam., bears N.86°16'W. 26 lks. dist., marked ¼ S 34 B T
A pinon pine, 6 ins.diam., bears N.82°20'E. 16 lks. dist., mraked ¼ S 35 B T

41.78 Intersect the 4th Standard Parallel South at N.89°08'W. 22.45 chs.from the old Standard Cor.of secs.31 and 32, T.20 S.,R.1 W.,heretofore described, and 17.45 chs. S. 89°08'E.of the old ¼ sec.cor.of sec.31, which is a sandstone boulder 3x2x2 ft.above ground, witnessed as described by the Surveyor General. All marks on this cor. were previously destroyed by deputies Heist and Wooley,

Chains

leaving the stone in place as a witness cor.to the closing cors.set on the Standard line in T.21 S.,R.2 W. also falls N.89°08'W. 65. lks. of the closing cor. of secs. 2 and 3, T.21 S.,R.2 W., which is a sandstone 18x 15x9 ins.above ground, marked and witnessed as described by the Surveyor General.

At my point of intersection, set a sandstone 16x10x6 ins., 11 ins. in the ground for closing cor. of secs. 34 and 35, marked C C on N. face, with 2 grooves on E., and 4 grooves on W. face, from which

A pinon pine, 10 ins.diam., bears N.27°41'E. 30 lks. dist., mkd. C C T 20 S R 1½ W S 35 B T

A pinon pine, 16 ins.diam., bears N.51°08'W. 70 lks. dist., mkd. C C T 20 S R 1½ W S 34 B T

Land,mountainous.

Soil, rocky; 4th rate.

Timber, pinon pine and cedar.

Mountainous or heavily timbered land, 41.78 chs.

Exceptionally difficult to survey, 41.78 chs.

July 2, 1909

July 3: At 7h 04m, a.m., l.m.t., I set off 39°03'N. on the lat.arc, 23°01'N. on the decl.arc, and determine a meridian with the solar at cor. of secs. 26, 27, 34 and 35

Thence I run

N.0°01'W. bet. secs. 26 and 27

Over rough mountainous land,through pinon pine and cedar; ascend

Enter land exceptionally difficult to survey

11.50 Commence abrupt ascent

32.10 Spur, 700 ft. above sec.cor., projects S.50°W.; descend

40.00 Set limestone 20x8x4 ins., 15 ins. in the ground for ¼

Subdivision of T. 20 S., R 1½ W

Chains	
	sec.cor., marked ¼ on W. face, from which
	A pinon pine, 20 ins.diam., bears N.7°50'W. 23 lks. dist., marked ¼ S 27 B T
	A pinon pine, 16 ins.diam., bears S.89°30'E. 43 lks. dist., marked ¼ S 26 B T
45.00	Commende abrupt descent along W. slope
55.00	Commence abrupt ascent along W. slope, 300 ft.below spur
75.20	Spur, 250 ft.above beginning of descent, projects S.47°W. descend
80.00	Set a limestone, 20x14x4 ins., 15 ins.in mound of stone, for cor. of secs. 22, 23, 26 and 27, marked with 2 notches on S. and E. edges, from which
	A pinon pine, 12 ins.diam., bears N.78°30'W. 36 lks. dist., marked T 20 S R 1½ W S 22 B T
	A pinon pine, 10 ins.diam., bears N.7°30'E. 51 lks. dist., marked T 20 S R 1½ W S 23 B T
	A pinon pine, 8 ins.diam., bears S.14°00'W. 87 lks. dist., marked T 20 S R 1½ W S 27 B T
	A pinon pine, 8 ins.diam., bears S.19°40'E. 79 lks. dist., marked T 20 S R 1½ W S 26 B T
	Land, mountainous
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	East on a random line bet. secs. 23 and 26
40.00	Set temp. ¼ sec. cor.
79.90	Intersect N. and S. line 23 lks. S. of cor. of secs. 23, 24, 25 and 26
	Thence I run
	S.89°50'W. on a true line bet. secs. 23 and 26

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Subdivision of T.20 S., R. 1½ W.

Chains	
	Over mountainous land, through pinon pine and cedar
	ascend abruptly
	Enter land exceptionally difficult to survey
25.00	Spur, 250 ft. above sec. cor., projects S.5°E.;
	descend
31.00	Gulch, 75 ft.below spur, drains S.5°E.;
	ascend
39.95	Set a limestone, 16x11x4 ins., 11 ins. in the ground for
	¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 10 ins.diam., bears N.16°36'E. 13 lks.
	dist., marked ¼ S 23 B T
	A pinon pine, 8 ins.diam., bears S.66°20'E. 13 lks.
	dist., marked ¼ S 26 B T
58.00	Point of spur, 100 ft.above gulch, projects S.;
	descend
63.00	Gulch, 75 ft.below spur, drains S.20°E.;
	ascend
73.00	Ridge, 175 ft.above gulch, bears N.5°E. and S.5°W.;
	descend
79.90	The cor. of secs. 22, 23, 26 and 27
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 79.90 chs.
	Exceptionally difficult to survey, 79.90 chs.
July 3:	At this cor. I set off 22°59'W. on the decl. arc, and
	at 12h 04m, l.m.t., I observe the sun on the meridian;
	the resulting lat, is 39°03'N.

West on a true line bet.secs. 22 and 27

Over mountainous land, through pinon pine and cedar;

descend abruptly

Enter land exceptionally difficult to survey

Subdivision of T.20 S.,R.1½ W.

Chains	
15.00	Head of gulch, 500 ft.below sec. cor., drains S.40°W.; ascend
24.00	Spur, 50 ft.above gulch, projects S.42°W.; descend
27.00	Gulch, 40 ft.above spur, drains S.46°W.; ascend
40.00	Spur, 40 ft.above gulch, projects S.46°W.; descend
	Set a sandstone 18x10x4 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 6 ins.diam., bears S.21°04'W. 59 lks. dist., marked ¼ S 27 B T
	A pinon pine, 12 ins.diam., bears N.31°24'E.26 lks. dist., marked ¼ S 22 B T
51.00	Gulch, 200 ft. below spur, drains S.45°W.; ascend
57.98	Intersect W.bdy.of Tp.35.80 chs. S. from the cor.of secs. 19, 24, 25 and 30, which is a limestone 11x8x6 ins. above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertaining to secs. 19 and 30
	At my point of intersection I set a sandstone 14x12x10 ins. 9 ins.in the ground, for closing cor.of secs. 22 and 27 marked C C on E. with 2 grooves on S. and 4 grooves on N. face, from which
	A pinon pine, 14 ins.diam., bears S.27°28'E. 89 lks. dist.,marked C C T 20 S R 1½ W S 27 B T
	A pinon pine, 14 ins.diam., bears N.46°12'E. 19 lks. dist.,marked C C T 20 S R 1½ W S 22 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 57.98 chs.
	Exceptionally difficult to survey, 57.98 chs.

Subdivision of T.20 S.,R.1½ W

Chains	
July 3:	At 4h 04m, p.m., l.m.t., I set off 39°03'N. on the lat. arc, 22°59'N. on the decl. arc, and determine a true meridian with the solar at the cor. of secs. 22, 23, 26 and 27
	Thence I run
	N.0°01'W. bet. secs. 22 and 23
	Over mountainous land, through pinon pine and cedar; descend abruptly
	Enter land exceptionally difficult to survey
10.00	Commence abrupt ascent, 100 ft.above sec. cor.
23.00	Ridge, 500 ft. above sec. cor., bears N.47°W. and S.35°E.; descend
27.00	Head of gulch, 75 ft. below ridge, drains S.80°E.; ascend abruptly
32.00	Ridge, 250 ft.above gulch, bears S.35°W. and N.10°E.; descend
40.00	Set a limestone 16x12x4 ins., 11 ins.in the ground for ¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 10 ins.diam., bears N.60°45'E. 78 lks. dist., marked ¼ S 23 B T
	A pinon pine, 5 ins.diam., bears N.84°30'W. 58 lks. dist., marked ¼ S 22 B T
41.00	Commence ascent, 200 ft. below ridge, thence along W. slope
73.00	Ridge, 175 ft.above ¼ sec. cor., bears N.25°W. and S.25°E. descend abruptly
80.00	Set a limestone 16x10x5 ins., 11 ins.in the ground for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edges, from which
	A pine, 12 ins. diam., bears S.38°W. 81 lks. dist., marked T 20 S R 1½ W S 22 B T
	A pine, 14 ins. diam., bears S.87°10'E. 59 lks. dist., marked T 20 S R 1½ W S 23 B T
	A pine, 10 ins.diam., bears N.6°10'E. 61 lks. dist.,

Subdivision of T.20 S., R.1½ W.

Chains	
	marked T 20 S R 1½ W S 14 B T
	A dry pine, 12 ins. diam., bears N.50°20'W. 45 lks. dist., marked T 20 S R 1½ W S 15 B T.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine, cedar and scattering long leaved pine
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	July 3, 1909
	July 4: At 8h 04m, a.m., l.m.t., I set off 39°04'N. on the lat. arc, 22°55'N. on the decl. arc, and determine a true meridian with the solar at the cor. of secs.14, 15, 22 and 23
	Thence I run
	N.89°50'E. on a random line bet. secs. 14 and 23
40.00	Set temp. ¼ sec. cor.
79.90	Intersect N. and S. line 23 lks. N. of cor. of secs. 13, 14, 23 and 24
	Thence I run
	West on a true line bet. secs. 14 and 23
	Over mountainous land, through pine timber and dense under-growth;
	Ascend abruptly along steep N. slope
	Enter land exceptionally difficult to survey
30.00	Commence gradual ascent
39.95	Set limestone 16x14x4 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which
	A pine, 10 ins.diam., bears N.57°30'E. 37 lks. dist., marked ¼ S 14 B T
	A pine, 10 ins. diam., bears S.67°50'W. 28 lks. dist., marked ¼ S 23 B T
79.90	The cor. of secs 14, 15, 22 and 23

Subdivision of T.20 S.,R.1½ W.

Chains	
	Land, mountainous
	Soil, rocky; 4th rate.
	Timber, pine
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.90 chs.
	Exceptionally difficult to survey, 79.90 chs.
	West on a true line bet. secs. 15 and 22
	Over mountainous land, through pinon pine and cedar, and dense undergrowth;
	ascend
	Enter land exceptionally difficult to survey
1.00	Ridge, bears N.25°W. and S.25°E.;
	descend abruptly
9.00	Commence ascent, 200 ft.below ridge,
15.00	Spur, 50 ft.above beginning of ascent, projects S.20°W.;
	descend abruptly
39.40	Gulch, 300 ft.below spur, drains S.15°W.;
	ascend
40.00	Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 6 ins. diam., bears N.1°04'E. 31 lks. dist., marked ¼ S 15 B T
	A pinon pine, 6 ins. diam., bears S.11°43'E. 35 lks. dist., marked ¼ S 22 B T
52.00	Spur, 100 ft. above gulch, projects S.;
	descend
56.00	Head of gulch, 50 ft. below spur, drains S.;
	ascend
57.95	Intersect W.boy.of Sp.35.50 chs. S. of the cor. of secs. 13, 18, 19 and 24, which is limestone 15x10 ins., 15 ins.above ground marked and witnessed as described by the Surveyor General. I destroy all marks pertaining

Subdivision of T.20 S., R.1½ W.

Chains	
	to secs. 18 and 19
	At my point of intersection I set a sandstone 18x10x4 ins. 12 ins. in the ground for closing cor. of secs. 15 and 22, marked C C on E. with 3 grooves on N. and S. faces from which
	A pinon pine, 12 ins. diam., bears N.33°30'E. 68 lks. dist., marked C C T 20 S R 1½ W S 15 B T
	A pinon pine, 12 ins. diam., bears S.86°24'E. 55 lks. dist., marked C C T 20 S R 1½ W S 22 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 57.95 chs.
	Exceptionally difficult to survey, 57.95 chs.
July 4:	At this cor. I set off 22°54'N. on the decl. arc, and at 12h 04m, l.m.t., observe the sun on the meridian; the resulting lat. is 39°04'N.
	N.0°01'W. bet. secs. 14 and 15
	Over mountainous land, through pine and mahogany and dense undergrowth;
	descend abruptly
	Enter land exceptionally difficult to survey,
27.00	Road, bears N.85°E. and S.85°W.; wood road.
33.10	Head of gulch, 500 ft. below sec. cor., drains N.86°E.;
	leave pine and mahogany, enter pinon pine and cedar;
	ascend abruptly
40.00	Spur, 150 ft. above gulch, projects S.E.;
	descend
	Set a sandstone 16x10x6 ins., 11 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 14 ins. diam., bears S.66°20'W. 30 lks. dist., marked ¼ S 15 B T

Subdivision of T.20 S.,R.1½ W.

Chains

A pinon pine, 16 ins. diam., bears N.44°26'E. 31 lks. dist., marked ¼ S 14 B T

51.00 Head of gulch, 50 ft. below spur, drains S.80°E.; ascend

64.00 Ridge, 300 ft. above gulch, bears E. and W.; descend abruptly

80.00 Set a sandstone 16x12x5 ins., 11 ins. in the ground for cor. of secs. 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E.edge; and raise a mound of stone 2 ft. base 1½ ft. high W. of cor., from cor.

A pine, 8 ins. diam., bears S.43°36'E. 55 lks.dist., marked T 20 S R 1½ W S 14 B T

A pinon pine, 6 ins. diam., bears N.31°40'E. 29 lks. dist., marked T 20 S R 1½ W S 11 B T

A pinon pine, 18 ins. diam., bears S.60°W. 45 lks. dist., marked T 20 S R 1½ W S 15 B T

No other trees suitable to mark.

Land, mountainous.

Soil, rocky; 4th rate.

Timber, pine, pinon pine, mahogany and cedar.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.

Exceptionally difficult to survey, 80.00 chs.

July 4: At 4h 04m, p.m., l.m.t., I set off 39°05'N. on the lat. arc, 22°54'N. on the decl. arc, and determine a true meridian with the solar at the cor. of secs. 10, 11, 14 and 15

Thence I run

East on a random line bet. secs. 11 and 14

40.00 Set temp. ¼ sec. cor.

79.85 Intersect N. and S. line 9 lks. E. of cor. of secs. 11, 12, 13 and 14

Thence I run

Subdivision of T.20 S.,R.1½ W

Chains	
	S.89°56'W. on a true line bet. secs. 11 and 14
	Over mountainous land, through pinon pine and cedar and dense undergrowth;
	descend abruptly
	Enter land exceptionally difficult to survey
13.50	Gulch, 275 ft. below sec. cor., drains N.5° E.;
	ascend abruptly
20.00	Commence gradual ascent along steep N. slope,
39.92½	Set a limestone 16x10x5 ins., 11 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, from which
	A mahogany, 6 ins. diam., bears N.46°32'E. 49 lks. dist., marked ¼ S 11 B T
	A mahogany, 6 ins. diam., bears S.80°18'W. 16 lks. dist., marked ¼ S 14 B T
58.00	Spur, 425 ft. above gulch, projects N.42°E.;
	descend abruptly
66.50	Gulch, 175 ft. below spur, drains N.E.;
	ascend abruptly
79.85	The cor.of secs. 10, 11, 14 and 15
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land or land covered with dense undergrowth, 79.85 chs.
	Exceptionally difficult to survey, 79.85 chs.
	West on a true line bet. secs. 10 and 15
	Over mountainous land, through pine and cedar and dense undergrowth;
	ascend abruptly
	Enter land exceptionally difficult to survey
6.00	Spur, 200 ft. above sec. cor., projects N.;
	descend abruptly
28.00	Gulch, 300 ft. below spur, drains N.;
	ascend

Subdivision of T.20 S., R.1½ W

Chains	
36.00	Spur, 150 ft.above gulch, projects N.;
	descend
40.00	Set a limestone 16x8x6 ins., 11 ins.in the ground, for ¼ sec. cor., marked ¼ on N. face, from which
	A pine, 8 ins. diam., bears S.8°55'W. 20 lks. dist., marked ¼ S 15 B T
	A pine, 12 ins. diam., bears N.34°35'W. 14 lks.dist., marked ¼ S 10 B T
46.00	Begin abrupt descent, bears N. and S.;
50.00	Gulch, 200 ft.below spur, drains N.;
58.00	Intersect W.bdy.of Tp.35.21 chs.S. of the cor.of secs. 7 12, 13, 18, which is a sandstone 9x9x7 ins.above ground, marked and witnessed as described by the Survey General. I destroy all marks pertaining to secs. 7 and 18
	At my point of intersection set a limestone 16x10x6 ins., 11 ins. in the ground for closing cor. of secs. 10 and 1 marked C C on E. with 2 grooves on N. and 4 grooves on S. face, and raise a mound of stone 2 ft. base 1½ ft. high E. of cor. Pits impracticable. From cor
	A pinon pine, 16 ins. diam., bears N.68°48'E. 31 lks. dist., marked C C T 20 S R 1½ W S 10 B T
	No other tree suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pine and cedar.
	Mountainous or heavily timbered land or land covered wit dense undergrowth, 58.00 chs.
	Exceptionally difficult to survey, 58.00 chs.
	July 4, 1909
	July 5; At 8h 04m, a.m., l.m.t., I set off 39°05'N. on the lat. arc, 22°50'N. on the decl. arc, and determine a true meridian with the solar at the cor. of secs. 10 11, 14 and 15

Subdivision of T.20 S.,R.1½ W.

Chains	
	Thence I run
	N.0°01'W. bet. secs. 10 and 11
	Over mountainous land, through pinon pine and cedar
	descend abruptly
	Enter land exceptionally difficult to survey
5.00	Commence gradual ascent along E. slope
40.00	Set a sandstone 24x10x5 ins., 18 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 10 ins. diam., bears S.20°50'W. 64 lks. dist., marked ¼ S 10 B T
	A pinon pine, 18 ins. diam., bears S.40°22'E. 78 lks. dist., marked ¼ S 11 B T
58.00	Enter valley, 500 ft. below sec. cor., leave timber, enter dense sage brush, bears N.80°E. and S.80°W.;
	descend gradually
	Leave land exceptionally difficult to survey
76.00	Wood road, bears N.43°E. and S.50°W.
80.00	Set a sandstone 18x12x4 ins., 12 ins. in the ground for cor. of secs. 2, 3, 10 and 11, marked with 5 notches on S. and 2 notches on E. edge, and raise a mound of stone 2 ft. base 1½ ft. high W. of cor.
	Pits impracticable.
	Land, mountainous.
	Soil, gravely and rocky; 2nd and 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land or land covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 58.00 chs.
	N.89°56'E. on a random line bet. secs. 2 and 11
40.00	Set temp. ¼ sec. cor.
79.80	Intersect N.and S. line at cor. of secs. 1, 2, 11 and 12
	Thence I run
	S.89°56'W. on a true line bet. secs. 2 and 11

Subdivision of T.20 S., R.1½ W.

Chains	
	Through dense sage brush;
	ascend gradually
2.00	Road, bears N.W. and S.E.; wood road.
39.90	Set a sand-stone 18x12x4 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, dig pits 18x18x12 ins. E. and W. of stone, 3 ft. dist., and raise a mound of earth 3½ ft. base 1½ ft. high N. of cor.
75.00	Road, bears N.E. and S.W.; wood road.
79.80	The cor. of secs. 2, 3, 10 and 11
	Land, nearly level.
	Soil, gravely loam. 1st rate.
	No timber.
	Dense undergrowth, 79.80 chs.
	July 5: At this cor. I set off 22°49'N. on the decl. arc and at 12h 04m, l.m.t., observe the sun on the meridian; the resulting lat. is 39°06'N.
	Wert on a true line bet. secs. 3 and 10
	Through dense sagebrush;
	ascend
5.00	Enter pinon pine and cedar, bears N. and S.;
	ascend rapidly
15.00	Spur, 100 ft. above valley, projects N.;
	descend
	Enter land exceptionally difficult to survey
28.00	Gulch, 75 ft. below spur, drains N.30°E.;
	ascend rapidly
32.00	Ridge, 120 ft. above gulch, bears N.3°E. and S.5°W.;
	descend abruptly
40.00	Set a sandstone 16x12x10 ins., 11 ins. in the ground for ¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 10 ins. diam., bears N.29°08'E. 12 lks. dist., marked ¼ S 3 B T
	A pinon pine, 10 ins. diam., bears S.22°00'E. 23 lks. dist., marked ¼ S 10 B T

Subdivision of T.20 S., R.1½ W.

Chains

58.00 Intersect W. bdy. of Tp. 34, 91 chs. S. of the cor. of secs. 1, 6, 7, and 12, which is a sandstone 10x7x6 ins. above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertaining to secs. 6 and 7

At my point of intersection I set a sandstone 16x12x10 ins., 11 ins, in the ground for closing cor. of secs. 3 and 10, marked C C on E. with 1 groove on N. and 5 grooves on S. face, from which

A pinon pine, 6 ins. diam., bears N.79°55'E. 5 lks. dist., marked C C T 20 S R 1½ W S 3 B T

A pinon pine, 8 ins. diam., bears S.14°58'E. 132 lks. dist., marked C C T 20 S R 1½ W S 10 B T

Land, level and mountainous.

Soil, gravely loam and rocky; 1st and 4th rate.

Timber, pinon pine and cedar.

Mountainous or heavily timbered land or land covered with dense undergrowth, 58.00 chs.

Exceptionally difficult to survey, 43.00 chs.

N.0°01'W. on a random line bet. secs. 2 and 3

40.00 Set temp. ¼ sec. cor.

83.63 Intersect N. Bdy. of Tp. 20 lks.E. of cor. of secs. 2, 3, 34 and 35

July 5: At this cor. at 4h 04m, p.m., l.m.t., I set off 39°07'N. on the lat. arc, 22°48'N. on the decl. arc, and determined a true meridian with the solar.

Thence I run

S.0°09'E. on a true line bet. secs. 2 and 3

Over mountainous land, through scattering pinon pine and cedar and dense undergrowth;

descend gradually

41.00 Commence abrupt ascent

42.50 Leave scattering timber, enter dense timber, bears E. and W.

Subdivision of T.20 S., R.1½ W.

Chains	
	Enter land, exceptionally difficult to survey
43.63	Set a sandstone 16x10x8 ins., 11 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, from which
	A mahogany, 6 ins. diam., bears S.88°30'W. 27 lks. dist., marked ¼ S 3 B T
	A pinon pine, 4 ins. diam., bears S.44°55'E. 27 lks. dist., marked ¼ S 2 B T
49.50	Ridge, 100 ft. above level, bears N.75°W. and S.75°E.; thence along rolling land; descend
61.50	Leave timber, bears E. and W.
	Leave land exceptionally difficult to survey
67.50	Hollow, 100 ft. below ridge, drains S.80°E.; also old wood road, bears N.80°W. and S.80°E.; ascend gradually
83.63	The cor. of secs. 2, 3, 10 and 11
	Land, mountainous.
	Soil, gravely loam and rocky; 2nd and 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 19.00 chs.
	Exceptionally difficult to survey, 19.00 chs.
	July 5, 1909

General Description:

This fractional township is very mountainous, with the exception of the S.½ of sec. 2, a small portion of the N.½ of sec. 11, and a small portion of the E.½ of sec.10

The soil is almost entirely rocky, or 4th rate.

The mountains are very steep and rugged and are covered with dense pinon pine and cedar. A very small portion of this township furnishes grass.

There is no water in the township. The nearest water is a canal some three or four miles to the East.

There are no settlers in the township. The settlers along the Gevier River and at the town of Gunnison get

Subdivision of T.20 S.,R.1½ W.

wood from this township.

The plowed land in secs. 1 and 2 belongs to R.R.Hill.

There is no mineral in this township.

I destroyed all traces of the closing cors. set on the East Boundary of T.20 S.,R.2 W. by deputies Heist and Woolley under their contract No.291

Alfredo R Talamantes
U. S. Deputy Surveyor

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Page

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 Subdivisions of T.20 S., R.1½ W., S.L.B.& M., Utah, showing the respective capacities in which they acted:

Rex Dowdas, *Chainman.*
Robert Faddis, *Chainman.*
J. M. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Faddis, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the Subdivisions of T.20 S., R.1½ W.

of the Salt Lake Base and meridian, in the State of Utah, 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 Utah.

Rex Dowdas, *Chainman.*
Robert Faddis, *Chainman.*
J. M. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Faddis, *Flagman.*

Subscribed and sworn to before me this 3 day of August, 1909

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R. Talamantes, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from Thomas Hull United States Surveyor General for Utah, bearing date of 5th day of March, 1908, I have well, faithfully, and truly, in my o proper person, and in strict conformity with the instructions furnished by the United States Surve General for Utah, the Manual of Surveying Instructions, and the laws of United States, surveyed all those parts or portions of the Subdivision of Township No. 20 South, Range No. 1½ West

of the Salt Lake Base and meridian, in the State of Utah, which are represented in foregoing field notes as having been surveyed by me, and under my direction; and I do further solem swear that all the corners of said survey have been established and perpetuated in strict accordance w the Manual of Surveying Instructions, and the special written instructions of the United States Surve General for Utah and in the specific manner described in the field notes, and t the foregoing are the original field notes of such survey.

Alfredo R Talamantes
United States Deputy Surve

Subscribed by said Alfredo R. Talamantes, and sworn to before me this 19 day of April, 1911.

SEAL

U.S. Surveyor-General for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 24, 1911.

The foregoing field notes of the survey of the Subdivisional lines of Township No. 20 South, Range No. 1½ West of the Salt Lake Base and Meridian, Utah,

executed by Alfredo R. Talamantes under his contract No. 302, dated March 5, 1908, having b critically examined, and the necessary corrections and explanations made, the said field notes, and surveys they describe, are hereby approved.

United States Surveyor Gene

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 Gene

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4—679.

BOOK A-370

D.

FIELD NOTES

FILED
MAY 1 1910.

OF THE SURVEY OF THE

SUBDIVISION

of

PART OF

TOWNSHIP NO. 20 SOUTH, RANGE NO. 1 WEST.

Of the Salt Lake Base and *Meridian,*

Utah

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

Under his Contract No. 302, *dated* March 5, *1908*

Survey commenced July 6, *1909*

Survey completed July 6, *1909*

6—161

Maps.
2-22-28

cl.
39 lks.

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall	Chainman
Robert Faddis	Chainman
J. W. Simpson	Moundman
Will Bailey	Axman
Thomas R. Faddis	Flagman

6—151

BOOK A-370

INDEX DIAGRAM.

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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, Rex Dowdall and Robert Faddis do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; t we will report the true distances to all notable objects, and the true lengths of all lines that we assist measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey the Subdivision of Part of T.20 S., R.1 W. of the S.L.B.& M., Utah.

Rex Dowdall, Chainm

Robert Faddis, Chainm

Subscribed and sworn to before me this 21 day of June, 1909.

SEAL

Alfredo R. Talamante
U.S.Deputy Surveyor.

~~We~~, I, J. W. Simpson and do solemnly swear that ~~we~~ I will well and truly perform the duties of moundman in the establishm of corners, according to the instructions given ~~us~~ me to the best of ~~our~~ my skill and ability, in the survey the Subdivision of T.20 S., R.1 W, of the S.L.B.& M., Utah.

J. W. Simpson, Moundm

, Moundm

Subscribed and sworn to before me this 21 day of June, 1909.

SEAL

Alfredo R Talamant
U.S.Deputy Surveyor.

~~We~~, I Will Bailey and do solemnly swear that ~~we~~ I will well and truly perform the duties of axman in the establishment of cor and other duties, according to instructions given ~~us~~ me to the best of ~~our~~ my skill and ability, in the surve the Subdivision of Part of T.20 S., R.1 W. of the S.L.B.& M., Utah.

Will Bailey, Axm

, Axm

Subscribed and sworn to before me this 21 day of June, 1909.

SEAL

Alfredo R Talamant
U.S.Deputy Surveyor.

I, Thomas R. Faddis, do solemnly swear that I will well and t perform the duties of flagman according to instructions given me, to the best of my skill and ability, in survey of the Subdivision of Part of T.20 S., R.1 W. of the S.L.B.& Utah.

Thomas R Faddis, Flagm

Subscribed and sworn to before me this 21 day of June, 1909.

SEAL

Alfredo R Talama
U.S. Deputy Surveyor.

Subdivision of Part of T.20 S.,R.1 W.

Chains	
	Subdivision commenced July 6, 1909. For a complete description of the instrument see Book A of this survey.
	I reexamine the instrument and find it in perfect order. To verify the correctness of my examination I set the instrument over the stake driven June 22 and
	At 7h 04m, a.m., l.m.t., I set off 39°02'N. on the lat. arc, 22°45'N. on the decl. arc, and marked the true meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.25 ins. west of the meridian established by the Polaris observations made June 23, 1909; therefore I determine that the adjustments of the instrument are satisfactory.
	July 6: At 8h 04m, a.m., l.m.t., I set off 39°03'N. on the lat. arc, 22°44'N. on the decl. arc, and determine a true meridian with the solar at the ¼ sec. cor. bet. secs. 30 and 31, T.20 S.,R.1 W., which is a limestone 12x5x7 ins.above ground marked and witnessed as described by the Surveyor General.
	Thence I run
	West on a true line bet. secs. 30 and 31.
	Over mountainous land, through pinon pine and cedar; descend
	Enter land exceptionally difficult to survey.
14.25	Commence abrupt ascent, 150 ft. below ¼ sec. cor.; gulch 60 lks. N. of line, drains N.45°E.;
27.10	Spur, 200 ft.above gulch, projects N.33°W.; descend rapidly
36.40	Intersect cor. of secs. 25, 30, 31 and 36, heretofore described.
	Land, mountainous
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 36.40 chs.

Subdivision of Part of T.20 S.,R.1 W.

Chains	
	From the ¼ sec. cor. bet. secs. 19 and 30, which is a quartzite stone 9x8x7 ins. above ground, marked and witnessed as described by the Surveyor General, I run
	West on a random line bet. secs. 19 and 30
36.31	Fall 12 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described
	Thence I run
	S.89°49'E. on a true line bet. secs. 19 and 30
	Over mountainous land, through pinon pine and cedar; ascend
	Enter land exceptionally difficult to survey
1.00	Ridge, 20 ft. above sec. cor., bears N.39°W. and S.39°E.; descend abruptly
16.00	Gulch, 210 ft. below ridge, drains N.35°E.; ascend abruptly
27.25	Spur, 200 ft. above gulch, projects N.46°E.; descend abruptly
36.31	The ¼ sec. cor. bet. secs. 19 and 30
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 36.31 chs.
	Exceptionally difficult to survey, 36.31 chs.
	From the ¼ sec. cor. bet. secs. 18 and 19, which is a limestone 12x7x6 ins. above ground, marked and witnessed as described by the Surveyor General, I run
	N.89°49'W. on a random line bet. secs. 18 and 19
36.40	Falls 2 lks. N. of cor. of secs. 13, 18, 19 and 24, heretofore described
	Thence I run
	S.89°51'E. on a true line bet. secs. 18 and 19.
	Over mountainous land, through pinon pine and cedar; descend abruptly

Subdivision of Part of T.20 S.,R.1 W.

Chains	
14.00	Gulch, 210 ft. below sec. cor., drains N.47°E.;
	ascend
30.00	Point of spur, 100 ft. above gulch, projects N.10°E.;
	descend gradually
36.40	The ¼ sec. cor. bet. secs. 18 and 19
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 36.40 chs.
	Exceptionally difficult to survey, 36.40 chs.
July 6:	At this cor. I set off 22°43'N. on the decl. arc, and at 12h 04m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°04'N.
	From the ¼ sec. cor. bet. secs. 7 and 18, which is a lime-stone 18x8x7 ins. above ground, marked and witnessed as described by the Surveyor General, I run
	N.89°51'W. on a random line bet. secs. 7 and 18
36.57	Fall 1 lk. N. of the cor. of secs. 7, 12, 13 and 18, here-tofore described.
	Thence I run
	S.89°52'E. on a true line bet. secs. 7 and 18
	Over mountainous land, through pinon pine and cedar;
	descend
	Enter land exceptionally difficult to survey
3.00	Gulch, 50 ft. below sec. cor., drains N.42°E.;
	ascend abruptly
12.00	Spur, 225 ft. above gulch, projects N.10°E.;
	descend
33.00	Gulch, 75 ft. below spur, drains N.47°E.;
	ascend
36.57	The ¼ sec. cor. bet. secs. 7 and 18
	Land, mountainous.
	Soil, rocky; 4th rate.

Chains	
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 36.57 chs.
	Exceptionally difficult to survey, 36.57 chs.
	July 6: At 3h 34m, p.m., l.m.t., I set off 39°06'N. on the lat.arc, 22°42'N. on the decl. arc, and determine a true meridian with the solar at the ¼ sec. cor. bet. secs. 6 and 7, which is a limestone 10x6x8 ins. above ground, marked and witnessed as described by the Surveyor General.
	Thence I run
	N.89°52'W. on a random line bet. secs. 6 and 7
36.60	Fall 30 lks. S. of the cor. of secs. 1, 6, 7 and 12, heretofore described. I destroy all marks pertaining to secs. 6 and 7 and at a point 9 lks. S. of my point of intersection I set a limestone 18x12x6 ins., 12 ins. in the ground, for closing cor. of secs. 6 and 7, marked C C on E. with 5 grooves on S. and 1 groove on N. face, from which
	A pinon pine, 12 ins. diam., bears N.68°15'E. 52 lks. dist., marked C C T 20 S R 1 W S 6 B T
	A pinon pine, 12 ins. diam., bears S.75°23'E. 43 lks. dist., marked C C T 20 S R 1 W S 7 B T
	Thence I run
	East on a true line bet. secs. 6 and 7
	Over mountainous land, through dense pinon pine and cedar; descend abruptly
11.50	Gulch, 220 ft. below closing cor., drains N.49°E.; ascend
18.50	Spur, 100 ft. above gulch, projects N.30°E.; descend
36.60	The ½ sec. cor. bet. secs. 6 and 7
	Land, mountainous.
	Soil, rocky; 4th rate.

Subdivision of Part of T.20 S.,R.1 W.

Timber, pinon pine and Cedar.

Mountainous or heavily timbered land, 36.60 chs.

Exceptionally difficult to survey, 36.60 chs.

July 6, 1909

General Description.

This part of T.20 S.,R.1 W. is very mountainous. The mountains are steep and rugged and covered with dense pinon pine and cedar. I found no trace of mineral.

There are no settlers in this part of the township.

Alfredo R Talamantes
U.S. Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 Subdivision of Part of T. 20 S., R. 1 W. of the S. L. R. & M., Utah, showing the respective capacities in which they acted:

R. M. Dowdale, *Chainman.*
Robert Faddis, *Chainman.*
J. M. Simpson, *Moundman.*
_____, *Moundman.*
Will Bailey, *Axman.*
_____, *Axman.*
Thomas R Faddis, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the Subdivision of Part of T. 20 S., R. 1 W. _____ of the Salt Lake Base and _____ meridian, in the State of Utah, 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 Utah.

R. M. Dowdale, *Chainman.*
Robert Faddis, *Chainman.*
J. M. Simpson, *Moundman.*
_____, *Moundman.*
Will Bailey, *Axman.*
_____, *Axman.*
Thomas R Faddis, *Flagman.*

Subscribed and sworn to before me this 3 day of August, 1909

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R. Talamantes, United States Deputy Surveyor, d
solemnly swear that, in pursuance of a contract received from Thomas Hull
United States Surveyor General for Utah, bearing date of th
5th day of March, 1908, I have well, faithfully, and truly, in my ow
proper person, and in strict conformity with the instructions furnished by the United States Surveyo
General for Utah, the Manual of Surveying Instructions, and the laws of th
United States, surveyed all those parts or portions of the Subdivision of part of Town-
ship No. 20 South, Range No. 1 West

of the Salt Lake Base
and meridian, in the State of Utah, which are represented in th
foregoing field notes as having been surveyed by me, and under my direction; and I do further solemn
swear that all the corners of said survey have been established and perpetuated in strict accordance wi
the Manual of Surveying Instructions, and the special written instructions of the United States Survey
General for Utah and in the specific manner described in the field notes, and th
the foregoing are the original field notes of such survey.

Alfredo R Talamantes
United States Deputy Surveyo

Subscribed by said Alfredo R. Talamantes, and sworn to before me
this 19 day of April, 1911.

SEAL

Thomas Hull
U.S. Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 24, 191

The foregoing field notes of the survey of the Subdivisional lines of part of
Township No. 20 South, Range No. 1 West of the Salt Lake Base and Me
ridian, Utah,

executed by Alfredo R. Talamantes
under his contract No. 302, dated March 5, 1908, having b
critically examined, and the necessary corrections and explanations made, the said field notes, and
surveys they describe, are hereby approved.

Thomas Hull
United States Surveyor Gener

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 Gener

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4—679.

BOOK A-370

FILED
MAY 7 1910

E.

FIELD NOTES

OF THE SURVEY OF THE

EAST AND NORTH BOUNDARIES

OF

TOWNSHIP NO. 19 SOUTH, RANGE NO. 1½ WEST.

Of the Salt Lake Base and *Meridian,*

Utah

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

Under his Contract No. 302, *dated* March 5, *190*8

Survey commenced July 6, *190*9

Survey completed July 8, *190*9

6—151

	Max	Inter	Min	
E. Bdy	5-52-60	-28-74		
N. Bdy	1-39-43	1-18-50	8-00	Closing 31-0
	7 12 03	1 47 24		

BOOK A-370

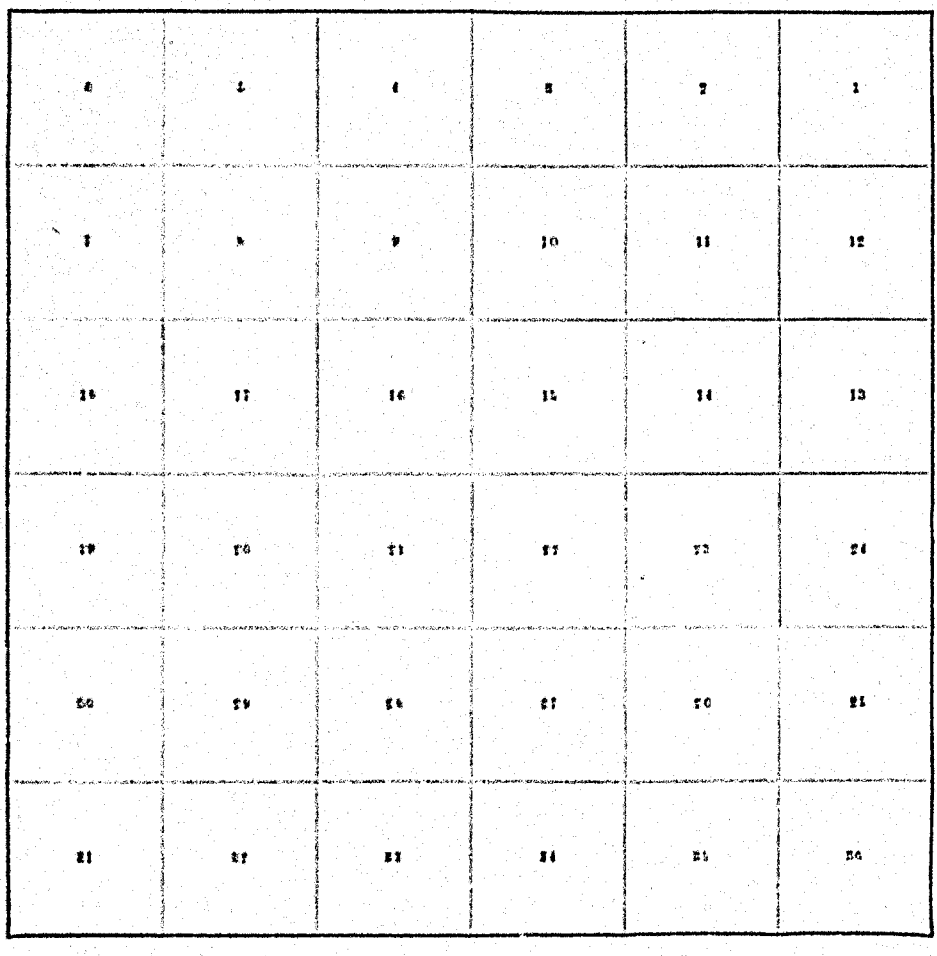
NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall	Chainman
Robert Faddis	Chainman
J. W. Simpson	Moundman
Will Bailey	Axman
Thomas R. Faddis	Flagman

BOOK A-370

INDEX DIAGRAM.

Township....., *Range*.....



Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, Rex Dowdall and Robert Faddis

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will leve chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; we will report the true distances to all notable objects, and the true lengths of all lines that we ass measuring, to the best of our skill and ability, and in accordance with instructions given us, in the surv the East and North Boundaries of T.19 S., R.1½ W. Salt Lake Base and Meridian, Utah.

Rex Dowdall, Chain

Robert Faddis, Chain

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamant

U.S.Deputy Surveyor.

~~WE~~, I, J. W. Simpson ~~and~~

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundman in the establis of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the sur the East and North Boundaries of T.19 S., R.1½ W., Salt Lake Base Meridian, Utah.

J. W. Simpson, Moun

, Moun

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamant

U.S.Deputy Surveyor.

~~WE~~, I, Will Bailey ~~and~~

do solemnly swear that ~~we~~ I will well and truly perform the duties of axman in the establishment of and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the su the East and North Boundaries of T.19 S., R.1½ W., Salt Lake Bas and Meridian, Utah.

Will Bailey,

,

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talamant

U.S.Deputy Surveyor.

I, Thomas R. Faddis, do solemnly swear that I will well an perform the duties of flagman according to instructions given me, to the best of my skill and ability survey of the East and North Boundaries of T.19 S., R.1½ W., Salt Base and Meridian, Utah.

Thomas R Faddis, Fl

Subscribed and sworn to before me this 21 day of June, 1909

SEAL

Alfredo R Talaman

~~U.S.Deputy Surveyor.~~

6—151

East Boundary of T.19 S., R.1½ W.

Chains

Survey commenced July 6, 1909. For complete description of the instrument, see Book A,

I examine the adjustment of the transit and find it in perfect order; then to test the solar apparatus by compairing its indications resulting from solar observations taken during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:-

At a point 20 chs. East of the Cor.of secs. 1,2,35 and 36, Tps. 19 and 20 S.,R. 1½ West, [illegible], I set a stake 2 ins. square;latitude 39°07'N.,longitude 112°01'16"W.

At 5h 04m, p.m., l.m.t., I set off 39°07'N. on the lat. arc,22°43'N.on the decl.arc,and determine a true Mer. with the solar, and mark the point thereof on a stone firmly set in the ground 5 chs. N. of my station.

July 6, 1909

July 7: At 12h 33m, a.m., l.m.t., I observe Polaris at Eastern elongation, in accordance with the instructions in the Manual, and mark the line thus determined by a tack driven in a wooden peg firmly set 5 chs. N. of my station.

At 6h , a.m., l.m.t., I lay off the azimuth of Polaris, 1°31' to the west and mark the meridian thus determined by cutting a small groove in the stone set last evening on which the meridian falls 0.15 ins. west of the mark determined by the solar.

At 7h 04m, a.m., l.m.t., I set off 39°07'N. on the lat. arc, 22°39'N. on the decl. arc, and mark the true meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.25 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines the positions for the meridians about 0'.08" east and 0'.13" west respectively, of the meridian established by the Polaris observations; therefore, I conclude

East Boundary of T.19 S., R.1½ W.

Chains	
	that the adjustments of the instrument are satisfactory
	The magnetic bearing of the true meridian at 7h, a.m., l. m.t.is N.16°45'W.; the angle thus determined gives the mag. decl. 16°45'E.
	July 7: At 8h 05m, a.m., l.m.t., I set off 39°07'N. on the lat. arc, 22°38'N. on the decl. arc, and determine the true meridian with the solar at the cor. of Tps.19 and 20 S.,Rgs. 1 and 1½ W., set by me June 24, 1909
	Thence I run
	North bet. secs. 31 and 36
	Over mountainous land, through pinon pine and cedar; ascend
	Enter land exceptionally difficult to survey.
2.50	Spur, 30 ft. above sec. cor., projects S.50°E.; descend abruptly
18.00	Gulch, 300 ft. below spur, drains S.50°E.; ascend
21.00	Road, bears N.50°W. and S.50°E. ; wood road.
30.00	Spur, 100 ft. above gulch, projects S.50°E.; descend
39.00	Gulch, 50 ft. below spur, drains S.52°E.; ascend abruptly.
40.00	Set a red sandstone, 16x12x4 ins.,11 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, from which A pinon pine, 10 ins. diam.,bears S.64°08'E. 42 lks. dist., marked ¼ S 31 B T A pinon pine, 4 ins. diam., bears S.52°32'W. 50 lks. dist., marked ¼ S 36 B T
52.00	Ridge, 200 ft. below gulch, bears S.49°E. and N.49°W.; descend
59.00	Gulch, 75 ft. below ridge, drains N.40°E.; ascend abruptly
72.00	Spur, 150 ft. above gulch, projects East; descend abruptly
80.00	Set a sandstone 16x11x4 ins.,11 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked with 1 notch o

East Boundary of T.19 S.,R.1½ W.

Chains	
	A pinon pine, 8 ins. diam., bears S.4°00'W. 65 lks. dist., marked T 19 S R 1½ W S 36 B T
	A pinon pine, 12 ins. diam., bears S.36°39'E.106 lks. dist., marked T 19 S R 1 W S 31 B T
	A pinon pine, 6 ins. diam., bears N.88°00'W. 36 lks. dist., marked T 19 S R 1½ W S 25 B T
	A cedar, 10 ins. diam., bears N.39°30'E. 19 lks. dist., marked T 19 S R 1 W S 30 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	North bet. secs. 25 and 30
	Over mountainous land, through pinon pine and cedar; descend abruptly
	Enter land exceptionally difficult to survey
10.00	Lone Cedar Canyon, 400 ft. below spur, drains S.45°E.; ascend abruptly
10.50	Road, from Scipio to Gunnison, bears N.45°W. and S.45°E.;
35.00	Spur, 500 ft. above gulch, projects S.40°E.; descend
40.00	Head of gulch, 50 ft. below spur, drains S.44°E.; ascend abruptly
	Set a sandstone, 22x14x6 ins., 16 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 12 ins. diam., bears S.37°30'W.27 lks. dist., marked ¼ S 25 B T
	A pinon pine, 12 ins. diam., bears S.3°42'E. 30 lks. dist., marked ¼ S 30 B T
53.00	Ridge, 150 ft. above gulch, bears E. and W.; descend
65.00	Head of gulch, 40 ft. below ridge, drains E.; ascend

East Boundary of T.19 S.,R.1½ W.

Chains

77.00 Ridge, 100 ft. above gulch, bears N.55°E. and S.55°W.;
descend abruptly

80.00 Set a sandstone, 16x12x5 ins.,11 ins. in the ground, for cor. of secs. 19, 24, 25 and 30, marked with 2 notches on S. and 4 notches on N. edge, from which
A pinon pine, 10 ins. diam., bears S.60°00'W. 24 lks dist., marked T 19 S R 1½ W S 25 B T
A balsam pine, 6 ins. diam., bears N.19°58'W. 68 lks dist., marked T 19 S R 1½ W S 24 B T
A balsam pine, 12 ins.diam., bears S.18°52'E. 25 lks dist., marked T 19 S R 1 W S 30 B T
A cedar, 12 ins. diam., bears N.87°30'E. 10 lks. dist., marked T 19 S R 1 W S 19 B T

Land, mountainous.
Soil, rocky; 4th rate.
Timber, pinon pine and cedar.
Mountainous or heavily timber land, 80.00 chs.
Exceptionally difficult to survey, 80.00 chs.
July 7: At this cor. I set off 22°37'N. on the decl.arc and at 12h 05m, l.m.t., observe the sun on the meridia
The resulting lat. is 39°09'N.

North bet. secs. 19 and 24
Over mountainous land, through pinon pine and cedar;
descend abruptly
Enter land exceptionally difficult to survey.

30.00 Gulch, 500 ft. below ridge, drains N.50°E.;
ascend

36.00 Point of spur, 50 ft. above gulch, projects E.;
descend

40.00 Set a sandstone, 16x10x10 ins.,11 ins.in the ground, fo
¼ sec. cor., marked ¼ on W. face, from which
A pinon pine, 4 ins. diam., bears S.18°25'E. 54 lks dist., marked ¼ S 19 B T
A pinon pine, 4 ins. diam., bears N.79°30'W. 8 lks.

East Boundary of T.19 S.,R.1½ W.

Chains	
	dist., marked ¼ S 24 B T
40.50	Gulch, 30 ft. below spur, drains S.75°E.;
	ascend abruptly
41.00	Road, bears N.44°W. and S.75°E. ; wood road.
70.00	Ridge, 550 ft. above gulch, bears N.85°W. and East;
	descend
77.00	Leave dense pinon pine and cedar, enter scattering pinon pine and cedar, bears E.and W.;
	Leave land exceptionally difficult to survey.
80.00	Set a limestone 16x12x3 ins.,11 ins.in the ground, for cor. of secs. 13, 18, 19 and 24 , marked with 3 notches on N. and S. edges, from which
77/3	A cedar, 6 ins. diam., bears N.54°00'E. 38 lks.dist., marked T 19 S R 1 W S 18 B T
	A cedar, 6 ins. diam., bears S.70°55'E. 81 lks. dist., marked T 19 S R 1 W S 19 B T
	No other trees suitable for marking, therefore I raise a mound of stone, 2 ft. base, 1½ ft. high, W.of cor.
	Pits impracticable
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 77.60 chs.
	July 7: At this cor., at 3h 05m, p.m., l.m.t., I set Off 39°09'N. on the lat. arc, 22°36'N. on the decl. arc, and determine a true meridian with the solar.
	Thence I run
	North bet. secs. 13 and 18
	Over mountainous land, through scattering pinon pine and cedar;
	ascend
5.00	Point of spur, 100 ft. above gulch, projects N.44°W.;

East Boundary of T.19 S.,R.1½ W.

Chains

Enter land exceptionally difficult to survey

11.00 Head of gulch, 50 ft. below spur, drains N.40°W.;
ascend

20.00 Point of spur, 100 ft. above gulch, projects N.40°W.;
descend abruptly

39.00 Gulch, 250 ft. below spur, drains S.50°E.; also wood road
bears S.50°E. and N.50°W.;
ascend

40.00 Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for
¼ sec. cor., marked ¼ on W. face, from which
A pinon pine, 6 ins. diam., bears N.71°25'W. 150 lks.
dist., marked ¼ S 13 B T
A pinon pine, 6 ins. diam., bears S.85°08'E. 18 lks.
dist., marked ¼ S 18 B T

43.00 Point of spur, 75 ft. above gulch, projects S.85°E.;
descend abruptly

46.00 Head of gulch, 50 ft. below spur, drains S.88°E.;
ascend abruptly

58.00 Spur, 150 ft. above gulch, projects S.20°W.;
ascend rapidly along west slope

80.00 Set a limestone, 16x12x6 ins., 11 ins. in the ground, for
cor. of secs. 7, 12, 13 and 18, marked with 4 notches
on S. and 2 notches on N. edge, from which
A pinon pine, 18 ins. diam., bears N.39°43'E. 37 lks
dist., marked T 19 S R 1 W S 7 B T
A pinon pine, 6 ins. diam., bears N.20°00'W. 29 lks.
dist., marked T 19 S R 1½ W S 12 B T
A pinon pine, 10 ins. diam., bears S.57°55'W. 59 lks
dist., marked T 19 S R 1½ W S 13 B T
A pinon pine, 12 ins. diam., bears S.40°10'E. 18 lks
dist., marked T 19 S R 1 W S 18 B T

Land, mountainous.

Soil, rocky; 4th rate.

Timber, pinon pine and cedar.

Mountainous or heavily timbered land, 80.00 chs.

East Boundary of T.19 S.,R.1½ W.

Chains	
	Exceptionally difficult to survey, 75.00 chs.
	July 7, 1909
	July 8: At 8h 05m, a.m., l.m.t., I set off 39°10'N. on the lat. arc, 22° 32'N. on the decl. arc, and determine a true meridian with the solar, at the cor. of secs. 7, 12, 13 and 18
	Thence I run
	North bet. secs. 7 and 12
	Over mountainous land, through pinon pine and cedar; ascend abruptly
	Enter land exceptionally difficult to survey
9.00	Ridge, 550 ft. above gulch, bears E. and W.; descend abruptly
35.00	Head of hollow, 150 ft. below ridge, drains W.; ascend
40.00	Set a limestone, 16x12x4 ins.,11 ins. in the ground, for ¼ sec.cor., marked ¼ on W. face, from which A pinon pine, 6 ins. diam., bears N.58°35'W. 195 lks. dist., marked ¼ S 12 B T No other tree suitable for marking, therefore I raise a mound of stone, 2 ft. base, 1½ high, W. of cor. Pits impracticable.
61.00	Ridge, 150 ft. above gulch, bears N.80°E. and S.80°W.; descend
75.00	Commence ascent, 50 ft. below ridge, bears E. and W.;
80.00	Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for cor. of secs. 1, 6, 7 and 12, marked with 5 notches on S. and 1 notch on N. edge, from which A pinon pine, 5ins. diam., bears N.51°18'W. 22 lks. dist., marked T 19 S R 1½ W S 1 B T A cedar, 4 ins. diam., bears N.10°20'E. 146 lks. dist., marked T 19 S R 1 W S 6 B T A cedar, 5 ins. diam., bears S.28°22'E. 28 lks. dist., marked T 19 S R 1 W S 7 B T

East Boundary of T.19 S.,R.1½ W.

Chains

A cedar, 8 ins. diam., bears S.18°30'W. 66 lks. dist., marked T 19 S R 1½ W S 12 B T

Land, mountainous.

Soil, rocky; 4th rate.

Timber, pinon pine and cedar.

Mountainous or heavily timbered land, 80.00 chs.

Exceptionally difficult to survey, 80.00 chs.

North bet. secs. 1 and 6

Over mountainous land, through pinon pine and cedar and dense undergrowth; ascend

Enter land exceptionally difficult to survey

10.00 Low spur, 50 ft. above sec. cor., projects W.; descend

18.00 Wash, 25 ft. below spur, drains N.50°W.; ascend

28.00 Low spur, 25 ft. above wash, projects N.60°W.; descend

40.00 Set a limestone, 16x10x4 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which

A cedar 16, ins. diam., bears N.17°24'W. 61 lks. dist., marked ¼ S 1 B T

A cedar, 12 ins. diam., bears N.35°25'E. 50 lks. dist., marked ¼ S 6 B T

60.60 Leave timber, enter dense sage brush, bears E. and W.

Leave land exceptionally difficult to survey

66.24 Old road, bears N.20°E. and S.20°W. ; wood road

81.34 Intersect N.bdy. Tp. 19.23 chs. W. of the ¼ sec. cor. on N. bdy. of sec. 31, T.18 S.,R.1 W., which is a sandstone 14x10x10 ins. above ground, marked and witnessed as described by the Surveyor General.

At my point of intersection I set a sandstone, 18x6x6 i 12 ins. in the ground for cor. of Tps. 18 and 19 S., Rgs. 1 and 1½ W., marked with 6 notches on each edge, and raise a mound of stone 2 ft. base, 1½ ft. high, S of cor.

East Boundary of T.19 S.,R.1½ W.

Chains

Pits impracticable.

Land, mountainous.

Soil, rocky; 4th rate.

Mountainous or heavily tombered land, or land covered with dense undergrowth, 81.34 chs.

Exceptionally difficult to survey, 60.60 chs.

At this cor. I set off 22°30'N. on the decl. arc, and at 12h 05m, l.m.t., I observe the sun on the meridian. The resulting lat. is 39°12'

North Boundary of T.19 S.,R.1½ W.

July 8: At 2h 05m, p.m., l.m.t., I set off 39°12'N. on the lat. arc, 22°30'N. on the decl. arc, and determine a true meridian with the solar, at the cor. of Tps. 18 and 19 S.,Rgs. 1 and 1½ W.

Thence I run

West bet. secs. 1 and 36

Over mountainous land, through dense undergrowth; descend

15.50 Wash, 25 ft. below sec. cor., drains N.; ascend abruptly

17.50 Spur, 40 ft. above wash, projects N.; descend

18.50 Leave dense undergrowth, enter pinon pine and cedar, bears N. and S.

Enter land exceptionally difficult to survey

20.00 Ravine, 50 ft. below spur, drains N.; ascend

38.00 Spur, 75 ft, above ravine, projects N.; descend abruptly

40.00 Set a sandstone, 16x10x6 ins.,11 ins. in the ground for

North Boundary of T.19 S.,R.14 W.

Chains

¼ sec. cor., marked ¼ on N. face, from which
A cedar, 12 ins. diam., bears S.1°06'W. 38 lks. dist., marked ¼ S 1 B T
A cedar, 12 ins. diam., bears N.42°05'E. 118 lks. dist., marked ¼ S 36 B T

43.00 Gulch, 100 ft. below spur, drains S.50°00'W.; ascend

48.00 Spur, 50 ft. above gulch, projects S.20°W.; descend

50.00 Gulch, 50 ft. below spur, drains N.30°W.; ascend abruptly

54.00 Spur, 40 ft. above gulch, projects N.30°W.; descend abruptly

57.00 Foot of abrupt descent, leave timber, enter dense undergrowth, bears N. and S.; descend gradually into Jap Valley

Leave land exceptionally difficult to survey

80.00 Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for cor. of secs. 1, 2, 35 and 36, marked with 1 notch on E. and 5 notches on W. edge, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable.

Land, mountainous.

Soil, rocky; 4th rate.

Timber, pinon pine and cedar.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.

Exceptionally difficult to survey, 38.50 chs.

West bet. secs. 2 and 35

Over ascending land, through dense sage brush

22.00 Fence, bears N. and S.; Leave sage brush, enter plowed land, bears N. and S.

30.00 Leave plowed land, bears N. and S.

32.50 Fence, bears N. and S.; enter sage brush, bears N. and S.

North Boundary of T. 19 S., R. 1½ W.

Chains	
33.00	Road, bears N. and S. ; wood road.
40.00	Set a sandstone, 16x12x6 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
65.00	Commence abrupt ascent, bears N. and S.; leave sage brush, enter dense pinon pine and cedar,
	Enter land exceptionally difficult to survey
75.00	Spur, 100 ft. above beginning of ascent, projects S.40°E. descend abruptly
80.00	Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for cor. of secs. 2, 3, 34 and 35, marked with 2 notches on E. and 4 notches on W. edge, from which
15.00	A pinon pine, 12 ins. diam., bears S.28°30'E. 68 lks. dist., marked T 19 S R 1½ W S 2 B T
65.00	A pinon pine, 12 ins.diam., bears N.40°50'W. 46 lks. dist., marked T 18 S R 1½ W S 34 B T
	A cedar, 12 ins. diam., bears N.13°55'E. 28 lks. dist., marked T 18 S R 1½ W S 35 B T
	A cedar, 20 ins. diam., bears S.70°47'W. 23 lks. dist., marked T 19 S R 1½ W S 3 B T
	Land, mountainous and rolling.
	Soil, loam and rocky; 1st and 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 72.00 chs.
	Exceptionally difficult to survey, 15.00 chs.
	West bet. secs. 3 and 34
	Over mountainous land, through dense pinon pine and cedar; descend abruptly
	Enter land exceptionally difficult to survey
2.50	Gulch, 50 ft. below spur, drains S.35°E.; ascend abruptly
6.50	Point of spur, 75 ft. above gulch, projects S.43°E.; descend

North Boundary of T.19 S.,R.1½ W.

Chains	
19.50	Gulch, 50 ft. below spur, drains S.50°E.; ascend abruptly
30.00	Spur, 450 ft. above gulch, projects S.E.; descend
35.00	Head of gulch, 50 ft. below spur, drains S.30°E.; ascend
40.00	Set a sandstone, 16x10x6 ins.,11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which A pinon pine, 11 ins. diam., bears S.55°00'W. 33 lks. dist., marked ¼ S 3 B T A pinon pine, 12 ins. diam., bears N.37°50'E. 37 lks. dist., marked ¼ S 34 B T
56.00	Ridge, 500 ft. above gulch, bears N.75°E. and S.80°W.; continue gradual ascent along N. slope, enter thick scrub mahogany, leave pinon pine and cedar, bears E. and W.
65.93	Intersect W.bdy. Tp.. 31.06 chs. S.1°E. of cor. of Tps.18 and 19 S., Rgs. 1 and 2 W., which is a sandstone, 12x 8x7 ins. above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertaining to R.1 W.

At my point of intersection I set a sandstone, 16x14x3 ins., 11 ins. in the ground, for closing cor. of Tps. 18 and 19 S.,R.1½ W., marked C C on E., with 6 grooves on N.,S., and E. faces, and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Pits impracticable

No trees suitable for marking, within distance

Land, mountainous.

Soil, rocky; 4th rate.

Timber, pinon pine, cedar and mahogany.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 65.93 chs.

Exceptionally difficult to survey, 65.93 chs.

July 8, 1909.

BOOK A-370

Bounbaries of T.19 S.,R.1½ W.

Latitudes, Departures, and Closing Errors.

Line Designated	True Bearing	Dist.	Latitudes N.	Latitudes S.	Departures E.	Departures W.
		chs.	chs.	chs.	chs.	chs.
S.bdy.T.19 S. R.1½ W.	East	218.02	.....	.....	218.02	.....
E.bdy.T.19 S. R.1½ W.	North	481.34	481.34	.....	.....	.....
N.bdy.T.19 S. R.1½ W.	West	225.93	.....	.....	.....	225.93
W.bdy.T.19 S. R.1½ W.	S.1°E.	449.09	.....	449.02	7.83	.....
W.bdy.T.19 S. R.1½ W.	South	31.17	.....	31.17	.....	.....
Convergrncy						0.27
T o t a l s			481.34	480.19	225.85	226.20
			480.19			225.85
Error in lat.and dep.			1.15			0.35

For general description see notes of the subdivision of this township.

I destroyed all traces of the closing cors. set on the East Boundary of T.19 S.,R.2 W. by Deputies Heist and Wooley under their contract No.291.

Alfredo R Talamantes
U. S. Deputy Surveyor

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 East and North Boundaries of T.19 S., R.1½ W. Salt Lake Base and Meridian, Utah,
showing the respective capacities in which they acted:

Rex Howdace, Chainman.
Robert Faddis, Chainman.
J. M. Simpson, Moundman.
, Moundman.
Will Bailey, Axman.
, Axman.
Thomas R Fowdace, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the East and North Boundaries of T.19 S., R.1½ W.

of the Salt Lake Base and meridian, in the State of Utah, 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 Utah

Rex Howdace, Chainman.
Robert Faddis, Chainman.
J. M. Simpson, Moundman.
, Moundman.
Will Bailey, Axman.
, Axman.
Thomas R Fowdace, Flagman.

Subscribed and sworn to before me this 3 day of August, 1907

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

6-151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R. Talamantes, United States Deputy Survey
solemnly swear that, in pursuance of a contract received from Thomas Hull
United States Surveyor General for U t a h, bearing date
5th day of March, 190 8, I have well, faithfully, and truly, in m
proper person, and in strict conformity with the instructions furnished by the United States Su
General for U t a h, the Manual of Surveying Instructions, and the laws
United States, surveyed all those parts or portions of the East and North Roundaries
Township No.19 South, Range No.1½ West

of the Salt Lake Ba
and meridian, in the State of U t a h, which are represented
foregoing field notes as having been surveyed by me, and under my direction; and I do further sol
swear that all the corners of said survey have been established and perpetuated in strict accordanc
the Manual of Surveying Instructions, and the special written instructions of the United States Su
General for U t a h and in the specific manner described in the field notes, an
the foregoing are the original field notes of such survey.

Alfredo R Talamantes
United States Deputy Su

Subscribed by said Alfredo R. Talamantes, and sworn to before ~~me~~
this 19 day of April, 1911, ~~190x~~

SEAL

U.S. Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 24,1911,

The foregoing field notes of the survey of the East and North Roundaries of
Township No.19 South, Range No. 1½ West, of the Salt Lake Base an
Meridian, Utah,

executed by Alfredo R. Talamantes
under his contract No. 302, dated March 5, 190 8, havin
critically examined, and the necessary corrections and explanations made, the said field notes, a
surveys they describe, are hereby approved.

United States Surveyor G

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 o

United States Surveyor G

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Page

4—679.

BOOK A-370

F.

M. S. B.

FILED
MAY 7 1910

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISIONS

OF

TOWNSHIP NO. 19 SOUTH RANGE NO. 1½ WEST.

Of the Salt Lake Base and *Meridian,*

U T A H.

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

Under his Contract No. 302, *dated* March 5, *190* 8

Survey commenced July 9, *190* 9

Survey completed July 17, *190* 9

6—161

Subs. Max 14-73-75 Inter 7-27-45 Min 3-48-25

Closing 1-46-48 31 55

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

Rex Lowdell	Chainman
Robert Faddis	Chainman
J. W. Simpson	Roundman
Will Bailey	Axman
Thomas R. Faddis	Flagman

BOOK A-370

INDEX DIAGRAM.

Township....., *Range*.....

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31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, Rex Dowdall and Robert Faddis
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will l
chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the san
we will report the true distances to all notable objects, and the true lengths of all lines that we
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the s
the Subdivisions of T.19 S., R.1½ W. S. L. B. & M., Utah

Rex Dowdall, Ch
Robert Faddis, Ch

Subscribed and sworn to before me this 21
day of June, 1909
SEAL
Alfredo R Talamant
U. S. Deputy Survey

~~We,~~ I, J.W.Simpson and
do solemnly swear that ~~we~~ I will well and truly perform the duties of moundman in the estab
of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the s
the Subdivisions of T.19 S., R.1½ W. S. L. B. & M., Utah

J. W. Simpson, Mo
, Mo

Subscribed and sworn to before me this 21
day of June, 1909
SEAL
Alfredo R Talamante
U. S. Deputy Surveyo

~~We,~~ I, Will Bailey ~~and~~
do solemnly swear that ~~we~~ I will well and truly perform the duties of axmen in the establishment of
and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the s
the Subdivisions of T.19 S., R.1½ W. S. L. B. & M., Utah

Will Bailey,
,

Subscribed and sworn to before me this 21
day of June, 1909
SEAL
Alfredo R Talamante
U. S. Deputy Survey

I, Thomas R. Faddis, do solemnly swear that I will well a
perform the duties of flagman according to instructions given me, to the best of my skill and abilit
survey of the Subdivisions of T.19 S., R.1½ W. S.L.B.& M., Uta

Thomas R Faddis

Subscribed and sworn to before me this 21
day of June, 1909
SEAL
Alfredo R Talaman
U. S. Deputy Survey

BOOK A-370

Subdivision of T.19 S.,R.1½ W.

Chains

Survey commenced July 9, 1909. For complete description of the instrument, see Book A.

I examine the adjustments of the transit, and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridiam determined by observations on Polaris, I proceed as follows:

I set the instrument over the stake which I set July 6, said stake being 20 chs. E. of the cor. of secs. 1,2, 35 and 36, Tps. 19 and 20 S.,R.1½ W., latitude 39°07'N., longitude 112°01'16"W.

At 4h 35m, p.m., l.m.t., I set off 39°07'N. on the lat. arc, 22°23'N. on the decl. arc, and determine with the solar a true meridian, and mark the position thereof on a stone firmly set in the ground 5 chs. N. of my station on July 6. This point falls 0.15 ins. east of the groove determined by the Polaris observation made July 7.

July 9, 1909

July 10: At 7h 05m, a.m., l.m.t., I set off 39°07'N. on the lat. arc, 22°18'N. on the decl. arc, and mark the true meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.25 ins. west of the meridian established by the Polaris observation July 7.

The solar apparatus by p.m. and a.m. observations, defines positions for the meridian about 0'08" east and 0'13" west of the meridian established by Polaris observations Therefore I conclude that the adjustments are satisfactory The magnetic bearing at 7h, a.m., l.m.t., is N.16°45'W.; the angle thus determined gives mag. decl. 16°45'E.

Chains	
	July 10: At 7h 35m, a.m., l.m.t., L set off 39°07'N. on the lat. arc, 22°18'N. on the decl. arc, and determined a true meridian with the solar at the cor. of secs.1,2, 35 and 36, Tps. 19 and 20 S.,R.1½ W.,heretofore descril
	Thence I run
	N.0°01'W. bet. secs. 35 and 36
	Over mountainous land, through pinon pine and cedar; ascend gradually
	Enter land exceptionally difficult to survey
6.00	Spur, 75 ft. above sec. cor., projects N.75°E.; descend abruptly
16.00	Bottom of short gulch, 200 ft. below spur, drains N.80°W. ascend
19.00	Point of spur, 50 ft. above gulch, projects N.85°W.; descend abruptly
28.00	Gulch, 150 ft. below spur, drains N.50°E.; also road, bears N.50°E. and S.50°W.; ascend
37.00	Spur, 50 ft. above gulch, projects N.50°E.; descend
	Leave dense pinon pine and cedar, enter scattering pinon pine and cedar and dense sage brush, bears E. an W.
40.00	Set a sandstone, 16x10x4 ins.,11 ins. in the ground for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone,2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
43.00	Gulch, 50 ft. below spur, drains S.40°E.; ascend
65.00	Ridge, 100 ft. above gulch, bears W. and S.60°E.; descend along steep W. slope
80.00	Set a limestone, 16x12x6 ins.,11 ins. in the ground, for cor. of secs. 25, 26, 35 and 36, marked with 1 notch o S. and E. edge, from which

Subdivision of T.19 S.,R.1½ W.

Chains	
	A pinon pine, 8 ins. diam., bears N.19°55'W. 106 lks. dist., marked T 19 S R 1½ W S 26 B T
	A cedar, 12 ins. diam., bears S.9°00'W. 17 lks. dist., marked T 19 S R 1½ W S 35 B T
	A pinon pine, 6 ins. diam., bears S.83°50'E. 50 lks. dist., marked T 19 S R 1½ W S 36 B T
	No other trees suitable for marking within limits, therefore I raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	East on a random line bet. secs. 25 and 36
40.00	Set temp. ¼ sec. cor.
80.00	Intersect E.bdy. of Tp. at cor. of secs. 25, 30, 31 and 36; heretofore described.
	Thence I run
	West on a true line bet. secs. 25 and 36
	Over mountainous land, through pinon pine and cedar; descend abruptly
	Enter land exceptionally difficult to survey
10.00	Gulch, 150 ft. below sec. cor., drains N.; ascend
15.00	Spur, 40 ft. above gulch, projects N.; descend
20.00	Gulch, 75 ft. below spur, drains N.; ascend
29.00	Spur, 100 ft. above gulch, projects N.; descend

Chains	
32.00	Head of gulch, 25 ft. below spur, drains N.1°E.;
	ascend abruptly
40.00	Set a limestone, 18x12x10 ins., 12 ins. in the ground, fo
	¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 12 ins. diam., bears S.1°16'E. 86 lks.
	dist., marked ¼ S 36 B T
	A pinon pine, 11 ins. diam., bears N.13°45'W. 72 lks.
	dist., marked ¼ S 25 B T
	July 10: At this cor. I set off 22°16'N. on the decl. arc
	and at 12h 05m, l.m.t., observe the sun on the meridian
	The resulting lat. is 39°08'N.
43.00	Spur, 200 ft. above gulch, projects N.5°E.;
	descend abruptly
56.00	Gulch, 325 ft. below spur, drains N.1°E.;
	ascend abruptly
73.00	Spur, 300 ft. above gulch, projects N.5°E.;
	descend
80.00	The cor. of secs. 25, 26, 35 and 36
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	N.0°01'W. bet. secs. 25 and 26
	Over mountainous land, through pinon pine and cedar;
	descend
	Enter land exceptionally difficult to survey.
10.00	Leave dense pinon pine and cedar; enter scattering pinon
	pine and cedar and dense undergrowth, bears E. and W.
	Leave land exceptionally difficult to survey
37.00	Lone Cedar Canyon, 250 ft. below sec. cor., drains S.80°
	ascend;
38.00	Road from Scipio to Gunnison, bears N.80°W. and S.80°E.

Subdivision of T. 19 S., R. 1½ W.

Chains

40.00 Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable.

No trees suitable for marking within limits

45.00 Leave scattering pinon pine and cedar, and dense underbrush; enter dense pinon pine and cedar, bears E. and W.

Enter land exceptionally difficult to survey.

80.00 Set a limestone, 18x10x10 ins., 12 ins. in the ground, for cor. of secs. 23, 24, 25 and 26, marked with 2 notches on S. and 1 notch on E. edge, from which

45
35.00

A pinon pine, 10 ins. diam., bears S.31°05'E. 75 lks. dist., marked T 19 S R 1½ W S 25 B T

A pinon pine, 8 ins. diam., bears S.60°15'W. 92 lks. dist., marked T 19 S R 1½ W S 26 B T

A pinon pine, 12 ins. diam., bears N.55°15'W. 29 lks. dist., marked T 19 S R 1½ W S 23 B T

A cedar, 12 ins. diam., bears N.45°00'E. 3 lks. dist., marked T 19 S R 1½ W S 24 B T

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, pinon pine and cedar.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.

Exceptionally difficult to survey, 45.00 chs.

East on a random line bet. secs. 24 and 25

40.00 Set temp. ¼ sec. cor.

80.00 Intersect E. bdy. of Tp. at the cor. of secs. 19, 24, 25 and 30, heretofore described.

July 10, 1909

July 11: At 8h 05m, a.m., l.m.t., I set off 39°09'N. on

Subdivision of T.19 S., R.1½ W.

Chains	
	the lat. arc, 22°10'N. on the decl. arc, and determine a true meridian with the solar, at the cor. of secs. 19, 24, 25, and 30, T. 19 S., Rgs. 1 and 1½ W.
	Thence I run
	West on a true line bet. secs. 24 and 25
	Over mountainous land, through dense pinon pine and ceda descend
	Enter land exceptionally difficult to survey
3.00	Head of gulch, 30 ft. below sec. cor., drains N.; ascend abruptly
11.00	Spur, 125 ft. above gulch, projects N.5°E.; descend abruptly
24.00	Gulch, 300 ft. above spur, drains N.10°E.; ascend abruptly
40.00	Point falls on solid rock. Set a limestone, 16x12x8 in in mound of stone, for ¼ sec. cor., marked ¼ on N. fa from which
	A pinon pine, 12 ins. diam., bears S.75°15'E.30 lks dist., marked ¼ S 25 B T
	A pinon pine, 4 ins. diam., bears N.64°00'W. 33 lks dist., marked ¼ S 24 B T
45.00	Ridge, 500 ft. above gulch, bears N.50°W. and S.50°E.; descend
50.00	Head of gulch, 50 ft. below ridge, drains S.15°E.; ascend
59.00	Spur, 100 ft. above gulch, projects S.10°E.; descend
66.00	Commence abrupt descent
74.00	Head of gulch, 300 ft. below spur, drains S.5°E.; ascend
80.00	The cor. of secs. 23, 24, 25 and 26
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.

Subdivision of T.19 S.,R.1½ W.

Chains	
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	N.0°01'W. bet. secs. 23 and 24
	Over mountainous land, through pinon pine and cedar; ascend
	Enter land exceptionally difficult to survey
4.25	Ridge, 50 ft. above sec. cor., bears E. and W.; descend
10.00	Head of gulch, 50 ft. below ridge, drains N.50°E.; ascend
40.00	Set a limestone, 16x12x6 ins.,11 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which A cedar, 10 ins. diam., bears N.46°15'W. 66 lks. dist., marked ¼ S 23 B T A cedar, 12 ins. diam., bears N.10°24'E. 166 lks. dist., marked ¼ S 24 B T
43.00	Ridge, 200 ft. above gulch, bears N.52°E. and S.30°W.; descend abruptly
60.00	Commence abrupt descent, bears E. and N.W.
64.50	Gulch, 300 ft. below ridge, drains N.85°W.; ascend abruptly
71.00	Commence abrupt ascent, bears E. and W.
80.00	Set a limestone, 16x12x10 ins.,11 ins. in the ground, for cor.of secs. 13, 14, 23 and 24, marked with 3 notches on S. and 1 notch on E. edge, from which A pinon pine, 6 ins. diam., bears N.33°30'W. 30 lks. dist., marked T 19 S R 1½ W S 14 B T A pinon pine, 12 ins. diam., bears N.53°46'E. 40 lks. dist., marked T 19 S R 1½ W S 13 B T A pinon pine, 6 ins. diam., bears S.30°20'E. 116 lks. dist., marked T 19 S R 1½ W S 24 B T A pinon pine, 10 ins. diam., bears S.47°35'W. 47 lks. dist., marked T 19 S R 1½ W S 23 B T

Subdivision of T.19 S.,R.1½ W.

Chains	
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	July 11: At this cor. I set off 22°08'N. on the decl. arc, and at 12h 05m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°10'N.
	East on a random line bet. secs. 13 and 24
40.00	Set temp. ¼ sec. cor.
80.10	Intersect E.bdy.of Tp. at the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence I run
	West on a true line bet. secs. 13 and 24
	Over mountainous land, through pinon pine and cedar; descend
	Enter land exceptionally difficult to survey
5.50	Gulch, 75 ft. below sec. cor., drains N.; ascend
10.50	Point of spur, 75 ft. above gulch, projects N.5°E.; descend
14.00	Gulch, 50 ft. below spur, drains N.1°E.; ascend abruptly
35.00	Ridge, 450 ft. above gulch, bears N.30°W. and S.30°E.; descend
40.05	Set a limestone, 16x14x4 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 4 ins. diam., bears N.23°20'W. 30 lks. dist., marked ¼ S 13 B T
	A pinon pine, 6 ins. diam., bears S.25°30'W. 34 lks. dist., marked ¼ S 24 B T
50.00	Commence abrupt descent, bears N.E. and S.W.
60.00	Gulch, 500 ft. below ridge, drains S.44°W.; ascend

Subdivision of T.19 S.,R.1½ W.

Chains	
72.00	Spur, 100 ft. above gulch, projects S.40°W.; descend
80.10	The cor. of secs. 13, 14, 23 and 24.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.10 chs.
	Exceptionally difficult to survey, 80.10 chs.
	N.0°01'W. bet. secs. 13 and 14
	Over mountainous land, through dense pinon pine and cedar
	ascend
	Enter land exceptionally difficult to survey
3.00	Spur, 250 ft. above gulch, projects S.60°W.;
	descend abruptly
12.00	Gulch, 150 ft. below spur, drains W.;
	ascend
16.00	Spur, 50 ft. above gulch, projects S.80°W.;
	descend abruptly
31.00	Gulch, 200 ft. below spur, drains S.50°W.;
	ascend abruptly
40.00	Spur, 200 ft. above gulch, projects W.; descend
	Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 6 ins. diam., bears N.26°10'W. 46 lks. dist., marked ¼ S 14 B T.
	A cedar, 6 ins. diam., bears S.64°51'E. 18 lks. dist., marked ¼ S 13 B T
41.00	Commence abrupt descent, bears N.E. and S.W.
53.00	Commence gradual descent into Jap Valley, 300 ft. below ¼ sec. cor., leave timber, enter dense sage brush, bears N.E. and S.W.
	Leave land exceptionally difficult to survey
77.00	Enter scattering pinon pine and cedar, bears E. and W.
80.00	Set a sandstone, 16x10x6 ins., 11 ins. in the ground, for

53

Subdivision of T.19 S., R.1½ W.

Chains	
	cor. of secs. 11, 12, 13 and 14, marked with 4 notches on S. and 1 notch on E. edge; and raise a mound of sto 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered wi dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 53.00 chs.
	July 11, 190
	July 12: At 7h 05m, a.m., l.m.t., I set off 39°10'N. on the lat. arc, 22°03'N. on the decl. arc, and determine a true meridian with the solar at the cor. of secs. 1 12, 13 and 14
	Thence I run
	East on a random line bet. secs. 12 and 13
40.00	Set temp. ¼ sec. cor.
80.06	Intersect E. bdy. of Tp. 5 lks. S. of the cor. of secs. 7, 13 and 18, heretofore described.
	Thence I run
	S.89°58'W. on a true line bet. secs. 12 and 13
	Over mountainous land, through dense pinon pine and ced descend
	Enter land exceptionally difficult to survey
6.00	Head of gulch, 75 ft. below sec. cor., drains S.5°W.; al wood road, bears N. and S.5°W.; ascend abruptly
36.00	Ridge, 200 ft. above gulch, bears N.30°E. and S.30°W.; descend abruptly
40.03	Set a limestone, 16x14x3 ins., 11 ins. in the ground, fo ¼ sec. cor., marked ¼ on N. face, from which

Subdivision of T.19 S., R.1½ W.

Chains	
	A pinon pine, 10 ins. diam., bears N.64°50'E. 10 lks. dist., marked ¼ S 12 B T
	A pinon pine, 8 ins. diam., bears S.45°30'W. 42 lks. dist., marked ¼ S 13 B T
52.00	Gulch, 325 ft. below ridge; drains N.55°W.; ascend
70.00	Point of spur, 50 ft. above gulch, projects N.55°W.; descend
77.00	Leave dense pinon pine and cedar; enter scattering pinon pine and cedar, and dense sage brush, bears N. and S.;
	Leave land exceptionally difficult to survey
80.06	The cor. of secs. 11, 12, 13 and 14
77-00	
3-06	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.06 chs.
	Exceptionally difficult to survey, 77.00 chs.
	N.0°01'W. bet. secs. 11 and 12
	Over rolling land, through scattering pinon pine and cedar descend gradually into Jap Valley
40.00	Set a sandstone, 20x16x8 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which
	A cedar, 8 ins. diam., bears N.11°06'E. 23 lks.dist., marked ¼ S 12 B T
	A cedar, 12 ins.diam., bears N.52°40'W. 33 lks.dist., marked ¼ S 11 B T
71.00	Commence abrupt ascent, bears E. and S.50°E.
80.00	Set a limestone, 20x8x6 ins., 15 ins. in the ground, for cor. of secs. 1, 2, 11 and 12, marked with 5 notches on S. and 1 notch on E. edge, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable

Chains	
	No trees suitable for marking within limits.
	Land, rolling.
	Soil, gravelly;3rd rate.
	Timber, pinon pine and cedar.
	Rolling land, 80.00 chs.
	Note:- At noon hour sky is overcast, solar observations impossible.
	N.89°58'E. on a random line bet. secs. 1 and 12
40.00	Set temp. ¼ sec. cor.
80.00	Intersect E.bdy.of Tp.5 lks. N. of the cor. of secs. 1, 7 and 12, heretofore described.
	Thence I run
	West on a true line bet. secs. 1 and 12
	Over mountainous land, through dense pinon pine and ceda descend
	Enter land exceptionally difficult to survey
6.00	Commence abrupt descent, bears N. and S.
10.00	Gulch, 75 ft. below sec. cor., drains N.2°W.; ascend abruptly
21.25	Ridge, 125 ft. above gulch, bears N.5°W. and S.10°E.; descend abruptly
40.00	Set a sandstone, 16x14x6 ins.,11 ins. in the ground, fo ¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 10 ins. diam., bears S.46°E. 45 lks. dist., marked ¼ S 12 B T
	A pinon pine, 6 ins. diam., bears N.28°E. 23 lks. dist., marked ¼ S 1 B T
73.00	Commence abrupt descent, 650 ft. below ridge, bears N.1 E. and S.10°E.; enter scattering pinon pine and cedar bears N. and S.
	Leave land exceptionally difficult to survey
80.00	The cor. of secs. 1, 2, 11 and 12
7 00	Land, mountainous.

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Chains

Soil, rocky; 4th rate.

Timber, pinon pine and cedar.

Mountainous or timbered land, 80.00 chs.

Exceptionally difficult to survey, 73.00 chs.

July 12, 1909

July 13: At 8h 05m, a.m., l.m.t., I set off 39°11'N. on the lat. arc, 21°53'N. on the decl. arc, and determine a true meridian with the solar, at the cor. of secs. 1, 2, 11 and 12

Thence I run

N.0°01'W. on a random line bet. secs. 1 and 2

40.00 Set a temp. ¼ sec. cor.

81.25 Intersect N. bdy. of Tp. 9 lks. W. of the cor. of secs. 1, 2, 35 and 36, heretofore described.

Thence I run

S.0°03'W. on a true line bet. secs. 1 and 2

Over flat land, through dense sage brush; ascend gradually through Jap Valley.

41.25 Set a sandstone, 16x8x6 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face; dig pits, 18x18x12 ins. N. and S. of stone 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.

69.00 Commence ascending rapidly; leave flat, bears N.E. and S.W.

81.25 The cor. of secs. 1, 2, 11 and 12

Land, flat and rolling.

Soil, loam and rocky; 1st and 4th rate.

No timber.

Flat land, 69.00 chs.; rolling land, 12.25 chs.

July 13, 1909

July 14: At 7h 06m, a.m., l.m.t., I set off 39°07'N. on the lat. arc, 21°45'N. on the decl. arc, and determine

Chains	
	a true meridian with the solar, at the cor. of secs. 2
	3, 34 and 35, on S.bdy.of Tp., heretofore described.
	Thence I run
	N.0°01'W. bet. secs. 34 and 35
	Over mountainous land, through pinon pine and cedar;
	ascend
10.00	Commence abrupt ascent, bears N.W. and E.
	Enter land exceptionally difficult to survey
24.00	Ridge, 500 ft. above sec.cor., bears N.45°W. and S.80°E.
	descend
30.00	Head of gulch, 50 ft. below ridge, drains E.;
	ascend
38.00	Spur, 100 ft. above gulch, projects N.85°E.; continue
	ascending along top of spur.
40.00	Set a sandstone, 16x13x12 ins.,11 ins. in the ground, fo
	¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 6 ins. diam., bears S.58°11'E. 42 lks.
	dist., marked ¼ S 35 B T
	A pinon pine, 4 ins. diam., bears S.33°22'W. 28 lks.
	dist., marked ¼ S 34 B T
45.00	Ridge, 125 ft. above gulch, bears N.30°E. and S.30°W.,
	6 chs. from junction with spur; descend abruptly
	Leave dense timber; enter dense oak and service-berry
	brush, and scattering pinon pine and cedar, bears N.E.
	and S.W.
60.00	Leave scattering timber, bears E. and W.
	Leave land exceptionally difficult to survey.
79.50	Wide gulch, 400 ft. below ridge, drains N.E.;
	ascend gradually
80.00	Set a limestone, 16x10x8 ins.,11 ins. in the ground, fo
50 / 30.00	cor. of secs. 26, 27, 34 and 35, marked with 1 notch o
	S. and 2 notches on E. edge; and raise a mound of sto
	2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.

Subdivision of T.19 S.,R.1½ W.

Chains	
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 50.00 chs.
	East on a random line bet. secs. 26 and 35
40.00	Set temp. ¼ sec.cor.
79.98	Intersect N. and S. line 7 lks. N. of cor. of secs. 25, 26, 35 and 36
	Thence I run
	N.89°57'W. on a true line bet. secs. 26 and 35
	Over mountainous land, through dense pinon pine and cedar; descend
	Enter land exceptionally difficult to survey
5.50	Head of draw, 50 ft. below sec. cor.,drains N.3°E.; ascend abruptly
25.00	Spur, 300 ft. above draw, projects N.5°E.; descend
35.00	Leave dense timber; enter scattering pinon pine and cedar, and dense undergrowth, bears N.W. and S.E.
39.99	Set a limestone, 16x12x4 ins.,11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable.
45.00	Head of gulch, 100 ft. below spur, drains S.47°E.; ascend
60.00	Wide ridge, 150 ft. above gulch, bears N.20°E. and S.20°W. descend
77.00	Leave scattering timber, bears N. and S.
	Leave land exceptionally difficult to survey.
79.00	Gulch, 150 ft. below ridge, drains N.E.; ascend

Subdivision of T.19 S.,R.1½ W.

Chains	
79.98	The cor. of secs. 26, 27, 34 and 35
77-00	Land, mountainous.
2-98	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.98 chs.
	Exceptionally difficult to survey, 77.00 chs.
	July 14: At this cor. I set off 21°43'N. on the decl. arc, and at 12h 06m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°08'N.
	West on a true line bet. secs. 27 and 34
	Over mountainous land, through dense sage and service-berry brush; ascend
5.00	Road, bears N.30°E. and S.5°W. ; wood road.
10.00	Leave dense brush; enter dense pinon pine and cedar, be N. and S.; commence abrupt ascent
	Enter land exceptionally difficult to survey
40.00	Set a limestone, 16x12x3 ins.,11 ins. in the ground, fo ¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 12 ins. diam., bears S.43°00'E. 34 lk dist., marked ¼ S 34 B T
	A pinon pine, 5 ins. diam., bears N.72°16'W. 52 lks dist., marked ¼ S 27 B T
43.00	Spur, 500 ft. above sec. cor., projects N.44°30'E.; descend abruptly
49.00	Head of gulch, 75 ft. below spur, drains N.44°E.; ascend
54.00	Ridge, 100 ft. above gulch, bears N.10°E. and S.; descend abruptly
55.00	Leave timber; enter dense underbrush, bears N. and S.
58.67	Intersect W.bdy.of Tp.at S.1°E. 31.39 chs. from the cor of secs. 25, 30, 31 and 36, which is a limestone, 4x8 7 ins. above ground, marked and witnessed as describe

Chains	
	by the Surveyor General. I destroy all marks pertaining to secs. 30 and 31
	At my point of intersection I set a limestone, 16x12x6 ins., 9 ins. in the ground, for closing cor. of secs. 27 and 34, marked C C on E., with 1 groove on S. and 5 grooves on N. face, and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Pits impracticable.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 58.67 chs.
	Exceptionally difficult to survey, 48.67 chs.
	N.0°01'W. bet. secs. 26 and 27.
	Over broken mountain land, through dense sage brush; ascend gradually
9.80	Road, bears N.50°E. and S.30°W.; wood road.
15.00	Enter pinon pine and cedar, bears E. and W.
32.00	Spur, 50 ft. above sec. cor., projects N.80°E.; descend
37.00	Gulch, 50 ft. below spur, drains N.60°E.; ascend
40.00	Set a limestone, 16x12x8 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which A pinon pine, 4 ins. diam., bears S.68°07'W. 71 lks. dist., marked ¼ S 27 B T A pinon pine, 6 ins. diam., bears N.81°45'E. 32 lks. dist., marked ¼ S 26 B T
65.00	Leave timber, enter dense underbrush, bears N. and S.
70.00	Lone Cedar Canyon, 200 ft. below spur, drains S.89°E.; also road from Scipio to Gunnison, bears E. and W.;
80.00	Set a sandstone, 16x12x6 ins., 11 ins. in the ground, for

Chains	
	cor. of secs. 22, 23, 26 and 27, marked with 2 notch on S. ans E. edges; and raise a mound of stone, 2 ft base, 1½ ft. high, W. of cor.
	Pits impracticable
	Land, mountainous.
	Soil, gravely and rocky; 3rd and 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or timbered land, or land covered with den undergrowth, 80.00 chs.
	July 14, 1909
	July 15: At 7h 06m, a.m., l.m,t., I set off 39°09'N. the lat. arc, 21°36'N. on the decl. arc, and determi a true meridian with the solar, at the cor. of secs. 23, 26 and 27
	Thence I run
	S.89°57'E. on a random line bet. secs. 23 and 26
40.00	Set temp. ¼ sec. cor.
79.85	Intersect the N. and S. line 16 lks. N. of the cor. of secs. 23, 24, 25 and 26
	Thence I run
	N.89°50'W. on a true line bet. secs. 23 and 26
	Over mountainous land, through dense pinon pine and c ascend
	Enter land exceptionally difficult to survey
7.00	Spur, 50 ft. above sec. cor., projects S.10°E.; descend abruptly
28,00	Commence gradual descent, bears N. and S.W.; leave ti enter dense sage brush, bears N. and S.
	Leave land exceptionally difficult to survey
38.50	Head of hollow, 300 ft. below spur, drains N.20°E.;wo road, bears N.20°E. and S.30°W.; ascend

Subdivision of T.19 S.,R.1½ W.

Chains	
39.92½	Set a sandstone, 16x12x8 ins.,11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
	Pits impracticable
44.00	Low ridge, 75 ft. above hollow, bears N.47°W. and S.35°E.; descend abruptly
52.00	Commence gradual descent, 100 ft. below ridge, bears N.W. and S.E.
79.85	The cor.of secs. 22, 23, 26 and 27
28/51-65	Land, mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.85 chs.
	Exceptionally difficult to survey, 28.00 chs.
	West on a true line bet. secs. 22 and 27
	Over mountainous land, through dense sage brush; ascend
11.00	Leave sage brush; enter dense pinon pine and cedar, bears N. and S.
	Enter land exceptionally difficult to survey
15.00	Spur, 50 ft. above sec. cor., projects S.20°E.; descend
25.00	Gulch, 60 ft. below spur, drains S.30°E.; ascend
40.00	Set a sandstone, 16x12x3 ins.,11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which
	A cedar, 10 ins. diam., bears South 30 lks. dist., marked ¼ S 27 B T
	A mahogany, 6 ins. diam., bears N.49°E. 17 lks.dist., marked ¼ S 22 B T
51.00	Spur, 200 ft. above gulch, projects S.44°E.; continue ascending along South slope

Subdivision of T.19 S.,R.1½ W.

Chains	
59.98	Intersect W.bdy. of Tp. at S.1°E. 31.40 chs. from the cor
48-98	of secs. 19, 24, 25 and 30, which is a sandstone, 10x
11-00	x8 ins. above ground, marked and witnessed as describ
	by the Surveyor General. I destroy all marks pertain
	ing to secs. 19 and 30.
	At my point of intersection I set a sandstone, 18x10x5
	ins., 12 ins. in the ground for closing cor. of secs.
	22 and 27, marked C C on E., with 2 grooves on S. and
	4 grooves on N. face, from which
	A pinon pine, 6 ins. diam., bears N.64°00'E. 17 lks
	dist., marked C C T 19 S R 1½ W S 22 B T
	A cedar, 4 ins. diam., bears S.50°30'E. 12 lks.dist
	marked C C T 19 S R 1½ W S 27 B T
	Land, mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, Pinon pine and cedar
	Mountainous or heavily timbered land, or land covered
	with dense undergrowth, 59.98 chs.
	Exceptionally difficult to survey, 48.98 chs.
	July 15: At this cor. I set off 21°33'N. on the decl.
	arc, and at 12h 06m, l.m.t., observe the sun on the
	meridian. The resulting lat. is 39°09'N.
	N.0°01'W. bet. secs. 22 and 23
	Over mountainous land, through dense sage brush;
	ascend
20.00	Commence abrupt ascent, bears N.60°W. and S.60°E.
35.00	Ridge, 100 ft. above beginning of ascent, bears N.60°W
	and S.50°E.; descend along W. slope over small gulch
	and spurs
40.00	Set a limestone 22x8x6 ins., 16 ins. in the ground, fo
	¼ sec. cor., marked ¼ on W. face; and raise a mound
	stone, 2 ft. base, 1½ ft. high, W. of cor.

Subdivision of T.19 S.,R.1½ W.

Chains	
	Pits impracticable.
51.00	Gulch, 75 ft. above ridge, drains E.;
	ascend
56.00	Spur, 50 ft. above gulch, projects S.80°E.;
	descend
62.00	Commence abrupt descent
70.00	Foot of descent, bears N.80°W. and S.60°E.; descend gradually
72.00	Wash, 5 lks. wide, 60 ft. below spur, drains S.85°E.; ascend gradually
80.00	Set a limestone, 20x10x8 ins., 15 ins. in the ground, for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edge; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	Land, mountainous.
	Soil, gravelly and rocky; 2nd and 4th rate.
	No timber.
	Mountainous land or land covered with dense undergrowth, 80.00 chs.
	S.89°59'E. on a random line bet. secs. 14 and 23
40.00	Set temp. ¼ sec. cor.
79.96	Intersect the N. and S. line 7 lks. S. of the cor. of secs. 13, 14, 23 and 24
	Thence I run
	N.89°53'W. on a true line bet. secs.14 and 23
	Over mountainous land, through dense pinon pine and cedar; ascend
	Enter land exceptionally difficult to survey
8.00	Spur, 75 ft. above sec. cor.,projects S.43°W.; descend abruptly
21.00	Foot of abrupt descent, 250 ft. below spur, bears N.and S.; leave timber; enter dense sage brush, bears N. and

Chains	
	S.;descend gradually into Jap Valley
	Leave land exceptionally difficult to survey.
37.00	Gully, 5 lks. wide, 40 ft. below foot of abrupt descent
	drains N.5°W.; ascend gradually
37.25	Road, bears N.5°W. and S.5°E. ; wood road.
39.98	Set a sandstone, 16x12x6 ins., 11 ins. in the ground,, fo
	¼ sec. cor., marked ¼ on N. face; and raise a mound o
	stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.
79.96	The cor. of secs. 14, 15, 22 and 23
21-00 / 58-96	Land, mountainous and flat.
	Soil, loam, gravelly and rocky; 1st, 2nd and 4th rate.
	Timber,pinon pine and cedar,
	Mountainous or heavily timbered land, or land covered
	with dense undergrowth, 79.96 chs.
	Exceptionally difficult to survey, 21.00 chs.
	July 15, 1909
	July 16: At 7h 06m, a.m., l.m.t., I set off 39°10'N. o
	the lat. arc, 21°27'N. on the decl. arc, and determi
	a true meridian with the solar, at the cor. of secs.
	15, 22 and 23
	Thence I run
	West on a true line bet. secs. 15 and 22
	Over mountainous land, through dense sage brush;
	ascend
3.00	Leave sage brush; enter dense pinon pine and cedar, bea
	N. and S.
	Enter land exceptionally difficult to survey
4.00	Spur, 75 ft. above sec. cor., projects S.20°E.;
	descend
10.00	Gulch, 50 ft. below spur, drains S.47°E.;
	ascend abruptly
20.00	Spur, 150 ft. above gulch, projects South; continue to

Subdivision of T.19 S.,R.1½ W.

Chains	
	ascend along south slope of spur.
38.00	Ridge, at junction with spur, 200 ft. above spur, bears N.20°E. and S.5°W.; descend
40.00	Set a limestone, 16x10x8 ins.,11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which A pinon pine, 8 ins. diam., bears N.40°26'E. 52 lks. dist., marked ¼ S 15 B T A pinon pine, 6 ins. diam., bears S.38°48'E. 47 lks. dist., marked ¼ S 22 B T
52.00	Commence abrupt ascent, 50 ft. below ridge, bears N.35°W. and S.; leave timber; enter dense sage brush, bears N. and S.
	Leave land exceptionally difficult to survey
61.40 49.00 12.40	Intersect W.bdy.of Tp. at S.1°E. 31.55 chs. from the cor. of secs. 13, 18, 19 and 24 , which is a sandstone, 9x8 x7 ins. above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertaining to secs. 18 and 19.
	At my point of intersection I set a limestone, 20x12x9 ins. 15 ins. in the ground, for closing cor..of secs. 15 and 22, marked C C on E., with 3 grooves on N. and S. faces; and raise a mound of stone, 2 ft. base. 1½ ft. high,E. of cor.
	Pits impracticable
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 61.40 chs.
	Exceptionally difficult to survey, 49.00 chs.
	N.0°01'W. bet. secs. 14 and 15
	Over mountainous land, through dense sage brush; ascend gradually

Subdivision of T.19 S.,R.1½ W.

Chains	
10.00	Abrupt descent, bears E. and W.
29.00	Abrupt ascent, bears E. and W.
40.00	Set a limestone, 16x12x8 ins.,11 ins. in the ground, f ¼ sec. cor., marked ¼ on W. face; and raise a mound stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
50.00	Spur, 150 ft. above foot of ascent, projects N.50°E.; descend
58.50	Gulch, 55 ft. below spur, drains N.50°E.; ascend
72.00	Spur, 125 ft. above gulch, projects N.80°E.; descend
77.00	Gulch, 60 ft. below spur, drains N.50°E.; ascend
80.00	Set a limestone, 24x16x4 ins., 18 ins. in the ground, cor. of secs. 10, 11, 14 and 15, marked with 4 notch on S. and 2 notches on E. edge; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, gravelly and rocky; 2nd and 4th rate.
	No timber.
	Mountainous land, or land covered with dense undergro 80.00 chs.
	July 16: At this cor. I set off 21°24'N. on the decl arc, and at 12h 06m, l.m.t., I observe the sun on t meridian. The resulting lat. is 39°10'N.
	S.89°53'E. on a random line bet. secs. 11 and 14
40.00	Set temp. ¼ sec. cor.
80.03	Intersect the N. and S. line 9 lks. S. of the cor. of secs. 11, 12, 13 and 14

Subdivision of T.19 S.,R.1½ W.

Chains	
	Thence I run
	N.89°57'W. on a true line bet. secs. 11 and 14
	Through dense sage brush; descend gradually into Jap Valley.
22.00	Road, bears N. and S.10°W.; wood road.
27.00	Wash, 10 lks. wide, drains N.; leave valley, bears N. and S.; ascend rapidly
40.01½	Set a limestone , 16x10x8 ins.,11 ins, in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable
60.00	Spur, 300 ft.above valley, projects S.44°E.; descend
72.00	Gulch, 50 ft. below spur, drains S.; ascend rapidly
80.03	The cor. of secs. 10, 11, 14 and 15
58.03	Land, mountainous and flat.
22.00	Soil, gravelly; 2nd and 4th rate.
	No timber.
	Mountainous land, 58.03 chs.
	West on a true line bet. secs. 10 and 15
	Over mountainous land, through dense sage brush; ascend abruptly
12.00	Spur, 250 ft. above sec. cor.,projects N.44°E.; enter dense pinon pine and cedar; bears N. and S.; descend abruptly
	Enter land exceptionally difficult to survey
33.50	Gulch, 200 ft. below spur, drains N.44°E.; a small spring bears N. 1.85 chs.; ascend abruptly
40.00	Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which

Subdivision of T.19 S.,R.1½ W.

Chains	
	A pinon pine, 12 ins. diam., bears N.64°04'E.30 lk dist., marked ¼ S 10 B T
	A pinon pine, 14 ins. diam., bears S.46°20'E. 44 l dist., marked ¼ S 15 B T
42.00	Commence gradual ascent, bears N.E. and S.W.
62.80 50.80 12.00	Intersect the W.bdy.Tp.at S.1°E. 31.69 chs. from the c of secs. 7, 12, 13 and 18, which is a sandstone, 8x8 ins. above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertain to secs. 7 and 18.
	At my point of intersection I set a sandstone, 16x8x8 9 ins. in the ground, for closing cor. of secs. 10 a 15, marked C C on E., with 4 grooves on S. and 2 gro on N. face, from which
	A pinon pine, 12 ins. diam., bears N.47°23'E. 13 l dist., marked C C T 19 S R 1½ W S 10 B T
	A pinon pine, 12 ins. diam., bears S.36°25'E. 11 l dist., marked C C T 19 S R 1½ W S 15 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 62.80 chs.
	Exceptionally difficult to survey, 50.80 chs.
	July 16, 1909
	July 17: At 7h 06m, a.m., l.m.t., I set off 39°10'N. the lat. arc, 21°17'N. on the decl. arc, and determi a true meridian with the solar, at the cor of secs. 11, 14 and 15
	Thence I run
	N.0°01'W.bet. secs. 10 and 11
	Over mountainous land, through dense sage brush; ascer abruptly

Subdivision of T.19 S.,R.1½ W.

Chains	
3.00	Enter thick pinon pine and cedar timber, bears E. and W.
	Enter land exceptionally difficult to survey
15.00	Spur, 150 ft. above sec. cor.,projects N.80°E.;
	descend
30.00	Gulch, 75 ft. below spur, drains S.E.;
	ascend
35.00	Spur, 85 ft. above gulch, projects N.85°E.;
	descend
36.00	Leave thick timber, enter scattering pinon pine and cedar, bears E. and W.
	Leave land exceptionally difficult to survey.
40.00	Set a limestone, 16x12x6 ins.,11 ins. in the ground, for ¼ sec. cor.,marked ¼ on W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable
47.50	Gulch, 50 ft. below spur, drains N.80°E.;
	ascend
55.50	Road, bears N.85°E. and S.45°W.; wood road.
80.00	Set a limestone, 22x12x8 ins., 16 ins. in the ground, for cor. of secs. 2, 3, 10 and 11, marked with 5 notches on S. and 2 notches on E. edge; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
33.00	Pits impracticable.
47.00	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 36.00 chs.
	Exceptionally difficult to survey, 33.00 chs.
	S.89°57'E. on a random line bet. secs. 2 and 11
40.00	Set temp. ¼ sec. cor.
80.00	Intersect the N. and S. line 26 lks. S. of the cor. of

Chains	
	secs, 1, 2, 11 and 12
	Thence I run
	S.89°52'W. on a true line bet. secs. 2 and 11
	Over mountainous land, through scattering pinon pine and cedar and dense sage brush;
	descend abruptly
19.00	Foot of descent, 200 ft. below sec. cor., bears N.30°E. and S.50°E.;leave timber, bears N. and S.;descend gradually into Jap Valley, bears N. and S.
21.00	Road, bears N. and S. ; wood road.
22.20	Wash, 15 lks. wide, 210 ft. below sec. cor.,drains N.; ascend gradually
40.00	Set a cedar post, 3 ft. long, 3 ins. square, with marked stone, 24 ins. in the ground, for ¼ sec. cor., marked ¼ S 2 on N. face, S 11 on S. face; dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
80.00	The cor. of secs. 2, 3, 10 and 11
	Land, mountainous and flat.
	Soil, loam and rocky; 1st and 4th rate.
	Timber, pinon pine and cedar.
	Mountainous land, 19.00 chs.
	West on a true line bet. secs. 3 and 10
	Over mountainous land, through dense sage brush;
	ascend abruptly
3.00	Leave sage brush; enter dense pinon pine and cedar, bears N. and S.
	Enter land exceptionally difficult to survey
5.00	Spur, 100 ft. above sec. cor., projects N.; descend along N. slope
29.00	Abrupt descent, 100 ft. below spur, bears N. and N.
40.00	Set a sandstone, 20x12x5 ins.,15 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which

Subdivision of T.19 S.,R.1½ W.

Chains	
	A pinon pine, 8 ins. diam., bears S.18°35'E. 34 lks. dist., marked ¼ S 10 B T
	A cedar, 8 ins. diam., bears N.47°27'E. 46 lks.dist., marked ¼ S 3 B T
54.00	Gulch, 150 ft. below top of descent, drains N.42°E.; ascend abruptly
64.20	Intersect W.bdy.Tp.at S.1°E. 32.00 chs. from the cor. of secs. 1, 6, 7, and 12, which is a sandstone, 7x6x7 ins. above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertaining to secs 6 and 7.
61.20	
3.00	
	At my point of intersection I set a sandstone, 18x10x6 ins., 12 ins. in the ground, for closing cor. of secs. 3 and 10, marked C C on E., with 5 grooves on S. and 1 groove on N. face, from which
	A cedar, 12 ins. diam., bears S.9°58'E. 41 lks.dist., marked C C T 19 S R 1½ W S 10 B T
	A pinon pine, 14 ins. diam., bears N.66°32'E. 68 lks. dist., marked C C T 19 S R 1½ W S 3 B T
	Land, mountainous
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 64.20 chs.
	Exceptionally difficult to survey, 61.20 chs.
	July 17: At this cor. I set off 21°14'N. on the decl. arc, and at 12h 06m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°11'N.
	N.0°01'W. On a random line bet. secs. 2 and 3
40.00	set temp. ¼ sec. cor.
81.17	Intersect N.bdy.of Tp.5 lks. E. of the cor. of secs. 2, 3, 35 and 34 ,heretofore described.
	Thence I run

Subdivision of T.19 S.,R.1½ W.

Chains	
	S.0°03'E. on a true line bet. secs. 2 and 3
	Over mountainous land, through dense pinon pine and ce
	descend
	Enter land exceptionally difficult to survey
4.00	Gulch, 50 ft. below sec. cor.,drains S.50°E.;
	ascend abruptly
7.50	Spur, 50 ft. above gulch, projects S.50°E.;
	descend abruptly
10.00	Gulch, 40 ft. below spur, drains S.47°E.;
	ascend abruptly
17.00	Commence gradual ascent, bears N.W. and S.E.
30.00	Spur, 200 ft. above gulch, projects S.50°E.;
	descend abruptly
35.00	Gulch, 60 ft. below spur, drains S.85°E.;
	ascend abruptly
41.17	Set a limestone, 20x12x8 ins., 15 ins. in the ground,
	¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 6 ins. diam., bears S.78°46'E. 11 lk
	dist., marked ¼ S 2 B T
	A cedar, 6 ins. diam., bears N.83°27'W. 17 lks.dis
	marked ¼ S 3 B T
45.00	Spur, 100 ft. above gulch, projects N.87°E.;
	descend abruptly
56.00	Gulch, 75 ft. below spur, drains N.85°E.;
	ascend abruptly
60.00	Spur, 50 ft. above gulch, projects E.;
	descend
68.00	Gulch, 40 ft. below spur, drains E.;
	ascend abruptly
70.00	Small spur, 35 ft. above gulch, projects E.;
	descend
78.00	Leave timber; enter dense sage brush, bears E. and W.
	Leave land exceptionally difficult to survey
81.17	The cor. of secs. 2, 3, 10 and 11

Subdivision of T.19 S., R.1½ W.

Land, mountainous.

Soil, rocky; 4th rate.

Timber, pinon pine and cedar.

Mountainous or heavily timbered land, or land covered with dense undergrowth, 81.17 chs.

Exceptionally difficult to survey, 78.00 chs.

July 17, 1909

General Description.

This fractional township is very mountainous, with the exception of the largest part of secs. 2, 11, and 14, and a small part of secs. 1 and 12, which lie in a little valley, known as Jap Valley.

Most of the soil is rocky, but in the valley it is loam and can be classed as 1st rate. In the N.E.¼ of sec. 2 there is about 8 acs. of plowed land belonging to R.R.Hill.

The mountains are very steep and rugged and are covered with dense pinon pine and cedar. A very little grass is to be found in the valley. It is possible that, by proper cultivation, crops could be raised in the valley without irrigation. I found no trace of mineral in the township.

The only water in this township is a small spring in the S.E.¼ of sec. 10, near the S. bdy.

There are no settlers in this township. The settlers along the Sevier River and at the town of Gunnison get wood from this township.

I destroyed all traces of the closing cors. set on the East Boundary of T.19 S., R.2 W. by deputies Heist and Wooley under their contract No.291

Alfredo R Talamantes
U. S. Deputy Surveyor

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 Subdivisions of T.19 S., R.1½ W. S.L.B. & M., Utah showing the respective capacities in which they acted:

Rex Dowdall, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
Moundman.
Will Bailey, *Axman.*
Axman.
Thomas R Fodrie, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the the Subdivisions of T.19 S., R.1½ W.

of the Salt Lake Base and meridian, in the State of Utah, 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 Utah.

Rex Dowdall, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
Moundman.
Will Bailey, *Axman.*
Axman.
Thomas R Fodrie, *Flagman.*

Subscribed and sworn to before me this 3 day of August, 1909

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R.Talamantes, United States Deputy Su
solemnly swear that, in pursuance of a contract received from Thomas Hull
United States Surveyor General for U t a h, bearing
5th day of March, 1908, I have well, faithfully, and truly,
proper person, and in strict conformity with the instructions furnished by the United States
General for U t a h, the Manual of Surveying Instructions, and the l
United States, surveyed all those parts or portions of the Subdivision of Townshi
South, Range No. 1½ West

of the Salt Lake
and meridian, in the State of Utah, which are represe
foregoing field notes as having been surveyed by me, and under my direction; and I do furthe
swear that all the corners of said survey have been established and perpetuated in strict accor
the Manual of Surveying Instructions, and the special written instructions of the United State
General for U t a h and in the specific manner described in the field note
the foregoing are the original field notes of such survey.

Alfredo R. Talamantes
United States Deputy

Subscribed by said Alfredo R.Talamantes, and sworn to before me
this 19 day of April, 1911

SEAL

U.S.Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 24, 191

The foregoing field notes of the survey of the Subdivisional lines of Tow
No. 19 South, Range No. 1½ West of the Salt Lake Base and Merid
Utah,

executed by Alfredo R.Talamantes
under his contract No. 302, dated March 5, 1908, ha
critically examined, and the necessary corrections and explanations made, the said field note
surveys they describe, are hereby approved.

United States Surveyo

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 thi

United States Surveyo

6—151

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Page

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BOOK A-370

FILED
MAY 1910

G.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

OF

PART OF

TOWNSHIP NO. 19 SOUTH, RANGE NO. 1 WEST.

AND

FRACTIONAL SOUTH BDY. T. 19 S., R. 1 W.

Of the Salt Lake Base and *Meridian,*

U T A H,

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

der his Contract No. 302, *dated* March 5, *190* 8

rvey commenced July 18, *190* 9

rvey completed July 20, *190* 9

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S Bdy May 33-90 ✓ Subdiv

Subdiv 1-79-50 ✓

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall	Chainman
Robert Faddis	Chainman
J. W. Simpson	Foundman
Will Bailey	Axman
Thomas R. Faudis	Flagman

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BOOK A-370

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Meanders Page..... .....

BOOK A-370

PRELIMINARY OATHS OF ASSISTANTS.

We, Rex Dowdall and Robert Faddis
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we w
chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping th
we will report the true distances to all notable objects, and the true lengths of all lines that
measuring, to the best of our skill and ability, and in accordance with instructions given us, in t
the Subdivision of Part of T.19 S., R.1 W.; also fractional
T.19 S., R. 1 W., S.L.B.& M., Utah.

Rex Dowdall
Robert Faddis

Subscribed and sworn to before me this 21
day of June, 1909

SEAL

Alfredo R Talam
U.S.Deputy Surveyo

~~We~~, I, J. W. Simpson and
do solemnly swear that ~~we~~ will well and truly perform the duties of moundman in the e
of corners, according to the instructions given ~~us~~ me to the best of ~~our~~ my skill and ability, in t
the Subdivision of Part of T.19 S., R.1 W.; also fractional S.
19 S., R. 1 W., S.L.B.& M., Utah.

J. W. Simpson

Subscribed and sworn to before me this 21
day of June, 1909

SEAL

Alfredo R Talam
U.S.Deputy Surveyor

~~We~~, I, Will Bailey and
do solemnly swear that ~~we~~ I will well and truly perform the duties of axman in the establishmen
and other duties, according to instructions given ~~us~~ me to the best of ~~our~~ my skill and ability, in t
the Subdivision of Part of T.19 S., R.1 W.; also fractional
19 S., R. 1 W., S.L.B.& M., Utah.

Will Bailey

Subscribed and sworn to before me this 21
day of June, 1909

SEAL

Alfredo R Talam
U.S.Deputy Surveyor

I, Thomas R. Faddis, do solemnly swear that I will w
perform the duties of flagman according to instructions given me, to the best of my skill and a
survey of the Subdivision of Part of T.19 S., R.1 W.; also frac
S.Bdy.T.19 S., R. 1 W., S.L.B.& M., Utah.

Thomas R Faddis

Subscribed and sworn to before me this 21
day of June, 190

SEAL

Alfredo R Talam
U.S.Deputy Surve

Subdivision of Part of T.19 S.,R.1 W.

Chains

Survey commenced July 18, 1909. For a complete description of the instrument see Book "A" of this survey.

I examine the adjustments of the transit and correct the level and collimation errors: then to test the solar apparatus, by comparing its indications, resulting from observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

I set the instrument over the stake which I set July 6, said stake being 20 chs. E. of the cor. of secs. 1, 2, 35 and 36, Tps. 19 and 20 S., R.1½ W., latitude 39°07' N., longitude 112°01'16"W. At 5h 06m, p.m., l.m.t., I set off 39°07'N. on the lat. arc, 21°02'N. on the decl arc, and determine a true meridian with the solar and mark the point thereof by a cross on a stone, firmly set in the ground, 5 chs. N. of my station on July 6. This point falls 0.15 ins. east of the groove determined by Polaris observations on July 7.

July 18, 1909

July 19: At 7h 00m, a.m., l.m.t., I set off 39°07'N. on the lat. arc, 20°56'N. on the decl. arc, and mark the meridian thus determined with the solar, by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.25 ins. west of the meridian established by the Polaris observation July 7

The solar apparatus by a.m. and p.m. observations defines positions of the meridian about 0'13"east and 0'08" east, respectively, of the meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing at 7h 20m, a.m., l.m.t., is N.16° 45'W. The angle thus determined gives mag.decl.16° 45'E.

South Boundary of T.19 S.,R.1 W.

Chains	
	July 19: At 8h 06m, a.m., l.m.t., I set off 39°07'N. on the lat. arc, 20°55'N. on the decl. arc, and determin a true meridian with the solar at the ¼ sec. cor. bet secs. 6 and 31, Tps. 19 and 20 S.,R.1 W., which is a limestone, 4x12x8 ins. above ground, marked and witne ed as described by the Surveyor General.
	Thence I run
	West on a true line bet. secs. 6 and 31
	Ascend abruptly over mountainous land, through pinon pi and cedar.
	Enter land exceptionally difficult to survey
8.00	Spur, 150 ft. above ¼ sec. cor., projects S.47°E.; descend abruptly
15.00	Gulch, 125 ft. below spur, drains S.50°E.; ascend abruptly
33.90	Intersect the cor. of Tps. 19 and 20 S., Rgs. 1 and 1½ set by me June 24, 1909
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 33.90 chs.
	Exceptionally difficult to survey, 33.90 chs.
	SUBDIVISION OF PART OF T.19 S.,R.1 W.
	From the ¼ sec. cor. bet. secs. 30 and 31, which is a limestone, 7x6x7 ins. above ground, marked and witnes as described by the Surveyor General, I run
	West on a random line bet. secs. 30 and 31
33.85	Intersect W.bdy. of Tp. 3 lks. S. of the cor. of secs. 2 30, 31 and 36, heretofore described
	Thence I run
	S.89°57'E. on a true line bet. secs. 30 and 31
	Descend abruptly over mountainous land, through dense pinon pine and cedar.
	Enter land exceptionally difficult to survey

Subdivision of Part of T.19 S.,R.1 W.

Chains	
12.00	Lone Cedar Canyon, 225 ft. below sec. cor., drains S.50°E.
	ascend abruptly
12.50	Wood road, bears N.50° W. and S.50° E.
19.50	Spur, 375 ft. above canyon, projects S.50°E.;
	descend abruptly
33.85	The ¼ sec. cor. bet. secs. 30 and 31
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 33.85 chs.
	Exceptionally difficult to survey, 33.85 chs.
	From the ¼ sec. cor. bet. secs. 19 and 30, which is a limestone, 11x5x7 ins. above ground, marked and witnessed as described by the Surveyor General, I run
	N.89°57'W. on a random line bet. secs. 19 and 30
33.80	Intersect W. Bdy. of Tp.2 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described
	Thence I run
	S.89°55'E. on a true line bet. secs. 19 and 30
	Ascend abruptly along N. slope, over mountainous land, through dense pinon pine and cedar.
	Enter land exceptionally difficult to survey
10.00	Spur, 200 ft. above sec. cor., projects N.10°E.;
	descend abruptly
33.80	The ¼ sec. cor. bet. secs. 19 and 30
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 33.80 chs.
	Exceptionally difficult to survey, 33.80 chs.
	Note:- At noon hour the sky is overcast. Solar observations impossible.

Chains	
	From the ¼ sec. cor. bet. secs. 18 and 19, which is a limestone, 8x10x9 ins. above ground, marked and witne ed as described by the Surveyor General, I run
	N.89°55'W. on a random line bet. secs. 18 and 19
33.00	Intersect W.Bdy.of Tp. 4 lks. N. of the cor. of secs. 13 18, 19 and 24, heretofore described
	Thence I run
	S.89°59'E. on a true line bet. secs. 18 and 19
	Ascend over mountainous land, through dense pinon pine and cedar.
	Enter land exceptionally difficult to survey
4.00	Spur, 30 ft. above sec. cor., projects N.; descend abruptly
10.50	Gulch, 100 ft. below spur, drains N.10°E.; ascend abruptly along rough N. slope
33.00	The ¼ sec. cor. bet. secs. 18 and 19
	On N. slope of spur, 200 ft. above gulch, projects N.E
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 33.00 chs.
	Exceptionally difficult to survey, 33.00 chs.
	July 19, 1909
	July 20: At 8h 06m, a.m., l.m.t., I set off 39°10'N. the lat. arc, 20°44'N. on the decl. arc, and determi a true meridian with the solar at the ¼ sec. cor. be secs. 7 and 18, which is a limestone, 10x6x7 ins.abo ground, marked and witnessed as described by the Sur veyor General.
	Thence I run
	N.89°59'W. on a random line bet. secs. 7 and 18
32.00	Intersect W.Bdy.of Tp.1 lk. S. of the cor. of secs. 7, 12, 13 and 18, heretofore described

Subdivision of Part of T.19 S.,R.1 W.

Chains	
	Thence I run
	S.89°58'E. on a true line bet. secs. 7 and 18
	Ascend abruptly over mountainous land, through dense pinon pine and cedar.
	Enter land exceptionally difficult to survey
4.00	Spur, 100 ft. above sec. cor., projects S.; descend abruptly
14.00	Head of gulch, 150 ft. below spur, drains S.; ascend
32.00	The ¼ sec. cor.bet. secs. 7 and 18
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 32.00 chs.
	Exceptionally difficult to survey; 32.00 chs.
	From the ¼ sec. cor. bet. secs. 6 and 7, which is a limestone, 12x5x10 ins. above ground, marked and witnessed as described by the Surveyor General, I run
	N.89°58'W. on a random line bet. secs. 6 and 7
26.85	Intersect W.Bdy.of Tp.13 lks. S. of the cor. of secs. 1, 6, 7 and 12, heretofore described
	Thence I run
	S.89°41'E. on a true line bet. secs. 6 and 7
	Ascend over mountainous land, through dense pinon pine and cedar
	Enter land exceptionally difficult to survey
12.00	Commence abrupt ascent, bears N. and S.
26.85	The ¼ sec. cor. bet. secs. 6 and 7
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 26.85 chs.
	Exceptionally difficult to survey, 26.85 chs.
	July 20, 1909

General Description.

The western part of this township is very mountainou
The mountains are steep and rugged and covered with de
pinon pine and cedar. I found no trace of mineral.

There are no settlers in the westerly part of this
township.

Alfredo R Talamantes
U. S. Deputy Surveyor

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 Subdivision of Part of T.19 S., R.1 W.; also fractional S.Bdy. T.19 S., R. 1 W., S.L.B.& M..Utah.
showing the respective capacities in which they acted:

Ray Dowdall, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R. Faddis, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the Subdivision of Part of T.19 S., R.1 W. ; also fractional S.Bdy.T. 19 S., R. 1 W.

of the Salt Lake Base and meridian, in the State of Utah, 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 Utah

Ray Dowdall, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R. Faddis, *Flagman.*

Subscribed and sworn to before me this 3 day of August, 1909

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R.Talamantes, United States Deputy S
solemnly swear that, in pursuance of a contract received from Thomas Hull
United States Surveyor General for U t a h, bearing
5th day of March, 1908, I have well, faithfully, and truly,
proper person, and in strict conformity with the instructions furnished by the United State
General for U t a h, the Manual of Surveying Instructions, and the
United States, surveyed all those parts or portions of the Subdivision of part of
ship No.19 South, Range No.1 West; also fractional South Bounda
T. 19 S., R. 1 W.

and of the Salt Lak
meridian, in the State of Utah, which are repres
foregoing field notes as having been surveyed by me, and under my direction; and I do furth
swear that all the corners of said survey have been established and perpetuated in strict acco
the Manual of Surveying Instructions, and the special written instructions of the United Stat
General for U t a h and in the specific manner described in the field not
the foregoing are the original field notes of such survey.

Alfredo R.Talamant
United States Deput

Subscribed by said Alfredo R.Talamantes, and sworn to before me
this 19th day of April 1911. ~~190~~

SEAL

U.S.Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 24,19

The foregoing field notes of the survey of Fractional S.Bdy.; also Subdivi
part of Tp.No.19 South, Range No.1 West of the Salt Lake Base an
ridian, Utah,

executed by Alfredo R.Talamantes
under his contract No. 302, dated March 5, 1908,
critically examined, and the necessary corrections and explanations made, the said field no
surveys they describe, are hereby approved.

United States Surve

I certify that the foregoing transcript of the field notes of the above-described surveys i
, has been correctly copied from the original notes on file in t

United States Surve

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BOOK A-370

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FILED
MAY 1910

FIELD NOTES

M.I.B.

OF THE SURVEY OF THE

RETRACEMENT

OF

PART OF

THE SUBDIVISIONS

OF

TOWNSHIP NO. 19 SOUTH RANGE NO. 1 WEST.

Of the Salt Lake Base and *Meridian,*

U T A H.

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

Under his Contract No. 302, *dated* March 5, *190* 8

Retracement
Survey commenced July 20, *190* 9

Retracement
Survey completed July 21, *190* 9

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5-23-55

NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall	Chainman
Robert Faddis	Chainman
J. W. Simpson	Roundman
Will Bailey	Axman
Thomas R. Faddis	Flagman

BOOK A-370

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PRELIMINARY OATHS OF ASSISTANTS.

WE, Rex Dowdall and Robert Faddis
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we w
chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping th
we will report the true distances to all notable objects, and the true lengths of all lines that
measuring, to the best of our skill and ability, and in accordance with instructions given us, in t
the Retracement of Part of the Subdivisions of T.19 S., R.1
S.L.B. & M., Utah.

Rex Dowdall
Robert Faddis

Subscribed and sworn to before me this 21
day of June, 1909
SEAL

Alfredo R Talam
U.S. Deputy Surveyo

~~WE,~~ I, J. W. Simpson and
do solemnly swear that ~~we~~ I will well and truly perform the duties of moundman in the e
of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in t
the Retracement of Part of the Subdivisions of T.19 S., R.1
S.L.B. & M., Utah.

J. W. Simpson

Subscribed and sworn to before me this 21
day of June, 1909
SEAL

Alfredo R Talam
U.S. Deputy Surveyo

~~WE,~~ I, Will Bailey and
do solemnly swear that ~~we~~ I will well and truly perform the duties of axman in the establishme
and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in
the Retracement of Part of the Subdivisions of T.19 S., R.1
S.L.B. & M., Utah.

Will Bailey

Subscribed and sworn to before me this 21
day of June, 1909
SEAL

Alfredo R Talaman
U.S. Deputy Surveyo

I, Thomas R. Faddis, do solemnly swear that I will w
perform the duties of flagman according to instructions given me, to the best of my skill and a
survey of the Retracement of Part of the Subdivisions of T.19 S
S.L.B. & M., Utah.

Thomas R Faddis

Subscribed and sworn to before me this 21
day of June, 1909
SEAL

Alfredo R Tale
U.S. Deputy Surveyo

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Retracement of Part of the Subdivisions of T.19 S., R.1 W.

Chains

Survey commenced July 20, 1909. For a complete description of the instrument, see Book A.

I examine the adjustments of the transit, and correct the level and collimation errors: then to test the solar apparatus, by comparing its indications resulting from observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of secs. 17, 18, 19 and 20, T.19 S.,R.1 W., which is a limestone, 3x11x7 ins. above ground, marked and witnessed as described by the Surveyor General, latitude 39°09'30" N,, longitude 111°59'19" W., I set off 39°10' N. on the lat. arc, 20°40'N. on the decl. arc, and at 5h 06m, p.m., l.m.t., determine with the solar a true meridian, and mark the point thereof on a stone firmly set 5 chs. N. of my station.

At 11h 38m, p.m., l.m.t., I observe Polaris at Eastern elongation, in accordance with the instructions in the Manual, and mark a point in the line thus determined on a peg driven in the ground, 5 chs. N. of my station.

July 20, 1909

July 21: At 6h, a.m., l.m.t., I lay off the azimuth of Polaris, 1°31' to the west, and mark the meridian thus determined by cutting a small groove in the stone set July 20, on which the meridian falls 0.25 ins. west of the mark determined by the solar.

At 7h 06m, a.m., l.m.t., I set off 39°10'N. on the lat. arc, 20°34'N. on the decl. arc, and mark a point on the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.3 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for the meridian respectively about 0'13"

Retracement of Part of the Subdivisions of T.19 S.,R.1

Chains	
	east and 0°16" west of the meridian established by t
	Polaris observation; therefore I conclude that the a
	justments of the instrument are satisfactory.
	The magnetic bearing of the true meridian at 7h 20m, a
	l.m.t., is N.16°45'W., the angle thus determined giv
	the mag. decl. 16°45' E.
	From the cor. above described I run
	West on a retracement line bet. secs. 18 and 19
40.65	Fall 14 lks. N. of the ¼ sec. cor. bet. secs. 18 and 1
	heretofore described.
	The course of the line is S.89°48'W.
	From the cor. of secs. 17, 18, 19 and 20, above descri
	I run
	N.0°01'W. on a retracement line bet. secs. 17 and 18
40.01	Fall 9 lks. E. of the ¼ sec. cor., which is a limest
	7x10x6 ins. above ground, marked and witnessed as d
	scribed by the Surveyor General.
80.05	Fall 19 lks. E. of the cor. of secs. 7, 8, 17 and 18,
	which is a sandstone 7x10x8 ins. above ground, mark
	and witnessed as described by the Surveyor General.
	Course of line is N.0°09'W.
	Thence I run West on a retracement line bet. secs. 7
	18
41.40	Fall 19 lks. N. of the ¼ sec. cor.bet. secs. 7 and 18
	heretofore described.
	Course of line is S.89°44'W.
	From the cor. of secs. 7, 8, 17 and 18, above describ
	I run
	North on a retracement line bet. secs. 7 and 8
40.05	Fall 2 lks. E. of the ¼ sec. cor. bet. secs. 7 and 8,
	which is a limestone 8x8x7 ins. above ground, marke

Retracement of Part of the Subdivisions of T.19 S.,R.1 W.

Chains	
	and witnessed as described by the Surveyor General. Course of line is N.0°02'W.
80.00	Fall 44 lks. E. of the cor. of secs. 5, 6, 7 and 8, which is a limestone, 4x12x9 ins. above ground, marked and witnessed as described by the Surveyor General. Course of last ½ mile is N.0°36'W.
July 21	At this cor. I set off 20°30'N. on the decl. arc, and at 12h 06m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°11'N.
	Thence I run
	West on a retracement line bet. secs. 6 and 7
46.20	Fall 13 lks.N. of the ¼ sec. cor. bet. secs. 6 and 7, heretofore described Course of line is S.89°50'W.
	From the cor. of secs. 5, 6, 7 and 8, above described, I run
	North on a retracement line bet. secs. 5 and 6
40.43	Fall 19lks. E. of the ¼ sec. cor. bet. secs. 5 and 6, which is a limestone 8x12x8 ins. above ground, marked and witnessed as described by the Surveyor General. Course of line is N.0°16'W.
81.60	Fall 13 lks. E. of the closing cor. of secs. 5 and 6, which is a limestone 4x12x9 ins. above ground, marked and witnessed as described by the Surveyor General. Course of last ½ mile is N.0°05'E.
	From the closing cor. of secs. 5 and 6, above described I run
	West on a retracement line on N.Bdy. of sec. 6.
13.70	Intersect the cor. of secs. 31 and 32, T.18 S.,R.1 W., which is a limestone 10x12x9 ins, above ground, marked and witnessed as described by the Surveyor General.
53.65	Intersect the ¼ sec.cor.on S.bdy.of sec.31. July 21,1909.

BOOK A-370

Retracement of Part of the Subdivisions of T.19 S.,R.1

For general description see notes of the subdivis

of part of this township.

Alfredo R Talamantes
U. S. Deputy Surveyor

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 Retracement of Part of the Subdivisions of T.19 S., R.1 W. S.L.B. & M., Utah, showing the respective capacities in which they acted:

Rex Howdael, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Fodie, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the Retracement of Part of the Subdivisions of T.19 S., R.1 W.

of the Salt Lake Base and meridian, in the State of Utah, 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 Utah.

Rex Howdael, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Fodie, *Flagman.*

Subscribed and sworn to before me this 3 day of August, 1909

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R.Talamantes, United States Deputy Su
solemnly swear that, in pursuance of a contract received from Thomas Hull
United States Surveyor General for Utah, bearing
5th day of March, 1908, I have well, faithfully, and truly,
proper person, and in strict conformity with the instructions furnished by the United States
General for Utah, the Manual of Surveying Instructions, and the
United States, surveyed all those parts or portions of the retracement of part of
Subdivisions of Township No.19 South, Range No.1 West

of the Salt La
and meridian, in the State of Utah, which are represe
foregoing field notes as having been surveyed by me, and under my direction; and I do furthe
swear that all the corners of said survey have been established and perpetuated in strict accor
the Manual of Surveying Instructions, and the special written instructions of the United State
General for Utah and in the specific manner described in the field note
the foregoing are the original field notes of such survey.

Alfredo R Talamant
United States Deputy

Subscribed by said Alfredo R.Talamantes, and sworn to before me
this 19 day of April 1911, XXX

SEAL

U.S.Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 24, 19

The foregoing field notes of the survey of the retracement of part of the
visional lines of Township No. 19 South, Range No.1 West of the
Lake Base and Meridian, Utah,

executed by Alfredo R.Talamantes
under his contract No. 302, dated March 5, 1908, ha
critically examined, and the necessary corrections and explanations made, the said field note
retracements
surveys they describe, are hereby approved.

United States Surveyo

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 thi

United States Surveyo

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4—679.

FILED
MAY 7 1910

BOOK A-370
I.

E.H.

FIELD NOTES

OF THE SURVEY OF THE

EAST AND NORTH BOUNDARIES

OF

TOWNSHIP NO. 18 SOUTH, RANGE NO. 1½ WEST.

Of the Salt Lake Base and *Meridian,*

U T A H.

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

ler his Contract No. 302, *dated* March 5, *1908*

vey commenced July 22, *1909*

vey completed July 25, *1909*

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East Bdy Max 5-38-15 ✓ Guter 38-00 ✓ al. 0 01 00 ✓

" " 2-65-60 ✓

8 23 75

NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall,	Chainman
Robert Faddis	Chainman
J. W. Simpson	Moundman
Will Bailey	Axman
Thomas R. Faddis	Flagman

BOOK A-370

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Meanders Page .....

PRELIMINARY OATHS OF ASSISTANTS.

WE, Rex Dowdall and Robert Faddis
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we
chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping t
we will report the true distances to all notable objects, and the true lengths of all lines tha
measuring, to the best of our skill and ability, and in accordance with instructions given us, in
the East and North Boundaries of Tp.No.18 S., Rg.No.1½ W., S
Utah.

Rex Dowdall
Robert Faddis

Subscribed and sworn to before me this 21
day of June, 1909

SEAL

Alfredo R Tala
U.S.Deputy Surveyo

~~WE~~, I, J. W. Simpson and
do solemnly swear that ~~we~~ I will well and truly perform the duties of moundman in the
of corners, according to the instructions given ~~us~~ me to the best of ~~our~~ my skill and ability, in
the East and North Boundaries of Tp.No.18 S., Rg.No.1½ W., S.
Utah.

J. W. Simpson

Subscribed and sworn to before me this 21
day of June, 1909

SEAL

Alfredo R Tala
U.S.Deputy Surveyo

~~WE~~, I, Will Bailey and
do solemnly swear that ~~we~~ I will well and truly perform the duties of axman in the establishm
and other duties, according to instructions given ~~us~~ me to the best of ~~our~~ my skill and ability, in
the East and North Boundaries of Tp.No.18 S., Rg.No.1½ W., S.
Utah.

Will Bailey

Subscribed and sworn to before me this 21
day of June, 1909

SEAL

Alfredo R Tala
U.S.Deputy Surveyo

I, Thomas R. Faddis, do solemnly swear that I will w
perform the duties of flagman according to instructions given me, to the best of my skill and
survey of the East and North Boundaries of Tp.No.18 S., Rg.No.1½
B.& M..Utah.

Thomas R Faddis

Subscribed and sworn to before me this 21
day of June, 1909

SEAL

Alfredo R Tala
U.S.Deputy Surveyo

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East Boundary of T.18 S.,R.1½ W.

Chains

Survey commenced July 22, 1909. For complete description of the instrument, see Book A.

I examine the adjustments of the Transit and correct the level and collimation errors; then to test the solar apparatus by comparing its indications resulting from solar observations taken during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:-

At the cor. of Tps. 18 and 19 S., Rgs. 1 and 1½ W., latitude 39°12'08"N., longitude 112°00'29"W., I set off 39° 12'N. on the lat. arc, 20°17'N. on the decl. arc, and at 4h 06m, p.m., l.m.t., determine, with the solar, a true meridian, and mark the point thereof on a stone firmly set in the ground, 5 chs. N. of the cor.

At 11h 30m, p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions and mark a point in the line thus determined on a peg driven in the ground, 5 chs. N. of my station.

July 22, 1909

July 23: At 6h, a.m., l.m.t., I lay off the azimuth of Polaris, 1°31' to the west, and mark the meridian thus determined by cutting a small groove in the stone set July 22, on which the meridian falls 0.25 ins. west of the mark determined by the solar.

At 7h 06m, a.m., l.m.t., I set off 39°12'N. on the lat. arc, 20°10'N. on the decl. arc, and mark a point in the meridian thus determined with the solar, by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.3 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for the meridian, respectively about 0'13" east and 0'16" west of the meridian established by the Polaris observations; therefore I conclude that the

Chains	
	adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian at 7h 20m, a l.m.t., is N.16°45'W. The angle thus determined giv the mag. decl. 16°45'E.
	Thence I run
	North bet. secs. 31 and 36
	Ascend gradually over mountainous land, through dense sage brush
38.00	Top of wide ridge, 50 ft. above Tp.Cor., bears E. and enter dense pinon pine and cedar; descend
	Enter land exceptionally difficult to survey.
40.00	Set a sandstone, 16x12x6 ins., 11 ins. in the ground, ¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 14 ins. diam., bears S.81°52'E. 41 dist., marked ¼ S 31 B T
	A pinon pine, 26 ins. diam., bears S.69°48'W. 49 dist., marked ¼ S 36 B T
49.20	Gulch, 125 ft. below ridge, drains N.43°E.; also road bears N.43°E. and S.43°W.; ascend
53.00	Spur, 50 ft. above gulch, projects N.49°E.; descend
58.00	Gulch, 75 ft. below spur, drains N., descend along bo of gulch
66.00	Leave gulch, 95 ft. below spur, drains N.50°E.; ascend
69.00	Spur, 100 ft. above gulch, projects N.60°E.; descend
74.00	Gulch, 75 ft. below spur, drains N.40°W.; ascend
80.00	Spur, 50 ft. above gulch, projects N.44°W.; descend abruptly
	Set a limestone, 22x10x8 ins., 16 ins. in the ground cor. of secs. 25, 30, 31 and 36, marked with 1 notch on S. and 5 notches on N. edge, from which

East Boundary of T.18 S.,R.1½ W.

Chains	
	A pinon pine, 10 ins. diam., bears S.36°28'W. 31 lks. dist., marked T 18 S R 1½ W S 36 B T
	A pinon pine, 8 ins. diam., bears N.40°20'W. 57 lks. dist., marked T 18 S R 1½ W S 25 B T
	A pinon pine, 12 ins. diam., bears N.79°04'E. 38 lks. dist., marked T 18 S R 1 W S 30 B T
	A pinon pine, 8 ins. diam., bears S.32°23'E. 64 lks. dist., marked T 18 S R 1 W S 31 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar, 42 chs.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 42.00 chs.
	North bet. secs. 25 and 30
	Descend abruptly over rough mountainous land, through dense pinon pine and cedar:
	Enter land exceptionally difficult to survey.
26.00	Bottom of gulch, 450 ft. below sec. cor., drains N.75°E., wood road, bears N.75°E. and S.75°W.; ascend abruptly
37.00	Spur, 175 ft. above gulch, projects S.W.; descend
39.50	Head of small gulch, 40 ft. below spur, drains S.44°W.; ascend abruptly
40.00	Set a limestone, 20x10x8 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which
	A cedar, 12 ins. diam., bears S.67°43'E. 19 lks.dist., marked ¼ S 30 B T
	A cedar, 10 ins. diam., bears S.82°27'W. 20 lks.dist., amrked ¼ S 25 B T
July 23	At this cor. I set off 20°07'N. on the decl. arc, and at 12h 06m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°13'

East Boundary of T.18 S.,R.1½ W.

Chains	
54.00	Spur, 250 ft. above gulch, projects S.75°W.;
	descend
60.50	Gulch, 75 ft. below spur, drains S.75°W.;
	ascend abruptly
80.00	Set a limestone, 22x12x6 ins., 16 ins. in the ground,
	cor. of secs. 19,24,25 and 30, marked with 2 notches
	S. and 4 notches on N. edge, from which
	A pinon pine, 16 ins. diam., bears N.68°28'E. 73 l
	dist., marked T 18 S R 1 W S 19 B T
	A pinon pine, 12 ins. diam., bears S.41°06'E.110 l
	dist., marked T 18 S R 1 W S 30 B T
	A pinon pine, 16 ins. diam., bears S.80°31'W. 73 l
	dist., marked T 18 S R 1½ W S 25 B T
	A pinon pine, 12 ins. diam., bears N.38°51'W. 83 l
	dist., marked T 18 S R 1½ W S 24 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	North bet. secs. 19 and 24
	Ascend abruptly over mountainous land, through dense
	pinon pine and cedar.
	Enter land exceptionally difficult to survey
4.00	Ridge, 500 ft. above gulch, bears N.40°W. and S.42°E.;
	descend
27.50	Gulch, 150 ft. below ridge, drains S.85°E.;
	ascend abruptly over broken ledges bearing N.W. and S
40.00	Set a limestone, 16x12x8 ins., 11 ins. in the ground, f
	¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 6 ins. diam., bears S.33°30'W. 16 lk
	dist., marked ¼ S 24 B T

East Boundary of T.18 S.,R.1½ W.

Chains	
	A pinon pine, 10 ins. diam., bears S.45°05'E. 39 lks. dist., marked ½ S 19 B T
41.00	Spur, 275 ft. above gulch, projects S.85°E.; descend abruptly
51.00	Gulch, 150 ft. below spur, drains S.60°E.; ascend abruptly
75.00	Ridge, 500 ft. above gulch, bears N.30°E. and S.45°W.; descend
80.00	Set a limestone, 18x10x8 ins., 12 ins. in the ground, for cor. of secs. 13, 18, 19 and 24, marked with 3 notches on N. and S. edges, from which
	A pinon pine, 6 ins. diam., bears S.19°30'E. 43 lks. dist., marked T 18 S R 1 W S 19 B T
	A cedar, 12 ins. diam., bears N.47°10'E. 44 lks. dist., marked T 18 S R 1 W S 18 B T
	A pinon pine, 12 ins. diam., bears S.75°50'W. 60 lks. dist., marked T 18 S R 1½ W S 24 B T
	A pinon pine, 10 ins. diam., bears N.70°33'W. 74 lks. dist., marked T 18 S R 1½ W S 13 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.

July 23, 1909

July 24:- At 8h 06m, a.m., l.m.t., I set off 39°15'N. on the lat. arc, 19°57'N. on the decl. arc, and determine a true meridian with the solar, at the cor. of secs.13, 18, 19 and 24.

Thence I run

North bet. secs. 13 and 18

Ascend along W. slope of ridge, over broken mountain land, through pinon pine and cedar.

Enter land exceptionally difficult to survey.

East Boundary of T.18 S., R.1½ W.

Chains	
12.00	Cross ridge, 150 ft. above sec. cor., bears W. and S.10
	descend
21.00	Gulch, 100 ft. below ridge, drains N.70°E.;
	ascend abruptly
40.00	Set a limestone, 20x10x6 ins., 15 ins. in the ground,
	¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 20 ins. diam., bears S.7°30'W. 28 lk
	dist., marked ¼ S 13 B T
	A pinon pine, 21 ins. diam., bears N.9°50'E. 38 lk
	dist., marked ¼ S 18 B T
55.00	East slope of ridge near top, 300 ft. above gulch, bea
	N.15°W. and S.18°W.; thence along E.slope, nearly lev
57.00	Commence descending E. slope, bears N.15°W. and S.10°E
74.00	Gulch, 200 ft. below ridge, drains N.70°E.;
	ascend abruptly
80.00	Set a sandstone, 20x12x10 ins., 15 ins. in the ground,
	cor. of secs. 7, 12, 13 and 18, marked with 4 notche
	on S. and 2 notches on N. edge, from which
	A pinon pine, 8 ins. diam., bears S.20°00'E. 52 lk
	dist., marked T 18 S R 1 W S 18 B T
	A cedar, 6 ins. diam., bears S.25°45'W. 59 lks.
	dist., marked T 18 S R 1½ W S 13 B T
	A pinon pine, 8 ins. diam., bears N.12°30'E. 71 lk
	dist., marked T 18 S R 1 W S 7 B T
	A cedar, 8 ins. diam., bears N.54°06'W. 77 lks.
	dist., marked T 18 S R 1½ W S 12 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Rough mountainous land, or heavily timbered land, 80.0
	chs.
	Exceptionally difficult to survey, 80.00 chs.
	North bet. secs. 7 and 12

East Boundary of T.18 S., R.1½ W.

Chains	
	Ascend abruptly over rough mountainous land, through pinon pine, cedar and mahogany
	Enter land exceptionally difficult to survey
16.00	Ridge, 300 ft. above gulch, bears N. and S.20°W.; thence along top of ridge
40.00	Set a limestone, 20x8x4 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which
	A mahogany, 8 ins. diam., bears N.70°00'E. 20 lks. dist., marked ¼ S 7 B T
	A mahogany, 10 ins. diam., bears N.32°28'W. 16 lks. dist., marked ¼ S 12 B T
	July 24: At this cor. I set off 19°54'N. on the decl. arc, and at 12h 06m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°16'
60.00	Commence descent along W. slope, bears N.10°E. and South.
77.00	Leave dense pinon pine and cedar; enter scattering pinon pine and cedar and dense mahogany brush,
80.00	Set a limestone, 16x12x8 ins., 11 ins. in the ground, for cor. of secs. 1, 6, 7 and 12, marked with 5 notches on S. and 1 notch on N. edge; and raise a mound of stone, 2 ft. base, 1½ high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense underbrush, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	North bet. secs. 1 and 6
	Descend abruptly over rough mountainous land, through pinon pine and cedar and dense mahogany underbrush.
	Enter land exceptionally difficult to survey.

East Boundary of T.18 S., R.1½ W.

Chains	
30.00	Gulch, 300 ft. below ridge, drains S.30°W.;
	ascend
40.00	Set a limestone, 20x20x10 ins., 15 ins. in the ground,
	¼ sec. cor. ,marked ¼ on W. face, from which
	A cedar, 8 ins. diam., bears S.4°32'W. 104 lks.
	dist., marked ¼ S 1 B T
	A pinon pine, 8 ins. diam., bears S.32°04'E. 50 lk
	dist., marked ¼ S 6 B T
42.00	Ridge, 275 ft. above gulch, bears N.50°E. and S.50°W.;
	descend
52.00	Gulch, 100 ft. below ridge, drains S.60°W.;
	ascend abruptly
60.00	Junction of ridge and spur, 200 ft. above gulch, spur
	projects E., and ridge bears N. and S.75°W.;
	ascend along top of ridge
76.15	Intersect the N.bdy.Tp. at N.89°27'E. 6.00 chs. from
	¼ sec. cor. on S.bdy. of sec. 31, T.17 S.,R.1 W., wh
	is a limestone, 10x8x6 ins.,above ground, marked and
	witnessed as described by the Surveyor General.
	At my point of intersection I set a limestone, 24x10x1
	ins., 18 ins. in the ground, for closing cor.
	of Tp. 18 S., Rgs. 1 and 1½ W., marked C C on S., wi
	6 grooves on S.E. and W. faces, from which
	A pinon pine,24 ins. diam., bears S.39°57'E. 116 l
	dist., marked C C T 18 S R 1 W S 6 B T
	A cedar, 8 ins. diam., bears S.23°41'W. 48 lks.
	dist., marked C C T 18 S R 1½ W S 1 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered
	with dense undergrowth, 76.15 chs.
	Exceptionally difficult to survey, 76.15 chs.
	July 24, 1909

North Boundary of T.18 S., R 1½ W.

Chains	
	July 25, 1909:- At 8h 06m, a.m., l.m.t., I set off 39° 17'N. on the lat. arc, 19°44'N. on the decl. arc, and determine a true meridian with the solar, at the closing cor. of Tp. 18 S., Rgs.1 and 1½ W. set by me July 24
	Thence I run
	S.89°27'W. on the North bdy. of sec. 1
	Descend over mountainous land, through pinon pine and cedar and mahogany underbrush
	Enter land exceptionally difficult to survey.
4.00	Gulch, 50 ft. below closing cor., drains N.; ascend
6.00	¼ sec. cor. on S. bdy. of sec. 31, T.17 S.,R.1 W., herein before described.
8.00	Spur, 50 ft. above gulch, projects N.; descend abruptly
32.00	Gulch, 350 ft. below spur, drains N.1°E.; ascend
40.00	Set a limestone, 16x12x10 ins,, 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. abse, 1½ ft. high, N. of cor. Pits impracticable. No trees suitable for marking within limits.
42.00	Spur, 75 ft. above gulch, projects N.2°E.; descend
47.00	Gulch, 50 ft. below spur, drains N.; ascend abruptly
72.00	Spur, 350 ft. above gulch, projects N.5°E.; descend gradually
78.50	Gulch, 50 ft. below spur, drains N.E.; ascend
80.00	Set a limestone, 20x14x5 ins., 15 ins. in the ground, for cor. of secs. 1 and 2, marked with 1 notch on E. and

Chains	
	5 notches on W. edge; and raise a mound of stone, 2 ft base, 1½ ft. high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	S.89°27'W. on North bdy. of sec. 2
	Asecnd gradually over mountainous land, through scatte ing pinon pine and cedar and dense mahogany undergro
	Enter land exceptionally difficult to survey
5.00	Commence abrupt ascent, bears N. and S.E.
40.00	Set a limestone, 14x12x6 ins., 9 ins. in the ground, f ¼ sec. cor., marked ¼ on N. face; and raise a mound stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
42.00	Ridge, 650 ft. above sec. cor., bears N.10°W. and S.60 descend
50.00	Draw, 500 ft. below ridge, drains S.42°E.; ascend abruptly
68.00	Ridge, 350 ft. above draw, bears N.30°W. and S.44°E.; descend
80.00	Set a limestone, 18x10x8 ins., 12 ins. in the ground, f cor. of secs. 2 and 3, marked with 2 notches on E. a 4 notches on W. edge; and raise a mound of stone, 2.f base, 1½ ft. high, W. of cor.
	Pits impracticable
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.

North Boundary of T.18 S.,R.1½ W.

Chains

Timber, scattering pinon pine and cedar.

Mountainous, or timbered land, or land covered with dense undergrowth, 80.00 chs.

Exceptionally difficult to survey, 80.00 chs.

July 25: At this cor. I set off 19°42'E. on the decl.arc, and at 12h 06m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°17'

N.89°27'W. on North bdy. of sec. 3

Descend over mountainous land, through pinon pine and cedar and dense undergrowth.

Enter land exceptionally difficult to survey.

3.00 Gulch, 100 ft. below ridge, course N.15°W.;
descend

8.50 Spur, 75 ft. above gulch, projects N.;
descend

23.00 Gulch, 50 ft. below spur, course N.10°W.
ascend abruptly

40.00 Set a limestone, 20x12x10 ins., 12 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft.base, 1½ ft. high, N. of cor.
Pits impracticable.
No trees suitable for marking within limits.

51.00 Ridge, 450 ft. above gulch, bears E. and W.;
descend

61.00 Intersect the closing cor. of T.17 S.,R.1 W., which is a limestone 9x6x4 ins. above ground, marked and witnessed as described by the Surveyor General.
I mark this cor. with 6 grooves on the S. face;
and raise a mound of stones, 2 ft. base, 1½ ft. high, W. of cor.
Pits impracticable.
No trees suitable for marking within limits.

Land, mountainous.

Soil, rocky; 4th rate.

North Boundary of T.18 S., R.1½ W.

Timber, scattering pinon pine and cedar.

Mountainous or timbered land, or land covered with dens
undergrowth, 65.60 chs..

Exceptionally difficult to survey, 65.60 chs.

July 25, 1909.

Boundaries of T.18 S., R.1½ W.

Latitudes, Departures, and Closing Errors.

Line Designated.	True Bearing	Dist.	Latitudes.		Departures	
			N.	S.	E.	W.
			chs.	chs.	chs.	chs
S.bdy.T.18 S. R.1½ W.	East	225.93	.....	.....	225.93	....
E.bdy.T.18 S. R.1½ W.	Notrh	476.15	476.15	.....	.....	....
N.bdy.T.18 S. R.1½ W.	S.89°27'W.	225.60	.....	2.17	.....	225
W.bdy.T.18 S. R.1½ W.	South	443.45	.....	443.45	.....	....
W.bdy.T.18 S. R.1½ W. Convergency	S.1°E.	31.06	.....	31.06	0.54	...
						0
T o t a l s			476.15	476.68	226.47	225
				476.15	225.86	
Error in lat. and dep.				0.53	0.61	

For general description see notes of the subdivi
of this township.

Alfredo R Talamantes
U.S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, United States Deputy Surveyor, to assist in running, measuring, and king the lines and corners described in the foregoing field notes of the survey of the East and North Boundaries of Tp.No.18 S.,Rg.No.1½ W. , S.L.B.& M. Utah,
wing the respective capacities in which they acted:

Rex Dowdale, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Faddis, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all
e parts or portions of the East and North Boundaries of Tp.No.18 S., Rg.No.1½ W.

of the Salt Lake Base and meridian, in the State of Utah, which are represented
ie foregoing field notes as having been surveyed by him and under his direction; and that said survey been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the er monuments established, according to the instructions furnished by the United States Surveyor eral for Utah

Rex Dowdale, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Faddis, *Flagman.*

cribed and sworn to before me this 3 day of August, 1909

SEAL

Alfredo R Talamantes
U.S.Deputy Surveyor.

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R. Talamantes, United States Deputy Surve[illegible] solemnly swear that, in pursuance of a contract received from Thomas Hull United States Surveyor General for Utah, bearing date [illegible] 5th day of March, 1908, I have well, faithfully, and truly, in m[illegible] proper person, and in strict conformity with the instructions furnished by the United States Su[illegible] General for Utah, the Manual of Surveying Instructions, and the laws [illegible] United States, surveyed all those parts or portions of East and North Boundaries of Township No.1S South, Range No. 1½ West

of the Salt Lake Ba[illegible] and meridian, in the State of Utah, which are represented i[illegible] foregoing field notes as having been surveyed by me, and under my direction; and I do further sol[illegible] swear that all the corners of said survey have been established and perpetuated in strict accordance [illegible] the Manual of Surveying Instructions, and the special written instructions of the United States Surv[illegible] General for Utah and in the specific manner described in the field notes, and [illegible] the foregoing are the original field notes of such survey.

Alfredo R. Talamantes
United States Deputy Surve[illegible]

Subscribed by said Alfredo R. Talamantes, and sworn to before me,
this 19 day of April, 1911, XXX

Thomas Hull
U.S. Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Salt Lake City, Utah, July 24, 1911, XX

The foregoing field notes of the survey of the East and North Boundaries of Township No.1S South, Range No.1½ West of the Salt Lake Base and Meridian, Utah.

executed by Alfredo R. Talamantes
under his contract No. 202, dated March 5, 1908, having b[illegible] critically examined, and the necessary corrections and explanations made, the said field notes, and [illegible] surveys they describe, are hereby approved.

Thomas Hull
United States Surveyor Gen[illegible]

I certify that the foregoing transcript of the field notes of the above-described surveys in [illegible] has been correctly copied from the original notes on file in this o[illegible]

United States Surveyor Gen[illegible]

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BOOK A-370

J.

FIELD NOTES

M. S. B.

OF THE SURVEY OF THE

SUBDIVISIONS

OF

TOWNSHIP NO. 18 SOUTH RANGE NO. 1½ WEST.

Of the Salt Lake Base and *Meridian,*

U T A H.

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

nder his Contract No. 302, *dated* March 5, *1908*

urvey commenced July 25, *190* 9

urvey completed August 2, *190* 9

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Max	Inter	Min	Closing
20-53-13	1-39-02	2-70-02	1-79-02

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall	Chainman
Robert Faddis	Chainman
J. W. Simpson	Houndman
Will Bailey	Axman
Thomas R. Faddis	Flagman

BOOK A-370

INDEX DIAGRAM.

*Township*_____, *Range*_____

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

*Meanders Page*_____

PRELIMINARY OATHS OF ASSISTANTS.

We, Rex Dowdall and Robert Faddis

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

the Subdivisions of T.18 S., R.1½ W. S.L.B.& M., Utah.

Rex Dowdall

Robert Faddis

Subscribed and sworn to before me this 21 day of June, 1909.

SEAL

Alfredo R Talan

U.S. Deputy Surveyo

~~We~~, I, J.W.Simpson and

do solemnly swear that ~~I~~ we will well and truly perform the duties of moundman in the es
of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in t

the Subdivisions of T.18 S., R.1½ W., S.L.B.& M., Utah.

J.W. Simpson

Subscribed and sworn to before me this 21 day of June, 1909.

SEAL

Alfredo R Tala

U.S. Deputy Surveyo

~~We~~, I, Will Bailey and

do solemnly swear that ~~I~~ will well and truly perform the duties of axman in the establishmen
and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in t

the Subdivisions of T.18 S., R.1½ W., S.L.B.& M., Utah.

Will Bailey

Subscribed and sworn to before me this 21 day of June, 1909.

SEAL

Alfredo R Tala

U.S. Deputy Surveyo

I, Thomas R. Faddis, do solemnly swear that I will wel
perform the duties of flagman according to instructions given me, to the best of my skill and ab
survey of the Subdivisions of T.18 S., R.1½ W., S.L.B.& M., Utah.

Thomas R Faddis

Subscribed and sworn to before me this 21 day of June, 1909.

SEAL

Alfredo R Talan

U.S. Deputy Surveyo

6—151

Subdivision of T.18 S.,R.1½ W.

Chains

Survey commenced July 25, 1909. For complete description of the instrument, see Book A.

I examine the adjustments of the Transit, and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:-

At the cor. of secs. 1, 2, 35 and 36, on S.Bdy. of Tp., heretofore described,; lat. 39°12'08"N.; longitude 112°01'36"W.,

I set off 39°12'N. on the lat. arc, 19°40'N. on the decl. arc, and at 5h 06m, p.m., l.m.t., determine with the solar, a true meridian, and mark the point thereof on a stone firmly set in the ground 5 chs. N. of the cor.

At 11h 19m, p.m., l.m.t., I observe Polaris at eastern elongation, according to instructions in the Manual, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N. of my station.

July 25, 1909

July 26: At 6h, a.m., l.m.t., I lay off the azimuth of Polaris, 1°31' to the west, and mark the meridian thus determined by cutting a small groove in the stone set 5 chs. N. of the cor. on July 25, on which the meridian falls 0.3 ins. west of the mark determined with the solar.

At 7h 06m, a.m., l.m.t., I set off 39°12'N. on the lat. arc, 19°32'N. on the decl. arc, and mark a point in the meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.25 ins. west of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. obs., defines the positions of the meridian, respectively about 0'.16"

Chains	
	east and 0°13" west of the meridian established by th
	Polaris observation, therefore I conclude that the
	adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian at 7h 20m, a.
	l.m.t., is N.16°45'W. The angle thus determined giv
	the mag. decl. 16°45'E.
	N.0°01'W. bet. secs. 35 and 36
	Descend gradually over flat land in Jap Valley, through
	small sage brush
36.00	Road, bears N.30°E. and S.45°W.; wood road.
40.00	Set a sandstone, 20x16x10 ins., 15 ins. in the ground,
	¼ sec. cor., marked ¼ on W. face; and raise a mound
	stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable
57.50	Commence gradual ascent; road, bears N.43°E. and S.40°W. wood road.
80.00	Set a sandstone, 20x20x12 ins., 15 ins. in the ground,
	cor. of secs. 25, 26, 35 and 36, marked with 1 notch
	S. and E. edges; and raise a mound of stone, 2 ft. b.
	1½ ft. high, W. of Cor.
	Pits impracticable.
	Land, flat.
	Soil, loam; 1st rate.
	No timber.
	East on a random line bet. secs. 25 and 36.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect E.Bdy. of Tp. 2 lks S. of the cor. of secs. 25,
	30, 31 and 36, heretofore described.
	Thence I run
	S.89°59'W. on a true line bet. secs. 25 and 36
	Descend abruptly over mountainous land, through dense
	pinon pine and cedar.
	Enter land exceptionally difficult to survey
4.00	Gulch, 75 ft. below sec. cor., drains N.1°W.;

Subdivision of T.18 S., R.1½ W.

Chains	
	ascend abruptly
9.00	Spur, 100 ft. above gulch, projects N.;
	descend abruptly
12.00	Small gulch, 40 ft. below spur, drains N.10°E.;
	ascend
15.00	Point of spur, 30 ft. above gulch, projects N.10°E.;
	descend
17.50	Small gulch, 30 ft. below spur, drains N.20°E.;
	ascend
25.00	Spur, 150 ft. above gulch, projects N.30°E.;
	descend
32.00	Gulch, 125 ft. below spur, drains N.20°E.;
	ascend
38.00	Spur, 100 ft. above gulch, projects N.20°E.;
	descend abruptly
40.01	Set a limestone, 22x12x6 ins., 16 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 10 ins. diam., bears N.37°30'W. 43 lks. dist., marked ¼ S 25 B T
	A pinon pine, 6 ins. diam., bears S.10°23'W. 77 lks. dist., marked ¼ S 36 B T
50.00	Bottom of abrupt descent, 350 ft. below spur, bears N.20°E. and S.; enter Jap Valley; leave timber, enter small sage brush, bears N. and S.
	Leave land exceptionally difficult to survey
50.25	Wash 10 lks. wide, drains N.20°E.;
	ascend gradually
50.60	Road, bears N.20°E. and S.40°W.; wood road.
80.02	The cor. of secs. 25, 26, 35 and 36
	Land, mountainous and level.
	Soil, loam and rocky; 1st and 4th rate.
	Timber, pinon pine and cedar, 50.00 chs.
	Mountainous or heavily timbered land, 50.00 chs.
	Exceptionally difficult to survey, 50.00 chs.

Chains	
	July 26: At this cor. I set off 19°28'N.on the decl. a
	and at 12h.06m, l.m.t., I observe the sun on the mer
	The resulting lat. is 39°13'
	N.0°01'W. bet. secs. 25 and 260ver nearly level land i
	Jap Valley, through dense sage brush; ascend gradual
29.00	Road, bears N.60°W. and S.70°E.; wood road.
40.00	Set a sandstone, 20x15x10 ins., 15 ins. in the ground,
	¼ sec. cor., marked ¼ on W. face; and raise a mound
	stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
60.00	Wood road, bears N.20°W. and S.50°E.; leave Jap Valley, bea
	N.W. and S.E.; ascend rapidly
78.00	Point of spur, 100 ft. above Jap Valley, projects S.60
	descend
80.00	Set a limestone, 20x16x10 ins., 15 ins. in the ground,
40 / 60	cor. of secs. 23, 24, 25 and 26, marked with 2 notch
	on S. and 1 notch on E. edge; and raise a mound of s
	2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	Land, level and mountainous.
	Soil, loam and rocky; 1st and 4th rate.
	No timber.
	Dense sage brush undergrowth.
	Mountainous land, 20.00 chs.
	N.89°59'E. on a random line bet. secs. 24 and 25
40.00	Set temp. ¼ sec. cor.
80.02	Intersect E.Bdy. Tp. 6 lks. N. of the cor. of secs. 19
	24, 25 and 30, heretofore described.
	Thence I run
	N.89°58'W. on a true line bet. secs. 24 and 25
	Ascend abruptly over mountainous land, through dense
	pinon pine and cedar

Subdivision of T.18 S., R.1½ W.

Chains	
	Enter land exceptionally difficult to survey.
3.00	Spur, 50 ft. above sec. cor., projects S.5°W.; descend abruptly
6.00	Head of gulch, 60 ft. below spur, drains S.10°W.; ascend abruptly
12.00	Spur, 50 ft. above gulch, projects S.5°W.; descend abruptly
15.00	Gulch, 65 ft. below spur, drains S.2°W.; ascend
26.00	Spur, 75 ft. above gulch, projects S.; descend abruptly
29.00	Gulch, 75 ft. below spur, drains S.; ascend abruptly
40.01	Set a sandstone, 16x14x10 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable. No trees suitable for marking within limits.
43.00	Spur, 100 ft. above gulch, projects S.5°W.; descend abruptly
54.00	Foot of abrupt descent, bears N.20°E. and S.; descend gradually; leave timber, enter dense sage brush, bears N. and S.
	Leave land exceptionally difficult to survey.
55.00	Road, bears N. and S.; wood road.
58.00	Commence ascent, bears N. and S.
80.02	The cor. of secs. 23, 24, 25 and 26
54 26.02	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar, 54.00 chs.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.02 chs.
	Exceptionally difficult to survey, 54.00 chs.
	July 26, 1909

Chains	
	July 27: At 7h 06m, a.m., l.m.t., I set off 39°14'N on the lat. arc, 19°19'N. on the accl. arc, and determin a true meridian with the solar, at the cor. of secs. 2 24, 25 and 26
	Thence I run
	N0°01'W. bet. secs. 23 and 24
	Ascend along rugged E. slope, over mountainous land, through scattering pinon pine and cedar and dense sag brush
	Enter land exceptionally difficult to survey
36.50	Spur, 300 ft. above sec. cor., projects S.87°E.; descend abruptly
39.75	Gulch, 50 ft. below spur, drains E.; ascend
40.00	Set a limestone, 16x10x8 ins., 11 ins. in the ground, ¼ sec. cor., marked ¼ on W. face, from which
	A cedar, 12 ins. diam., bears N.89°07'W. 32 lks. dist., marked ¼ S 23 B T
	A cedar, 6 ins. diam., bears S.86°45'E. 26 lks. dist., marked ¼ S 24 B T
56.00	Spur, 250 ft. above gulch, projects S.50°E.; descend abruptly
60.00	Gulch, 60 ft. below spur, drains S.50°E.; ascend abruptly
60.50	Road, bears S.E. and N.W.; wood road.
65.00	Spur, 100 ft. above gulch, projects S.51°E.; descend
78.00	Gulch, 125 ft. below spur, drains S.40°E.; ascend
80.00	Set a limestone, 20x12x8 ins., 15 ins. in the ground, cor. of secs. 13, 14, 23 and 24, marked with 3 notch on S. and 1 notch on E. edge, from which
	A pinon pine, 8 ins. diam., bears N.10°06'E. 54 lk dist., marked T 18 S R 1½ W S 13 B T

Subdivision of T.18 S.,R.1½ W.

Chains	
	A cedar, 8 ins. diam., bears N.59°32'W. 89 lks.dist., marked T 18 S R 1½ W S 14 B T
	A cedar, 12 ins. diam., bears S.63°47'W. 94 lks.dist., marked T 18 S R 1½ W S 23 B T
	A pinon pine, 16 ins. diam., bears S.72°23'E. 23 lks. dist., marked T 18 S R 1½ W S 24 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	S.89°58'E. on a random line bet. secs. 13 and 24
40.00	Set temp. ¼ sec. cor.
80.00	Intersect E.bdy. Tp. 4 lks. S. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence I run
	West on a true line bet. secs. 13 and 24
	Descend abruptly over rough mountainous land, through dense pinon pine and cedar.
	Enter land exceptionally difficult to survey
40.00	Set a limestone, 16x10x6 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which
	A pinon pine, 8 ins. diam., bears N.82°32'W. 96 lks. diat., marked ¼ S 13 B T
	A pinon pine, 8 ins. diam., bears S.73°46'W. 85 lks. dist., marked ¼ S 24 B T
	This cor. is about 900 ft. below ridge.
57.00	Gulch, 1000 ft. below ridge, drains S.;
	ascend
70.00	Spur, 225 ft. above gulch, projects S.1°W.;
	descend

Chains	
75.00	Head of gulch, 50 ft. below spur, drains S.; ascend
80.00	The cor. of secs. 13, 14, 23 and 24
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	July 27: At this cor. I set off 19°15'E. on the decl. arc, and at 12h 06m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°15'
	N.0°01'W. bet. secs. 13 and 14
	Ascend over mountainous land, through scattering pinon pine and cedar.
	Enter land exceptionally difficult to survey
14.00	Spur, 150 ft. above sec. cor., projects S.75°E.; ascend
32.00	Gulch, 75 ft. below spur, drains S.70°E.; ascend
40.00	Set a limestone, 18x10x6 ins., 12 ins. in the ground, ¼ sec. cor., marked ¼ on W. face, from which
	A cedar, 8 ins. diam., bears N.20°47'E. 147 lks. dist., marked ¼ S 13 B T
	A cedar, 6 ins. diam., bears S.56°27'W. 36 lks. dist., marked ¼ S 14 B T
68.00	Spur, 200 ft. below gulch, projects S.25°E.; descend
75.00	Gulch, 75 ft. below spur, drains S.50°E.; thence ascen along rough E. slope
80.00	Set a limestone, 20x10x8 ins., 15 ins. in the ground, cor. of secs. 11, 12, 13 and 14, marked with 4 notch on S. and 1 notch on E. edge; and raise a mound of s 2 ft. base, 1½ ft. high, W. of cor.

Subdivision of T.18 S.,R.1½ W.

Chains	
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 80.00 chs..
	Exceptionally difficult to survey, 80.00 chs.
	East on a random line bet. secs. 12 and 13
40.00	Set temp. ¼ sec. cor.
80.08	Intersect E.bdy.Tp.16 lks. N. of the cor. of secs. 7, 12, 13 and 18 , heretofore described.
	Thence I run
	N.89°53'W. on a true line bet. secs. 12 and 13
	Descend abruptly over mountainous land, through pinon pine and cedar and dense mahogany under brush
	Enter land exceptionally difficult to survey
8.75	Ridge, 150 ft. above sec. cor., bears N.21°E. and S.; descend abruptly
37.50	Gulch, 750 ft. below ridge, drains S.5°W.; ascend
40.04	Spur, 75 ft. above gulch, projects S.5°W.; descend
	Set a limestone, 20x8x6 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
50.00	Gulch, 125 ft. below spur, drains S.; ascend
80.08	The cor. of secs. 11, 12, 13 and 14
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.

Chains	
	Mountainous or heavily timbered land, or land covered w
	dense undergrowth, 80.08 chs.
	Exceptionally difficult to survey, 80.08 chs.
	July 27, 1909
	July 28: At 7h 36m, a.m., l.m.t., I set off 39°16'N. o
	the lat. arc, 19°05'N. on the decl. arc, and determi
	a true meridian with the solar, at the cor. of secs.
	12, 13 and 14
	Thence I run
	N.0°01'W. bet. secs. 11 and 12
	Ascend over rough mountainous land, through pinon pine
	and cedar and dense oak underbrush.
	Enter land exceptionally difficult to survey
27.00	Commence descent, bears N.W. and S.E.
35.00	Gulch, 50 ft. below top of descent, drains S.44°E.;
	ascend abruptly
40.00	Set a limestone, 16x10x6 ins., 11 ins. in the ground,
	¼ sec. cor., marked ¼ on W. face; and raise a mound
	stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
53.00	Ridge, 200 ft. above gulch, bears N.20°E. and S.20°W.;
	descend gradually
78.00	Foot of descent, 200 ft. below ridge, bears S.50°W. an
	E.; ascend abruptly
80.00	Set a limestone, 20x10x4 ins., 15 ins. in the ground,
	cor. of secs. 1, 2, 11 and 12, marked with 5 notches
	S. and 1 notch on E. edge; and raise a mound of ston
	2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered

Chains	
	with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	S.89°53'E. on a random line bet. secs. 1 and 12
40.00	Set temp. ¼ sec. cor.
80.18	Intersect E.bdy.Tp.40 lks. S. of the cor. of secs. 1, 6, 7, and 12, heretofore described.
	Thence I run
	S.89°50'W. on a true line bet. secs. 1 and 12
	Ascend abruptly over mountainous land, through scattering pinon pine and cedar, and mahogany and oak underbrush.
	Enter land exceptionally difficult to survey.
17.50	Gulch, 350 ft. below sec. cor.; drains S.5°W.; ascend abruptly
27.00	Ridge, 250 ft. above gulch, bears N.20°E. and S.5°W.; descend
40.09	Set a limestone, 16x12x8 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
43.00	Gulch, 250 ft. below ridge, drains S.10°W.; ascend gradually
53.00	Commence abrupt ascent, bears N. and S.
73.00	Ridge, 200 ft. above gulch, bears N.5°E. and S.20°W.; descend
80.18	The cor. of secs. 1, 2, 11 and 12
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.18 chs.
	Exceptionally difficult to survey, 80.18 chs.
	July 28: At this cor. I set off 19°01'N. on the decl. arc

Chains	
	and at 12h 06m, l.m.t., observe the sun on the meri
	The resulting lat. is 39°16'
	N.0°01'W. on a random line bet. secs. 1 and 2
40.00	Set temp. ½ sec. cor.
76.08	Intersect N. bdy.Tp.. 39 lks. W. of the cor. of secs.
	and 2 , heretofore described.
	Thence I run
	S.0°16'W. on a true line bet. secs. 1 and 2
	Ascend over mountainous land, through dense oak and s
	brush.
	Enter land exceptionally difficult to survey.
9.50	Ridge, 100 ft. above sec. cor., bears E. and W.;
	descend along rough W. slope
31.00	Gulch, 250 ft. below ridge, drains S.80°E.;
	ascend
36.08	Set a limestone, 18x10x8 ins., 12 ins. in the ground,
	¼ sec. cor., marked ¼ on W. face; and raise a mound
	stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
56.00	Commence abrupt ascent, bears N.W. and S.E.
65.00	Ridge, 200 ft. above gulch, bears N.20°W. and S.50°E.
	descend abruptly
76.08	The cor. of secs. 1, 2, 11 and 12
	Land, mountainous.
	Soil, rocky; 4th rate.
	No timber.
	Mountainous land, or land covered with dense undergr
	76.08 ch
	Exceptionally difficult to survey, 76.08 chs.
	July 28, 1909
	July 29: At 8h 06m, a.m., l.m.t., I set off 39°12'N.
	the lat. arc, 18°50'N. on the decl. arc, and deter
	a true meridian with the solar, at the cor. of secs
	3, 34 and 35 on S. bdy. of Tp., heretofore describ

Chains	
	Thence I run
	N.0°01'W. bet. secs. 34 and 35
	Ascend over mountainous land, through dense scrub pine and cedar.
	Enter land exceptionally difficult to survey.
14.00	Spur, 250 ft. above sec. cor., projects S.85°E.; descend abruptly
19.00	Gulch, 100 ft. below spur, drains S.85°E.; ascend abruptly
27.00	Spur, 125 ft. above gulch, projects E.; descend
35.00	Gulch, 75 ft. below spur, drains E.; ascend abruptly
40.00	Spur, 110 ft. above gulch, projects N.87°E.;
	Set a sandstone, 20x10x6 ins. 15 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, from which
	A pinon pine, 10 ins. diam., bears N.62°53'E. 95 lks. dist., marked ¼ S 35 B T
	A cedar, 8 ins. diam., bears N.38°28'W. 21 lks.dist., marked ¼ S 34 B T
	Thence descend rapidly along E. slope, over numerous small spurs and gulches.
80.00	Set a sandstone, 20x12x8 ins., 15 ins. in the ground, for cor. of secs. 26, 27, 34 and 35, marked with 1 notch on S. and 2 notches on E. edge, from which
	A pinon pine, 16 ins. diam., bears N.53°00'E. 116 lks. dist., marked T 18 S R 1½ W S 26 B T
	No other trees suitable for marking, therefore I raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
	This cor. is about 500 ft. below the ¼ sec. cor.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.

Chains	
	Mountainous or thickly timbered land, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	East on a random line bet. secs. 26 and 35
40.00	Set temp. ¼ sec. cor.
80.10	Intersect the N. and S. line 9 lks. N. of the cor. of 25, 26, 35 and 36
	Thence I run
	N.89°56'W. on a true line bet. secs. 26 and 35
	Ascend gradually over flat land, in Jap Valley, throug small sage brush
40.05	Set a sandstone, 24x18x3 ins., 18 ins. in the ground, ¼ sec. cor., marked ¼ on N. face; and raise a mound stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.
60.00	Commence abrupt ascent, bears N. and S.; leave Jap Val enter pinon pine and cedar, bears N. and S.;
	Enter land exceptionally difficult to survey.
80.10	The cor. of secs. 26, 27, 34 and 35
20.10	Land, level and mountainous.
60.00	Soil, loam and rocky; 1st and 4th rate.
	Timber, pinon pine and cedar, 20.10 chs.
	Mountainous or heavily timbered land, 20.10 chs.
	Exceptionally difficult to survey, 20.10 chs.
	July 29: At this cor. I set off 18°47'N. on the decl. and at 12h 06 m, l.m.t., observe the sun on the mer The resulting lat. is 39°13'
	West on a true line bet. secs. 27 and 34
	Ascend abruptly over mountainous land, through scrub and cedar.
	Enter land exceptionally difficult to survey.
34.00	Ridge, 800 ft. above sec. cor., bears N.55°W. and S.5 descend abruptly

Subdivision of T.18 S.,R.1½ W.

Chains	
38.00	Head of gulch, 100 ft. below ridge, drains S.10°E.; ascend
40.00	Set a sandstone, 16x14x5 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which A cedar, 10 ins. diam., bears S.37°20'E. 29 lks. dist., marked ¼ S 34 B T A pinon pine, 6 ins. diam., bears N.62°48'W. 45 lks. dist., marked ¼ S 27 B T
44.00	Spur, 50 ft. above gulch, projects S.8°E.; descend
51.00	Gulch, 125 ft. below spur, drains S.25°E.; ascend
57.00	Spur, 50 ft. above gulch, projects S.19°E.; descend
64.50	Gulch, 125 ft. below spur, drains S.10°E.; ascend
66.35	Intersect the W.bdy.Tp.31.00 chs. S. of the cor. of secs. 25, 30, 31 and 36, which is a sandstone, 12x6x7 ins. above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertaining to secs. 30 and 31.
	At my point of intersection I set a sandstone, 16x14x6 ins. 11 ins. in the ground, for closing cor. of secs. 27 and 34, marked C C on E., with 1 groove on S. and 5 grooves on N. face, from which A pinon pine, 10 ins. diam., bears S.66°56'E. 52 lks. dist., marked T 18 S R 1½ W S 34 B T A cedar, 12 ins. diam., bears N.77°45'E. 39 lks. dist., marked C C T 18 S R 1½ W S 27 B T
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 66.35 chs.
	Exceptionally difficult to survey, 66.35 chs.

Chains	
	N.0°01'W. bet. secs. 26 and 27
	Descend over rough E. slope, through pinon pine and ce
	Enter land exceptionally difficult to survey
10.00	Commence abrupt ascent, bears N.85°W. and E.
32.00	Spur, 275 ft. above sec. cor., projects N.85°E.; descend abruptly
37.00	Foot of abrupt descent, bears N.W. and S.E.; descend gradually through scattering pinon pine and cedar.
	Leave land exceptionally difficult to survey.
40.00	Set a sandstone, 18x14x12 ins., 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a m of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
48.00	Gulch, 200 ft. below spur, drains S.70°E.; ascend
53.00	Road, bears N.50°W. and S.70°E.; wood road.
64.00	Commence descent, bears E. and W.; enter dense oak an mahogany underbrush, bears E. and W.
	Enter land exceptionally difficult to survey
80.00	Set a sandstone, 18x8x8 ins,, 12 ins. in the ground, cor. of secs. 22, 23, 26 and 27, marked with 2 notc on S. and E. edges; and raise a mound of stone, 2 f base, 1½ ft. high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Lnad, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 53.00 chs.
	July 29, 1909

53
27

Subdivision of T.18 S.,R.1½ W.

Chains	
	July 30: At 7h 06m, a.m., l.m.t., I set off 39°14'N. on the lat. arc, 18°37'N. on the decl. arc, and determine a true meridian with the solar , at the cor. of secs. 22, 23, 26 and 27
	Thence I run
	S.89°56'E. on a random line bet. secs. 23 and 26
40.00	Set temp. ¼ sec. cor.
80.04	Intersect the N. and S. line 16 lks. S. of the cor. of secs. 23, 24, 25 and 26
	Thence I run
	S.89°57'W. on a true line bet. secs. 23 and 26
	Descend over mountainous land, through dense sage brush
2.00	Spur, 25 ft. above sec. cor., projects S.50°E.; descend
6.50	Foot of descent, 30 ft.below spur, bears N.20°W. and S. 20°E.; road bears N.20°W. and S.20°E.; woodroad; asc.
26.00	Enter pinon pine and cedar and dense oak and mahogany brush
	Enter land exceptionally difficult to survey
40.02	Set a limestone, 20x18x12 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which A cedar, 8 ins. diam., bears N.66°52'E. 136 lks. dist., marked ¼ S 23 B T A cedar, 10 ins. diam., bears S.27°48'W. 249 lks. dist., marked ¼ S 26 B T
80.04	The cor. of secs. 22, 23, 26 and 27
54.04 26.00	Land, mountainous.
	Soil, rocky; 4th rate
	Timber, pinon pine and cedar, 54.04 chs.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.04 chs.
	Exceptionally difficult to survey, 54.04 chs.

Subdivision of T.18 S., R.1½ W.

Chains	
	July 30: At this cor. I set off 18°33'N. on the decl. arc and at 12h 06m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°14'
	West on a true line bet. secs. 22 and 27
	Descend gradually over mountainous land, through pinon pine and cedar and dense oak brush
	Enter land exceptionally difficult to survey
4.50	Gulch, 50 ft. below sec. cor., drains N.5°E.; ascend abruptly
16.00	Spur, 250 ft. above gulch, projects S.20°E.; descend
25.00	Gulch, 60 ft. below spur, drains S.40°E.; ascend abruptly
35.00	Spur, 150 ft. above gulch, projects S.45°E.; descend
40.00	Set a limestone, 18x14x12 ins., 12 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which A pinon pine, 12 ins. diam., bears N.26°32'E. 58 lks. dist., marked ¼ S 22 B T A pinon pine, 10 ins. diam., bears S.41°55'W. 82 lks. dist., marked ¼ S 27 B T
42.00	Gulch, 140 ft. below spur, drains S.40°E.; ascend abruptly
48.00	Spur, 130 ft. above gulch, projects S.20°E.; descend
60.00	Leave thick pinon pine and cedar and enter scattering pinon pine and cedar.
63.50	Gulch, 125 ft. below spur, drains S.10°E.; ascend
66.14	Intersect W.bdy.of Tp. at S. 30.20 chs. from the cor. of secs. 19, 24, 25 and 30, which is a sandstone, 10x7x7 ins above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertaining

Chains	
	to secs. 19 and 30.
	At my point of intersection I set a sandstone, 18x14x6 ins., 12 ins. in the ground, for closing cor. of secs. 22 and 27, marked C C on E., with 2 grooves on S. and 4 grooves on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 66.14 chs.
	Exceptionally difficult to survey, 66.14 chs.
	N.0°01'W. bet. secs. 22 and 23
	Descend over mountainous land, through dense oak and mahogany brush.
	Enter land exceptionally difficult to survey
8.00	Gulch, 55 ft. below sec. cor., drains S.80°E.;
	ascend
22.00	Spur, 150 ft. above gulch, projects E.;
	descend
32.00	Gulch, 100 ft. below spur, drains S.70°E.;
	ascend
40.00	Set a limestone, 18x12x6 ins., 12 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
46.50	Spur, 200 ft. above gulch, projects S.50°E.,
	descend gradually
80.00	Set a limestone, 20x16x6 ins., 15 ins. in the ground, for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edge; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Chains	
	Pits impracticable.
	Land, mountainous.
	Soil, rocky; 4th rate.
	No timber.
	Mountainous land or land covered with dense undergrowt
	80.00 chs
	Exceptionally difficult to survey, 80.00 chs.
	July 30, 1909
	July 31: At 7h 36m, a.m., l.m.t., I set off 39°15'N. o
	the lat. arc, 18°22'N. on the decl. arc, and determi
	a true meridian with the solar, at the cor. of secs.
	15, 22 and 23
	Thence I run
	N.89°57'E. on a random line bet. secs. 14 and 23
40.00	Set temp. ¼ sec. cor.
80.00	Intersect the N. and S. line 7 lks. N. of the cor. of
	13, 14, 23 and 24
	Thence I run
	West on a true line bet. secs. 14 and 23
	Ascend over mountainous land, through pinon pine and c
11.00	Spur, 200 ft. above sec. cor., projects S.5°E.;
	descend abruptly
17.50	Gulch, 250 ft. below spur, drains S.10°E.; also road,
	bears N.20°W. and S.10°E.; ascend
20.00	Enter dense oak and mahogany under brush, bears N. and
	Enter land exceptionally difficult to survey
40.00	Set a limestone, 18x10x8 ins., 12 ins. in the ground,
	¼ sec. cor., marked ¼ on N. face; and raise a mound
	stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
41.00	Ridge, 150 ft. above gulch, bears N.W.and S.E.;
	descend
50.00	Gulch, 55 ft. below ridge, drains S.15°E.;
	ascend abruptly

Subdivision of T.18 S.,R.1½ W

Chains	
53.50	Spur, 75 ft. above gulch, projects S.15°E.; descend abruptly
57.00	Gulch, 60 ft. below spur, drains S.15°E.; ascend
80.00	The cor. of secs. 14, 15, 22 and 23
60 / 20	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar, 60.00 chs.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 60.00 chs.
	West on a true line bet. secs. 15 and 22
	Ascend over mountainous land, through scattering pinon pine and cedar and dense oak under-brush
	Enter land exceptionally difficult to survey
12.00	Commence abrupt ascent, bears N. and S.10°E.
35.00	Ridge, 750 ft. above sec. cor., bears N.47°E. and S.45°W.; descend
40.00	Set a limestone, 15x8x6 ins., 10 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which A pinon pine, 8 ins. diam., bears N.57°00'W. 36 lks. dist., marked ¼ S 15 B T A pinon pine, 10 ins. diam., bears S.88°00'W. 27 lks. dist., marked ¼ S 22 B T
43.00	Gulch, 150 ft. below ridge , drains N.44°E.; ascend abruptly
	Leave scattering timber, bears N. and S., undergrowth becomes more dense
58.00	Spur, 600 ft. above gulch, projects N.44°E.; descend
61.00	Gulch, 60 ft. below spur, drains N.40°E.; ascend
65.94	Intersect W.bdy.of Tp.31.50 chs. S. of the cor. of secs.

Chains	
	13, 18, 19 and 24, which is a sandstone, 18x10x8 ins above ground, marked and witnessed as described by t Surveyor General. I destroy all marks pertaining to secs. 18 and 19
	At my point of intersection I set a limestone, 15x10x1 ins., 10 ins. in the ground, for closing cor. of sec 15 and 22, marked C C on E., with 3 grooves on N. an S. faces; and raise a mound of stone, 2 ft. base, 1½ high, E. of cor.
	Pits impracticable.
	Corr is set in extra thick oak brush.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar, 43.00 chs.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 65.94 chs.
	Exceptionally difficult to survey, 65.94 chs.
	July 31: At this cor. I set off 18°18'N. on the decl. arc, and at 12h 06m, l.m.t., observe the sun on the meridian. The resulting lat. is 39°15'
	N.0°01'W. bet. secs. 14 and 15
	Ascend over mountainous land, through pinon pine and cedar and dense oak under-brush.
	Enter land exceptionally difficult to survey
10.00	Ridge, 200 ft. above sec. cor., bears E. and W.; descend
32.00	Gulch, 100 ft. below ridge, drains S.75°E.; ascend
40.00	Set a limestone, 18x10x8 ins., 12 ins. in the ground, ¼ sec. cor., marked ¼ on W. face, from which
	A cedar, 12 ins. diam., bears S.7°54'W. 69 lks. dist., marked ¼ S 15 B T
	A cedar, 20 ins. diam., bears S.62°10'E. 44 lks.

Subdivision of T.18 S.,R.1½ W.

Chains	
	dist., marked ¼ S 14 B T
41.00	Spur, 210 ft. above gulch, projects S.85°E.;
	descend
46.00	Gulch, 60 ft. below spur, drains E.;
	ascend
54.00	Spur, 150 ft. above gulch, projects S.85°E.;
	descend
70.00	Gulch, 100 ft. above spur, drains S.60°E.;
	ascend gradually
80.00	Set a limestone, 15x10x10 ins., 10 ins. in the ground, for cor. of secs. 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E. edge; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense under-growth, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	East on a random line bet. secs. 11 and 14
40.00	Set temp. ¼ sec. cor.
80.08	Intersect the N. and S. line 12 lks. N. of the cor. of secs. 11, 12, 13 and 14
	Thence I run
	N.89°55'W. on a true line bet. secs. 11 and 14
	Ascend over mountainous land, through pinon pine and cedar and dense oak brush
	Enter land exceptionally difficult to survey
9.00	Ridge, 110 ft. above sec. cor., bears N.5°W. and S.25°E.;
	descend
14.00	Gulch, 125 ft. below ridge, drains S.5°E.;
	ascend gradually

Chains	
40.04	Set a limestone, 18x10x10 ins., 12 ins. in the ground f ¼ sec. cor., marked ¼ on N. face, from which A pinon pine, 10 ins. diam., bears N.19°30'W. 83 li dist., marked ¼ S 11 B T A cedar, 12 ins. diam., bears S.15°09'E. 57 lks. dist., marked ¼ S 14 B T
47.00	Ridge, 150 ft. above gulch, bears N.20°W. and S.20°E.; descend
48.00	Leave thick pinon pine and cedar; Enter scattering pin pine and cedar, bears N. and S.
73.00	Gulch, 250 ft. below ridge, drains S.20°E.; also road, along bottom of gulch, bears N.20°W. and S.20°E.; ascend abruptly
80.08	The cor. of secs. 10, 11, 14 and 15 Land, mountainous. Soil, rocky; 4th rate. Timber, pinon pine and cedar. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.08 chs. Exceptionally difficult to survey, 80.08 chs.
	July 31, 1909
	Aug. 1: At 7h 36m, a.m., l.m.t., I set off 39°16'N. o the lat. arc, 18°06'N. on the decl. arc, and determi with the solar a true meridian, at the cor. of secs. 10, 11, 14 and 15 Thence I run West on a true line bet. secs. 10 and 15 Ascend over mountainous land, through dense oak brush and scattering pinon pine and cedar Enter land exceptionally difficult to survey
10.00	Point of spur, 150 ft. above sec. cor., projects S.44° descend
21.25	Gulch, 100 ft. below spur, drains S.52°E.; ascend over rough S. slope.

Subdivision of T.18 S.,R.1½ W.

Chains	
40.00	Set a sandstone, 15x10x5 ins., 10 ins, in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
65.83	Intersect W.bdy. of Tp. 32.55 chs. S. of the cor. of secs. 7, 12, 13 and 18, which is a granite stone, 12x7x7 ins. above ground, marked and witnessed as described by the Surveyor General. I destroy all marks pertaining to secs. 7 and 18.
	At my point of intersection I set a sandstone, 20x18x4 ins. 15 ins. in the ground, for closing cor. of secs. 10 and 15, marked C C on E., with 4 grooves on S. and 2 grooves on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 65.83 chs.
	Exceptionally difficult to survey, 65.83 chs.
	N.0°01'W. bet. secs. 10 and 11
	Descend over mountainous land, through dense oak brush and scattering pinon pine and cedar.
	Enter land exceptionally difficult to survey
16.00	Gulch, 100 ft. below sec. cor., drains S.10°E.; ascend gradually
40.00	Set a sandstone, 15x10x6 ins., 10 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.

Chains	
	No trees suitable for marking within limits.
49.00	Ridge, 175 ft. above gulch, bears N.70°W. and S.44°E.
	descend
66.00	Gulch, 125 ft. below ridge, drains S.50°E.;
	ascend
74.00	Ridge, 150 ft. above gulch, bears E. and W.;
	descend
80.00	Set a limestone, 15x8x8 ins., 10 ins. in the ground,
	cor. of secs. 2, 3, 10 and 11, marked with 5 notche
	S. and 2 notches on E. edge; and raise a mound of s
	2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered
	dense undergrowth, 80.00 chs.
	Exceptionally difficult to survey, 80.00 chs.
	Aug.1: At this cor. I set off 18°04'N. on the decl.
	and at 12h 06m, l.m.t., observe the sun on the meri
	The resulting lat. is 39°16'
	S.89°55'E. on a random line bet. secs. 2 and 11
40.00	Set temp. ¼ sec. cor.
79.80	Intersect the N. and S. line 35 lks. S. of the cor. c
	secs. 1, 2, 11 and 12
	Thence I run
	S.89°50'W. on a true line bet. secs. 2 and 11
	Descend over mountainous land, through dense oak brus
	and scattering pinon pine and cedar.
	Enter land exceptionally difficult to survey
2.00	Gulch, 40 ft. below sec. cor., drains S.15°W.;
	ascend abruptly

Subdivision of T.18 S., R.1½ W.

Chains	
17.50	Spur, 290 ft. above gulch, projects S.; thence ascend gradually along S. slope of spur.
33.00	Spur, 340 ft. above gulch, projects S.5°E.; descend
39.90	Set a limestone, 20x8x6 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
42.00	Gulch, 200 ft. below spur, drains S.25°E.; ascend
62.50	Ridge, 225 ft. above gulch, bears N.3°E. and S.; descend
79.80	The cor. of secs. 2, 3, 10 and 11
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 79.80 chs.
	Exceptionally difficult to survey, 79.80 chs.
	West on a true line bet. secs. 3 and 10
	Ascend over mountainous land, through dense oak brush and scattering pinon pine and cedar.
	Enter land exceptionally difficult to survey
6.00	Spur, 120 ft. above sec. cor., projects N.; descend
10.00	Gulch, 50 ft. below spur, drains N.3°E.; ascend
40.00	Set a limestone, 15x10x10 ins., 10 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Pits impracticable.
	No trees suitable for marking within limits; ascend

Chains	
	abruptly
62.00	Ridge, 1150 ft. above beginning of ascent, bears N.3°E and S.10°E.; descend abruptly
65.70	Intersect W.bdy.of Tp.33.77 chs. S. of the cor. of sec 1, 6, 7 and 12, which is a granite stone, 12x7x7 ins above ground, marked and witnessed as described by t Surveyor General. I destroy all marks pertaining to secs. 6 and 7.
	At my point of intersection I set a limestone, 15x10x ins., 10 ins. in the ground, for closing cor. of sec 3 and 10, marked C C on E., with 5 grooves on S. and groove on N. face; and raise a mound of stone, 2 ft base, 1½ ft. high, E. of cor.
	Pits impracticable.
	No trees suitable for marking within limits.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, or land covered dense undergrowth, 65.70 chs.
	Exceptionally difficult to survey, 65.70 chs.
	Aug.1, 1909
	Aug.2: At 8h 06m, a.m., l.m.t., I set off 39°16'N. o the lat. arc, 17°51'N. on the decl. arc, and determ a true meridian with the soalr at the cor. of secs. 2, 3, 10 and 11
	Thence I run
	N.0°01'W. on a random line bet. secs. 2 and 3
40.00	Set temp. ¼ sec. cor.
75.81	Intersect N. bdy. Tp. at cor. of secs. 2 and 3, heret described.
	Thence I run S.0°01'E. on a true line bet. secs. 2 an
	Descend over rough W. slope, through dense oak brush
	Enter land exceptionally difficult to survey

Subdivision of T.18 S., R.1½ W.

Chains	
35.81	Set a limestone, 16x10x8 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	Thence ascend gradually along rough W. slope
75.81	The cor. of secs. 2, 3, 10 and 11

Land, mountainous.

Soil, rocky; 4th rate.

No timber.

Mountainous land, or land covered with dense undergrowth, 75.81 chs.

Exceptionally difficult to survey, 75.81 chs.

Aug.2, 1909

General Description.

This fractional township is very mountainous, with the exception of the largest part of secs.23, 26 and 35, which lie in a little valley, known as Jap Valley.

The soil is rocky, except in the valley, where it is loam and can be classed as 1st rate. A very little grass is to be found in the valley.

The mountains are very steep and rugged and are covered with dense pinon pine and cedar. It is possible that, by proper cultivation, crops could be raised in the valley without irrigation. There is no water in the township. There is about 10 acres of plowed land in the S.W.¼ of section 35, belonging to R.R.Hill.

There are no settlers in this township. The settlers along the Sevier River and at the town of Gunnison get wood from this township. I found no trace of mineral in this township.

I destroyed all traces of the closing cors. set on the

BOOK A-370

Subdivision of T.18 S., R.1½ W.

East Boundary of T.18.S.,R.2 W. by Deputies Heist and Wooley under their contract No.291.

Alfredo R. Talamantes
U.S. Deputy Surveyor

Volume
#
R0370

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 Subdivisions of T.18 S., R.1½ W., S.L.B.& M., Utah. showing the respective capacities in which they acted:

Ray Howdace, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R. Faddis, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the Subdivisions of T.18 S., R.1½ W.

of the Salt Lake Base and meridian, in the State of Utah, which are represented on 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 Utah

Ray Howdace, *Chainman.*
Robert Faddis, *Chainman.*
J. W. Simpson, *Moundman.*
, *Moundman.*
Will Bailey, *Axman.*
, *Axman.*
Thomas R Faddis, *Flagman.*

Subscribed and sworn to before me this 3 day of August, 1909

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R.Talamantes, United States Deputy S
solemnly swear that, in pursuance of a contract received from Thomas Hull
United States Surveyor General for Utah, bearing
5th day of March, 1908, I have well, faithfully, and truly
proper person, and in strict conformity with the instructions furnished by the United Stat
General for Utah, the Manual of Surveying Instructions, and the
United States, surveyed all those parts or portions of the Subdivisions of Towns
18 South, Range No.1½ West

of the Salt La
and meridian, in the State of Utah, which are repres
foregoing field notes as having been surveyed by me, and under my direction; and I do furtl
swear that all the corners of said survey have been established and perpetuated in strict acc
the Manual of Surveying Instructions, and the special written instructions of the United Sta
General for Utah and in the specific manner described in the field no
the foregoing are the original field notes of such survey.

Alfredo R. Talaman
United States Depu

Subscribed by said Alfredo R.Talamantes, and sworn to before me
this 19 day of April, 1911, ~~XXX~~

SEAL

Thomas Hu
U.S.Surveyor-Genera
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 24

The foregoing field notes of the survey of the Subdivisional lines of T
No.18 South, Range No.1½ West of the Salt Lake Base and Merid
Utah,

executed by Alfredo R.Talamantes
under his contract No. 302, dated March 5, 1908,
critically examined, and the necessary corrections and explanations made, the said field no
surveys they describe, are hereby approved.

Thomas Hu
United States Surve

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

United States Surve

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MAY 1 1910

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BOOK A-370

K.

FIELD NOTES

OF THE SURVEY OF THE

FRACTIONAL SOUTH BOUNDARY, AND

OF

PART OF SUBDIVISION OF

TOWNSHIP NO. 18 SOUTH RANGE NO. 1 WEST

Of the Salt Lake Base and *Meridian,*

U T A H.

AS SURVEYED BY

Alfredo R. Talamantes, *United States Deputy Surveyor,*

nder his Contract No. 302, *dated* March 5, *1908*

urvey commenced August 2, *1909*

urvey completed August 3, *1909*

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S Bdy Mar Inter
Subs 1-15-72 19-23

NAMES AND DUTIES OF ASSISTANTS.

Rex Dowdall	Chainman
Robert Faddis	Chainman
J. W. Simpson	Roundman
Will Bailey	Axman
Thomas R. Faddis	Flagman

BOOK A-370

INDEX DIAGRAM.

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30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, Rex Dowdall and Robert Faddis
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we w
chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping th
we will report the true distances to all notable objects, and the true lengths of all lines that
measuring, to the best of our skill and ability, and in accordance with instructions given us, in
the Subdivision of Part of T.18 S., R.1 W. and fractional S.bd
18 S., R.1 W., S.L.B.& M., Utah. Rex Dowdall
Robert Faddis.

Subscribed and sworn to before me this 21
day of June, 1909
SEAL
Alfredo R Tala
U.S.Deputy Surveyo

~~WE~~, I, J. W. Simpson and
do solemnly swear that ~~we~~ I will well and truly perform the duties of moundman in the e
of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in t
the Subdivision of Part of T.18 S., R.1 W.; and fractional S.
T. 18 S., R. 1 W., S.L.B.& M., Utah. J. W. Simpson

Subscribed and sworn to before me this 21
day of June, 1909
SEAL
Alfredo R. Tala
U.S.Deputy Survey

~~WE~~, I, Will Bailey and
do solemnly swear that ~~we~~ I will well and truly perform the duties of axman in the establishme
and other duties, according to instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in
the Subdivision of Part of T.18 S., R.1 W.; and fractional S.
T.18 S., R. 1 W., S.L.B.& M., Utah. Will Bailey

Subscribed and sworn to before me this 21
day of June, 1909
SEAL
Alfredo R Talam
U.S.Deputy Surveyor

I, Thomas R. Faddis, do solemnly swear that I will w
perform the duties of flagman according to instructions given me, to the best of my skill and a
survey of the Subdivision of Part of T.18 S., R.1 W.; and fractio
bdy.T. 18 S., R. 1 W., S.L.B.& M., Utah. Thomas R Fadde

Subscribed and sworn to before me this 21
day of June, 1909
SEAL
Alfredo R Tala
U.S.Deputy Survey

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Subdivision of Part of T.18 S.,R.1 W.

Chains

Survey commenced Aug. 2, 1909. For a complete description of the instrument, see Book "A." of this survey.

I examine the adjustments of the transit, and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of Tps. 18 and 19 S.,Rgs. 1 and 1½ W., latitude 39°12'08"N., longitude 112°00'26"W., I set off 39° 12'N. on the lat. arc, 17°46'N. on the decl. arc, and at 5h 06m, p.m., l.m.t., determine with the solar a true meridian, and mark a point thereof on the stone set 5 chs. N. of the cor. on July 22.

At 10h 47m, p.m., l.m.t., I observe Polaris at eastern elongation in accordance with the Manual of Instructions, and mark a point in the line thus determined on a peg driven in the ground, 5 chs. N. of my station.

Aug.2, 1909

Aug.3: At 6h, a.m., l.m.t., I lay off the azimuth of Polaris, 1°31' to the west, and mark the meridian thus determined, by cutting a small groove in the stone set July 22, on which the meridian falls.3 ins. west of the mark determined by the solar.

At 7h 36m, a.m., l.m.t., I set off 39°12'N. on the lat. arc, 17°37'N. on the decl. arc, and mark a point in the meridian determined with the solar by a cross on the stone already set 5 chs. N. of my station. This mark falls 0.25 ins.west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for the meridian, respectively, about 0'16" east and 0'13" west of the meridian established by the Polaris observation; therefore I condlude that the

South Boundary of T.18 S.,R.1 W.

Chains	
	adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian at 7h 45m, a
	l.m.t., is N.16°45'W. The angle thus determined giv
	mag. decl. 16°45'E.
	From the ¼ sec. cor. on S.bdy. of sec. 31, T.18 S., R.
	W., which is a sandstone, 10x10x8 ins.above ground,
	marked and witnessed as described by the Surveyor Ge
	eral, I run
	West on a true line on S. bdy,of sec. 31
	Descend over mountainous land, through pinon pine and
2.00	Leave timber, enter dense sage brush
4.50	Road, bears S.20°W. and N.30°E.
19.23	The cor. of Tps. 18 and 19 S.Rs.1 and 1½ W.heretofore scribed.
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar, 2.00 chs.
	Mountainous or timbered land, or land covered with de
	undergrowth, 19.23 chs.
	SUBDIVISION T. 18 S., R. 1 W.
	From the ¼ sec. cor. bet. secs. 30 and 31, which is a
	stone, 15x3x7 ins. above ground, marked and witness
	described by the Surveyor General, I run
	West on a random line bet. secs. 30 and 31
19.27	Intersect the W.bdy.Tp10 lks. S. of the cor. of secs.
	30, 31, and 36 ,heretofore described.
	Thence I run
	S.89°43'E. on a true line bet. secs. 30 and 31
	Descend abruptly over mountainous land, through dense
	pinon pine and cedar
	Enter land exceptionally difficult to survey
3.00	Gulch, 50 ft. below sec. cor., drains N.10°E.;
	ascend abruptly
19.27	The ¼ sec. cor. bet. secs. 30 and 31

Subdivision of Part of T.18 S.,R.1 W.

Chains	
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 19.27 chs.
	Exceptionally difficult to survey, 19.27 chs.
	From the ¼ sec. cor. bet. secs. 19 and 30, which is a limestone, 9x7x5 ins. above ground, marked and witnessed as described by the Surveyor General, I run
	N.89°43'W. on a random line bet. secs. 19 and 30
19.17	Intersect W.bdy.Tp. 2 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	Thence I run
	S.89°39'E. on a true line bet. secs. 19 and 30
	Ascend abruptly over mountainous land, through dense pinon pine and cedar.
	Enter land exceptionally difficult to survey
12.00	Ridge, 350 ft. above sec. cor., bears N.80°W. and S.40°E. descend
19.17	The ¼ sec. cor. bet. secs. 19 and 30
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 19.17 chs.
	Exceptionally difficult to survey, 19.17chs.
	From the ¼ sec. cor. bet. secs. 18 and 19, which is a limestone, 6x12x8 ins. above ground, marked and witnessed as described by the Surveyor General, I run
	N.89°39'W. on a random line bet. secs. 18 and 19
19.22	Intersect W.bdy.of Tp. at cor. of secs. 13, 18, 19 and 24 heretofore described. Thence I run
	S.89°39'E. on a true line bet. secs. 18 and 19

Subdivision of Part of T.18 S.,R.1 W.

Chains	
	Ascend over mountainous land, through dense pinon pine cedar.
	Enter land exceptionally difficult to survey
2.00	Ridge, 20 ft. above sec. cor., bears N.20°E. and S.20° descend abruptly
19.22	The ¼ sec. cor. bet. secs. 18 and 19
	Land, mountainous,
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 19.22 chs.
	Exceptionally difficult to survey, 19.22 chs.
	Aug.3: At this cor. I set off 17°33'E. on the decl. and at 12h 06m, l.m.t., observe the sun on the meri The resulting lat. is 39°15'
	From the ½ sec. cor. bet. secs. 7 and 18, which is a limestone, 6x9x8 ins. above ground, marked and witnessed as described by the Surveyor General, I r
	N.89°39'W. on a random line bet. secs. 7 and 18
19.10	Intersect W.bdy.of Tp. at the cor. of secs. 7, 12, 13 18 , heretofore described.
	Thence I run
	S.89°39'E. on a true line bet. secs. 7 and 18
	Descend over mountainous land, through dense pinon pi and cedar.
	Enter land exceptionally difficult to survey.
12.00	Gulch, 375 ft. below sec. cor., drains S.30°E.; ascend
19.10	The ¼ sec. cor. bet. secs. 7 and 18
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 19.10 chs.
	Exceptionally difficult to survey, 19.10 chs.

Subdivision of Part of T.18 S.,R.1 W.

Chains	
	From the ¼ sec. cor. bet. secs. 6 and 7, which is a limestone, 6x9x8 ins. above ground, marked and witnessed as described by the Surveyor General, I run
	N.89°39'W. on a random line bet. secs. 6 and7
18.96	Intersect W. bdy. of Tp. at the cor. of secs. 1, 6, 7 and 12, heretofore described.
	Thence I run
	S.89°39'E. on a true line bet. secs. 6 and 7
	Ascend abruptly over mountainous land, through dense pinon pine and cedar.
	Enter land exceptionally difficult to survey
4.00	Ridge, 175 ft. above sec. cor., bears N.15°E. and S.15°W.; descend abruptly
16.50	Gulch, 310 ft. below ridge, drains S.; ascend
18.96	The ¼ sec. cor. bet. secs. 6 and 7
	Land, mountainous.
	Soil, rocky; 4th rate.
	Timber, pinon pine and cedar.
	Mountainous or heavily timbered land, 18.96 chs.
	Exceptionally difficult to survey, 18.96 chs.

Aug.3, 1909.

General Description.

This part of T.18 S.,R.1 W. is very mountainous. The mountains are steep and rugged and covered with dense pinon pine and cedar. I found no trace of mineral.

There are no settlers in this part of the township.

Note:-

There being no Notary Public or other officer authorized to administer oaths within reasonable distance, in order to save time and expense, I administered the Preliminary and Final affidavits of my Assistants myself.

Subdivision of Part of T.18 S.,R.1 W.

Alfredo R. Talamantes
U. S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Alfredo R. Talamantes, 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 frac'l S.bdy. and the Subdivision of Part of T.18 S., R.1 W of the Salt Lake Base and Meridian, Utah, showing the respective capacities in which they acted:

Rex Howdan, Chainman.
Robert Faddis, Chainman.
J.W. Simpson, Moundman.
, Moundman.
Will Bailey, Axman.
, Axman.
Thomas R Faddis, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfredo R. Talamantes, United States Deputy Surveyor, in surveying all those parts or portions of the Subdivision of Part of T.18 S., R.1 W. and of fractional S.bdy.of T. 18 S., R. 1 W.

of the Salt Lake Base and meridian, in the State of Utah, 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 Utah

Rex Howdan, Chainman.
Robert Faddis, Chainman.
J.W. Simpson, Moundman.
, Moundman.
Will Bailey, Axman.
, Axman.
Thomas R Faddis, Flagman.

Subscribed and sworn to before me this 3 day of August, 1909

SEAL

Alfredo R Talamantes
U.S. Deputy Surveyor.

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Alfredo R.Talamantes, United States Deputy S
solemnly swear that, in pursuance of a contract received from Thomas Hull
United States Surveyor General for U t a h, bearing
5th day of March, 190 8, I have well, faithfully, and truly,
proper person, and in strict conformity with the instructions furnished by the United State
General for U t a h, the Manual of Surveying Instructions, and the
United States, surveyed all those parts or portions of the Subdivision of Part o
ship No. 18 South, Range No.1 West, and of frac'l S.bdy.of T.
R.1 W.

of the Salt La
and meridian, in the State of Utah, which are repres
foregoing field notes as having been surveyed by me, and under my direction; and I do furth
swear that all the corners of said survey have been established and perpetuated in strict acco
the Manual of Surveying Instructions, and the special written instructions of the United Stat
General for U t a h and in the specific manner described in the field not
the foregoing are the original field notes of such survey.

Alfredo R. Talamant
United States Deput

Subscribed by said Alfredo R.Talamantes, and sworn to before me
this 19th day of April 1911, ~~XXX~~

Thomas Hull
U.S. Surveyor-General
for Utah.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 24, 19

The foregoing field notes of the survey of frac'l S.bdy.and Subdivisional
Township No.18 South, Range No.1 West of the Salt Lake Base and
ian, Utah,

executed by Alfredo R.Talamantes
under his contract No. 302, dated March 5, 1908, 190 ,
critically examined, and the necessary corrections and explanations made, the said field not
surveys they describe, are hereby approved.

Thomas Hull
United States Surveyor

I certify that the foregoing transcript of the field notes of the above-described surveys i
, has been correctly copied from the original notes on file in th

United States Survey

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Filed Oct. 12, 1909.

Refiled Jan. 23, 1911.

BOOK A-370
A.

E.H.

FIELD NOTES

Retracement
OF THE ~~SURVEY~~ OF THE

GUIDE MERIDIAN

TOWNSHIP 4 SOUTH

Between

RANGES 9 and 10 WEST

Of the SALT LAKE BASE AND *Meridian,*

U T A H

AS SURVEYED BY

Alonzo J. Stookey, *United States Deputy Surveyor,*

Under his Contract No. 306, *dated* March 10, *190*9

Retracement
~~Survey~~ *commenced* June 14, *190*9,

Retracement
~~Survey~~ *completed* June 16, *190*9.

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NAMES AND DUTIES OF ASSISTANTS.

Lionel J.Stookey,	Chainman.
Theodore R.Johnson,	Chainman.
David Sharp Jr.,	Moundman.
Clifford Green,	Flagman.

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INDEX DIAGRAM.

Township 4 South, *Range* 10 West

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*Meanders Page*_____

PRELIMINARY OATHS OF ASSISTANTS.

We, Lionel J.Stookey and Theodore R.Johnson

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

the Guide Meridian, through Tps.3 and 4 S., between Rs.9 and 10
the Salt Lake Base and Meridian, Utah.

Lionel J. Stookey, C
Theodore R. Johnston, C

Subscribed and sworn to before me this 14 day of June, 1909.

SEAL

U.S.Deputy Surveyo

We, I, David Sharp Jr. and

do solemnly swear that we will well and truly perform the duties of moundman in the esta retracemo of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the

the Guide Meridian, through Tps.3 and 4 S., between Rs.9 and 10
the Salt Lake Base and Meridian, Utah.

David Sharp Jr, M

, M

Subscribed and sworn to before me this 14 day of June, 1909.

SEAL

U.S.Deputy Surveyor

We, and

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

Subscribed and sworn to before me this day of , 190

SEAL

I, Clifford Green, do solemnly swear that I will well perform the duties of flagman according to instructions given me, to the best of my skill and abi retracement survey of the Guide Meridian through Tps.3 and 4 S., between Rs.9 W. of the Salt Lake Base and Meridian, Utah.

Clifford Green,

Subscribed and sworn to before me this 14 day of June, 1909.

SEAL

U. S. Deputy Sur

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Retracement Guide Meridian Tp. 4 S., between Rs.9 and 10 W.

Survey commenced June 14, 1909, and executed with a W. & L.E.Gurley light mountain transit with solar attachment. The horizontal limb is provided with 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 latitude and decl.arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct and was approved by the surveyor general for Utah May 23, 1909.

I examine the adjustments of the transit, and correct the level and collimation errors; then to test the solar apparatus by comparing its indications resulting from solar observations made during a.m.and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the cor.of Tps.4 and 5 S., Rs.9 and 10 W., which is a limestone 5 x 6 x 7 ins.above ground, marked and witnessed as described by the surveyor general; lat. 40° 25' 12" N.; long.112° 55' 09" W. at 3 h. p.m.l.m.t. I set off 40° 25' on lat.arc; 23° 17'N.on decl.arc determine a meridian with the solar and mark a point thereof by a tack driven in a wooden peg set in the ground 5 chs.N.of the cor.

June 14, 1909.

June 15: At 1 h, 55 m.a.m.l.m.t.I observe Polaris at eastern elongation in accordance with Manual of Instructions, and mark a point in the line thus determined on a peg driven in the ground 5 chs.N.of my station.

At 8 h. 0 m.a.m.l.m.t.I lay off the azimuth of Polaris 1° 32' to the west and mark the meridian thus determined by cutting a small groove in the peg set June 14, on which the meridian falls 0.3 ins.west of the mark determined by the solar.

Chains. At 9 a.m.I set off 40° 25' N.on lat.arc; 23° 19' N.o
decl.arc, and mark a point in the meridian determi
with the solar, by a cross on the stone already se
5 chs.N.of my station; this mark falls 0.3 ins.wes
of the meridian established by the Polaris observa-
tion.

The solar apparatus by p.m.and a.m.observations defi
positions for meridians respectively about 16" eas
and 16" west of the meridian established by the Po-
laris observations; therefore I conclude that the
adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 h. 30
a,m. is N.17° 45'W., which gives the mag.decl.17°
E.

From my former experience with old surveys in this vi
cinity I deem it advisable to retrace the guide me
ian through Tp.4 S., between Rs.9 and 10 W., before
proceeding with the survey of the remaining exteri

From the Tp.cor.already described I run

North bet.secs.31 and 36,

Over gently rolling bench land.

40.36 Fall 26 lks.west of the 1/4 sec.cor., which is a lim
stone 6 x 10 x 5 ins.above ground, marked and wit-
nessed as described by the surveyor general.

The course of this half-mile is therefore N. 0 22'E.

From this 1/4 sec.cor.I continue my line north bet.s
31 and 36

34.27 Road, Brown's Ranch to Rydalch Pass, bears E. and W.

35.64 Road Iosepa to Rydalch Pass bears N.60° E. and S.60°
and joins with road about 3 chs.west.

40.44 Fall 26 lks.west of the old sec.cor. of secs.25,30,3
and 36, which is a limestone 6 x 12 x 4 ins.above

Chains.

ground, firmly set and mkd.and witnessed as described by the surveyor general.

The course of this line is therefore N.0° 22'E. and distance 80.80 chs.

Land, gently rolling.

Soil, gravelly and clay; 3d rate.

No timber.

North bet.secs.25 and 30,

Over gently rolling bench.land

40.44 Fall 26 lks.west of the ¼ sec.cor., which is a limestone 5 x 12 x 6 ins.above ground, firmly set and marked and witnessed as described by the surveyor general.

The course of this half-mile, is therefore N.0° 22'E.

I continue my line north bet.secs.25 and 30,

40.53 Fall 28 lks.west of the old cor.of secs.19,24, 25, and 30, which is a limestone 6 x 12 x 6 ins.above ground, firmly set and mkd.and witnessed as described by the surveyor general.

The course of this half-mile is therefore N.0° 24'E. and total distance of mile 80.97 chs.

Land, gently rolling.

Soil, gravelly; 3d rate.

No timber.

June 15: At this cor.I set off 23° 19'N.on decl.arc; and at 0 h.0 m. 5½ sec.p.m.l.m.t.observe the sun on the meridian; the resulting lat.is 40° 27'N.

North bet.secs.19 and 24,

Retracement Guide Meridian, Township 4 South, between Rs.9 and 1

Chains.	
	Over rolling land.
40.00	After diligent search find no trace of old ¼ sec.cor
57.00	Road from Eight-Mile Spring to Rydalch Pass, bears N 45° E. and S.45° W.
	Enter broken foothills, bear N.45° E. and S.45° W.
80.91	Fall 54 lks.west of the cor.of secs.13,18,19, and 24 which is a limestone 10 x 18 x 10 ins.above ground firmly set and mkd.and witnessed as described by t surveyor general.
	The course of this line is therefore N.0° 23'E. and distance 80.91 chs.
	Thence I run
	S.0° 23'W.on true line bet.secs.19 and 24,
40.45½	Set an iron post 3 ft.long,1 in.dia., 26 ins.in the ground, for re-established ¼ sec.cor., marked on brass cap, ¼ S 24 in W.half, S 19 in E.half; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Land, rolling and broken.
	Soil, gravelly and stony; 3d and 4th rate.
	No timber.
	[illegible]

	From the cor.of secs.13,18,19, and 24, I run
	North bet.secs.13 and 18,
	Over rolling broken bench land [illegible] 18,
40.00	After diligent search found no trace of old ¼ sec.co
80.93	Fall 66 lks.west of the cor.of secs.7,12,13, and 18, which is a limestone 9 x 12 x 8 ins.above ground, firmly set, and mkd.and witnessed as described by the surveyor general.
	The course of this line is therefore N.0° 28'E. and

Retracement Guide Meridian Township 4 South, between Rs. 9 and 10 W

Chains

distance 80.92 chs.

Thence I run

S.0° 28' W. on true line bet. secs. 13 and 18,

40.46 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for re-established ¼ sec. cor., marked on brass cap, ¼ S 13 in W. half, S 18 in E. half, and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

Land, rolling and broken.

Soil, stony; 4th rate.

No timber.

June 15, 1909.

June 16: At 7.h. a.m.l.m.t. I set off 40° 29' N. on the lat. arc; 23°22' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 12, 13, and 18.

Thence I run

North bet. secs. 7 and 12,

Over rolling broken bench land, descending.

24.30 Ravine, 1 ch. wide, drains E. and ascend.

40.65 Fall 18 lks. west of the ¼ sec. cor., which is a stationary limestone 6 x 6 x 2 ft. above ground, marked and witnessed as described by the surveyor general. The course of this half-mile is therefore N.0° 15'E.

I continue my line north bet. secs. 7 and 12,

3.00 Top of ridge, 60 ft. above hollow and descend.

18.80 Hollow, 70 ft. deep, drains N. 65° E. and ascend.

40.25 Fall 36 lks. west of this cor. of secs. 1, 6, 7, and 12, which is a limestone 9 x 13 x 10 ins. above ground firmly set and marked and witnessed as described by the surveyor general.

Chains	
	The course of this half-mile is therefore N.0° 31' E. and total distance of mile 80.90 chs.
	Land, broken and rolling.
	Soil, gravelly; 4th rate.
	No timber.
	North bet. secs. 1 and 6,
	Over mountainous land; through few scattering cedars.
12.78	Ridge, 60 ft. high, bears E. and W. and descend.
24.40	Hollow, 50 ft. deep, drains N. 70° E. and ascend.
30.10	Ridge, 40 ft. high, bears E. and W. and descend.
39.70	Hollow, 65 ft. deep, drains E.
40.45	Fall 82 lks. west of the ¼ sec. cor., which is a lime stone 9 x 16 x 6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general.
	The course of this half-mile is therefore N.1° 10' E. and the distance 40.46 chs.
	I continue my line north bet. secs. 1 and 6,
0.80	Sheep road bears N. 45° W. and S. 45° E.
37.00	Top of ridge, 75 ft. high, bears E. and W. and descen
39.05	Fall 2.37 chs. east of the cor. of Tps. 3. and 4 S., Rs. 9 and 10 W., which is a limestone 12 x 18 x 18 ins. above ground, firmly set, and marked and witn ed as described by the surveyor general, except fo bearing trees, which I failed to find; I, however, found stumps of trees, but they bore no marks iden tifying them as bearing trees.
	The course of this half-mile, is, therefore, N. 3° 28 W., and the distance 39.12 chs.
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, few scattering cedars.

Retracement Guide Meridian, Township 4 S., between Rs. 9 and 10 W.

Chains

Mountainous land 79.58 chs.

June 16: At this cor. I set off 23° 22' N. on decl. arc; and at 0 h.0 m. 18 sec. p.m.l.m.t.observe the sun on the meridian; the resulting lat. is 40° 30' N.

June 16, 1909.

For general description see notes of the subdivision of this township.

Thomas J. Stookey

U. S. Deputy Surveyor.

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Page

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by .....

....., United States Deputy Surveyor, to assist in running, measuring, and arking the lines and corners described in the foregoing field notes of the survey of .....

.....

owing the respective capacities in which they acted:

....., *Chainman.*

r list of names and final oath of assistants see book "D" ....., *Chainman.*

Tp.3 S., R. 10 W. ....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted .....

....., United States Deputy Surveyor, in surveying all ose parts or portions of the .....

.....

.....

.....of the .....

..... meridian, ...of....., which are represented the foregoing field notes as having been surveyed by him and under his direction; and that said survey as been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the rner monuments established, according to the instructions furnished by the United States Surveyor eneral for .....

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

.....

ubscribed and sworn to before me this .....
day of ....., 190

.....

SEAL

.....

6–151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ..., United States Deputy Su
solemnly swear that, in pursuance of a contract received from .....
United States Surveyor General for ....., bearing
..... day of ....., 190 , I have well, faithfully, and truly,
proper person, and in strict conformity with the instructions furnished by the United State
General for ....., the Manual of Surveying Instructions, and the
United States, surveyed all those parts or portions of .....
.....
For final oath of deputy see book "D" Tp. 3 S., R. 10 W.
.....
.....of the.....
..... meridian, in the.....of....., which are represe
foregoing field notes as having been surveyed by me, and under my direction; and I do furth
swear that all the corners of said survey have been established and perpetuated in strict acco
the Manual of Surveying Instructions, and the special written instructions of the United Stat
General for .....and in the specific manner described in the field not
the foregoing are the original field notes of such survey.

.....
United States Deput

Subscribed by said ....., and sworn to before me
this ..... day of ....., 190

SEAL

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Salt Lake City, Utah, Feb. 23

The foregoing field notes of the ~~survey~~ of retracement of the Guide Meri
through Township No.4 South, between Ranges 9 and 10 West of
Salt Lake Base and Meridian, Utah,
.....
.....
.....
.....

executed by Alonzo J.Stookey
under his contract No. 306, dated March 10 190 9,
critically examined, and the necessary corrections and explanations made, the said field no
~~surveys~~ retracements they describe, are hereby approved.

.....
United States Surve

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

.....
United States Surve

6—151

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Page

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Page

FILED
OCT 12 1909

479

4—679.

BOOK A-370

Refiled Jan. 23, 1911.

B.

M.S.B.

FIELD NOTES

OF THE SURVEY OF THE

South, West, and North Boundaries

Of

Township 4 South

Range 10 West

Of the Salt Lake Base and *Meridian,*

Utah,

AS SURVEYED BY

Alonzo J. Stookey, *United States Deputy Surveyor,*

nder his Contract No. 306, *dated* March 10, *190*9,

rvey commenced June 17, *190*9,

rvey completed June 23, *190*9.

6—151

South Bdy 5-79-38
West " 6-04-00
North " 6-00-18
18-03-56

480

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

Lionel J.Stookey,	Chainman.
Theodore R.Johnson,	Chainman.
David Sharp Jr.,	Moundman.
Clifford Green,	Flagman.

BOOK A-370

INDEX DIAGRAM.

Township 4 South, *Range* 10 West

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31	32	33	34	35	36	7
5	4	3	3	2	1	

*Meanders Page*_____

PRELIMINARY OATHS OF ASSISTANTS.

We, Lionel J.Stookey and Theodore R.Johnson

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the sa we will report the true distances to all notable objects, and the true lengths of all lines that we measuring, to the best of our skill and ability, and in accordance with instructions given us, in the the south, west, and north boundaries of Tp.4 S., R. 10 W. and t west and north bboundaries of Tp.3 S., R. 10 W.of the Salt Lake and Meridian, Utah.

Lionel J.Stookey, Cl

Theodore R. Johnson, Cl

Subscribed and sworn to before me this 14 day of June, 1909.

SEAL

U.S.Deputy Surveyor

We, I, David Sharp Jr., xxx and

do solemnly swear that we will well and truly perform the duties of moundmen in the esta of corners, according to the instructions given us, to the best of our skill and ability, in the the south, west and north boundaries of Tp.4 S., R. 10 W., and t west and north boundaries of Tp.3 S., R. 10 W.of the Salt Lake and Meridian, Utah.

David Sharp Jr, Mo

, Mo

Subscribed and sworn to before me this 14 day of June, 1909.

SEAL

U.S.Deputy Surveyor

We, and

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

Subscribed and sworn to before me this day of, 190

SEAL

I, Clifford Green, do solemnly swear that I will well perform the duties of flagman according to instructions given me, to the best of my skill and abil survey of the south, west, and north boundaries of Tp.4 S., R. 10 the west and north boundaries of Tp.3 S., R. 10 W.of the Salt L Base and Meridian, Utah.

Clifford Green,

Subscribed and sworn to before me this 14 day of June, 1909.

SEAL

U.S.Deputy Surveyo

6—151

South Boundary T. 4 S., R. 10 W.

Chains. Survey commenced June 17, 1909, and executed with the instrument described in book "A" of this survey.

At 8 h. a.m.l.m.t.I set off 40° 25' N.on lat.arc; 23° 24' N.on decl.arc, and determine a meridian with the solar at the cor.of Tps.4 and 5 S., Rs.9 and 10 W. heretofore described.

Thence I run

West bet.secs.1 and 36,

Over almost level bench land, sloping gently to the east; through undergrowth.

The east boundary of this township I found, by retracement, to be out of limit both in alinement and measurement; therefore I deem it advisable, in order to avoid lotting both on E. and W.bdys.to subdivide from west to east, and also to place the convergency on south boundary in the eastern half-mile.

39.38 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for 1/4 sec.cor., marked 1/4 S 36 in N.half,S 1 in S.half; of brass cap; dig pits 18 x 18 x 12 ins.E. and W.of post 3 ft.dist.; and raise a mound of earth 3½ ft. base, 1½ ft.high N.of cor.

79.38 Set an iron post 3 ft.long, 3 in.dia., 24 ins.in the ground, for cor.of secs.1,2,35, and 36, marked on brass cap,

T 4 S R 10 W. in N.half

T 5 S in S.half,

S 35 in NW.

S 36 in NE.

S 1 in SE., and

S 2 in SW.quadrants; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.

Land, almost level.

Soil, sandy, clay, and gravelly; 2d and 3d rates.

Undergrowth shadscale, sage and greasewood.

South Boundary T. 4 S., R. 10 W.

Chains. No timber.

West bet.secs.2 and 35,

Over almost level bench land, sloping gently to the east; through undergrowth.

40.00 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for 1/4 sec.cor., marked on brass cap, 1/4 S 35 in N.half, S 2 in S.half; dig pits 18 x 18 x 1 ins.E. and W.of post 3 ft.dist.; and raise a mound earth 3½ ft.base, 1½ ft.high N.of cor.

63.08 Road, Eight-Mile Spring to Cochrain Spring bears N.45 E. and S. 45° W.

64.75 Foot of quartzite ridge, bears N. 45° E. and S. 45° W

Ascend.

80.00 Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground, for cor.of secs. 2,3,34, and 35, marked on brass cap,

T 4 S R 10 W.in N.half

T 5 S in S.half,

S 34 in NW.

S 35 in NE.

S 2 in SE., and

S 3 in SW.quadrants; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.

Land, almost level and rolling.

Soil, sandy and stony; 3d rate.

Undergrowth shadscale, sage, and greasewood.

No timber.

June 17, 1909: At this cor. I set off 23° 24' N.on de arc; and at 12 h. 0 m. M.time, observe the sun on the meridian; the resulting lat.is 40° 25' N

South Boundary T. 4 S., R. 10 W.

Chains

West bet. secs. 3 and 34,

Over broken country, ascending through shadscale and sagebrush undergrowth.

20.00 Top of low quartzite ridge bearing N. and S.

Descend

32.00 Foot of ridge, bears N. and S.

Thence along undulating swale.

40.00 Set an iron post 3 ft. long, 1 in. dia. 26 ins. in the ground, for ¼ sec. cor., marked on brass cap., ¼ S 34 in N. half; S. 3 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.

80.00 Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 3, 4, 33, and 34, marked on brass cap,

T 4 S R 10 W in N. half.

T 5 S in S half.

S 33 in NW.

S 34 in NE.

S 3 in SE., and

S 4 in SW quadrants; and raise a mound of stone 2 ft. base 1½ ft. high W. of cor.

Land, rolling.

Soil, stony and gravelly; 3d rate.

Undergrowth, sagebrush and shadscale.

No timber.

West between secs. 4 and 33,

Ascending mountain; through scattering cedars.

33.85 Top of ascent, bears N. and S.

Descend.

40.00 Set an iron post 3ft. long, 1 in. dia. 26 ins. in the ground for ¼ sec. cor. mkd. on brass cap, ¼ S 33 in N. half, S 4 in S. half and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

Chains	
	Pits impracticable.
46.00	Bottom of swale, 300 ft. below ridge, drains S.
	Pass about 6 chs. N.
	Continue over broken country.
80.00	Set an iron post 3 ft. long, 3 in.dia., 24 ins. in t ground, for cor. of secs. 4, 5, 32, and 33, mar on brass cap,
	T 4 S R 10 W in N. half
	T 5 S in S. half,
	S 32 in NW.
	S 33 in NE.
	S 4 in SE., and
	S 5 in SW quadrants; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits i practicable.
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.
	June 17, 1909.

June 18:

At 8 h. 01 m. a.m. l. m.t I set off 40° 25' N. on l
23° 25' N. on decl. arc; and determine a meridian w
the solar at the cor. of secs. 4, 5, 32, and 33. Th
I run

West bet. secs. 5 and 32,

	Over broken mountainous land; through scattering ced
12.73	Top of ridge 800 ft. bears N. 20° W & S 20° E. and d cend.
15.65	Hollow drains S. Heads 4 chs., N. 40 feet deep and a cend.
20.42	Top of ridge bears N. and S. 110 ft. high and descen
26.05	Hollow drains S. 100 ft. deep and ascend.
31.81	Ridge bears N & S 40 ft. high and descend.
36.60	Hollow drains S. 60 ft. deep and ascend.; gently to sec. cor. on S. point of ridge.

South Boundary T. 4 S., R. 10 W.

Chains	
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 32 in N. half S 5 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
42.00	Ravine drains SE and ascend.
43.96	Ridge bears N. & S. 40 ft. high and descend.
48.00	Ravine drains S. 40° W. 50 ft. deep and ascend point of hill.
50.05	Top of ridge bears N. and S. 40 ft. high and descend.
52.25	Hollow drains S. 75 ft. deep and ascend.
57.26	Ridge 90 ft. high; bears N. 18° W and S. 18° E. and descend.
61.25	Hollow 110 feet deep, drains S. 10° E. and begin ascent of main ridge of Cedar Range; ascend along hogs back.
74.50	Begin descent into ravine.
76.28	Bottom of ravine 30 ft. deep; drains S & ascend to cor.
80.00	Set an iron post 3 ft. long, 3 in. dia., 24 ins. in the ground, for cor. of secs. 5, 6, 31, and 32, marked on brass cap, T 4 S R 10 W in N. half, T 5 S in S. half, S 31 in NW., S 32 in NE. S 5 in SE., and S 6 in SW quadrants; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.

West bet. secs. 6 and 31.

Over rough mountainous land.

Chains	
19.75	Top of Cedar Range, 2500 ft. high, bears N. 45° E. and S. 45° W.; divide between Skull Valley and Great American Desert.
	Descend along steep west face.
33.10	Hollow 400 ft. below top of the mountain; drains S 60° W. and ascend.
36.99	Top of ridge bears N. 60° E. and S. 60° W. and descend.
40.00	Set an iron post 3 ft. long, 1 in. dia. 26 in. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S. 31 in. N half, S 6 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
47.00	Hollow same as last named; drains N. 45° W. and ascend gently.
62.00	Ridge 75 ft. high; bears N. 45° W. and S. 45° E. and descend.
68.00	Hollow 60 ft. deep; drains N. 45° W and ascend.
73.00	Ridge 20 ft. high; bears N. 45° W. and S. 45° E. and descend gently.
76.00	Hollow drains N. 60° W and ascend gently.
80.00	Set an iron post 3 ft. long, 3 in. dia., 24 ins. in ground, for cor. of Tps. 4 and 5 S., Rs. 10 and 11 mkd. on brass cap, T 4 S in N. half, T 5 S in S. half, R 11 W S 36 in NW. R 10 W S 31 in NE. S 6 R 10 W in SE. S 1 R 11 W in SW quadrants; and raise a mound of stone 3 ft. base, 1½ ft. high S. of cor. Pits impracticable.
	Land, mountainous.
	Soil, stony; 4th rate.

South Boundary T. 4 S., R. 10 W.

Chains | Timber, scattering cedars.
Mountainous land 80.00 chs.

June 18, 1909.

For general description see notes of the subdivision of this township.

West Boundary T. 4 S., R. 10 W.

Chains	
	June 18, 1909: At 2 h. 01 m.p.m.l.m.t.I set off 40° 2 N.on lat.arc; 23° 25'N.on decl.arc; and determine a meridian with the solar at the cor.of Tps.4 and 5 S Rs.10 and 11 W. Thence I run
	North bet.secs.31 and 36,
	Over broken mountainous land; ascending.
0.75	Wash,20 lks.wide, 3 ft.deep, drains W.; ascend.
4.00	Ridge 30 ft.high bears E. and W.; descend.
5.00	Foot of descent; begin ascent.
8.00	Ridge 75 ft.high, bears E. and W.; descend.
9.00	Hollow drains N.75° W., 30 ft.deep; ascend.
13.00	West point of ridge, bears N.35° E. and S.35° W.; descend.
16.00	Hollow, 40 ft.deep, drains S.45° W.; ascend.
20.50	Ridge, 35 ft.high, bears N.35° E. and S.45° W.; descend.
23.00	Hollow, 25 ft.deep, drains W.; ascend.
25.60	Ridge, 35 ft.high, bears N.45° E. and S.45° W.; desce
31.50	Hollow, 30 ft.deep, drains S.25° W.; begin ascent of high ridge .
40.00	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., mkd.on brass cap $\frac{1}{4}$ S 36 in half, S 31 in E.half; and raise a mound of stone 2 base, $1\frac{1}{2}$ ft.high W.of cor.
	Pits impracticable.
69.33	Top of lava ridge, 400 ft.high, bears N.50° W. and S 50° E.
	Continue over rolling broken country.
80.00	Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in th ground, for cor.of secs.25,30,31, and 36, marked o brass cap,
	T 4 S in N.half,
	R 11 W S 25 in NW.
	R 10 W S 30 in NE.
	S 31 in SE., and
	S 36 in SW.quadrants; raise a mound of stone 2

West Boundary T. 4 S., R. 10 W.

Chains	
	base, 1½ ft.high W.of cor.
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.

North bet.secs.25 and 30

	Over broken mountainous land.
2.00	Begin descent into hollow.
4.00	Hollow, 50 ft.deep, drains N.75° E.
	Ascend.
11.40	Ridge bears E. and W., 90 ft.high.
	Descend.
17.00	Hollow, 75 ft.deep, drains S.70° E.; begin steep ascent.
25.82	Ridge, 85 ft.high, bears E. and W. This ridge joins main ridge, which bears about N. and S. about 4 chs. west, and from here I run along E.slope of main ridge, near the top.
40.00	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for ¼ sec.cor., marked on brass cap ¼ S 25 in W.half; S 30 in E.half; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
78.50	Begin steep descent of smooth north face of mountain, bearing N.68° E. and S.68° W.
80.00	Set an iron post 3 ft.long, 3 insddia., 24 ins.in the ground, for cor.of secs.19,24,25, and 30, marked on brass cap, T 4 S.in N.half, R 11 W S 24 in NW. R 10 W S 19 in NE.; and S 30 in SE; and S 25 in SW.quadrants; and raise a mound of

West Boundary T. 4 S., R. 10 W.

Chains.	
	stone 2 ft.base, 1½ ft.high W.of cor.
	Land, mountainous.
	Soil, stony; 3d and 4th rates.
	Timber, few scattering cedars.
	Fine bunch grass.
	Mountainous land 80.00 chs.
	June 18, 1909.

June 19: At 7 h. 31 m.a.m.l.m.t.I set off 40° 27'N.on lat.arc; 23° 27'N.on decl.arc; and determine a meri ian with the solar at the cor.of secs.19,24,25, and

Thence I run

North bet.secs.19 and 24,

Descending steep north face of mountain; through scat tering cedars.

20.00 Descent becomes less steep.

40.00 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for ¼ sec.cor., marked on brass cap ¼ S 24 in W.half, S 19 in E.half; and raise a mound of sto 2 ft.base, 1½ ft.high W.of cor.

Pits impracticable.

70.00 Leave scattering cedars, bear E. and W.

80.00 Set an iron post 3 ft.long, 3 ins.in dia., 24 ins.in the ground, for cor.of secs.13,18,19, and 24, mark on brass cap,

West Boundary T. 4 S., R. 10 W.

Chains.

T 4 S in N.half,
R 11 W S 13 in NW.
R 10 W S 18 in NE.
S 19 in SE., and
S 24 in SW.quadrants; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Pits impracticable.
This cor.is at foot of mountain.
Land, mountainous.
Soil, stony; 3d and 4th rate.
Timber, scattering cedar on southern part.
Bunch grass and wheat grass.
Mountainous land 80.00 chs.

North bet.secs.13 and 18,
Over undulating bench land.

24.00 Sheep road, bears N.48° W. and S.48° E.

40.00 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for 1/4 sec.cor., mkd. on brass cap, 1/4 S 13 in W.half,S18 in E.half; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.

63.00 Wash from Rydalch Pass, 3 chs.wide, 20 ft.deep, course N.45° W.

80.00 Set an iron post 3 ft.long, 3 ins.dia. 24 ins.in the ground, for cor.of secs.7,12,13, and 18, marked on brass cap,
T 4 S in N.half,
R 11 W S 12 in NW.,
R 10 W S 7 in NE.
S 18 in SE., and
S 13 in SW.quadrants; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Pits impracticable.
Land, gently rolling.
Soil, sandy and clay; 3d rate.

Chains. Timber, few scattering cedars.

Bunch grass and wheat grass.

June 19: At the noon hour sky overcast and observation for lat. impossible.

North bet. secs. 7 and 12,

Over gently rolling bench land; through shadscale.

20.84 Road, Rydalch Pass to Quincy Spring, bears N. 40° W. and S. 40° E.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for 1/4 sec. cor., mkd. on brass cap, 1/4 S 12 in W. half, S 7 in E. half; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

80.00 Set an iron post 3 ft. long, 3 in. dia., 24 ins. in the ground, for cor. of secs. 1, 6, 7, and 12, marked on brass cap,

T 4 S in N. half,

R 11 W S 1 in NW.

R 10 W S 6 in NE.

S 7 in SE., and

S 12 in SW. quadrants; and raise a mound of stone 2 ft base, 1½ ft. high W. of cor.

Land rolling.

Soil, sandy loam and clay 1st and 2d rate.

No timber.

Undergrowth shadscale, and some bunch grass.

North bet. secs 1 and 6,

Over gently rolling bench land, through undergrowth.

15.00 Road, Rydalch Pass to Quincy Spring, bears N. 60° E. and S. 60° W.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the

P.R.

West Boundary T. 4 S., R. 10 W.

Chains

ground, for ¼ sec. cor., mkd. on brass cap, ½ S. 1 in W. half, S 6 in E. half, dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist.; and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

84.00 Set an iron post 3 ft. long, 3 in . dia., 24 ins. in ground, for cor. of Tps. 3 and 4 S., Rs. 10 and 11 W. marked on brass cap,

T 3 S in N. half

T 4 S in S. half,

R 11 W S 36 in NW.

R 10 W S 31 in NE

S 6 R 10 W in SE., and

S 1 R 11 W in SW. quadrants; dig pits 24 x 24 x 12 ins on each line N., E and W. 4 ft., and S. of post 8 ft. dist.; and raise a mound of earth 5 ft. base, 2½ ft. high S. of cor.

Land, gently rolling.

Soil, sandy loam, clay, and gravel; 1st, 2d and 3d rates.

No timber.

Undergrowth shadscale and bunch grass.

June 19, 1909.

For general description see notes of the subdivision of this township.

Chains

For reasons already explained prior to survey of the S. bdy. of this township, I survey the N. bdy. east to west, in order to throw the convergency in the eastern half mile, against old work.

June 21: At 8 h. 01 m. a. m. l m.t. I set off 40° N. on lat. arc; 23° 28' N. on decl. arc.; and deter a meridian with the solar at the cor. of Tps. 3 and S., Rs. 10 and 11 W., established by myself and her fore described.

Thence I run

East on a random line along N. bdy. of Tp., setting temporary ¼ sec. and sec. cors. at intervals o 40.00 chs., and at 480.18 chs. intersect the Guide Meridian 1.12 chs. N. of the cor. of Tps 3 and 4 S., Rs. 9 and 10 W., heretofore descri The falling answers to a correction of 0° 08' 19 lks. N. per mile, counting from NE cor. of township.

June 21, 1909.

June 22: At 8 h 02 m. a.m. l.m.t. I set off 40° 30' N. on lat. arc.; 23°28' N. on decl. arc; and d termine a meridian with the solar at the cor. Tps. 3 and 4 S., Rs. 9 and 10 W.

Thence I run N. 89°52' W. bet. secs. 1 and 36,

Over rolling, broken country.

4.00 Top of the ridge bears N and S 100 ft. high and des

10.00 Hollow 60 ft. deep, drains N.

12.00 Low ridge, bears N. and S.

13.50 Hollow 30 ft. deep, drains N. 65° E and ascend.

28.00 Top of ridge 40 ft. high bears E and W and continue along ridge.

35.00 Leave ridge bears N. 45° W and E and descend into hollow.

North Boundary T. 4 S., R. 10 W.

Chains

40.18 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 36 in N. half, S. 1 in S. half; from which A cedar 6 ins. dia., bears N. 73° W. 49 lks. dist. mkd. ¼ S. 36 B T

No other bearing trees within limits; raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.

46.55 Hollow 150 ft. deep drains S. 75° E. and ascend.

64.00 Ridge 120 ft. high, bears N. 45° W. and S. 45° E. and descend.

70.00 Hollow 60 ft. deep, drains S. and ascend.

76.00 Rocky ridge 50 ft. high, bears N. and S and descend.

78.20 Hollow 70 ft. deep, drains S. and ascend.

80.18 Set an iron post 3 ft. long, 3 in. dia., 9 ins. in the ground for cor. of secs. 1, 2, 35, and 36, marked on brass cap,

T 3 S R 10 W in N. half,
T 4 S in S. half,
S 35 in NW.
S 36 in NE.,
S 1 in SE., and
S 2 in SW quadrants; and raise a mound of stones 2 ft. base, 1½ ft. high W. of cor.; and mound of stone 15 ins. high around post. Impossible to set post 24 ins. in the ground.

Land, broken and rough.
Soil, stony; 4th rate.
Timber, few scattering cedars.
Mountainous land 80.18 chs.

North Boundary T. 4 S., R. 10 W.

Chains	
	N. 89° 52' W.bet. secs. 2 and 35,
	Over rough broken land, through scattering cedars.
15.16	Begin gentle descent into West Canyon, bears N. and S
40.00	Set an iron post 3 ft. long, 1 in.dia., 26 ins. in th
	ground, for ¼ sec. cor., mkd. on brass cap, ¼ S
	35 in N. half, S 2 in S. half; from which
	A cedar 8 ins. dia., bears N. 62°30' E. 1.28 chs
	dist. mkd. ¼ S 35 B T
	A cedar 7 ins. dia., bears S. 24° 00' E. 2.20 ch
	dist., mkd. ¼ S 2 B T
50.00	Bottom of West Canyon, drains N. 45° E.
	Ascend; cedars become dense.
80.00	Set an iron post 3 ft. long, 3 ins. dia., 12 ins. in
	ground, for cor. of secs. 2, 3, 34, and 35, mark
	on brass cap,
	T 3 S R 10 W in N. half
	T 4 S in S. half,
	S 34 in NW.
	S 35 in NE
	S 2 in SE., and
	S 3 in SW. quadrants; from which
	A cedar 14 ins. dia., bears S. 24° W. 14 lks
	dist mkd. T. 4 S R 10 W S. 3 B T
	A cedar 24 ins dia., bears S. 35° E 90 lks.
	dist. mkd. T. 4 S R 10 W S 2 B T
	A cedar 24 ins. dia., bears N. 20° W. 77 lks
	dist. mkd. T. 3 S. R 10 W. S. 34 B T
	No other bearing trees within limits raise a mound o
	stones 2 ft. base, 1½ ft. high W. of cor.
	Impossible to set post 24 ins. in ground; raise a mou
	of stones 2 ft. base, 12 ins. high around post.
	Land, mountainous.
	Soil, stony; 3rd rate.
	Timber, cedars.

North Boundary T. 4 S., R. 10 W.

Chains	
	Mountainous land 80.00 chs.
	June 22: At this cor., I set off 23° 27' N. on decl. arc; and at 0 h. 02 m. p. m. l. m.t observe the sun on the meridian; the resulting lat. is 40° 30' 25"
	N. 89° 52' W. bet. secs. 3 and 34.
	Over steep, rough, broken country, through cedar timber, scattering.
9.00	Ridge 115 ft. above cor., bears N. 20° W. and S. 20° E. and descend along S. W. face.
36.50	Hollow 65 ft. deep, drains S. 40° E.
40.00	Set an iron post 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S. 34 in N. half, S. 3 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
43.00	Top of steep ridge 125 ft. high, bears N. 45° W. and S. 45° E and descend.
58.50	Hollow 100 ft. deep drains S. and ascend.
66.00	Ridge 60 ft. high, bears N. and S.
71.50	Hollow 50 ft. deep drains S. E. and begin ascent of point of ridge, bears E. and W.
80.00	Set an iron post 3 ft. long, 3 ins. dia., 10 ins. in the ground; for cor. of secs. 3, 4, 33, and 34, marked on brass cap, T. 3 S R 10 W in N half, T 4 S in S half, S 33 in NW S 34 in NE S 3 in SE., and S 4 in SW quadrants; erect mound of stones 2 ft. base, 14, ins. high around post. A cedar 36 ins. dia., bears N. 38° W. 45 lks. dist. dist., mkd. T 3 S R 10 W S 33 B T

North Boundary T 4 S., R. 10 W.

Chains	
	A cedar 14 ins. dia., bears N. 48° E. 1.25 chs. dist. mkd. T. 3 S R 10 W S 34 B T
	A cedar 36 ins. dia., bears S. 75° E. 50 lks. dist. mkd. T 4 S R 10 W S 3 B T.
	A cedar 12 ins. dia., bears S 4° W 56 lks. dist mkd. T 4 S R 10 W S 4 B T
	Impossible to set post corner 24 ins. in the ground.
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, cedar.
	Mountainous land 80.00 chs.
	N. 89° 52' W. bet. secs 4 and 33,
	Over steep mountainous land; through scattering cedars
20.00	Ridge 125 ft. above corner, bears N. and S..
31.00	Hollow 90 ft. deep, drains NW. Begin steep ascent main mountain ridge.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 33 in N. half S. 4 in S. half; and raise a mound of stones 2 ft. base, 1½ ft. high N. of cor. Pits impracticable
44.00	Top of Cedar Range 2500 ft. high, divide between Skull Valley and Great American Desert, bears N. and S. Descend west face of mountain, rough.
80.00	Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in ground, for cor. of secs. 4, 5, 32 and 33, marked on brass cap, T 3 S R 10 W in N. half, T 4 S in S. half, S 32 in NW. S 33 in NE S 4 in SE., and S 5 in SW. quadrants; and raise a mound of stones 2 ft. base, 1½ ft. high W. of cor. Pits impractica

North Boundary T. 4 S., R. 10 W.

Chains. Land, mountainous.

Soil, stony 3d and 4th rates.

Timber, scattering cedars.

Mountainous land 80.00 chs.

June 22, 1909.

June 23: At 8 h. 02 m. a. m. l.m.t. set off 40° 30' N. on lat. arc; 23° 27' N. on decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 32, and 33. Thence I run

N. 89° 52' W. bet. secs 5 and 32,

Over rough, broken country.

16.50 Ridge bears N. 65° W. and S. 65° E and begin more abrupt descent.

40.00 Set an iron post 3 ft. long, 1 in dia. 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S. 32 in N. half, S 5 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

67.00 Hollow 300 ft. below ridge drains S. and ascend.

71.00 Ridge N. and S. 125 ft. high and descend.

80.00 Set an iron post 3 ft. long, 3 ins.dia., 24 ins. in the ground, for cor. of secs. 5, 6, 31, and 32, marked on brass cap,

T 3 S R 10 W in N. half,

T 4 S in S. half,

S 31 in NW.

S 32 in NE,

S 5 in SE., and

S 6 in Sw quadrants; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

Land, mountainous.

Soil, stony; 4th rate.

Timber, scattering cedar.

Chains	
	Mountainous land 80.00 chains.
	N. 89° 52' W. bet. secs. 6 and 31.
	Over rough, broken country; through scattering cedars
7.00	Hollow 90 ft. below cor. drains N. 65° W and ascend.
13.67	Ridge bears N. and S. 100 ft. high and descend.
20.00	Rough swale drains N. 45° W. and ascend.
24.40	Ridge 75 ft. high N. W. and S. E. and begin steep descent.
32.50	Foot of mountains, bear N. and S., 2000 ft. below Di vide. Thence over gently rolling bench land, s ing to the west; leave cedars.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in ground, for ¼ sec. cor., marked on brass cap, ¼ S 31 in N. half, S 6 in S half, and raise a mou of stone 2 ft. base, 1½ ft. high N. of cor. Pit impracticable.
54.90	Road, Rydalch Pass to Quincy Spring, bears N. 15° E. and S. 15° W.
80.00	The cor. of Tps. 3 and 4 S., Rs. 10 and 11 W.
	Land, mountainous and gently rolling.
	Soil, stony and gravelly; 3d and 4th rates.
	Timber, scattering cedars.
	Mountainous land 32.50 chs.
	June 23: At this cor. I set off 23°27' N. on decl. arc; and at 0 h. 2 m. p.m. l.m.t. observe the sun o the meridian; the resulting lat. is 40° 30' N.
	June 23, 1909.
	For general description see notes of the subdi ion of this township.
	Alonzo J. Stockley
	U. S. Deputy Surveyor.

Boundaries T. 4 S., R. 10 W.

Latitudes, Departures, and Closing Errors.

Lines Designated	True Bearing	Dist. chs.	Latitudes, N. chs.	Latitudes, S. chs.	Departures. E. chs.	Departures. W. chs.
South Boundary	West	479.38	.....	.....	.....	479.38
West Boundary	North	484.00	484.00	.....	.....	.....
North Boundary	S.89° 52' E.	480.18	.....	1.12	480.18	.....
East Boundary	S. 3° 28' E.	39.12	.....	39.05	2.36	.....
"	S. 1° 10' W.	40.46	.....	40.45	.....	.82
"	S. 0° 31' W.	40.25	.....	40.25	.....	.36
"	S. 0° 15' W.	40.65	.....	40.65	.....	.18
"	S. 0° 28' W.	80.92	.....	80.92	.....	.66
"	S. 0° 23' W.	80.91	.....	80.91	.....	.54
"	S. 0° 24' W.	40.53	.....	40.53	.....	.28
"	S. 0° 22' W.	40.44	.....	40.44	.....	.26
"	S. 0° 22' W.	40.44	.....	40.44	.....	.26
"	S. 0° 22' W.	40.36	.....	40.36	.....	.26
Convergency					.62	
TOTALS			484.00	485.12	483.16	483.00
				484.00	483.00	
Error in lat. and dep.				1.12	.16	

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Page

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____

_____, United States Deputy Surveyor, to assist in running, measuring, and

arking the lines and corners described in the foregoing field notes of the survey of _____

_____

owing the respective capacities in which they acted:

or list of names and final oath of assistants see book "E", *Chainman.*

Tp.3 S., R. 10 W.

_____, *Chainman.*

_____, *Moundman.*

_____, *Moundman.*

_____, *Axman.*

_____, *Axman.*

_____, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

_____, United States Deputy Surveyor, in surveying all

ose parts or portions of the _____

_____

_____

_____ of the _____

_____ meridian, _____ of _____, which are represented

the foregoing field notes as having been surveyed by him and under his direction; and that said survey

s been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the

ner monuments established, according to the instructions furnished by the United States Surveyor

neral for _____

_____, *Chainman.*

_____, *Chainman.*

_____, *Moundman.*

_____, *Moundman.*

_____, *Axman.*

_____, *Axman.*

_____, *Flagman.*

_____

bscribed and sworn to before me this _____

day of _____, 190

_____

SEAL

_____

4–151

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Sur
solemnly swear that, in pursuance of a contract received from _____
United States Surveyor General for _____, bearing d
_____ day of _____, 190 , I have well, faithfully, and truly, i
proper person, and in strict conformity with the instructions furnished by the United States
General for _____, the Manual of Surveying Instructions, and the l
United States, surveyed all those parts or portions of _____

For final oath of deputy see book "E" Tp. 3 S., R. 10 W.

_____ of the _____
_____ meridian, in the _____ of _____, which are represe
foregoing field notes as having been surveyed by me, and under my direction; and I do furthe
swear that all the corners of said survey have been established and perpetuated in strict accor
the Manual of Surveying Instructions, and the special written instructions of the United State
General for _____ and in the specific manner described in the field note
the foregoing are the original field notes of such survey.

_____
United States Deputy

Subscribed by said _____, and sworn to before me this _____ day of _____, 190

_____

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, Feb. 2

The foregoing field notes of the survey of the South, West, and North bou
ries of Township No. 4 South, Range No. 10 West of the Salt Lake
Base and Meridian, Utah,

executed by Alonzo J. Stookey
under his contract No. 306, dated March 10, 1909, h
critically examined, and the necessary corrections and explanations made, the said field not
surveys they describe, are hereby approved.

_____
United States Surv

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

_____
United States Survey

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Page

FILED
OCT 12 1909

509

4—679.

Refiled Jan. 23, 1911.

BOOK A-370

C.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

OF

Township 4 South, Range 10 West

Of the Salt Lake Base and *Meridian,*

Utah,

AS SURVEYED BY

Alonzo J. Stookey, *United States Deputy Surveyor,*

nder his Contract No. 306, *dated* March 10, *190*9,

rvey commenced June 23, *190*9,

rvey completed July 12, *190*9.

6—161

60-21-43
09-95

BOOK A-370

NAMES AND DUTIES OF ASSISTANTS.

Lionel J.Stookey,	Chainman.
Theodore R.Johnson,	Chainman.
David Sharp Jr.,	Moundman.
Clifford Green,	Flagman.

BOOK A-370

INDEX DIAGRAM.

Township 4 South, *Range* 10 West

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Meanders Page

PRELIMINARY OATHS OF ASSISTANTS.

We, Lionel J.Stookey and Theodore R.Johnson

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will l
chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the sar
we will report the true distances to all notable objects, and the true lengths of all lines that we
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the s
the subdivisional lines of Townships 3 and 4 S., R. 10 W. of the
Lake Base and Meridian, Utah.

Lionel J. Stookey, Ch

Theodore R. Johnson, Ch

Subscribed and sworn to before me this 14
day of June, 1909.

George J. Stook
U.S. Deputy Surveyor.

SEAL

~~We~~, I, David Sharp Jr. and

do solemnly swear that ~~we~~ I will well and truly perform the duties of moundmen in the estab
of corners, according to the instructions given ~~us~~ me, to the best of ~~our~~ my skill and ability, in the s
the subdivisional lines of Tps.3 and 4 S., R.10 W.of the Salt La
Base and Meridian, Utah.

David Sharp Jr. x Mo

, Mo

Subscribed and sworn to before me this 14
day of June, 1909.

George J. Stook
U.S.Deputy Surveyor

SEAL

We, and

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

Subscribed and sworn to before me this
day of , 190

SEAL

I, Clifford Green, do solemnly swear that I will well a
perform the duties of flagman according to instructions given me, to the best of my skill and abilit
survey of the subdivisional lines of Tps.3 and 4 S., R. 10 W.of the
Lake Base and Meridian, Utah.

Clifford Green,

Subscribed and sworn to before me this 14
day of June, 1909.

George J. Stook
U.S.Deputy Surveyor.

SEAL

4--151

Survey commenced June 23, 1909, and executed with the instrument described in book "A" of this survey.

For reasons already explained I subdivide from west to east, to avoid lotting aganist both E. and W.bdys.

I examine the adjustments of the transit and correct the level and collimation errors; then, to test the solar apparatus by comparing its indications resulting from solar observations made during a.m.and p.m. hours, with a meridian determined by observations on Polaris I proceed as follows:

At the cor.of secs.5,6,31, and 32 on the S.bdy.of Tp. heretofore described, lat.40° 25' 12" N.; long.113° 00' 50" W., I set off 40° 25'N.on lat.arc; 23° 27'N. on decl.arc; and at 4 h. 02 m.p.m.l.m.t., I determine a meridian with the solar and mark a point thereof on a stone firmly set in the ground 5 chs.N.of the cor.

June 23, 1909.

June 24: At 1 h. 59 m.a.m.l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined on a peg driven in the ground 5 chs.N.of my station.

At 6 h. 30 m.a.m.l.m.t., I lay off the azimuth of Polaris 1° 32'to the west and mark the meridian thus determined by cutting a small groove in the stone set June 23, on which the meridian falls 0.35 ins.west of the mark determined by the solar.

At 8 h. 02 m.a.m.l.m.t.I set off 40° 25' N.on lat.arc; 23° 27'N.on decl.arc; and mark a point in the meridian determined with the solar by a cross on the stone already set 5 chs.N.of my station; this mark falls 0.3 ins.west of the meridian established by the Polaris observation.

Subdivision of T. 4 S., R. 10 W.

The solar apparatus by p.m.and a.m.observations define positions for meridians respectively 0' 18" east and 0' 16" west of the meridian established by the Polar observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 h. 0 m. a.m.is N.17° 44'W.; the angle thus determined gives the mag.decl.17° 44'E.

From the sec.cor.before described I run

N.0° 01'E.bet.secs.31 and 32,

Over rough mountainous land; through scattering cedars

10.00 Top of Cedar Range 2300 ft.high,bears N.30° E. and S. 30° W. Thence along west side of range.

37.00 Bottom of deep gulch or hollow,drains west.

Continue over broken country, ascending.

40.00 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor.. mkd.on brass cap $\frac{1}{4}$ S 31 in W half, S 32 in E.half; from which

A cedar 8 ins.dia.bears S.70° E. 15 lks.dist. mkd.$\frac{1}{4}$ S 32 B T

A cedar 7 ins.dia.bears N.85° W.40 lks.dist. mkd.$\frac{1}{4}$ S 31 B T

57.54 Ridge bears E. and W.200 ft.above hollow and descend.

80.00 Set an iron post 3 ft.long, 2 ins.dia., 24 ins.in the gruund for cor.of secs.29,30,31, and 32, mkd.on brass cap T 4 S S 30 in NW.
R 10 W S 29 in NE.
S 32 in SE., and
S 31 in SW.quadrants; from which

A cedar 8 ins.dia.bears N.75° E. 70 lks.dist. mkd.T 4 S R 10 W S 29 B T

A cedar 6 ins.dia.bears S.30° W. 83 lks.dist. mkd.T 4 S R 10 W S 31 B T

A cedar 7 ins.dia.bears S.45° E. 73 lks.dist. mkd.T 4 S R 10 W S 32 B T

No other bearing trees within limits; raise a mound o

Chains

Stone 2 ft. base, 1½ ft. high W. of cor.

Land, mountainous.

Soil, stony; 4th rate.

Timber, scrub cedars.

Mountainous land 80.00 chs.

The corner of secs. 25, 30, 31, and 36 on W. bdy. of Tp. being plainly visible, I run for said corner, West on a random line bet. secs. 30 and 31,

40.00 Set temp. ¼ sec. cor.

80.00 Intersect W. bdy. of Tp. at the cor. of secs. 25,30,31, and 36, heretofore described.

Thence I run

East on a true line bet. secs. 30 and 31,

Over broken mountainous land.

10.00 Hollow 100 ft. deep, drains N. and ascend.

17.00 Ridge 75 ft. high, bears N. and S and descend.

19.00 Hollow 40 ft. deep, drains N. and ascend.

27.66 Lava ridge 200 ft. high bears N. 40° E andS. 40° W. and descend.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S. 30 in N. half, S 31 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

Collett Spring, a small spring yielding a limited amount of fairly good water, bears S. 16° 51' W. about 25 chs. dist.

44.00 Enter scattering cedars, bear N. and S.

52.50 Hollow 125 ft. deep, drains S. 45° W. and ascend.

68.80 Ridge 200 ft. high, bears N. and S.

71.00 Hollow 75 ft. deep, drains N. 55° E.

73.50 Ridge 70 ft. high, bears N. and S.

78.50 Ravine 50 ft. deep drains N.

80.00 The cor. of secs. 29.30,31, and 32.

Chains	
	Land, mountainous.
	Soil, stony; 3d rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.
	June 24: At the noon hour sky was overcast, observation for lat. impossible.

N. 0° 01 E. bet. secs. 29 and 30.

	Over mountainous land; through scattering cedars.
0.50	Bottom of hollow drains N. W.
3.60	Rocky ridge 75 ft. high bears N W and S E and descend.
8.00	Foot of descent and continue in bottom of hollow.
16.00	Begin ascent from hollow, bears N. 45° W and S. 45° E.
19.00	Ridge 85 ft. high, bears N. 60° E and S 60° W.
21.50	Hollow 40 ft. deep, drains W.
23.00	Top of spur of ridge, bears E. and W.
25.00	Ravine drains W.
28.70	Top of rocky ridge 150 ft. high, bears N. 80° W. and S. 80° E. and descend.
37.50	Hollow 150 ft. deep, drains W.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S. 30 in W. half, S 29 in E. half; and raise a mound of sto 2 ft. base, 1½ ft. high W. of cor.
47.15	Ridge 200 ft. high, bears E and W.
58. 70	Hollow 190 ft. deep, drains W.
64.40	Ridge 100 ft. high, bears E. and W.
69.00	Hollow 95 ft. deep, drains W.
75.50	Ridge 80 ft. high, bears E. and W.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the gr for cor. of secs. 19,20,29, and 30, marked on brass T 4 SS 19 in NW R 10 W S 20 in NE.

Subdivision of T. 4 S., R. 10 W.

Chains.

S 29 in SE., and

S 30 in SW.quadrants; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.

A cedar 18 ins.dia., bears N.72° W. 23 lks.dist., marked T 4 S R 10 W S 19 B T

A cedar 10 ins.dia.bears S.45° E. 12 lks.dist., marked T 4 S R 10 W S 29 B T

A cedar 14 ins.dia.bears S.55° W. 1 ch.dist., marked T 4 S R 10 W S 30 B T

A cedar 12 ins.dia. bears N.15° E. 85 lks.dist., marked T 4 S R 10 W S 20 B T

Land, mountainous.

Soil stony; 3d rate.

Timber, scattering cedars.

Mountainous land 80.00 chs.

West on a random line bet.secs.19 and 30.

40.00 Set temp.¼ sec.cor.

79.98 Intersect W.bdy.of Tp.2 lks.S.of the cor.of secs.19,24, 25, and 30, heretofore described.

Thence I run

S.89° 59'E.on a true line bet.secs.19 and 30,

Ascending over broken mountainous land; through scattering cedars.

2.00 Top of ascent, bearing N.60° E. and S.80° W.

36.00 Hollow, 250 ft.deep, drains N.

Ascend.

39.99 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for ¼ sec.cor., marked on brass cap ¼ S 19 in N.half, S 30 in S.half; and raise a mound of stones 2 ft.base, 1½ ft.high N.of cor.

42.00 Ridge, 90 ft.high, bears N. and S.

Chains.

50.00 Hollow, 60 ft.deep, drains N.

Ascend.

60.30 Ridge 65 ft.high, bears N. and S.

67.00 Hollow, 50 ft.deep, drains NW.; ascend.

79.98 The cor.of secs.19,20,29, and 30.

Land, mountainous.

Soil, stony and gravelly; 3d and 4th rates.

Timber, scattering cedars.

Mountainous land 79.98 chs.

June 24, 1909.

June 25: At 8 h. 02 m.a.m.l.m.t.I set off 40° 27'N.on lat.arc; 23° 25'N.on decl.arc; and determine a meridian with the solar at the cor.of secs.19,20,29, and 30. Thence I run

N.0° 01'E.bet.secs.19 and 20,

Over broken mountainous land; through scattering cedars; descending.

10.50 Hollow, 150 ft.deep, drains W.

Ascend.

20.00 Ridge 100 ft.high bears N.60°W.and S.60°E.;descend.

22.00 Swale drains E.;, ascend.

26.00 Ridge 200 ft.high,bears E. and W.

29.00 Hollow,200 ft.deep, drains E.; ascend.

32.00 Ridge,220 ft.high,bears E. and W.; descend.

40.00 Set an iron post 3 ft.long,1 in.dia., 26 ins.in the ground,for ¼ sec.cor., marked on brass cap ¼ S 19 in W.half, S 20 in E.half; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.

60.00 Wash, from Rydalch Pass, 5 ft.deep, 25 lks.wide, drains east.

Chains	
	Road, Rydalch Pass to Quincy Spring, bears E. and W.
70.00	Ridge 100 ft. high, bears N. E. and S. W. and descend.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 17, 18,19, and 20, marked on brass cap,
	T 4 S S 18 in NW.
	R 10 W. S 17 in NE.
	S 20 in SE., and
	S 19 in SW quadrants; and raise a mound of stone
	2 ft. base, 1½ ft. high W. of cor.
	Land, mountainous.
	Soil, stony and gravelly; 3d rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.

	N. 89° 59' W. on a random line bet. secs. 18 and 19,
40.00	Set temp. ¼ sec. cor.
80.00	Intersect W. bdy. of Tp. at the cor. of secs. 13, 18, 19, and 24, heretofore described.
	Thence I run.
	S. 89° 59' E. on a true line bet. secs. 18 and 19;
	Over gently rolling bench land, covered with wheat and bunch grass; through scattering cedars.
11.00	Sheep road, bears N and S.
35.00	Sheep road, bears N. 45° E. and S 45° W.
39.40	Foot of Cedar Range, bears N. and S.
	Ascend.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S. 18 in N. half, S. 19 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
56.50	Top of knoll, 110 ft. high, bears N. 65° W. and S. 65° E. and descend.
65.00	Road, Rydalch Pass to Quincy Spring, bears N. 45° W. and

Subdivision of T. 4 S., R. 10 W.

Chains	
	S. 45° E. and ascend.
80.00	The cor. of secs. 17, 18, 19, and 20.
	Land, rolling.
	Soil, sandy loam, clay and gravel; 1st, 2d, and 3d rate
	Timber, scattering cedars.
	June 25: At this cor. I set off 23° 25' N. on decl. a and at 0 h. 2 m. 15 s p. m. l m. t., observe the su on the meridian; the resulting lat. is 40° 28' N.

N. 0° 01' E. bet. secs. 17 and 18.

	Over mountainous land; through scattering cedars.
7.00	Top of spur bears E. and W. and descend.
10.00	Hollow 40 ft. deep, drains W. and ascend.
12.50	Low spur, bears E. and W. and descend.
14.00	Hollow 60 ft. deep, drains S. 80° W. and ascend.
26.55	Ridge 200 ft. high, bears N. 60° W and S. 60° E. and descend.
32.50	Hollow 175 ft. deep, drains W. and ascend.
36.50	Ridge 100 ft. high, bears N. 55° W. and S. 55° E and and descend.
39.70	Ravine 60 ft. deep, drains S. 60° W. and ascend.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 18 in W. half, S 17 in E half; and raise a mound stone 2 ft. base, 1½ ft. high W. of cor.
55.23	Ridge 150 ft. high, bears E. and W. and descend.
57.00	Hollow 80 ft. deep, drains W.
60.00	Rough rocky ridge, 75 ft. high, bears N. 75° W. and S. 75° E. and descend.
63.10	Hollow 65 ft. deep, drains N. 80° W. and ascend.
66.00	Low ridge, bears N. 85° W. and S. 85° E. and descend.
69.30	Hollow 100 ft. deep, drains W.

Ascend.

Chains

74.12 Low ridge, bears S. 75° W. and N. 75° E. and descend.

76.00 Ravine 30 ft. deep, drains S. 60° W.

78.92 Ridge 50 ft. high, bears N. 55° E. and S. 55° W.

80.00 Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, marked on brass cap,

T. 4 S S 7 in NW

R 10 W S 8 in NE.

S 17 in SE., and

S 18 in SW. quadrants; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

Land, mountainous.

Soil, stony; 3d rate.

Timber, scattering cedars.

Mountainous land 80.00 chs.

N. 89° 59' W. on a random line bet. secs. 7 and 18,

40.00 Set temp. ¼ sec. cor.

80.00 Intersect E. bdy. of Tp. 2 lks. N. of the cor. of secs 7, 12, 13, and 18, heretofore described.

Thence I run

East on a true line bet. secs. 7 and 18,

Over gently rolling bench land; through scattering cedars.

24.75 Road, Rydalch Pass to Quincy Spring, bears N. and S.

25.65 Foot of Cedar Range, bears N. and S.

Begin ascent, over rolling broken country.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 7 in N. half, S 18 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

46.00 Wash 25 lks. wide, 3 ft. deep drains S. 12° W.

61.50 Spur of ridge, 20 ft. high, bears N. 10° W. and S. 10

Chains	
	E. and begin gentle descent.
68.00	Hollow 25 ft. deep, drains N. and ascend.
80.00	The cor. of secs. 7, 8, 17, and 18.
	Land, mountainous.
	Soil, sandy loam, gravel, and stone, 2d and 3d rates.
	Timber, few scattering cedars.
	Mountainous land, 54.35 chs.
	June 25, 1909.

June 26: At 8 h. 02. m.a.m.l.m.t. I set off 40°29' N. on lat. arc; 23°24' N. on decl. arc, and determine a meridian with the solar at the cor. of secs 7, 8,17,and 18.

Thence I run

N.0° 01' E. bet. secs. 7 and 8,

Over undulating foot hills, along W. base of mountain, through scattering cedars.

6.30	Bottom of hollow 30 ft. deep, drains S. 45° W. and ascend.
10.50	Ridge 90 ft. high, bears E. and W.
17.50	Hollow 40 ft. deep, drains W.
29.00	Low ridge, bears E. and W.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in th ground, for ¼ sec. cor., marked on brass cap, ¼ S 7 in W. half, S 8 in E. half; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
48.50	Begin descent of bluff, bears E. and W.
50.00	Foot of bluff 40 ft. high, hollow drains W. and ascend
64.25	Ridge 60 ft. high, bears E. and W. and descend.
66.50	Hollow 70 ft. deep, drains W. and ascend.
72.50	Ridge 110 ft. high, bears N. W. and descend.
78.00	Hollow 100 ft. deep, drains W. and ascend.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs., 5, 6,7, and 8,

Subdivision of T. 4 S., R. 10 W.

Chains	
	marked on brass cap,
	T 4 SS 6 in NW.
	R 10 WS5 in NE
	S 8 in SE., and
	S 7 in S W. quadrants; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land, mountainous.
	Soil, stony; 3d rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.
	West on random line bet. secs. 6 and 7,
40.00	Set temp. ¼ sec. cor.
80.00	Intersect W. bdy. of Tp. at the cor.of of secs. 1,6,7, and 12, heretofore described.
	Thence I run
	East on a true line bet. secs. 6 and 7,
	Over gently rolling bench land; through cedars.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S. 6 in N half, S7 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
47.00	Foot of Cedar Range, bears N. and S.
	Begin ascent.
51.85	Top of ascent, 150 ft. above bench, bears N. 40° W. and S.40° E. and descend.
57.00	Hollow 80 ft. deep, drains N. 45° W. and ascend.
68.50	Ridge 150 high, bears N. 50° W. and S. 50° E. and descend.
75.00	Hollow 130 ft. deep, drains N. 60° W. and ascend.
80.00	The cor. of secs. 5,6,7, and 8,
	Land, rolling and mountainous.
	Soil, sandy loam and stony; 2d and 3 d rate.
	Timber, scattering cedars.
	Mountainous land 32.00 chs.
	June 26, 1909: At this cor. I set off 23° 23' N. on

Chains	
	decl. arc; and at 0 h. 2 m.p.m.l.m.t. observe the sun on the meridian the resulting lat. is 40° 30' N.
	N.0°01' E. on random line bet. secs. 5 and 6.
40.00	Set temp. ¼ sec. cor.
83.98	Intersect N. bdy. of Tp. 4 lks. E. of the cor. of secs. 5, 6, 31, and 32, heretofore described.
	Thence I run
	S.0° 01'E. on true line bet. secs. 5 and 6,
	Over mountainous land; through scattering cedars.
2.00	Hollow 40 ft. below cor., drains N. 60° W. and ascend.
5.50	Ridge 100 ft. high, bears E. and W. and descend.
12.00	Hollow 80 ft. deep, drains N. W. and ascend.
20.15	Ridge 200 ft. high, bears E. and W., thence over broken country.
30.25	Begin descent, bears E. and W.
38.00	Hollow 100 ft. deep, drains W. and ascend.
43.98	Ridge 60 ft. high, bears E. and W.
[illegible]	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 6 in W. half, S 5 in E. half; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
59.50	Hollow 175 ft. deep, drains W. and ascend.
67.48	Ridge 200 ft. high, bears E. and W. and descend.
73.00	Hollow 190 ft. deep, drains W. and ascend.
79.00	Ridge 150 ft. high, bears E. and W. and descend.
83.98	The cor. of secs. 5,6,7, and 8.
	Land, mountainous and broken.
	Soil, stony; 3d. rate.
	Timber, scattering cedars.
	Mountainous land 83.98 chs.
	June 26, 1909.

Chains

June 28. At 8 h. 03 m.a.m. l.m.t. I set off 40° 25' N. on lat. arc; 23° 19' N. on decl. arc; and determine a meridian with the solar at the cor. of secs. 4,5,32, and 33 on S. bdy. of Tp. heretofore described.

Thence I run

N.0°02'E. bet. secs. 32 and 33,

Over rough mountainous land, through scattering cedars.

5.65 Hollow 185 ft. deep, drains E. and begin steep ascent.

19.75 Ridge 300 ft. above hollow, bears E. and W. and begin steep descent.

29.85 Hollow 260 ft. deep, drains E. and ascend.

38.15 Ridge 250 ft. high, bears E. and W. and descend.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 32 in W. half, S 33 in E. half; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

42.00 Hollow 85 ft. deep, drains E. and ascend.

46.50 Ridge 90 ft. above hollow, bears E. and W. and descend.

57.80 Hollow 140 ft. deep, drains E. and ascend.

70.30 Ridge 150 ft. high, bears E. and W. and descend.

80.00 Set an iron post 3 ft. long, 2 ins. dia., 10 ins. in the ground, for cor. of secs. 28,29,32, and 33, marked on brass cap,

T 4 S S 29 in NW.

R 10 W S 28 in NE.

S 33 in SE., and

S 32 in SW quadrants; erect mound of stones 2 ft. base, 14 ins. high around post; from which

A cedar 7 ins. dia. bears N. 25° W. 29 lks. dist. mkd. T. 4 S R 10 W S. 29 B T.

A cedar 36 ins. dia., bears S. 25° E. 36 dist. mkd. T 4 S R 10 W S 33 B T.

No other bearing trees within limits; raise a mound of

Subdivision of T. 4 S., R. 10 W.

Chains	
	of stone 2 ft. base, 1½ ft. high W. of cor.
	This cor. stands on W. edge of deep grotto.
	Impossible to set post 24 ins. in the ground.
	Land, mountainous and broken.
	Soil, stony; 3d and 4th rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.
	West on a random line bet secs. 29 and 32.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line at the cor. of secs. 29, 30, 31, and 32.
	Thence I run
	East on a true line bet. secs.29 and 32,
	Over rough mountainous land; through scattering cedars.
7.00	Hollow 60 ft. below cor., drains N. 45° W. and ascend.
14.50	Top of spur ridge 160 ft. high, bears N. and S. and descend.
18.30	Hollow 150 ft. deep, drains N. 46° W. and ascend main ridge.
35.00	Top of Cedar Range, 2100 ft. high bears N. and S. Divide between Great American Desert and Skull Valley.
	Descend.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 29 in N. half, S 32 in S. half; from which
	A cedar, 12 ins dia., bears N. 20° W. 49 lks. dist. mkd. ¼ S 29 B T
	A cedar, 12 ins. dia., bears S. 55° E. 1.17 chs. dist., mkd., ¼ S 32 B T
41.00	Hollow 165 below ridge, drains S. 45° E. and ascend.
60.00	Ridge 100 ft. above hollow, bears N. 45° W and E. and descend along ridge to cor. 250 ft. below top of ridge.

Subdivision of T. 4 S., R. 10 W.

Chains.

80.00 The cor. of secs. 28, 29, 32, and 33.
Land, mountainous
Soil, stony; 4th rate.
Timber, scattering, cedars.
Mountainous land 80.00 chs.
June 28, 1909: At noon hour sky overcast, observation for latitude impossible.

N.0° 02' E. bet. secs. 28 and 29.
Over mountainous, undulating land; through cedars.
10.50 Begin descent into hollow.
18.25 Hollow 50 ft. deep, drains S. 65° E. and ascend.
30.80 Ridge 110 ft. high, bears E. and W. and descent.
40.00 Set an iron post 3 ft. long, 1 in. dia., 10 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 29 in W. half. S 28 in E. half; from which
A cedar, 7 ins. dia., bears S. 70° E. 25 lks. dist. mkd. ¼ S 28 B T
A cedar, 12 ins. dia., bears S. 45° W. 45 lks. dist., mkd. ¼ S 29 B T
I raise a mound of stone 2 ft. base, 16 ins. high around post;
Impossible to set post 26 ins. in the ground.
61.50 Hollow 75 ft. deep, drains E and ascend.
70.00 Ridge 70 ft. above hollow, bears N. 45° W and S. 45° E. and descend.
77.00 Ravine or hollow 30 ft. deep, drains S. 45° E.
80.00 Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 20,21,28, and 29, marked on brass cap,
T 4 S S 20 in NW.
R 10 W S 21 NE
S 28 in SE., and

Subdivision of T. 4 S., R. 10 W.

Chains.	
	S 29 in SW quadrants; from which
	A cedar 8 ins. dia. bears N. 40° E. 25 lks. dist. mkd. T 4 S R 10 W S 21 B T.
	A cedar 6 ins. dia., bears N. 45° W. 15 lks. dist. mkd. T 4 S R 10 W S 20 B T
	A cedar 6 ins. dia., bears S. 70° W. 30 lks. dist. mkd. T 4 S R 10 W S 29 B T
	A cedar 6 ins. dia., bears S. 20° E. 50 lks. dist. mkd. T. 4 S R 10 W S 28 B T
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, cedars.
	Mountainous land 80.00 chs.
	West on a random line bet. secs. 20 and 29.
40.00	Set a temp. ¼ sec. cor.
80.02	Intersect N. and S. line 2 lks. S. of the cor. of secs. 19, 20, 29, and 30.
	Thence I run
	S. 89° 59' E. on a true line bet. secs. 20 and 29
	Over mountainous land; through scattering cedars.
7.30	Hollow 65 ft. deep, drains N. 70° W. and ascend.
22.50	Ridge 200 ft. high, bears N.50° W. and S. 50° E. and descend over rolling broken land.
27.00	Hollow 65 ft. deep, drains N. 50° W and ascend.
32.50	Ridge 50 ft. high, bears N. 15° W. and S. 15° E. and descend.
40.01	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in th ground, for ¼ sec. cor., marked on brass cap, ¼ S 20 in N. half, S. 29 in S. half; and raise a moun of stone 2 ft. base, 1½ ft. high N. of cor.
45.00	Hollow 60 ft. deep, drains N. 80° W and ascend.
60.25	Divide between Great American Desert and Skull Valley 1900 ft. high, bears N. and S.
	Descend.

Subdivision of T. 4 S., R. 10 W.

Chains

78.00 Hollow 200 ft. below ridge, drains S. 20° E, begin gentle descent.

80.02 The cor. of secs. 20,21,28, and 29.

Land, mountainous.

Soil, stony; 4th rate.

Timber, cedars.

Mountainous land 80.02 chs.

June 28, 1909.

June 29: At 8 h. 03 m. a.m. l.m.t. I set off 40° 27' N. on lat. arc; 23° 16' N. on decl. arc; and determine a meridian with the solar at the cor. of secs. 20,21,28, and 29.

Thence I run

N.0° 02' E. bet. secs. 20 and 21,

Over mountainous land; along E. side of Divide; through cedar timber.

17.00 Divide between Great American Desert and Skull Valley bears N. 40° E. and S. 40° W., 1000 ft. high Continue along west side.

20.00 Hollow 60 ft. deep, drains N. 60° W. and ascend.

23.00 Ridge, spur of main ridge, 40 ft. high, bears N. W. and SE: descend.

27.90 Road from Rydalch Pass to Quincy Spring, bears N. 60° W. and S 60° E.

Rydalch Pass bears S. 58° E. about 12 chs: dist. Continue over broken, undulating ground.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 20 in W. half, S 21 in E. half; from which

A cedar, 15 ins. dia., bears S. 70° W., 37 lks.

Chains	
	dist. mkd. ¼ S 20 B T
	A cedar, 12 ins. dia., bears S. 30° E. 83 lks.
	dist. mkd. ¼ S 21 B T
60.00	Begin ascent of W. side of Tabby's Peak, a prominent volcanic cone about 2300 ft. high.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 12 ins in the ground, for cor. of secs. 16, 17, 20, and 21, mkd. on brass cap,
	T 4 S S 17 in NW.
	R 10 W S 16 in NE.
	S 21 in SE., and
	S 20 in SW. quadrants; from which
	A cedar 12 ins. dia., bears N. 2° 30' E. 1.0 chs. dist., mkd. T 4 S R 10 W S 16 B T
	A cedar, 10 ins. dia., bears S. 46 ° E. 1.00 ch. dist. mkd. T 4 S R 10 W S 21 B T
	A cedar, 10 ins. dia., bears S. 65° W. 17 lk dist. mkd. T. 4 S R 10 W S 20 B T
	A cedar 8 ins. dia., bears N. 41° W. 1.46 ch dist. mkd. T 4 S R 10 W S 17 B T
	I raise a mound of stones 2 ft. base, 12 ins. high ar und post.
	Impossible to set post 24 ins. in the ground.
	From this cor, summit of Tabby's Peak, bears N. 45° E. about 20 chs. dist.
	Tabby's Spring, with water trough and horse corral bears N. 71° 50' W. about 20 chs. dist.
	This spring is at base of peak.
	Land, mountainous.
	Soil, stony; 2d and 4th rate.
	Timber, cedars.
	Mountainous land 80.00 chs.

Chains.	
	N. 89° 59' W on random line bet. secs. 17 and 20,
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line 2 lks. N. of the cor. of secs. 17, 18, 19, and 20.
	Thence I run
	East on a true line bet. secs. 17 and 20,
	Over mountainous land; through scattering cedars ascending.
40.00	Set an iron post 3 ft. long, 1 in. dia., 12 ins. in the ground for ¼ sec. cor., marked on brass cap, ¼ S 17 in N. half, S 20 in S. half; erect mound of stones 2 ft. base, 14 ins. high around post; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Impossible to set post 26 ins. in the ground.
41.50	Ridge, 100 ft. high, bears N. 30° E. and S. 30° W.
	Descend.
60.00	Foot of ridge.
	Hollow, drains S. 30° W.
	Road to Tabby's spring bears N. 30° E. and S. 30° W.
80.00	The cor. of secs. 16, 17, 20, and 21.
	Land, mountainous.
	Soil, stony; 2d and 4th rate.
	Timber, cedars.
	Mountainous land 80.00 chs.
	June 29: At this cor. I set off 23° 15' N. on decl. arc; and at 0 h. 3 m.p.m. l.m.t. observe the sun the meridian; the resulting lat. is 40° 28' N.

	N. 0° 02' E. bet. secs. 16 and 17,
	Over mountainous land; along W. side of Tabby's Peak; through cedar timber.
22.00	Foot of Tabby's Peak, bears N. E. and S. W. and descend into hollow.

Chains	
24.00	Hollow 25 ft. deep drains W. and ascend.
30.80	Ridge 60 ft, high, bears E. and W.
36.00	Hollow 50 ft. deep, drains W.
38.00	Low ridge, 30 ft. high, bears E. and W.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 17 in W. half, S 16 in E. half; from which A cedar 6 ins. dia., bears S. 65° W. 13 lks. dist. mkd. ¼ S 17 B T A cedar 10 ins. dia., bears east 83 lks. dist. mkd. ¼ S 16 B T This ¼ sec. cor. stands at NW base of Tabby's Peak.
41.40	Hollow 35 ft. deep, drains S. 55° W. and ascend.
55.20	Pass on saddle 75 ft. high, bears E. and W. and descen
65.00	Hollow 80 ft. deep, drains N. W. and ascend.
71.00	Ridge 100 ft high, bears E. and W. and descend.
76.00	Hollow, 60 ft. deep, drains N. 60° W. and ascend.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 8,9,16, and 17, mark ed on brass cap, T 4 S S 8 in N W. R 10 W S 9 in NE. S 16 in SE., and S 17 in SW. quadrants; from which A cedar, 36 ins. dia., bears N. 10° E. 5 lks. dist. mkd. T 4 S R 10 W S 9 B T A cedar 14 ins. dia., bears N. 75° W. 47 lks. dist. mkd. T 4 S R 10 W S 8 B T A cedar 7 ins. dia., bears S. 55° E. 50 lks. dist. mkd. T 4 S R 10 W S 16 B T A cedar 6 ins. dia., bears S. 36° W. 24 lks. dist. mkd. T 4 S R 10 W S 17 B T.

Chains	
	Land, mountainous.
	Soil, stony; 2d and 3d. rate.
	Timber, cedars.
	Mountainous land 80.00 chs.
	West on random line bet secs. 8 and 17,
40.00	Set temp. ¼ sec. cor.
80.10	Intersect N. and S. line 8 lks. N. of the cor. of secs. 7, 8, 17, and 18.
	Thence I run
	N. 89° 57' E. on a true line bet. secs. 8 and 17
	Over mountainous land; through scattering cedars.
6.00	Begin steep descent into hollow.
9.50	Hollow 80 ft. deep, drains N and ascend.
24.00	Ridge 100 ft. high, bears N. 45° W. and S. 45° E. and descend.
26.30	Ravine 30 ft. deep, drains N. and ascend.
29.00	Rocky ridge 40 ft. high, bears N. W. and S. E. and descend into deep hollow.
35.00	Hollow, 80 ft. deep, drains N. 60° W. and begin steep, rough ascent.
40.05	Set an iron post 3 ft. long, 1 in. dia., 10 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 8 in N. half, S 17 in S. half; erect mound of stone 2 ft. base, 16 ins. high around post; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Impossible to set post 26 ins, in the ground.
47.68	Ridge 280 ft. high, bears N35° W. and S. 35° E. and begin steep descent.
51.00	Hollow, 75 ft. deep, drains N. 30° E and ascend.
55.00	Ridge, 60 ft. above hollow, bears N. 40° E. and S. 40° W. and descend.
59.20	Hollow 40 ft. deep, drains N. and ascend.

Chains.

64.20 Ridge100 ft. high, bears N. and S. and descend.

68.50 Hollow, 45 ft. deep, drains N. 15° W. and ascend.

74.00 Ridge, 50 ft. high, bears N. 25° W and S. 25° E. and descend.

76.50 Hollow, 40 ft. deep, drains N. 25° W and begin gradual ascent along face of ridge.

80.10 The cor. of secs. 8, 9, 16, and 17.

Land, mountainous.

Soil, stony; 4th rate.

Timber, scattering cedars.

Mountainous land 80.10 chs.

June 29, 1909.

June 30, At 8 h.03 m.a.m. l.m.t. I set off 40° 29' N. on lat. arc; 23° 12' N. on decl. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16, and 17.

Thence I run

N.0° 02' E. bet. secs. 8 and 9,

Over mountainous land; through cedars.

5.85 Ridge, 75 ft. high, bears N. 80° [illegible] W. and S. 80° E. and descend.

16.50 Hollow, 60 ft. deep, drains N. 60° W. and ascend.

28.73 Ridge, 100 ft. high, bears N. 80° E. and S. 80° W. and descend into swale.

35.00 Bottom of swale, 30 ft. deep, drains W. and ascend.

38.44 Ridge, 150 ft. high, bears N. 80° E. and S 80° W. and descend.

40.00 Set an iron post 3 ft. long, 1 in. dia., 12 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 8, in W. half, S 9 in E. half; from which

Chains	
	A cedar 8 ins. dia., bears S. 35° W. 60 lks. dist. mkd. ¼ S 8 B T
	A cedar 10 ins. dia., bears S. 5° E. 29 lks. dist. mkd. ¼ S 9 B.T
	Erect a mound of stones 2 ft. base, 14 ins, high around post.
	Impossible to set post 26 ins. in the ground.
	Leave cedars.
46.00	Hollow, 140 ft. deep, drains S. 75° W. and ascend.
64.00	Ridge, 180 ft. high, bears N. 75° W. and S. 75° E. and descend.
73.50	Hollow, 125 ft. deep, drains N. 70° W and ascend.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 10 ins. in the ground, for cor. of secs. 4, 5, 8, and 9, marked on brass cap,
	T 4 S S 5 in NW.
	R 10 W S 4 in NE.
	S 9 in SE. and
	S 8 in SW quadrants; and raise a mound of stone 2 ft. base, 14 ins. high around post; and mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Impossible to set post 24 ins. in the ground.
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, cedars.
	Mountainous land 80.00 chs.
	This corner stands on steep, rocky S. face of high ridge.

	S. 89° 57' W. on a random line bet. secs. 5 and 8.
40.00	Set temp, ¼ sec. cor.
80.06	Intersect N. and S. line 6 lks. S. of the cor. of secs. 5, 6, 7, and 8.
	Thence I run

Chains	
	East on true line bet. secs.5 and 8,
	Over mountainous, undulating land; through scattering cedars.
33.00	Top of ridge 250 ft. above cor., bears N. and S.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 5 in north half, S 8 in south half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
42.00	Hollow, 90 ft. deep, drains S. and ascend.
45.00	Ridge, 80 ft. high, bears N. and S.
48.00	Hollow, 40 ft. deep, drains S.
55.00	Ridge, 100 ft. high, bears N. 65° E. and S. 65° W. and descend.
63.50	Hollow, 60 ft. deep, drains S. 60 W. and ascend.
66.70	Ridge, 45 ft. high, bears, N. 45° E. and S. 45° W. and descend.
73.00	Hollow, 50 ft. deep, drains S. 45° W and ascend along side of ridge.
80.06	The cor. of secs. 4, 5, 8, and 9.
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, cedars.
	Mountainous land 80.06 chs.
	June 30: At this cor. I set off 23° 12' N on decl. arc; and at 0 h. 3 m. 1M s. p.m. l.m.t. observe the sun on the meridian; the resulting lat. is 40° 30'N.
	N.0° 02' E. on a random line bet. secs. 4 and 5,
40.00	Set temp. ¼ sec. cor.
83.90	Intersect N. bdy. of Tp. at the cor. of secs. 4, 5, 32, and 33, set by myself and heretofore described.
	Thence I run
	S.0° 02' W. bet. secs. 4 and 5 on true line.
	Over mountainous land; through scattering cedars

Subdivision of T. 4 S., R. 10 W.

Chains	
	ascending.
12.00	Ridge, 300 ft. high, bears E. and W. and descend.
18.00	Hollow, 200 ft. deep, drains W. and ascend.
22.00	Ridge, 250 ft. high, bears E. and W. and descend.
28.00	Hollow, 250 ft. deep, drains, W. and ascend.
32.50	Ridge, 275 ft. high, bears, E. and W. and descend.
36.00	Hollow, 150 ft. deep, drains N. 75° W. and ascend.
43.90	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S. 5 in W. half, S 4 in E. half; and raise a mound of stones 2 ft. base, 1½ ft. high W. of cor.
47.20	Ridge, 140 ft. high, bears N. 60° W. and S 60° E. and descend.
51.20	Hollow, 50 ft. deep, drains N. 60° W and ascend.
54.00	Ridge, 55 ft. high, bears E. and W. and descend.
58.00	Hollow, 45 ft. deep, drains S. 55° W. and ascend.
63.50	Ridge, 100 ft. high, bears N. 50° E. and S. 50° W. and descend.
70.00	Hollow, 65 ft. deep, drains S. 45° W and ascend.
78.30	Ridge, 150 ft. high, bears S. 40° W. and N. 40° E. and descend.
83.90	The cor. of secs. 4, 5, 8, and 9.
	Land, mountainous.
	Soil, rocky 4th rate.
	Timber, cedars.
	Mountainous land 83.90 chs.

June 30, 1909.

July 1: At 8 h. 03 m. a.m. l.m.t. I set off 40° 25' N. on lat. arc; 23° 09' N. on decl. arc; and determine a meridian with the solar at the cor. of secs. 3, 4, 33, and 34, on S. bdy. of Tp., heretofore described. Thence I run

Subdivision of T. 4 S., R. 10 W.

Chains

N.0° 02'E. bet. secs. 33 and 34,

Over rolling bench and foot hills, through scattering cedars.

6.20 Ridge, 30 ft. high, bears E. and W. and descend.

15.50 Hollow, 75 ft. deep, drains S. E. and ascend.

30.75 Ridge, 140 ft. high, bears N. W. and S. E. and descend.

35.50 Ravine or hollow, 25 ft. deep, drains S. E. and ascend.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S. 33 in W. half, S 34 in E. half; from which

A cedar, 10 ins. dia., bears N. 45° W. 25 lks. dist. mkd. ¼ S. 33 B T

No other bearing trees within limits; raise a mound of stones 2 ft. base, 1½ ft. high W. of cor.

45.00 Ridge, 120 ft. high, bears N. W. and S.E. and descend.

50.00 Hollow, 50 ft. deep, drains E. and ascend.

54.50 Knoll bears N. E. and S. W. and descend.

60.10 Hollow, 50 ft. deep, drains S. E. and ascend.

70.40 Ridge, 200 ft. high, bears N. 75° W and S 75° E. and descend.

80.00 Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 27, 28, 33, and 34, marked on brass cap,

T 4 S S 28 in NW.

R 10 W S 27 in NE

S 34 in SE., and

S 33 in SW quadrants; and raise a mound of stones 2 ft. base, 1½ ft. high W. of cor.

Land, rolling and mountainous.

Soil, stony; 3d rate.

Timber, cedars.

Mountainous land 64.59 chs.

This cor. stands on steep N. slope, in thick scrub ceda

Subdivision of T. 4 S., R. 10 W.

Chains	
	West on a random line bet. secs. 28 and 33.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line 16 lks. N. of the cor. of secs. 28, 29, 32, and 33. Thence I run
	N. 89° 53'E. on true line bet. secs. 28 and 33,
	Over mountainous land; through scattering cedars.
0.50	Rocky gorge,25 ft. deep, drains N. 45° E. and ascend.
16.00	Ridge, 125 ft. high, bears N. 45° E and S 45° W and descend.
26.50	Hollow, 200 ft. deep, drains S. 80° E and ascend.
29.00	Ridge, 75 ft. high, bears N. 10° W. and S. 10° E. and descend.
37.75	Hollow, 65 ft. deep, drains S. and ascend.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 28 in N. half, S 33 in S. half, from which
	A cedar, 8 ins. dia., bears S. 50° E. 46 lks. dist. mkd. ¼ S 33 B T
	No other bearing trees within limits; raise a mound of stones 2 ft. base, 1½ ft. high N.of cor.
46.55	Ridge, 140 ft. high, bears N. and S. and descend, over broken land.
80.00	The cor. of secs. 27, 28,33, and 34.
	Land, mountainous.
	Soil, stony; 3d rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.
	July 1: At this cor. I set off 25°08' N. on the decl. arc; and at 0 h. 03 m. p. m. l .m.t. observe the sun on the meridian; the resulting lat. is 40° 26'.

	N. 0° 02' E. bet. secs. 27 and 28,
	Over mountainous land; through scattering cedars.
2.50	Hollow, 40 ft. deep, drains N. 80° E. and ascend.
5.20	Ridge, 75 ft. high, bears N. 75° E. and S. 75° W. and

Subdivision of T. 4 S., R. 10 W.

Chains	
	descend.
9.75	Hollow, 50 ft. deep, drains, N. E. and ascend over broken country.
13.00	Ridge, 175 ft. high, bears N. 35° E. and S. 35° W. and descend.
23.00	Hollow, 250 ft. below ridge, drains E., thence along west side of the Rydalch Canyon Wash.
37.00	Rydalch Canyon Wash, 15 lks. wide, 2 ft. deep, course S. 65° E.
	Road from Rydalch Pass to Brown's Ranch, bears N. 65° W. and S. 65° E. and begin a gradual ascent.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 28 in W. half, S 27 in E. half; from which
	A cedar 10 ins. dia., bears N. 70 W. 18 lks. dist. mkd. ¼ S 28 B T
	No other bearing trees within limits; raise a mound of stones 2 ft. base, 1½ ft. high W. of cor.
46.50	Small bitter spring 1.25 chs. east
67.30	Ridge, 300 ft. above wash, bears N. 70° W. and S. 70° E and descend.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 8 ins. in ground for cor. of secs. 21, 22, 27, and 28, marked on brass cap
	T 4 S S 21 in NW.
	R 10 W S 22 in NE.
	S 27 in SE., and
	S 28 in SW. quadrants; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Impossible to set post 24 ins. in the ground, erect mound of stones 16 ins. high around post.
	Land, mountainous.
	Soil, stony; 3d rate.
	Timber, few scattering cedars.
	Mountainous land 80.00 chs.
	This cor. stands on E. face of bare hill.

Chains	
	S. 89° 53'W. on a random line bet. secs. 21 and 28,
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S. line at the cor. of secs. 20, 21, 28, and 29. Thence I run
	N. 89° 53' E. on a true line bet. secs. 21 and 28, Over undulating, mountainous land; through scattering cedars.
10.30	Begin descent into Rydalch Canyon Wash.
20.00	Rydalch Canyon Wash, 20 lks. wide, 4 ft. deep, drains S. 48° E.
	Road Brown's Ranch to Rydalch Pass, bears N. 48° W. and S. 48° E. and continue over undulating ground.
30.00	Begin descent into hollow, bears NW and S.
33.50	Hollow, 40 ft. deep, drains S. and ascend.
36.50	Ridge, 50 ft. high, bears N. 45° W. and S. 45° E. and descend.
39.98	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S. 21 in N. half, S. 28 in S. half; from which
	A cedar 18 ins. dia., bears S. 15° E. 38 lks. dist. mkd. ¼ S 28 B T
	A cedar 8 ins. dia., bears N. 40° W. 56 lks. dist. mkd. ¼ S 21 B T
	Corner stands in swale among thick cedars.
42.45	Ridge, 40 ft. high, bears N. 35° W. and S. 35° E. and descend.
54.30	Hollow, 50 ft. below ridge, drains S. and begin steep ascent.
71.50	Top of bare ridge, 300 ft, high, bears N. and S. and descend.
79.96	The cor. of secs. 21,22,27, and 28.
	Land, mountainous.
	Soil, stony; 3d and 4th rate.
	Timber, scattering cedars.
	Mountainous land,79.96 chs. July 1, 1909.

Subdivision T. 4 S., R. 10 W.

Chains.	
	July 2, 1909: At 7 h. 34 m. a.m. l.m.t. I set off 40° 27' N. on lat. arc.; 23° 05' N. on decl. arc, and determine a meridian with the solar at the cor. of secs. 21, 22 27, and 28. Thence I run.
	N. 0° 02' E. bet. secs. 21 and 22,
	Over mountainous land; through scattering cedars.
2.50	Top of spur, 30 ft. above cor., bears E. and W. and descend.
7.00	Ravine 100 ft. deep, drains E. and ascend.
8.25	Spur, 40 ft. high, bears E. and W. and descend.
10.65	Ravine, 75 ft. deep. drains E. and ascend.
13.50	Ridge, 50 ft. high, bears E. and W. and descend.
15.50	Ravine, 40 ft. deep, drains E. and ascend.
19.00	Ridge, 60 ft. high, bears E. and W. and continue over broken ground.
31.55	Begin steep descent into hollow heads at N. side Tabby's Peak.
34.50	Foot of descent of hollow 65 ft. below ridge, drains S. 45° E.
37.00	Opposite side of hollow and ascend.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 21 in W. half, S 22 in E. half; and raise a mound of stones 2 ft. base, 1½ ft. high W. of cor.
54.25	Top of ascent, ridge 350 ft. above hollow, bears N. 68° W. and S. 68° E. and descend.
57.25	Hollow, 75 ft. deep, drains S. 68° E. and Ascend.
78.50	Ridge, 1800 ft. above valley, bears N. 60° W. and S. 60° E. and descend.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 15, 16, 21, and 22, marked on brass cap,
	T 4 S R 10 W S 16 in NW. S 15 in NE. S 22 in SE., and

Subdivision T. 4 S., R. 10 W.

Chains

S 21 in SW. quadrants; from which

A cedar, 8ins. dia., bears N. 35° W. 1.12 chs. dist. mkd. T 4 S R 10 W S 16 B T

No other bearing trees within limits; raise a mound of stones 2 ft. base, 1½ ft. high W. of cor.

Land, mountainous,

Soil, stony; 3d and 4th rates.

Timber, scattering cedars.

Mountainous land 80.00 chs.

S. 89°53' W. on a random line bet. secs. 16 and 21.

40.00 Set temp. ¼ sec. cor.

80.00 Intersect N. and S. line 10 lks. S. of the cor. of secs. 16, 17, 20, and 21, Thence I run N. 89° 57' E. on a true line bet. secs. 16 and 21, Over mountainous land; ascending along S. side of Tabby's Peak; through scattering cedars.

13.00 Top of ascent bears N. and S.

Descend.

33.78 Foot of descent, bears N. 40° E and S. 40° W.

Thence over broken country.

37.50 Ravine, 30 ft. deep, drains S. 55° E. and ascend.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S. 16 in N. half, S 21 in S. half; from which

A cedar 8 ins. dia., bears South 15 lks. dist. mkd. ¼ S 21 B T

No other bearing trees within limits; raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

46.00 Top of ascent, 50 ft. high, bears N. 45° W. and S. 45° E. and descend.

49.00 Hollow, from N. side Tabby's Peak, drains S. 45° E. and begin ascent of high ridge.

72.00 Top of ridge, 250 ft. high, bears N. 60° W. and S. 60° E. and descend.

Subdivision T. 4 S., R. 10 W.

Chains	
80.00	The cor. of secs. 15, 16, 21, and 22.
	Land, mountainous.
	Soil, stony; 3d rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.
	July 2: At the noon hour sky overcast, obs. for lat. impossible.

N.0° 02' E. bet. secs. 15 and 16,

Over rough mountains; through cedars.

5.30	Ravine or hollow, 200 ft. below cor., drains N. 65° E
11.00	Ridge, 100 ft. high, bears N. 65° E. and S. 65° W. and descend.
13.25--	Ravine, 70 ft. deep, drains N. 60° E. and ascend.
15.10	Ridge, 60 ft. high, bears N. 68° E. and S. 68° W., and descend. This ridge ends about 5 chs. E.
22.15	Hollow, 175 ft. deep, drains S. 65° E. and ascend.
29.75	Ridge, 200 ft. high, bears E. and W. and descend.
35.00	Ravine, 65 ft. below ridge, drains E. and ascend.
39.54	Ridge, 80 ft. above ravine, bears N. 75° W. and S. 75° E. and descend, over broken country.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd., on brass cap, ¼ S 16 in W. half, S 15 in E. half; from which A cedar 6 ins. dia., bears S. 45° W. 6 lks. dist. mkd. ¼ S 16 B T A cedar 6 ins. dia., bears S. 70° E. 18 lks. dist. mkd. ¼ S 15 B T
68.50	Hollow, 300 ft. below ridge, drains E. and ascend.
71.70	Ridge, 100 ft. above hollow, bears E. and W. and descend.

Subdivision T. 4 S., R. 10 W.

Chains.	
78.00	Hollow, 120 ft.below ridge, drains E.; ascend.
80.00	Set an iron post 3 ft.long, 2 ins.dia., 24 ins.in the ground for cor.of secs.9,10,15, and 16, marked on brass cap T 4 S S 9 in NW. R 10 W S 10 in NE. S 15 in SE., and S 16 in SW.quadrants; from which A cedar 24 ins.dia.bears S.20° W. 3 lks.dist. mkd. T 4 S R 10 W S 16 B T A cedar 10 ins.dia., bears N.30° W. 45 lks.dist. mkd.T 4 S R 10 W S 9 B T A cedar 24 ins.dia.bears N.20° E. 37 lks.dist.mkd. T 4 S R 10 W S 10 B T A cedar 6 ins.dia.bears S.60° E. 27 lks.dist.mkd. T 4 S R 10 W S 15 B T
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.
	S.89° 57'W.on random line bet.secs.9 and 16,
40.00	Set temp.¼ sec.cor.
79.80	Intersect N. and S.line at the cor.of secs.8,9,16, and 17. Thence I run
	N.89° 57'E.on a true line bet.secs.9 and 16,
	Ascending over rough mountainous land; through scattering cedars.
16.00	Ridge, 200 ft.high, bears N.80° W. and S.80° E.;descend.
35.00	Hollow, 150 ft.deep, drains N.82° W.;ascend main ridge.
39.80	Set an iron post 3 ft.long, 1 in.dia., 11 ins.in the ground,for ¼ sec.cor., marked on brass cap ¼ S 9 in N.half, S 16 in S.half; raise mound of stones 2 ft.base

Chains.	
	15 ins.high around post; impossible to set it 26 ins. in the ground.
	A cedar 18 ins.dia.bears N.25° W. 82 lks. dist., mkd. ¼ S 9 B T
	A cedar 7 ins.dia.bears S.35° E. 66 lks.dist.,mkd. ¼ S 16 B T
50.00	Divide between Skull Valley and Great American Desert, 1800 ft.high, bears N. and S. Descend along N.side of hollow.
79.80	The cor.of secs.9,10,15, and 16.
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, scattering cedars.
	Mountainous land 79.80 chs. July 2, 1909.

July 3: At 8 h. 04 m.a.m.l.m.t.I set off 40° 29'N.on lat.arc; 23° 00'N.on decl.arc; and determine a meridian with the solar at the cor.of secs.9,10,15, and 16

Thence I run

N.0° 02'E.bet.secs.9 and 10,

	Over mountainous land; through cedars.
4.75	Ridge, 75 ft.above cor., bears E.and W.Descend.
13.00	Hollow,100 ft.deep, drains E.;begin gradual ascent over broken country.
40.00	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground,for ¼ sec.cor., marked on brass cap ¼ S 9 in ½ half, S 10 in E.half; from which
	A cedar 6 ins.dia.bears S.80° E. 35 lks.dist., mkd. ¼ S 10 B T
	A cedar 10 ins.dia.bears S.30° W. 30 lks.dist., mkd. ¼ S 9 B T
45.00	Ridge, 1400 ft.high, divide between Rydalch Canyon and West Canyon,bears E. and W.

Chains	
	Continue over broken country sloping E.;descending.
68.00	Hollow, 250 ft.below ridge,drains N.50° E.;ascend.
74.00	Ridge,175 ft.above hollow,bears E.and W.;descend.
80.00	On bare E.face of hill.
	Set an iron post 3 ft.long, 2 ins.dia., 24 ins.in the ground, for cor.of secs.3,4,9, and 10, marked on brass cap,
	T 4 S S 4 in NW.
	R 10 W S 3 in NE.
	S 10 in SE.; and
	S 9 in SW.quadrants; from which
	A cedar 12 ins.dia., bears N.30° E. 106 lks.dist.,
	mkd.T 4 S R 10 W S 3 B T
	A cedar 14 ins.dia.bears N.50° W. 164 lks.dist.
	mkd.T 4 S R 10 W S 4 B T
	No other trees within limits; raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Land, mountainous.
	Soil, stony and mountain loam;2d and 3d rates.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.
	S.89° 57'W.on random line bet.secs.4 and 9,
40.00	Set temp.¼ sec.cor.
79.94	Intersect N. and S.line 7 lks.S.of cor.of secs.4,5,8; and 9. Thence I run
	East on true line bet.secs.4 and 9
	Over rough mountainous land;ascending through scattering cedar timber.
33.00	Divide between Great American Desert and Skull Valley bears N. and S.,1800 ft.high.Desc.over broken country.
39.97	Set an iron post 3 ft.long,1 in.dia., 10 ins.in ground for ¼ sec.cor., mkd.on brass cap ¼ S 4 in N.half, S 9 in S.half;raise a mound of stone 4 ft.base,16 ins.high around post;impossible to set it 26 ins.in the ground.
	A cedar 8 ins.dia.bears N.65° W.60 lks.dist., mkd.

Subdivision of T. 4 S., R. 10 W.

Chains.	
	¼ S 4 B T A cedar 8 ins.dia.bears S.75° W.49 lks.dist.mkd.
	¼ S 9 B T
79.94	The cor.of secs.3,4,9, and 10. Land, mountainous. Soil, stony;3d rate. Timber, scattering cedars. Mountainous land 79.94 chs. July 3: At this cor.I set off 22° 59'N.on decl.arc; and at 0 h. 4 m.p.m.l.m.t.observe the sun on the meridian the resulting lat.is 40° 30'
	N.0° 02'E.on random line bet.secs.3 and 4,
40.00	Set temp.¼ sec.cor.
83.70	Intersect N.bdy.of Tp.20 lks.E.of the cor.of secs.3.4.33 and 34,heretofore described.Thene I run S.0° 07'E.bet.secs.3 and 4 on true line, Over mountainous land;rolling and broken.
36.25	Low ridge bears E. and W.
43.70	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for ¼ sec.cor., mkd.on brass cap ¼ S 4 in W. half, S 3 in E.half; from which A cedar 24 ins.dia.bears N.31° W. 110 lks.dist. mkd.¼ S 4 B T A cedar 18 ins.dia.bears N.9° E. 120 lks.dist. mkd.¼ S 3 B T
78.70	Ravine drains E.
83.70	The cor.of secs.3,4,9, and 10. Land, mountainous. Soil, stony; 2d and 3d rate. Timber, scattering cedar, Mountainous land 83.70 chs. July 3, 1909.
	July 5: At 7 h.34m.a.m.l.m.t.I set off 40° 25'N.on lat. arc; 22° 50'N.on decl.arc; and determine a meridian with the solar at the cor.of secs.2,3,34, and 35 on S. bdy.of Tp.,heretofore described. Thence I run N.0° 03'E.bet.secs.34 and 35, Over broken country;ascending.

Subdivision of T. 4 S., R. 10 W.

Chains.	
26.00	Begin descent into mouth of Rydalch Canyon, bears E. and W.
40.00	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground,for ¼ sec.cor., mkd.on brass cap ¼ S 34 in W. half, S 35 in E.half; and raise a mound of stone 2 ft. base, 1½ ft high W.of cor.
44.15	Rydalch Canyon Wash, 40 lks.wide, 6 ft.deep, course E.
47.00	Road, Rydalch Pass to Brown's Ranch bears E. and W.
	Thence over rolling country.
80.00	Set an iron post 3 ft.long, 2 ins.dia., 6 ins.in the ground, for cor.of secs.26,27,34, and 35, marked on brass cap T 4 S S 27 in NW. R 10 W S 26 in NE. S 35 in SE.; and S 34 in SW.quadrants; raise a mound of stones 2 ft.base, 18 ins.high around post; and raise a mound of stones 2 ft.base, 1½ ft.high W.of cor.
	Impossible to set post 24 ins.in the ground.
	Land rolling and mountainous.
	Soil, stony; 4th rate.
	No timber.
	Mountainous land 47.00 chs.

West on a random line bet.secs.27 and 34,

40.00	Set temp.¼ sec.cor.
80.02	Intersect N. and S.line at the cor.of secs.27,28,33, and 34. Thence I run
	East bet.secs.27 and 34 on true line.
	Over broken mountainous land;through scattering cedars.
21.20	Begin descent into Rydalch Canyon, 200 ft.deep below crest of ridge, course S.45° E.

Chains.	
39.24	Bottom of canyon, wash drains S.45° E. Leave scattering cedars, bear N. and S.
39.68	Road, Brown's Ranch to Rydalch Pass bears N.45° W. and S.45° E. Begin ascent of bare mountain.
40.01	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap ¼ S 27 in N. half, S 34 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. A cedar 6 ins. dia. bears S.53° W. 120 lks. dist. mkd. ¼ S 34 B T No other bearing trees within limits.
60.00	Top of ascent bears N. and S., 500 ft. above ¼ sec. cor. Descend.
80.02	The cor. of secs. 26, 27, 34, and 35. Land, mountainous. Soil, stony; 4th rate. Timber, scattering cedars. Mountainous land 80.02 chs. July 5: At this cor. I set off 20° 49'N. on decl. arc; and at 0 h. 4m. p.m. l.m.t. observe the sun on the meridian; the resulting lat. is 40°26'N.

N.0° 03'E. bet. secs. 26 and 27,

Along E. base of mountains.

27.77	Wood road bears N.45° W. and S.45° E.
28.50	Wash, 15 ft. deep, 1 ch. wide, drains S.45° E.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 27 in W. half, S 26 in E. half; and raise a mound of stone 2 base, 1½ ft. high W. of cor.
60.00	Ravine, 50 lks. wide, 3 ft. deep, drains E.; ascend.
73.30	Rocky ridge, 65 ft. high bears E. and W.; descend.
78.13	Sheep road bears E. and W.
78.50	Wash, 50 lks. wide, 4 ft. deep, drains E.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 10 ins. in groun for cor. of secs. 22, 23, 26 and 27, mkd. on brass cap T 4 S S 22 in NW. R 10 W S 23 in NE. S 26 in SE.; and S 27 in SW. quadrants; raise stone mound 14 ins. high around post and mound of stone 2 ft. base, 1½ ft. high W. of cor.

Subdivision of T. 4 S., R. 10 W.

	Land rolling.
Chains.	Soil, stony and gravelly; 3d and 4th rate.
	No. timber.
	Impossible to set sec. cor. 24 ins. in the ground.
	West on a random line bet. secs. 22 and 27.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line 10 lks. N. of the cor. of secs. 21, 22, 27, and 28. Thence I run N. 89° 56' E. on a true line bet. secs. 22 and 27, Over mountainous land; descending.
15.50	Hollow, 150 ft. below, cor. drains N. 50° E. and ascend.
19.50	Ridge, 50 ft. high, bears N. 40° E. and S. 40° W. and descend.
22.50	Ravine, 40 ft. deep, drains N. 38° E.
25.00	Ridge, or point of hill, 50 ft. high, bears N. 40° E. and S. 40° W. and descend.
27.50	Ravine, 30 ft. deep, drains N. and ascend N. face of high mountain ridge.
35.40	Spur, 50 ft. above ravine, bears N. and S. and descend.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 22 in N. half, S 27 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
52.00	Sheep road, bears N. 80° W. and S. 80° E.
57.00	Hollow from Tabby's Peak, drains S. 78° E., 25 lks. wide 4 ft. deep, thence over gently undulating land, descending.
66.50	Same road bears N. 75° E. and S. 75° W.
74.25	Same road bears N. 75° W. and S. 85° E.
80.00	The cor. of secs. 22, 23, 26, and 27.
	Land, mountainous.
	Soil, stony; 4th rate.
	No. timber.
	Mountainous land 80.00 chs. July 5, 1909.

Chains	
	July 6: At 7 h. 34 m.a.m.l.m.t. I set off 40° 27' N. on lat. arc; 22° 45' N. on decl. arc; and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27. Thence I run N.0° 03' E. bet. secs. 22 and 23, Over rolling foot hills; through scattering cedars.
4.50	Point of low ridge, bears E. and W. and descend.
11.00	Ravine, 25 ft. below ridge, drains E. and ascend.
17.50	Ridge, 75 ft. high, bears E. and W. and descend.
20.50	Foot of descent, 60 ft. below ridge, bottom of hollow, 2.50 chs. wide drains S. 65° E.
23.00	Begin steep ascent of rough mountain, bears E. and W.
40.00	Set an iron post 3 ft. long, 1 in. dia., 10 ins. in the ground, for ¼ sec. cor., mkd., on brass cap, ¼ S 22 in W. half, S 23 in E. half; raise stone mound 16 ins high around post, and mound of stone 2 ft. base, 1½ ft high W. of cor. Impossible to set post 26 ins. in ground.
44.86	Top of quartzite ridge, 600 ft. above wash, bears E. and W. and descend along spur projecting N.
53.00	Saddle, 40 ft. below ridge and ascend along E. face of ridge.
65.89	Spur, bears E. and W. joins main ridge 3 chs, W. along E. face of main ridge.
76.30	Top of main ridge, bears N. and S. 10° W.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 10 ins. in the ground, for cor. of secs. 14, 15, 22, and 23, marked on on brass cap, T 4 S S 15 in NW. R 10 W S 14 in NE. S 23 in SE., and S 22 in SW. quadrants; raise a mound of stone 14 i high around post, and mound of stone 2 ft. base, 1½ ft. high W. of cor. Impossible to set post 24 ins. in the ground.

Subdivision of T. 4 S., R. 10 W.

Chains	
	Land, mountainous.
	Soil, stony; 4th rate.
	Timber, few scattering cedars.
	Mountainous land 75.50 chs.
	This cor. stands on bare back bone of ridge.
	S. 89°56'W. on random line bet. secs. 15 and 22,
40.00	Set temp. ¼ sec. cor.
80.04	Intersect N. and S. line at the cor. of secs. 15, 16, 21 and 22. Thence I run
	N. 89° 56' E. on true line bet. secs. 15 and 22,
	Over broken mountainous land, through scattering cedars.
	Along N. face of high ridge descending.
40.02	Set an iron post 3 ft. long, 1 in. dia., 8 ins. in the ground for ¼ sec. cor., marked on brass cap ¼ S 15 N, half S 22 in S. half; raise a mound of stone 18 ins. high around post;
	A cedar 6 ins. dia. bears S. 40° W. 50 lks. dist. mkd. ½ S 22 B T
	A cedar 7 ins. dia. bears N. 37° W. 63 lks. dist. mkd. ½ S. 15 B T
	Impossible to set post 26 ins. in the ground.
47.35	Bottom of hollow, 400 ft. below sec. cor., drains S. and ascend.
58.90	Ridge, 200 ft. above hollow, bears N. and S. and descend.
65.35	Hollow, 150 ft. below ridge, drains S. 20° W. and ascend 300 ft. to cor.
80.04	The cor. of secs. 14, 15, 22, and 23.
	Land, mountainous. Soil, stony; 4th rate.
	Timber scattering cedars.
	Mountainous land 80.04 chs.
	July 6: At the noon hour sky overcast, obs. for lat.

Chains	
	impossible.
	N.0° 03' W. bet. secs. 14 and 15,
	Over rough mountainous land; through scattering cedars.
	Along back bone of ridge.
5.00	Ridge turns N. 20° E. and descends along the W. face.
16.00	Hollow, 100 ft. below ridge, drains S. 38° W. and ascend
	At this point the main ridge is about 5 chs. E.
31.00	Top of main ridge, 300 ft. above hollow, bears N. 30° W. and S. 30° E. and along E. face.
40.00	Set an iron post 3 ft. long, 1 in. dia., 10 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 15 in W. half, S 14 in E. half; erect mound of stones 2 ft. base, 1½ ft. high W. of cor.
	Impossible to set post 26 ins. in the ground.
40.30	Foot of perpendicular cliff, 25 ft. high, bears E. and W.
46.25	Main ridge, bears N. 30° E. and S. 30° W.
52.73	Begin descent into head of hollow.
63.00	Foot of descent, 300 ft. below ridge. Hollow drains S. W. and ascend.
	At this point, the main ridge is about 8 chs. E.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 12 ins. in the ground, for cor. of secs. 10, 11, 14, and 15 marked on brass cap,
	T 4 S S 10 in NW,
	R 10 W S 11 in NE
	S 14 in SE., and
	S 15 in SW. quadrants; erect mound of stones 2 ft. base, 12 ins. high around post; impossible to set it 24 ins. in the ground.
	A cedar 10 ins. dia., bears S. 17° W. 129 lks. dist mkd. T 4 S R 10 W S 15 B T
	A cedar 8 ins. dia., bears S. 80° E. 108 lks. dist. mkd. T 4 S R 10 W S 14 B T.

Subdivision of T. 4 S., R. 10 W.

Chains	
	No other bearing trees within limits; raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land, mountainous.
	Soil, stony; 3d rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.

S. 89° 56' W. on a random line bet. secs. 10 and 15,

40.00	Set temp. ¼ sec. cor.
80.06	Intersect N. and S. line at the cor. of secs. 9, 10, 15, and 16. Thence I run

N. 89° 56' E. on a true line bet. secs. 10 and 15,
Over mountainous land; through scattering cedars, descending.

6.95	Wash, 1 ch. wide, 3 ft. deep, drains S. E. and continue gradual descent.
38.75	Ravine, 40 ft. deep, drains S and ascend.
40.03	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 10 in N. half, S 15 in S. half; from which

A cedar, 12 ins dia., bears S. 27° W. 253 lks. dist. mkd. ¼ S 15 B T

No other bearing trees within limits; raise a mound of stones 2 ft. base, 1½ ft. high, N. of cor.

45.00	Ridge, 125 ft. high, bears N. and S. and descend.
51.15	Hollow, 100 ft. deep, drains S. and beg ascent of high ridge 500 ft to cor.
80.06	The cor. of secs. 10, 11, 14, and 15.

Land, mountainous.
Soil, stony; 4th rate.
Timber, scattering cedars.
Mountainous land 80.06 chs.

July 6, 1909.

Chains.	
	July 7: At 8 h. 05 m. a.m.l.m.t. I set a cit 40° 29' N. on lat. arc; 22° 38' N. on decl. arc; and determine a meridian with the solar at the cor. of secs. 10, 11, 14, and 15.
	Thence I run
	N.0° 03' E. bet. secs. 10 and 11,
	Over mountainous land, along W. side of high ridge, nea the top.
17.50	Top of high ridge, bears N. and S. 20° E. and begin steep descent along ridge into saddle.
27.00	Foot of descent; saddle 250 ft below ridge and ascend alon ridge.
38.77	Ridge, 175 ft. above saddle, bears N. 20° E. and South.
40.00	Set an iron post 3 ft. long, 1 in. dia., 12 ins. in the ground for ¼ sec. cor., marked ¼ S 10 in W. half S 11 in E. half of brass cap,; erect mound of stones 2 ft. base, 14 ins. high around post; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Impossible to set post 26 ins. in the ground.
	Pass between West Canyon and Rydalch Canyon, bears west about 15 chs. dist. Pass bears E. and W.
41.50	Top of ridge, bears NE. and S.W. Desc. gently into West Canyon; through scattering cedars.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 2, 3, 10, and 11, marked on brass cap,
	T 4 S S 3 in NW.
	R 10 W S 2 in NE
	S 11 in SE., and
	S 10 in SW quadrants; from which
	A cedar 10 ins. dia., bears N. 80° W. 34 lks. dist. mkd. T 4 S R 10 W S 3 B T
	A cedar, 14 ins. dia., bears S. 50° W. 108 lks. dist. mkd. T. 4 S R 10 W S 10 B T
	No other bearing trees within limits; raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.

Subdivision of T. 4 S., R. 10 W.

Chains.	
	Land, mountainous.
	Soil, stony;3d rate.
	Timber, scattering cedars.
	Mountainous land 80.00 chs.
	S.89° 56'W.on random line bet.secs.3 and 10,
40.00	Set temp.¼ sec.cor.
80.02	Intersect N. and S.line 12 lks.N.of cor.of secs.3,4,9, and 10. Thence I run
	N.89° 51'E.on true line bet.secs.3 and 10,
	Over mts. land;through scattering cedars; descending.
16.00	Hollow right fork of West Canyon, 140 ft.below cor., drains N.18° E. and begin gentle ascent.
32.00	Top of ascent, 150 ft.above hollow, bears N. and S.; begin gentle descent.
40.01	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for ¼ sec.cor., marked on brass cap ¼ S 3 in N.half, S 10 in S.half; from which
	A cedar 10 ins.dia.bears N.5° W. 49 lks.dist., mkd. ¼ S 3 B T
	A cedar 8 ins.dia.bears S.45° W. 34 lks.dist., mkd. ¼ S 10 B T
46.00	Hollow, middle fork of West Canyon, 145 ft.below ridge, drains NE; ascend.
54.00	Top of ascent, 75 ft.high; thence over undulating ground.
71.00	Begin descent into hollow.
77.00	Hollow left fork of West Canyon, 40 ft.deep, drains N. 15° E.; ascend.
80.02	The cor.of secs.2,3,10, and 11.
	Land, mountainous.
	Soil, stony; 2d and 3d rates.
	Timber, scattering cedars.
	Mountainous land 80.02 chs.

Subdivision of T. 4 S., R. 10 W.

Chains. July 7: At this cor.I set off 22° 37'N.on decl.arc; and at 0 h. 5 m.p.m.l.m.t.observe the sun on the meridian the resulting lat.is 40° 30'N.

N.0° 03'E.on random line bet.secs.2 and 3,

40.00 Set temp.¼ sec.cor

83.27 Intersect the N.bdy.of Tp.at the cor.of secs.2,3,34, and 35, heretofore described. Thence I run

S.0° 03'W.on true line bet.secs.2 and 3,

Over rolling broken country; descending.

13.30 Right fork of West Canyon, 150 ft.below cor., drains N. 60° E.; thence over undulating ground.

36.87 Left fork of West Canyon, drains N.28° E. and begin gradual ascent.

43.27 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for ¼ sec.cor., marked on brass cap ¼ S 3 in W.half, S 2 in E.half; from which

A cedar 10 ins.dia., bears East 90 lks.dist., mkd. ¼ S 2 B T

A cedar 8 ins.dia.bears west 38 lks.dist. mkd. ¼ S 3 B T

80.27 The cor.of secs.2.3.10, and 11.

Land, broken and rolling.

Soil, stony and gravelly; 2d and 3d rates.

Timber, scattering cedars.

July 7, 1909.

July 8, 1909: In order to test the solar apparatus by comparing its indications resulting from solar observations made during a.m.and p.m.hours with a meridian determined by observations on Polaris, I proceed as follows:

At the cor.of secs.1,2,35, and 36 on the S.bdy.of Tp.

Chains.

heretofore described, lat. 40° 25' 12" N.; long. 112° 55'09" W., I set off 40°25' N.on lat.arc; 22° 30' N. on decl.arc; and at 3 h. 05m.p.m.l.m.t.determine with the solar a meridian and mark a point thereof on a stone firmly set in the ground, 5 chs.N.of the.cor.

July 8, 1909.

July 9: At 12 h. 21 m.p.m.l.m.t.I observe Polaris at eastern elongation in accordance with Manual of Instructions, and mark a point in the line thus determined on a peg driven in the ground 5 chs.N.of my station.

At 7 h. 0 m.a.m.l m.t.I lay off the azimuth of Polaris 1°32' to the west, and mark the meridian this determined by cutting a small groove in the stone set July 8, on which the meridian falls 0.3 ins.west of the mark determined by the solar.

At 8 h.05 m.a.m.l.m.t.I set off 40° 25' N.on lat.arc; 22° 25' N. on decl.arc, and mark a point in the meridian determined with the solar by a cross on the stone already set 5 chs.N.of my station; this mark falls 0.2 ins.west of the meridian established by the Polaris observation.

The solar apparatus by p.m.and a.m.observations defines positions for meridians respectively 0' 10" west and 0' 16" east of the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 h. 30 m. a.m. is N. 17° 45' W., the angle thus determined gives the mag.decl. 17°45' E.

From the sec.cor.already described I run

N.0° 04'E.bet.secs.35 and 36,

Over almost level land; sloping gently to the east,

Subdivision of T. 4 S., R. 10 W.

Chains.	
40.00	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for 1/4 sec.cor., mkd. on brass cap, 1/4 S 35 in W.half, S 36 in E.half; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
70.00	Road, Brown's Ranch to Rydalch Pass, bears N.80° E. and S.80° W.
80.00	Set an iron post 3 ft.long., 2 ins.dia., 24 ins.in the ground, for cor.of secs.25,26,35, and 36, marked on brass cap, T 4 S S 26 in NW. R 10 W S 25 in NE. S 36 in SE., and S 35 in SW.quadrants; and raise a mound of stones 2 ft.base, 1½ ft.high W.of cor.
	Land, almost level.
	Soil, sand, clay and gravel; 1st,2d, and 3d rates.
	No timber.

WEST.on random line bet.secs.26 and 35, for flag set at cor.of secs.26,27,34, and 35,

40.00	Set temp. 1/4 sec.cor.
79.95	Intersect N. and S.line 4 links N.of cor.of secs.26,27,34, and 35. Thence I run
	N.89° 58'E.on true line bet.secs.26 and 35,
	Over very gently rolling bench land, sloping to the E.
39.97½	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for 1/4 sec.cor., marked on brass cap, 1/4 S 26 in N.half, S 35 in S.half; and raise a mound of stones 2 ft.base, 1½ ft.high N.of cor.
62.72	Road, Eight-Mile Spring to Rydalch Pass, bears N.30° E. and S.30° W.
79.95	The cor.of secs.25,26,35, and 36.

Chains. Land, gently rolling and level.

Soil, sand, gravel and loam; 2d rate.

No timber.

East on a random line bet.secs. 25 and 36,

40.00 Set temp. 1/4 sec.cor.

80.03 Intersect Guide Meridian 60 lks.S.22' W. of the cor.of secs.25,30,31, and 36, heretofore described.

Set an iron post 3 ft.long, 2 ins.dia., 12 ins.in the ground, for closing cor.of secs.25 and 36; mkd. on brass cap,

T 4 S in N.half,

S 30 in NE.

C c S 31 R 9 W.in SE.

S 36 R 10 W in SW.and [illegible];

S 25 in NW.quadrants; erect mound of stone 4 ft. base, 18 ins.high around post; and raise a mound of stones 2 ft.base, 1½ ft.high W.of cor.

Impossible to set post cor.24 ins.in the ground. I destroy marks on old cor.pertaining to secs.25 and 36.

Thence I run

West on true line bet.secs.25 and 36,

Over almost level land, sloping gently to the east.

31.10 Sheep road, bears N.60° W. and S.60° E.

40.03 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for 1/4 sec.cor., mkd.on brass cap, 1/4 S. 25 in N.half, S 36 in S.half; and raise a mound of stones 2 ft.base, 1½ ft high N.of cor.

80.03 The cor.of secs.25,26,35, and 36,

Land, almost level.

Soil, gravelly and loam; 2d rate.

No timber.

July 9, 1909: At this cor.I set off 22° 23' N.on decl. arc; and at 0 h.05 m.p.m.l.m.t.observe the sun on the meridian; the resulting lat.is 40° 26'N.

Subdivision of T. 4 S., R. 10 W.

Chains.	
	N.0° 04'E.bet.secs.25 and 26,
	Over gently rolling bench.
14.00	Wash, 1 ch.wide, 10 ft.deep, course S.45° E.
31.80	Road Eight Mile Spring to Rydalch Pass, bears N.35° E. and S.35° W.
33.00	Sheep road, bears N.65° W. and S.65° E.
40.00	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for 1/4 sec.cor., mkd.on brass cap, 1/4 S. 26 in W.half, S 25 in E.half; and raise a mound of stones 2 ft.base, 1½ ft.high W.of cor.
47.36	Wash, 2 chs.wide, 10 ft.deep, course S.38° E.
80.00	Set an iron post 3 ft.long, 2 ins.dia., 24 ins.in the ground, for cor.of secs. 23,24,25, and 26, marked on brass cap, T 4 S S 23 in NW. R 10 W S 24 in NE. S 25 in SE., and S 26 in SW.quadrants; and raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Land gently rolling.
	Soil, gravelly; 3d rate.
	No timber.

	S.89° 58'W.on random line bet.secs. 23 and 26,
40.00	Set temp. 1/4 sec.cor.
79.90	Intersect N. and S.line 26 lks.S.of the cor.of secs. 22,23,26, and 27. Thence I run S.89° 51'E.on true line bet.secs.23 and 26,
	Over gently rolling land.
39.95	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for 1/4 sec.cor., mkd.on brass cap, 1/4 S 23 in N.half, S 26 in S.half; and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
79.90	The cor.of secs.23,24,25, and 26.

Chains

Land, rolling.

Soil, gravelly; 3d rate.

No timber.

East on random line bet. secs. 24 and 25,

40.00 Set temp. ¼ sec. cor.

80.34 Intersect Guide Meridian 1.44 chs. S.0°24'W of cor. secs. 19, 24, 25 and 30, heretofore described.

Set an iron post 3 ft. long, 2 ins. dia., 12 ins. in the ground, for closing cor. of secs. 24 and 25, marked on brass cap,

T 4 S in N. half,

S 19 in NE.

C C S 30 R 9 W in SE.

S 25 R 10 W in SW., and

S 24 in NW quadrants; raise mound of stones 2 ft. base, 1½ ft . high W. of cor. Destroy all marks on old cor. pertaining to secs. 24 and 25.

Impossible to set post 24 ins. in the ground; build mound of stone 2 ft. base, 1 ft. high around post.

Thence I run West on true line bet. secs, 24 and 25,

Over gently rolling land,

40.34 Set an iron post 3 ft. long, 1 in. dia., 12 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 24 in N. half, S 25 in S. half; and raise a mound of stones 2 ft. base, 1½ ft. high N. of cor.; erect a mound of stones 2 ft. base, 14 ins. high around post.

Impossible to set post 26 ins. in the ground.

41.40 Road, Eight-Mile Spring to Rydalch Pass, bears N 35° E. and S. 35° W.

80.34 The cor. of secs. 23, 24, 25 and 26.

Land, rolling.

Soil, gravelly; 3d rate.

Chains.	No timber. July 9, 1909.
	July 10: At 8 h. 05 m.a.m. l.m.t I set off 40°27' N. on lat. arc; 22° 18' N. on decl. arc; and determine meridian with the solar at the cor. of secs. 23, 24, 25, and 26. Thence I run
	N.0°04'E bet. secs. 23 and 24,
	Over rolling bench,
16.80	Sheep road, bears E. and W.
26.00	Begin ascent of mountain bears E. and W.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 23 in W. half, S 24 in E. half; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Enter scattering cedars.
45.70	Ridge, 150 ft. high, bears E. and W. and descend.
53.00	Hollow, 160 ft. deep, drains S. 65° E. and ascend.
69.84	Ridge, 300 ft. high, bears N. 50° E. and S. 50° W. and descend.
77.40	Hollow, 120 ft. deep, drains N. 45° E. and ascend to c
80.00	Set an iron post 3 ft. long, 2 in. dia., 12 ins. in the ground, for cor. of secs. 13, 14, 23, and 24, mkd. on brass cap,
	T 4 S S 14 in NW.
	R 10 W S 13 in NE.
	S 24 in SE., and
	S 23 in SW quadrants; erect mound of stones 2 ft base, 12 ins. high around post; and raise a mound of stones 2 ft. base, 1½ ft. high W. of cor.
	Impossible to set post 24 ins. in the ground.
	Land, rolling and mountainous.
	Soil gravelly and stony; 3d rate.
	Timber, scattering cedars.

Subdivision T. 4 S., R. 10 W.

Chains	
	Mountainous land 54.00 chs.
	N. 89° 51' W.
40.00	Set temp. ¼ sec cor.
79.90	Intersect N. and S. line 5 lks. S. of the cor. of secs. 14, 15, 22, and 23. Thence I run S 89° 49' E. on true line bet. secs. 14 and 23, Over rough, broken mountainous land; through scattering cedars.
12.00	Hollow, 300 ft. deep, drains S. E. and ascend along S. face.
27.10	Ridge, 130 ft. high, bears N. 65° W. and S. 65° E. and along N. face of ridge.
39.95	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 14 in N. half, S 23 in S. half, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
43.20	Hollow, 165 ft. deep, drains S. and ascend.
66.38	Ridge, 200 ft. high, bears N. 65° W. and S. 65° E. and ascend to cor.
79.90	The cor. of secs. 13, 14, 23, and 24.
	Land, mountainous and broken.
	Soil, stony; 4th rate.
	Timber, scattering cedars.
	Mountainous land, 79.90 chs.
	July 10: At the noon hour, sky overcast, obs. for lat. impossible.
	East on random line bet. secs. 13 and 24,
40.00	Set temp. ¼ sec. cor.
80.70	Intersect Guide Meridian 2.11 chs. S. 0° 23' W. of the cor. of secs. 13, 18, 19, and 24, heretofore described.
	Note:
	Not having anticipated the necessity of setting

Subdivision of T. 4 S., R. 10 W.

Chains. closing corners against the E. bdy. of this township; and only having sufficient iron post (2 inch size) to complete my subdivisions, I substitute stone corners, as instructed by the Surveyor- General.

Set a quartzite stone 14 x 7 x 6 ins., 9 ins. in the ground, for closing cor. of secs. 13 and 24, mkd. 3 C on W. face; with 3 grooves on N. and S. faces; and raise a mound of stones 2 ft. base, 1½ ft. high W. of cor.

I destroyall marks on old corner pertaining to secs. 13 and 24.

Thence I run

West on true line bet. secs. 13 and 24

Over broken rolling land; through scattering cedars.

40.70 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 13 in N. half, S 24 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

53.50 Leave undulating bench, bears N. and S. and begin ascent of mountain.

56.47 Ridge, 60 ft. high, bears N. and S.

59.50 Hollow, 50 ft. deep, drains S E and ascend.

70.00 Ridge, 150 ft. high, bears N E and S W and descend.

74.00 Hollow, 80 ft. deep, drains N. E. and ascend 140 ft. to cor.

80.70 The cor. of secs. 13, 14, 23, and 24.

Land, rolling and mountainous.

Soil, stony; 3d. rate.

Timber, few scattering cedars.

Mountainous land 27,25 chs.

Subdivision of T. 4 S., R. 10 W.

N.0° 04'E.bet.secs.13 and 14,

Chains

2.00 Over mountainous land; through scattering cedars. Ridge, 30 ft. above cor., bears N. E.and SW and descend.

5.90 Hollow, 120 ft. deep, drains N. E. and ascend.

14.30 Ridge, 125 ft. high, bears N. E. and S. W. and descend.

20.00 Hollow, 120 ft. deep, drains N. E. and ascend.

26.00 Ridge, 120 ft. high, bears E. and W. and descend.

31.00 Hollow, 100 ft. deep, drains E. and ascend.

34.00 Ridge, 110 ft. high, bears E. and W.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 14 in W. half, S 13 in E. half; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

43.00 Hollow, 130 ft. deep, drains S. E. and ascend.

51.48 Ridge, 340 ft. high, bears E. and W. and descend.

59.50 Hollow, 160 ft. deep, drains E. and ascend.

70.23 Ridge, 400 ft. high, bears N. E. and S. W.; thence along rugged W. face still ascending.

80.00 Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 11, 12, 13, and 14, mkd. on brass cap,

T 4 S S 11 in N W.
R 10 W S 12 in NE
S 13 in SE., and
S 14 in SW quadrants; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

Land, mountainous.

Soil, stony; 3d rate.

Timber, scattering cedars.

Mountainous land 80.00 chs.

N. 89° 49' W. on random line bet. secs. 11 and 14,

40.00 Set temp. ¼ sec. cor.

Subdivision of T. 4 S., R. 10 W.

Chains.	
79.80	Intersect N. and S. line 20 lks. N. of the cor. of secs. 10, 11, 14, and 15. Thence I run S 89° 58 ' E. on true line bet. secs. 11 and 14, Over mountainous land; through scattering cedars.
4.00	Top of high ridge, bears N. and S. and descend E. face along N. side of hollow.
19.50	Hollow, 150 ft. deep, drains S. E. and ascend.
35.00	Ridge, 300 ft. high, bears N. W. and S. E. and descend into deep hollow.
39.90	Set an iron post 3 ft. long, 1 in. dia., 12 ins. in the ground for ¼ sec. cor., marked on brass cap, ¼ S 11 in N. half, S 14 in S half; raise a mound of stone 14 ins. high around post; and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
55.00	Hollow, 500 ft. deep, drains S. E. and ascend to cor. 300 ft. above hollow.
	Impossible to set post 26 ins. in the ground.
79.80	The cor. of secs. 11, 12, 13, and 14.
	Land, mountainous.
	Soil, stony; 3d rate.
	Timber, scattering cedars.
	Mountainous land 79.80 chs. July 10, 1909.
	July 12: At 8 h. 05 m.a.m.l.m.t. I set off 40° 29' N. on lat. arc; 22° 02' N. on decl. arc; and determine a meridian with the solar at the cor. of secs. 11, 12, 13, and 14. Thence I run
	East on a random line bet. secs. 12 and 13,
40.00	Set temp. ¼ sec. cor.
81.53	Intersect Guide Meridian 2.54 chs. S.0° 28' W. of cor. of secs. 7, 12, 13, and 18, heretofore described.
	For reasons already explained, I
	Set a limestone 18 x 10x 6 ins., 12 ins. in the ground for closing cor. of secs. 12 and 13, mkd. C C on W. face; 4 grooves on S. and 2 grooves on N. face;

Chains.	
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	I destroy all marks on the old cor. of secs. 7, 12, 13, and 18 pertaining to secs. 12 and 13.
	Thence I run
	West between secs. 12 and 13 on true line.
	Over rolling bench land; through scattering cedars.
21.53	Foot of moutain, bears N. and S.
	Ascend over broken mountainous land.
41.53	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 12 in N. half, S 13 in S. half; and raise a mound of stones 2 ft. base, 1½ ft. high N. of cor.
71.00	Low ridge, bears N. W. and S. E.
74.00	Swale, drains S. E. and ascend.
77.00	Ridge, 30 ft. high, bears N. and S. and descend.
81.53	The cor. of secs. 11, 12, 13, and 14.
	Land, rolling and mountainous.
	Soil, clay and stone; 2d and 3 d. rate.
	Timber, scattering cedars.
	Mountainous land 60.00 chs.

N.0° 04' E bet. secs. 11 and 12,

Over rough mountainous land; through scattering cedars.

12.60	Top of ridge, bears N. 15° W. and S. 15° E. and still ascend.
15.50	Same ridge, bears N 15° E. and S. 15° W. and along W. face still ascending.
22.50	Begin descent along W. side of ridge.

This is one of the highest points in the E. edge of the Cedar Range, and is about 2000 ft. above the valley. A stone tower 3 ft. in dia. and 8 ft. high

Chains	
	standing on the highest dome of this ridge, bears about S. 40° E. 4 chs. distant. Pass bearing E. and W. bears about west 12.00 chs. distant.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap, ¼ S 11 in W. half, S 12 in E. half; from which A cedar 8 ins. dia., bears N. 31° 30' E. 170 lks. dist. mkd. ¼ S 12 B T No bearing trees within limits for sec. 11; raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	A cedar 10 ins. dia., bears N. 45° E. 6 lks. dist. marked ¼ S. 12 B.T.
51.50	Hollow, 400 ft. below ridge, drains E. and ascend over point of hill.
57.00	Top of ascent, 60 ft. high, bears, E. and W. and descen
64.00	Hollow, 60 ft. deep, drains E. joins with large hollow, about 4 chs. E. which drains N. 10° E. and ascend.
68.00	Top of ascent, 40 ft. high, bears E. and W. and descend
75.00	Hollow, 100 ft. deep, drains S. E and ascend.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 18 ins. in ground, for cor. of secs. 1, 2, 11, and 12, marked on the brass cap, T 4 S S 2 in NW. R 10 W S 1 in NE. S 12 in SE., and S 11 in SW. quadrants; raise a mound of stones 6 ins. high around post, mound of stone 2 ft. base, 1½ ft. high W. of cor. Impossible to set post 24 ins. in the ground. A cedar 10 ins. dia., bears N. 31° 30' E. 1.70 chs. dist., mkd. T 4 S R 10 W S 1 B T A cedar 10 ins. dia., bears N. 6° 25' W. 2,35

Chains | chs. dist., marked T 4 S R 10 W S 2 B T.

No other bearing trees within limits.

Land, mountainous.

Soil, stony; 3d rate.

Timber, scattering cedars.

Mountainous land 80.00 chs.

N. 89° 58' W. on random line bet. secs. 2 and 11.

40.00 Set temp. ¼ sec. cor.

79.72 Intersect N. and S. line 4 lks. N. of the cor. of secs. 1, 2, 11, and 12. Thence I run

East on a true line bet secs. 2 and 11,

Ascending, over mountainous land, through scattering cedars.

30.00 Ridge, 200 ft. high bears NE and SW. Desc.

39.86 Set an iron post 3 ft. long, 1 in. dia., 26 ins in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 2 in N. half, S 11 in S half, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

48.00 Desc. becomes steeper, bears N.E. and S.W.

56.00 Hollow, 150 ft. deepdrains S.E. and ascend.

65.00 Ridge, 60 ft. high, bears N. 15° W. and S. 15° E. and descend.

74.00 Mouth of hollow, 100 ft. deep, drains S. and ascend 70 ft. to corner.

79.72 The cor. of secs. 1, 2, 11, and 12.

Land, mountainous.

Soil, stony; 3d rate.

Timber, scattering cedars.

Mountainous land 79.72 chs.

July 12: At this cor., I set off 22° 00' N. on decl. arc; and at 0 h. 05 m.p.m. l.m.t. observe the sun on the meridian; the resulting lat. is 40° 30' N.

Subdivision T. 4 S., R. 10 W.

Chains	
	East on random line bet. secs. 1 and 12,
40.00	Set temp. ¼ sec. cor.
82.02	Intersect Guide Meridian 3.26 chs. S.0° 31' W. of the cor. of secs. 1, 6, 7, 12, heretofore described,
	For reasons already explained, I
	Set a limestone 18 x 12 x 10 ins. in mound of stone for closing cor. of secs. 1 and 12, mkd. C C on W. face 1 groove on N. and 5 grooves on S. face; raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Impossible to set stone 12 ins. in the ground. I destroy all marks on the old cor. pertaining to secs. 1 and 12.
	Thence I run
	West on true line bet. secs. 1 and 12.
	Over mountainous land; through scattering cedars.
24.00	Ridge, 200 ft. above cor. bears N. 15° E. and S. 15° W. and descend.
37.25	Hollow, 100 ft. deep, drains N. E. and ascend.
42.02	Set an iron post 3 ft. long, 1 in. dia., 10 ins. in the ground, for ¼ sec. cor., mkd. on brass cap, ¼ S 1 in N. half, S 12 in S half; raise a mound of stone 16 ins. high around post, and mound of stone 2 ft. base, 1½ ft. high N. of cor. Impossible to set post 26 ins. in the ground.
	This cor. stands at S. base of perpendicular ledges 30.0
44.00	Same hollow as last named, drains S. E. and ascend.
48.00	Low ridge, bears N and S.
51.00	Same hollow, drains N. E. and ascend.
54.00	Ridge, 70 ft. high, bears N. and S. and descend.
65.00	Same hollow, 75 ft. deep, drains S. E. and ascend.
67.00	Low ridge, bears N. and S. and descend.
69.00	Same hollow, drains N. E. and ascend.
76.00	Ridge, 200 ft. high, bears N. and S. and descend to cor. 40 ft. below ridge.
82.02	The cor. of secs. 1, 2, 11, 12.

Chains.	
	Land, mountainous.
	Soil, rocky and gravelly; 3d rate.
	Timber, scattering cedars.
	Mountainous land 82.02 chs.

N.0° 04'E.on random line bet.secs.1 and 2,

40.00 Set temp.¼ sec.cor.

82.69 Intersect N.bdy.of Tp.at the cor.of secs.1,2,35, and 36 heretofore described.

Thence I run

S.0° 04'W.on true line bet.secs.1 and 2,

Over.mountainous land; through scattering cedars, descending.

12.00 Hollow, 80 ft.below cor., drains SE.

Ascend.

28.00 Ridge, 150 ft.high,bears NE. and SW.

33.00 Hollow, 40 ft.deep, drains E.

Ascend.

35.00 Ridge,60 ft.high,bears E. and W.

Descend.

37.00 Hollow, 60 ft.deep, drains E.

Ascend.

42.69 Set an iron post 3 ft.long, 3 in.dia., 12 ins.in the ground for ¼ sec.cor., marked on brass cap ¼ S 2 in W.half, S 1 in E.half; raise a mound of stone 14 ins. high around post; impossible to set it 26 ins.in the ground.

A cedar 8 ins.dia.bears S.70° W. 15 lks.dist. mkd.¼ S 2 B T

A cedar 6 ins.dia.bears N.60° E. 55 lks.dist., mkd.¼ S 1 B T

Chains.	
	Descend.
46.50	Hollow. 100 ft. deep, drains NE.
	Ascend.
72.55	Top of ascent on W. side of ridge, 250 ft. high bears N. and S.
	Pass about 5 chs. W. bears E. and W.
	Descend.
82.69	The cor. of secs. 1, 2, 11, and 12.
	Land, mountainous.
	Soil, stony; 3d rate.
	Timber, scattering cedars.
	Mountainous land 82.69 chs.
	July 12, 1909.

GENERAL DESCRIPTION.

This township is almost level in the southeast; gently rolling in sections 6, 7, 18, and 19, while the remainder is mountainous.

The best soil is found in small areas in swales in the mountains, but it is not of sufficient extent for successful cultivation.

Portions of secs. 19, 25, 26, 30, 35, and 36 contain fertile soil; and in favorable years will produce a fair dry farm crop.

The mountainous portion is covered with scattering growth of cedars, generally of an inferior quality.

I found no indications of mineral in the township.

There are no settlers on this township. It contains but three small springs used only for watering

Chains

stock.

The entire township affords a fair growth of bunch grass, and other forage plants; and is mainly valuable for grazing purposes; but owing to lack of water the greater portion can be used only as a winter range.

Township 5 S., R 10 W. contains some mountains, but quite a large portion of it is fertile; and in favorable seasons could be successfully cultivated to dry farming.

Township 4 S., R. 11 W. is almost all level, and contains much fertile land; the only drawback to successful farming would be the lack of water.

Chas. J. Stookey.
U. S. Deputy Surveyor.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____

_____, 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 _____

_____

showing the respective capacities in which they acted:

For list of names and final oath of assistants see book "F" _____, *Chainman.*

Tp. 3 S., R. 10 W. _____, *Chainman.*

_____, *Moundman.*

_____, *Moundman.*

_____, *Axman.*

_____, *Axman.*

_____, *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

_____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

_____

_____

_____ of the _____

_____ meridian, _____ of _____, which are represented on 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 _____

_____, *Chainman.*

_____, *Chainman.*

_____, *Moundman.*

_____, *Moundman.*

_____, *Axman.*

_____, *Axman.*

_____, *Flagman.*

_____

Subscribed and sworn to before me this _____ day of _____, 190 }

_____

SEAL

_____

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, ... United States Deputy Survey
solemnly swear that, in pursuance of a contract received from .....
United States Surveyor General for ....., bearing date
..... day of ....., 190 , I have well, faithfully, and truly, in m
proper person, and in strict conformity with the instructions furnished by the United States Su
General for ....., the Manual of Surveying Instructions, and the laws
United States, surveyed all those parts or portions of .....

For final oath of deputy see book "F" Tp.3 S., R. 10 W.

..... of the .....
..... meridian, in the ..... of ....., which are represented
foregoing field notes as having been surveyed by me, and under my direction; and I do further sol
swear that all the corners of said survey have been established and perpetuated in strict accordanc
the Manual of Surveying Instructions, and the special written instructions of the United States Su
General for ..... and in the specific manner described in the field notes, a
the foregoing are the original field notes of such survey.

..... *United States Deputy Su*

Subscribed by said ....., and sworn to before me this ..... day of 190

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, Feb.23,1912

The foregoing field notes of the survey of the subdivisional lines of Townsh
No.4 South, Range No.10 West of the Salt Lake Base and Meridian,
Utah.

executed by Jesse J.Stookey
under his contract No. 306, dated March 10, 1909, havi
critically examined, and the necessary corrections and explanations made, the said field notes,
surveys they describe, are hereby approved.

United States Surveyor

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

United States Surveyor

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