Volume

#

R0420

RETRACEMENT AND RESURVEY OF THE S. BDY. OF T. 9 S., R. 5 E.

Chains

Survey commenced May 24, 1914, and executed with a Young & Sons light mountain transit, No. 8538, 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 meridian at Salt Lake City, Utah, found correct, and was approved by the assistant supervisor of surveys, May 15, 1914.

Steel tapes 5 chs. long were used for measuring the slope angles and the horizontal distances determined by the use of the standard field tables, and the vertical angles read by Lietz clinometers. A standard steel tape 1 ch. long was kept for testing the accuracy of the long tapes.

I examine the adjustments of the instrument and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during p.m. and a.m. hours, with a meridian established by observations on Polaris, I proceed as follows:

At the cor. of secs. 34 and 35, on the south bdy. of the Tp., which is a sandstone 8 x 8 x 8 ins. above ground, firmly set and marked and witnessed as described by the surveyor general, latitude 40°00'N., longitude 111°21'W., I set off 40°00'N. on the lat. arc; 20°46' N. on the decl. arc; and at 3h 57m 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.

May 25, 1914: At 3h 28m a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point thereof on a wooden plug set in the ground 5 chs. N. of the cor.

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At 7h 30m a.m., l.m.t., I lay off the azimuth of Polaris 1°30' to the west, and mark a point in the meridian thus determined, by cutting a small groove in the stone already set 5 chs. N. of the cor.; this mark falls 0.4 ins. west of the meridian determined by the solar.

At 7h 57m a.m., l.m.t., I set off 40°00'N. on the lat. arc; 20°53'N. on the decl. arc; and mark the meridian determined with the solar, by a cross cut in the stone already set 5 chs. N. of the cor.; this mark falls 0.36 ins. east of the meridian determined by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for meridians, respectively about 0'21" west and 0'19" east of the meridian established by Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h 0m a.m. is N.17°22'W.; the angle thus determined gives the mag. decl. 17°22'E.

The latitude determined with the transit in the field is used throughout these notes.

The cor. of secs. 34 and 35 above referred to I re-establish at the same point as follows:

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 34 and 35, with brass cap marked

T 9 S	R 5 E
S 34	S 35

T 10 S
1914

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

Note: From inquiry and investigation I am led to believe that Deputies H. D. Page and James M. Lentz, who made the surveys in this township, which were not approved, did not use the

RETRACEMENT AND RESURVEY OF THE S. BDY. OF T. 9 S., R. 5 E.

Chains	
	original corners to initiate or close their work on, but set corners of their own, stating that they were the original corners. Therefore I deem it necessary to make retracements outside of the lines contiguous to my work to distinguish beyond a doubt between the Page and Lentz corners and the original corners; and in order better to perpetuate these old corners I remonument same with iron posts, set alongside the old corners.
	Thence
	East, on a retracement line along the S. side of sec.35.
	Over rolling mountainous land, through dense sagebrush; descend.
2.50	Gully, 50 ft. below cor., course N.15°W.
	Ascend.
6.00	Spur, 50 ft. above gully, bears N.15°W. and S.15°E.
	Descend.
11.60	Draw, 50 ft. below spur, course NW.
	Ascend.
20.00	Wire fence bears N.5°E. and S.5°W.
40.27	Fall 96 lks. S. of the old ¼ sec. cor., which is a sandstone 18 x 18 x 6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	¼ S 35 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The course of the W. half mile is therefore N.88°38'E. and the distance 40.28 chs.
45.00	Spur, 50 ft. above draw, bears N. and S.
	Descend.

RETRACEMENT AND RESURVEY OF THE S. BDY. OF T. 9 S., R. 5 E.

Chains	
62.60	Sheep Creek, 10 lks. wide, 2 ins. deep, in canyon 150 ft. below spur, course S.15°W.
80.18	Fall 204 lks. S. of the cor. of secs. 35 and 36, which is a sandstone 16 x 9 x 4 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 35 and 36, with brass cap marked

T 9 S | R 5 E
S 35 | S 36
T 10 S

1914

from which

A pinon pine 8 ins. diam. bears N.76°E., 55 lks. dist., marked T 9 S R 5 E S 36 B T.

A cedar 6 ins. diam. bears N.48°W., 66 lks. dist., marked T 9 S R 5 E S 35 B T.

The course of the E. half mile is therefore N.88°27'E. and the distance 39.92 chs.

Land, mountainous.

Soil, clay and gravelly loam.

Undergrowth, sagebrush.

No timber except a few scattering cedar and pinon pine.

Good grass for grazing.

May 25, 1914: At this cor. I set off 20°55'N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°00'N.

East, on a retracement line along the south boundary of sec. 36.

Over mountainous land, through dense undergrowth, and scattering cedar and pinon pine timber; descend.

5.35 Gully, 80 ft. below cor., course N.85°W.

Ascend.

RETRACEMENT AND RESURVEY OF THE S. BDY. OF T. 9 S., R. 5 E.

Chains	
15.50	Leave timber, bearing NW. and SE.
27.40	Spur, 50 ft. above gully, bears N.15°W. and S.15°E.
	Descend.
30.00	Leave oak and service berry, enter sage and rabbit brush, bearing N. and S.
32.60	Swale, 50 ft. below spur, course N.15°W.
37.20	Leave sage and rabbit brush and enter deer brush.
39.59	Fall 43 lks. S. of the old ¼ sec. cor., which is a sandstone 11 x 10 x 4 ins. above ground, firmly set but poorly marked ¼. I remonument at same point. Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone for ¼ sec. cor., with brass cap marked ¼ S 36 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. The course of the W. half mile is therefore N.89°23'E. and the distance 39.59 chs.
43.80	Ravine, 150 ft. below swale, course N.20°W.
45.00	Enter scattering cedar and pinon pine timber bearing NW. and SE.
56.50	Ridge, 200 ft. above ravine, bears N.15°E. and S.15°W.
	Descend.
57.00	Leave dense undergrowth and enter heavy cedar and pinon pine timber bearing N. and S.
63.40	Gully, 100 ft. below ridge, course S.
	Ascend.
68.70	Head of canyon, 30 ft. deep, course S.
	Leave timber and enter sage and rabbit brush bearing N. and S.
75.00	Leave undergrowth and enter heavy cedar and pinon pine timber.
77.11	Fall 120 lks. S. of the cor. of Tps. 9 S., Rs. 5 and 6 E., which is a sandstone 18 x 10 x 6 ins. above ground,

RETRACEMENT AND RESURVEY OF THE S. BDY. OF T. 9 S., R. 5 E.

Chains

firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 3 ins. in diam., 18 ins. in the ground under a mound of stone, for cor. of T. 9 S., Rs. 5 and 6 E., with brass cap marked

T 9 S
R 5 E | R 6 E
S 36 | S 31
T 10 S
1914

from which

A cedar 8 ins. diam. bears N.18°E., 41 lks. dist., marked T 9 S R 6 E S 31 B T.

A cedar 8 ins. diam. bears N.50°W., 37 lks. dist., marked T 9 S R 5 E S 36 B T.

The course of the E. half mile is therefore N.88°50'E. and the distance 37.53 chs.

Land, mountainous.

Soil, rich mountain loam, 2 to 3 ft. deep.

Undergrowth, oak, service berry, sage, rabbit, and deer brush.

Timber, cedar and pinon pine.

Good grass for grazing.

May 25, 1914.

May 28, 1914: At 7h 55m a.m., l.m.t., I set off 40°00' N. on the lat. arc; 21°24'N. on the decl. arc; and determine a meridian with the solar at the re-established cor. of Tps. 9 S., Rs. 5 and 6 E.

Thence

North, on a retracement line along the east boundary of Tp. bet. secs. 31 and 36.

Over rolling mountainous land, through heavy cedar and pinon pine timber; ascend.

5.50 Ridge, 300 ft. above cor., bears NE. and SW.

Descend.

RETRACEMENT AND RESURVEY OF THE E. BDY. OF T. 9 S., R. 5 E.

Chains	
6.00	Leave timber and enter dense undergrowth bearing NE. and SW.
35.00	Creek, 2 lks. wide, 1 in. deep, in canyon, 400 ft. below ridge, course N.75°W.
37.40	Leave dense undergrowth and enter heavy timber bearing N.75°W. and S.75°E.
39.84	Fall 83 lks. E. of the old ¼ sec. cor., which is a sandstone 10 x 12 x 5 ins. above ground, poorly set, but properly marked. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, and reset stone alongside for ¼ sec. cor., with brass cap marked
	¼ S 36 | S 31 1914
	from which
	A cedar 6 ins. diam. bears N.41°W., 46 lks. dist., marked ¼ S 36 B T.
	A pinon pine 8 ins. diam. bears S.69°E., 7 lks. dist., marked ¼ S 31 B T.
	The course of the S. half mile is therefore N.1°12'W. and the distance 39.85 chs.
44.60	Spur, 150 ft. above creek, projects W.
	Descend abruptly.
	Leave timber and enter dense undergrowth.
48.70	Sheep Creek, 10 lks. wide, 2 ins. deep, in Sheep Canyon, 150 ft. below spur, course S.80°W. Cottonwoods in bottom.
	Ascend.
64.30	Leave dense and enter scattering undergrowth bearing NE. and SW.
68.70	Enter scattering pinon pine and cedar timber bearing NE. and SW.
72.80	Spur, 75 ft. above canyon, projects N.25°W.
74.90	Swale, 50 ft. below spur, course S.25°E.
	Ascend.

RETRACEMENT AND RESURVEY OF THE E. BDY. OF T. 9 S., R. 5 E.

Chains	
76.60	Spur, 50 ft. above swale, projects N.25°W.
	Descend.
79.00	Gully, 50 ft. below spur, course S.45°E.
	Ascend.
79.68	Fall 167 lks. E. of the cor. of secs. 25, 30, 31 and 36, which is a volcanic stone 10 x 12 x 4 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for the cor. of secs. 25, 30, 31 and 36, with brass cap marked

T 9 S
R 5 E | R 6 E
S 25 | S 30
S 36 | S 31

1914

from which

A cedar 10 ins. diam. bears N.67°10'E., 48 lks. dist., marked T 9 S R 6 E S 30 B T.

A mahogany 5 ins. diam. bears S.64°10'E., 18 lks. dist., marked T 9 S R 6 E S 31 B T.

A pinon pine 10 ins. diam. bears S.26°15'W., 38 lks. dist., marked T 9 S R 5 E S 36 B T.

A pinon pine 8 ins. diam. bears N.66°W., 46 lks. dist., marked T 9 S R 5 E S 25 B T.

The course of this mile is therefore N.1°12'W. and the distance 79.70 chs.

Land, mountainous.

Soil, clay and gravelly loam.

Undergrowth, oak, deer brush, service berry, and buck brush.

Timber, cedar and pinon pine.

Good grass for grazing.

May 28, 1914: At this cor. I set off 21°26'N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.

RETRACEMENT AND RESURVEY OF THE E. BDY. OF T. 9 S., R. 5 E.

Chains	
	North, on a retracement line bet. secs. 25 and 30.
	Over mountainous land, through heavy cedar and pinon pine timber, and scattering mahogany, oak, service berry, and deer brush; ascend.
5.00	Leave timber, bearing E. and W.
6.30	Spur, 50 ft. above cor., bears N.60°W. and S.60°E.
	Leave oak, service berry, and deer brush; enter dense rabbit and sage brush.
10.00	Swale, 50 ft. below spur, course SE.
	Ascend.
25.40	Gully, 35 ft. deep, course S.10°E.
	Ascend.
37.20	Swale, 25 ft. below gully, course S.15°W.
40.16	Fall 111 lks. E. of old ¼ cor., which is a sandstone 11 x 10 x 8 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, with brass cap marked
	¼ S 25 | S 30 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
50.00	Ridge, 100 ft. above swale, bears N.15°W. and S.15°E.
	Descend.
72.00	Swale, 25 ft. below ridge, course S.80°E.
	Ascend.
76.00	Enter scattering deer brush bearing E. and W.
80.01	Fall 125 lks. E. of cor. of secs. 19, 24, 25 and 30, which is a limestone 18 x 8 x 4 ins., 8 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins.

4—679

BOOK A-420 A

U. S. Surveyor General's Office
MAY 15 1915
SALT LAKE CITY, UTAH.

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RETRACEMENT AND RESURVEY OF SOUTH, EAST AND WEST BOUNDARIES,

RETRACEMENT OF NORTH BOUNDARY

AND

RETRACEMENT, RESURVEY AND SURVEY OF SUBDIVISION

OF

TOWNSHIP 9 SOUTH, RANGE 5 EAST

Of the Salt Lake Base and *Meridian,*

In the State of Utah

EXECUTED BY

JOHN R. STEWART

In the capacity of U. S. Surveyor, under instructions dated May 14, *1914, issued by the United States Surveyor General to govern surveys included in Group No.* 29, *which were approved by the Commissioner of the General Land Office,* June 5, *1914, pursuant to authority contained in the Act of Congress dated* ....., *191*

Survey commenced May 24, *1914*

Survey completed July 13, *1914*

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BOOK A-420

INDEX DIAGRAM.

Township 2 South *Range* 5 East

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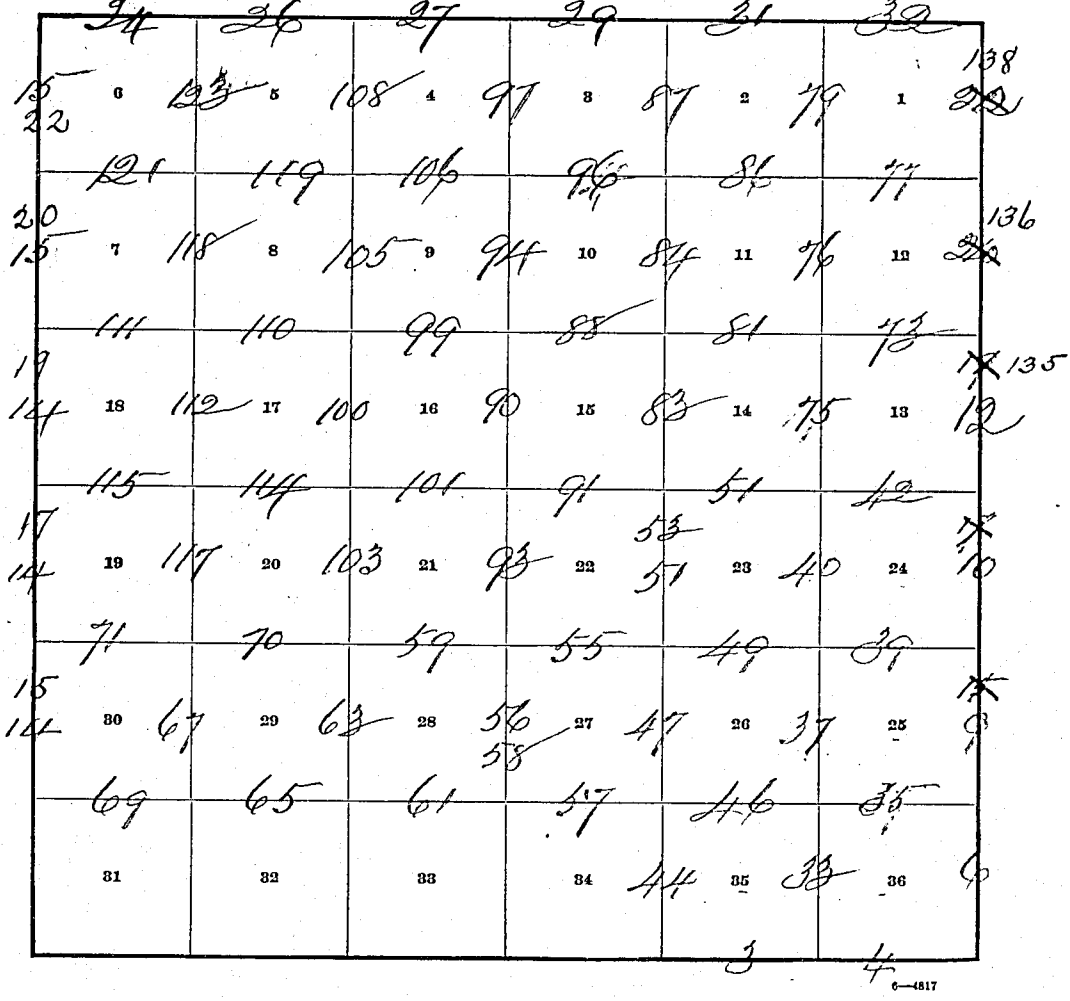
31	32	33	34	35	36

BOOK A-420

4—679 b

INDEX DIAGRAM.

Township 9 S, Range 5 E



6—4817

Chains

in the ground, for cor. of secs. 19, 24, 25 and 30, with brass cap marked

T 9 S	
R 5 E	R 6 E
S 24	S 19
S 25	S 30

1914

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

Land, mountainous. Slopes to south and southeast.

Soil, rich black mountain loam about 2 ft. deep. Clay and gravel subsoil.

Timber, cedar and pinon pine.

Undergrowth, oak, deer brush, mahogany, service berry, rabbit brush, and sage.

Good grass for grazing.

The course of the S. half of this mile is N.1°35'W. and the distance 40.18 chs. The N. half is N.0°12'W. 39.85 chs.

May 28, 1914.

June 1, 1914: At 7h 58m a.m., l.m.t., I set off 22°01' N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30.

Thence

North, on a retracement line bet. secs. 19 and 24.

Over mountainous land, through dense sage, rabbit brush, and deer brush; ascend.

15.00 Enter scattering oak, bearing E. and W.

20.00 Leave sagebrush, bearing E. and W.

25.00 Leave oak brush and enter sagebrush, dense, bearing E. and W.

39.62 Old road bears N.15°E. and S.15°W.

39.85 Fall 130 lks. E. of the ¼ sec. cor., which is a sandstone 24 x 18 x 12 ins., loosely set but well marked.

RETRACEMENT AND RESURVEY OF THE E. BDY. OF T. 9 S., R. 5 E.

Chains	
	No mound. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, and reset stone alongside, for ¼ sec. cor., with brass cap marked
	¼ S 24 | S 19 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of the S. half mile is therefore N.1°52'W. and the distance 39.87 chs.
40.08	Fall 23 lks. W. of Page and Lentz cor. I destroy same.
49.50	Spur, 50 ft. above sec. cor., bears N.25°E. and S.25°W.
	Descend.
52.00	Swale, 50 ft. below spur, course S.25°E.
	Ascend.
56.40	Enter scattering oak, bearing NW. and SE.
58.00	Divide between Soldier and Diamond canyons 100 ft. above swale, bears E. and W.
	Descend.
67.40	Swale, 50 ft. below ridge, course E.
	Ascend.
72.50	Leave sagebrush and enter heavy aspen timber, bears E. and W.
75.00	Gully, 75 ft. below swale, course E.
	Ascend.
76.15	Leave aspen, enter oak, service berry and chokecherry, bearing E. and W.
79.79	Fall 140 lks. E. of cor. of secs. 13, 18, 19 and 24, which is a limestone 22 x 9 x 8 ins., 11 ins. in the ground, properly marked. I remonument at same point.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 13, 18, 19 and 24, with brass cap marked
	T 9 S R 5 E | R 6 E S 13 | S 18 S 24 | S 19 1914

Chains	
	from which
	An oak 8 ins. diam. bears N.51°E., 236 lks. dist., marked T 9 S R 6 E S 18 B T.
	An oak 4 ins. diam. bears S.41°30'E., 77 lks. dist., marked T 9 S R 6 E S 19 B T.
	An oak 4 ins. diam. bears S.31°W., 50 lks. dist., marked T 9 S R 5 E S 24 B T.
	An oak 5 ins. diam. bears N.59°30'W., 140 lks. dist., marked T 9 S R 5 E S 13 B T.
	The course of the N. half mile is therefore N.0°09'W. and the distance 39.94 chs.
	Land, mountainous, high and rolling.
	Soil, rich black mountain loam, 2 to 3 ft. deep. Clay and gravel subsoil.
	Undergrowth, oak, service berry, sagebrush, chokecherry and deer brush.
	Timber, aspen.
	Good grass for grazing.
	June 1, 1914: At this cor. I set off 22°02'N. on the decl. arc; and at 11h 58m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'.
	Note: I find by retracement that no other corners can be found bet. secs. 13 and 18. Therefore I run North, on a resurvey line bet. secs. 13 and 18.
	Over mountainous land, through dense, tall undergrowth, and scattering aspen timber; descend.
7.50	Hollow, 75 ft. below cor., creek 1 lk. wide 1 in. deep in bottom, course E.
	Ascend.
8.40	Spur, 50 ft. above hollow, bears E. and W.
	Descend.
13.00	Gully, 50 ft. below spur, course E.
	Ascend.
14.30	Leave aspen timber bearing E. and W.

RETRACEMENT AND RESURVEY OF THE E. BDY. OF T. 9 S., R. 5 E.

Chains	
21.00	Spur, 100 ft. above gully, bears N.85°E. and S.85°W.
	Descend.
23.50	Enter heavy aspen and scattering pine timber bearing E. and W.
36.80	Creek, 2 lks. wide 2 ins. deep, in swale, 120 ft. below spur, course S.75°E.
	Leave timber.
40.00	Find no trace of old ¼ sec. cor. after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 13 | S 18
	1914
	from which
	An aspen 5 ins. diam. bears S.60°W., 250 lks. dist., marked ¼ S 13 B T.
	No other trees within limits.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The old Page and Lentz ¼ cor. bears E. 125 lks. I destroy same.
	Land mountainous.
	Soil, rich mountain loam 2 to 3 ft. deep. Clay subsoil.
	Timber, aspen and pine.
	Undergrowth, oak, sage, deer brush and buck brush.
	Good grass for grazing.
	June 1, 1914.

RETRACEMENT OF THE

WEST BOUNDARY OF T. 9 S., R. 5 E.

June 13, 1914: At 8h 0m a.m., l.m.t., I set off 23°12' N. on the decl. arc; 40°00' N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 25, 30, 31 and 36, on the W. bdy. of the Tp., which is a sandstone 8 x 10 x 7 ins. above ground, firmly set, and marked and witnessed as described by

Chains	
	the surveyor general.
	Thence
	North, on a retracement line bet. secs. 25 and 30.
40.20	Fall 104 lks. E. of the ¼ sec. cor., which is a limestone 16 x 10 x 7 ins. above ground, firmly set, and properly marked but not witnessed.
80.40	Fall 208 lks. E. of the cor. of secs. 19, 24, 25 and 30, which is a limestone 15 x 9 x 6 ins. above ground, poorly set and poorly marked but witnessed by old mound.
	June 13, 1914: At this cor. I set off 23°13'N. on the decl. arc; and at 12 noon observe the sun on the meridian; the resulting lat. is 40°02'N.
	North, on a retracement line bet. secs. 19 and 24.
40.00	Find no trace of the old ¼ sec. cor. after diligent search.
	Set temp. ¼ sec. cor.
80.00	Find no trace of the old cor. of secs. 13, 18, 19 and 24.
	Set temp. sec. cor.
	North, on a retracement line bet. secs. 13 and 18.
40.00.	Find no trace of old ¼ sec. cor. after diligent search.
	Set temp. ¼ sec. cor.
80.00	Find no trace of old cor. of secs. 13, 18, 7 and 12, after diligent search.
	Set temp. sec. cor.
	June 13, 1914.
	July 6, 1914: At 8h 04m a.m., l.m.t., I set off 22°46' N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the temp. cor. of secs. 7, 12, 13 and 18, on the W. bdy. of the Tp.

RETRACEMENT OF THE WEST BDY. OF T. 9 S., R. 5 E.

Chains	
	Thence
	North, on a retracement line bet. secs. 7 and 12.
40.00	Find no trace of the old ¼ sec. cor.
	Set temp. ¼ sec. cor.
80.00	Find no trace of the cor. of secs. 1, 6, 7 and 12.
	July 6, 1914: At this cor. I set off 22°44'N. on the decl. arc; and 0h 4m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.
	North, on a retracement line bet. secs. 1 and 6.
40.00	Find no trace of the old ¼ sec. cor. after diligent search.
	Set temp. ¼ sec. cor.
81.22	Fall 10.92 chs. E. of the cor. of Tps. 8 and 9 S., Rs. 4 and 5 E., which is a limestone 16 x 10 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	July 6, 1914.

RETRACEMENT AND RESURVEY OF THE
WEST BOUNDARY OF T. 9 S., R. 5 E.

July 7, 1914: At 8h 5m a.m., l.m.t., I set off 22°40' N. on the decl. arc; 40°01'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 25, 30, 31 and 36, on the W. bdy. of the Tp., heretofore described. I remonument this corner at same point as follows:

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 25, 30, 31 and 36, with brass cap marked

T 9 S
R 4 E | R 5 E
S 25 | S 30
S 36 | S 31
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high,

RETRACEMENT AND RESURVEY OF THE W. BDY. OF T. 9 S., R. 5 E.

Chains	
	W. of cor.
	Thence
	North 1°29'W., on a resurvey line bet. secs. 25 and 30.
	Over rocky, mountainous land, through dense undergrowth.
	Descend abruptly.
1.00	Soldier Creek, 30 lks. wide, 2 ft. deep, course W.
	Thence across canyon bottom.
1.25	Enter alfalfa field bearing E. and W.
9.80	Side track of the D. & R. G. R. R. bears N.82°E. and S. 82°W.
10.10	D. & R. G. R. R. track bears same.
10.30	D. & R. G. R. R. track bears same.
	Section house is 3.00 chs. E. of the D.& R.G. station.
13.85	Fence bears E. and W.
14.00	Canyon Road bears E. and W.
14.30	Telephone line bears E. and W.
20.00	Leave canyon, begin ascent of mountain bearing E. and W.
25.00	Ledge 25 ft. high bears NE. and SW.
40.20	The old ¼ sec. cor. already described. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., marked on brass cap.
	¼ S 25 | S 30 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
42.20	Ridge, 625 ft. above canyon, bears E. and W.
	Descend.
49.00	Canyon, 350 ft. below ridge, course S.85°W.
	Ascend.
51.50	Trail bears N.85°E. and S.85°W.
58.70	Ledge bears E. and W.
60.50	Enter scattering cedars bearing E. and W.
63.50	Spur, 50 ft. above canyon, bears N.55°W. and S.55°E.

RETRACEMENT AND RESURVEY OF THE W. BDY. OF T. 9 S., R. 5 E.

Chains	
67.20	Enter heavy cedar and pinon pine timber bearing NW. and SE.
73.60	Gully, 50 ft. below spur, course S.15°E.
80.43	The cor. of secs. 19, 24, 25 and 30, I remonument it at same point. Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 19, 24, 25 and 30, with brass cap marked

T 9 S

R 4 E	R 5 E
S 24	S 19
S 25	S 30

1914

from which

A cedar 8 ins. diam. bears N.24°E., 46 lks. dist., marked T 9 S R 5 E S 19 B T.

A cedar 14 ins. diam. bears S.24°E., 44 lks. dist., marked T 9 S R 5 E S 30 B T.

A pinon pine 12 ins. diam. bears S.68°W., 14 lks. dist., marked T 9 S R 4 E S 25 B T.

A cedar 6 ins. diam. bears N.71°W., 52 lks. dist., marked T 9 S R 4 E S 24 B T.

Note: The Page and Lentz cor. is 24 lks. N. and 176 lks. E. I destroy same.

	N.1°57'W., on a resurvey line bet. secs. 19 and 24. Over mountainous land, through heavy cedar timber; ascend.
5.90	Ridge, 75 ft. above cor., bears N.15°E. and S.15°W. Descend.
8.95	Leave heavy timber, enter scattering timber, dense sage, oak and buck brush, bearing E. and W.
15.00	Enter dense tall oak, bearing E. and W.
27.40	Hollow, 140 ft. below ridge, course S.80°W. Ascend.

Chains	
29.35	Spur, 65 ft. above hollow, bears N.80°E. and S.80°W.
	Descend.
34.20	Gorge, 75 ft. below spur, course S.82°W.
	Ascend.
36.40	Spur, 50 ft. above gorge, bears N.82°E. and S.82°W.
	Descend.
40.16½	Find no trace of old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 24 | 1914
	from which
	An oak 6 ins. diam. bears N.23°W., 32 lks. dist., marked ¼ S 24 B T.
41.30	Leave oak and enter sage bearing E. and W.
48.30	Leave sage, enter oak and choke cherry, bearing E. and W.
50.25	Canyon, 125 ft. below spur, course SW.
51.16	(See page 117 for ¼ sec. cor. for sec. 19.)
52.35	Leave chokecherry bearing E. and W.
75.45	Enter scattering cedars bearing E. and W.
80.33	Find no trace of old cor. of secs. 13, 18, 19 and 24, after diligent search.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 13 and 24 only, with brass cap marked
	T 9 S R 4 E | R 5 E S 13 S 24 | 1914
	from which
	A cedar 8 ins. diam. bears S.17°W., 73 lks. dist., marked T 9 S R 4 E S 24 B T.
	A cedar 8 ins. diam. bears N.61°W., 44 lks. dist., marked T 9 S R 4 E S 13 B T.

RETRACEMENT AND RESURVEY OF THE W. BDY. OF T. 9 S., R. 5 E.

Chains	
	Land, mountainous, sloping westerly.
	Soil, light, sandy and clay loam about 2 ft. deep, with clay subsoil.
	Undergrowth, oak, buck, sage and chokeberry brush.
	Timber, cedar.
	Good grass for grazing.
	July 7, 1914: At this cor. I set off 22°38'N. on the decl. arc; and at 0h. 5m. p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.
	N.1°57'W., on a resurvey line bet. secs. 13 and 18.
	Over mountainous land, through heavy cedar timber and scattering undergrowth; ascend.
3.30	Leave timber and enter dense oak and sagebrush, bearing NE. and SW.
4.00	Spur, 50 ft. above cor., bears N.10°W. and S.10°E.
10.00	Head of swale, course S.10°E.
25.00	Ridge, 100 ft. above swale, bears N.15°E. and S.15°W.
35.00	Gulch, 30 ft. below ridge, course S.50°W.
	Ascend.
39.80	Divide bet. Soldier and Diamond canyons, 100 ft. above gulch, bears N.70°E. and S.70°W.
	Descend.
40.16½	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 13 | 1914
	from which
	A maple 4 ins. diam. bears N.78°W., 41.1lks. dist., marked ¼ S 13 B T.
	Find no trace of old ¼ sec. cor.
50.20	Gully, 175 ft. below ridge, course N.85°W.
50.78	(See page 112 for ¼ sec. cor. for sec. 18.)
62.00	Spur, 150 ft. above gully, bears N.75°W. and S.75°E.
66.50	Gully, 160 ft. below spur, course N.65°W.

RESURVEY OF W. BDY. OF T. 9 S., R. 5 E.

Chains	
	Ascend.
68.00	Spur, 60 ft. above gully, bears N.65°W. and S.65°E.
	Descend.
70.00	Gully, 25 ft. below spur, course N.65°W.
	Ascend.
72.25	Spur, 50 ft. above gully, bears N.65°W. and S.65°E.
	Descend.
80.33	Find no trace of old sec. cor.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 12 and 13 only, with brass cap marked

T 9 S
R 4 E | R 5 E
S 12
S 13
1914

from which

A cedar 8 ins. diam. bears S.17°W., 73 lks. dist., marked T 9 S R 4 E S 13 B T.

A cedar 8 ins. diam. bears N.61°W., 44 lks. dist., marked T 9 S R 4 E S 12 B T.

Land, mountainous, with steep slopes.

Soil, yellow clay, quite hard, about 15 ins. deep.

Subsoil, gumbo clay and patches of gravel.

Timber, heavy cedars on south 3.30 chs.

Undergrowth, oak, sage, maple. Some grass.

July 7, 1914.

July 8, 1914: At 8h 5m a.m., l.m.t., I set off 22°33' N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 12 and 13, on the W. bdy. of the Tp.

Thence

N.1°57'W., on a resurvey line bet. secs. 7 and 12.

Over mountainous land, through dense, tall oak and scattering sage and maple.

RESURVEY OF THE W. BDY. OF T. 9 S., R. 5 E.

Chains	
	Descend.
4.00	Hollow, 200 ft. below cor., course N.70°W.
	Ascend.
8.00	Spur, 75 ft. above hollow, bears N.80°W. and S.80°E.
	Descend.
15.20	Gulch, 50 ft. below spur, course S.85°W.
	Ascend.
23.00	Spur, 125 ft. above gulch, bears N.60°E. and S.60°W.
	Descend.
25.35	Gully, 35 ft. below spur, course S.70°W.
	Ascend.
29.00	Spur, 100 ft. above gully, bears N.40°E. and S.40°W.
	Descend.
34.00	Gully, 25 ft. below spur, course W.
	Ascend.
37.00	Spur, 25 ft. above gully, bears N.80°W. and S.80°E.
	Descend.
40.16½	Find no trace of the old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 12 | 1914
	from which
	An oak 4 ins. diam. bears N.37½°W., 1 lk. dist., marked ¼ S 12 B T.
46.40	Gully, 75 ft. below spur, course N.80°W.
	Ascend.
49.60	Gorge, 1 ch. wide, 25 ft. deep, course N.80°W.
50.00	Enter scattering sagebrush bearing E. and W.
50.38½	(See page 122 for ¼ sec. cor. for sec. 7.)
55.00	Spur, 100 ft. above gully, bears E. and W.
60.00	Swale, 40 ft. below spur, course W.
	Ascend.
63.50	Leave cedar timber, bearing E. and W.
64.00	Spur, 100 ft. above swale, bears E. and W.

RESURVEY OF THE W. BDY. OF T. 9 S., R. 5 E.

Chains	
77.50	Gorge, 2 chs. wide, 15 ft. deep, course N.85°W.
80.33	Find no trace of old sec. cor.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 1 and 12 only, with brass cap marked

T 9 S
R 4 E | R 5 E
S 1
S 12
1914

from which

A cedar 18 ins. diam. bears N.14°W., 81 lks. dist., marked T 9 S R 4 E S 1 B T.

A cedar 24 ins. diam. bears S.71°30'W., 88 lks. dist., marked T 9 S R 4 E S 12 B T.

Land, mountainous, sloping and draining west.

Soil, mixture of clay and black mountain loam, 15 ins. deep, with streaks of gravel and rock. Subsoil, cemented gravel and clay.

Undergrowth, oak, maple and sage.

Timber, cedar.

Good grass for grazing.

July 8, 1914: At this cor. I set off 22°33'N. on the decl. arc; and at 0h 5m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.

	N.1°57'W., on a resurvey line bet. secs. 1 and 6.
	Over rolling mountainous land, through dense undergrowth; descend.
8.50	Gorge, 50 ft. below cor., course S.35°W.
	Ascend.
10.00	Enter scattering cedar timber bearing E. and W.
15.00	Spur, 75 ft. above gorge, bears N.25°E. and S.25°W.
	Leave timber, bearing N.25°E. and S.25°W.
40.16½	Find no trace of the old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins.

RESURVEY OF THE W. BDY. OF T. 9 S., R. 5 E.

Chains	
	in the ground, for ¼ sec. cor., with brass cap marked ¼ S 1 | 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
40.75	Gulch, 40 ft. below spur, course N.60°W.
	Ascend.
48.80	Enter scattering sagebrush bearing E. and W.
50.04	(See page 123 for description of ¼ cor. for sec. 6.)
52.00	Spur, 100 ft. above gulch, bears NE. and SW.
	Leave oak and maple, enter dense oak and sagebrush, bearing NE. and SW.
72.30	Leave sagebrush, enter dense oak, bearing NE. and SW.
75.00	Leave oak and enter sagebrush bearing E. and W.
80.33	The cor. of Tps. 8 and 9 S., Rs. 4 and 5 E., heretofore described. I remonument this cor. at same point.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of Tps. 8 and 9 S., Rs. 4 and 5 E., with brass cap marked T 8 S S 36 | S 31 R 4 E ——— R 5 E S 1 | S 6 T 9 S 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Land, mountainous, rolling slopes. Drains westerly.
	Soil, black mountain loam about 2 ft. deep. Subsoil, clay.
	Undergrowth, oak, maple and sagebrush.
	Timber, cedar.
	Good grass for grazing.
	July 8, 1914.

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

July 11, 1914: At 8h 5m a.m., l.m.t., I set off 22°12' N. on the decl. arc; 40°05'N. on the lat. arc; and

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

Chains	
	determine a meridian with the solar at the re-established cor. of Tps. 8 and 9 S., Rs. 4 and 5 E.
	Thence
	East, on a retracement line bet. secs. 6 and 31.
	Over rolling mountainous land, through dense sage, oak, and deer brush; descend.
5.00	Gully, 80 ft. below cor., course N.
	Ascend.
15.40	Leave sage and enter dense oak brush bearing N. and S.
27.00	Spur, 250 ft. above gully, bears N. and S.
	Descend.
28.50	Swale, 50 ft. below spur, course N.
	Ascend.
31.70	Ridge, 100 ft. above swale, bears N. and S.
	Descend.
38.11	Fall 2 lks. N. of the old ¼ sec. cor., which is a quartzite stone 6 x 8 x 6 ins. above ground, loosely set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor. of sec. 31 only, with brass cap marked
	¼ S 31 / 1914
	from which
	An oak 5 ins. diam. bears N.10°E., 17 lks. dist., marked ¼ S 31 B T.
44.50	Gulch, 200 ft. below ridge, course N., creek 1 lk. wide, 1 in. deep in bottom.
	Ascend abruptly.
50.00	Spur, 175 ft. above gulch, bears N.25°W. and S.25°E.
	Descend.
55.30	Gulch, 200 ft. below spur, course N.15°W.
	Ascend.
58.30	Spur, 125 ft. above gulch, projects N.15°W.
	Descend.

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

Chains	
68.25	Canyon, 125 ft. below spur, course NW.; creek 3 lks. wide, 3 ins. deep in bottom.
	Ascend abruptly.
72.50	Spur, 100 ft. above canyon, bears N. and S.
	Descend.
74.50	Gulch, 75 ft. below spur, course S.
	Ascend.
76.73	Fall 5 lks. N. of the cor. of secs. 5, 6, 31 and 32, which is a limestone 12 x 9 x 6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 31 and 32 only, with brass cap marked

T 8 S | R 5 E
S 31 | S 32
S 6 | S 5
T 9 S R 5 E
1914

from which

A cedar 16 ins. diam. bears N.5°50'E., 40 lks. dist., marked T 8 S R 5 E S 32 B T.

A cedar 8 ins. diam. bears N.30°W., 42 lks. dist., marked T 8 S R 5 E S 31 B T.

Land, mountainous, west half rolling, east half steep ridges and hollows.

Soil, black mountain loam, except E. 8.50 chs., which is rocky clay.

Timber, cedar.

Good grass for grazing.

Undergrowth, oak, sage, and deer brush.

July 11, 1914: At this cor. I set off 22°10'N. on the decl. arc; and at 0h 5m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°05'N.

The course of this mile is S.89°58'E. 76.73 chs. The west half is 38.11 chs.

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

Chains

East, on a retracement line on the south side of sec.32. Over rough mountainous land, through scattering cedar timber and dense oak and buck brush; ascend.

10.00 Top of flat spur, 100 ft. above cor., bears N.15°E. and S.15°W.

Descend.

16.00 Gully, 75 ft. below spur, course S.15°W.

Ascend.

17.80 Spur, 50 ft. above gully, bears N.15°E. and S.15°W.

Descend.

20.30 Gully, 60 ft. below spur, course S.25°W.

Ascend.

28.50 Top of flat ridge, 100 ft. above gully, bears N. and S.

Descend.

31.50 Leave cedar timber, enter oak, buck brush and dense sage, bearing N. and S.

46.28 Fall 24 lks. N. of ¼ sec. cor., which is a limestone 9 x 10 x 6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., alongside of stone, with brass cap marked

¼ S 32
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

[illegible].30 Leave sage and enter buck brush, bearing N. and S.

[illegible]0.00 Leave buck and enter sagebrush, bearing N. and S.

[illegible]0.00 Gorge, 15 ft. deep, 15 lks. wide, course S.15°W., in canyon 300 ft. below ridge, creek 2 lks. wide, 3 ins. deep in bottom.

Ascend.

[illegible]5.58 Fall 12 lks. N. of the cor. of secs. 4, 5, 32 and 33, which is a sandstone 9 x 6 x 3 ins. above ground,

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

Chains

firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 32 and 33 only, with brass cap marked.

T 8 S | R 5 E.
S 32 | S 33
S 5 | S 4
T 9 S R 5 E
1914

from which

A cedar 10 ins. diam. bears N.80°E., 27 lks. dist., marked T 8 S R 5 E S 33 B T.

A cedar 5 ins. diam. bears N.45°W., 67 lks. dist., marked T 8 S R 5 E S 32 B T.

Land, mountainous with deep canyons. Drainage to the north.

Soil, rich clay loam about 18 ins. deep. Subsoil clay.

Timber, cedar.

Undergrowth, oak, buck brush and sage.

The course of the west half mile is S.89°42'E. and the distance 46.28 chs., and the east half N.89°50'E. 39.24 chs.

July 11, 1914.

July 12, 1914: At 8h 5m a.m., l.m.t., I set off 22°04' N. on the decl. arc; 40°05'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 32 and 33, on the N. bdy. of the Tp.

Thence

East, on a retracement line on the south side of sec.33.

Over mountainous land, through scattering cedar timber and dense oak, sage and buck brush; ascend.

4.00 Ridge, 150 ft. above cor., bears N.25°W. and S.25°E.

Descend abruptly.

6.00 Gorge, 125 ft. below ridge, course N.25°W.

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

Chains	
	Leave cedars and ascend abruptly.
7.50	Spur, 70 ft. above gorge, bears N.25°W. and S.25°E.
	Descend.
16.00	Gully, 50 ft. below spur, course N.
	Ascend.
39.30	Fall 7 lks. S. of old ¼ sec. cor., which is a quartzite stone 6 x 10 x 6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., alongside of stone, with brass cap marked
	¼ S 33 / 1914
	from which
	An oak 5 ins. diam. bears N.14°W., 60 lks. dist., marked ¼ S 33 B T.
57.20	Ridge, 300 ft. above gully, bears N. and S.
	Descend.
61.35	Gully, 100 ft. below ridge, course N.
	Ascend.
68.70	Spur, 125 ft. above gully, bears N.15°W. and S.15°E.
	Descend.
72.50	Gully, 100 ft. below spur, course N.15°W.
	Ascend gradually.
79.04	Fall 14 lks. S. of the old cor. of secs. 3, 4, 33 and 34, which is a quartzite stone 8 x 10 x 8 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 33 and 34, with brass cap marked

T 8 S | R 5 E
S 33 | S 34
S 4 | S 3
T 9 S | R 5 E
1914

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

Chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of this mile is therefore N.89°54'E., and the distance 79.04 chs.
	Land, mountainous, rough, steep and high. Slope and drainage northerly.
	Soil, red and yellow clay of poor quality mixed with gravel. Subsoil, hard clay mixed with gravel.
	Timber, scattering cedars.
	Undergrowth, oak, buck brush and sage.
	Good grass for grazing.
	July 12, 1914: At this cor. I set off 22°02'N. on the decl. arc; and at 0h 5m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°05'N.
	East, on a retracement line along the south side of sec. 34.
	Over broken, mountainous land, through dense oak and sagebrush, ascending abruptly.
4.70	Ridge, 200 ft. above sec. cor., bears N. and S.
	Descend abruptly.
22.00	Canyon, 500 ft. below ridge, course N.15°E.
	Leave sage and enter deer, rose, and service berry brush, bears same.
	Ascend abruptly.
27.00	Spur, 150 ft. above canyon, bears N. and S.
	Descend abruptly.
28.50	Enter scattering sage bearing N. and S.
37.50	Creek, 10 lks. wide, 4 ins. deep, in Water Canyon, 550 ft. below spur, course N.10°W. A few cottonwood trees in bottom.
	Ascend abruptly.
40.00	The old ¼ sec. cor., which is a sandstone 12 x 10 x 7 ins. above ground, firmly set, but poorly marked, and witnessed by small stone mound. I remonument at

Chains	
	same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	¼ S 34 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The course of the W. half mile is therefore East, and the distance 40.00 chs.
51.00	Enter scattering cedar timber bearing N. and S.
65.00	Top of flat ridge, 650 ft. above canyon, bears N.15°W. and S.15°E.
	Descend.
74.00	Begin abrupt descent, bearing N.15°W. and S.15°E.
79.02	Fall 60 lks. S. of the cor. of secs. 2, 3, 34 and 35, which is a limestone 12 x 10 x 6 ins. above ground, loosely set, and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside of stone, for the cor. of secs. 34 and 35 only, with brass cap marked
	T 8 S R 5 E S 34 | S 35 S 3 | S 2 T 9 S R 5 E 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of the E. half mile is therefore N.89°07'E. and the distance 39.03 chs.
	Land, mountainous, very steep, rough and high.
	Soil, red clay loam, mixed with disintegrated conglomerate rock, about 1 ft. deep. Subsoil, conglomerate rock and clay.
	Undergrowth, oak, sage, deer and rose brush.
	Timber, cedar.

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

Chains	
	Good grass for grazing.
	July 12, 1914.
	July 13, 1914: At 8h 5m a.m., l.m.t., I set off 40°05' N. on the lat. arc; 21°55'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 34 and 35, on the N. bdy. of the Tp., heretofore described.
	Thence
	East, on a retracement line along the S. bdy. of sec.35.
	Over rough mountainous land; descend.
27.80	Second Water Creek, 8 lks. wide, 4 ins. deep, course N., in canyon 250 ft. deep, course N.
	Ascend.
39.02	The old ¼ sec. cor., which is a limestone 10 x 10 x 6 ins. above ground, marked ¼ on N. face. I remonument as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 35 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
75.80	Ridge, 280 ft. above canyon, bears N. and S.
	Descend.
77.80	The old cor. of secs. 35 and 36, on the S. bdy. of Tp. 8 S., R. 5 E., which is a limestone, 10 x 10 x 8 ins. above ground, well set and marked 1 notch on E. and 5 notches on W. edges. Old stone mound. No bearing trees found. I remonument cor. at same point.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 35 and 36, with brass cap marked.

T 8 S R 5 E
S 35 | S 36
S 2 | S 1
T 9 S R 5 E
1914

BOOK A-420

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

Chains	
	I rebuild stone mound W. of cor.
	Land, mountainous.
	Soil, gravelly and clay loam.
	Undergrowth, oak, service berry and mahogany.
	Timber, cedar.
	Good grass for grazing.
	July 13: Sky overcast at noon; observation for lat. impossible.
	East, on a retracement line bet. secs. 1 and 36.
	Over mountainous land, through scattering cedar timber and dense mahogany; descend.
9.80	Head of gulch, 125 ft. below cor., course S.15°W.
	Leave mahogany and cedars, enter dense oak, chokecherry, deer, and service berry brush.
	Ascend.
42.90	Intersect the old ¼ sec. cor., which is a sandstone 10 x 8 x 5 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	¼ S 36 / 1914
	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.
60.50	Divide ridge, 400 ft. above gulch, bears NW. and SE.
	Descend.
78.00	Hollow, 100 ft. below divide, course N.
	Ascend.
79.54	Intersect the old cor. of Tp. 8 S., Rs. 5 and 6 E., which is a limestone 10 x 12 x 8 ins. above ground, firmly set and marked and witnessed as described by

RETRACEMENT OF THE N. BDY. OF T. 9 S., R. 5 E.

Chains

the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of Tp. 8 S., Rs. 5 and 6 E., with brass cap marked

T 8 S
S 36 | S 31
R 5 E ——— R 6 E
T 9 S
1914

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

The course of this line is therefore East and the distance 79.54 chs.

Land, mountainous.

Soil, clay and gravelly loam.

Timber, cedar.

Good grass for grazing.

Undergrowth, mahogany, oak, deer brush, chokecherry and service berry.

July 13, 1914.

RETRACEMENT AND RESURVEY OF THE SUBDIVISION OF T. 9 S., R. 5 E.

May 26, 1914: At 7h 57m a.m., l.m.t., I set off 21°04' N. on the decl. arc; 40°00'N. on the lat. arc; and determine a meridian with the solar at the re-established cor. of secs. 35 and 36, on the S. bdy. of the Tp.

Thence

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

Over rolling hills, through scattering cedar and pinon pine timber, and dense oak and buck brush.

Descend abruptly.

4.45 Hollow, 100 ft. below cor., course N.55°W.

Ascend.

6.35 Spur, 50 ft. above hollow, bears N.55°W. and S.55°E.

Chains	
	Descend abruptly.
12.00	Creek, 8 lks. wide, 3 ins. deep, in bottom of Sheep Canyon, 175 ft. below spur, course S.30°W.
	Ascend. Enter dense sagebrush.
12.90	Road, bears N.30°E. and S.30°W.
14.30	Leave dense sage, enter scattering sage, bearing E. and W.
25.00	Spur, 150 ft. above canyon, bears N.15°E. and S.15°W.
28.90	Creek, 2 lks. wide, 1 in. deep, in hollow 50 ft. below spur, course S.8°E.
39.83	Fall 43 lks. E. of ¼ sec. cor., which is a sandstone 12 x 6 x 4 ins. above ground, firmly set and marked ¼ but not witnessed. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 18 ins. in the ground and surrounded by a mound of stone, by side of old cor., with brass cap marked ¼ S 35 | S 36 1914
	from which
	A cedar 16 ins. diam. bears S.88°30'E., 13 lks. dist., marked ¼ S 36 B T.
	A cedar 6 ins. diam. bears S.56°40'W., 104 lks. dist., marked ¼ S 35 B T.
48.60	Enter scattering oak brush bearing E. and W.
79.68	Top of ridge, 250 ft. above hollow, bears N.30°E. and S.30°W.
	Fall 99 lks. E. of the cor. of secs. 25, 26, 35 and 36, which is a sandstone 12 x 10 x 8 ins. above ground, marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, by side of stone, for cor. of secs. 25, 26, 35 and 36, with brass cap marked T 9 S | R 5 E S 26 | S 25 S 35 | S 36 1914

Chains	
	from which
	A cedar 8 ins. diam. bears N.24°30'E., 110 lks. dist., marked T 9 S R 5 E S 25 B T.
	A cedar 8 ins. diam. bears S.84°W., 58 lks. dist., marked T 9 S R 5 E S 35 B T.
	An oak 5 ins. diam. bears N.36°W., 60 lks. dist., marked T 9 S R 5 E S 26 B T.
	No other bearing trees available.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous. General slope to the south.
	Soil, mixture of sandy and black mountain loam about 2 ft. deep. Subsoil, clay and some gravel.
	Undergrowth, oak, service berry, deer brush and sage.
	Timber, cedar.
	Good grass for grazing.
	May 26, 1914: At this cor. I set off 21°05'N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	The course of the S. half mile is N.0°37'W. and the distance 39.83 chs., and the N. half mile is N.0°48'W. 39.85 chs.
	May 26, 1914.
	May 29, 1914. Afternoon.
	East, on a retracement line bet. secs. 25 and 36.
	Over broken mountainous land, through dense sage, oak, buck brush and service berry, and scattering cedar timber; ascend.
1.60	Ridge, 125 ft. above cor., bears N.35°E. and S.35°W.
	Descend.
8.00	Gully, 125 ft. below ridge, course S.25°W.
	Ascend.
12.50	Spur, 75 ft. above gully, bears N.25°E. and S.25°W.
	Descend.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
21.00	Gulch, 175 ft. below spur, course S.25°E.
	Ascend.
22.10	Leave oak and service berry bearing NW. and SE.
25.30	Spur, 40 ft. above gulch, bears N. and S.
	Descend gradually.
31.00	Begin abrupt descent bearing N. and S.
32.50	Gulch, 275 ft. below spur, creek, 2 lks. wide, 1 in. deep, in bottom, course S.
	Ascend abruptly.
36.90	Spur, 75 ft. above creek, bears N. and S.
	Descend.
40.00	Find no trace of old ¼ sec. cor. after diligent search.
	Note: Later, on the true course of S.89°10'W., at
38.19	Search again for old cor. but find no trace of same.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 25 / ¼ / S 36 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
42.00	Ravine, 100 ft. below spur, course S.15°W.
	Ascend abruptly.
45.00	Enter dense oak brush bearing N. and S.
49.00	Spur, 100 ft. above ravine, bears N.15°W. and S.15°E.
	Descend.
52.40	Swale, 50 ft. below spur, course S.15°E.
	Ascend.
56.70	Spur, 50 ft. above swale, bears N.20°W. and S.20°E.
	Enter scattering mahogany.
67.40	Gully, 50 ft. below spur, course S.20°E.
	Enter heavy cedar timber; ascend.
72.20	Spur, 100 ft. above gully, bears S.25°E.
	Descend.
76.80	Gully, 50 ft. below spur, course SW.

Chains	
	Ascend.
76.37	Fall 113 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	Thence
	S.89°10'W., on a resurvey line bet. secs. 25 and 36.
38.19	Set temp. ¼ sec. cor. after failure to find old cor.
76.38	The cor. of secs. 25, 26, 35 and 36.
	No change in topography from retracement line.
	May 29, 1914.
	May 26, 1914. Afternoon.
	North, on a retracement line bet. secs. 25 and 26.
	Over rolling mountainous land, through dense sage, oak, and service berry brush, and scattering cedar timber; descend.
3.00	Swale, 50 ft. below cor., course S.30°W.
	Ascend.
7.50	Spur, 50 ft. above swale, bears N.30°E. and S.30°W.
	Descend.
12.00	Swale, 50 ft. below spur, course S.30°W.
	Ascend.
15.00	Spur, 75 ft. above swale, bears N.35°E. and S.35°W.
	Descend.
20.00	Gully, 60 ft. below spur, course S.65°W.
	Ascend.
25.00	Leave sagebrush, enter dense oak, bearing NE. and SW.
28.60	Gully, 50 ft. below spur, course SW.
	Ascend.
32.90	Leave oak, enter sagebrush, bearing NE. and SW.
40.08	Fall 23 lks. E. of the ¼ sec. cor., which is a sandstone 10 x 6 x 3 ins. above ground, marked ¼ but not witnessed. Well set. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

Chains	
	¼ S 26 | S 25 1914 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.
44.50	Leave sage, enter dense oak, rose, buck and deer brush, bearing E. and W.
45.00	Ridge, 100 ft. above gully, bears N.25°E. and S.25°W.
	Descend.
51.40	Gulch, 40 ft. below ridge, course SW.
	Ascend.
53.70	Ridge, 75 ft. above gulch, bears N.75°E. and S.75°W.
	Descend.
59.60	Canyon, creek 3 lks. wide, 2 ins. deep, in bottom, 100 ft. below ridge, course S.80°W.
	Ascend.
67.00	Spur, 100 ft. above canyon, bears NE. and SW.
	Descend.
70.00	Gully, 30 ft. below spur, course S.35°W.
	Ascend.
80.00	Fall 61 lks. E. of the cor. of secs. 23, 24, 25 and 26, which is a sandstone 12 x 6 x 4 ins. above ground, well set and properly marked but not witnessed.
	I remonument at same point.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground by side of stone, for cor. of secs. 23, 24, 25 and 26, with brass cap marked
	T 9 S | R 5 E S 23 | S 24 S 26 | S 25 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous.
	Soil, gravelly loam 2 ft. deep.
	Undergrowth, sage, oak, rose, buck brush, and service

Chains	
	berry.
	Timber, cedar.
	Good grass for grazing.
	The course of the S. half mile is N.0°20'W. and the distance 40.08 chs., and the N. half mile N.0°33'W. 39.92 chs.
	May 26, 1914.
	May 30, 1914. Forenoon (continued).
	East, on a retracement line bet. secs. 24 and 25.
40.00	Find no trace of old ¼ sec. cor.
	Set temp. ¼ sec. cor.
75.48	Fall 136 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	At this cor. I set off 21°44'N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°02'N.
	Thence
	South 88°58'W., on a resurvey line bet. secs. 24 and 25.
	Over mountainous land, through dense undergrowth;
	ascend.
8.00	Rocky ridge, 100 ft. above cor., bears N. 10°W. and S. 10°E.
	Ascend.
15.50	Spring branch, 1 lk. wide, 1 in. deep, course S.
17.30	A small spring in an old corral bears S. 4 chs. dist.
24.35	Gully, 300 ft. below ridge, course S.
	Ascend.
29.30	Spur, 75 ft. above gully, bears N.35°W. and S.35°E.
	Descend.
37.74½	Find no trace of the old ¼ sec. cor. after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 24 / ¼ / S 25 / 1914

Chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
40.10	Swale, 50 ft. below spur, course S.
	Ascend.
47.70	Ridge, 200 ft. above swale, bears N. and S.
	Descend. Old road on top bears same.
53.00	Gully, 100 ft. below ridge, course S.
	Ascend.
62.00	Enter dense sagebrush bearing N. and S.
70.00	Leave sage and enter dense oak, deer and buck brush bearing N. and S.
75.49	The cor. of secs. 23, 24, 25 and 26.
	Land, mountainous. Slopes to the south.
	Soil, mountain and clay loam 2 ft. deep with clay and gravel subsoil.
	No timber.
	Good grass for grazing.
	Undergrowth, oak, sage, buck and deer brush.
	May 30, 1914. p. m.
	June 2, 1914: At 7h 58m a.m., l.m.t., I set off 22° 09'N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26.
	Thence
	North, on a retracement line bet. secs. 23 and 24.
	Over rolling mountainous land, through dense sage and scattering oak, service berry and deer brush.
	Ascend.
2.00	Gully, 20 ft. deep, course S.67°W.
	Ascend.
3.75	Wash, 12 lks. wide, 15 ft. deep, course S.25°W.
8.80	Spur, 100 ft. above gully, bears N.25°E. and S.25°W.
	Descend.
22.50	Head of canyon, 200 ft. below spur, course S.65°W.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Ascend.
33.15	Spur, 75 ft. above canyon, bears N.25°E. and S.25°W.
40.00	Fall 1 lk. W. of the ¼ sec. cor., which is a sandstone 16 x 10 x 4 ins. above ground, marked ¼, and poorly set and not witnessed. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, and reset stone, for ¼ sec. cor., with brass cap marked ¼ S 23 | S 24 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of the S. half mile is therefore N.0°01'E. and the distance 40.00 chs.
42.50	Enter dense deer brush bearing E. and W.
53.30	Begin steep ascent bearing E. and W.
55.70	Enter scattering oak brush bearing E. and W.
60.00	Divide ridge bet. Diamond and Soldier Canyons, 200 ft. above spur, bears N.80°E. and N.80°W.
	Descend.
62.30	Enter dense aspen saplings bearing E. and W.
	Leave brush.
63.80	Leave aspens, enter dense deer and oak brush, bearing E. and W.
65.85	Head of canyon, creek 2 lks. wide 4 ins. deep in bottom, course N.80°W.
	Ascend.
67.80	Spur, 75 ft. above canyon, bears E. and W.
	Descend.
76.70	Swale, 50 ft. below spur, course S.85°W.
	Ascend.
80.22	Fall 23 lks. W. of the old cor. for secs. 13, 14, 23 and 24, which is a sandstone 15 x 8 x 4 ins., 6 ins. in the ground, properly marked but not witnessed. I remonument at same point.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins.

Chains	
	in the ground, for cor. of secs. 23 and 24 only, with brass cap marked T 9 S | R 5 E S 23 | S 24 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. The course of the N. half mile is therefore N.0°19'E. and the distance 40.22 chs. Land, mountainous. Soil, south ¾ mile is clay and gravelly loam about 18 ins. deep; the north ¼ mile is rich black mountain loam about 2 ft. deep. Subsoil, clay. Undergrowth, oak, service berry, buck brush, deer brush and aspen. No timber. Good grass for grazing. June 2, 1914: At this cor. I set off 22°10'N. on the decl. arc; and at 11h 58m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.
	East, on a retracement line bet. secs. 13 and 24.
40.00	Find no trace of old ¼ sec. cor.
73.68	Fall 97 lks. S. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence
	S.89°15'W., on a resurvey line bet. secs. 13 and 24.
	Over high, rolling mountain, through dense tall oak, chokecherry, deer, buck and sage brush.
	Ascend.
5.00	Enter scattering aspen timber bearing N. and S.
5.80	Leave sage and oak brush, bearing N. and S.
15.00	Leave aspen timber and chokecherry brush bearing N. and S.
18.50	Leave deer and buck brush, enter sage, bearing N. and S.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
24.00	Divide bet. Diamond and Soldier canyons, 150 ft. above cor., bears NW. and SE.
	Descend.
30.55	Swale, 75 ft. below ridge, course S.10°E.
	Ascend.
36.84½	Find no trace of old ¼ cor. after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., for sec. 24 only, with brass cap marked
	S 24 ¼ 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
42.50	Same divide, 50 ft. above swale, bears N. and S.
	Descend.
44.70	Enter oak brush, bearing N. and S.
51.40	Gully, 150 ft. below ridge, course S.10°W.
	Ascend.
58.50	Spur, 100 ft. above gully, bears N. and S.
	Descend.
59.00	Leave sage, enter dense oak, deer and buck brush, bearing N. and S.
69.80	Leave oak, enter sagebrush, bearing NE. and SW.
73.69	The cor. of secs. 23 and 24.
	Land, mountainous, high and rolling.
	Soil, generally rich mountain loam about 2 ft. deep, mixed with some gravel and with gravelly subsoil, fairly loose.
	Timber, aspen.
	Undergrowth, oak, service berry, chokecherry, deer, buck and sage brush.
	Good grass for grazing.
	June 2, 1914.

May 27, 1914: At 7h 57m a.m., l.m.t., I set off 21°14'

Chains	
	N. on the decl. arc; 40°00'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 34 and 35, on the S. bdy. of the Tp., heretofore described.
	Thence
	North, on a retracement line bet. secs. 34 and 35.
	Over rolling mountainous land, through dense sagebrush and scattering timber; descend.
6.00	Old road bears N.35°E. and S.35°W.
9.80	Gulch, 75 ft. below cor., creek, 2 lks. wide, 1 in. deep in bottom, course S.65°W.
	Ascend.
25.40	Spur, 50 ft. above gulch, bears S.80°W. and N.80°E.
27.00	Creek, 2 lks. wide, 3 ins. deep, in gully 55 ft. below spur, course S.80°W.
	Ascend.
36.15	Spur, 60 ft. above gully, bears NE. and SW.
	Descend.
38.40	Swale, 40 ft. below spur, course SW.
	Ascend.
40.08	Fall 22 lks. E. of old ¼ sec. cor., which is a limestone 14 x 18 x 6 ins. above ground, marked ¼ and well set but not witnessed. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 34 | S 35 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of the S. half mile is therefore N.0°19'W. and the distance 40.08 chs.
45.20	Spur, 60 ft. above swale, bears N.35°E. and S.35°W.
	Descend.
49.50	Gully, 75 ft. below spur, course S.35°W.
	Ascend.
62.40	Leave dense sage, enter dense oak, buck, deer brush

Chains

bears NE. and SW.

69.40 Spur, 75 ft. above gully, bears S.45°W. and N.45°E.

Descend.

72.40 Swale, 50 ft. below spur, course SW.

Ascend.

80.18 Fall 160 lks. E. of the cor. of secs. 26, 27, 34 and 35, which is a sandstone 13 x 8 x 6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, by side of stone, for cor. of secs. 26, 27, 34 and 35, with brass cap marked

T 9 S S 27	R 5 E S 26
S 34	S 35

1914

from which

A cedar 8 ins. diam. bears N.49°E., 101 lks. dist., marked T 9 S R 5 E S 26 B T.

A cedar 7 ins. diam. bears S.78°E., 68 lks. dist., marked T 9 S R 5 E S 35 B T.

A cedar 8 ins. diam. bears S.43°W., 210 lks. dist., marked T 9 S R 5 E S 34 B T.

A cedar 8 ins. diam. bears N.42°W., 217 lks. dist., marked T 9 S R 5 E S 27 B T.

The course of the N. half mile is therefore N.1°58'W. and the distance 40.12 chs.

Land, mountainous.

Soil, clay and gravelly loam.

Undergrowth, oak, deer and sage brush.

Timber, cedar.

Good grass for grazing.

May 27, 1914: At this cor. I set off 21°16'N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.

May 27, 1914.

Chains	
	May 29, 1914: At 7h 57m a.m., l.m.t., I set off 21°34' N. on the decl. arc; 40°01'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 26, 27, 34 and 35.
	Thence
	East, on a retracement line bet. secs. 26 and 35.
	Over mountainous land, through dense sage, oak, service berry and deer brush, and scattering cedar timber; ascend.
1.50	Spur, 35 ft. above cor., bears NE. and SW.
	Descend.
8.70	Gully, 75 ft. below spur, course S.15°W.
	Ascend.
10.00	Spur, 80 ft. above gully, bears N.15°E. and S.15°W.
	Descend.
22.40	Gully, 75 ft. below spur, course S.25°W.
	Ascend.
38.75	Spur, 75 ft. above gully, bears N.25°E. and S.25°W.
	Descend.
40.39	Fall 53 lks. S. of the ¼ sec. cor., which is a sandstone 10 x 10 x 8 ins. above ground, poorly marked and not witnessed. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 19 ins. in the ground, with mound of stone around post, by side of stone, for ¼ sec. cor., with brass cap marked S 26 / ¼ / S 35 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The course of the W. half mile is therefore N.89°15'E. and the distance 40.39 chs.
42.50	Gully, 75 ft. below spur, course S.
	Ascend.
45.40	Spur, 35 ft. above gully, bears N.15°E. and S.15°W.

Chains	
	Descend.
49.50	Swale, 50 ft. below spur, course S.15°W.
	Ascend.
58.40	Leave sage and enter oak brush bearing N. and S.
59.00	Spur, 50 ft. above swale, bears N. and S.
	Descend.
66.00	Gully, 50 ft. below spur, course S.
	Ascend.
71.30	Old road bears N. and S.
80.76	Fall 142 lks. S. of the cor. of secs. 25, 26, 35 and 36, heretofore described.
	The course of the east half mile is therefore N.88°44'E. and the distance 40.38 chs.
	Land, rolling mountainous. General slope, south.
	Soil, clay loam, some gravel, 2 ft. deep. Subsoil, clay and gravel.
	Timber, cedar.
	Good grass for grazing.
	Undergrowth, oak, deer brush, service berry, buck brush and sage.
	May 29: Sky overcast at noon; observation for lat. impossible.
	May 29, 1914.
	May 27, 1914. Afternoon.
	North, on a retracement line bet. secs. 26 and 27.
	Over mountainous land, through dense undergrowth and scattering cedar timber; ascend.
6.00	Spur, 75 ft. above cor., bears N.35°E. and S.35°W.
	Descend.
7.50	Gully, 50 ft. below spur, course S.50°W.
	Ascend.
9.40	Enter dense oak, service berry, and buck brush, bearing NE. and SW.
10.35	Spur, 75 ft. above gully, bears N.25°E. and S.25°W.

Chains	
	Ascend.
11.50	Leave sagebrush bearing NE. and SW.
28.70	Creek, 20 lks. wide, 3 ins. deep in canyon 425 ft. below spur, course S.15°W.
	Cottonwood trees in bottom.
	Ascend.
40.36	Fall 45 lks. W. of the old ¼ sec. cor., which is a sandstone 8 x 10 x 8 ins. above ground, firmly set, and marked ¼ but not witnessed. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, by side of stone, for ¼ sec. cor., with brass cap marked
	¼ S 27 | S 26 1914
	from which
	A cedar 8 ins. diam. bears S.21°W., 87 lks. dist., marked ¼ S 27 B T.
	No other bearing trees available.
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of the S. half mile is therefore N.0°38'E. and the distance 40.36 chs.
60.30	Enter heavy cedar timber bearing E. and W.
68.30	Spur, 100 ft. above creek, bears N.35°E. and S.35°W.
	Descend.
72.50	Gully, 125 ft. below spur, course SW.
	Ascend.
72.75	Leave sagebrush bearing NE. and SW.
80.41	Fall 88 lks. W. of the cor. of secs. 22, 23, 26 and 27, which is a sandstone 16 x 16 x 12 ins. above ground, properly marked but not witnessed.
	Note: The old Page cor. bears N.89°40'W. 5.00 chs. dist. I destroy same.
	At point of old cor. I remonument as follows:

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, by side of stone, for the cor. of secs. 22, 23, 26 and 26, with brass cap marked

T 9 S S 22	R 5 E S 23
S 27	S 26

1914

from which

A cedar 5 ins. diam. bears N.64°E., 106 lks. dist., marked T 9 S R 5 E S 23 B T.

A cedar 5 ins. diam. bears S.47°E., 87 lks. dist., marked T 9 S R 5 E S 26 B T.

A cedar 6 ins. diam. bears S.21°W., 96 lks. dist., marked T 9 S R 5 E S 27 B T.

A cedar 6 ins. diam. bears N.83°W., 42 lks. dist., marked T 9 S R 5 E S 22 B T.

The course of the N. half mile is therefore N.0°37'E. and the distance 40.05 chs.

Land, mountainous.

Soil, heavy clay mixed with gravel, 18 ins. deep. Subsoil, cemented gravel.

Undergrowth, oak, sage, service berry, deer and buck brush.

Timber, cedar.

Good grass for grazing.

May 27, 1914.

May 30, 1914: At 7h 57m a.m., l.m.t., I set off 21°43' N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26.

Thence

West, on a retracement line bet. secs. 23 and 26.

40.00 Find no trace of ¼ sec. cor. after diligent search.

79.38 Fall 107 lks. N. of the cor. of secs. 22, 23, 26 and 27.

Chains	
	Thence
	N.89°14'E., on a resurvey line bet. secs. 23 and 26.
	Over mountainous land, through scattering cedar timber, and dense oak, service berry, deer and sage brush; descend.
3.00	Gully, 75 ft. below cor., course S.5°W.
	Ascend.
9.00	Spur, 45 ft. above gully, bears S.5°W. and N.5°E.
	Descend.
11.50	Ravine, 35 ft. below spur, course S.15°W.
	Ascend.
16.60	Ridge, 200 ft. above ravine, bears N. and S.
	Enter dense sagebrush.
21.40	Ravine, 175 ft. below ridge, course S.
	Ascend.
25.00	Leave undergrowth and enter heavy cedar timber bearing N. and S.
27.00	Leave timber, enter dense sagebrush, bearing N. and S.
28.00	Ridge, 100 ft. above ravine, bears N.10°W. and S.10°E.
	Descend.
35.00	Leave sage and enter buck brush and cedar timber, bearing N. and S.
35.20	Gully, 200 ft. below ridge, course S.
	Ascend.
39.69½	Find no trace of old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 23 / ¼ / S 26
	1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
42.20	Ridge, 275 ft. above gully, bears N.10°W. and S.10°E.
	Descend.
43.80	Leave buck and enter sagebrush bearing N. and S.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
57.20	Gulch, 200 ft. below ridge, small seep of water in bottom, course S.10°E.
	Ascend.
68.00	Leave timber and sagebrush; enter oak, buck brush and deer brush, bearing N. and S.
74.80	Enter dense oak; leave other brush, bearing N. and S.
79.39	The cor. of secs. 23, 24, 25 and 26.
	Land, mountainous.
	Soil, clay and sand mixed with some gravel.
	Undergrowth, oak, sage, deer and buck brush.
	Timber, cedar.
	Good grass for grazing.
	May 30, 1914. A. M.
	June 3, 1914: At 7h 58m a.m., l.m.t., I set off 22°17' N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.
	Thence
	North, on a retracement line bet. secs. 22 and 23.
40.00	Find no trace of old ¼ sec. cor. after diligent search.
80.10	Fall 21 lks. E. of old cor. of secs. 14, 15, 22 and 23, which is a limestone 16 x 9 x 4 ins. above ground, poorly marked, loosely set, and not witnessed. I remonument at same point. (Later.)
	East, on a retracement line bet. secs. 14 and 23.
40.00	Find no trace of old ¼ sec. cor. after diligent search.
79.96	Fall 133 lks. S. of the cor. of secs. 23 and 24.
	June 3, 1914: At this cor. I set off 22°18'N. on the decl. arc; and at 11h 58m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.
	Thence
	S.89°03'W., on a resurvey line bet. secs. 14 and 23.

Chains	
	Over mountainous land, through dense deer, buck, scattering chokecherry, oak and sage brush; descend.
9.35	Creek, 2 lks. wide, 4 ins. deep, in Oak Springs Canyon, 200 ft. below cor., course N.18°W.
	Ascend abruptly.
16.30	Divide ridge, between Soldier and Diamond creeks, 300 ft. above creek, bears NW. and SE.
	Descend.
20.00	Head of gully, 40 ft. below ridge, course S.10°W.
	Ascend.
28.70	Ridge, 80 ft. below gully, bears N.25°E. and S.25°W.
	Descend.
39.98½	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. of sec. 23 only, with brass cap marked ¼ S 23 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
42.00	Hollow, 300 ft. below ridge, course NW.
	Ascend.
43.20	Enter scattering pine timber bearing NW. and SE.
47.50	Spur, 100 ft. above hollow, bears N. and S.
	Leave timber.
	Descend.
64.80	Creek, 1 lk. wide, 1 in. deep, in Knolls Canyon, 200 ft. below spur, course SW.
	Ascend abruptly.
67.60	Spur, 500 ft. above creek, bears N.15°E. and S.15°W.
	Descend.
69.10	Gully, 50 ft. below spur, course S.15°W.
	Ascend.
79.00	Spur, 50 ft. above gully, bears N.30°E. and S.30°W.
	Descend.
79.97	The cor. of secs. 22 and 23.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Land, mountainous.
	Soil, mountain loam, 1st rate.
	Timber, pine.
	Good grass for grazing.
	Undergrowth, oak, sage, chokecherry, deer and buck brush.
	I remonument the old cor. of secs. 14, 15, 22 and 23, already described, at original point, as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for the cor. of secs. 22 and 23 only, with brass cap marked
	T 9 S R 5 E S 22 | S 23 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Thence
	S.0°09'E., on a resurvey line bet. secs. 22 and 23.
	Over mountainous land; through dense oak brush; ascend.
2.00	Spur, 40 ft. above cor., bears N.25°E. and S.25°W.
	Descend.
4.20	Leave dense oak, enter dense sage and scattering oak, bearing NE. and SW.
6.00	Leave sage, enter dense oak, bearing NE. and SW.
13.60	Creek, 2 lks. wide, 1 in. deep, in Knolls Canyon, 250 ft. below ridge, course S.85°W. about 10 chs.; thence S.
	Ascend.
22.40	Rocky spur, 450 ft. above canyon, bears N.15°E. and S. 15°W.
	Descend.
29.15	Hollow, 200 ft. below spur, course S.55°W.
	Ascend.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
36.00	Spur, 125 ft. above hollow, bears NE. and SW.
	Enter scattering cedar timber. Leave undergrowth, bearing same.
39.00	Fall 5.25 chs. E. of Page & Lentz cor. I destroy same.
40.05	Find no trace of old cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 22 | S 23
	1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. This cor. will hereafter refer to sec. 23 only.
45.00	Gulch, 100 ft. below spur, course S.75°W.
	Leave sagebrush.
49.80	Spur, 100 ft. above gulch, bears NE. and SW.
	Descend.
57.10	Hollow, 75 ft. below spur, course S.75°W.
	Ascend.
68.90	Gully, 2 chs. wide, 50 ft. deep, course S.80°W.
77.40	Spur, 200 ft. above gully, bears N.35°E. and S.35°W.
	Descend.
80.10	The cor. of secs. 22, 23, 26 and 27.
	Land, mountainous, with deep canyons and gullies. Slopes S. and SW.
	Soil, north 5.00 chs. black mountain loam 2 ft. deep; rest of mile red clay loam, hard and tight, about 18 ins. deep, with considerable gravel. Subsoil, gravel.
	Undergrowth, oak and sage.
	Timber, cedar.
	Good grass for grazing.
	June 3, 1914.

June 4, 1914: At 7h 58m a.m., l.m.t., I set off 22°24' N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the cor. of

Chains	
	secs. 22, 23, 26 and 27.
	Thence
	West, on a retracement line bet. secs. 22 and 27.
	Over mountainous land, through scattering cedar timber and dense sage, deer, buck and service berry brush.
	Descend.
4.81	Fall 129 lks. S. of Page and Lentz cor. I destroy same.
8.70	Creek, 3 lks. wide, 6 ins. deep, in Knolls Canyon, 300 ft. below cor., course S.10°E.
	Ascend abruptly.
23.00	Ridge, 350 ft. above canyon, bears N.25°W. and S.25°E.
	Descend.
34.20	Hollow, 200 ft. below ridge, course S.10°E.
	Ascend.
39.99	Fall 50 lks. N. of the old ¼ sec. cor., which is a sandstone 10 x 9 x 6 ins. above ground, well set, and marked ¼ but not witnessed. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 22 ¼ S 27 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The course of the east half mile is therefore N.89°17'E. and the distance 39.99 chs.
43.20	Ascend abruptly, bearing N. and S.
49.60	Enter dense service berry, leave other brush, bearing N. and S.
50.80	Enter dense undergrowth of oak, sage, deer and buck brush, bearing N. and S.
63.50	Ridge, 500 ft. above hollow, bears N.10°W. and S.10°E.
	Descend.
68.10	Gulch, 175 ft. below ridge, course S.25°E.

Chains	
	Ascend.
75.20	Ridge, 300 ft. above gulch, bears N.25°E. and S.25°W.
	Descend.
79.86	Fall 100 lks. N. of the cor. of secs. 21, 22, 27 and 28, which is a limestone 10 x 9 x 3 ins. above ground, loosely set, and properly marked but not witnessed. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground, by side of stone, for cor. of secs. 27 and 28 only, with brass cap marked
	T 9 S R 5 E S 28 S 27 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of the W. half mile is therefore N.89°17'E. and the distance 39.87 chs.
	Land, mountainous, steep and high.
	Soil, clay and mountain loam with streaks of gravel. Subsoil, hard clay and cemented gravel.
	Undergrowth, oak, sage, service berry, buck and deer brush.
	No timber.
	Good grass for grazing.
	South, on a retracement line bet. secs. 27 and 28.
40.00	Find no trace of old ¼ sec. cor. after diligent search.
80.38	Fall 42 lks. W. of the cor. of secs. 27, 28, 33 and 34, which is a limestone 12 x 12 x 10 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, by side of stone, for cor. of secs. 27, 28, 33 and 34, with brass cap marked

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	T 9 S | R 5 E S 28 | S 27 S 33 | S 34 1914 from which A cedar 16 ins. diam. bears N.59°E., 28 lks. dist., marked T 9 S R 5 E S 27 B T. A cedar 40 ins. diam. bears S.65°E., 25 lks. dist., marked T 9 S R 5 E S.34 B T. A cedar 36 ins. diam. bears S.5°31'W., 20 lks. dist., marked T 9 S R 5 E S 33 B T. A cedar 16 ins. diam. bears N.31°W., 58 lks. dist., marked T 9 S R 5 E S 28 B.T.
	East, on a retracement line bet. secs. 27 and 34.
40.00	Find no trace of the old ¼ sec. cor. after diligent search.
78.59	Fall 110 lks. S. of the cor. of secs. 26, 27, 34 and 35, already described.
	June 4, 1914: At this cor. I set off 22°25'N. on the decl. arc; and at 11h 58m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	Thence
	S.89°12'W., on a resurvey line bet. secs. 27 and 34.
	Over mountainous land, through scattering timber and dense undergrowth; descend.
15.80	Creek, 5 lks. wide, 8 ins. deep, in Knolls Canyon, 200 ft. below cor., course S.15°W.
	Ascend.
25.00	Spur, 75 ft. above creek, bears N.15°W. and S.15°E.
	Descend.
32.40	Gully, 50 ft. below spur, course S.35°E.
	Enter heavy cedars.
	Ascend.
34.60	Leave timber, enter dense oak, deer, and buck brush, bearing N. and S.

Chains	
39.30	Find no trace of old ¼ sec. cor. Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 27 ¼ S 34 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
48.20	Leave undergrowth, enter heavy cedar timber bearing N. and S.
53.00	Swale, 200 ft. below ¼ cor., course SE. Ascend.
60.00	Ridge, 300 ft. above swale, bears NE. and SW. Descend.
78.60	The cor. of secs. 27, 28, 33 and 34. Land, mountainous and broken. Soil, light clay and red clay loam, 1 ft. deep, poor quality. Clay subsoil. Timber, cedar. Good grass for grazing. Undergrowth, oak, deer, buck and sage brush.
	N.0°18'W., on a resurvey line bet. secs. 27 and 28. Over mountainous land, through heavy timber, and scattering undergrowth; descend.
4.00	Canyon, 100 ft. below cor., course SW. Ascend.
16.15	Spur, 100 ft. above canyon, bears NE. and SW. Descend.
20.80	Gully, 65 ft. below spur, course S.25°W. Ascend.
28.00	Leave timber, enter dense oak brush, bearing NE. and SW.
34.80	Enter scattering cedars bearing NE. and SW.
40.19	Find no trace of old ¼ sec. cor.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 28 | S 27 1914
	from which
	A cedar 6 ins. diam. bears N.57°E., 57 lks. dist., marked ¼ S 27 B T.
	A cedar 12 ins. diam. bears S.43°W., 9 lks. dist., marked ¼ S 28 B T.
41.00	Ridge, 250 ft. above gully, bears N.25°W. and S.25°E.
	Descend.
42.50	Leave timber, enter dense oak and deer brush bearing NE. and SW.
69.20	Head of gully, 50 ft. below ridge, course SE.
	Ascend.
75.40	Ridge, 200 ft. above gully, bears N.40°E. and S.40°W.
	Descend.
80.38	The cor. of sections 27 and 28.
	Land, mountainous.
	Soil, mountain and gravelly loam 1 to 2 ft. deep.
	Subsoil, clay and gravel.
	Timber, cedar.
	Good grass for grazing.
	Undergrowth, oak and deer brush.
	June 4, 1914.

June 5, 1914: At 7h 58m a.m., l.m.t., I set off 40°12' N. on the lat. arc; 22°31'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 27 and 28.

Thence

S.89°49'W., on a retracement line along the N. side of sec. 28.

Over mountainous land, through dense oak, service berry, deer and buck brush.

Chains	
	Descend abruptly.
10.00	Canyon, 450 ft. below cor., creek 2 lks. wide, 3 ins. deep in bottom, course S.35°W.
14.10	Enter scattering cedar timber bearing NE. and SW.
18.85	Spur, 75 ft. above canyon, bears S.75°E. and N.75°W.
	Descend.
21.15	Gully, 125 ft. below spur, course S.75°E.
	Ascend.
21.85	Leave timber, bears NE. and SW.
29.30	Swale, 50 ft. below gully, course S.15°E.
	Ascend abruptly.
38.50	Spur, 100 ft. above swale, bears N.15°W. and S.15°E.
	Descend abruptly.
40.22	Fall 96 lks. N. of the old ¼ sec. cor., which is a sandstone 10 x 8 x 3 ins. above ground, loosely set, marked ¼, but not witnessed. I remonument same cor. Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., by side of stone, with brass cap marked $\frac{\text{S } 28}{\frac{1}{4}}$ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The course of the E. half mile is therefore S.88°27'W. and the distance 40.23 chs.
41.00	Hollow, 50 ft. below spur, course S.35°W.
	Ascend.
43.80	Spur, 75 ft. above hollow, bears N. and S.
	Descend.
49.50	Gulch, 125 ft. below spur, course S.15°E.
	Ascend.
75.35	Ridge, 300 ft. above gulch, bears N.30°E. and S.30°W.
	Descend.
83.40	Fall 199 lks. N. of the cor. of secs. 20, 21, 28 and 29, which is a limestone 9 x 8 x 4 ins. above ground, well set and properly marked but not witnessed.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	The course of the W. half mile is S.88°27'W. and the distance 43.20 chs.
	Land, mountainous.
	Soil, rich, black mountain loam about 18 ins. deep.
	Undergrowth, oak, service berry, buck and deer brush.
	Timber, cedar.
	Good grass for grazing.
	June 5, 1914: At this cor. I set off 22°32'N. on the decl. arc; and at 11h 58m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°02'N.
	June 5, 1914.
	June 9, 1914: At 7h 59m a.m., l.m.t., I set off 40°01' N. on the lat. arc; 22°55'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34.
	Thence
	S.89°56'W., on a retracement line bet. secs. 28 and 33.
	Over mountainous land, through heavy cedar timber.
	Descend abruptly.
3.85	Canyon, 200 ft. below cor., course S.15°E., creek 2 lks. wide, 2 ins. deep in bottom.
12.00	Spur, 75 ft. below canyon, bears N.70°W. and S.70°E.
	Descend.
14.50	Gulley, 150 ft. below spur, course S.70°E.
15.40	Enter scattering oak, sage and buck brush, bearing N.70°W. and S.70°E.
19.00	Ridge, 350 ft. below gulley, bears N.25°W. and S.25°E.
	Descend.
21.30	Sandstone ledge, 25 ft. high, bears N.25°W. and S.25°E.
30.75	Gulch, 250 ft. below ridge, course SW.
	Ascend.
35.00	Leave cedar, enter dense oak and sage brush, bearing NW. and SE.
35.40	Spur, 75 ft. above gulch, bears NE. and SW.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Descend.
41.90	Fall 80 lks. N. of the old ¼ sec. cor., which is a sandstone 11 x 9 x 7 ins. above ground, well set and properly marked. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, by side of stone, for ¼ sec. cor., with brass cap marked S 28 ¼ S 33 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The course of the E. half mile is therefore S.88°50'W. and the distance 41.91 chs.
41.50	Gully, 50 ft. below spur, course S.15°E.
	Ascend.
45.50	Spur, 40 ft. above gully, bears N.25°W. and S.25°E.
	Descend.
49.30	Gully, 75 ft. below spur, course S.25°E.
	Ascend.
58.00	Ridge, 150 ft. above gully, bears N. and S.
	Enter heavy cedar timber.
63.50	Canyon, 400 ft. below ridge, course S.
	Ascend.
83.60	Fall 161 lks. N. of the cor. of secs. 28, 29, 32 and 33, which is a sandstone 12 x 10 x 3 ins. above ground, loosely set and poorly marked; not witnessed. Bearing trees evidently have been cut down. I remonument same point.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 28, 29, 32 and 33, with brass cap marked T 9 S | R 5 E S 29 | S 28 S 32 | S 33 1914

Chains	
	from which
	A cedar 5 ins. diam. bears N.60°E., 30 lks. dist., marked T 9 S R 5 E S 28 B T.
	A cedar 6 ins. diam. bears S.60°E., 124 lks. dist., marked T 9 S R 5 E S 33 B T.
	A cedar 6 ins. diam. bears S.13°45'W., 64 lks. dist., marked T 9 S R 5 E S 32 B T.
	A cedar 8 ins. diam. bears N.63°50'W., 16 lks. dist., marked T 9 S R 5 E S 29 B T.
	The course of the W. half mile is therefore S.88°50'W. and the distance 41.69 chs.
	Land, mountainous.
	Soil, red clay loam about 1 ft. deep.
	Subsoil, sandstone and gravel.
	Undergrowth, oak and sage.
	Timber, cedar.
	Good grass for grazing.
	June 9, 1914: At this cor. I set off 22°55'N. on the decl. arc; and at 11h 59m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	June 9, 1914.
	June 12, 1914: At 7h 59m a.m., l.m.t., I set off 40° 02'N. on the lat. arc; 23°09'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29.
	Thence
	South, on a retracement line bet. secs. 28 and 29.
40.00	Find no trace of old ¼ sec. cor. after diligent search.
	Set temp. ¼ sec. cor.
79.70	Fall 30 lks. W. of the cor. of secs. 28, 29, 32 and 33.
	Thence
	N.0°13'W., on a resurvey line bet. secs. 28 and 29.
	Over mountainous land, through heavy cedar and pinon pine timber and scattering sagebrush; ascend.

Chains	
6.00	Spur, 75 ft. above cor., bears N.35°W. and S.35°E.
7.50	Gully, 35 ft. below spur, course S.35°E.
	Ascend.
15.00	Leave timber, enter dense oak and sagebrush bearing E. and W.
39.85	Find no trace of old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 29 | S 28
	1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
56.50	Ridge, 250 ft. above gully, bears N.25°E. and S.25°W.
	Descend.
70.30	Head of hollow, 25 ft. below ridge, course S.30°W.
	Ascend.
74.50	Enter maple and deer brush bearing N.30°E. and S.30°W.
78.50	Ridge, 100 ft. above hollow, bears N.30°E. and S.30°W.
	Descend.
79.70	The old cor. of secs. 20, 21, 28 and 29.
	I remonument at same point.
	Set an iron post, 3 ft. long, 2 ins. in diam., 16 ins. in the ground with mound of stone around post, for cor. of secs. 20, 21, 28 and 29, with brass cap marked

T 9 S S 20	R 5 E S 21
S 29	S 28

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Marks on post afterward changed to refer to secs. 28 and 29 only.

Land, mountainous, high and steep slopes draining S.

Soil, light and fine red clay loam mixed with gravel, about 1½ ft. deep. Subsoil, heavy red clay.

Timber, cedar and pinon pine.

Undergrowth, oak, sage, maple and deer brush.

Good grass for grazing.

Chains

June 12: Sky overcast at noon; observation for lat. impossible.

June 12, 1914.

June 9, 1914. Afternoon.

N.89°54'W., on a retracement line bet. secs. 29 and 32.

40.00 Find no trace of the old ¼ sec. cor.

83.73 Fall 178 lks. N. of the cor. of secs. 29, 30, 31 and 32, which is a copper stone 12 x 8 x 5 ins. above ground, marked and witnessed as described by the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 29, 30, 31 and 32, with brass cap marked

T 9 S S 30	R 5 E S 29
S 31	S 32

1914

from which

A box elder 4 ins. diam. bears N.81°E., 35 lks. dist., marked T 9 S R 5 E S 29 B T.

A cottonwood 12 ins. diam. bears S.56°E., 240 lks. dist., marked T 9 S R 5 E S 32 B T.

An oak 5 ins. diam. bears S.25°W., 212 lks. dist., marked T 9 S R 5 E S 31 B T.

A cottonwood 10 ins. diam. bears N.5°W., 78 lks. dist., marked T 9 S R 5 E S 30 B T.

Thence

N.88°53'E., on a resurvey line bet. secs. 29 and 32.

Over mountainous land in Soldier Canyon, through box elder and cottonwood timber and willows and birch undergrowth.

Descend.

1.00 Soldier Creek, 25 lks. wide, 2 ft. deep, rocky bottom, rapid current, course N.80°W.

4.00 D. & R. G. R. R. track bears N.80°W. and S.80°E.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
5.10	D. & R. G. track bears N.80°W. and S.80°E.
	Ascend mountain, bearing same.
9.00	Foot of perpendicular ledge, 100 ft. high, bears same.
17.50	Spur, 500 ft. above creek, course S.15°W.
19.60	Gully, 50 ft. below spur, course S.15°W.
	Ascend.
24.00	Spur, 175 ft. above gully, bears N. and S.
	Descend.
33.30	Gulch, 175 ft. below spur, course S.25°W.
	Ascend.
41.87½	Find no trace of the old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 16 ins. in the ground, with mound of stone around post, for ¼ sec. cor., with brass cap marked
	S 29 / ¼ / S 32 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
42.20	Ridge, 300 ft. above gulch, bears N.25°E. and S.25°W.
	Descend.
46.50	Ledge, 25 ft. high, bears N. and S.
52.50	Gulch, 100 ft. below ridge, course S.15°W.
	Ascend.
58.80	Ridge, 250 ft. above gulch, bears N. and S.
	Descend over ledges.
	Enter heavy cedar and pinon pine timber.
71.10	Gulch, 200 ft. below ridge, course S.
	Ascend over ledges.
72.50	Spur, 50 ft. above gulch, bears N. and S.
	Descend over ledges.
73.75	Gulch, 50 ft. below spur, course S.
	Ascend over ledges.
74.00	Ledge, 60 ft. high, bears N. and S.
77.70	Ledge, 20 ft. high, bears N. and S.

Chains	
82.70	Ridge, 350 ft. above gulch, bears N. and S.
	Descend.
83.75	The cor. of secs. 28, 29, 32 and 33.
	Land, mountainous, very rugged and steep.
	Soil, red clay, about 1 ft. deep.
	Subsoil, conglomerate rock and sandstone.
	Timber, cedar, pinon pine, cottonwood and box elder.
	Undergrowth, willows and birch.
	Good grass for grazing.
	June 9, 1914.

June 10, 1914: At 7h 59m a.m., l.m.t., I set off 40° 01'N. on the lat. arc; 23°01'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32.

Thence

North, on a retracement line bet. secs. 29 and 30.

40.00 Find no trace of old $\frac{1}{4}$ sec. cor. after diligent search.

79.78 Fall 23 lks. W. of the cor. of secs. 19, 20, 29 and 30, described on page 70, these notes.

I remonument at same point.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 19, 20, 29 and 30, by side of stone, with brass cap marked

T 9 S	R 5 E
S 19	S 20
S 30	S 29

1914

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Thence

S.0°10'W., on a resurvey line bet. secs. 29 and 30.

Over mountainous land, through dense oak, maple and sage brush.

Ascend abruptly over ledges.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
2.20	Ledge, 75 ft. high, bears NE. and SW.
12.00	Enter scattering cedar timber bearing NE. and SW.
12.80	Ridge, 200 ft. above cor., bears N.75°E. and S.75°W.
	Descend abruptly over ledges.
32.00	Leave timber, bears E. and W.
34.30	Canyon, 450 ft. below ridge, course S.75°W.
	Ascend abruptly over ledges.
39.89	Find no trace of old ¼ sec. cor. after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 30 | S 29
	1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
42.60	Enter scattering cedar timber bearing E. and W.
45.00	Spur, 200 ft. above canyon, bears NE. and SW.
	Descend.
47.40	Gulch, 40 ft. below spur, course S.25°W.
	Ascend.
49.50	Rocky spur, 35 ft. above gulch, bears N.25°E. and S. 25°W.
	Descend.
52.00	Gorge, 25 ft. deep, course S.25°W.
58.50	Ledge, 45 ft. high, bears NE. and SW.
67.00	Ledge, 40 ft. high, bears N.75°E. and S.75°W.
70.00	Foot of steep descent, enter Soldier Canyon bottom, bears E. and W.
75.20	Wire fence, bears E. and W.
75.50	Irrigation ditch, 4 lks. wide, 1 ft. deep, course N. 75°W.
76.90	D. & R. G. R. R. track bears N.75°W. and S.75°E.
77.10	" " "
79.00	Soldier Creek, 25 lks. wide, 2 ft. deep, course N.75°W.
	Ascend.
79.78	The cor. of secs. 29, 30, 31 and 32.

Chains	
	Land, mountainous, very rough and ledgy, except in Soldier Canyon. Soil, clay about 1 ft. deep, with gravelly and rocky subsoil. Undergrowth, oak, maple and sage brush. Timber, cedar. Good grass for grazing. June 10, 1914: At this cor. I set off 23°00'N. on the decl. arc; and at 11h 59m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	West, on a retracement line bet. secs. 30 and 31. Over mountainous land, through dense undergrowth. Descend in Soldier Canyon.
39.90	Fall 2.50 chs. N. of the ¼ sec. cor. bet. secs. 30 and 31, which is a limestone 19 x 12 x 7 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point. Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 30 / ¼ / S 31 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. The course of the E. half mile is therefore S.88°25'W. and the distance 39.98 chs.
76.16	Fall 4.77 chs. N. of the cor. of secs. 25, 30, 31 and 36, as described in notes of W. bdy. of Tp. The course of the W. half mile is therefore S.86°25'W. and the distance 36.33 chs. Note: No change in topography from original notes. June 10, 1914.

Chains	
	June 5, 1914. Afternoon.
	West, on a retracement line on the N. bdy. of sec. 29.
40.00	Find no trace of old ¼ sec. cor.
83.14	Fall 145 lks. N. of the cor. of secs. 19, 20, 29 and 30, which is a limestone 5 x 9 x 12 ins. above ground, poorly set and marked and witnessed as described by the surveyor general.
	June 5, 1914.
	June 11. Afternoon.
	Note: At the noon hour the instrument was in transit and no lat. observation taken.
	S.89°W., on a resurvey line bet. secs. 20 and 29.
	Over mountainous land, through dense undergrowth; descend abruptly.
10.00	Leave oak and enter chokecherry brush bearing N. and S.
17.70	Canyon, 400 ft. below cor., course S.35°W. Leave chokecherry, enter deer, oak, maple and service berry brush.
	Ascend over ledges.
30.00	Perpendicular ledge, 65 ft. high, bears N. and S.
37.70	Spur, 175 ft. above canyon, bears N.35°E. and S.35°W.
	Descend over ledges.
41.57½	Find no trace of old ¼ sec. cor. after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground, for ¼ sec. cor. for sec. 29 only, with brass cap marked
	¼ S 29 1914
	from which
	An oak 5 ins. diam. bears S.27°E., 104 lks. dist., marked ¼ S 29 B T.
52.00	Rocky gorge, 300 ft. below spur, course S.35°W.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Ascend.
60.70	Spur, 175 ft. above gorge, bears N.15°W. and S.15°E.
	Descend.
62.30	Head of gully, 50 ft. below spur, course S.15°W.
	Ascend.
68.60	Rocky ridge, 175 ft. above gully, bears N.15°E. and S. 15°W.
	Descend.
79.20	Top of nearly perpendicular ledge 100 ft. high, bears N. and S.
83.15	The cor. of secs. 19, 20, 29 and 30.
	Land, mountainous, very rough and steep.
	Soil, rich mountain loam, mixed with gravel, 6 to 10 ins. deep.
	Subsoil, rock.
	No timber.
	Undergrowth, oak, maple, service berry, chokecherry and deer brush.
	Good grass for grazing.
	June 11, 1914.
	June 11, 1914: At 7h 59m a.m., l.m.t., I set off 23° 05'N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30.
	Thence
	West, on a retracement line bet. secs. 19 and 30.
40.00	Find no trace of old ¼ sec. cor.
78.28	Fall 4.15 chs. N. of the cor. of secs. 19, 24, 25 and 30, on the W. bdy. of the Tp.
	Thence
	N.86°58'E., on a resurvey line bet. secs. 19 and 30.
	Over mountainous land, through heavy timber and scattering undergrowth.
	Descend.

Chains	
1.00	Swale, 25 ft. below cor., course S.
	Ascend.
2.20	Spur, 50 ft. above swale, bears N.20°E. and S.20°W.
	Descend.
3.80	Gully, 90 ft. below spur, course S.15°W.
	Ascend.
7.50	Ridge, 80 ft. above gully, bears N.15°W. and S.15°E.
	Leave timber and enter dense undergrowth.
16.40	Gulch, 175 ft. below ridge, course S.10°E.
	Ascend.
18.50	Spur, 50 ft. above gulch, bears N. and S.
	Descend.
19.60	Gulch, 40 ft. below spur, course S.10°W.
	Ascend.
36.10	Spur, 200 ft. above gulch, bears N.20°E. and S.20°W.
	Descend.
37.80	Gully, 35 ft. below spur, course SE.
	Ascend.
39.15	The proportional distance for ¼ sec. cor.
	Find no trace of old ¼ sec. cor. after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 19 ¼ S 30 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
42.60	Spur, 35 ft. above gully, bears N.10°W. and S.10°E.
	Descend.
48.40	Gulch, 125 ft. below spur, course S.10°E.
	Ascend.
49.60	Ledge, 40 ft. high, bears N. and S.
54.50	Spur, 100 ft. above gulch, bears N. and S.
	Descend.
57.80	Gully, 75 ft. below spur, course S.

Chains	
	Ascend.
69.10	Rocky spur, 50 ft. above gully, bears N. and S.
	Descend.
75.30	Creek, 3 lks. wide, 3 ins. deep in bottom of canyon, 200 ft. below spur, course S.25°W.
	Ascend abruptly over ledges.
78.39	The cor. of secs. 19, 20, 29 and 30.
	Land, mountainous.
	Soil, clay and gravelly loam.
	Subsoil, rocky.
	Undergrowth, oak and service berry.
	Timber, cedar.
	Good grass for grazing.
	June 11, 1914.

SUBDIVISION OF T. 9 S., R. 5 E.

	June 15: At 8h 0m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°19'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18, on the E. bdy. of the Tp., heretofore described.
	Thence
	West, on a sectional correction line bet. secs. 12 and 13.
	Ascend N. slope, over mountainous land, through dense undergrowth of oak, rose and service brush.
7.50	Spur, 50 ft. above cor., bears N. and S.
	Ascend abruptly.
14.50	Enter dense pine and aspen timber, bearing N. and S.
19.70	Ravine, 250 ft. deep, course N. Ascend 75 ft. to
25.00	Spur, projects N.15°E. Descend 50 ft. to
28.60	Ravine, course N.15°E. Abrupt ascent.
31.80	Leave timber, enter dense undergrowth, bearing N. and S.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

Chains

S 12
¼
S 13

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

44.40 Ridge, 200 ft. above ravine, bears N. and S.

Abrupt descent.

61.76 Gully, 300 ft. below ridge, drains S.25°W.

Ascend.

68.40 Spur, 75 ft. above gully, bears N. and S.

Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 11, 12, 13 and 14, with brass cap marked

T 9 S	R 5 E
S 11	S 12
S 14	S 13

1914

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

Land, mountainous, sloping and draining N.

Soil, rich black mountain loam mixed with gravel on gravelly subsoil; 2nd rate.

Timber, pine and aspen.

Undergrowth, oak, service berry, sage, buck and scattering grass.

June 15: At this cor. I set off 23°19'N. on the decl. arc; and at 12h 0m 1.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.

June 18: At 8h 1m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°25'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14.

Knowing that the line between secs. 13 and 14 will not

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	intersect the E. and W. line within limits at the cor. of secs. 23 and 24, I run
	S.0°01'E., on a true line bet. secs. 13 and 14.
	Over mountainous land, through dense, tall undergrowth of oak, sage and deer brush.
	Descend 100 ft. to
8.50	Bottom of gulch, creek 2 lks. wide, 1 in. deep, course W. Ascend.
10.50	Leave sagebrush, enter dense oak.
32.50	Spur, 250 ft. above gulch, projects S.80°W.
	Descend.
35.00	Gully, 50 ft. deep, drains S.80°W.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., for sec. 14 only, with brass cap marked
	¼ S 14 | 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
	Note: This cor. will hereafter refer to sec. 13 also.
43.20	Spur, 50 ft. above gully, bears E. and W.
	Descend.
55.60	Gully, 185 ft. below spur, drains S.85°W.
	Ascend gradually.
81.02	Intersect E. and W. line 6.31 chs. S.89°03'W. of the cor. of secs. 23 and 24.
	At intersection
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 13 and 14, with brass cap marked
	T 9 S | R 5 E S 14 | S 13 CC S 23 | S 24 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Chains	
	Land, mountainous.
	Soil, rich, black mountain loam mixed with gravel, on clay and gravelly subsoil; 2nd rate.
	No timber.
	Undergrowth, oak, sage, deer brush and scattering grass.
	June 18: At this cor. I set off 23°25'N. on the decl. arc; and at 0h 1m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'.
	From the cor. of secs. 11, 12, 13 and 14, I run N.0°01'W., bet. secs. 11 and 12.
	Over mountainous land, through scattering undergrowth of service berry, deer and rose brush and dense oak.
	Descend gradually.
4.90	Gully, 75 ft. below cor., drains SW.
	Ascend.
13.70	Spur, 80 ft. above gully, projects S.25°W.
	Descend.
18.60	Leave oak, rose and deer brush, enter sage, bearing NE. and SW.
20.00	Hollow, 40 ft. below spur, course S.20°W.
	Ascend.
27.60	Spur, 150 ft. above hollow, projects S.40°W.
	Descend.
28.30	Leave sage, enter dense oak, deer and buck brush, bearing NE. and SW.
30.50	Swale, 50 ft. below spur; drains S.85°W.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 11 | S 12 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
50.00	Head of gully, 85 ft. deep, course S.65°W.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
52.40	Spur, 55 ft. above gully, projects S.65°W.
	Descend.
57.50	Rocky spur, 100 ft. below top spur to S., projects N.25°W.
	Descend abruptly.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 1, 2, 11 and 12, with brass cap marked

T 9 S S 2	R 5 E S 1
S 11	S 12

1914

from which

A cottonwood 15 ins. diam. bears N.45°E., 105 lks. dist., marked T 9 S R 5 E S 1 B T.

A maple 6 ins. diam. bears S.39°E., 15 lks. dist., marked T 9 S R 5 E S 12 B T.

An oak 4 ins. diam. bears S.65°W., 31 lks. dist., marked T 9 S R 5 E S 11 B T.

A maple 8 ins. diam. bears N.22°W., 40 lks. dist., marked T 9 S R 5 E S 2 B T.

Land, mountainous.

Soil, rich, black mountain loam mixed with gravel, about 18 ins. deep, on clay and gravelly subsoil; 2nd rate.

No timber.

Undergrowth, dense oak, scattering service, rose and deer brush.

June 18, 1914.

June 19: At 8h 1m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°26½'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12.

Thence

East, on a random line bet. secs. 1 and 12.

SUBDIVISION OF T. 9 S., R. 5 E.

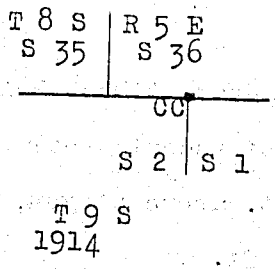
Chains	
40.00	Set temp. ¼ sec. cor.
80.20	Intersect the E. bdy. of the Tp. 19 lks. S. of the cor. of secs. 1, 6, m7 and 12, heretofore described.
	Thence
	S.89°52'W., on a true line bet. secs. 1 and 12.
	Descending over rough mountainous land, through dense cedar timber.
5.00	Gully, 50 ft. below cor., course S.15°E.
	Ascend abruptly.
11.80	Ridge, 150 ft. above gully, bears N. and S.
	Descend.
20.30	Gully, 100 ft. below ridge, drains S.15°E.
	Ascend.
26.60	Ridge, 125 ft. above gully, bears N.15°W. and S.15°E.
	Descend.
32.50	Gulch, 100 ft. below ridge, drains S.
	Ascend.
40.10	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 1 / ¼ / S 12 / 1914
	from which
	A cedar 12 ins. diam. bears N.12°W., 48 lks. dist., marked ¼ S 1 B T.
	A cedar 14 ins. diam. bears S.42°W., 55 lks. dist., marked ¼ S 12 B T.
40.80	Spur, 90 ft. above gulch, projects S.15°W.
	Descend.
43.30	Leave cedar timber, enter dense undergrowth of oak, sage, buck and deer brush, bearing N. and S.
52.50	Gulch, 200 ft. below spur, drains S.10°W. Ascend 100 ft. to
55.70	Spur, bearing N. and S. Abrupt descent.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
74.75	Foot of steep descent, 100 ft. below spur, bears N.70°W. and S.70°E.
	Descend gradually.
78.40	Bottom of canyon and Second Water Creek, 15 lks. wide, 18 ins. deep, course N.80°W.
	Ascend.
	Enter scattering cottonwood timber.
80.20	The cor. of secs. 1, 2, 11 and 12.
	Land, mountainous, steep and rough.
	Soil, red clay mixed with gravel and rock about 1 ft. deep on gravelly and rocky subsoil; 3rd rate.
	Timber, cedar and some cottonwood.
	Undergrowth, dense oak, sage, buck and deer brush.
	June 19, 1914: At this cor. I set off 23°26'N. on the decl. arc; and at 12h 1m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.
	Knowing that closing cors. will be necessary on the N. bdy. of the Tp., I run
	N.0°01'W., on a true line bet. secs. 1 and 2.
	Over mountainous land, through scattering cottonwood and cedar timber and dense undergrowth of oak, sage and buck brush.
1.00	Bottom of canyon and Second Water Creek, 10 lks. wide, 1½ ft. deep, good water, rapid current, rocky bottom, course N.70°W.
	Ascend.
2.00	Leave cottonwood timber bearing N.70°W. and S.70°E.
4.00	Begin abrupt ascent, bearing N.70°W. and S.70°E.
6.00	Spur, 75 ft. above canyon, projects S.65°W.
	Descend 50 ft. to
7.50	Gully, drains S.65°W.
	Ascend abruptly.
26.10	Spur, 150 ft. above gully, projects S.40°W.
	Abrupt descent 175 ft. to

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
36.75	Gulch, drains S.30°W.
	Abrupt ascent.
37.00	Enter scattering mahogany bearing N.30°E. and S.30°W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 2 | S 1 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
45.30	Enter ledges bearing NE. and SW.
50.00	Ridge, 250 ft. above gulch, bears N.50°E. and S.50°W.
	Descend.
50.50	Leave cedar timber, oak, sage and buck brush, enter dense mahogany.
55.60	Gully, 75 ft. below ridge, drains S.85°W.
	Ascend 50 ft. to
56.80	Spur, projects S.85°W.
	Descend.
67.30	Leave mahogany, enter dense oak, service and buck brush.
70.87	Intersect the N. bdy. of the Tp. 10.43 chs. E. of the cor. of secs. 35 and 36, on the S. bdy. of T. 8 S., R. 5 E., heretofore described.
	At intersection
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 1 and 2, with brass cap marked



	and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Land, mountainous, steep, high and rough.
	Soil, clay loam, mixed with gravel and packed hard, 1

Chains	
	to 2 ft. deep on clay subsoil; 3rd rate.
	Timber, scattering cedar and cottonwood.
	Undergrowth, oak, mahogany, buck and sage brush.
	June 19, 1915.
	June 15, 1914: For solar observation see line bet. secs. 12 and 13.
	From the cor. of secs. 11, 12, 13 and 14, I run West, on a sectional correction line bet. secs. 11 and 14.
	Descending gradually, over mountainous land, through dense undergrowth of oak, service and buck brush.
6.00	Gulch, 175 ft. below cor., drains S.35°W.
	Ascend 100 ft. to
14.00	Spur, projects S.35°W.
	Abrupt descent.
20.00	Bottom of Oak Spring Canyon and creek, 5 lks. wide, 6 ins. deep, 300 ft. below spur, course N.5°W.
	Ascend abruptly.
32.50	Spur, 200 ft. above canyon, projects SE.
	Descend 75 ft. to
35.00	Gully, drains SE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 11 / ¼ / S 14 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
45.00	Ridge, 300 ft. above gully, bears N.15°E. and S.15°W.
	Descend.
54.70	Enter dense aspen timber bearing N. and S.
58.20	Canyon, 300 ft. below ridge, course S.15°E.
	Ascend.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
59.00	Leave timber, bears N.15°E. and S.15°W.
65.00	Spur, 100 ft. above canyon, projects S.65°E.
	Descend 75 ft. to
67.30	Gully, drains S.65°E.
	Ascend 250 ft. to
80.00	Top of ridge, bears N.75°W. and S.75°E.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 10, 11, 14 and 15, with brass cap marked

T 9 S S 10	R 5 E S 11
S 15	S 14

1914

from which

An oak 6 ins. diam. bears N.69°E., 49 lks. dist., marked T 9 S R 5 E S 11 B T.

An oak 5 ins. diam. bears S.34½°E., 62 lks. dist., marked T 9 S R 5 E S 14 B T.

An oak 5 ins. diam. bears S.71°W., 130 lks. dist., marked T 9 S R 5 E S 15 B T.

An oak 6 ins. diam. bears N.23°W., 94 lks. dist., marked T 9 S R 5 E S 10 B T.

Land, mountainous, high and steep slopes.

Soil, rich black mountain loam mixed with gravel 1½ to 2 ft. deep on gravelly and clay subsoil; 2nd rate.

Timber, aspen from 54.70 to 59.00 chs.

Undergrowth, dense oak, deer, service berry and buck brush.

Good grass for grazing.

June 15, 1914.

June 20: At 8h 1m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°27'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Knowing that the falling of line bet. secs. 14 and 15 will be out of limits at the cor. of secs. 22 and 23, I run
	S.0°01'E., on a true line bet. secs. 14 and 15.
	Descending over mountainous land, through dense undergrowth of oak, maple, service and sagebrush.
6.00	Enter scattering aspen timber bearing E. and W.
6.20	Gully, 100 ft. below cor., drains S.75°E.
	Ascend.
14.15	Leave aspen timber bearing E. and W.
15.00	Ridge and divide between Soldier and Diamond creeks, 150 ft. above gully, bears N.80°W. and S.80°E.
	Descend 250 ft. to
39.50	Hollow, drains S.15°E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 15 | S 14
	1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
45.70	Spur, 75 ft. above hollow, projects S.15°E. Descend 50 ft. to
54.75	Gully, drains S.85°E. Ascend 40 ft. to
55.80	Spur, projects S.85°E. Descend 75 ft. to
60.45	Same hollow as at 39.50 chs. drains S.25°W. Ascend 80 ft. to
65.60	Spur, projects S.25°W. Descend 100 ft. to
74.00	Gully, drains S.35°W. Ascend 35 ft. to.
77.30	Spur, projects S.35°W.
	Descend.
82.05	Intersect E. and W. line 6.35 chs. W. of the cor. of secs. 22 and 23.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for SW. cor. of sec. 14, with brass cap marked

Chains	
	T 9 S | R 5 E S 14 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Land, mountainous; general S. exposure.
	Soil, rich black loam mixed with gravel and rocks about 1 ft. deep on gravelly subsoil; 2nd rate.
	Timber, aspen,
	Undergrowth, oak, maple, service and sage brush.
	June 20: At this cor. I set off 23°27'N. on the decl. arc; and 12h 1m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'.
	From the cor. of secs. 10, 11, 14 and 15, I run N.0°01'W., bet. secs. 10 and 11.
	Ascending gradually over mountainous land, through scattering oak and sage brush.
2.50	Spur, 35 ft. above cor., projects S.71°E.
	Descend.
4.00	Leave oak and sage, enter chokecherry and deer brush, bearing E. and W.
8.70	Gully, 60 ft. below spur, drains S.71°E. Leave undergrowth; ascend abruptly 140 ft. to
11.50	Spur, projects S.80°E. Enter chokecherry, deer and rose brush, bearing with spur. Descend 35 ft. to
14.80	Swale, course E. Ascend 100 ft. to
18.50	Spur, bears E. and W.
	Descend.
23.40	Enter scattering aspen and maple bearing E. and W.
35.40	Leave aspen and maple, enter chokecherry, deer, oak and rose brush, bearing E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 10 | S 11 1914

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	from which
	An oak 5 ins. diam. bears S.40½°E., 39 lks. dist., marked ¼ S 11 B T.
	An oak 6 ins. diam. bears S.71°W., 48 lks. dist., marked ¼ S 10 B T.
44.80	Ridge, 200 ft. high, E. and W.
54.70	Enter dense aspen bearing E. and W.
60.45	Ravine, 100 ft. below ridge, course E.
	Ascend.
63.40	Leave aspen, enter sage and oak brush, bearing E. and W.
73.80	Spur, 75 ft. above ravine, projects N.85°E.
	Descend.
75.30	Leave sage and oak brush, enter maple, service, chokecherry, rose and deer brush.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 2, 3, 10 and 11, with brass cap marked

T 9 S S 3	R 5 E S 2
S 10	S 11

1914

from which

A maple 5 ins. diam. bears N.80°E., 26 lks. dist., marked T 9 S R 5 E S 2 B T.

An aspen 6 ins. diam. bears S.50°E., 93 lks. dist., marked T 9 S R 5 E S 11 B T.

A maple 8 ins. diam. bears S.85°W., 4 lks. dist., marked T 9 S R 5 E S 10 B T.

A maple 5 ins. diam. bears N.72°W., 13 lks. dist., marked T 9 S R 5 E S 3 B T.

Land, mountainous; very high elevation.

Soil, rich black mountain loam, mixed with gravel on gravelly and loam subsoil; 2nd rate.

Timber, aspen.

Undergrowth, oak, maple, chokecherry, service, sage, rose, deer and buck brush.

Chains	
	Considerable grass.
	June 20, 1914.
	June 22: At 8h 2m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°28'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 10 and 11.
	Thence
	East, on a random line bet. secs. 2 and 11.
40.00	Set temp. ¼ sec. cor.
80.02	Intersect N. and S. line 23 lks. S. of the cor. of secs. 1, 2, 11 and 12.
	Thence
	S.89°50'W., on a true line bet. secs. 2 and 11.
	Ascending over mountainous land, through dense undergrowth of oak, mahogany, buck and deer brush.
10.00	Spur, 50 ft. above cor., bears N. and S. Descend 50 ft. to
14.00	Bottom of Oak Spring Canyon and creek 10 lks. wide, 10 ins. deep, course N. Abrupt ascent.
40.01	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 2 / ¼ / S 11 / 1914
	from which
	A mahogany 8 ins. diam. bears N.75°40'W., 106 lks. dist., marked ¼ S 2 B T.
	A mahogany 10 ins. diam. bears S.86°W., 49 lks. dist., marked ¼ S 11 B T.
45.50	Ridge, 800 ft. above canyon, bears N. and S.
	Descend.
51.60	Enter scattering aspen timber bearing N. and S.
58.30	Leave timber bearing N. and S.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
63.70	Head of gulch, 50 ft. below ridge, course N.30°E.
	Ascend 50 ft. to
68.60	Spur, projects N.25°E.
	Descend.
76.50	Enter dense aspen timber bearing N. and S.
80.02	The cor. of secs. 2, 3, 10 and 11.
	Land, mountainous, with steep and rocky slopes.
	Soil, black and clay loam about 6 ins. deep on gravelly and shale rock subsoil; 3rd rate.
	Timber, aspen and cedar.
	Undergrowth, oak, mahogany, buck and deer brush.
	June 22: At this cor. I set off 23°27'N. on the decl. arc; and at 12h 02m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.
	Knowing that closing corners are necessary on the N. bdy. of the Tp., I run
	N.0°01'W., on a true line bet. secs. 2 and 3.
	Descending over mountainous land, through dense undergrowth of oak, maple, sage, rose and service brush.
8.75	Gulch, 175 ft. below cor., drains N.30°E. A few aspen trees in bottom of gulch. Ascend 50 ft. to
20.30	Spur, projects NE.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor, with brass cap marked
	¼ S 3 | S 2
	1914
	from which
	An oak 5 ins. diam. bears N.35°E., 29 lks. dist., marked ¼ S 2 B T.
	An oak 5 ins. diam. bears S.31°W., 13 lks. dist., marked ¼ S 3 B T.
45.00	Spur, 50 ft. below ¼ sec. cor., projects N.25°W.
	Begin steep descent over conglomerate ledges.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
61.30	Point of spur, 200 ft. below top, projects NE.
62.28	Enter scattering pine timber bearing E. and W.
70.30	Gulch, 600 ft. below ¼ sec. cor., drains N.25°E.
	Ascend.
70.74	Intersect N. bdy. of the Tp. 8.10 chs. E. of the cor. of secs. 34 and 35, on the S. bdy. of T. 8 S., R. 5 E., heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 2 and 3, with brass cap marked

T 8 S | R 5 E
S 34 | S 35
CC

S 3 | S 2
T 9 S | R 5 E

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Land, mountainous, steep slopes of ridges.

Soil, black loam mixed with gravel and rock, about 10 ins. deep on hard gravelly and rocky subsoil; 3rd rate.

Timber, scattering pine.

Undergrowth, oak, maple, sage, rose, service and deer brush.

June 22, 1914.

June 16: At 8h a.m., l.m.t., I set off 40°04' on the lat. arc; 23°21'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

Thence

West, on a sectional correction line bet. secs. 10 and 15.

Over high, mountainous land, through scattering undergrowth of oak, buck and sagebrush. Descend 125 ft. to

7.80	Head of gulch, draining S.65°E.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
7.90	Leave oak and sage undergrowth, enter dense aspen timber and scattering service brush, bearing N. and S.
10.40	Leave aspen, enter oak and sage brush, bearing N. and S.
26.00	Enter dense aspen timber, leave oak and sage brush, bearing N. and S.
28.00	Canyon, 300 ft. deep, course N.10°W. Abrupt ascent.
30.00	Leave aspen timber, enter oak, deer and chokecherry brush, bearing N.10°W. and S.10°E.
40.00	Top of ridge, 500 ft. above canyon, bears N. and S. Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 10 ¼ S 15 1914 from which An oak 5 ins. diam. bears N.1°W., 59 lks. dist., marked ¼ S 10 B T. An oak 4 ins. diam. bears S.62°W., 21 lks. dist., marked ¼ S 15 B T. Descend.
55.00	Enter scattering pine timber bearing N. and S.
67.50	Water Canyon, 700 ft. below ridge, course N. Abrupt ascent.
72.80	Leave timber bearing N. and S.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 9, 10, 15 and 16, with brass cap marked T 9 S | R 5 E S 9 | S 10 S 16 | S 15 1914 Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, rough mountainous, with steep slopes.

Soil, generally a light clay loam about 1 ft. deep on clay subsoil; 3rd rate.

Timber, aspen and pine.

Chains	
	Undergrowth, oak, sage, chokecherry, buck and deer brush.
	June 16: At this cor. I set off 23°21'N. on the decl. arc; and at 12h 0m l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.
	June 23: At 8h 2m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°28'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9, 10, 15 and 16.
	Thence
	S.0°02'E., bet. secs. 15 and 16.
	Ascending over rough, broken, mountainous land, through dense undergrowth of oak, buck, deer and chokecherry brush.
5.00	Ridge, 100 ft. above cor., bears N.20°W. and S. Descend along top of ridge.
20.00	Saddle in ridge bears N. and S.
34.00	Leave ridge, bearing N. and S.15°W.
	Descend.
37.80	Enter dense aspen timber, bearing NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 16 | S 15
	1914
	from which
	An aspen 4 ins. diam. bears S.38°E., 51 lks. dist., marked ¼ S 15 B T.
	An aspen 5 ins. diam. bears S.78°W., 124 lks. dist., marked ¼ S 16 B T.
47.30	Head, Water Canyon, 75 ft. below ridge, course N.30°E.
	Ascend.
63.80	Divide between Soldier and Diamond creeks, 300 ft. above head of canyon, bears E. and W. Leave timber and oak, buck, deer and chokecherry brush, enter dense sage and service brush, bearing with ridge.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
75.00	Enter oak and chokecherry undergrowth bearing E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 15, 16, 21 and 22, with brass cap marked

T 9 S S 16	R 5 E S 15
S 21	S 22

1914

from which

An oak 5 ins. diam. bears N.31°E., 51 lks. dist., marked T 9 S R 5 E S 15 B T.

An oak 6 ins. diam. bears S.16°E., 87 lks. dist., marked T 9 S R 5 E S 22 B T.

An aspen 8 ins. diam. bears S.75°W., 211 lks. dist., marked T 9 S R 5 E S 21 B T.

An oak 6 ins. diam. bears N.1¼°W., 56 lks. dist., marked T 9 S R 5 E S 16 B T.

Land, high mountain ridges with gradual slopes.

Soil, rich black mountain loam 1½ to 2 ft. deep on gravelly and clay subsoil; 2nd rate.

Timber, aspen and some pine.

Undergrowth, oak, buck, deer, sage, chokecherry and service brush.

East, on a random line bet. secs. 15 and 22.

40.00	Set temp. ¼ sec. cor.
79.80	Intersect N. and S. line 2.07 chs. N.0°01'W. of the SW. cor. of secs 14.

At intersection, set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 15 and 22, with brass cap marked

T 9 S S 15	R 5 E S 14
S 22	S 23

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high,

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	W. of cor.
	Thence
	West, on a true line bet. secs. 15 and 22.
	Descending abruptly over mountainous land, through dense undergrowth of oak and service brush.
6.00	Bottom of Knolls Canyon, 200 ft. below cor., course S. 10°E. Ascend.
30.80	Spur, 600 ft. above canyon, projects S.35°E.
	Descend.
39.00	Hollow, 75 ft. below ridge, drains S.25°E.
	Ascend.
39.90	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked, for sec. 15 only,
	S 15 / ¼ / 1914
	from which
	An oak 6 ins. diam. bears N.53°W., 94 lks. dist., marked ¼ S 15 B T.
	An oak 5 ins. diam. bears S.53°W., 31 lks. dist., marked ¼ S 22 B T.
	June 23: At this cor. I set off 23°27'N. on the decl. arc; and at 12h 2m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'.
43.00	Ridge, 50 ft. above hollow, bears NW. and SE.
	Abrupt descent 400 ft.
53.70	Canyon, course SE. Abrupt ascent.
63.70	Ledge, 20 ft. high, bears S.15°E. and N.15°W.
74.50	Ridge, 800 ft. above canyon, bears N.20°W. and S.20°E.
79.80	The cor. of secs. 15, 16, 21 and 22.
	Land, mountainous, high ridges and deep canyons with steep, brushy slopes.
	Soil, rich black mountain loam mixed with gravel, about 15 ins. deep, on cemented gravel and rocky subsoil; 3rd rate.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	No timber.
	Undergrowth, dense oak and service brush. Good grass for grazing purposes.
	Knowing that the line between secs. 21 and 22 will not close within limits at the cor. of secs. 27 and 28, I run
	S.0°08'E., on a true line bet. secs. 21 and 22.
	Over high, rough, mountainous land, through dense undergrowth of oak, sage, deer and chokecherry brush.
4.65	Leave undergrowth, enter dense aspen timber, bearing N.10°W. and S.10°E.
5.70	Head of canyon, 200 ft. deep, course S.10°E.
	Ascend.
12.30	Spur, 50 ft. above canyon, projects S.10°E.
	Descend.
14.20	Leave timber, enter maple brush, bearing N.10°W.& S.10°E.
24.30	Canyon, 170 ft. below spur, course S.10°W.
	Ascend.
33.80	Leave maple and enter dense oak and sage brush, bearing NE. and SW.
35.20	Spur, 125 ft. above canyon, bears E. and W.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 21 | S 22
	1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
45.00	Leave sage, bearing NE. and SW.
59.20	Canyon, and stream 1 lk. wide, 2 ins. deep, 350 ft. below top of ridge, course S.20°E.
	Ascend.
61.40	Enter scattering maple bearing NE. and SW.

Chains

65.90 Spur, 150 ft. above canyon, projects SE.

Descend.

70.40 Enter sage and buck brush bearing NE. and SW.

77.00 Canyon, 400 ft. below spur, course S.15°W. Stream in bottom of canyon, 1 lk. wide, 1 in. deep,

Ascend.

82.90 Intersect E. and W. line 6.28 chs. S.88°27'W. of the cor. of secs. 27 and 28. At intersection

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 21 and 22, with brass cap marked

T 9 S | R 5 E
S 21 | S 22
CC
S 28 | S 27
1914

from which

An oak 5 ins. diam. bears N.30°E., 42 lks. dist., marked T 9 S R 5 E S 22 B T.

An oak 6 ins. diam. bears N.4°W., 48 lks. dist., marked T 9 S R 5 E S 21 B T.

Land, rough mountainous.

Soil, rich black mountain loam mixed with gravel, 1 to 2 ft. deep on gravelly and clay subsoil; 2nd rate.

Timber, aspen.

Undergrowth, oak, sage, deer, chokecherry, maple and buck brush. Considerable grass, good for grazing.

June 23, 1914.

June 24: At 8h 02m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°27'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9, 10, 15 and 16.

Thence

N.0°02'W., bet. secs. 9 and 10.

Over mountainous land, through dense undergrowth of

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	oak, maple, deer and sage brush.
	Gradually ascend 75 ft. to
4.50	Spur, projects N.85°E.
	Gradually descend.
13.00	Head of gully, 80 ft. below spur, drains N.85°E.
	Gradually ascend.
17.30	Ridge, 50 ft. above gully, bears N.30°E. and S.30°W.
	Abrupt descent.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 9 | S 10 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
42.00	Leave undergrowth, enter aspen timber, bearing NE. and SW.
44.00	Canyon, 375 ft. below ridge, course N.30°E.
	Ascend.
46.30	Leave aspen timber, enter dense undergrowth, bearing N.30°E. and S.30°W.
47.50	Spur, 50 ft. above canyon, projects N.85°E. Descend 70 ft. to
48.50	Gully, drains E.
	Ascend.
61.00	Spur, 200 ft. above gully, bears E. and W. Descend 100 ft. to
65.25	Gully, drains E.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 20 ins. in the ground and 4 ins. in a mound of stone on solid rock, for cor. of secs. 3, 4, 9 and 10, with brass cap marked T 9 S | R 5 E S 4 | S 3 S 9 | S 10 1914

Chains

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

Land, mountainous with steep slopes.

Soil, rich black mountain loam about 15 ins. deep on clay subsoil; 3rd rate.

Timber, aspen.

Undergrowth, oak, maple, deer and sage. Good grass for grazing.

June 24: At this cor. I set off 23°26'N. on the decl. arc; and at 12h 2m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.

East, on a random line bet. secs. 3 and 10.

40.00 Set temp. ¼ sec. cor.

79.90 Intersect N. and S. line at the cor. of secs. 2, 3, 10 and 11.

Thence

West, on a true line bet. secs. 3 and 10.

Ascending over mountainous land, through dense undergrowth of oak and scattering maple.

13.00 Ridge, 150 ft. above cor., bears N. and S.

Descend.

Enter scattering aspen timber bearing N. and S.

39.95 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 3
¼
S 10

1914

from which

An oak 4 ins. diam. bears N.80½°E., 8 lks. dist., marked ¼ S 3 B T.

A maple 5 ins. diam. bears S.10°E., 11 lks. dist., marked ¼ S 10 B T.

41.00 Bottom of canyon and creek, 10 lks. wide, 4 ins. deep, 600 ft. below ridge, course N.5°W.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Ascend abruptly.
45.00	Leave aspen and maple, enter dense oak, bearing N. and S.
49.25	Ridge, 600 ft. above canyon, bears N. and S.
	Descend abruptly.
59.00	Bottom of Water Canyon and creek, 10 lks. wide, 4 ins. deep, 500 ft. below ridge, course N.
	Ascend abruptly.
79.90	The cor. of secs. 3, 4, 9 and 10.
	Land, rough mountainous, deep canyons and steep slopes.
	Soil, rich black mountain loam mixed with gravel, about 2 ft. deep on clay and gravelly subsoil; 2nd rate.
	Timber, scattering aspen.
	Undergrowth, oak and maple.
	June 24, 1914.
	June 25: At 9h 2m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°25'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3, 4, 9 and 10.
	Thence, for reasons already stated, N.0°02'W., on a true line bet. secs. 3 and 4.
	Ascending over rough mountainous land, through dense undergrowth of oak, maple, deer and chokecherry brush.
5.00	Ridge, 100 ft. above cor., bears E. and W.
	Descend.
15.00	Leave maple and deer brush, enter sage, bearing E. and W.
17.50	Head of gully, 100 ft. below ridge, drains E. Ascend 75 ft. to
27.00	Ridge, bears N.85°W. and S.85°E. Ascend.
35.00	Ridge, 50 ft. above ridge to the south, bears N.10°E. and S.10°W.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. with brass cap marked ¼ S 4 | S 3 1914

Chains

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

40.20 Head of gully, 50 ft. below ridge, drains W. Ascend 60 ft. to

45.00 Same ridge as at 35 chs., bears N.20°W. and S.20°E. Descend.

52.00 Gulch, 150 ft. below ridge, drains N.60°E. Ascend 150 ft. to

57.00 Spur, projects N.60°E. Descend.

70.06 Intersect the N. bdy. of the Tp. 7.35 chs. east of the cor. of secs. 33 and 34, described in the notes of the N. bdy. of this Tp.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 3 and 4, with brass cap marked

T 8 S S 33	R 5 E S 34 CC
S 4 T 9 S 1914	S 3 R 5 E

from which

An oak 5 ins. diam. bears S.47°E., 168 lks. dist., marked T 9 S R 5 E S 3 B T.

An oak 6 ins. diam. bears S.8°W., 184 lks. dist., marked T 9 S R 5 E S 4 B T.

Land, high mountainous, with E. exposure.

Soil, black mountain and sandy loam about 1½ ft. deep on gravelly and clay subsoil; 2nd rate.

No timber.

Undergrowth, oak, maple, chokecherry and sage.

June 25, 1914.

June 16: For solar observation see line between secs. 10 and 15.

From the cor. of secs. 9, 10, 15 and 16, I run

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	West, on a sectional correction line bet. secs. 9 and 16. Over broken mountainous land, through dense undergrowth of oak, sage and service brush. Ascend 80 ft. to
2.60	Ridge, bears N.10°E. and S.10°W.
	Descend.
12.50	Leave oak, sage and service brush, enter dense aspen timber and scattering rose and deer brush.
18.70	Ravine, 200 ft. below ridge, course N.10°E.
	Ascend.
23.40	Leave aspen timber and rose and deer brush, enter dense chokecherry, bearing N. and S.
25.00	Ridge, 175 ft. above ravine, bears N. and S.
	Descend.
26.00	Leave chokecherry, enter oak, sage and service brush, bearing N. and S.
31.50	Leave oak, sage and service brush, enter dense aspen timber and deer and rose brush, bearing N. and S.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 9 ¼ S 16 1914 from which A pine 6 ins. diam. bears N.5°E., 30 lks. dist., marked ¼ S 9 B T. An aspen 5 ins. diam. bears S.60°W., 5 lks. dist., marked ¼ S 16 B T.
54.00	Leave aspen, enter dense oak, bearing N. and S.
75.75	Canyon, 900 ft. deep, course N.15°W.
	Leave oak and enter aspen timber bearing N.15°W. and S. 15°E.
77.80	Leave aspen, enter oak, bearing N. and S.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 8, 9, 16 and 17, with brass cap marked

SUBDIVISION OF T. 9 S., R. 5 E.

Chains

T 9 S S 8	R 5 E S 9
S 17	S 16

1914

from which

An oak 6 ins. diam. bears N.22°E., 38 lks. dist., marked T 9 S R 5 E S 9 B T.

An oak 4 ins. diam. bears S.47°E., 42 lks. dist., marked T 9 S R 5 E S 16 B T.

An oak 5 ins. diam. bears S.28¾°W., 52 lks. dist., marked T 9 S R 5 E S 17 B T.

An oak 8 ins. diam. bears N.75°W., 68 lks. dist., marked T 9 S R 5 E S 8 B T.

Land, mountainous, rough and steep slopes.

Soil, rich, black mountain loam 1 to 2 ft. deep on gravelly and clay subsoil; 2nd rate.

Timber, aspen.

Undergrowth, oak, sage, maple, service, deer and rose brush.

June 16, 1914.

June 26: At 8h 2m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°24'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.

Thence I run

S.0°03'E., bet. secs. 16 and 17.

Ascending over rough mountainous land, through dense undergrowth of oak, maple, deer and rose brush.

34.50 Enter sage and service brush bearing E. and W.

38.20 Ridge and divide between Soldier and Diamond creeks, 750 ft. above cor., bears N.75°W. and S.75°E.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 18 ins. in the ground, and 8 ins. in a mound of stone on solid

Chains

rock for ¼ sec. cor., with brass cap marked

¼ S 17 | S 16

1914

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

51.40 Gully, 150 ft. below ridge, drains S.35°W. Ascend 60 ft. to

60.80 Spur, projects SW. Descend 175 ft. to

74.00 Head of canyon, course S.75°W.

Ascend.

76.30 Enter scattering aspen timber and maple undergrowth, bearing E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 16, 17, 20 and 21, with brass cap marked

T 9 S S 17	R 5 E S 16
S 20	S 21

1914

from which

An oak 6 ins. diam. bears N.28°E., 17 lks. dist., marked T 9 S R 5 E S 16 B T.

An oak 5 ins. diam. bears S.30°E., 9 lks. dist., marked T 9 S R 5 E S 21 B T.

An oak 5 ins. diam. bears S.87½°W., 10 lks. dist., marked T 9 S R 5 E S 20 B T.

An oak 4 ins. diam. bears N.43½°W., 16 lks. dist., marked T 9 S R 5 E S 17 B T.

Land, mountainous; steep slopes into canyons.

Soil, rich black and clay loam about 18 ins. deep on gravelly subsoil; 2nd rate.

Timber, scattering aspen and maple.

Undergrowth, oak, maple, service, deer and sage brush.

Good grass for grazing purposes.

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

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
40.00	Set temp. ¼ sec. cor.
80.20	Intersect N. and S. line 12 lks. N. of the cor. of secs. 15, 16, 21 and 22.
	Thence
	N.89°55'W., on a true line bet. secs. 16 and 21.
	Over rough, broken, mountainous land, through dense undergrowth of oak, deer and chokecherry brush.
	Descend.
2.50	Leave undergrowth, enter aspen timber and oak, bearing NW. and SE.
3.00	Head of canyon, 200 ft. deep, course S.10°E.
	Ascend.
7.40	Leave aspen, enter dense oak, sage, deer and chokecherry undergrowth.
9.00	Ridge, 270 ft. above canyon, bears N.15°W. and S.15°E.
	Descend.
20.00	Head of gulch, 150 ft. below ridge, drains S.
	Ascend.
24.00	Enter dense chokecherry undergrowth bearing N. and S.
26.40	Leave chokecherry, enter dense sage and service brush.
29.00	Ridge, 200 ft. above head of gulch, bears N.30°W. and S. 30°E.
	Descend.
40.10	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 16 / ¼ / S 21 / 1914
	from which
	A maple 6 ins. diam. bears N.20°W., 156 lks. dist., marked ¼ S 16 B T.
	A pine 8 ins. diam. bears S.43°W., 318 chs. dist., marked ¼ S 21 B T.
45.00	Spur, 50 ft. below ridge, projects N.70°W.
	Descend.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	June 26: At this station, I set off 23°24'N. on the decl. arc; and at 12h 2m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°02'.
53.40	Enter scattering aspen and pine timber bearing NW. and SE.
55.00	Gully, 100 ft. below spur, drains N.65°W. Ascend 75 ft. to
63.40	Spur, projects N.65°W. Descend 50 ft. to
65.80	Gully, drains N.60°W. Ascend 75 ft. to
73.20	Spur, projects N.60°W.
	Descend.
74.00	Leave timber bearing NW. and SE.
80.20	The cor. of secs. 16, 17, 20 and 21.
	Land, mountainous.
	Soil, rich black loam, streaked with clay and mixed with gravel on gravelly and clay subsoil; 2nd rate.
	Timber, scattering aspen and pine.
	Undergrowth, oak, sage, service, deer and chokecherry brush.
	June 26, 1914.
	June 27: At 7h 57m a.m., l.m.t., I set off 23°22' N. on the decl. arc; 40°03'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21.
	Thence
	S.0°09'E., on a true line bet. secs. 20 and 21.
	Ascending gradually over broken mountainous land, through dense undergrowth of oak, maple and service brush.
2.00	Spur, 50 ft. above cor., projects N.75°W.
	Descend.
9.40	Gulch, 125 ft. below spur, drains N.75°W.
	Ascend gradually.
	Enter scattering pine timber, bearing N.75°W. and S. 75°E.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains

15.80 Spur, 200 ft. above gulch, projects N.80°W. Descend 225 ft. to

23.50 Gulch, 225 ft. below spur, drains N.80°W. Abrupt ascent.

27.70 Enter dense deer and chokecherry undergrowth bearing E. and W.

33.80 Leave pine timber bearing E. and W.

34.60 Ridge, 350 ft. above gulch, bears N.15°E. and S.15°W. Descend gradually.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

¼ S 20 | S 21

1914

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

June 27: Sky overcast at noon; no observation taken for lat.

52.30 Ravine, 150 ft. below ridge, course S.10°W. Ascend along E. side of ravine.

65.70 Spur, 25 ft. above ravine, projects S.25°W. Descend gradually.

68.50 Ravine, 75 ft. below spur, course S.25°W. Ascend 50 ft. to

75.80 Spur, projects S.30°W. Descend gradually.

82.40 Gorge, 50 ft. deep, course S.30°W. Abrupt ascent.

85.45 Intersect E. and W. line 3.36 chs. S.89°W. of the cor. of secs. 28 and 29.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 20 and 21, with brass cap marked

T 9 S | R 5 E
S 20 | S 21
CC
S 29 | S 28
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. I destroy the marks on the cor. set for secs. 20, 21, 28, and 29 referring to secs. 20 and 21.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Land, high and rough mountainous.
	Soil, rich black mountain loam, streaked with patches of rock on gravelly and clay subsoil; 2nd rate.
	Timber, scattering pine from 9.40 to 33.80 chs.
	Undergrowth, oak, maple, service, chokecherry and deer brush.
	June 27, 1914.
	June 29: At 9h 03m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°17'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.
	Thence
	N.0°03'W., bet. secs. 8 and 9.
	Descending over rough mountainous land, through dense undergrowth of oak, deer and sage brush.
19.60	Bottom of canyon and creek, 5 lks. wide, 3 ins. deep, 150 ft. below cor., course N.35°W. Ascend 100 ft. to
27.90	Spur, bears E. and W. Descend 40 ft. to
35.60	Swale, drains W.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 8 | S 9
	1914
	from which
	An oak 5 ins. diam. bears N.10°E., 187 lks. dist., marked ¼ S 9 B T.
	An oak 6 ins. diam. bears N.42°W., 44 lks. dist., marked ¼ S 8 B T.
	June 29: At this cor. I set off 23°16'N. on the decl. arc; and at 12h 3m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.
50.30	Spur, 100 ft. above swale, bears E. and W.
	Descend.

Chains	
66.50	Gully, 250 ft. below spur, drains N.70°W.
	Ascend gradually.
73.50	Ridge, 80 ft. above gully, bears E. and W.
	Descend abruptly.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 4, 5, 8 and 9, with brass cap marked

T 9 S S 5	R 5 E S 4
S 8	S 9

1914

from which

A cedar 5 ins. diam. bears N.70°E., 64 lks. dist., marked T 9 S R 5 E S 4 B T.

An oak 4 ins. diam. bears S.79°E., 56 lks. dist., marked T 9 S R 5 E S 9 B T.

An oak 4 ins. diam. bears S.48°W., 123 lks. dist., marked T 9 S R 5 E S 8 B T.

A cedar 6 ins. diam. bears N.14½°W., 37 lks. dist., marked T 9 S R 5 E S 5 B T.

Land, mountainous, high and steep.

Soil, clay and mountain loam, mixed with some gravel on gravelly subsoil; 2nd rate.

No timber.

Undergrowth, oak, sage and deer brush.

June 29, 1914.

June 30: At 8h 3m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°13'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.

Thence

East, on a random line bet. secs. 4 and 9.

40.00	Set temp. ¼ sec. cor.
79.95	Intersect N. and S. line 12 lks. S. of the cor. of secs. 3, 4, 9 and 10.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Thence
	S.89°55'W., on a true line bet. secs. 4 and 9.
	Over broken mountainous land, through dense undergrowth of oak, and scattering sagebrush; ascend abruptly.
3.80	Ridge, 100 ft. above cor., bears N. and S.
	Gradually descend 150 ft. to
14.00	Gully, drains N.60°W.
28.70	Canyon, 200 ft. deep, course N.50°W. Gradually ascend.
35.50	Spur, 50 ft. above canyon, projects N.35°W. Gradually descend.
39.97½	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 4 ¼ S 9 1914
	from which
	An oak 5 ins. diam. bears N.30°W., 9 lks. dist., marked ¼ S 4 B T.
	An oak 5 ins. diam. bears S.50°E., 37 lks. dist., marked ¼ S 9 B T.
	June 30: At this cor. I set off 23°12'N. on the decl. arc; 12h 3m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.
47.30	Swale, 30 ft. below spur, course N.35°W. Gradual ascent.
51.50	Ridge, 75 ft. above swale, bears N. and S. Abrupt descent.
62.00	Enter scattering cedar, bearing N. and S.
64.20	Gully, 75 ft. below ridge, drains S.20°W.
	Ascend.
65.20	Spur, 50 ft. above gully, projects S.20°W. Leave cedar timber bearing with spur.
	Descend.
78.70	Gorge, 50 ft. deep, course N.85°W.
	Ascend.

Chains	
79.95	The cor. of secs. 4, 5, 8 and 9.
	Land, mountainous.
	Soil, rich black mountain loam about 18 ins. deep, on clay and gravelly subsoil; 2nd rate.
	Timber, scattering cedar.
	Undergrowth, oak and sage. Good grass for grazing purposes.
	June 30, 1914.
	July 1: At 8h 3m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°10'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.
	Thence
	N.0°03'W., on a true line bet. secs. 4 and 5.
	Over rough mountainous land, through dense undergrowth of oak, sage and deer brush; and scattering cedar timber.
	Descend.
1.00	Gully, 30 ft. below cor., drains N.70°W. Gradually ascend 30 ft. to
2.90	Spur, bears E. and W.
	Descend.
6.00	Gully, 100 ft. below spur, drains W. Abrupt ascent.
14.00	Ridge, 150 ft. above gully, bears NW. and SE.
	Descend.
20.00	Gulch, 150 ft. below ridge, drains N.25°W.
	Ascend gradually.
37.40	Spur, 150 ft. above gulch, projects S.85°W. Abrupt descent.
40.00	Head of gully, 50 ft. below spur, drains S.85°W.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 5 | S 4
	1914

SUBDIVISION OF T. 9 S., R. 5 E.

Chains

from which

A cedar 12 ins. diam. bears N.20°E., 83 lks. dist., marked ¼ S 4 B T.

A cedar 6 ins. diam. bears N.60°W., 75 lks. dist., marked ¼ S 5 B T.

July 1; At this cor. I set off 23°09'N. on the decl. arc; and at 12h 3m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°05'.

Ascend abruptly.

45.00 Ridge, 100 ft. above gully, bears N.15°W. and S.15°E.

Descend.

48.70 Gully, 75 ft. below ridge, drains NW. Ascend 80 ft. to

52.60 Ridge, 80 ft. above gully, bears N.35°W. and S.35°E.

Leave cedar timber, bearing with ridge. Descend.

67.20 Gully, 100 ft. below ridge, drains N.15°W.

Ascend gradually.

70.00 Intersect the N. bdy. of the Tp. 6.31 chs. N.89°54'E. of the cor. of secs. 32 and 33, heretofore described. At intersection

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 4 and 5, with brass cap marked

T 8 S | R 5 E
S 32 | S 33
CC

S 5 | S 4
T 9 S | R 5 E
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Land, rough and broken mountainous.

Soil, S. 37.40 chs. rich black loam on clay and gravelly subsoil; balance of mile, light sandy and clay loam about 1 ft. deep on clay subsoil; 2nd rate.

Timber, scattering cedar on S. 52.60 chs.

Undergrowth, oak, sage and deer brush. Good grass for grazing purposes.

July 1, 1914.

Chains

June 17: At 8h a.m., l.m.t., I set off 40°04' on the lat. arc; 23°23'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.

Thence

West, on a sectional correction line bet. secs. 8 and 17.

Ascending over mountainous land, through dense tall oak and scattering deer brush.

5.00 Leave undergrowth, enter aspen timber, bearing N. and S.

11.40 Spur, 50 ft. above cor., projects N.15°W. Leave aspen timber, enter oak brush. Descend 30 ft. to

14.00 Bottom of hollow and creek, 1 lk. wide, 2 ins. deep, course N.15°W. Ascend 70 ft. to

20.00 Spur, projects N.10°E. Descend 60 ft. to

23.00 Gully, drains N.10°E.

Ascend.

32.50 Enter scattering sagebrush bearing N.10°E. and S.10°W.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 8
¼
S 17
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

55.00 Ridge, 175 ft. above hollow, bears N.20°E. and S.20°W. Descend 75 ft. to

66.80 Head of canyon, course N.15°W. Ascend 100 ft. to

74.30 Ridge, bears N.35°W. and S.35°E.

Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 7, 8, 17 and 18, with brass cap marked

T 9 S	R 5 E
S 7	S 8
S 18	S 17

1914

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	from which
	An oak 6 ins. diam. bears N.34°E., 200 lks. dist., marked T 9 S R 5 E S 8 B T.
	An oak 5 ins. diam. bears S.9°E., 55 lks. dist., marked T 9 S R 5 E S 17 B T.
	An oak 6 ins. diam. bears S.61°W., 77 lks. dist., marked T 9 S R 5 E S 18 B T.
	An oak 6 ins. diam. bears N.59°W., 86 lks. dist., marked T 9 S R 5 E S 7 B T.
	Land, mountainous, with ridges and steep slopes into canyons.
	Soil, rich black loam about 18 ins. deep on red clay subsoil; 3rd rate.
	Timber, aspen. Undergrowth, oak, sage and deer brush.
	June 17: At this cor. I set off 23°23'N. on the decl. arc; and at 12h 0m l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.
	West, on a sectional correction line bet. secs. 7 and 18.
	Over rough mountainous land, through dense undergrowth of oak, maple and deer brush. Descend 45 ft. to
8.40	Gully, drains S.35°W. Ascend 50 ft. to
20.00	Spur, projects S.35°W. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 7 / ¼ / S 18 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
45.00	Enter maple and service berry brush bearing N. and S.
66.30	Canyon, 200 ft. below spur, course N.85°W.; creek in bottom of same, 2 lks. wide, 3 ins. deep. Ascend.
83.06	Intersect the W. bdy. of the Tp. 10.40 chs. N.1°57'W. of the cor. of secs. 12 and 13, heretofore described.
	At intersection
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins.

Chains

in the ground, for closing cor. of secs. 7 and 18, with brass cap marked

T 9 S
R 4 E | R 5 E
S 7
S 12 CC
S 18
S 13
1914

from which

An oak 3 ins. diam. bears N.50°E., 7 lks. dist., marked T 9 S R 5 E S 7 B T.

An oak 3 ins. diam. bears S.40°E., 17 lks. dist., marked T 9 S R 5 E S 18 B T.

Land, rough mountainous with W. exposure.

Soil, E. half mile rich black loam; W. half mile red clay mixed with gravel on gravelly and clay subsoil; 2nd rate.

No timber. Undergrowth, oak, maple, deer, sage and service brush. June 17, 1914.

September 5, 1914: At a point 10.61½ chs. N.1°57'W. of the ¼ sec. cor. on the E. side of sec. 13, T. 9 S., R. 4 E., I

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 18, T. 9 S., R. 5 E., with brass cap marked

¼ S 18
1914

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

July 2: At 8h 3m a.m., l.m.t., I set off 40°04' on the lat. arc; 23°06'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.

Thence

S.0°03'E., bet. secs. 17 and 18.

Over mountainous land, through dense undergrowth of oak, rabbit and deer brush; descend.

12.40 Head of canyon, 75 ft. below cor., course N.85°W.

Leave undergrowth, enter dense aspen and maple timber, bearing E. and W.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Ascend.
19.30	Leave timber, enter dense oak ans sage brush, bearing E. and W.
21.30	Ridge, 150 ft. above head of canyon, bears E. and W.
	Descend.
24.80	Leave oak, enter dense sagebrush, bearing E. and W.
39.20	Head of canyon, 90 ft. below top of ridge, course SW.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 18 | S 17 1914
	from which
	An oak 5 ins. diam. bears N.62°E., 26 lks. dist., marked ¼ S 17 B T.
	A maple 5 ins. diam. bears S.18°W., 89 lks. dist., marked ¼ S 18 B T.
40.80	Leave sage, enter oak, maple and rabbit brush, bearing E. and W.
45.00	Spur, 50 ft. above head of canyon, projects SW.
	Gradual descent.
51.40	Gully, 35 ft. below spur, drains SW.
	Ascend.
62.70	Ridge, 200 ft. above gully, bears S.35°W. and N.35°E.
	Descend gradually.
63.40	Enter scattering sagebrush bearing E. and W.
80.00	Head of canyon, course S.35°W.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 17, 18, 19 and 20, with brass cap marked
	T 9 S | R 5 E S 18 | S 17 S 19 | S 20 1914
	from which
	An oak 5 ins. diam. bears N.29½°E., 67 lks.

Chains

dist., marked T 9 S R 5 E S 17 B T.

An oak 6 ins. diam. bears S.9½°E., 81 lks.

dist., marked T 9 S R 5 E S 20 B T.

An oak 6 ins. diam. bears S.28°W., 135 lks.

dist., marked T 9 S R 5 E S 19 B T.

An oak 5 ins. diam. bears N.13°W., 99 lks.

dist., marked T 9 S R 5 E S 18 B T.

Land, high mountainous, with gradual slopes.

Soil, rich, black mountain loam, 2 to 4 ft. deep on gravelly and loam subsoil; 2nd rate.

Timber, aspen and maple from 12.40 to 19.30 chs.

Undergrowth, oak, sage, rabbit and deer brush.

July 2: At this cor. I set off 23°05'N. on the decl.arc; and at 12h 3m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'.

East, on a random line bet. secs. 17 and 20.

40.00 Set temp. ¼ sec. cor.

79.94 Intersect the N. and S. line 12 lks. N. of the cor. of secs. 16, 17, 20 and 21.

Thence

N.89°55'W., on a true line bet. secs. 17 and 20.

Over mountainous land, through dense undergrowth of oak, and maple.

9.00 Leave oak and maple, enter dense sage brush, bearing N. and S.

21.15 Leave sage, enter oak, bearing N. and S.

34.30 Canyon, 300 ft. below cor., and stream 2 lks. wide, 1 in. deep, course S.15°W.

Ascend.

39.97 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 17
¼
S 20
1914

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	from which
	An oak 4 ins. diam. bears N.46°E., 42 lks. dist., marked ¼ S 17 B T.
	An oak 5 ins. diam. bears S.50°E., 35 lks. dist., marked ¼ S 20 B T.
55.00	Leave oak, enter dense sage, bearing N. and S.
56.20	Spur, 125 ft. above canyon, projects S.10°E.
	Descend.
60.80	Gully, 50 ft. below spur, drains S.10°E. Ascend 180 ft. to
74.50	Ridge, bears N.30°E. and S.30°W.
	Descend.
79.94	The cor. of secs. 17, 18, 19 and 20.
	Land, rolling mountainous.
	Soil, rich black loam mixed with gravel and scattering loose rocks about 1½ ft. deep, on heavy clay and gravelly subsoil; 2nd rate.
	No timber.
	Undergrowth, oak, sage and maple. Good grass for grazing.
	July 2, 1914.
	July 3: At 8h 04m a.m., l.m.t., I set off 40°03' on the lat. arc; 23°01'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.
	Knowing that a closing cor. will be necessary on the W. bdy. of the Tp., I run
	West, on a true line bet. secs. 18 and 19.
	Over mountainous land, through dense undergrowth of oak and deer brush.
	Descend 100 ft. to
10.00	Swale, course S.35°W. Ascend 75 ft. to
20.05	Ridge, bears N.35°E. and S.35°W. Abrupt descent.
36.50	Leave oak and deer brush, enter dense sage, bearing NE. and SW.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 18
¼
S 19
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

43.30	Gulch and creek, 1 lk. wide, 2 ins. deep, 250 ft. below ridge, course S.15°W.
	Ascend abruptly.
50.00	Spur, 250 ft. above gulch, bears N. and S.
	Descend 175 ft. to
53.30	Gulch, drains S. Abrupt ascent.
59.20	Spur, bears N. and S. Descend.
65.00	Gulch, 150 ft. below spur, drains S.
	Ascend abruptly.
71.50	Enter scattering cedar timber.
75.00	Spur, 400 ft. above gulch, projects S.20°E.
	Descend.
79.00	Head of gulch, 50 ft. below spur, course S.10°E.
	Ascend.
80.61	Intersect W. bdy. of the Tp. 10.83 chs. N.1°57'W. of the cor. of secs. 13 and 24, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 18 and 19, with brass cap marked

T 9 S
R 4 E | R 5 E
S 18
S 13 CC
S 19
S 24
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Land, rough mountainous, with steep slopes.

Soil, rich mountain loam and clay, about 15 ins. deep on heavy clay and gravelly subsoil; 2nd rate.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
	Timber, scattering cedar from 71.50 to 80.61 chs.
	Undergrowth, oak, sage and deer brush.
	Good grass for grazing purposes.
	September 5, 1914: At a point 10.99½ chs. N.1°57'W. of the ¼ sec. cor. on the E. side of sec. 24, T. 9 S., R. 4 E., I
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 19, T. 9 S., R. 5 E., with brass cap marked ¼ S 19 | 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	July 3, 1914: At above described closing cor., I set off 23°00'N. on the decl. arc; and at 12h 04m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'.
	From the cor. of secs. 17, 18, 19 and 20, I run S.0°09'E., on a random line bet. secs. 19 and 20.
40.00	Set temp. ¼ sec. cor.
87.05	Intersect E. and W. line 28 lks. S.86°58'W. of the cor. of secs. 19, 20, 29 and 30. Thence N.0°20'W., on a true line bet. secs. 19 and 20.
	Descending abruptly over rough mountainous land, through dense undergrowth of oak and maple.
5.00	Canyon, and stream 3 lks. wide, 2 ins. deep, 200 ft. below cor., course S.15°W. Ascend abruptly.
19.10	Spur, 300 ft. above canyon, projects S.40°E. Descend.
22.00	Gulch, 50 ft. below spur, drains S.15°E. Ascend abruptly.
47.05	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 19 | S 20 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
57.00	Ridge, 400 ft. above gulch, bears N.25°W. and S.25°E. Descend.

Chains	
62.00	Gully, 175 ft. below ridge, drains SE. Ascend.
83.30	Saddle in ridge, 100 ft. above gulch, bears N.15°E. and S.15°W. Descend gradually.
87.05	The cor. of secs. 17, 18, 19 and 20.
	Land, mountainous, rough and broken.
	Soil, S. 57.00 chs. clay loam, stiff and hard, mixed with gravel and rock, about 1 ft. deep, with hard clay subsoil; N. 30.05 chs., soil is black mountain loam, about 18 ins. deep, loose and rich, some gravel, on clay and gravelly subsoil, 2nd rate.
	Undergrowth, oak and maple. Good grass for grazing purposes. No timber.
	July 3, 1914.

July 9: At 8h 5m a.m., l.m.t., I set off 40°04' on the lat. arc; 22°26'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.

Thence

N.0°03'W., bet. secs. 7 and 8.

Over rolling mountainous land, through dense oak and scattering sage, rabbit and deer brush.

	Ascend gradually.
3.50	Spur, 40 ft. above cor., projects N.60°W. Descend.
17.50	Swale, 50 ft. below spur, course NE.
	Ascend gradually.
23.50	Spur, 50 ft. above swale, projects NE.
	Descend.
30.70	Gully, 100 ft. below spur, drains N.70°E.
	Ascend gradually.
35.50	Spur, 75 ft. above gully, bears E. and W. Gradually descend 40 ft. to
39.00	Swale, drains E.
	Ascend gradually.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins.

Chains

in the ground, for ¼ sec. cor., with brass cap marked

¼ S 7 | S 8

1914

from which

An oak 5 ins. diam. bears S.60°E., 50 lks. dist., marked ¼ S 8 B T.

An oak 5 ins. diam. bears S.49°W., 28 lks. dist., marked ¼ S 7 B T.

41.30 Spur, 40 ft. above swale, bears E. and W.

Descend 100 ft. to

45.00 Gully, drains E. Ascend 70 ft. to

50.30 Spur, bears E. and W. Descend 150 ft. to

55.70 Gully, drains N.75°E. Gradually ascend 80 ft. to

60.00 Spur, projects N.70°E.

Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, with brass cap marked

T 9 S	R 5 E
S 6	S 5
S 7	S 8

1914

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

Land, rolling mountainous.

Soil, rich black loam about 18 ins. deep on clay and gravelly subsoil; 2nd rate.

No timber.

Undergrowth, oak, deer, sage and rabbit brush.

Good grass for grazing purposes.

July 9, 1914: At this cor. I set off 22°25'N. on the decl. arc; and at 12h 5m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.

East, on a random line bet. secs. 5 and 8.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains

16.00 Set temp. ¼ sec. cor.

20.10 Intersect N. and S. line 9 lks. S. of the cor. of secs. 4, 5, 8 and 9.

Thence

S.89°56'W., on a true line bet. secs. 5 and 8.

Over mountainous land, through dense undergrowth of oak, and scattering buck and deer brush. Ascend 50 ft. to

5.00 Spur, bears N. and S. Descend 60 ft. to

8.40 Swale, drains N. Ascend 50 ft. to

10.70 Spur, projects N.25°W. Descend 100 ft. to

13.50 Gorge, course N.25°W. Ascend.

15.00 Spur, 100 ft. above gorge, bears N. and S.

Descend abruptly.

20.70 Bottom of canyon and creek, 5 lks. wide, 3 ins. deep, 150 ft. below spur, course N.

Ascend abruptly.

25.60 Ridge, 250 ft. above canyon, bears N. and S.

Descend abruptly.

28.50 Canyon, 250 ft. deep, creek in same, 1 lk. wide, 1 in. deep, course N.5°W.

Ascend abruptly.

30.05 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 5
¼
S 8
1914

from which

An oak 4 ins. diam. bears N.62°E., 38 lks. dist., marked ¼ S 5 T. T.

An oak 4 ins. diam. bears S.40°E., 33 lks. dist., marked ¼ S 8 T. T.

31.50 Ridge, 300 ft. above canyon, bears N. and S.

Descend 50 ft. to

33.00 Swale, drains N.

Ascend.

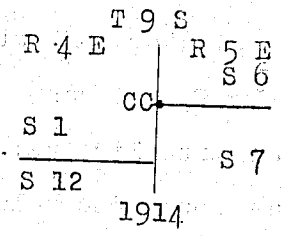
SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
80.10	The cor. of secs. 5, 6, 7 and 8. Land, mountainous, with steep slopes into canyons. Soil, rich black loam mixed with clay and gravel and streaked with hard, red and yellow clay, 1 to 2 ft. deep, on gravelly and clay subsoil; 3rd rate. No timber. Undergrowth, oak, deer and buck brush. July 9, 1914.
	July 10: At 8h 5m a.m., l.m.t., I set off 40°04' on the lat. arc; 22°19'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 7 and 8. Knowing that a closing cor. will be necessary on the W. bdy. of the Tp., I run West, on a true line bet. secs. 6 and 7. Descending over mountainous land, through dense undergrowth of oak, and scattering deer and buck brush.
10.00	Swale, 30 ft. below cor., drains N.20°E. Ascend 20 ft. to
17.50	Low spur, projects N. Descend 40 ft. to
22.00	Swale, drains N. Ascend abruptly.
33.20	Ridge, 600 ft. above swale, bears N. and S. Descend gradually.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 6 ¼ S 7 1914 from which An oak 4 ins. diam. bears N.70°W., 7 lks. dist., marked ¼ S 6 B T. A cedar 6 ins. diam. bears S.89°E., 134 lks. dist., marked ¼ S 7 B T.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains	
42.00	Enter scattering cedar timber, bearing N. and S.
45.70	Gully, 350 ft. below ridge, drains S.15°W.
	Ascend.
48.50	Spur, 50 ft. above gully, projects S.15°W.
	Descend gradually.
69.40	Enter scattering sagebrush.
78.00	Gulch, 75 ft. below spur, drains S.
	Ascend gradually.
85.52	Intersect W. bdy. of Tp. 10.04 chs. N.1°57'W. of the cor. of secs. 1 and 12, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 6 and 7, with brass cap marked



from which

An oak 4 ins. diam. bears N.62°E., 16 lks. dist., marked T 9 S R 5 E S 6 B T.

An oak 4 ins. diam. bears S.78°E., 15 lks. dist., marked T 9 S R 5 E S 7 B T.

Land, mountainous, high and steep.

Soil, chiefly black mountain loam with some gravel and clay about 18 ins. deep on clay subsoil; 2nd rate.

Timber, scattering cedar.

Undergrowth, oak, buck, sage and deer brush.

Good grass for grazing purposes.

September 5, 1914: At a point 10.22 chs. N.1°57'W. of the ¼ sec. cor. on the E. side of sec. 12, T. 9 S., R. 4 E., I

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 7, T. 9 S., R. 5 E., with brass cap marked

¼ S 7

1914

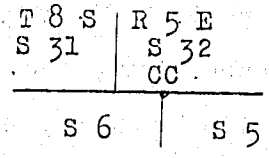
Chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	September 5, 1914: At a point 9.87½ chs. N.1°57'W. of the ¼ sec. cor. on the E. side of sec. 1, T. 9 S., R. 4 E., I.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 6, T. 9 S., R. 5 E., with brass cap marked ¼ S 6 | 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	July 10, 1914: At the above described closing cor., I set off 22°18'N. on the decl. arc; and at 12h 5m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'.
	N.0°03'W., on a true line bet. secs. 5 and 6.
	Over mountainous land, through dense undergrowth of oak, and scattering deer and rabbit brush.
	Descend gradually.
24.00	Begin more abrupt descent, bearing NW. and SE.
31.40	Head of canyon, 300 ft. below cor., course NW.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 6 | S 5 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
42.80	Spur, 40 ft. above canyon, projects N.35°W.
	Descend.
62.50	Gulch, 150 ft. below spur, drains S.85°W.
	Ascend.
65.00	Enter scattering cedar timber.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains

70.35 Intersect N. bdy. of Tp. 11.56 chs. S.89°42'E. of the cor. of secs. 31 and 32, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 5 and 6, with brass cap marked



1914

from which

A cedar 6 ins. diam. bears S.8°E., 96 lks. dist., marked T 9 S R 5 E S 5 B T.

A cedar 30 ins. diam. bears S.86°W., 103 lks. dist., marked T 9 S R 5 E S 6 B T.

Land, mountainous.

Soil, rich black mountain loam, about 1 ft. deep, on gravelly and clay subsoil; 2nd rate.

Timber, scattering cedar.

Undergrowth, oak, deer and rabbit brush.

July 10, 1914.

BOUNDARIES OF T. 9 S., R. 5 E.

Latitudes, Departures and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes N.	Latitudes S.	Departures E.	Departures W.
		Chs.	Chs.	Chs.	Chs.	Chs.
S.Bdy. T.9 S.R.5 E.	S.88°50'W.	37.53	.....	.76	.....	37.52
" " "	S.89°23'W.	39.59	.....	.43	.....	39.59
" " "	S.88°27'W.	39.92	.....	1.08	.....	39.91
" " "	S.88°38'W.	40.28	.....	.96	.....	40.27
Secs. 34 & 35	N.0°19'W.	40.08	40.08	.....	.....	.22
" " "	N.1°58'W.	40.12	40.10	.....	.....	1.38
" 27 & 34	S.89°12'W.	78.60	.....	1.10	.....	78.59
" 28 & 33	S.88°50'W.	83.60	.....	1.70	.....	83.58
" 29 & 32	S.88°53'W.	83.75	.....	1.63	.....	83.73
" 30 & 31	S.86°25'W.	76.31	.....	4.77	.....	76.16
W.Bdy. T.9 S.R.5 E.	N.1°29'W.	80.43	80.40	.....	.....	2.08
" " "	N.1°57'W.	321.32	321.21	.....	.....	10.93
N.Bdy. " "	S.89°58'E.	76.73	.....	.05	76.73	.....
" " "	S.89°42'E.	46.28	.....	.24	46.28	.....
" " "	N.89°50'E.	39.24	.12	.....	39.24	.....
" " "	N.89°54'E.	79.04	.14	.....	79.04	.....
" " "	East	40.00	.....	.....	40.00	.....
" " "	N.89°07'E.	39.02	.60	.....	39.01	.....
N.Bdy. " "	East	168.50	.....	.....	168.50	.....
E.Bdy. " "	South	230.59	.....	230.59	.....	.....
" " "	S.0°09'E.	39.94	.....	39.94	.10	.....
" " "	S.1°52'E.	39.87	.....	39.85	1.30	.....
" " "	S.0°12'E.	39.85	.....	39.85	.14	.....
" " "	S.1°35'E.	40.18	.....	40.16	1.11	.....
" " "	S.1°12'E.	79.70	.....	79.68	1.67	.....
Convergency					.54	
	Totals		482.65	482.79 482.65	493.66	493.96 493.66
	Error in lat. and dep.			.14		.30

GENERAL DESCRIPTION OF T. 9 S., R. 5 E.

This township is a high, rough, mountainous country in general, cut by numerous canyons, many of which have small springs and creeks, which serve to water the herds of sheep, cattle and horses that graze thereon. Some portions are less rugged, and where sufficiently rolling and flat, as in the bottoms of canyons and on some of the low ridges, it is inviting as a dry farming district.

The soil, in general, on the high ridges is gravelly and rocky, and on the lower ridges and in the canyons it is gravelly, clayey and sandy formation and can better be classed as a rich mountain loam. The subsoil is sandstone, limestone and conglomerate.

The rainfall in this region in the normal year exceeds eighteen inches, and the excellent soil and heavy rainfall combined produce over the entire township a variety of rich and nutritious grasses and a dense undergrowth of oak, service berry, sage, buck brush, deer brush, chokecherry, mahogany, aspen, and rabbit brush.

On a considerable portion of the township, but more or less scattered, the following timber is found:- Cedar, pine, pinon pine, aspen, maple, mahogany, and cottonwood.

The drainage of the northern portion of the township is northwesterly, and the southern portion has a southwestern drainage. The average elevation is about 7,000 ft. above sea level.

The township is chiefly valuable for grazing purposes.

No indications of mineral or coal were found in the township.

There appear to be no permanent settlers in the township, but from inquiries made it is evident that now the survey is made settlements will be made in the near future. This statement refers to the newly surveyed area.

GENERAL DESCRIPTION OF T. 9 S., R. 5 E. (CONT'D)

The main line of the D. & R. G. R. R. and the Utah County wagon road extend through the formerly surveyed southern portion of the township.

John R Stewart
U. S. Surveyor.

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BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants see book "F" T. 10 S., R. 3 E.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of U. S. Surveyor see book "F" T. 10 S., R. 3 E.

..... of the ..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191.

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, May 10, 1916

The foregoing field notes of the ~~survey of~~ retracement and resurvey of the south, east and west boundaries; retracement of the north boundary, and retracement, resurvey and survey of the subdivision of Township 9 South, Range 5 East, of the Salt Lake Base and Meridian, Utah,

executed by John R. Stewart under his special instructions dated May 14, 1914, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements, resurveys and surveys they describe, are hereby approved.

A. Thorsen
U. S. 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.

.....
U. S. Surveyor General.

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Page

4—670

BOOK A-420

B

FIELD NOTES

OF THE SURVEY OF THE

EAST BOUNDARY OF TOWNSHIP 9 SOUTH, RANGE 5 EAST,

WEST BOUNDARY OF TOWNSHIP 9 SOUTH, RANGE 4 EAST,

AND

EAST AND NORTH BOUNDARIES OF TOWNSHIP 5 SOUTH, RANGE 2 EAST

Of the Salt Lake Base and *Meridian,*

In the State of Utah

EXECUTED BY

JOHN R. STEWART

In the capacity of U. S. Surveyor, under instructions dated May 14, *1914, issued by the United States Surveyor General to govern surveys included in Group No.* 29, *which were approved by the Commissioner of the General Land Office,* June 5, *1914.*

Survey commenced June 1, *1914*

Survey completed November 4, *1914*

6—151

BOOK A-420

INDEX DIAGRAM.

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

6	5	4	3	2	1
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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

SURVEY OF THE EAST BDY. OF T. 9 S., R. 5 E.

Chains	
	Survey commenced June 1, 1914, and executed with a Young & Sons light mountain transit, No. 8538, 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 meridian at Salt Lake City, found correct, and was approved by the assistant supervisor of surveys, May 15, 1914.
	Steel tapes 5 chs. long were used for measuring the slope angles and the horizontal distances determined by the use of the standard field tables, and the vertical angles read by use of Lietz clinometers. A standard steel tape 1 ch. long was kept for testing the accuracy of the long tapes.
	For complete test of instrument see retracement of the south boundary of this township.
	June 1, 1914: I begin at the re-established ¼ sec. cor. bet. secs. 13 and 18, on the east boundary of the township, in accordance with special instructions.
	Thence
	North, on a true line bet. the N. ½ of secs. 13 and 18.
5.20	Spur, 35 ft. below ¼ cor., bears NW. and SE.
	Descend.
6.50	Gully, 50 ft. below spur, course E.
	Ascend.
12.30	Spur, 50 ft. above gully, bears E. and W.
	Descend.
18.70	Enter heavy aspen timber, bears E. and W.
	Leave undergrowth.
22.85	Gully, 150 ft. below spur, course E.
	Ascend.
24.70.	Leave timber, enter dense oak, sage and service berry, bearing E. and W.

SURVEY OF THE EAST BDY. OF T. 9 S., R. 5 E.

Chains

38.80 Begin steep descent, bearing E. and W.

40.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 7, 12, 13 and 18, with brass cap marked

T 9 S
R 5 E | R 6 E
S 12 | S 7
S 13 | S 18
1914

from which

An oak 6 ins. diam. bears N.32°E., 28 lks. dist., marked T 9 S R 6 E S 7 B T.

A pine 16 ins. diam. bears S.42°E., 26 lks. dist., marked T 9 S R 6 E S 18 B T.

An oak 5 ins. diam. bears S.4°W., 7 lks. dist., marked T 9 S R 5 E S 13 B T.

An oak 5 ins. diam. bears N.73°W., 32 lks. dist., marked T 9 S R 5 E S 12 B T.

Find no trace of the old sec. cor., after diligent search.

Land, mountainous.

Soil, rich, loose black mountain loam 2 to 3 ft. deep, with clay subsoil.

Timber, pine and aspen.

Undergrowth, oak, sage, deer, and buck brush.

Good grass for grazing.

June 1, 1914.

Note: Knowing that this line will not intersect the north boundary within limits, I proceed as follows:

June 8, 1914: At 7h 59m a.m., l.m.t., I set off 22°49' N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence

North, bet. secs. 7 and 12.

SURVEY OF THE EAST BDY. OF T. 9 S., R. 5 E.

Chains	
	Descending abruptly over mountainous land, through dense undergrowth.
25.00	Second Water Creek, 10 lks. wide, 2 ins. deep, in canon, 600 ft. below cor., course N.75°W.
	Ascend.
27.50	Spur, 50 ft. above canon, bears NE. and SW.
	Descend.
	Enter scattering mahogany, bears same.
30.70	Swale, 75 ft. below spur, course SW.
	Ascend.
36.00	Spur, 100 ft. above swale, projects S.35°W.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 12 | S 7 1914
	from which
	An oak 5 ins. diam. bears S.65°E., 8 lks. dist., marked ¼ S 7 B T.
	An oak 5 ins. diam. bears N.63°W., 18 lks. dist., marked ¼ S 12 B T.
41.80	Leave mahogany.
43.70	Spur, 50 ft. above ¼ cor., projects S.35°W.
	Descend.
45.00	Gully, 75 ft. below spur, course S.25°W.
	Ascend abruptly.
46.30	Leave oak, deer, and service berry, bearing E. and W.
51.00	Enter dense oak, bearing E. and W.
52.30	Ridge, 200 ft. above gully, bears NE. and SW.
	Descend.
68.75	Creek, 10 lks. wide, 3 ins. deep, in canon, 650 ft. below ridge, course S.80°W.
	Ascend abruptly.
69.40	Enter heavy cedar timber and scattering sagebrush.
	Leave other undergrowth, bears NE. and SW.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins.

SURVEY OF THE EAST BDY. OF T. 9 S., R. 5 E.

Chains

in the ground, for cor. of secs. 1, 6, 7 and 12, with brass cap marked

T 9 S
R 5 E | R 6 E
S 1 | S 6
S 12 | S 7

1914

from which

A cedar 16 ins. diam. bears N.70½°E., 48 lks. dist., marked T 9 S R 6 E S.6 B T.

A cedar 12 ins. diam. bears S.39°E., 73 lks. dist., marked T 9 S R 6 E S.7 B T.

A cedar 10 ins. diam. bears S.72¼°W., 21 lks. dist., marked T 9 S R 5 E S 12 B T.

A cedar 16 ins. diam. bears N.25°W., 64 lks. dist., marked T 9 S R 5 E S 1 B T.

Land, mountainous, broken and steep.

Soil, red and yellow clay, rather stiff, and hard, about 2 ft. deep; subsoil clay and gravel.

Good grass for grazing.

Undergrowth, oak, maple, wild rose, buck, deer, choke cherry, service berry, and sage brush.

Timber, cedar.

June 8, 1914: At this cor. I set off 22°50'N. on the decl. arc; and at 11h 59m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.

North, bet. secs. 1 and 6,

Ascending over rough, mountainous land, through heavy timber and scattering undergrowth.

5.00 Enter scattering patches of oak.

20.30 Spur, 250 ft. above cor., projects SW.

Descend.

24.00 Swale, 50 ft. below spur, course N.80°W.

Ascend.

25.30 Leave cedar timber, enter dense oak and deer brush,

SURVEY OF THE EAST BDY. OF T. 9 S., R. 5 E.

Chains	
	bearing E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 1 | S 6 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
44.30	Swale, 25 ft. below ¼ cor., course S.65°W.
	Ascend abruptly.
46.70	Leave oak and enter scattering cedar timber and dense sage and buck brush.
48.75	Leave timber bearing E. and W.
60.40	Head of swale, course S.15°W.
	Ascend.
62.50	Ridge, 300 ft. above swale, bears E. and W.
	Descend abruptly.
70.59	Intersect N. bdy. of Tp. at point 11.16 chs. E. of the cor. of Tp. 8 S., Rs. 5 and 6 E., hereinafter described.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for closing cor. of Tp. 9 S., Rs. 5 and 6 E., with brass cap marked T 8 S R 5 E | R 6 E S 36 | S 31 C | C S 1 | S 6 R 5 E | R 6 E 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Land, mountainous, high, rough and steep.
	Soil, S.62.50 chs., red and yellow clay about 18 ins. deep; N. 7.89 chs., rich black loam, 1 ft. deep. Subsoil, gravel, clay and rock.
	Undergrowth, oak, sage and buck brush.
	Timber, cedar.

SURVEY OF THE EAST BDY. OF T. 9 S., R. 5 E.

Chains

Good grass for grazing.

June 8, 1914.

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

U. S. Surveyor.

WEST BOUNDARY T. 9 S. R. 4 E.

Chains	
	Survey commenced August 17, 1914, and executed with a Young & Son's light mountain transit No. 8538 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 latitude and declination arcs.
	The instrument was examined, tested on the meridian at Salt Lake City, Utah, found correct and approved by the Assistant Supervisor of Surveys, May 14, 1914.
	For complete test of instrument see the retracement and resurvey of the boundaries of this township.
	August 17, 1914: At 8h 04m a.m., l.m.t., I set off 13° 36'N. on the decl. arc, 40°00'N. on the lat. arc, and determine the meridian with the solar at the re-established cor. of Tp. 9 S. Rs. 3 and 4 E.
	Thence I run
	North on a random line along the W. boundary of Tp. setting temporary ¼ sec. and sec. cors. at intervals of 40.00 and 80.00 chs. and at 229.00 chs.
	Intersect the re-established cor. of secs. 13, 18, 19 and 24 heretofore described.
	August 17, 1914.
	August 18, 1914: At 8h 4m a.m., l.m.t., I set off 13°16'N. on the decl. arc, 40°03'N. on the lat. arc, and determine the meridian with the solar at the re-established cor. of secs. 13, 18, 19 and 24 already described.
	Thence I run
	South on a true line bet. secs. 19 and 24.
	Over mountainous land through dense undergrowth.
	Descend.
9.70	Gulch 300 ft. below cor., course N.60°E. Ascend abruptly.
12.00	Enter scattering mahogany bearing E. and W.
18.40	Ridge 500 ft. above gulch bears N.60°E. and S.60°W.
	Descend abruptly over ledges.

WEST BOUNDARY T. 9 S. R. 4 E.

Chains	
25.00	Gulch, 150 ft. below ridge, course N.60°E. Ascend abruptly.
29.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. mkd. on brass cap ¼ S 24 | 1914 from which A pine, 12 ins. dia., bears S.29°W., 27 lks. dist. mkd. ¼ S 24 B T.
32.80	Spur, 100 ft. above gulch, bears E. and W. Descend.
36.70	Gorge 3.00 chs. wide 75 ft. deep, course E.
41.00	Gully 75 ft. below spur course E. Ascend.
47.00	Limestone ledge 50 ft. high bears NW. and SE.
47.80	Ridge 100 ft. above gully bears E. and W. Descend.
69.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 24 and 25, mkd. on brass cap T 9 S R 3 E | R 4 E S 24 S 25 | 1914 from which A maple 8 ins. dia., bears S.59°W., 78 lks. dist. mkd. T 9 S R 3 E S 25 B T. A maple 6 ins. dia., bears N.42°30'W., 56 lks. dist. mkd. T 9 S R 3 E S 24 B T. Land mountainous, rough and steep. Soil clay and gravelly loam and rocky, 2nd and 4th rate. Undergrowth oak, maple, buck brush and mahogany. No timber. Good grass for grazing.

South on a true line bet. secs. 25 and 30.
Over mountainous land through dense undergrowth.
Descend.

5.70	Creek 3 lks. wide, 2 ins. deep in bottom of Shurtz Canyon, 50 ft. below cor., course N.75°E. Ascend.

WEST BOUNDARY T. 9 S. R. 4 E.

Chains	
20.00	Ridge 150 ft. above creek, bears N.25°E. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. mkd. on brass cap ¼ S 25 | 1914 from which An oak, 4 ins. dia., bears S.65°W., 16 lks. dist. mkd. ¼ S 25 B T.
42.60	Spur 100 ft. above ridge bears N.25°E. and S.25°W.
47.07	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. mkd. on brass cap ¼ S 30 | 1914 from which A maple 4 ins. dia., bears S.27°E., 12 lks. dist. mkd. ¼ S 30 B T.
58.50	Ridge, 100 ft. above ¼ sec. cor., bears NW. and SE. Descend.
62.50	Gulch 40 ft. below ridge, course NW. Ascend.
67.00	Divide ridge between Shurtz Canyon and Thistle Creek bears E. and W. 200 ft. above gulch. Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 25 and 36, mkd. on brass cap T 9 S R 3 E | R 4 E S 25 S 36 | 1914 from which An oak 5 ins. dia., bears S.4°W., 26 lks. dist. mkd. T 9 S R 3 E S 36 B T. An oak 4 ins. dia., bears N.36°W., 14 lks. dist. mkd. T 9 S R 3 E S 25 B T. Land mountainous. Soil black mountain loam, 1 ft. deep; subsoil heavy clay. Undergrowth oak, maple, buck brush.

WEST BOUNDARY T. 9 S. R. 4 E.

Chains	
	No timber. Good grass for grazing.
	August 18, 1914: At this cor. I set off 13°13'N. on the decl. arc, and at 0h 04m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	South on a true line bet. secs. 31 and 36.
	Over mountainous land, through dense undergrowth.
	Descend.
5.00	Gully 50 ft. below cor., course S.25°W. Ascend.
11.40	Spur, 50 ft. above gully, bears N.15°E. and S.15°W.
	Descend.
32.70	Gully 50 ft. below ridge, course S.15°W. Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. mkd. on brass cap
	¼ S 36 | S 31 1914
	from which
	An oak 4 ins. dia., bears S.50°E., 26 lks. dist. mkd. ¼ S 31 B T.
	An oak 4 ins. dia., bears S.41°W., 15 lks. dist. mkd. ¼ S 36 B T.
43.40	Gully 50 ft. below ¼ cor., course S.5°E.
51.00	Ascend abruptly bearing N.10°W. and S.10°E.
56.80	Spur 100 ft. above gully bears N.25°E. and S.25°W.
71.00	Enter low bench bears E. and W.
73.40	Leave oak and maple and enter sagebrush bearing E. and W.
78.90	Wash 50 lks. wide 4 ft. deep, course SW.
80.00	The re-established Tp. cor. heretofore described.
	Land mountainous with gradual slopes.
	Soil rich black mountain loam, 2 to 3 ft. deep; subsoil sticky clay and hard pan.
	Undergrowth maple, oak and sage.
	No timber. Good grass for grazing.
	August 18, 1914.

WEST BOUNDARY T. 9 S. R. 4 E.

Chains	
	July 27, 1914: At 8h 06m a.m., l.m.t., I set off 19°20'N. on the decl. arc, 40°04'N. on the lat. arc, and determine a meridian with the solar at the cor. of secs. 1 and 12 on W. Bdy. of Tp., described in retracement of W. Bdy.
	Thence I run
	North on a true line bet. secs. 1 and 6.
	Over mountainous land, through dense oak brush.
	Ascend abruptly.
21.80	Ridge 175 ft. above cor., bears N.5°E. and S.5°W.; continue ascent.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. mkd. on brass cap ¼ S 1 / 1914 and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
46.00	Spur 250 ft. above ridge bears N.70°E. and S.70°W.
	Descend gradually.
53.50	Gully 50 ft. below spur, course S.25°W.
	Rock slide in bottom. Ascend abruptly.
64.85	Spur 200 ft. above gully bears N.15°E. and S.15°W.
	Continue ascent.
	Enter deer, chokeberry and service berry brush.
82.02	Intersect N. Bdy. of Tp. at point 20.00 chs. N.88°51'E. from the SW. cor. of Tp. 8 S. R. 4 E., which is a limestone 11x8x7 ins. above ground firmly set and marked and witnessed as described by the surveyor general.
	I remonument this cor. at same point as follows:
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground along side of stone for SW cor. of Tp. 8 S. R. 4 E. mkd.

T 8 S
R 3 E | R 4 E
S 31
S 1 T 9 S | S 6
1914

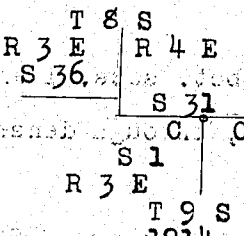
and raise a mound of stone 2 ft. base, 1½ ft. high NE of cor.

WEST BOUNDARY T. 9 S. R. 4 E.

Chains

82.02 At point of intersection

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for closing cor. of Tp. 9 S. Rs. 3 and 4 E. mkd. on brass cap



from which

An aspen 4 ins. dia., bears S.18°E., 67 lks. dist. mkd. T 9 S R 4 E S 6 B T.

An aspen 4 ins. dia., bears S.15°W., 110 lks. dist. mkd. T 9 S R 3 E S 1 B T.

Land mountainous, very high, steep and rocky, sloping W.

Soil clay loam, well mixed with shale rock and gravel.

Gravelly and rocky subsoil.

Undergrowth oak, deer brush, chokecherry and service berry brush.

No timber, except a few scattering aspens near end of mile. Good grass for grazing.

July 27, 1914: At the noon hour the instrument was in transit and no observation for lat. taken.

July 27, 1914.

U. S. Surveyor.

For general description see subdivision of this township.

EAST BOUNDARY OF T. 5 S., R. 2 E.

Chains	
	Survey commenced October 27, 1914, and executed with a Young & Sons light mountain transit, No. 8538, with Smith solar attachment, for description and approval of which see subdivision of T. 5 S., R. 2 E.
	I know the instrument to be in good adjustment, having tested it on a Polaris meridian at the cor. of secs. 26, 27, 34 and 35, T. 5 S., R. 2 E., October 19.
	For record of observation and test of instrument see subdivision of T. 5 S., R. 2 E.
	October 27, 1914: At 7h 44m a.m., l.m.t., I set off 40°22' on the lat. arc; 12°36'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19 and 30, on the E. bdy. of the Tp., heretofore described.
	Thence
	North, bet. secs. 19 and 24.
	Descending over broken, mountainous land, through dense undergrowth of oak, rose, larb, maple and sage.
11.00	Gully, 25 ft. below cor., drains S.30°E.
	Abrupt ascent.
25.00	Enter dense aspen timber, bearing NW. and SE. Leave dense undergrowth.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. of sec. 19 only, with brass cap marked
	¼ S 19 1914
	from which
	An aspen 4 ins. diam. bears S.83°E., 8 lks. dist., marked ¼ S 19 B T.
	Leave heavy and enter scattering aspen, bearing E. and W.
42.10	Ridge, 600 ft. above gully, bears NE. and SW.
	Descend.
42.86	Later, November 11, 1914, at this point, I

EAST BOUNDARY OF T. 5 S., R. 2 E.

Chains

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on E. side of sec. 24, with brass cap marked

¼ S 24 | 1914

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

October 27: At station 42.10 chs. I set off 12°41'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°22'.

Descend abruptly 200 ft. to

56.00 Head of Battle Creek canyon, course W.

Ascend.

66.00 Leave timber, enter chokecherry and deer brush, bearing E. and W.

68.00 Ridge, 100 ft. above canyon, bears E. and W.

Descend 100 ft. to

76.00 Canyon, course W.

Ascend.

80.00 Note: Knowing from previous retracements in this township that fallings of subdivisional lines will be out of limits on the E. bdy. and that closing corners will be necessary, I establish all corners on this boundary for two sections referring to T. 5 S., R. 3 E.

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 18 and 19, with brass cap marked

T 5 S
R 2 E | R 3 E
S 13 | S 18
S 24 | S 19
1914

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

Land, mountainous, rough and rocky.

EAST BOUNDARY OF T. 5 S., R. 2 E.

Chains	
	Soil, rich black loam, streaked with clay and mixed with gravel, about 1 ft. deep; subsoil, gravel; 2nd rate.
	Timber, aspen, and a few scattering pines.
	Undergrowth, oak, rose, larb, chokecherry, maple and sage.
	Good grass.
	October 27, 1914.
	October 28: At 7h 44m a.m., l.m.t., I set off 40°23' on the lat. arc; 12°56'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 18 and 19.
	Thence
	North, bet. secs. 13 and 18.
	Over broken mountainous land, through dense undergrowth of oak, chokecherry, sage and larb. Ascend.
3.00	Ridge, 40 ft. above cor., bears E. and W. Abrupt descent 75 ft. to
4.60	Canyon, course S.80°W. Abrupt ascent.
20.00	Enter broken limestone ledges, bearing E. and W. Leave dense undergrowth.
25.60	Rocky spur, 760 ft. above canyon, bears N.80°W. and S. 80°E. Descend abruptly through dense pine timber.
33.00	Canyon, 300 ft. below spur, course S.75°W. Leave timber and all undergrowth except sage. Ascend abruptly.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on W. bdy. of sec. 18, with brass cap marked ¼ S 18 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

EAST BOUNDARY OF T. 5 S., R. 2 E.

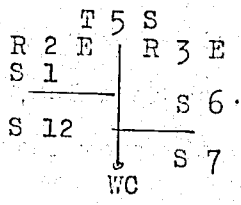
Chains	
42.88½	Later, November 13, at this point, I
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on the E. side of sec. 13, with brass cap marked
	¼ S 13 | 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
51.70	Spur, 700 ft. above canyon, bears N.65°E. and S.65°W.
	October 28: At station 51.70 I set off 13°01'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°23'. Descend abruptly over broken limestone ledges 200 ft. to
62.00	Gulch, drains S.85°W.
	Ascend abruptly over ledges.
78.18	Rocky spur, 700 ft. above gulch, bears E. and W.
	Point for sec. cor. falls on ledges where post cannot be set; therefore, at this point
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for witness cor. to cor. of secs. 7 and 18, with brass cap marked
	T 5 S R 2 E | R 3 E S 12 — S 7 S 13 — WC S 18 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Descend abruptly over ledges.
80.00	Point for cor. of secs. 7 and 18 falls on ledge. Cor. not set.
	Land, broken and steep W. slope of Timpanogos mountain.
	Soil, shallow shale and some mountain soil in crevices of rocks on solid rock; 4th rate.
	Timber, pine from 26.30 to 33.00 chs.

EAST BOUNDARY OF T. 5 S., R. 2 E.

Chains	
	Undergrowth, oak, deer, chokecherry and sage brush. October 28, 1914.
	October 29: At 7h 44m a.m., l.m.t., I set off 40°23' on the lat. arc; 13°16'S. on the decl. arc; and determine a meridian with the solar at the true point for cor. of secs. 7 and 18.
	Thence
	North, bet. secs. 7 and 12.
	Over rough, broken, mountainous land, through scattering undergrowth of sage and rabbit brush.
	Abrupt descent over broken limestone ledges.
7.00	Perpendicular limestone ledge, 30 ft. high, bears E. and W.
9.20	Gulch, 150 ft. below cor. point, drains SW. Ascend abruptly over ledges.
17.50	Ledge, 30 ft. high, bears NW. and SE.
26.80	Ridge, 740 ft. above gulch, bears N.80°E. and S.80°W. Descend abruptly over ledges.
36.80	Gulch, drains W. Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on the W. bdy. of sec. 7, T. 5 S., R. 3 E., with brass cap marked ¼ S 7 | 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
42.95	Later, November 14,
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on E. side of sec. 12, with brass cap marked ¼ S 12 | 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high,

EAST BOUNDARY OF T. 5 S., R. 2 E.

Chains	
	W. of cor.
	October 29: At this cor. I set off 13°22'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°24'.
46.10	Rocky spur, 150 ft. above gulch, bears E. and W.
	Abrupt descent over ledges 110 ft. to
51.00	Gulch, drains W.
	Ascend abruptly over ledges.
75.37	Top of Mount Timpanogos, 200 ft. above gulch and 6000 ft. above valley to the W., bears N.30°W. and S.30°E.
	Point for sec. cor. falls on ledge where post cannot be set; therefore, at this point
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for witness cor. to cor. of secs. 6 and 7, on the W. bdy. of T. 5 S., R. 3 E., with brass cap marked



1914

	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Descend abruptly over ledges.
80.00	Point for cor. of secs. 6 and 7 falls on ledge. Cor. not set.
	Land, rough and broken near top of Mt. Timpanogos, approximately 12,000 ft. high.
	Soil, disintegrated shale found in crevices of rocks; 4th rate.
	No timber.
	Undergrowth, scrub sage and rabbit brush.
	October 29, 1914.
	October 30: At 7h 44m a.m., l.m.t., I set off 40°24'

EAST BOUNDARY OF T. 5 S., R. 2 E.

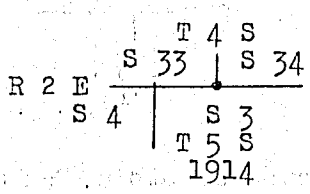
Chains	
	on the lat. arc; 13°36'S. on the decl. arc; and determine a meridian with the solar at the true point for cor. of secs. 6 and 7.
	Thence
	North, bet. secs. 1 and 6.
	Descending abruptly over barren, rocky NE. slope of Mt. Timpanogos.
40.00	Point for ¼ sec. cor. falls on unsafe ground. No cor. set at this point.
43.00	True point for ¼ sec. cor. sec. 1. October 30: At this station I set off 13°41'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°25'.
66.00	Foot of talus of ledges.
70.12	First safe point to set ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for witness point to ¼ sec. cor., with brass cap marked
	T 5 S R 2 E | R 3 E S 1 | S 6 WP¼ 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Note: This is also witness for ¼ cor. on E. side of sec. 1, since it is the nearest safe point on line.
80.00	Set temp. cor. of Tps. 4 and 5 S., Rs. 2 and 3 E.
	Cor. later established at
84.12	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of Tps. 4 and 5 S., Rs. 2 and 3 E., with brass cap marked
	T 4 S R 2 E | R 3 E S 36 | S 31 S 1 | S 6 R 2 E | R 3 E T 5 S 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high,

EAST BOUNDARY OF T. 5 S., R. 2 E.

Chains	
	S. of cor.
	Land, steep, high, ledgy NE. slope of Mt. Timpanogos.
	Soil, loose shale rock and disintegrated shale in crevices of rocks.
	Undergrowth, some sage. Land practically barren.
	No timber.
	October 30, 1914.
	October 31: At 7h 44m a.m., l.m.t., I set off 40°25' on the lat. arc; 13°55'S. on the decl. arc; and determine a meridian with the solar at the temp. cor. of Tps. 4 and 5 S., Rs. 2 and 3 E.
	Thence
	West, on a random line along the N. bdy. of T. 5 S., R. 2 E., setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chs.
80.00	October 31: At this station I set off 14°01'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°25'.
160.00	Cease work.
	October 31, 1914.
	November 2: At 7h 44m a.m., l.m.t., I set off 40°25' on the lat. arc; 14°34'S. on the decl. arc; and determine a meridian with the solar at 160.00 ch. point.
	Thence I continue
	West, on a random line.
240.00	November 2: At this station I set off 14°39'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°25'.
245.50	Fall 4.12 chs. S. of the ¼ sec. cor. bet. secs. 4 and 33, described on page 9 of book "E."
	November 2, 1914.
	November 3: At 7h 44m a.m., l.m.t., I set off 40°25'

NORTH BOUNDARY OF T. 5 S., R. 2 E.

Chains	
	on the lat. arc; 14°53'S. on the decl. arc; and determine a meridian with the solar at the ¼ cor. bet. secs. 4 and 33.
	Thence
	East, on a true line bet. secs. 4 and 33.
	Over rough mountainous land, through dense undergrowth of oak, sage and maple. Ascend abruptly.
23.50	Enter dense aspen timber, bearing N. and S.
25.00	Ridge, 1500 ft. above cor., bears N. and S. Descend.
28.00	Swale, 50 ft. below ridge, drains NW.
	Leave timber, bearing NW. and SE. Ascend abruptly.
43.00	Top of mountain, 200 ft. above swale, bears N. and S.
45.50	Knowing from previous retracements in this township that subdivisional lines will not intersect this boundary within limits and closing cors. will be necessary, I establish cors. for T. 4 S.
	Set an iron post, 3 ft. long, 3 ins. in diam., 26 ins. in the ground, for cor. of secs. 33 and 34, T. 4 S., R. 2 E., with brass cap marked



	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous, steep slopes.
	Soil, clay and rocky about 1 ft. deep on gravelly and clay subsoil; 3rd rate.
	Timber, aspen.
	Undergrowth, oak, sage and maple.
	Good grass.
	East, bet. secs. 3 and 34.
	Over mountainous land, through dense undergrowth of oak, buck brush and sage.

NORTH BOUNDARY OF T. 5 S., R. 2 E.

Chains	
3.00	Enter dense aspen, bearing N. and S.
30.00	Leave timber, bearing N.20°E. and S.20°W.
35.10	Wood road, bears N.20°E. and S.20°W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on S. bdy. of sec. 34, with brass cap marked S 34 ¼ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. November 3: At this cor. I set off 14°58'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°25'.
50.10	Divide ridge, between Battle Creek and American Fork canyons, bears NE. and SW. Descend.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 34 and 35, with brass cap marked T 4 S S 34 | S 35 R 2 E S 3 | S 2 T 5 S 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Land, mountainous; long, gradual slopes. Soil, mountain loam with some rocky patches on ridges; subsoil, gravelly and clay; 2nd rate. Timber, aspen. Undergrowth, oak, buck, deer and sage. November 3, 1914.

November 4: At 7h 44m a.m., l.m.t., I set off 40°25' on the lat. arc; 15°12'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 34 and 35.

NORTH BOUNDARY OF T. 5 S., R. 2 E.

Chains	
	Thence
	East, on a true line bet. secs. 2 and 35.
	Over mountainous land, through dense undergrowth of sage, oak, buck and deer brush, along nearly S. slope. Ascend.
3.00	Enter aspen timber, bearing N. and S.
3.50	A small lake about 2 chs. diam. S. 1 ch.
15.00	Leave aspen, bearing NE. and SW.
26.00	Wood road, bears NE. and SW.
32.00	Divide between Battle Creek and American Fork canyons, bears NW. and SE.
	Gradually ascend through aspen and pine timber.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 35
¼
S 2
1914

from which

A pine 5 ins. diam. bears N.15°E., 20 lks. dist., marked ¼ S 35 B T.

A pine 4 ins. diam. bears S.20°W., 33 lks. dist., marked ¼ S 2 B T.

59.00	Wash, 15 ft. deep, course N.30°W.
65.50	Gulch, 50 ft. deep, drains N.20°W.
80.00	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 1, 2, 35 and 36, with brass cap marked

T 4 S
S 35 | S 36
R 2 E.
S 2 | S 1
T 5 S
1914

from which

A pine 5 ins. diam. bears N.37°30'E., 180 lks. dist., marked T 4 S R 2 E S 36 B T.

A pine 7 ins. diam. bears S.38°30'E., 132 lks.

Chains	
	dist., marked T 5 S R 2 E S 1 B T.
	A pine 18 ins. diam. bears S.29°W., 98 lks. dist., marked T 5 S R 2 E S 2 B T.
	A pine 8 ins. diam. bears N.78°30'W., 67 lks. dist., marked T 4 S R 2 E S 35 B T.
	Land, mountainous.
	Soil, rich mountain loam 1 to 2 ft. deep on loam subsoil; 1st rate. E. 20 chs. very rocky and steep.
	Timber, pine and aspen.
	Undergrowth, sage, oak, buck and deer brush.
	Good grass.
	November 4: At this cor. I set off 15°17'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°25'.
	East, between secs. 1 and 36.
	Over mountainous land, through scattering pine timber.
	Abrupt ascent, slide rock and ledges.
20.00	Rocky ridge, 350 ft. above cor., bears N. and S.
	Descend over broken limestone ledges on N. slope of Mt. Timpanogos. Leave timber and nearly all undergrowth.
28.00	Rocky gulch, 150 ft. below ridge, drains N.
	Abrupt ascent over series of ledges.
40.00	Point for cor. falls on ledges. Unable to set cor. at this point.
47.86	Ridge, 100 ft. above gulch, bears N. and S.
	Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground and 6 ins. in a mound of stone on solid rock, for witness cor. to ¼ cor., with brass cap marked

T 4 S R 2 E
S 36
WC¼ o———
S 1
T 5 S R 2 E
1914

from which

NORTH BOUNDARY OF T. 5 S., R. 2 E.

Chains	
	A pine 8 ins. diam. bears S.38°W., 43 lks. dist., marked W C ¼ S 1 B T.
	A pine 5 ins. diam. bears N.35°W., 43 lks. dist., marked W C ¼ S 36 B T.
	Abrupt descent over ledges.
52.00	Foot of ledges, 500 ft. below ridge, bears N. and S.
	Thence continue descent over talus from ledges.
75.00	Leave talus, bearing N. and S.
80.00	Intersect N. and S. line 4.12 chs. N. of the temp. cor. of Ts. 4 and 5 S., Rs. 2 and 3 E.
	Permanent cor. set at this point. For description of same see line bet. secs. 1 and 6 on E. bdy. of Tp.
	Land, very rough, rocky and ledgy with steep N. slope on N. end, Mt. Timpanogos.
	Timber, scattering pine.
	Soil, chiefly barren rocks with some disintegrated shales in crevices of same.
	Little or no undergrowth.
	November 4, 1914.

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

John R Stewart

U. S. Surveyor.

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Page

4—GSO

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants see book "F" T. 10 S., R. 3 E.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

8—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of U. S. Surveyor see book "F" T. 10 S., R. 3 E.

..... of the ..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, May 10, 1916

The foregoing field notes of the survey of the east boundary of Township 9 South, Range 5 East; west boundary of Township 9 South, Range 4 East, and east and north boundaries of Township 5 South, Range 2 East, of the Salt Lake Base and Meridian, Utah,

executed by John R. Stewart under his special instructions dated May 14, 1914, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....

U. S. 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.

.....

U. S. Surveyor General.

C—2761

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Page

4—679

BOOK A-420 C

U. S. Surveyor General's Office
JAN 20 1916
SALT LAKE CITY, UTAH.

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RETRACEMENT, RESURVEY AND SURVEY OF SUBDIVISION,

RETRACEMENT AND RESURVEY OF SOUTH BOUNDARY

AND

RETRACEMENT OF WEST AND NORTH BOUNDARIES

OF

TOWNSHIP 9 SOUTH, RANGE 4 EAST

Of the Salt Lake Base and *Meridian,*

In the State of Utah

EXECUTED BY

JOHN R. STEWART

In the capacity of U. S. Surveyor, under instructions dated May 14, *1914, issued by the United States Surveyor General to govern surveys included in Group No.* 29, *which were approved by the Commissioner of the General Land Office,* June 5, *1914, pursuant to authority contained in the Act of Congress dated* ....., *191*....

Survey commenced July 14, *1914*

Survey completed September 7, *1914*

6—151

BOOK A-420

INDEX DIAGRAM.

Township 9 South, *Range* 4 East

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18	17	16	15	14	13
19	20	21	22	23	24
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31	32	33	34	35	36

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BOOK A-420

4—679 b

INDEX DIAGRAM.

Township 9 S, Range 4 E

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245 7 233	8 191	9	10	11 213	12 136
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244 18 182	17 168	16	15 198	14 220	13 135
181	169			218	216
141 19 173	20 175 174 177	21	22 189	23 215	24
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142 30 230	29 175 176	28	27 211	26 208	25
229	225 227	203	205	207	
144 31 226	32 179	33	34	35	36
242	240				

6—4817

SUBDIVISION OF T. 9 S., R. 4 E.

Survey commenced July 14, 1914, and executed with a Young & Sons light mountain transit, No. 8538, 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 latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, Utah, found correct, and was approved by the assistant supervisor of surveys, May 14, 1914.

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. hours; with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of secs. 16, 17, 20 and 21, latitude 40°03' N., longitude 111°31'W.:

At 0h 7.2m a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark the line thus determined, by a tack driven in a wooden plug set in the ground, 5 chs. N. of the station.

At 7h 30m a.m., l.m.t., I lay off the azimuth of Polaris 1°30' to the west and mark the meridian thus determined, by a cross cut in a stone firmly set in the ground, 5 chs. N. of the cor.

At 8h 6m a.m., l.m.t., I set off 40°03'N. on the lat. arc; 21°46'N. on the decl. arc; and mark the meridian determined with the solar, by cutting a small groove in the stone already set 5 chs. N. of the cor.; this mark falls 0.4 ins. east of the meridian determined by the solar; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h 30m a.m. is N.17°22'E.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains

Note: Before commencing the subdivision of this town-ship I deem it necessary to make certain retracements and resurveys as follows:

From the above described corner of secs. 16, 17, 20 and 21, I run

North, on a retracement line bet. secs. 16 and 17, over mountainous land, through scattering oak and sage brush, descending gradually.

14.00 Bottom of gully, 75 ft. below cor., course W.

Ascend.

16.30 Spur, 40 ft. above hollow, bears E. and W.

Descend.

30.00 Leave undergrowth, bearing E. and W.

31.00 Wagon road, bears NE. and SW.

31.20 Wire fence, bears N.60°E. and S.60°W.

31.50 Enter alfalfa field, bearing same.

33.80 Fence, bears N.60°E. and S.60°W.

Leave alfalfa; enter cottonwood timber and enter bottom of Diamond Creek.

35.00 Diamond Creek, 50 lks. wide, 2 ft. deep, course S.85°W.

40.76 Fall 2½ lks. W. of the old ¼ sec. cor., which is a boulder 16 x 7 x 5 ins., 10 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I re-establish cor. at same point as follows:

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked

¼ S 17 | S 16

1914

from which

A cottonwood 5 ins. diam. bears N.52°E., 10 lks. dist., marked ¼ S 16 B T.

A cottonwood 8 ins. diam. bears S.64°W., 7 lks. dist., marked ¼ S 17 B T.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
47.20	Wire fence bears NE. and SW. The enclosure west belongs to Mr. Hayes.
	Leave river bottom; enter scattering oak and sage brush.
	Leave cottonwood timber. Ascend.
47.60	Government road to Strawberry tunnel, bears NE. and SW.
51.25.	Government telegraph line to Strawberry tunnel, bears NE. and SW.
81.53	Fall 5 lks. W. of the corner of secs. 8, 9, 16 and 17, which is a sandstone 12 x 10 x 12 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I re-establish cor. at same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 8, 9, 16 and 17, with brass cap marked
	T 9 S | R 4 E S 8 | S 9 S 17 | S 16 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous.
	Soil, sandy and gravelly loam, 1 to 2 ft. deep; 2nd rate.
	Subsoil, clay.
	Timber, a few cottonwood trees along Diamond Creek.
	Undergrowth, oak and sage brush.
	July 14, 1914: At this cor. I set off 21°45' on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.
	The course of this line is N.0°02'E. and the distance 81.53 chs.
	West, on a retracement line bet. secs. 17 and 20,
	Over mountainous land, through scattering oak and sage brush. Descend.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
9.00	Leave oak brush, bearing N. and S.
10.00	Utah Coal Road right of way bears N.20°W. and S.20°E.
10.50	Enter river bottom, bearing N. and S.
16.80	East bank of Spanish Fork river, 1 ch. wide, 2 ft. deep, sandy and clay bottom, course N.15°W.
22.50	Wire fence and telegraph line bears N.20°W. and S.20°E.
24.10	D. & R. G. R. R. track bears N.20°W. and S.20°E.
24.40	D. & R. G. R. R. track bears N.20°W. and S.20°E.
	Leave canyon bottom; ascend.
39.17	Fall 60 lks. N. of the cor. of the old ¼ sec. cor., which is a quartzite stone 8 x 6 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I re-establish cor. at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	S 17 / ¼ / S 20 / 1914
	from which
	A maple 6 ins. diam. bears N.63°W., 236 lks. dist., marked ¼ S 17 B T.
	An oak 7 ins. diam. bears S.6°W., 107 lks. dist., marked ¼ S 20 B T.
43.50	Enter dense oak and maple, bearing N. and S.
47.00	Creek, 3 lks. wide, 1 in. deep, course N. Ascend.
64.20	Ridge, 175 ft. above creek, bears N.15°E. and S.15°W. Descend.
79.30	Creek, 2 lks. wide, 2 ins. deep, in gully 50 ft. below ridge, course N.15°E. Ascend.
80.12	Wire fence, bears N.9°E. and S.9°W.
80.40	Fall 124 lks. N. of the cor. of secs. 17, 18, 19 and 20, which is a boulder 8 x 9 x 6 ins. above ground,

Chains

marked and witnessed as described by the surveyor general. I re-establish cor. at same point as follows: Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 17, 18, 19 and 20, with brass cap marked

T 9 S	R 4 E
S 18	S 17
S 19	S 20

1914

from which

An oak 5 ins. diam. bears N.56°E., 60 lks. dist., marked T 9 S R 4 E S 17 B T.

A cottonwood 6 ins. diam. bears S.48°E., 33 lks. dist., marked T 9 S R 4 E S 20 B T.

A cottonwood 8 ins. diam. bears S.21°W., 74 lks. dist., marked T 9 S R 4 E S 19 B T.

An oak 5 ins. diam. bears N.41°40'W., 67 lks. dist., marked T 9 S R 4 E S 18 B T.

Land, mountainous and nearly level canyon bottom.

Soil, clay loam and gravelly, 2nd rate.

Undergrowth, sage and oak brush.

Timber, cottonwood.

Good grass for grazing.

The course of this line is S.89°07'W. and the distance 80.41 chs.

July 14, 1914.

July 15, 1914: At 8h 6m a.m., l.m.t., I set off 21°36' N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29, which is a sandstone 28 x 13 x 3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Thence

West, on a retracement line bet. secs. 20 and 29.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains

40.00 Find no trace of the old ¼ sec. cor. after diligent search.

80.55 Fall 2 lks. S. of the cor. of secs. 19, 20, 29 and 30, which is a quartzite stone 10 x 10 x 6 ins. above ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore N.89°59'W. and the distance 80.55 chs.

North, on a retracement line bet. secs. 19 and 20.

40.00 Find no trace of the old ¼ sec. cor. after diligent search.

79.92 Fall 96 lks. E. of the re-established cor. of secs. 17, 18, 19 and 20.

July 15, 1914: At this cor. I set off 21°35'N. on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.

Thence

S.0°41'E., on a resurvey line bet. secs. 19 and 20.

Over mountainous land, through cottonwood timber and dense undergrowth. Descend.

.75 Creek, 1 lk. wide, 1 in. deep, in swale, 20 ft. below cor., course N.14°E. Ascend.

1.75 Leave cottonwood timber, bearing N.20°E. and S.20°W.

16.00 Spur, 100 ft. above creek, bears E. and W.

Descend.

18.70 Creek, 2 lks. wide, 1 in. deep, in gully, 30 ft. below spur, course N.30°W.

21.30 Fence, bears N.25°E. and S.25°W.

21.60 Creek, 2 lks. wide, 1 in. deep, in gully, 40 lks. wide, 15 ft. deep, course N.25°E. Ascend.

27.00 Fence, bears N.15°W. and S.15°E.

30.70 Ridge, 175 ft. above creek, bears N.75°W. and S.75°E.

39.92 Find no trace of the old ¼ sec. cor.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	in the ground, for ¼ sec. cor., with brass cap marked ¼ S 19 | S 20 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
40.25	Head of swale, 25 ft. below ridge.
	Ascend.
47.30	Irrigation ditch, 10 lks. wide, 2 ft. deep, course N.87°W.
52.60	Note: A lake 5 chs. in diam. bears E. about 10 chs. distant.
53.40	Spur, 100 ft. above swale, bears E. and W.
	Descend.
62.00	Swale, 50 ft. below spur, course N.25°E.
	Ascend.
68.20	Ridge, 150 ft. above swale, bears N.5°W. and S.5°E.
	Descend.
79.92	The cor. of secs. 19, 20, 29 and 30.
	I re-establish cor. at same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 19, 20, 29 and 30, with brass cap marked
	T 9 S | R 4 E S 19 | S 20 S 30 | S 29 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous, gradually sloping N.
	Soil, rich black loam, with some loose rock in patches, mostly suitable for and could be dry farmed.
	Timber, scattering cottonwood.
	Undergrowth, oak and buck brush.
	Good grass for grazing.

Chains	
	S.89°59'E., on a true line bet. secs. 20 and 29. Over mountainous land, through dense undergrowth, ascending gradually.
3.00	Ridge, 20 ft. above cor., bears N.25°W. and S.25°E.
33.00	Beginning of steep descent, bearing N.25°W. and S.25°E.
40.27½	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for re-established ¼ sec. cor., with brass cap marked S 20 ¼ S 29 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
45.00	Wire fence bears N.87°E. and S.87°W.
61.40	Gulch, 100 ft. below ridge, course N.15°E. Ascend.
70.00	Spur, 40 ft. above gulch, bears N. and S. Descend.
75.00	Beginning of steeper descent, bearing N. and S.
80.55	The cor. of secs. 20, 21, 28 and 29. I re-establish cor. at same point as follows: Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 20, 21, 28 and 29, with brass cap marked T 9 S | R 4 E S 20 | S 21 S 29 | S 28 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous, most of mile sloping gradually to the east.
	Soil, rich black mountain loam about 2 ft. deep with patches of rock and gravel.
	Undergrowth, oak brush.
	No timber.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains

Good grass for grazing.

July 15, 1914.

July 17, 1914: At 8h 6m a.m., l.m.t., I set off 21°18' N. on the decl. arc; 40°03'N. on the lat. arc; and determine a meridian with the solar at the re-established cor. of secs. 16, 17, 20 and 21.

Thence

South, on a retracement line bet. secs. 20 and 21.

40.00 Find no trace of old ¼ sec. cor. after diligent search.

81.14 Fall 103 lks. W. of the re-established cor. of secs. 20, 21, 28 and 29.

The course of this mile is therefore N.0°44'W. and the distance 81.14 chs.

South, on a retracement line bet. secs. 28 and 29.

40.00 Find no trace of old ¼ sec. cor. after diligent search.

79.65 Fall 44 lks. E. of the cor. of secs. 28, 29, 32 and 33, which is identified by notes giving ties from the D. & R. G. R. R. track and a house. No corner stone can be found, but I re-establish cor. at this point as follows:

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for re-established cor. of secs. 28, 29, 32 and 33, with brass cap marked

T 9 S	R 4 E
S 29	S 28
S 32	S 33

1914

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

Note: From this cor. the NW. cor. of school house at Thistle bears S.57°E.

The SE. cor. of depot bears S.51°25'E.

Top of D. & R. G. R. R. water tank bears S.41°57'W.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	(Distance not noted, but the three bearings fix the locus of the corner.)
	July 17, 1914: At this cor. I set off 21°16'N. on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	Thence
	N.0°19'E., on a resurvey line bet. secs. 28 and 29,
	Over nearly level land. Descend.
.12	D. & R. G. R. R. track bears N.60°W. and S.60°E.
.42	D. & R. G. R. R. track bears N.60°W. and S.60°E.
.72	D. & R. G. R. R. track bears N.60°W. and S.60°E.
1.25	Thistle creek, 50 lks. wide, 1 ft. deep, bears N.15°E.
2.02	Thistle depot (new), bears W. 200 lks. dist.
4.65	Frame house 60 lks. W. of line.
8.15	Enter Spanish Fork river, bearing N.10°W.
16.25	Leave Spanish Fork river, bearing N.10°W.
20.95	Utah Coal Road grade bears N.25°W. and S.25°E.
33.65	Rocky spur, 50 ft. above river, bears S.85°W. and N.85°E.
36.15	Right bank of Spanish Fork river, 50 lks. wide, 3 ft. deep, course N.10°E.
37.85	D. & R. G. R. R. track bears N.25°E. and S.25°W.
38.60	D. & R. G. R. R. track bears N.25°E. and S.25°W.
39.35	D. & R. G. R. R. track bears N.25°E. and S.25°W.
39.82½	D. & R. G. R. R. right of way, where grading is being done; unsafe point to set the cor.
41.77	Perpendicular bank 50 ft. high, bears N.20°E. and S.20° W.
42.85	Utah County road, bears N.20°E. and S.20°W.
43.35	Telegraph line bears N.20°E. and S.20°W.
43.55	Telegraph line bears same.
44.42	Note: This is the nearest safe place to set the ¼ sec. cor.; therefore,
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for witness cor. to ¼ sec. cor., with brass cap marked

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	T 9 S R 4 E WC ¼ S 29 | S 28 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
46.25	Spur, 100 ft. above river, bears E. and W.
	Descend.
48.15	Gully, 75 ft. below spur, course E.
	Enter oak and sage brush.
58.45	Ledge, 15 ft. high, bears N.5°E. and S.5°W.
67.25	Spur, 25 ft. above gully, bears E. and W.
	Descend.
74.85	Gully, 30 ft. below spur, course E.
	Ascend.
79.65	The re-established cor. of secs. 20, 21, 28 and 29.
	Land, mountainous and river bottom.
	Soil, hard, tight clay, of poor quality, with considerable rock and gravel.
	Undergrowth, scattering oak and sage.
	No timber.
	N.0°44'W., on a resurvey line bet. secs. 20 and 21,
	Over mountainous land, through dense oak and sage brush.
	Ascend.
10.00	Spur, 200 ft. above cor., bears N.85°E. and S.85°W.
	Descend.
21.50	Gully, 50 ft. below ridge, course N.80°E.
	Ascend.
24.15	Spur, 50 ft. above gully, bears NE. and SW.
	Descend.
29.45	Telephone line bears NW. and SE.
32.00	Utah County road bears NW. and SE.
32.25	Fence, bears NW. and SE.
38.50	D. & R. G. R. R. track bears NW. and SE.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
39.00	D. & R. G. R. R. track bears NW. and SE.
40.00	Telegraph line bears NW. and SE.
40.40	Railroad fence bears NW. and SE.
40.57	Find no trace of the old ¼ sec. cor. after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for re-established ¼ sec. cor., with brass cap marked
	¼ S 20 | S 21 1914
	from which
	A cottonwood 8 ins. diam. bears N.39°E., 114 lks. dist., marked ¼ S 21 B T.
	A cottonwood 20 ins. diam. bears N.22°10'W., 168 lks. dist., marked ¼ S 20 B T.
	Note: Mile post No. 678 from Denver, on the D. & R. G. R. R., bears S.18°15'E. (Distance not noted.)
42.30	West bank of Spanish Fork river bears N.30°W. & S.30°E.
50.75	East bank of same river bears N.30°W. and S.30°E.
53.85	Farm house, bears W. 50 lks. dist.
57.15	Utah Coal Road grade bears N.40°W.
59.85	Enter dense sage and oak brush, bears N.40°W. and S.40°E. Ascend.
63.75	Spur, 100 ft. above river, bears E. and W. Descend.
68.70	Gully, 25 ft. below spur, course W. Ascend.
79.00	Spur, 75 ft. above gully, bears E. and W. Descend.
81.14	The re-established cor. of secs. 16, 17, 20 and 21.
	Land, mountainous.
	Soil, red clay and sandy loam, very poor, about 1 ft. deep.
	Subsoil, clay.
	Timber, a few cottonwoods along the river.

Chains	
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	July 17, 1914.
	July 18, 1914: At 0h 6m a.m., l.m.t., I set off 21°07' N. on the decl. arc; 40°01'N. on the lat. arc; and determine a meridian with the solar at the re-established cor. of secs. 28, 29, 32 and 33.
	Thence
	South, on a retracement line bet. secs. 32 and 33.
40.00	Find no trace of old ¼ sec. cor. after diligent search.
79.66	Fall 91 lks. W. of the cor. of secs. 4, 5, 32 and 33, on the S. bdy. of the Tp., which is a sandstone 4 x 10 x 5 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	Thence
	N.0°39'W., on a resurvey line bet. secs. 32 and 33,
	Over mountainous land, through dense sage, oak and buck brush. Descend.
5.40	Gulch, 80 ft. below cor., course W.
	Ascend.
9.40	Spur, 80 ft. above gulch, bears E. and W.
	Descend.
10.65	Gully, 40 ft. below spur, course SW.
	Ascend.
29.60	Ridge, 175 ft. above gully, bears E. and W.
	Descend.
38.10	Gulch, 150 ft. below ridge, course W.
	Ascend.
39.80	Fence, bears E. and W.
39.83	Find no trace of the old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 32 | S 33
	1914

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
41.00	Spur, 40 ft. above gulch, bears NE. and SW. Descend.
51.30	Foot of descent; enter Thistle creek bottom, bears N. 10°E. and S.10°W.
52.35	Thistle creek, 50 lks. wide, 1 ft. deep, course S.15°W.
54.95	Frame house on line.
60.26	Frame house on line.
60.86	Frame house on line.
61.96	Frame house on line.
62.36	Frame house on line.
62.95	Frame house on line.
64.26	Enter Thistle creek, course S.5°E.
64.86	Leave Thistle creek, course S.5°W.
73.08	Note: The NW. cor. of school house bears E. from this point.
73.16	Thistle creek, 50 lks. wide, 8 ins. deep, course N.15°W.
73.26	Fence bears N.15°W. and S.15°E.
74.66	Frame house on line.
76.76	Branch D. & R. G. R. R. track bears N.70°E. and S.70°W.
78.06	Telegraph line, bears N.85°W. and S.85°E.
79.46	D. & R. G. R. R. track, bears N.48°W. and S.48°E.
79.66	The re-established cor. of secs. 28, 29, 32 and 33.
	Land, mountainous and nearly level.
	Soil, clay and gravelly loam, 2nd rate.
	Undergrowth, sage, oak and buck brush.
	No timber.
	Good grass for grazing.
	July 18, 1914. a. m.

July 20, 1914: At 8h 6m a.m., l.m.t., I set off 20°47' N. on the decl. arc; 40°03' N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	Thence
	West, on a retracement line bet. secs. 18 and 19,
	Over rolling mountainous land, through dense under-growth. Ascend gradually.
12.50	Spur, 25 ft. above cor., projects N.15°E.
	Descend.
15.20	Swale, 40 ft. below spur, drains N.15°E.
	Ascend.
20.00	Spur, 50 ft. above swale, bears N.25°E. and S.25°W.
	Descend.
40.02	Bottom of hollow, 150 ft. below spur; creek, 1 lk. wide, 2 ins. deep, course N.
	Fall 5 lks. N. of the ¼ sec. cor., which is a sandstone 6 x 6 x 6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general.
	I re-establish cor. at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	S 18 ¼ S 19 1914
	from which
	An oak 4 ins. diam. bears S.37°W., 6 lks. dist., marked ¼ S 19 B T.
	An oak 5 ins. diam. bears N.24°E., 20 lks. dist., marked ¼ S 18 B T.
44.80	Spur, 175 ft. above hollow, bears N. and S.
	Descend.
51.60	Creek, 5 lks. wide, 3 ins. deep, in Shurtz' canyon, 150 ft. below spur, course NE. Ascend.
53.30	Wood road bears NE. and SW.
59.60	Begin a more abrupt ascent, bearing NE. and SW.
65.00	Spur, 150 ft. above canyon, bears N.15°W. and S.15°E.
68.40	Ravine, 50 ft. below spur, course S.20°E.

Chains	
	Ascend abruptly.
81.38	Fall 355 lks. N. of the cor. of secs. 13, 18, 19 and 24, which is a sandstone 2 x 8 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	The course of the east half mile is therefore S.89°56' W. and the distance 40.02 chs., and the west half mile S.85°10'W., 41.51 chs.
	Land, mountainous.
	Soil, black loam and sandy about 1 ft. deep; rocky in patches.
	Good grass for grazing.
	Undergrowth, oak, maple, buck and sagebrush.
	No timber.
	July 20, 1914: At this cor. I set off 20°44'N. on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.
	July 20, 1914, noon.
	July 16, 1914: At 8h 6m a.m., l.m.t., I set off 21°27' N. on the decl. arc; 40°03'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.
	Thence
	North, on a retracement line bet. secs. 17 and 18.
	Over mountainous land, through dense undergrowth.
	Descend gradually.
26.80	Wire fence, bears N.75°W. and S.75°E.
30.00	Begin steeper descent, bearing N.70°E. and S.70°W.
41.67	Fall 96 lks. E. of the ¼ sec. cor., which is a limestone 9 x 8 x 3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	¼ S 18 | S 17
	1914.
	from which
	An oak 5 ins. diam. bears S.86°E., 37 lks. dist., marked ¼ S 17 B T.
	A maple 5 ins. diam. bears N.51°30'W., 65 lks. dist., marked ¼ S 18 B T.
	Note: A house belonging to Edwards, bears N.19°W. about 12 chs. dist.
42.50	Wire fence bears NW. and SE.
	Enter wheat field.
47.50	Fence, bears NE. and SW. Leave wheat field.
	Enter lane, bearing same.
48.50	Fence, bears NE. and SW.
	Leave lane, bearing same.
51.70	Wire fence, bears N.70°W. and S.70°E.
51.90	Road, bears N.70°W. and S.70°E.
52.00	Wire fence, bears N.70°W. and S.70°E.
52.60	D. & R. G. R. R. track bears N.60°W. and S.60°E.
52.90	D. & R. G. R. R. track bears N.60°W. and S.60°E.
54.20	Utah County road, bears N.60°W. and S.60°E.
54.40	Telegraph line bears same.
57.00	Center of Spanish Fork river, 100 lks. wide, 2 ft. deep, rocky bottom, course N.60°W.
58.00	Begin abrupt ascent, bearing N.60°W. and S.60°E.
61.10	Telephone line bears NW. and SE.
62.40	Government power line bears NW. and SE.
	Enter oak brush.
80.39	Ridge, 800 ft. above river, bears N.25°E. and S.25°W. Descend.
83.35	Fall 191 lks. E. of the cor. of secs. 7, 8, 17 and 18, which is a limestone 6 x 14 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins.

Chains	
	in the ground, alongside of stone, for cor. of secs. 7, 8, 17 and 18, with brass cap marked T 9 S | R 4 E S 7 | S 8 S 18 | S 17 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Land, mountainous. Soil, black loam on S. 52 chs.; rest of mile, rocky. Undergrowth, oak, sage and maple. No timber. Good grass for grazing. The course of this mile is N.1°19'W. and the distance 83.37 chs. July 16, 1914: At this cor. I set off 21°25'N. on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.
	West, on a retracement line bet. secs. 7 and 18, Over mountainous land, through dense undergrowth. Descend abruptly.
10.00	Gulch, 300 ft. below cor., drains S.25°W. Ascend.
19.70	Spur, 150 ft. above gulch, bears N.25°E. and S.25°W. Descend.
30.00	Gulch, 250 ft. below spur, drains S. Ascend.
33.00	Spur, 100 ft. above gulch, bears N. and S. Descend.
34.90	Gulch, 75 ft. below spur, drains S.15°W. Ascend.
41.27	Fall 73 lks. S. of the old ¼ sec. cor., which is a sandstone 8 x 9 x 8 ins. above ground, firmly set, and marked and witnessed as described by the surveyor

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	general. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, alongside of stone and surrounded by a mound of stone, for ¼ sec. cor., with brass cap marked
	S 7 / ¼ / S 18 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
48.00	Telephone line, bears N.60°W. and S.60°E.
51.80	Government power line bears N.60°W. and S.60°E.
54.80	Telephone line bears same.
55.00	Enter Spanish Fork canyon, 300 ft. below ridge, course N.60°W.
63.00	Utah Coal Road grade bears N.60°W. and S.60°E.
66.70	Wire fence, bears N.65°W. and S.65°E.
66.80	Utah County road, bears N.68°25'W. and S.68°25'E.
69.70	D. & R. G. R. R. track bears N.68°25'W. and S.68°25'E.
70.00	D. & R. G. R. R. track bears N.68°25'W. and S.68°25'E.
70.30	D. & R. G. R. R. track bears N.68°25'W. and S.68°25'E.
71.20	Railroad company's fence bears same.
	Enter alfalfa field belonging to Wm. F. Pace.
76.70	Irrigation ditch, 6 lks. wide, 2 ft. deep, course S.25°W.
81.35	Fall 84 lks. S. of the cor. of secs. 7, 12, 13 and 18, which is a limestone 5 x 10 x 6 ins. above ground, firmly set, and properly marked but not witnessed.
	The course of the east half mile is N.88°59'W. and the distance 41.28 chs., and the west half mile N.89°51'W., 40.08 chs.
	Land, mountainous.
	Soil, gravelly and clay loam, 2nd rate, except W. 10.15 chs., which is rich, black loam.
	No timber.
	Good grass for grazing.
	Undergrowth, oak and sage brush.
	July 16, 1914.

Chains	
	July 28, 1914:
	North, on a retracement line bet. secs. 7 and 8.
40.00	Find no trace of old ¼ sec. cor. after diligent search.
	July 28, 1914, a.m.
	July 29, 1914: At 8h 6m a.m., l.m.t., I set off 18°53' N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.
	Thence
	West, on a retracement line bet. secs. 8 and 17.
40.00	Find no trace of the old ¼ sec. cor. after diligent search.
82.48	Fall 53 lks. S. of the cor. of secs. 7, 8, 17 and 18.
	Thence
	S.89°38'E., on a resurvey line bet. secs. 8 and 17,
	Over rough mountainous land, through dense oak, maple and buck brush. Ascend.
1.60	Ridge, 60 ft. above cor., bears N. and S.
	Descend.
16.10	Canyon, 400 ft. below ridge, course S.20°W.
	Ascend abruptly over ledges.
25.35	Ridge, 400 ft. above canyon, bears N. and S.
	Descend gradually; leave ledges.
29.80	Gulch, 200 ft. below ridge, course S.25°W.
	Ascend gradually.
34.40	Leave buck and maple, and enter dense oak brush, bearing NE. and SW.
41.24	Find no trace of old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground, with mound of stone around post, for ¼ sec. cor., with brass cap marked

S 8
¼
S 17
1914

Chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
42.00	Gulch, 150 ft. below ridge, course S.
	Ascend.
52.00	Ridge, 175 ft. above gulch, bears N.15°W. and S.15°E.
	Descend.
56.70	Swale, 50 ft. below ridge, course S.15°E.
	Ascend.
67.40	Spur, 50 ft. above swale, bears N. and S.
	Descend.
82.48	The cor. of secs. 8, 9, 16 and 17.
	Land, high, rough and steep mountain, with drainage to the south.
	Soil, light, sandy and clay loam, about 1 ft. deep.
	Subsoil, conglomerate rock and hard clay.
	No timber.
	Undergrowth, oak, maple, and buck brush.
	Good grass for grazing.
	July 29, 1914: At this cor. I set off 18°50'N. on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.
	East, on a retracement line bet. secs. 9 and 16.
	Over mountainous land, through dense oak and scattering service berry. Descend gradually.
14.00	Gulch, 250 ft. below cor., course S.
	Ascend abruptly.
18.70	Spur, 150 ft. above gulch, bears N. and S.
	Descend gradually.
30.00	Gully, 75 ft. below spur, course S.15°E.
	Ascend.
32.40	Spur, 50 ft. below gully, bears N.15°W. and S.15°E.
	Descend.
35.00	Foot of descent, 60 ft. below spur, bears N.70°E. and S. 70°W.

Chains	
	Enter bottom of Diamond Fork.
36.80	The SE. cor. of old rock house 50 x 20 ft. bears N. 24 lks. dist.
37.30	Government Strawberry Project telephone line, bears N.70°E. and S.70°W.
37.70	Wagon road, bears same.
40.00	Fall 25 lks. N. of the old ¼ sec. cor., which is a sandstone 12 x 10 x 6 ins. above ground, firmly set and properly marked but not witnessed. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	S 9 / ¼ / S 16 / 1914
	from which
	A cottonwood 12 ins. diam. bears N.48°E., 181 lks. dist., marked ¼ S 9 B T.
	A cottonwood 12 ins. diam. bears S.9°E., 109 lks. dist., marked ¼ S 16 B T.
41.50	Wire fence bears N.5°E. and S.5°W.
	Enter dense willows and cottonwood, bearing NE. and SW.
43.50	Diamond creek, 50 lks. wide, 2 ft. deep, course S.
44.70	Enter alfalfa field, bearing N. and S.
50.50	Leave alfalfa field, bearing N. and S.
58.60	Diamond creek, 50 lks. wide, 2 ft. deep, course N.85°W.
60.00	Wire fence bears N. and S.
61.60	Diamond creek, 50 lks. wide, 2 ft. deep, course S.70°W.
62.80	Leave canyon bottom, bearing N.70°E. and S.70°W. Ascend.
80.00	Fall 51 lks. N. of the cor. of secs. 9, 10, 15 and 16, which is a sandstone 12 x 10 x 8 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point

Chains	
	as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 9, 10, 15 and 16, with brass cap marked
	T 9 S | R 4 E S 9 | S 10 S 16 | S 15 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of this mile is therefore S.89°38'E. and the distance 80.00 chs.
	Land, mountainous, and nearly level canyon bottom.
	Soil, clay and gravelly loam, 2nd rate.
	Undergrowth, oak, service berry and cottonwood.
	Timber, a few cottonwoods along Diamond creek.
	Good grass for grazing.
	East, on a retracement line bet. secs. 10 and 15,
	Over mountainous land, through dense oak and scattering sage brush. Ascend gradually.
11.70	Spur, 100 ft. above cor., bears N.10°W. and S.10°E. Descend.
14.50	Gully, 50 ft. below spur, course N.10°W. Ascend.
21.00	Spur, 75 ft. above gully, bears N. and S. Descend.
27.00	Gully, 80 ft. below spur, bears N. and S. Ascend.
29.50	Spur, 40 ft. above gully, bears N. and S. Descend.
31.00	Gully, 50 ft. below spur, course N.65°W. Ascend gradually.
39.74	Fall 158 lks. S. of the ¼ sec. cor., which is a sandstone 12 x 9 x 7 ins. above ground, firmly set but

Chains	
	poorly marked and not witnessed. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	S 10 / ¼ / S 15 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
41.70	Gully, 20 ft. below ¼ sec. cor., drains S.15°W. Ascend.
59.35	Wire fence, bears N. and S.
79.39	Fall 315 lks. S. of the cor. of secs. 10, 11, 14 and 15, which is a sandstone 10 x 8 x 8 ins. above ground, firmly set, and properly marked but not witnessed. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 10, 11, 14 and 15, with brass cap marked
	T 9 S | R 4 E S 10 | S 11 S 15 | S 14 1914
	from which
	An oak 6 ins. diam. bears N.63°08'E., 277 lks. dist., marked T 9 S R 4 E S 11 B T.
	An oak 4 ins. diam. bears S.39°30'E., 144 lks. dist., marked T 9 S R 4 E S 14 B T.
	An oak 4 ins. diam. bears S.7°50'W., 162 lks. dist., marked T 9 S R 4 E S 15 B T.
	No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Note: ¼ This cor. is at cor. of fence bearing N. and W.
	Land, rolling mountainous.
	Soil, rich black loam, with some gravel, about 2 ft.

Chains	
	deep. Subsoil, clay and cemented gravel.
	Undergrowth, very dense oak and scattering sage.
	No timber.
	Good grass for grazing.
	The course of the west half mile is N.87°44'E. and the distance 39.77 chs.; and the east half mile N.87°44'E., 39.68 chs.
	July 29, 1914.
	August 31, 1914: At 8h 1m a.m., l.m.t., I set off 8°50'N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.
	Thence
	North, on a retracement line bet. secs. 8 and 9,
	Over mountainous land, through dense brush.
	Ascend.
22.90	Spur, 150 ft. above cor., bears E. and W. Continue ascent along E. slope of ridge.
30.00	Spur, 50 ft. above last spur, bears E. and W.
	Descend.
37.40	Swale, 50 ft. below spur, course E.
	Ascend.
39.82	Fall 27 lks. E. of the ¼ sec. cor., which is a sandstone 16 x 10 x 16 ins., firmly set, and marked and witnessed as described by the surveyor general.
	I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	¼ S 8 | S.9
	1914
	from which
	An oak 4 ins. diam. bears S.37°E., 23 lks. dist., marked ¼ S 9 B T.

Chains	
	An oak 8 ins. diam. bears N.46°W., 43 lks. dist., marked ¼ S 8 B T.
44.60	Spur, 60 ft. above swale, bears E. and W.
55.70	Swale, 75 ft. below spur, course E. Ascend.
57.80	Spur, 40 ft. above swale, bears E. and W. Descend.
60.00	Creek, 2 lks. wide, 2 ins. deep, in gully 60 ft. below spur, course E. Ascend.
74.00	Spur, 80 ft. above creek, bears NW. and SE. Descend.
78.50	Swale, 50 ft. below spur, course SE. Ascend.
79.24	Fall 7 lks. W. of the cor. of secs. 4, 5, 8 and 9, which is a sandstone 15 x 8 x 7 ins., firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 4, 5, 8 and 9, with brass cap marked

T 9 S	R 4 E
S 5	S 4
S 8	S 9

1914

from which

An oak 4 ins. diam. bears N.37°E., 49 lks. dist., marked T 9 S R 4 E S 4 B T.

An oak 5 ins. diam. bears S.43°E., 11 lks. dist., marked T 9 S R 4 E S 9 B T.

An oak 4 ins. diam. bears S.8°W., 88 lks. dist., marked T 9 S R 4 E S 8 B T.

An oak 4 ins. diam. bears N.87°W., 68 lks. dist., marked T 9 S R 4 E S 5 B T.

Land, mountainous.

Soil, clay and gravelly loam, 2nd rate, about 2 ft. deep. Subsoil, hard clay and gravel.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	Undergrowth, oak brush.
	No timber.
	Good grass for grazing.
	August 31, 1914: At this cor. I set off 8°46'N. on the decl. arc; and at 0h 1m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.
	The course of the south half mile is N.0°23'W. and the distance 39.82 chs.; and the north half mile N.0°30'E., 39.42 chs.
	August 31, 1914.
	September 3, 1914: At 8h 0m a.m., l.m.t., I set off 7°45'N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.
	Thence
	East, on a retracement line bet. secs. 4 and 9,
	Over mountainous land, through very dense oak brush.
	Descend.
17.40	Enter scattering maple, bearing N. and S.
35.80	Creek, 3 lks. wide, 2 ins. deep, in gulch 300 ft. below cor., course S.60°E. Ascend.
39.37	Fall 37 lks. N. of the old ¼ sec. cor., which is a limestone 7 x 12 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 14 ins. in the ground, alongside of stone, with mound of stone around post, for ¼ sec. cor., with brass cap marked
	S 4 / ¼ / S 9 / 1914
	from which
	An oak 5 ins. diam. bears N.9°E., 14 lks. dist., marked ¼ S 4 B T.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	An oak 5 ins. diam. bears S.39°E., 16 lks. dist., marked ¼ S 9 B T.
41.40	Leave oak and maple and enter dense sagebrush, bearing N. and S.
42.00	Edge of flat, bears N.60°W. and S.60°E.
50.00	Leave flat. Descent bears N.20°W. and S.20°E.
54.00	Creek, 4 lks. wide, 3 ins. deep, in gulch 150 ft. below flat, course S.20°E. Ascend abruptly.
63.50	Sandstone ledge, 10 ft. high, bears N.20°W. and S.20°E.
71.70	Ridge, 150 ft. above creek, bears N. and S. Descend.
74.00	Wire fence, bears N.25°W. and S.25°E.
80.24	Fall 37 lks. N. of the cor. of secs. 3, 4, 9 and 10, which is a sandstone 6 x 8 x 12 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 3, 4, 9 and 10, with brass cap marked

T 9 S	R 4 E
S 4	S 3
S 9	S 10

1914

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

Land, mountainous.

Soil, rich loam, 1st rate.

Undergrowth, oak, maple and sage.

No timber.

Good grass for grazing.

September 3, 1914: At this cor. I set off 7°40'N. on the decl. arc; and at 12h 0m 1.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.

The course of the west half mile is S.89°28'E. and the distance 39.37 chs.; and the east half mile, east 40.87 chs.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains

North, on a retracement line bet. secs. 3 and 4.

Over mountainous land, through dense sagebrush.

Descend.

28.00 Leave sagebrush and enter grain field bearing E. and W.

35.00 Broad swale, 50 ft. below cor., course E.

Ascend.

38.00 Leave field, bearing E. and W.

Ascend.

40.00 Intersect ¼ sec. cor., which is a sandstone 8 x 10 x 7 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:

Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked

¼ S 4 | S 3

1914

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

42.70 Enter scattering oak brush, bearing E. and W.

43.00 Wire fence bears E. and W.

60.00 Leave dense sage and enter oak brush, bearing E. and W.

65.00 Enter dense rabbit brush, bearing E. and W.

85.32 Fall 173 lbs. E. of the old cor. of secs. 3, 4, 33 and 34, which is a limestone 16 x 10 x 7 ins. above ground, firmly set and properly marked but partly decayed.

I re-establish it in the same place as follows:

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for re-established cor. of secs. 3, 4, 33 and 34, with brass cap marked

T 8 S | R 4 E
S 33 | S 34

S 4 | S 3
T 9 S | R 4 E

1914

and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.

Chains

The course of the south half of this mile is therefore north and the distance 40.00 chs.; and the north half is N.2°11'W., 45.35 chs.

Land, mountainous.

Soil, rich black loam from 2 to 4 ft. deep, with gravel subsoil.

No timber.

Undergrowth, scattering patches of oak, and dense sagebrush. Good grass for grazing.

September 3, 1914.

August 4, 1914: At 8h 6m a.m., l.m.t., I set off 17° 23'N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the re-established cor. of secs. 10, 11, 14 and 15.

Thence

East, on a retracement line bet. secs. 11 and 14,

40.00 Find no trace of old ¼ sec. cor.

80.53 Fall 140 lks. S. of the cor. of secs. 11, 12, 13 and 14, which is a sandstone 8 x 10 x 8 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 11 and 12 only, with brass cap marked

T 9 S | R 4 E
S 11 | S 12

1914

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

Thence

S.89°00'W., on a resurvey line bet. secs. 11 and 14.

Over rolling mountainous land, through dense oak and scattering sagebrush. Descend.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
5.50	Gully, 50 ft. below cor., course N. Ascend gradually.
10.50	Spur, 40 ft. above gully, bears N. and S. Descend gradually.
30.50	Gully, 50 ft. below spur, course N. Ascend gradually.
33.00	Spur, 50 ft. above gully, bears N. and W. Descend gradually.
34.80	Wire fence, bears N.87°W. and S.87°E.
40.00	Wire fence, bears N. and S.
	Bottom of gully, 50 ft. below spur, with creek 1 lk. wide 2 ins. deep in bottom, course N. Ascend.
40.26½	Find no trace of old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 11 / ¼ / S 14 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
60.40	Swale, 60 ft. below ¼ sec. cor., course N. Ascend.
61.00	Wire fence, bears N. and S.
61.10	Road, bears N.15°W. and S.15°E.
80.53	The cor. of secs. 10, 11, 14 and 15.
	Land, rolling mountainous, not too steep nor too dry for dry farming.
	Soil, rich, sandy and clay loam, with some streaks of gravel.
	Undergrowth, oak and sage.
	No timber.
	Good grass for grazing.
	August 4, 1914: At this cor. I set off 17°20'N. on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.

Chains	
	August 5, 1914: At 8h.6m a.m., l.m.t., I set off 17° 07'N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.
	Thence
	South, on a retracement line bet. secs. 14 and 15,
	Over high, rolling bench, through dense oak and sage-brush.
3.00	Descend, bearing NE. and SW.
19.25	Wire fence, bears E. and W.
30.00	Wire fence, bears N.5°E. and S.5°W.
40.21	Fall 27 lks. W. of the old ¼ sec. cor., which is a sandstone 10 x 14 x 10 ins. above ground, firmly set but not witnessed. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	¼ S 15 | S 14 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
41.50	Enter grain field, bearing E. and W.
45.00	Swale, 40 ft. below bench, course S.20°W.
	Ascend.
49.50	Road, bears NE. and SW.
57.50	Leave grain field, bears E. and W.
60.10	Fence, bears E. and W.
65.00	Fence, bears N.5°E. and S.5°W.
75.40	Enter grain field, bearing E. and W.
80.26	Fall 132 lks. W. of the cor. of secs. 14, 15, 22 and 23, which is a sandstone 11 x 12 x 14 ins. above ground, firmly set but not witnessed. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 14, 15, 22 and 23, with brass cap marked

Chains	
	T 9 S | R 4 E S 15 | S 14 S 22 | S 23 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of the north half mile is S.0°23'E. and the distance 40.21 chs.; and the south half mile is S.1° 30'E., 40.06 chs.
	Land, rolling mesa or bench; all good farm land when cleared of oak brush, and produces excellent crops without irrigation.
	Soil, rich, black clay loam, 2 to 4 ft. deep, on clay subsoil.
	Undergrowth, oak and sage.
	No timber.
	Good grass for grazing.
	South, on a retracement line bet. secs. 22 and 23,
	Over rolling bench land, through grain field.
	Ascend gradually.
4.50	Leave cultivated land and enter oak and sage brush, bearing E. and W.
12.00	Ranch house bears W. 15 chs. dist.
17.00	Road, bears N.75°W. and S.75°E.
20.00	Note: There is a tract of about 20 acres cultivated land about 15 chs. E. of line.
20.30	Wire fence, bears E. and W.
20.50	Ranch house about 7 chs. W. of line.
32.00	Begin steeper ascent, bearing E. and W.
40.98	Fall 157 lks. E. of the ¼ sec. cor., which is a quartz stone 10 x 12 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor.,

Chains	
	¼ S 22 | S 23 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Note: Fence line bears E. and W. on top of ridge bearing same.
46.00	Swale, bears N.80°W.
60.00	Divide between Soldier and Diamond canyons, bears E. and W. Descend.
82.19	Fall 70 lks. E. of the cor. of secs. 22, 23, 26 and 27, which is a limestone 10 x 8 x 6 ins. above ground, firmly set and properly marked but not witnessed.
	I remonument at same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 22, 23, 26 and 27, with brass cap marked
	T 9 S | R 4 E S 22 | S 23 S 27 | S 26 1914
	from which
	An oak 4 ins. diam. bears N.52°W., 66 lks. dist., marked T 9 S R 4 E S 22 B T.
	No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rolling bench, and all suitable for dry farming if cleared.
	Soil, rich black loam, 2 to 4 ft. deep.
	Subsoil, clay.
	Undergrowth, oak and sage.
	Good grass for grazing.
	No timber.
	August 5, 1914: At this cor. I set off 17°04'N. on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°02'N.
	The course of the north half mile is S.2°12'W. and the

Chains	
	distance 41.01 chs.; and the south half mile S.1°13'E., 41.23 chs.
	East, on a retracement line bet. secs. 23 and 26.
40.00	Find no trace of the old ¼ sec. cor.
81.75	Fall 174 lks. N. of the cor. of secs. 23, 24, 25 and 26, which is a limestone 12 x 8 x 8 ins. above ground, firmly set and properly marked but not witnessed.
	I remonument at same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 23, 24, 25 and 26, with brass cap marked
	T 9 S | R 4 E S 23 | S 24 S 26 | S 25 1914
	from which
	An oak 4 ins. diam. bears S.25°W., 238 lks. dist., marked T 9 S R 4 E S 26 B T.
	An oak 4 ins. diam. bears N.48°W., 268 lks. dist., marked T 9 S R 4 E S 23 B T.
	No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Thence
	S.88°47'W., on a resurvey line bet. secs. 23 and 26.
	Over rolling mountainous land, through dense sage and rabbit brush. Descend.
3.20	Gully, 40 ft. below cor., course S.10°E.
	Ascend.
8.70	Low ridge, 100 ft. above gully, bears N. and S.
	Descend.
15.80	Haystack and corral on line.
	A house belonging to Harmon Bros. bears N. 2 chs. dist.
20.00	Wire fence bears N. and S.
	Enter cultivated field.

Chains	
23.80	Farm road, bears NW. and SE.
25.80	Leave cultivated land, bearing N. and S.
27.00	Gully, 60 ft. below ridge, course S.
38.80	Enter grain field, bearing N. and S.
40.88½	Find no trace of old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 23 ¼ S 26 1914
	from which
	An oak 5 ins. diam. bears S.74°55'W., 215 lks. dist., marked ½ S 26 B T.
	No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Note: A house belonging to Harmon Bros. bears N.46° 54'E. about 30 chs. dist., and a barn bears N.49°36'E. about 29 chs. dist.
50.20	Leave grain field, bearing N.15°E. and S.15°W.
	Ascend ridge through dense oak and sage brush.
81.77	The cor. of secs. 22, 23, 26 and 27.
	Land, mountainous and rolling.
	Soil, rich black loam about 2 ft. deep.
	Subsoil, clay.
	Undergrowth, oak and sage brush.
	No timber.
	Good grass for grazing.
	August 5, 1914.

August 6, 1914: At 8h 6m a.m., l.m.t., I set off 16° 51'N. on the decl. arc; 40°01'N. on the lat. arc; and determine a meridian with the solar at the re-established cor. of secs. 28, 29, 32 and 33.

Thence

East, on a retracement line bet. secs. 28 and 33.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	Over nearly level canyon bottom. Ascend.
.20	D. & R. G. R. R. track bears NW. and SE.
.60	D. & R. G. R. R. track bears NW. and SE.
2.40	Junction rooming house at Thistle on line.
3.40	Soldier creek, 30 lks. wide, 2 ft. deep, course N.30°W.
3.60	Rocky ledge, 50 ft. high, bears N.30°W. and S.30°E.
7.50	Rocky spur, 100 ft. above creek, bears N.30°W. and S. 30°E.
12.50	Soldier creek, 30 lks. wide, course S.
22.70	Rocky spur, bears N. and S.
25.90	Enter creek bottom, bearing N.50°E. and S.50°W.
35.80	Soldier creek, 30 lks. wide, 3 ft. deep, course S.50°W.
37.54	D. & R. G. R. R. track bears NE. and SW.
37.94	D. & R. G. R. R. track bears NE. and SW.
38.60	D. & R. G. R. R. side track bears NE. and SW.
39.90	Fall 72 lks. S. of the old ¼ sec. cor., which is a limestone 17 x 9 x 4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows: Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked S 28 ¼ S 33 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
40.60	Wire fence, bears NE. and SW.
41.30	County road, bears NE. and SW.
42.80	Fence, bears NE. and SW.
44.90	Begin ascent, bearing N.50°E. and S.50°W.
47.50	Top of ascent, bears N.50°E. and S.50°W.
62.50	Begin descent, bearing N.60°W. and S.60°E.
65.00	Road, bears N.40°W. and S.40°E.
66.20	D. & R. G. R. R. track bears N.30°W. and S.30°E.

Chains	
66.70	D. & R. G. R. R. track bears N.30°W. and S.30°E.
69.00	Enter pasture, bearing N.30°W. and S.30°E.
75.30	Soldier creek, 30 lks. wide, course N.10°W.
79.00	Enter cottonwood grove, bearing N.10°W. and S.10°E.
79.80	Fence, bears N. and S.
79.81	Fall 144 lks. S. of the cor. of secs. 27, 28, 33 and 34, which is a sandstone 10 x 8 x 5 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 27, 28, 33 and 34, alongside of stone, with brass cap marked

T 9 S	R 4 E
S 28	S 27
S 33	S 34

1914

from which

A cottonwood 8 ins. diam. bears N.61°30'E., 10 lks. dist., marked T 9 S R 4 E S 27 B T.

A cottonwood 18 ins. diam. bears S.29°E., 6 lks. dist., marked T 9 S R 4 E S 34 B T.

A cottonwood 6 ins. diam. bears S.29°W., 10 lks. dist., marked T 9 S R 4 E S 33 B T.

A cottonwood 7 ins. diam. bears N.55°W., 9 lks. dist., marked T 9 S R 4 E S 28 B T.

Land, mountainous.

Soil, clay and gravelly loam and rocky.

Undergrowth, oak and sage brush.

No timber, except a few cottonwoods along the creek.

Good grass for grazing.

August 6, 1914: At this cor. I set off 16°48'N. on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.

The course of this line is N.88°58'E. and the distance 79.82 chs.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	East, on a retracement line bet. secs. 27 and 34,
	Over canyon bottom, through cottonwood timber.
7.20	Road, bears N.10°E. and S.10°W.
	Leave cottonwood timber.
8.80	Pole fence, bears N. and S.
13.50	Utah County road, bears N.40°W. and S.40°E.
18.70	Telephone line bears N.30°E. and S.30°W.
22.00	Begin ascent of ridge.
	Enter scattering cedar timber and dense oak and sage brush.
27.40	Spur, 150 ft. above road, bears N. and S.
	Descend.
33.00	Swale, 50 ft. below spur, course S.20°W.
37.50	Spur, 120 ft. above swale, bears N.30°E. and S.30°W.
	Descend.
40.41	Fall 8 lks. S. of the old ¼ sec. cor., which is a sandstone 6 x 7 x 3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	S 27 / ¼ / S 34 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
41.40	Swale, 175 ft. below spur, course S.20°W.
	Ascend.
45.00	Spur, 50 ft. above swale, bears N.20°E. and S.20°W.
50.00	Swale, 60 ft. below spur, course S.10°W.
	Ascend.
56.00	Wash, 30 lks. wide, 3 ft. deep, course S.20°W.
58.60	Spur, 100 ft. above swale, bears N. and S.
	Descend.

Chains	
60.30	Gully, 50 ft. below spur, course: S.20°W.
63.00	Ridge, 250 ft. above gully, bears N.30°E. and S.30°W.
65.00	Gully, 50 ft. below ridge, drains S.10°W.
66.50	Spur, 50 ft. above gully, bears N.10°E. and S.10°W.
80.70	Fall 16 lks. S. of the old cor. of secs. 26, 27, 34 and 35, which is a sandstone 8 x 10 x 3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows;

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 26, 27, 34 and 35, with brass cap marked

T 9 S	R 4 E
S 27	S 26
S 34	S 35

1914

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

Land, mostly canyon bottom and low hills.

Soil, sandy and gravelly, about 18 ins. deep, with some rocky patches. Subsoil, gravel.

Timber, a few cottonwoods in canyon.

Undergrowth, sage and oak.

Good grass for grazing.

The course of this line is N.89°53'E. The west half is 40.41 chs. and the east half 40.29 chs.

August 6, 1914.

August 7, 1914: At 8h 6m a.m., l.m.t., I set off 16° 35'N. on the decl. arc; 40°01'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 26, 27, 34 and 35.

Thence

East, on a retracement line bet. secs. 26 and 35, over canyon bottom, through dense sagebrush.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
35.57	Old County road, bears N.40°E. and S.40°W.
36.60	Telephone line bears N.65°E. and S.50°W.
40.12	Fall 46½ lks. S. of the old ¼ sec. cor., which is a sandstone 8 x 16 x 10 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	S 26 ¼ S 35 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
41.00	New Utah County road, bears N.50°E. and S.50°W.
43.00	Railroad fence, bears N.60°E. and S.60°W.
43.70	D. & R. G. R. R. track, bears N.60°E. and S.60°W.
44.50	D. & R. G. R. R. track, bears N.60°E. and S.60°W.
45.40	Telegraph line and railroad fence line bears N.60°E. and S.60°W.
54.00	Soldier creek, 30 lks. wide, 2 ft. deep, course S.40°W.
54.30	Enter dense hawthorn brush and begin ascent of ridge, bearing S.40°W. and N.40°E.
55.20	Leave hawthorn, enter sage, bearing S.40°W. and N.40°E.
65.90	Spur, 150 ft. above creek, bears N.10°W. and S.10°E. Enter oak brush.
69.00	Leave oak brush, bearing N.10°W. and S.10°E.
80.24	Fall 93 lks. S. of the cor. of secs. 25, 26, 35 and 36, which is a sandstone 13 x 20 x 3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 25, 26, 35 and 36, with brass cap marked

Chains	
	T 9 S | R 4 E S 26 | S 25 S 35 | S 36 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous.
	Soil, sandy and gravelly loam 1 to 2 ft. deep, with some rocky streaks.
	Timber, a few cedars.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	August 7, 1914: At this cor. I set off 16°32'N. on the decl. arc; and at 0h 6m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	The course of this line is S.89°20'W. and the distance 80.24 chs.
	North, on a retracement line bet. secs. 25 and 26,
	Over mountainous land, through dense oak and sage brush. Descend.
3.00	Enter dense oak and hawthorn brush, bearing E. and W.
4.05	Leave hawthorn brush, bearing N.80°W. and S.80°E.
4.20	Soldier creek 30 lks. wide, 1 ft. deep, course N.80°W.
5.25	D. & R. G. R. R. fence, bears N.85°W. and S.85°E.
5.70	D. & R. G. R. R. track, bears same.
6.00	D. & R. G. R. R. track, bears same.
6.35	D. & R. G. R. R. fence, bears same.
6.74	D. & R. G. R. R. fence, bears same.
	Enter dense sagebrush.
23.30	Enter dense oak brush, bearing E. and W.
23.50	Spur, 150 ft. above road, bears N.10°W. and S.10°E. Descend.
26.00	Gully; 50 ft. below spur, drains S.10°E. Ascend abruptly over ledges; enter scattering cedars.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
38.87	Fall 13 lks. W. of the ¼ sec. cor., which is a stationary rock 24 x 20 x 15 ins. above ground, marked as described by the surveyor general. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	¼ S 26 | S 25 1914
	from which
	A cedar 8 ins. diam. bears N.73°E., 36 lks. dist., marked ¼ S 25 B T.
	A cedar 14 ins. diam. bears S.62°W., 30 lks. dist., marked ¼ S 26 B T.
41.40	Ridge, 350 ft. above gully, bears E. and W.
	Descend.
47.20	Gully, 100 ft. below ridge, drains S.25°W.
	Ascend.
50.00	Spur, 75 ft. above gully, bears N.25°E. and S.25°W.
	Leave cedars, bearing same.
53.50	Wire fence, bears E. and W.
54.00	Leave oak and enter sage brush, bearing E. and W.
62.00	Enter scattering cedars, bearing E. and W.
72.40	Wash, 30 lks. wide, 3 ft. deep, course S.10°W.
73.00	Leave oak brush and cedars; enter dense sagebrush, bearing N.10°E. and S.10°W.
75.00	Wire fence, bears E. and W.
77.90	Fall 27 lks. W. of the cor. of secs. 23, 24, 25 and 26.
	The course of this line is therefore N.0°12'E. and the distance 77.90 chs.
	Land, rough mountainous.
	Soil, mostly gravelly loam. A little sandy loam near the north end of the mile.
	Timber, cedar.
	Undergrowth, oak, sage and hawthorn.
	Good grass for grazing.
	August 7, 1914.

RETRACEMENT AND RESURVEY

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	August 20, 1914: At 8h 3m a.m., l.m.t., I set off 12° 37'N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the re-established cor. of secs. 19, 24, 25 and 30, on the east bdy. of the Tp.
	Thence
	West, on a retracement line bet. secs. 24 and 25.
40.00	Find no trace of the old ¼ sec. cor.
84.42	Intersect N. and S. line 388 lks. N. of the cor. of secs. 23, 24, 25 and 26.
	Thence
	N.87°22'E., on a resurvey line bet. secs. 24 and 25,
	Over mountainous land, through dense sage and scattering rabbit brush. Ascend.
3.90	Wire fence, bears N. and S.
10.00	Spur, 150 ft. above cor., bears N. and S.
	Enter scattering oak, bearing N. and S. Descend.
15.00	Gulch, 100 ft. below spur, drains S. Ascend.
17.80	Leave rabbit brush and enter scattering cedars, bearing N. and S.
22.70	Wire fence, bears N.15°E. and S.15°W.
24.00	Ridge, 200 ft. above gulch, bears N. and S. Descend abruptly.
42.25½	Find no trace of the old ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 24
¼
S 25
1914

from which

A cedar 10 ins. diam. bears N.16°W., 37 lks. dist., marked ¼ S 24 B T.

A cedar 10 ins. diam. bears S.75°E., 3 lks. dist., marked ¼ S 25 B T.

Chains	
46.70	Canyon, 400 ft. below ridge, course S. Ascend.
68.70	Ridge, 400 ft. above canyon, bears N.15°E. and S.15°W. Descend.
75.00	Gulch, 350 ft. below ridge, course S.15°W. Ascend.
82.45	Ridge, 300 ft. above gulch, bears N. and S. Descend.
84.51	The cor. of secs. 19, 24, 25 and 30.
	Land, mountainous.
	Soil, sandy and clay with streaks of gravel and rock. The soil is of poor quality, as is also the clay subsoil.
	Timber, scattering cedars.
	Undergrowth, sage, oak and rabbit brush.
	Good grass for grazing.
	August 20, 1914.
	August 20, 1914: At the cor. of secs. 22, 23, 26 and 27 I set off 12°34'N. on the decl. arc; and at 0h 3m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	Thence
	North, on a retracement line bet. secs. 26 and 27,
	Over mountainous land, through dense and scattering oak brush. Ascend.
1.00	Wash, 75 lks. wide, 4 ft. deep, course S.25°W.
4.00	Spur, 80 ft. above wash, bears N.35°W. and S.35°E.
10.00	Wash, 50 lks. wide, 5 ft. deep, in hollow 50 ft. deep, course S.25°E. Ascend.
15.00	Leave sagebrush and enter scattering cedars, bearing NW. and SE.
25.00	Spur, 150 ft. above hollow, bears N.15°E. and S.15°W. Descend.
35.00	Gully, 100 ft. below spur, drains S.15°W.
40.16	Fall 53 lks. E. of the old ¼ sec. cor., which is a sandstone 5 x 10 x 3 ins. above ground, firmly set and properly marked but not witnessed. I remonument

Chains	
	at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked
	¼ S 27 | S 26 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
42.00	Leave cedars and enter dense sagebrush, bearing E. and W.
43.90	Wire fence, bears E. and W.
53.00	Farm road, bears E. and W.
53.70	Enter plowed land (dry farming), bearing E. and W.
60.00	Wire fence, bears N.60°W. and S.60°E.
	Leave plowed land and enter oak and sagebrush.
76.20	Wire fence, bears E. and W.
80.33	Fall 107 lks. E. of the cor. of secs. 22, 23, 26 and 27.
	The course of this line is therefore N.0°46'W. and the distance 80.34 chs.
	Land, mountainous.
	Soil, sandy loam, 2 to 3 ft. deep. From 43.90 chs. to 60 chs. the soil is rich and deep, sandy loam.
	Subsoil, gravel.
	Timber, cedar.
	Undergrowth, oak and sagebrush.
	Good grass for grazing.
	August 20, 1914.

August 22, 1914, afternoon (continued).

North, on a retracement line bet. secs. 11 and 12; Over rolling mountainous land, through dense undergrowth. Descend gradually.

5.50	Gully, 50 ft. below cor., drains N.25°E. Ascend.
11.70	Spur, 60 ft. above gully, bears N.25°E. and S.25°W.
39.59	Fall 13 lks. E. of the old ¼ sec. cor., which is a

Chains

quartzite stone 9 x 14 x 12 ins. above ground, properly marked but not witnessed. I remonument at same point as follows:

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside of stone, for ¼ sec. cor., with brass cap marked

¼ S 11 | S 12

1914

from which

An oak 4 ins. diam. bears S.33°50'E., 95 lks. dist., marked ¼ S 12 B T.

An oak 4 ins. diam. bears S.51°15'W., 24 lks. dist., marked ¼ S 11 B T.

41.00 Wash, 12 lks. wide, 6 ft. deep, course N.5°E.

60.00 Wire fence, bears E. and W.

73.00 Leave brush and enter cultivated land, bearing N. and S.

77.95 Fall 105 lks. E. of the cor. of secs. 1, 2, 11 and 12, which is a sandstone 15 x 10 x 12 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:

Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground, alongside of stone, for cor. of secs. 1, 2, 11 and 12, with brass cap marked

T 9 S | R 4 E
S 2 | S 1
S 11 | S 12

1914

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

The course of the south half mile is N.0°11'W. and the distance 39.59 chs.; and the course of the north half mile is N.1°22'W., 38.36 chs.

Land, mountainous.

Soil, clay and gravelly loam.

Undergrowth, oak and sage brush.

Chains	
	No timber.
	Good grass for grazing.
	August 22, 1914, afternoon (continued).
	East, on a retracement line bet. secs. 1 and 12,
	Over mountainous bench land, through wheat field.
2.00	Leave wheat field and enter sagebrush, bearing N. and S.
4.50	Gorge, 30 ft. deep, 100 lks. wide, course N.; creek in bottom, 2 lks. wide, 3 ins. deep.
8.50	Enter wheat field, bearing N. and S.
11.00	Leave wheat and enter alfalfa, bearing N. and S.
30.00	Leave alfalfa and enter wheat, bearing N. and S.
35.00	Leave wheat and enter sagebrush, bearing N. and S.
39.64	Fall 64 lks. S. of the old ¼ sec. cor., which is a sandstone 10 x 12 x 10 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point as follows:
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., alongside of stone, with brass cap marked
	S 1 / ¼ / S 12 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
61.87	Wire fence, bears N. and S.
71.00	Enter dense and scattering cedars, bearing N. and S.
75.90	Ridge, 200 ft. above creek, bears N.15°E. and S.15°W. Descend.
77.80	Gorge, 100 ft. deep, course S.15°W. Ascend.
79.05	Fall 148 lks. S. of the cor. of secs. 1, 6, 7 and 12,

The course of the west half mile is N.89°05'E. and the distance 39.65 chs.; and the east half mile is N.88°46'E., 39.41 chs.

Chains	
	Land, mountainous.
	Soil, clay loam, 1st rate.
	No timber.
	Undergrowth, sage and oak brush.
	Good grass for grazing.
	August 22, 1914.

SUBDIVISION OF T. 9 S., R. 4 E.

	August 21, 1914: At 8h 3m a.m., l.m.t., I set off 12° 17'N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the re-established cor. of secs. 23, 24, 25 and 26.
	Thence
	North, on a true line bet. secs. 23 and 24,
	Over rolling mountainous land, through dense sage and scattering rabbit brush. Ascend gradually.
20.00	Spur, 100 ft. above cor., bears N.60°E. and S.60°W. Descend gradually.
22.00	Wire fence, bears NE. and SW.
	Leave undergrowth and enter alfalfa field.
27.40	Swale, 50 ft. below spur, course SW. Ascend gradually.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 23 | S 24 1914
	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.
60.00	Leave alfalfa and enter wheat field, bearing E. and W. Good crop.
65.00	Leave wheat field and enter scattering oak, sage and rabbit brush, bearing E. and W. These fields belong to Ellen A. Harmer.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
72.40	Divide between Soldier and Diamond creeks, 150 ft. above swale, bears NE. and SW.
74.80	Wire fence, bears NE. and SW.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 13, 14, 23 and 24, with brass cap marked

T 9 S	R 4 E
S 14	S 13
S 23	S 24

1914

Dig pits 18 x 18 x 12 ins., in each sec., 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

From this cor. P. Edgar Whiting's house bears N.82°08'W. about 35 chs. dist. The NE. cor. of Clarence Whiting's barn bears S.76°42'W. about 70 chs.

Land, rolling mountainous; gentle slope nearly entire mile. Could be cultivated.

Soil, rich, mountain clay loam; will produce good crops without irrigation. Soil is from 2 to 5 ft. deep.

Subsoil, clay.

No timber.

Undergrowth, oak, sage and rabbit brush.

Good grass for grazing.

August 21, 1914: At this cor. I set off 12°14'N. on the decl. arc; and at 0h 3m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.

	East, on a true line bet. secs. 13 and 24.
	Over rolling mountainous land, through dense oak, rabbit and buck brush. Ascend gradually.
4.00	Divide bet. Soldier and Diamond creeks, 50 ft. above cor., bears NE. and SW. Descend gradually.
4.50	Wire fence, bears NE. and SW.
11.00	Leave undergrowth and enter grain field belonging to Harmer, bearing NE. and SW.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
17.50	Wash, 50 lks. wide, 5 ft. deep, in gully 50 ft. below ridge, course SW. Ascend gradually.
19.00	Enter plowed land, bearing N. and S.
21.70	Leave plowed land; enter oak, rabbit and buck brush, bearing N. and S.
28.70	Wire fence, bears N. and S.
31.00	Ridge, 150 ft. above gully, bears N. and S. Descend abruptly.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 13 only, with brass cap marked
	S 13 / ¼ / 1914
	from which
	An oak 4 ins. diam. bears N.10°W., 36 lks. dist., marked ¼ S 13 B T.
	Later, September 5, 1914:
41.90	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 24 only, with brass cap marked
	S 24 / ¼ / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
45.00	Swale, 250 ft. below ridge, course SE. Ascend.
49.40	Spur, 50 ft. above swale, bears NW. and SE.
52.40	Canyon, 250 ft. below spur, course S. Ascend.
70.85	Ridge, 300 ft. above canyon, bears N. and S.; enter scattering cedars, bearing N. and S. Descend.
78.50	Gulch, 250 ft. below ridge, course S. Ascend.
81.90	Fall 4.14 chs. S.1°57'E. of the re-established cor. of secs. 18 and 19, on the E. bdy. of Tp.
	Set an iron post, 3 ft. long, 2 in. in diam., 14 ins.

Chains

in the ground, with mound of stone around post, for closing cor. of secs. 13 and 24, with brass cap marked

T 9 S
S 18
S 13 — CC
S 19
S 24
R 4 E R 5 E
1914

from which

A cedar 6 ins. diam. bears N.85°W., 19 lks. dist., marked T 9 S R 4 E S 13 B T.

A cedar 6 ins. diam. bears S.4°30'W., 63 lks. dist., marked T 9 S R 4 E S 24 B T.

Land, mountainous; very steep.

Soil: The west 31 chs. is rich, mountain loam, 2 to 4 ft. deep, and very productive; the rest of the mile is gravelly and clay loam with clay and gravelly subsoil.

Undergrowth, oak, rabbit and buck brush.

Timber, cedar.

Good grass for grazing.

August 21, 1914.

August 22, 1914: At 8h 3m a.m., l.m.t., I set off 11° 57½' N. on the decl. arc; 40°03'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.

Thence

West, on a random line bet. secs. 14 and 23.

40.00 Set temp. ¼ sec. cor.

80.90- Intersect N. and S. line 391 lks. S.2°12'W. of the cor. of secs. 15 and 22.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 14 and 23, with brass cap marked

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	T 9 S | R 4 E S 15 | S 14 CC S 22 | S 23 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Note: I deface the marks on the cor. of secs. 15 and 22 pertaining to secs. 14 and 23.
	Thence
	East, on a true line bet. secs. 14 and 23,
	Over rolling mountainous land, through wheat fields.
	Ascend.
12.50	Leave wheat; enter oak brush, bearing N. and S.
15.20	Ridge, 75 ft. above cor., bears N. and S.
	Descend.
24.60	Swale, 50 ft. below ridge, course N. Ascend.
26.90	Enter wheat field, bearing N. and S.
34.90	Leave wheat field; enter oak and sage brush, bearing N. and S.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 14 ¼ S 23 1914
	from which
	An oak 4 ins. diam. bears N.32°30'W., 34 lks. dist., marked ¼ S 14 B T.
	An oak 4 ins. diam. bears S.41°30'E., 42 lks. dist., marked ¼ S 23 B T.
	Cor. is on top of ridge bearing N. and S.
44.00	Road, bears N. and S.
50.90	Swale, 50 ft. below ridge, course N. Ascend.
52.20	Enter plowed land, bearing N. and S.
54.90	Enter grain field (oats), bearing N. and S.
59.20	Leave oats and enter wheat, bearing N. and S.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
61.90	Leave wheat field and enter oak and sage brush, bearing N. and S.
80.90	The cor. of secs. 13, 14, 23 and 24.
	Land, mountainous, rolling with gentle slopes.
	Soil, rich black loam from 2 to 5 ft. deep; very productive.
	No timber.
	Good grass for grazing.
	Undergrowth, oak and sagebrush.
	The cultivated land belongs to P. Edgar Whiting and Clarence Whiting.
	August 22, 1914: At this cor. I set off 11°54' N. on the decl. arc; and at 0h 3m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03' N.
	North, on a true line bet. secs. 13 and 14.
	Over mountainous land, through scattering oak and dense buck brush. Descend gradually.
	Leave oak and buck brush; enter dense sagebrush, bearing E. and W.
21.00	Swale, 50 ft. below cor., course W. Ascend.
25.90	Knoll, 50 ft. high. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 13 only, with brass cap marked ¼ S 13 | 1914 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, E. of cor.
42.90	Wire fence, bears E. and W.
45.47	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 14 only, with brass cap marked ¼ S 14 | 1914

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
47.00	Swale, 40 ft. below knoll, course W.
	Ascend.
50.00	Spur, 30 ft. above swale, bears E. and W.
	Descend.
64.00	Enter very dense oak, bearing E. and W.
85.47	Fall 155 lks. E. of the cor. of secs. 11 and 12.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 13 and 14, with brass cap marked

T 9 S | R 4 E
S 11 | S 12
CC
S 14 | S 13
1914

	and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Land, mountainous.
	Soil, black, mountain loam, 2 to 3 ft. deep.
	Subsoil, heavy clay.
	Undergrowth, oak, sage and buck brush.
	No timber.
	Good grass for grazing.
	2 p.m. August 22, 1914.

	August 4, 1914, p.m. (continued).
	East, on a random line bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
80.70	Intersect the E. bdy. of the Tp. 100 lks. N.1°57'W. of the cor. of secs. 7 and 18, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 12 and 13, with brass cap marked

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	T 9 S S 12 | S 7 CC S 13 | S 18 R 4 E | R 5 E 1914
	from which
	An oak 4 ins. diam. bears S.80°W., 31 lks. dist., marked T 9 S R 4 E S 13 B T.
	An oak 5 ins. diam. bears N.3°W., 6 lks. dist., marked T 9 S R 4 E S 12 B T.
	Thence
	West, on a true line bet. secs. 12 and 13,
	Over mountainous land, through dense undergrowth.
	Descend.
13.60	Creek, 5 lks. wide, 4 ins. deep, in gulch 200 ft. below cor., course N.35°W. Cottonwood trees in bottom.
18.70	Spur, 40 ft. high, bears N. and S. Descend.
21.50	Swale, 40 ft. below spur, course N. Ascend.
34.70	Ridge, 200 ft. above swale, bears N. and S. Descend.
39.15	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 13 only, with brass cap marked S 13 ¼ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
40.35	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 12 only, with brass cap marked S 12 ¼ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
45.70	Gully, 100 ft. below ridge, drains S.15°W.

Chains	
52.30	Spur, 75 ft. above gully, bears N.15°E. and S.15°W.
66.70	Gulch, 150 ft. below spur, course S.15°W. Ascend.
79.00	Spur, 125 ft. above gulch, bears N. and S. Descend.
80.70	The cor. of secs. 11 and 12.
	Land, mountainous, rough and steep.
	Soil, black loam about 2 ft. deep.
	Subsoil, heavy clay and gravel.
	Undergrowth, oak, buck and sage brush.
	No timber.
	Good grass for grazing.
	August 4, 1914.

August 31, 1914, p.m. (continued).

From the cor. of secs. 4 and 9, I run

North, on a true line bet. secs. 4 and 5,

Over mountainous land, through dense oak brush.

Ascend.

6.40	Spur, 100 ft. above cor., bears S.48°E. and N.48°W.
	Descend.
10.40	Enter scattering maple, bearing E. and W.
33.80	Leave maple, bearing E. and W.
34.00	Canyon, 250 ft. below spur, course S.60°E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

¼ S 5 | S 4

1914

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

Note: This cor. will hereafter refer to sec. 4 only.

42.70	Enter scattering sagebrush, bearing E. and W.
51.00	Spur, 300 ft. above canyon, bears N.35°W. and S.35°E.
	Descend.
55.00	Gulch, 40 ft. below spur, course S.35°E. Ascend.
57.70	Ridge, 50 ft. above gulch, bears N.25°E. and S.25°W.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	Descend gradually.
68.70	Canyon, 70 ft. below ridge, course S.15°W.
	Ascend.
73.50	Ridge, 60 ft. above canyon, bears N.78°W. and S.78°E.
	Descend.
76.40	Enter scattering maple, bearing NW. and SE.
85.39	Fall 65 lks. N.89°50'W. of the cor. of secs. 4, 5, 32 and 33, on the N. bdy. of the Tp. desc. in retr. N.Bdy. I destroy all marks pertaining to secs. 4 and 5. Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 4 and 5, with brass cap marked

T 8 S R 4 E
S 32 | S 33
CC
S 5 | S. 4
T 9 S | R 4 E
1914

from which

A maple 5 ins. diam. bears S.27°E., 25 lks. dist., marked T 9 S R 4 E S 4 B. T.

A maple 6 ins. diam. bears S.51°W., 24 lks. dist., marked T 9 S R 4 E S 5 B T.

Land, mountainous.

Soil, rich black mountain loam.

Subsoil, gravel and clay.

Undergrowth, oak and maple.

No timber.

Good grass for grazing.

August 31, 1914.

RETRACEMENT

SUBDIVISION OF T. 9 S., R. 4 E.

July 18, 1914: At 8h 6m a.m., l.m.t., I set off 21°08' N. on the decl. arc; 40°01'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 28, 29, 32 and 33.

Thence

RETRACEMENT

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	West, on a retracement line bet. secs. 29 and 32, Over canyon bottom.
.20	D. & R. G. R. R. track bears N.40°W. and S.40°E.
.80	Thistle creek, 50 lks. wide, 1 ft. deep, course N.10°E.
2.30	Thistle depot (new), on line, 43 lks. N. of S. end.
2.70	West side of depot.
3.08	D. & R. G. R. R. track bears N. and S.
3.76	D. & R. G. R. R. track bears N. and S.
4.00	D. & R. G. R. R. track bears N. and S.
4.20	Telegraph line bears N.50°W. and S.50°E.
4.23	D. & R. G. R. R. track bears N. and S.
4.45	D. & R. G. R. R. track bears N. and S.
4.90	D. & R. G. R. R. track bears N. and S.
5.11	D. & R. G. R. R. track bears N. and S.
5.80	Utah County road, bears N.15°W. and S.15°E.
6.80	Telephone line, bears N.15°W. and S.15°E.
8.20	Store and post office owned by Elias Gardner, bears S. 1 ch. dist.
8.50	Gardner's barn on line.
9.00	Begin abrupt descent of mountain, bearing N. and S.
10.00	Enter scattering oak, sage and service berry brush, bearing N. and S.
18.87	Fall 6 lks. S. of the witness cor. to ¼ sec. cor., which is a sandstone 50 x 12 x 4 ins. lying loose on old stone mound. I reset the cor. and deface the ¼ mark, but leave the W C, and rebuild mound of stone.

The course of this fractional mile is N.89°49'W. and the distance 18.87 chs.

July 18, 1914, 9:30 a.m.

SUBDIVISION OF T. 9 S., R. 4 E.

July 23, 1914: At 8h 6m a.m., l.m.t., I set off 20°12' N. on the decl. arc; 40°01'N. on the lat. arc; and

Chains	
	determine a meridian with the solar at the last above described witness cor.
	Thence
	West, on a random line bet. secs. 29 and 32.
21.13	Set temp. ¼ sec. cor.
61.13	Set temp. cor. of secs. 29, 30, 31 and 32.
	South, on a random line bet. secs. 31 and 32.
40.00	Find no trace of the old ¼ sec. cor.
75.75	Fall 16 lks. W. of the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of the Tp., heretofore described.
	I begin at this cor. and run
	North, on a true line bet. secs. 31 and 32,
	Over mountainous land, through dense undergrowth.
	Descend, through scattering timber.
2.75	Gulch, 200 ft. below cor., course S.50°E. Ascend.
	Leave timber, bearing same.
40.00	Find no trace of the old ¼ sec. cor. after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 31 | S 32 1914
	from which
	An oak 6 ins. diam. bears N.78°E., 44 lks. dist., marked ¼ S 32 B T.
	An oak 4 ins. diam. bears N.66°W., 53 lks. dist., marked ¼ S 31 B T.
45.00	Ridge, 200 ft. above gulch, bears N.55°E. and S.55°W. Descend.
	Wire fence, bears same.
62.75	There is a lake 3 chs. diam. about 8 chs. W. of line at this point.
	Enter ledges.
64.25	Leave ledges, bearing E. and W.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
73.75	Gulch, 300 ft. below ridge, course N.80°E.
	Ascend.
75.75	Intersect temp. line, 16 lks. E. of the temp. cor. of secs. 29, 30, 31 and 32.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 29, 30, 31 and 32, with brass cap marked

T 9 S	R 4 E
S 30	S 29
S 31	S 32

1914

from which

A maple 4 ins. diam. bears N.89°15'E., 21 lks. dist., marked T 9 S R 4 E S 29 B T.

A maple 6 ins. diam. bears S.76°30'E., 21 lks. dist., marked T 9 S R 4 E S 32 B T.

An oak 4 ins. diam. bears S.12°W., 23 lks. dist., marked T 9 S R 4 E S 31 B T.

An oak 5 ins. diam. bears N.80°W., 32 lks. dist., marked T 9 S R 4 E S 30 B T.

Land, mountainous.

Soil, clay and gravelly loam about 1 ft. deep.

Subsoil, clay and gravel.

Undergrowth, oak, maple, sage and buck brush.

Timber, scattering cedar and pinon pine.

Good grass for grazing.

July 23, 1914: At the noon hour the instrument was in transit and no solar observation taken.

	East, on a true line bet. secs. 29 and 32.
	Over mountainous land, through dense undergrowth.
	Descend abruptly.
17.40	Begin more gradual descent, bearing N. and S.
34.80	Canyon, 200 ft. below cor., course N.25°E.
	Ascend.
39.00	Ridge, 250 ft. above canyon, bears N.15°E. and S.15°W.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	Note: A hay shed and stack yard in the midst of about 50 acres of cultivated land bears N.37°E. about 40 chs. dist. (Owner unknown.)
39.92	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 29 ¼ S 32 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
44.85	Gulch, 50 ft. below ridge, course S.25°E. Ascend.
48.40	Rocky spur, 50 ft. above gulch, bears N.15°W. and S. 15°E. Descend.
51.10	Gulch, 100 ft. below spur, course S.15°E. Ascend.
52.00	Rocky spur, 40 ft. above gulch, bears N.15°W. and S. 15°E. Descend abruptly.
60.97	The witness cor. to ¼ sec. cor. Land, mountainous. Soil, light, fine, red, sandy and clay loam with heavy clay subsoil. Undergrowth, oak, maple and sage brush. No timber. Good grass for grazing. July 23, 1914.
	August 25, 1914: At 8h 2m a.m., l.m.t., I set off 10° 56'N. on the decl. arc; 40°01'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32. Thence West, on a true line bet. secs. 30 and 31, Over mountainous land, through dense undergrowth. Ascend.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
5.00	Begin more gradual ascent, bearing N. and S.
25.00	Ridge, 100 ft. high, bears N. and S. Descend gradual slope.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 30
¼
S 31
1914

from which

An oak 4 ins. diam. bears N.71°W., 53 lks. dist., marked ¼ S 30 B T.

An oak 4 ins. diam. bears S.30°W., 28 lks. dist., marked ¼ S 31 B T.

82.63 Fall 6.77 chs. S. of the cor. of secs. 25 and 36, on the W. bdy. of the Tp., heretofore described.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 30 and 31, with brass cap marked

T 9 S
S 25 | S 30
CC
S 36 | S 31
R 3 E | R 4 E
1914

from which

An oak 4 ins. diam. bears S.31°E., 36 lks. dist., marked T 9 S R 4 E S 31 B T.

An oak 4 ins. diam. bears N.49°45'E., 31 lks. dist., marked T 9 S R 4 E S 30 B T.

Land, rolling mountainous.

Soil, rich, black mountain loam about 2 ft. deep.

Undergrowth, oak, maple and buck brush.

No timber.

Good grass for grazing.

August 25, 1914.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	July 24, 1914, afternoon:
	North, on a random line bet. secs. 29 and 30.
40.00	Set temp. ¼ sec. cor.
79.52	Fall 37 lks. E. of the cor. of secs. 19, 20, 29 and 30,
	Thence
	S.0°16'E., on a true line bet. secs. 29 and 30,
	Over mountainous land, through dense undergrowth.
	Ascend gradually.
19.00	Wire fence, bears E. and W.
39.76	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 30 | S 29
	1914
	from which
	An oak 4 ins. diam. bears S.46°20'E., 129 lks. dist., marked ¼ S 29 B T.
	An oak 4 ins. diam. bears N.22°20'W., 159 lks. dist., marked ¼ S 30 B T.
40.90	Ridge, 100 ft. above cor., course N.25°E. and S.25°W. Descend.
69.00	Head of canyon, 200 ft. below ridge, course N.80°E. Ascend.
70.00	Enter scattering maple and aspen, bearing E. and W.
72.50	Spur, 75 ft. above canyon, bears N.80°E. and S.80°W. Descend.
79.52	The cor. of secs. 29, 30, 31 and 32.
	Land, mountainous, with gradual slopes.
	Soil, rich mountain loam, 1 to 2 ft. deep, suitable for dry farming. There are some patches of rock and red clay.
	Timber, maple and aspen.
	Undergrowth, tall oak, short buck brush and scattering sagebrush.
	Good grass for grazing.
	July 24, 1914.

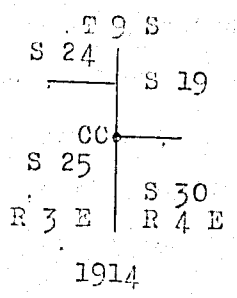
SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	August 19, 1914: At 8h 04m a.m., l.m.t., I set off 12° 57'N. on the decl. arc; 40°02'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30.
	Thence
	West, on a true line bet. secs. 19 and 30,
	Over mountainous land, through dense undergrowth.
	Descend gradually.
13.00	Gully, 50 ft. below cor., creek 3 lks. wide 2 ins. deep in bottom, course N. Ascend.
17.35	Spur, 50 ft. above gully, bears N. and S. Descend.
19.35	Wire fence, bears N. and S.
26.80	Gully, 50 ft. below spur, course N. Ascend.
29.60	Ridge, 50 ft. above gully, bears N. and S. Descend.
32.35	Enter aspen timber, bearing N. and S.
37.30	Swale, 100 ft. below ridge, course N.
	Cultivated field bears N. 2 chs. dist. (Owner unknown.)
38.45	Road, bears N.10°E. and S.10°W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 19 / ¼ / S 30 / 1914
	from which
	An aspen 4 ins. diam. bears S.64°55'W., 70 lks. dist., marked ¼ S 30 B T.
	An aspen 4 ins. diam. bears N.75°15'W., 78 lks. dist., marked ¼ S 19 B T.
	August 19, 1914: At this cor. I set off 12°53'N. on the decl. arc; and at 0h 4m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°02'N.
45.35	Leave aspen timber, bearing N. and S.
49.00	Wire fence, bears N. and S.
51.40	Ridge, 150 ft. above swale, bears N. and S. Descend.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
53.00	Wire fence, bears N. and S.
59.65	Gulch, 150 ft. below ridge, course N. Ascend.
65.85	Spur, 150 ft. above gulch, bears N. and S. Descend.
72.35	Enter dense maple, bearing N. and S.
78.35	Gully, 150 ft. below spur, course N.10°W. Ascend.
82.34	Fall 7.37 chs. S. of the cor. of secs. 24 and 25, on the W. bdy. of the Tp., heretofore described.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 19 and 30, with brass cap marked



from which

An aspen 4 ins. diam. bears N.54°E., 26 lks. dist., marked T 9 S R 4 E S 19 B T.

A maple 6 ins. diam. bears S.54°E., 65 lks. dist., marked T 9 S R 4 E S 30 B T.

Land, mountainous.

Soil, rich, black loam, 2 to 4 ft. deep.

Subsoil, clay and gravel.

Undergrowth, oak, maple, buck brush, choke cherry and service berry.

Timber, aspen.

Good grass for grazing.

August 19, 1914.

July 28, 1914: At 8h 06m a.m., l.m.t., I set off 19° 07'N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.

SUBDIVISION OF T. 9 S., R. 4 E.

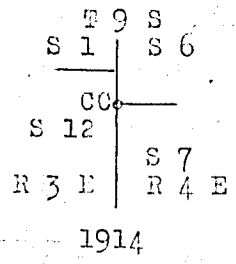
Chains	
	Thence
	North, bet. secs. 7 and 8,
	Over mountainous land, through dense undergrowth.
	Ascend.
2.30	Spur, 50 ft. above cor., bears N.85°E. and S.85°W.
	Descend.
6.00	Head of gulch, 30 ft. below spur, course S.35°W.
23.10	Ridge, 250 ft. above gulch, bears N. and S.15°W.
32.00	Leave ridge, bearing S. and NE. Descend.
40.00	Find no trace of the old ¼ sec. cor. after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 7 | S 8 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Cor. is 150 ft. below ridge.
51.00	Head of canyon, 50 ft. below ridge, course SW.
	Ascend.
55.60	Ridge, 150 ft. above canyon, bears NE. and SW.
	Descend.
60.00	Begin abrupt ascent, bearing N.85°E. and S.85°W.
64.00	Gully, 80 ft. below ridge, course S.70°W.
69.00	Spur, 40 ft. above gully, bears N.70°E. and S.70°W.
	Descend.
80.00	Point 200 ft. below spur.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, with brass cap marked
	T 9 S | R 4 E S 6 | S 5 S 7 | S 8 1914
	from which
	An oak 5 ins. diam. bears N.29°E., 39 lks.

Chains	
	dist., marked T 9 S R 4 E S 5 B T.
	An oak 4 ins. diam. bears S.42°E., 30 lks. dist., marked T 9 S R 4 E S 8 B T.
	A maple 4 ins. diam. bears S.72°W., 49 lks. dist., marked T 9 S R 4 E S 7 B T.
	An oak 4 ins. diam. bears N.21°W., 20 lks. dist., marked T 9 S R 4 E S 6 B T.
	Land, mountainous, steep, high and rough.
	Soil, rich black loam, mixed with gravel and rock.
	Subsoil, clay.
	Undergrowth, oak, maple and buck brush.
	No timber.
	Good grass for grazing.
	July 28, 1914: At this cor. I set off 19°04'N. on the decl. arc; and at 0h 6m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.
	West, on a true line bet. secs. 6 and 7,
	Over mountainous land, through dense oak and maple undergrowth. Descend.
2.50	Canyon, 30 ft. below cor., course S.55°W. Ascend abruptly.
6.80	Spur, 75 ft. above canyon, bears N. and S. Descend.
9.00	Gulch, 50 ft. below spur, course S.10°E. Ascend.
27.00	Ridge, 300 ft. above gulch, bears N.25°E. and S.25°W. Descend.
35.00	Swale, 50 ft. below ridge, course S.25°W. Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 6 / ¼ / S 7 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
43.00	Ridge, 20 ft. above swale, bears N.24°E. and S.25°W.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	Descend.
58.75	Canyon, 350 ft. below ridge, course S.35°W. Ascend.
72.00	Spur, 150 ft. above canyon, bears N.15°W. and S.15°E. Descend.
73.40	Gully, 50 ft. below spur, drains S.15°E. Ascend.
81.31	Fall 79 lks. S.0°03'W. of the cor. of secs. 1 and 12, on the W. bdy. of the Tp., described in retr. W. bdy.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 6 and 7, with brass cap marked



and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Land, mountainous, steep and high.

Soil, black loam mixed with gravel, about 18 ins. deep.

Subsoil, clay.

Undergrowth, oak, maple, buck and sage brush.

No timber.

Good grass for grazing.

July 28, 1914.

September 4, 1914: At 7h 59m a.m., l.m.t., I set off 40°04'N. on the lat. arc; 7°22'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 7 and 8.

Thence

East, on a true line bet. secs. 5 and 8.

Note: A random line bet. secs. 5 and 8 for distance only shows it to be 82.38 chs.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
	Over mountainous land, through dense undergrowth. Descend.
.18	Gulch, 10 ft. below cor., course N.70°W. Ascend abruptly.
19.40	Top of spur, 350 ft. above gulch, bears NW. and SW. Descend.
22.40	Enter dense aspen timber, bearing N. and S.
27.10	Swale, 50 ft. below spur, course NW. Ascend.
27.30	Leave aspen and enter dense oak and maple, bearing NW. and SE.
36.60	Ridge, 300 ft. above swale, bears N. and S. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 5 only, with brass cap marked S 5 ¼ 1914 from which An oak 4 ins. diam. bears N.37°15'E., 18 lks. dist., marked ¼ S 5 B T.
41.19	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 8 only, with brass cap marked S 8 ¼ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
54.70	Head of canyon, 400 ft. below ridge, course S. Ascend gradually.
58.90	Ridge, 100 ft. above canyon, bears N. and S. Descend.
82.38	Fall 149 lks. N. of the cor. of secs. 4 and 9. Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 5 and 8, with brass cap marked

SUBDIVISION OF T. 9 S., R. 4 E.

Chains

T 9 S R 4 E
S 5 | S 4
CC
S 8 | S 9
1914

from which

An oak 4 ins. diam. bears S.45°40'W., 14 lks. dist., marked T 9 S R 4 E S 8 B T.

An oak 4 ins. diam. bears N.60°W., 14 lks. dist., marked T 9 S R 4 E S 5 B T.

Land, mountainous, steep and rough.

Soil, rich mountain loam from 1 to 3 ft. deep; gravelly subsoil.

Timber, aspen.

Undergrowth, oak, maple, service berry and sage.

Good grass.

September 4, 1914: At this cor. I set off 7°18'N. on the decl. arc; and at 11h 59m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40° 04'N.

North, on a true line bet. secs. 5 and 6,

Over mountainous land, through dense oak and maple brush. Descend.

.50 Canyon, 40 ft. below sec. cor., course S.25°W. Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground, for ¼ sec. cor., with brass cap marked

¼ S 6 | S 5
1914

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

Cor. is on the east slope of hill, 250 ft. below top.

50.00 Ridge, 200 ft. above cor., bears N.15°E. and S.15°W. Descend.

56.70 Swale, 150 ft. below ridge, course S.80°W. Ascend.

SUBDIVISION OF T. 9 S., R. 4 E.

Chains	
57.00	Enter scattering pine and mahogany, bearing E. and W.
79.00	Spur, 200 ft. above swale, bears N.80°E. and S.80°W. Descend.
84.32	Intersect the N. bdy. of the Tp. 3.77 chs. S.88°51'W. of the cor. of secs. 31 and 32, described in retr. N.Bdy.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 5 and 6, with brass cap marked

8
T Ø S | R 4 E
S 31 | S 32
CC
S 6 | S 5
T 9 S | R 4 E
1914.

and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Land, mountainous.

Soil, black mountain loam and some gravel; 1st and 2nd. rate.

Subsoil, gravel.

Undergrowth, oak and maple.

Timber, pine and mahogany.

Good grass for grazing.

September 4, 1914.

RETRACEMENT AND RESURVEY S. BDY. T.9 S.R.4 E.

Chains

Survey commenced July 17, 1914, and executed with a Young & Sons light mountain transit No. 8538 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 latitude and declination arcs.

The instrument was examined, tested on the meridian at Salt Lake City, Utah, found correct and was approved by the Assistant Supervisor of Surveys May 14, 1914.

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 observation made during p.m. hours with a Polaris meridian I proceed as follows:

At 11h 51m p.m.,l.m.t., I observe Polaris at eastern elongation in accordance with the Manual and mark the line thus determined by a tack driven in a wooden plug set in the ground 5.00 chs. N. of the cor. of secs. 4, 5, 32 and 33 on the S. bdy. of Tp. latitude 40°00'N., longitude 111°31'W., which is a sandstone 4x10x5 ins. above ground firmly set and marked and witnessed as described by the surveyor general. I re-establish this cor. at the same point as follows:

Set an iron post, 3 ft. long, 3 ins. in dia.,24 ins. in the ground alongside of stone, mkd. on brass cap

T 9 S R 4 E
S 32 | S 33
S 5 | S 4
T 10 S
1914

from which

A pinon pine 4 ins. dia.,bears N.44°30'E., 91 lks. dist. mkd. T 9 S R 4 E S 33 B T.

An oak 6 ins. dia.,bears S.10°30'E., 243 lks. dist. mkd. T 9 S R 3 E S 4 B T.

A cedar 6 ins. dia.,bears S.87°W., 265 lks. dist. mkd. T 9 S R 3 E S 5 B T.

An oak 5 ins. dia.,bears N.66°30'W., 112 lks. dist. mkd. T 9 S R 4 E S 32 B T.

RETRACEMENT AND RESURVEY S. BDY. T. 9 S. R. 4 E.

Chains	
	July 17, 1914.
	July 18, 1914: At 1h 50m p.m., l.m.t., I lay off the azimuth of Polaris 1°30' to the west and mark the meridian thus determined by a cross cut in a stone firmly set in the ground 5.00 chs. N. of the cor.
	At 2h 6m p.m., l.m.t., I set off 21°05'N. on the decl. arc, 40°00'N. on the lat. arc, and determine the meridia by the solar and mark the line thus determined by cutting a small groove in the stone already set 5.00 chs. N. of the cor. This mark falls 0.3 ins. west of the meridian determined by Polaris; therefore I conclude that the adjustments of the instruments are satisfactory
	The magnetic bearing of the meridian at 2h 20m p.m. is N.17°25'E.
	Thence I run
	West on a retracement line bet. secs. 5 and 32.
	Over mountainous land, through dense oak and deer brush. Descend.
2.00	Gully 50 ft. below cor., course N.15°W. Ascend.
5.00	Spur 50 ft. above gully bears N.15°W. and S.15°E. Descend.
20.65	Thistle Creek 50 lks. wide 1 ft. deep in canyon 200 ft. below spur, course N.10°E. Ascend.
21.35	Telegraph line bears N.10°E. and S.10°W.
21.40	Wire fence bears N.10°E. and S.10°W.
21.75	D. & R.G.R.R. track bears N.10°E. and S.10°W.
22.50	Wire fence bears N.10°E. and S.10°W.
	Enter cottonwood timber in swampy ground.
25.00	Leave timber and swamp, enter alfalfa bearing N. and S.
28.00	Fence bears N.20°W. and S.20°E.
28.30	Road bears N.20°W. and S.20°E.
	Leave alfalfa field bearing same; belongs to Simmons.
28.50	Begin abrupt ascent of ridge bearing N.20°W. and S.20°E.
39.75	Fall 11 lks. N. of ¼ sec. cor. which is a limestone 5x14x6 ins. above ground, firmly set and mkd. and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

RETRACEMENT AND RESURVEY S. BDY. T. 9 S. R. 4 E.

Chains	
	the ground for the ¼ sec. cor. alongside of stone, mkd. on brass cap
	¼ S 32 / S 5 / 1914
	from which
	A cedar, 4 ins. dia., bears N.30°W., 240 lks. dist. mkd. ¼ S 32 B T.
	A cedar, 10 ins. dia., bears S.27°E., 65 lks. dist. mkd. ¼ S 5 B T.
	The course of this half mile is therefore S.89°50'W. and dist. 39.75 chs.
41.30	Spur 150 ft. above creek bears N.10°W. and S.10°E.
	Descend.
48.70	Gully 125 ft. below spur course S.10°E.
	Ascend.
55.80	Ridge 200 ft. above gully bears N.10°W. and S.10°E.
	Descend.
67.00	Gulch 300 ft. below ridge course S.15°E.
	Ascend abruptly.
80.66	Fall 385 lks. S. of the cor. of secs. 5, 6, 31 and 32, which is a sandstone 22x11x7 ins. 18 ins. in the ground and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 3 ins. in dia., 14 ins. in the ground and surrounded by mound of stone for cor. of secs. 5, 6, 31 and 32, mkd. on brass cap
	T 9 S R 4 E S 31 | S 32 S 6 | S 5 1914
	from which
	A pinon pine 4 ins. dia., bears N.14°E., 53 lks. dist. mkd. T 9 S R 4 E S 32 B T.
	A pinon pine 8 ins. dia., bears N.62°50'W., 85 lks. dist. mkd. T 9 S R 4 E S 31 B T.
	The course of this half-mile is therefore N.84°28'W., and dist. 41.10 chs.

RETRACEMENT AND RESURVEY S. BDY. T. 9 S. R. 4 E.

Chains	
	Land mountainous, high, rough and steep.
	Soil rich loam in Thistle Canyon; hard clay on rest of mile.
	Undergrowth oak, sage and buck brush.
	Timber scattering cedar and pinon pine with some cotton-wood in canyon bottom.
	Good grass for grazing.
	July 18, 1914.

July 24, 1914: At 8h 6m a.m., l.m.t., I set off 19°59'N. o the decl. arc, 40°00'N. on the lat. arc, and determine the meridian with the solar at the cor. of secs. 31 and 32 on S. bdy. of Tp.

Thence I run

West on a retracement line bet. secs. 6 and 31.

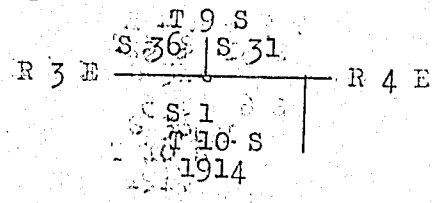
40.00 Find no trace of old ¼ sec. cor.

80.00 Find no trace of Tp. cor.

123.65 Fall 4.03 lks. S. of ¼ sec. cor. on S. side of sec. 36, which is a sandstone 10x7x6 ins. above ground firmly set and marked and witnessed as described by the surveyo general.

NOTE: At point S.88°08'E. 41.24 chs. I re-establish the Tp. cor., proportional distance, as follows:

41.24 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of Tps. 9 S. Rs. 3 and 4 E. mkd. on brass cap



and raise a mound of stone 2 ft. base, 1½ ft. high S. of cor.

Thence I run

S.88°08'E. on a resurvey line along S. side of sec. 31.

Over mountainous land through dense oak, buck brush, sage and service berry. Ascend gradually.

RETRACEMENT AND RESURVEY S. BDY. T. 9 S. R. 4 E.

Chains	
13.80	Spur 150 ft. above cor., bears N. and S.
	Descend.
22.50	Gully 50 ft. below spur, course S.
	Ascend.
39.70	Ridge 100 ft. above gully brs. N.5°E. and S.5°W.
	Descend.
36.50	Gully 100 ft. below ridge course S.5°W.
	Ascend.
41.24	Find no trace of old ¼ sec. cor. Proportional distance
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor.
	¼ S 31
	1914
	from which
	An oak 4 ins. dia., bears N.14°W.,
	29 lks. dist. mkd. ¼ S 31 B T.
59.50	Ridge 150 ft. above gully bears N.15°E. and S.15°W.
	Descend.
77.50	Swale 150 ft. below ridge course S. Ascend.
80.60	Ridge 50 ft. above swale bears N. and S.
	Descend abruptly.
82.48	The cor. of secs. 31 and 32 already described.
	Land mountainous, slopes mostly to south.
	Soil rich black loam and clay 3 ft. deep; subsoil clay.
	Undergrowth oak, buck brush, sage and service berry brush.
	No timber. Good grass for grazing.
	July 24, 1914: At this cor. I set off 19°57'N. on the decl. arc, and at 0h 06m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°0'N.

RETRACEMENT W. BDY. T. 9 S. R. 4 E.

July 20, 1914-afternoon.

The cor. of secs. 13, 18, 19 and 24 on the West boundary of Tp., which is a sandstone 2x8x6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general, I re-establish as follows:

RETRACEMENT W. BDY. T. 9 S. R. 4 E.

Chains	
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground alongside of stone for cor. of secs. 13, 18, 19 and 24, mkd. on brass cap
	T 9 S R 3 E | R 4 E S 13 | S 18 S 24 | S 19 1914
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Thence I run
	North on a retracement line bet. secs. 13 and 18.
4.00	Spur, 175 ft. above cor., bears NW. and SE.
	Descend.
12.00	Gully, 60 ft. below spur, course SE.
	Ascend abruptly.
	Enter maple bearing same.
30.70	Ridge 300 ft. above gully bears N.20°E. and S.20°W.
	Descend abruptly.
43.86	Fall 65 lks. E. of ¼ sec. cor. which is a limestone 12x8x6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. mkd. on brass cap
	¼ S 13 | S 18 1914
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	The course of this half mile is therefore N.0°51'W., 43.86 chs.
50.00	Head of gulch 700 ft. below ridge, course N.35°W.
	Ascend.
70.00	Spur, 100 ft. above gulch, bears N.35°W. and S.35°E.
80.00	Foot of descent; enter Spanish Fork Canyon bearing N. 60°W. and S.60°E. 500 ft. below spur.
81.70	Spanish Fork River 100 lks. wide 2½ ft. deep, course N. 80°W.

RETRACEMENT W. BDY. T. 9 S. R. 4 E.

Chains

82.20 Enter alfalfa field, bears N.80°W. and S.80°E.

87.82 Fall 165 lks. E. of cor. of secs. 7, 12, 13 and 18, which is a limestone 5x10x6 ins. above ground marked as described by the surveyor general but not witnessed. I remonument at same point.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, mkd. on brass cap

T 9 S

R 3 E	R 4 E
S 12	S 7
S 13	S 18

1914

from which

A boxelder 10 ins. dia., bears N.20°10'E., 422 lks. dist. mkd. T 9 S R 4 E S 7 B T.

A boxelder 8 ins. dia., bears S.0°15'E., 500 lks. dist. mkd. T 9 S R 4 E S 18 B T.

A boxelder 10 ins. dia., bears S.59°16'W., 340 lks. dist. mkd. T 9 S R 3 E S 13 B T.

A boxelder 6 ins. dia., bears N.42°16'W., 674 lks. dist. mkd. T 9 S R 3 E S 12 B T.

The course of this half mile is therefore N.1°18'W., 43.97 chs.

Land mountainous.

Soil gravelly and clay loam, 2nd rate. North 7.82 chs. is rich black loam. Subsoil clay and gravel.

Undergrowth oak and sage, maple, buck brush and deer brush.

No timber. Good grass for grazing.

July 20, 1914.

July 21, 1914: At 8h 06m a.m., l.m.t., I set off 20°36'N. on the decl. arc, 40°04'N. on the lat. arc, and determine the meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence I run

North on a retracement line bet. secs. 7 and 12.

RETRACEMENT W. BDY. T. 9 S. R. 4 E.

Chains

Over nearly level land in bottom of Spanish Fork Canyon through alfalfa field.

1.86 Irrigation ditch 3 lks. wide 1 ft. deep, course NW.

2.16 Wire fence bears E. and W.

Leave alfalfa and enter wheat field.

2.56 D. & R.G.R.R. track bears N.68°25'W. and S.68°25'E.

2.76 D. & R.G.R.R. track bears N.68°25'W. and S.68°25'E.

3.17 Fence and telegraph line bears same.

3.58 Utah County Road bears same.

4.20 Wire fence bears same.

8.75 Utah Coal Road grade bears same.

9.05 Wire fence and telephone line bears same.

10.10 Government Power line to Strawberry Project bears same.

12.35 Government telephone line Strawberry Project bears same.

14.45 Begins steep ascent bearing E. and W.

18.00 Top of ascent 100 ft. above canyon bears E. and W.

Thence over bench through wheat field.

40.51 Fall 4 lks. W. of old ¼ sec. cor. which is a quartzite stone 4x12x4 ins. above ground firmly set and marked and witnessed as described by the surveyor general.

I remonument at same point.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground alongside of stone for ¼ sec. cor. mkd. on brass cap

¼ S 12 | S 7

1914

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

43.75 Leave wheat field, enter oak and sage.

Begin ascent bearing E. and W.

50.25 Spur 200 ft. above bench bears N.50°E. and S.50°W.

60.60 Canyon 200 ft. below spur course SW. Ascend.

65.15 Begin steeper ascent bearing NE. and SW.

80.11 Fall 8 lks. W. of cor. of secs. 1, 6, 7 and 12, which is a sandstone 18x6x6 ins. 12 ins. in the ground mkd. and witnessed as described by the surveyor general. I remonument at same point.

RETRACEMENT W. BDY. T. 9 S. R. 4 E.

Chains

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 1 and 12 only, mkd. on brass cap

T 9 S

R 3 E	R 4 E
S 1	
S 12	

1914

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

The course of this mile is therefore N.0°3'E., 80.11 chs.

NOTE: Pace's house bears S.32°55'W.

Land mountainous and nearly level. S.43.75 chs. is mostly level with good rich black loam 2 to 4 ft. deep. Soil of the rest of the mile is gravelly and rocky.

Timber, a few boxelders in Spanish Fork Canyon.

Undergrowth oak and sagebrush.

Good grass for grazing.

July 21, 1914: At the noon hour, the sky was overcast and solar observations impossible.

July 21, 1914.

RETRACEMENT N. BDY. T. 9 S. R. 4 E.

Sept. 2, 1914: From the old cor. of secs. 3, 4, 33 and 34 on north boundary of Tp., which is a sandstone 5x14 x5. ins. above ground, marked and witnessed as described by the surveyor general, which I remonument as follows: Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, mkd. on brass cap

T 8 S

S 33	S 34
S 3	S 4

T 9 S.

1914

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

Thence I run

West on a retracement line bet. secs. 4 and 33.

RETRACEMENT N. BDY. T. 9 S. R. 4 E.

Chains	
	Over rolling mountainous land through dense oak and scattering rabbit brush. Ascend.
1.50	Spur 40 ft. above sec. cor. bears N. and S. Descend gradually.
5.20	Swale 50 ft. below spur, course S. Ascend.
16.00	Spur 100 ft. above swale bears N. and S. Descend.
21.70	Gully 175 ft. below spur, course S. Ascend.
22.40	East edge of bench 40 ft. above gully bears N. and S. Descend gently.
26.80	Leave bench bears N. and S. Descend.
28.60	Canyon 100 ft. below bench course S.20°E. Ascend.
39.43	Fall 5 lks. N. of old ¼ sec. cor. which is a sandstone 5x10x6 ins. above ground firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. mkd. on brass cap
	¼ S 33 / S 4 / 1914
	and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	The course of this half mile is therefore S.89°56'W., 39.43 chs.
54.00	Spur 400 ft. above canyon bears N.85°W. and S.85°E. Continue ascent.
58.70	Ridge 80 ft. above spur bears NW. and S.20°E. Descend abruptly.
68.65	Canyon 300 ft. below ridge course SE. Ascend abruptly. Enter scattering maple.
78.25	Fall 19 lks. S. of cor. of secs. 4, 5, 32 and 33, which is a sandstone 5x10x8 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, mkd. on brass cap

RETRACEMENT N. BDY. T. 9 S. R. 4 E.

Chains

T 8 S R 4 E
S 32 | S 33
S 5 | S 4
T 9 S
1914

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

The course of this half mile is therefore N.89°39'W., 38.81 chs.

Land mountainous.

Soil clay and gravelly loam.

Undergrowth oak, rabbit brush and maple.

No timber. Good grass for grazing.

Sept. 2, 1914: At this cor. I set off 8°03'N. on the decl. arc, and at 12h 0m a.m.,l.m.t., observe the sun on the meridian; the resulting lat. is 40°05'N.

West on a retracement line bet. secs. 5 and 32.

Over mountainous land through dense oak and maple brush. Ascend.

18.00 Top of ridge, 600 ft. above cor.,bears N.35°W. and S.35°E. Descend.

25.70 Swale 100 ft. below ridge, course S.35°E. Ascend.

28.40 Spur 200 ft. above swale bears N.30°W. and S.30°E. Descend.

34.00 Head of canyon 100 ft. below spur, course S.30°E. Ascend abruptly.

39.24 Fall 12 lks. S. of the old ¼ sec. cor., which is a sandstone 5x9x6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 1 in. in dia.,26 ins. in the ground along side of stone for ¼ sec. cor. mkd. on brass c cap

¼ S 32

1914

and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

RETRACEMENT N. BDY. T. 9 S., R. 4 E.

Chains

Cor. is on ridge, 300 ft. above canyon, bearing N. and S.

Descend.

78.81 Fall 23 lks. S. of the cor. of secs. 5, 6, 31 and 32, which is a limestone 9 x 10 x 7 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point as follows:

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 31 and 32 only, with brass cap marked

T 8 S
S 31 | S 32
R 4 E
T 9 S

1914

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

The course of this mile is therefore N.89°50'W. and the distance 78.81 chs.

Land, mountainous.

Soil, clay and gravelly loam, 2nd rate.

No timber.

Undergrowth, oak and maple.

Good grass for grazing.

September 2, 1914.

September 7, 1914: At 7h 58m a.m., l.m.t., I set off 40°05' N. on the lat. arc; 6°16' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 31 and 32, on the S. bdy. of T. 8 S., R. 4 E., heretofore described.

Thence

West, on a retracement line along the S. bdy. of sec. 31.

39.70 Fall 20 lks. N. of the ¼ sec. cor., which is a limestone 6 x 12 x 9 ins. above ground, firmly set, and

RETRACEMENT N. BDY. T. 9 S., R. 4 E.

Chains	
	marked and witnessed as described by the surveyor general. Cor. not remonumented.
84.95	Fall 170 lks. N. of the closing cor. of Ts. 9 S., Rs. 3 and 4 E., heretofore described.
104.95	Fall 211 lks. N. of the SW. cor. of T. 8 S., R. 4 E., heretofore described.

The course of this line is therefore S.88°51'W. and the distance 104.97 chs.

Note: No change in topography from original notes.

September 7, 1914: At the noon hour the sky was overcast and solar observation was impossible.

September 7, 1914.

John R Stewart

U. S. Surveyor.

T. 9 S., R. 4 E.

Latitudes, Departures and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes N.	Latitudes S.	Departures E.	Departures W.
		Chs.	Chs.	Chs.	Chs.	Chs.
W.Bdy. T.9 S., R.4 E.	North	229.00	229.00			
" " "	N.0°51'W.	43.86	43.86			.65
" " "	N.1°18'W.	43.97	43.96			1.00
" " "	N.0°03'E.	80.11	80.11		.07	
" " "	North	82.02	82.02			
N.Bdy. " "	N.88°51'E.	84.97	1.70		84.95	
" " "	S.89°50'E.	78.81		.23	78.81	
" " "	S.89°39'E.	38.81		.24	38.81	
" " "	N.89°56'E.	39.43	.05		39.43	
Secs. 3 & 4	S.2°11'E.	45.35		45.32	1.73	
	South	40.00		40.00		
" 4 & 9	West	40.87				40.87
	N.89°28'W.	39.37	.37			39.37
" 8 & 9	S.0°30'W.	39.42		39.42		.34
	S.0°23'E.	39.82		39.82	.27	
" 9 & 16	S.89°38'E.	80.00		.51	80.00	
" 10 & 15	N.87°44'E.	79.45	3.14		79.39	
" 11 & 14	N.89°00'E.	80.53	1.41		80.52	
" 11 & 12	N.0°11'W.	39.59	39.59			.13
	N.1°22'W.	38.36	38.35			.91
" 1 & 12	N.89°05'E.	39.65	.64		39.64	
	N.88°46'E.	39.41	.84		39.40	
E.Bdy.	S.1°57'E.	240.99		240.85	8.20	
Secs. 24 & 25	S.87°22'W.	84.51		3.88		84.42
" 25 & 26	S.0°12'W.	77.90		77.90		.27
" 26 & 35	S.89°20'W.	80.24		.93		80.24
" 27 & 34	S.89°53'W.	80.70		.16		80.70
" 28 & 33	S.88°58'W.	79.82		1.44		79.81
" 32 & 33	S.0°39'E.	79.66		79.66	.90	
S.Bdy.	S.89°50'W.	39.75		.12		39.75
	N.84°28'W.	41.10	3.96			40.91
	N.88°08'W.	82.48	2.69			82.44
Convergency					.42	
Totals			571.69 570.48	570.48	572.54 571.81	571.81
Error in lat. and dep.			1.21		.73	

GENERAL DESCRIPTION OF T. 9 S., R. 4 E.

This fractional township lies entirely in high mountains and is very steep and rough with the exception of the canyon bottoms and a high plateau country lying between Diamond canyon and Soldier canyon. This plateau country embraces parts of secs. 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27 and 28. It has an elevation above sea level of about 6,500 ft. The soil is rich mountain loam several feet deep and produces excellent crops without irrigation. The canyon bottoms are also very fertile, but are usually irrigated. The high ridges and steeper side hills are generally covered with a dense undergrowth of oak, maple, service berry and chokecherry brush, oak prevailing. Grasses grow in abundance, which, together with the underbrush, afford excellent grazing for cattle, sheep and horses.

Diamond creek runs through the township from northeast to southwest and empties into Spanish Fork river in sec. 17. This creek has an average width of about 30 lks. and a depth of about 2 ft. Later the water from the Government Strawberry Reservoir project will enter Spanish Fork river through this creek. Soldier creek runs through the township from east to west and joins Thistle creek near the cor. of secs. 28, 29, 32 and 33 to form Spanish Fork river, which then flows northwesterly and leaves the township near the NW. cor. of sec. 18.

The D. & R. G. R. R. main line from Salt Lake City to Denver runs through Spanish Fork canyon to Thistle and through Soldier canyon to Soldier Summit. A branch of the same road runs south from Thistle, up Thistle creek to San Pete valley and Marysvale, Utah.

No mineral was found in the newly surveyed portion of the township.

E. P. Whiting has improvements and cultivated land in secs. 14 and 23.

GENERAL DESCRIPTION OF T. 9 S., R. 4 E. (CONT'D)

J. Diamond has improvements and cultivated land in secs. 14 and 23.

Mr. Harmer has improvements and cultivated land in secs. 23 and 24. (First name not learned.)

There is about 20 acres of cultivated land in secs. 19 and 30. Claimant unknown.

Harmer has improvements and cultivated land in secs. 23 and 26.

Mr. Hayes has improvements in sec. 17, fenced and cultivated land. (First name not known.)

John R Stewart
U. S. Surveyor.

Volume
#
R0420

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants see book "F" T. 10 S., R. 3 E.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of U. S. Surveyor see book "F" T. 10 S., R. 3 E.

..... of the ..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, May 10, 1916.

The foregoing field notes of the ~~surveyor of~~ retracement, resurvey and survey of the subdivision; retracement and resurvey of the south boundary, and retracement of the west and north boundaries of Township 9 South, Range 4 East, of the Salt Lake Base and Meridian, Utah,

executed by John R. Stewart

under his special instructions dated May 14, 1914, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements, resurveys and surveys they describe, are hereby approved.

M. O. Sholeseen

U. S. 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.

.....

U. S. Surveyor General.

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Page

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BOOK A-420

D

U. S. Surveyor General's Office
MAY 14 1915
SALT LAKE CITY, UTAH

Field Notes

OF THE ~~SURVEY OF THE~~

RETRACEMENT, RESURVEY AND SURVEY OF SUBDIVISION,

AND

RETRACEMENT OF WEST, SOUTH AND NORTH BOUNDARIES

OF

TOWNSHIP 9 SOUTH, RANGE 3 EAST

Of the Salt Lake Base and *Meridian,*

In the State of Utah

EXECUTED BY

JOHN R. STEWART

In the capacity of U. S. Surveyor, *under instructions dated* May 14, *1914*, *issued by the United States Surveyor General to govern surveys included in Group No.* 29, *which were approved by the Commissioner of the General Land Office,* June 5, *1914*, *pursuant to authority contained in the Act of Congress dated* ....., *191*....

Survey commenced August 7, *1914*

Survey completed October 17, *1914*

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Township 9 South, *Range* 3 East

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INDEX DIAGRAM.

Township 9 S, Range 36 E

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6—1817

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Survey commenced August 7, 1914, and executed with a Young & Sons light mountain transit, No. 8538, 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 meridian at Salt Lake City, Utah, found correct, and was approved by the assistant supervisor of surveys, May 15, 1914.

Steel tapes 5 chs. long were used for measuring the slope angles and the horizontal distances determined by the use of the standard field tables and the vertical angles read to Lietz clinometers. A standard steel tape one chain long was kept for testing the accuracy of the long tapes.

I examine the adjustments of the instrument, and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during p.m. and a.m. hours, with a meridian established by observations on Polaris, I proceed as follows:

At the cor. of secs. 7, 12, 13 and 18 on the E. bdy. of the Tp., heretofore described; latitude 40°04'N., longitude 111°34'W., I set off 40°04'N. on the lat. arc; 16°29'N. on the decl. arc; and at 5h 6m 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.

August 7, 1914: At 10h 30m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point thereof, on a wooden plug set in the ground 5 chs. N. of the cor.

August 8, 1914: At 7h 30m a.m., l.m.t., I lay off the azimuth of Polaris, 1°30' to the west, and mark a

Chains	
	point in the meridian thus determined, by cutting a small groove in the plug already set 5 chs. N. of the cor.; this mark falls 0.38 ins. W. of the meridian determined by the solar. At 8h 6m a.m., l.m.t., I set off 16°19'N. on the decl. arc; 40°04'N. on the lat. arc; and mark the meridian thus determined, by a cross in the stone already set 5 chs. N. of the cor.; this mark falls 0.34 ins. E. of the meridian determined by Polaris observation. The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about 0'20"W. and 0'18"E. of the meridian established by Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian, at 8h 0m a.m., is N.17°22'W.; the angle thus determined gives the mag. decl. 17°22'E.
	From the said cor. of secs. 7, 12, 13 and 18, on the E. bdy. of the Tp., I run West, on a retracement line bet. secs. 12 and 13.
40.38	The ¼ sec. cor. bet. secs. 12 and 13, which is a sandstone 11 x 9 x 5 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
80.38	The old cor. of secs. 11, 12, 13 and 14, which is a sandstone 10 x 9 x 3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	North, on a retracement line bet. secs. 11 and 12.
40.00	Intersect the old ¼ sec. cor., which is a sandstone 11 x 9 x 7 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
101.12	Fall 18.98 chs. east of the cor. of secs. 1, 2, 11 and

Chains

12, which is identified by considering the topography to the south and west, particularly the old D. & R. G. R. R. grade and river crossing, and by an old mound of stone. The marked stone, however, was not found.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for the re-established cor. of secs. 1, 2, 11 and 12, with brass cap marked

T 9 S S 2	R 3 E S 1
S 11	S 12

1914

and raise a mound of stone, 6 ft. base, 4 ft. high, W. of cor.

August 8, 1914.

August 10, 1914: At 8h 5m a.m., l.m.t., I set off 40° 04'N. on the lat. arc; 15°43'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1 and 12, on the E. bdy. of the Tp., heretofore described. Thence

West, on a retracement line bet. secs. 1 and 12.

40.00 Find no trace of old ¼ sec. cor.

Set temp. ¼ sec. cor.

99.86 Fall 20.77 chs. south of the cor. of secs. 1, 2, 11 and 12.

August 10, 1914: At this cor. I set off 15°40'N. on the decl. arc; and at 0h 5m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.

Thence

S.78°15'E., on a resurvey line bet. secs. 1 and 12;

Over mountainous land, through dense oak brush, ascending gradually along S. slope of mountain.

.96 Telegraph line bears NW. and SE.

9.70 Spur, 150 ft. above cor., bears N. and S.

Descend.

15.80 Wash, 40 lks. wide, 2 ft. deep, course S.10°E.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E

Chains

23.70 Telephone line bears N.77°W. and S.77°E.

35.50 Strawberry project power line bears N.77°W. and S.77°E.

48.20 Mountain States telephone line bears N.85°W. and S.85°E.

51.00 Find no trace of old ¼ sec. cor., after diligent search.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 1
¼
S 12
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

64.20 Spur, 175 ft. above wash, bears N. and S.

Descend.

66.15 Gulch, 50 ft. below spur, course S.

Ascend.

74.70 Spur, 300 ft. below gulch, bears N. and S.

Descend.

78.20 Gully, 40 ft. below spur, course S.

Ascend abruptly.

95.10 Ridge, 400 ft. above gully, bears N.10°E. and S.10°W.

Descend.

102.00 The cor. of secs. 1 and 12.

Land, mountainous, sloping south towards Spanish Fork river.

Soil, rocky and gravelly, about 1 ft. deep.

No timber.

Undergrowth, oak with some maple, rose and buck brush.

Good grass for grazing.

August 10, 1914.

August 11, 1914: At 8h 5m a.m., l.m.t., I set off 15° 26'N. on the decl. arc; 40° 04'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Thence
	North, on a retracement line bet. secs. 1 and 2,
	Over mountainous land, through dense oak and scattering maple, service berry and chokecherry; ascend.
.67	Telegraph line bears N.70°W. and S.70°E.
2.20	Government power line bears N.15°W. and S.15°E.
4.00	Telephone line bears N.15°W. and S.15°E.
6.20	Telephone line bears N.78°W. and S.78°E.
10.30	Telephone line bears N.78°W. and S.78°E.
12.40	Begin abrupt ascent, bearing N.80°W. and S.80°E.
41.22	Fall 23 lks. E. of the old ¼ sec. cor., which is a limestone 13 x 10 x 4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	I rebuild mound of stone W. of cor.
55.00	Ridge, 600 ft. above sec. cor., bears N.80°E. and S. 80°W. Descend abruptly.
58.00	Gulch, 150 ft. below ridge, course S.80°W. Ascend abruptly.
82.01	Intersect N. bdy. of Tp. 45 lks. E. of the cor. of secs. 1, 2, 35 and 36, which is a sandstone 26 x 12 x 8 ins. above ground, firmly set and marked and witnessed as described by the surveyor general.
	I rebuild mound of stone W. of cor.
	The course of this mile is N.0°19'W. and the distance 82.01 chs.
	Land, mountainous, very steep and rough.
	Soil, mountain loam mixed with rock and small boulders.
	Undergrowth, oak, chokecherry and maple.
	No timber.
	Good grass for grazing.
	August 11, 1914.
	August 12, 1914: At 8h 5m a.m., l.m.t., I set off 40°04'N. on the lat. arc; 15°08'N. on the decl. arc;

Chains	
	and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12.
	Thence
	West, on a retracement line bet. secs. 2 and 11.
40.00	Find no trace of old ¼ sec. cor., after diligent search. Set temp. ¼ sec. cor.
80.00	Find no trace of old sec. cor., after diligent search. I continue west, setting temporary ¼ sec. and sec. cors., but find no old corners, on August 12, 13 and 14, and at
316.40	Fall 92 lks. S. of the cor. of secs. 5, 6, 7 and 8, which is a boulder 16 x 10 x 3 ins., firmly set, and marked and witnessed as described by the surveyor general, at the corner of a fence. I remonument at same point.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, by side of stone, with brass cap marked
	T 9 S | R 3 E S 6 | S 5 S 7 | S 8 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	August 14, 1914: At this cor. I set off 14°28'N. on the decl. arc; and at 0h 5m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.
	South, on a retracement line bet. secs. 7 and 8.
	Over nearly level land; ascend gradually.
.25	Road bears E. and W.
.50	Wire fence bears E. and W.
	Enter orchard.
7.50	Wire fence, bears N.85°E. and S.85°W.
	Leave orchard; enter sagebrush.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
12.50	Spur, 50 ft. above cor., bears E. and W.
	Descend.
15.00	Swale, 30 ft. below spur, course W.
	Ascend.
21.70	Enter scattering oak brush bearing E. and W.
30.50	Road bears N.30°W. and S.30°E.
38.90	Road bears N.15°E. and S.15°W.
40.60	Fall 20 lks. W. of the old ¼ sec. cor., which is a limestone 10 x 10 x 8 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 7 | S 8 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
57.00	Road bears N.15°W. and S.15°E.
80.78	Fall 38 lks. W. of the cor. of secs. 7, 8, 17 and 18, which is a sandstone 14 x 10 x 8 ins., loosely set and not witnessed but properly marked. I remonument at same point.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, by side of stone, for cor. of secs. 7, 8, 17 and 18, with brass cap marked
	T 9 S | R 3 E S 7 | S 8 S 18 | S 17 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rolling, sloping to the west.
	Soil, light sandy and clay loam, mixed with considerable gravel and some rock.
	Undergrowth, sage and oak brush.
	No timber.

Chains	
	Good grass for grazing.
	The course of the N. half mile is S.0°17'E., and the distance 40.60 chs.; and the S. half mile is S.0°15'E., 40.18 chs.
	August 14, 1914.
	August 15, 1914: At 8h 04m a.m., l.m.t., I set off 14° 13'N. on the decl. arc; 40°04'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.
	Thence
	South, on a retracement line bet. secs. 17 and 18.
	Over rolling foothills, west slope, through dense sage-brush along road.
9.00	Creek 10 lks. wide, 4 ins. deep, course N.85°W.
14.00	Leave road, bearing N. and E.
14.30	Wire fence bears E. and W.
	On spur, 50 ft. above creek, , bears same.
37.00	Swale, 50 ft. below spur, course W.
	Ascend.
40.53	Fall 34 lks. W. of ¼ sec. cor., which is a sandstone 12 x 14 x 3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 18 | S 17 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
61.70	Enter dense oak and maple brush bearing E. and W.
64.80	Creek, 5 lks. wide, 4 ins. deep, course W.
70.00	Creek, 5 lks. wide, 3 ins. deep, course W.
76.80	Begin ascent of mountain, bearing N.20°E. and S.20°W.
80.96	Fall 20 lks. W. of the cor. of secs. 17, 18, 19 and 20,

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains

which is a sandstone 14 x 12 x 2 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 17, 18, 19 and 20, with brass cap marked

T 9 S	R 3 E
S 18	S 17
S 19	S 20

1914

from which

An oak 4 ins. diam. bears N.78°E., 37 lks. dist., marked T 9 S R 3 E S 17 B T.

An oak 4 ins. diam. bears S.80°E., 35 lks. dist., marked T 9 S R 3 E S 20 B T.

A maple 4 ins. diam. bears S.70°W., 29 lks. dist., marked T 9 S R 3 E S 19 B T.

No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

The course of the N. half mile is S.0°29'E. and the distance 40.53 chs.; and the S. half mile is S.0°12'W., 40.43 chs.

Land, rolling and mountainous.

Soil, sandy and clay loam about 1 to 2 ft. deep.

Subsoil, gravelly and rocky.

Undergrowth, oak, sage and maple.

No timber.

Good grass for grazing.

August 15, 1914: At this cor. I set off 14°10'N. on the decl. arc; and at 0h 4m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.

South, on a retracement line bet. secs. 19 and 20,

Over mountainous land, through very dense undergrowth; ascend.

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains

5.00 Spring branch 5 lks. wide, 3 ins. deep, course W.

15.00 Gorge, 50 lks. wide, 15 ft. deep, course N.80°W.
Ascend abruptly.

17.80 Spur, 150 ft. above creek, course N.80°W. and S.80°E.

32.00 Gully, 200 ft. below spur, course W.
Ascend.

40.28 Fall 28 lks. W. of ¼ sec. cor., which is a quartzite stone 18 x 9 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. I remonument at same point.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

¼ S 19 | S 20
1914

Dig pits 18 x 18 x 12 ins. N. and S. of post, 4 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

53.70 Spur, 250 ft. above gully, bears N.85°E. and S.85°W.
Descend.

71.70 Maple Canyon, 400 ft. below spur, course W.
Ascend.

75.50 Spur, 250 ft. above canyon, bears N.10°E. and S.10°W.
Descend.

79.50 Swale, 25 ft. below spur, course N.10°E.
Ascend.

80.56 Fall 58 lks. W. of the cor. of secs. 19 and 20, which is a quartzite stone 16 x 10 x 3 ins. above ground, loosely set, and marked and witnessed as described by the surveyor general.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 19 and 20 only, with brass cap marked

T 9 S | R 3 E
S 19 | S 20
S 30 | S 29
1914

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Dig pits 24 x 24 x 12 ins. NW. and NE. of post, 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
	The course of this mile is therefore S.0°25'E. and the distance 80.56 chs.
	Land, mountainous, sloping to the west.
	Undergrowth, oak, maple and service berry.
	Soil, clay and gravelly loam.
	No timber.
	Good grass for grazing.
	August 15, 1914.
	October 8, 1914: At 7h 48m a.m., l.m.t., I set off 40°02'N. on the lat. arc; 5°41'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19 and 20.
	Thence
	West, on a retracement line along the S. side of sec.19.
	Over mountainous land, through very dense undergrowth; descend.
.50	Swale, 20 ft. below cor., course N.10°E.
	Ascend.
2.90	Spur, 75 ft. above swale, bears N. and S.
	Descend.
19.60	Wire fence, bears N. and S.
19.90	Gulch, 60 ft. below spur, course N.25°W.
	Ascend.
40.02	Fall 12 lks. N. of the old ¼ sec. cor., which is a boulder in place under fence, marked and witnessed as described by the surveyor general.
	The course of the E. half mile is therefore S.89°50'W. and the distance 40.02 chs.
	I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, by side of stone, for ¼ sec. cor.,

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	with brass cap marked S 19 ¼ S 30 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
74.00	Road bears N. and S.
79.96	Fall 23 lks. N. of cor. of secs. 19, 24, 25 and 30, which is a limestone 18 x 7 x 5 ins., marked as described by the surveyor general but not witnessed. I remonument at same point.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 19, 24, 25 and 30, with brass cap marked T 9 S S 24 | S 19 R 2 E ——— R 3 E S 25 | S 30 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The course of the W. half mile is S.89°50'W. and the distance 39.94 chs.
	Land, mountainous and rolling.
	Soil, clay loam. Subsoil, clay and gravel.
	Undergrowth, oak and sagebrush.
	Good grass for grazing.
	No timber.

RETRACEMENT OF THE WEST BDY. OF T. 9 S., R. 3 E.

	From the cor. just described, I run
	South, on a retracement line bet. secs. 25 and 30.
	Over rolling bench land, through dense undergrowth, ascending gradually.
13.50	Road bears NW. and SE.

RETRACEMENT OF THE WEST BOUNDARY OF T. 9 S., R. 3 E.

Chains

40.07 Fall 31 lks. W. of ¼ sec. cor., which is a cobblestone 14 x 7 x 4 ins. above ground, marked and witnessed as described by the surveyor general.

At cor. of fence bearing S. and W.

1 remonument at same point.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

¼ S 25 | S 30

1914

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

40.20 Old road bears NE. and SW.

72.25 Begin ascent of mountain, bearing NE. and SW.

79.13 Fall 63 lks. W. of the cor. of secs. 25, 30, 31 and 36, which is a limestone 12 x 10 x 5 ins. above ground, marked and witnessed as described by the surveyor general. 1 remonument at same point.

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 25 and 36 only, with brass cap marked

T 9 S

S 25 | S 30

R 2 E ——— R 3 E

S 36 | S 31

1914

Dig pits 24 x 24 x 12 ins. NW. and SW. of post, 6 ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

The course of this mile is therefore S.0°27'E. and the distance 79.13 chs.

Land, mountainous and rolling.

Soil, clay and gravelly loam; 2nd rate.

Undergrowth, oak and sagebrush.

No timber.

Good grass for grazing.

Martin A. Peterson has a Desert Entry in sec. 30, claimed as outlined on the plat, and has had considerable land broken up, but not now in crops. The tracts

Chains	
	were not seen from line. Mr. N. C. Christensen has a house and several tracts of cultivated land in sec. 30 not seen from line. The area of cultivated land is about 25 acres. He claims the area represented on the plat.
	October 8, 1914: At this cor. I set off 5°46'S. on the decl. arc; and at 11h 48m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	South, on a retracement line bet. secs. 31 and 36, Over mountainous land, through dense undergrowth; ascend.
15.75	Spur, 300 ft. above sec. cor., bears E. and W. Descend.
28.80	Canyon, 300 ft. below spur, course N.30°W. Ascend through pine and aspen timber.
35.60	Ridge, 300 ft. above canyon, bears NW. and SE. Leave timber; descend.
39.99	Fall 15 lks. W. of the ¼ sec. cor., which is a limestone 15 x 10 x 4 ins. above ground, marked and witnessed as described by the surveyor general. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked, for ¼ sec. 36 only ¼ S 36 | 1914 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.
55.00	Gulch, 400 ft. below ridge, course W. Ascend.
58.03	Note: On October 13, at this point, on the true course I set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., on W. side of sec. 31, with brass cap marked | ¼ S 31 1914

RETRACEMENT OF THE WEST BOUNDARY OF T. 9 S., R. 3 E.

Chains.	
	and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
61.70	Spur, 150 ft. above gulch, bears N.70° W., and S.70° E. Descend.
66.70	Gulch, 100 ft. below spur, course W. Ascend.
69.90	Rocky spur, 100 ft. above gulch, bears E. and W. Descend.
81.58	Fall 168 lks. W. of U.S. Forest Reserve Boundary Post No. 54 which is an iron post, 4 ins. in diam., extending 12 ins. above the ground, marked and witnessed as described by the surveyor-general. This is also the witness cor. to corner of Tps. 9 and 10 S., R. 2 E., and bears S.89° 50' W. from old township corner, 6 lks. dist.
	The course of the N. half of this mile is S.0° 13' E., and distance 39.99 chs., and of the S. half to true cor. of Tps. 9 and 10 S., R. 2 E. is S.2° 12' E., and distance 41.60 chs.
	I offset over the iron post, and continue S. along the W. side of sec. 31.
23.32	Fall 119 lks. E. of U.S. Forest Reserve Boundary Post No. 53, which is an iron post, 4 ins. in dia., 12 ins. above the ground, marked and witnessed as described by the surveyor general. This is also the witness corner to closing cor. of Tps. 9 and 10 S., R. 3 E., and is N.89° 39' E. 6 lks. of closing corner.
	The course of this fractional mile is therefore S.3° 13' W., and distance 23.35 chs.
	Land, mountainous.
	Soil, clay and gravelly loam.
	Undergrowth, oak and sagebrush.
	Timber, pine and aspen. Good grass for grazing.
	October 8, 1914.

RETRACEMENT OF THE SOUTH BOUNDARY OF T. 9 S., R. 3 E.

September 14, 1914: At 7h 56m a.m.l.m.t., I set off 40°

Chains.

00'N.on the lat.arc; 3° 36'N.on the decl.arc; and determine a meridian with the solar at the re-established cor.of Tps.9 S., Rs.3 and 4 E., heretofore described.

Note: For reasons already explained in the retracement of the S. bdy.of T.9 S., R.4 E., I run

N.88° 08'W.on a resurvey line along the south side of sec.36.

Over rolling mountainous land; through dense undergrowth; descend.

15.20 Gully, 50 ft.below cor., course S. Ascend.

19.50 Rocky spur, 100 ft.above gully, bears N.and S.

Descend.

30.40 Leave undergrowth, and enter alfalfa field in bottom of north fork of Crab Creek, bearing N.and S.

34.40 Leave alfalfa and enter dense undergrowth, bearing N. and S.

34.60 Creek, 2 lks.wide, 2 ins.deep, in north fork of Crab Creek, course S.10° E. Ascend.

41.24 The old ¼ sec.cor. I remonument at same point,

Set an iron post, 3 ft.long, 1 in.in diam., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked

$$\frac{\frac{1}{4}\ S\ 36}{1914}$$

and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.

Note: This cor., although marked for sec.36, is now an angle point.

In order to comply with special instructions, I run from this ¼ sec.cor.

West, along the S.bdy.of sec.36,

2.40 Top of bench or flat, 40 ft.above canyon, bears N.10° W. and S.10° E.

3.40 The closing cor.bet.secs.1 and 2 from the south, which is a quartzite stone 10 x 14 x 10 ins.above ground,

Chains	
	ground, firmly set, and marked and witnessed as described by the surveyor general.
15.00	Swale, 30 ft. below bench, course S.
	Ascend.
20.50	Spur, 30 ft. above swale, bears N. and S.
	Descend.
21.50	Enter heavy chokecherry brush, bearing N. and S.
32.50	Gully, 50 ft. below spur, course S.
	Ascend.
40.00	Find no trace of the old sec. cor., after diligent search.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 35 and 36 only, with brass cap marked

T 9 S | R 3 E
S 35 | S 36

T 10 S R 3 E

1914

from which

An oak 4 ins. diam. bears N.51°E., 6 lks. dist., marked T 9 S R 3 E S 36 B T.

An oak 4 ins. diam. bears N.14°20'W., 10 lks. dist., marked T 9 S R 3 E S 35 B T.

Note: Later the marks pertaining to secs. 35 and 36 are obliterated and the cor. marked A P and the marks A P added to the bearing trees.

Land, mountainous.

Soil, rich black loam and clay loam about 2 ft. deep.

Subsoil, clay.

Undergrowth, oak and sage brush.

No timber.

Good grass for grazing.

September 14, 1914: At this cor. I set off 3°32'N. on the decl. arc; and at 11h 56m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°00'N.

RETRACEMENT OF THE SOUTH BOUNDARY OF T. 9 S., R. 3 E.

Chains	
	For reasons already explained, I run West, bet. secs. 2 and 35,
	Over mountainous land, through dense undergrowth; ascend.
25.00	Spur, 250 ft. above cor., bears N. and S. Descend.
37.00	Swale, 130 ft. below spur, course S. Ascend.
40.00	Find no trace of the old ¼ sec. cor., after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. of sec. 35 only, with brass cap marked ¼ S 35 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Note: This cor., although marked for sec. 35, is now only an angle point.
45.00	Spur, 175 ft. above swale, bears N. and S. Descend.
49.00	Swale, 100 ft. below spur, course S. Ascend.
58.00	Spur, 200 ft. above swale, bears N. and S. Descend.
78.00	Canyon, 250 ft. below spur, course SE. Ascend.
80.00	Find no trace of old sec. cor., after diligent search.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 34 and 35 only, with brass cap marked T 9 S | R 3 E S 34 | S 35 T 10 S R 3 E 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

RETRACEMENT OF THE SOUTH BOUNDARY OF T.9 S., R.5 E.

Chains.	
	Note: Later the marks pertaining to secs.34 and 35 are effaced and A P added.
	Land, mountainous.
	Soil, black loam and clay loam, about 2 ft.deep; subsoil clay.
	Undergrowth, oak and sagebrush.
	No timber. Good grass for grazing.
	September 14, 1914.
	September 15, 1914, afternoon.
	West, on a retracement line on the S side of sec.34,
	Over mountainous land; through dense undergrowth and scattering timber; ascend.
10.00	Spur, 150 ft.above cor., course SE. Descend.
39.50	Canyon, 200 ft.below spur, course SE. Ascend.
46.62	Fall 7.59 chs.N.of U.S.Forest Reserve Boundary Post No. 49, which is an iron post, 4 ins.in dia., 12 ins.above ground, marked and witnessed as described by the surveyor general. This is also the witness corner to closing cor.of secs.3 and 4, and is 6 lks.S.of closing cor.
	The course of this line to C.C.is S.80° 49'W. 47.23 chs.
	I offset over corner and continue line west,
24.19	Intersect U.S.Forest Reserve Boundary Post No.50, which is am iron post, 4 ins.in dia., 12 ins.above ground, firmly set, and marked and witnessed as described by the surveyor general. This is also witness cor.to old cor.of secs.33 and 34, and is 6 lks.E.of old cor.of secs.33 and 34.
24.25	Old cor.of secs.33 and 34.
	The course of this line to old cor.of secs.33 and 34 is S.89° 52'W.and distance 24.25 chs.
	Land, mountainous.
	Soil, clay loam; subsoil, clay.
	Undergrowth, oak, service-berry, sage, and wild rose.

RETRACEMENT OF THE SOUTH BOUNDARY OF T. 3 S., R. 5 E.

Chains. Timber, aspen. Good grass for grazing.

September 15, 1914.

October 15, 1914: At 7h 46m a.m.l.m.t. I set off 40° 00' N. on the lat. arc; 8° 19' S. on the decl. arc; and determine a meridian with the solar at the cor. above described. Thence I run

West, on a retracement line along the S side of sec. 33,

39.85 Fall 6 lks. N. of the old ¼ sec. cor., which is an iron post, 1 in. in dia., 12 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

77.18 Fall 12 lks. N. of U.S. Forest Reserve Bdy. Post No. 51, which is an iron post, 4 ins. dia., 12 ins. above ground, marked and witnessed as described by the surveyor general. This is also witness cor. for secs. 4, 5, 32, and 33 and is 6 lks. W. of cor. of secs. 4, 5, 32, and 33.

The course of this line is N. 89° 55' E. and distance of 1st half 39.85 chs. and of 2d half 37.87 chs.

October 15, 1914: At this cor. I set off 8° 24' S. on the decl. arc; and at 11h 46m a.m.l.m.t., observe the sun on the meridian; the resulting lat. is 40° 00' N. Thence N. 89° 55' E. on a resurvey line along the S. side of sec. 33.

17.70 Head of Crab Creek canyon, 300 ft. below cor., course S. 70° E. Ascend.

37.87 The ¼ sec. cor. already described.

55.00 Spur, 100 ft. above canyon, bears N. 20° W. and S. 20° E. Descend.

77.72 Old cor. of secs. 33 and 34.

77.78 To Post No. 50 U.S. Forest Reserve Boundary.

Land rating and description not changed from original notes.

RETRACEMENT OF THE SOUTH BOUNDARY OF T.9 S., R.3 E.

Chains.	
	October 14, 1914: At 4h 46m p.m.l.m.t., I set off 40° 00'N.on the lat.arc; 7° 57'S.on the decl.arc; and determine a meridian with the solar at the Forest Reserve Boundary Post No.53, or witness corner to closing corner of Tps.9 and 10 S., R.3 E., and 6 lks.E.of the Tp. cor., heretofore described. Thence
	East on a retracement line bet.secs.6 and 31,
	Over mountainous land; through dense undergrowth and scattering timber; descend.
4.00	Hollow, 50 ft.below cor., course N.15° W. Ascend.
5.80	Spur, 40 ft.above gully, bears N.15° W. and S.15° E.
	Enter heavy timber.
15.00	Hollow, 200 ft.below spur, course N.20° W.
19.20	Spur, 100 ft.above hollow, bears N.20° W. and S.20° E.
28.00	Loafer canyon, 300 ft.below spur, course N.60° W.
	Leave timber. Ascend abruptly.
64.25	Old ¼ sec.cor., which is a limestone 12 x 9 x 3 ins. above ground, firmly set and properly marked. I rebuild mound of stone N.of cor.
103.40	Intersect U.S.Forest Reserve Bdy.Post No.52, which is an iron post, 4 ins.in diam., 12 ins.above ground, marked and witnessed as described by the surveyor general.
	This is also witness cor.to cor.of secs.5,6,31, and 32, and is 6 lks.W.of the cor.
103.46	Old cor.of secs.5,6,31, and 32.
	The course of this line is therefore East and the distance 103.52 chs.between the closing cor.of Tps.9 and 10 S., R.3 E., and the old cor.of secs.5,6,31 and 32.
	Land, mountainous.
	Soil, gravelly and rocky; 3d rate.
	Timber, pine and aspen.
	Undergrowth, oak, maple, and service berry.
	Good grass for grazing.
	October 14, 1914: At this cor.I set off 8° 02'S.on the

RETRACEMENT OF THE SOUTH BOUNDARY OF T.9 S., R.3 E.

Chains.

decl.arc; and at 11h 46m a.m.l.m.t., observe the sun on the meridian; the resulting lat.is 40° 00'N.

October 14, 1914.

RETRACEMENT OF THE NORTH BOUNDARY OF T.9 S.R.3 E.

August 24, 1914, afternoon (continued).

From the cor.of secs.1,2,35,and 36,already described, N.89° 32'E.on a retracement line bet.secs.1 and 36,

40.11 Fall 84 lks.N.of the ¼ sec.cor., which is a cobblestone 12 x 9 x 7 ins.above ground, firmly set and marked and witnessed as described by the surveyor-general.

I rebuild mound of stone N.of cor.

80.19 Fall 168.1lks.N.of the cor.of Tps.8 and 9 S., R.3 E., which is a quartzite stone 15 x 9 x 3 ins.above ground firmly set, and marked and witnessed as described by the surveyor general.

The course of this mile is therefore S.89° 16'E. and the distance 80.20 chs.

This cor.is 20.13 chs.N.of the SW.cor.of T.8 S., R.4 E. heretofore described.

Land, mountainous.

Soil, clay and gravelly.

Undergrowth, oak. Good grass for grazing.

No timber.

August 24, 1914.

RESURVEY OF SUBDIVISION OF T.9 S., R.3 E.

September 17,1914:At 7h 55m a.m.l.m.t. I set off 40°04' N.on the lat.arc; 2° 27'N. on the decl.arc; and determine a meridian with the solar at the cor.of secs.1,2, 11, and 12. Thence

N.89° 50'W.on a resurvey line bet.secs.2 and 11.

Descend over mountainous land; through dense undergrowth.

Chains.	
1.80	Utah County road, bears NW. and SE.
3.10	D. & R.G.R.R.track, main line, bears NW. and SE.
3.50	D. & R.G.R.R.track, main line, bears NW. and SE.
5.00	U. S. Reclamation house, bears S.1.50 chs.
6.10	U. S. Reclamation dam, bears S.2.00 chs.
6.60	Right bank of Spanish Fork River, 100 lks.wide, 2 ft. deep, course NW.
7.50	Strawberry Canal, 20 lks.wide, 3 ft.deep, course NW. Ascend abruptly.
18.80	On October 7, 1914, I return to this point and Set an iron post, 3 ft.long, 1 in.in diam., 26 ins.in the ground, for ¼ sec.cor. for sec.11 only, with brass cap marked ¼ S 11 1914 and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
	September 17, 1914:
22.80	Spur, 200 ft.above canal, bears N.and S.Descend abruptly.
31.80	Gulch, 200 ft.below spur,course N. Ascend abruptly.
39.55	Set an iron post, 3 ft.long, 1 in.in diam., 26 ins.in the ground, for ¼ sec.cor.for sec.2 only, with brass cap marked S ¼ 2 1914 and raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
43.70	Spur, 500 ft.above gulch,bears N.10° E. and S.10° W. Ascend.
55.00	Spur, 50 ft.above last spur,bears N.and S. Descend.
66.50	Ravine, 250 ft.below spur, course N.25° E. Ascend.
79.10	Set an iron post, 3 ft.long, 2 ins.in diam., 24 ins.in the ground, for cor.of secs.2 and 3 only, with brass cap marked

RESURVEY OF SUBDIVISION OF T.9 S., R.3 E.

Chains.

T 9 S | R 3 E
S 3 | S 2
S 10 | S 11
1914

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

Land, mountainous, very steep and high.

Soil, clay, gravelly and rocky.

Subsoil, gravelly and rocky.

Undergrowth, oak, maple, larb and rose.

No timber.

Good grass for grazing.

September 17, 1914: At this cor. I set off 2° 23'N. on the decl. arc; and at 11h 55m a.m. l.m.t., observe the sun on the meridian; the resulting lat. is 40° 04'N.

N.89° 50'W. on a resurvey line along the S side of sec. 3,

Over mountainous land; through dense undergrowth. Ascend abruptly.

19.53 Note: Later, on October 7, at this point I

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on N. side of sec. 10, with brass cap marked

¼ S 10
1914

and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

31.80 Ridge, 1500 ft. above sec. cor., bears N.25° E., and S.25° W. Descend north slope.

38.40 Ridge, 50 ft. below last ridge, bears NW. and SE.

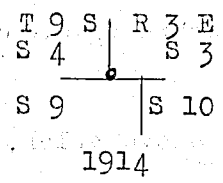
Descend abruptly.

39.55 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on S side of sec. 3, with brass cap marked ¼ S 3
1914

and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor

RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	No trace of old ¼ sec. cor. could be found.
64.00	Canyon, 2000 ft. below ridge, course N.
	Ascend abruptly.
72.00	Spur, 200 ft. above canyon, bears N. and S.
	Descend.
78.00	Ravine, 50 ft. below spur, course NE.
	Ascend abruptly.
79.10	Find no trace of old sec. cor., after diligent search.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 3 and 4 only, with brass cap marked



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

Land, mountainous, very steep and high.

Soil, mountain loam, 10 to 12 ins. deep.

Subsoil, gravel and rock.

Undergrowth, very dense oak, maple and rose.

General slope and drainage, north.

This land is so steep and brush so dense, that it is almost impossible for stock or sheep to be grazed on it.

No timber.

September 17, 1914.

September 18, 1914: At 7h 54m a.m., l.m.t., I set off 40°04'N. on the lat. arc; 2°04'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3 and 4.

Thence

N.89°50'W., on a resurvey line on the S. side of sec. 4.

Over mountainous land, through very dense undergrowth; ascend abruptly.

Chains	
7.50	Spur, 300 ft. above cor., bears NE. and SW. Descend.
12.50	Gulch, 100 ft. below spur, course NE. Ascend.
20.06	Note: Later, on October 7, I Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on N. side of sec. 9, with brass cap marked ¼ S 9 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
22.00	Ridge, 600 ft. above gulch, bears N. and S. Descend abruptly.
32.50	Gulch, 200 ft. below ridge, course N.60°W. Ascend.
39.55	Find no trace of the old ¼ sec. cor., after diligent search. Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked, for sec. 4 only S 4 ¼ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
45.00	Spur, 250 ft. above gulch, bears N.60°W. and S.60°E. Descend.
46.70	Enter scattering pine timber, bearing N. and S.
56.80	Gully, 100 ft. below spur, course N. Ascend.
63.40	Leave timber, bearing N. and S.
75.00	Spur, 100 ft. above gully, bears NW. and SE. Descend.
79.10	Find no trace of old sec. cor., after diligent search. Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins.

Chains

in the ground, for cor. of secs. 4 and 5 only, with brass cap marked

T 9 S, R 3 E.
S 5 | S 4
S 8 | S 9

1914

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

Land, mountainous, high, steep ridges and ravines.

Soil, mountain loam. Subsoil, gravel and rock.

Undergrowth, oak, maple, rose, buck and service berry brush.

Timber, pine.

Good grass for grazing.

September 18, 1914: At this cor. I set off 2°00'N. on the decl. arc; and at 11h 54m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04' N.

N.89°50'W., on a resurvey line along the S. side of sec. 5.

Over mountainous land, through dense undergrowth of oak and sage; descend abruptly.

38.00 Foot of steep descent bearing N. and S.

Descend more gradually.

39.55 Find no trace of old ¼ sec. cor.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 5
¼
S 8

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

40.00 Foot of mountain bears N. and S. Enter valley.

79.10 The cor. of secs. 5, 6, 7 and 8.

Chains	
	Land, mountainous and rolling.
	Soil, sandy and clay loam about 12 ins. deep.
	Subsoil, clay.
	Undergrowth, oak and sage brush.
	No timber.
	Good grass for grazing.
	This cor. is at the corner of fence bearing NE. and W. on N. side of road bearing E. and W.
	September 18, 1914.
	September 9, 1914: At 7h 58m a.m., l.m.t., I set off 40°04'N. on the lat. arc; 5°31'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18, on the E. bdy. of the Tp.
	Thence
	West, on a resurvey line bet. secs. 12 and 13.
	Over nearly level canyon bottom; descend.
	Through alfalfa field.
3.70	Center of Spanish Fork River, 50 lks. wide, 2 ft. deep, course N.
10.00	Leave cultivated land, bearing N. and S.
12.00	Spanish Fork River in bend, comes from NE. and course NW. 200 lks. wide at this point.
	Ascend.
13.50	Wire fence, bears NW. and SE.
35.70	Spur, 200 ft. above river, bears N.80°W. and S.80°E. Descend.
35.76	Note: From this point the chimney on William Pace's house bears N.17°27'W. about 15.00 chs. dist. There is a barn about 5 chs. N. of house.
40.38	The old ¼ sec. cor., already described. I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., by side of stone, with brass cap marked

RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains

S 12
¼
S 13
1914

from which

A maple 5 ins. diam. bears N.4°W., 42 lks. dist., marked ¼ S 12 B T.

No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

42.74 Wire fence bears N. and S.

56.30 Gorge 25 lks. wide, 15 ft. deep, course N.15°E.

Enter plowed land, bearing same.

57.90 Wagon road, bears N. and S.

Leave plowed land.

59.00 Begin abrupt ascent, bearing N. and S.

80.38 The old cor. of secs. 11 and 12, 13 and 14, which later becomes the SW. cor. of sec. 12 only, with brass cap marked

T 9 S | R 3 E
S 12
1914

from which

An oak 4 ins. diam. bears N.33°10'E., 21 lks. dist., marked T 9 S R 3 E S 12 B T.

Land, mountainous and nearly level.

Soil, mountain loam, 1st and 2nd rate.

Subsoil, clay with some patches of gravel.

Undergrowth, oak and maple.

No timber.

Good grass for grazing.

September 9, 1914: At this cor. I set off 5°26'N. on the decl. arc; and at 11h 58m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.

Chains	
	North, on a resurvey line bet. secs. 11 and 12.
	Over mountainous land, through dense undergrowth of oak and maple; ascend.
4.70	Spur, 75 ft. above cor., bears N.40°E. and S.40°W. Descend.
20.00	Lone Pine Gulch, 150 ft. below spur, course N.40°E. Ascend.
33.85	Spur, 180 ft. above gulch, bears E. and W. Descend.
40.00	The old ¼ sec. cor., already described.
	I remonument at same point.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, by side of stone, for ¼ sec. cor., with brass cap marked
	¼ S 11 | S 12 1914
	from which
	An oak 4 ins. diam. bears S.75°30'E., 10 lks. dist., marked ¼ S 12 B T.
	A maple 4 ins. diam. bears S.89°30'W., 20 lks. dist., marked ¼ S 11 B T.
	Note: The old Page-Lentz cor. bears E. 100 lks. I destroy same.
	This cor. will hereafter refer to sec. 12 only. Thence N.17°15'W., on a resurvey line bet. the N. halves of secs. 11 and 12.
5.00	Swale, 50 ft. below cor., course E. Ascend.
12.30	Spur, 150 ft. above swale, bears E. and W. Descend.
20.00	Head of gulch, 200 ft. below spur, course E. Ascend.
26.90	Ridge, 180 ft. above gulch, bears N.60°E. Descend abruptly.
58.00	Spanish Fork River (center), 80 lks. wide, 3 ft. deep, course N.77°W.

RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
59.50	Old road bears NW. and SE.
60.00	Old D. & R. G. R. R. grade bears NE. and SE.
62.05	D. & R. G. R. R. track bears N.76°30'W. and S.76°30'E.
62.20	D. & R. G. R. R. track bears N.76°30'W. and S.76°30'E.
62.50	Telegraph line bears same.
62.70	Utah County Road bears N.70°W. and S.70°E.
64.00	The cor. of secs. 1, 2, 11 and 12.
	Land, mountainous.
	Soil, clay and gravelly loam.
	Undergrowth, oak, maple and service berry.
	No timber.
	Good grass for grazing.
	Sept. 9, 1914.
	August 25, 1914: At the cor. of secs. 25 and 36, on the E. bdy. of the Tp., heretofore described, I set off 10°52'N. on the decl. arc; and at 0h 2m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
	Thence
	West, on a sectional correction line bet. secs. 25 and 36.
	Over mountainous land, through dense undergrowth; descend.
11.90	Gulch, 100 ft. below cor., course S.10°W. Ascend.
27.00	Ridge, 200 ft. above gulch, bears N.15°E. and S.15°W. Descend.
33.00	Gulch, 150 ft. below ridge, course S. Ascend.
37.80	Spur, 100 ft. above gulch, bears N. and S. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

Chains	
	S 25 / ¼ / S 36
	1914
	from which
	An oak 4 ins. diam. bears N.70°W., 34 lks. dist., marked ¼ S 25 B T
	An oak 6 ins. diam. bears S.54°W., 26 lks. dist., marked ¼ S 36 B T.
41.70	Gully, 50 ft. below spur, course S.15°E. Ascend.
45.80	Spur, 75 ft. above gully, bears N.15°W. and S.15°E. Descend.
51.40	Gully, 50 ft. below spur, course, S. Ascend.
57.60	Spur, 80 ft. above gully, bears N. and S. Descend.
64.00	North fork of Crab Creek, 100 ft. below spur, course S. Ascend.
74.30	Divide between Shurtz and Crab Creek canyons, bears NE. and SW.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 25, 26, 35 and 36, with brass cap marked
	T 9 S | R 3 E S 26 | S 25 S 35 | S 36
	1914
	from which
	A pine 6 ins. diam. bears N.83°E., 62 lks. dist., marked T 9 S R 3 E S 25 B T.
	A maple 6 ins. diam. bears S.75°E., 46 lks. dist., marked T 9 S R 3 E S 36 B T.
	A pine 5 ins. diam. bears S.22°W., 30 lks. dist., marked T 9 S R 3 E S 35 B T.
	An aspen 10 ins. diam. bears N.44°W., 47 lks. dist., marked T 9 S R 3 E S 26 B T.

RESURVEY OF SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Land, mountainous, draining to the south.
	Soil, rich, mountain loam, 1 to 2 ft. deep, adapted to dry farming wherever level enough for cultivation.
	Undergrowth, oak, maple, rose and service berry.
	Timber, pine and aspen.
	Good grass for grazing.
	August 25, 1914.
	SUBDIVISION OF T. 9 S., R. 3 E.
	August 27, 1914: At 8h 2m a.m., l.m.t., I set off 40° 01'N. on the lat. arc; 10°15'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.
	Thence
	S.0°01'E., on a true line bet. secs. 35 and 36.
	Over mountainous land, through scattering timber and dense undergrowth; ascend.
7.00	Divide bet. Shurtz and Crab Creek canyons, 200 ft. above cor., bears NE. and SW. Descend.
19.00	North fork of Crab Creek Canyon, 220 ft. below ridge, course E. Ascend.
31.00	Spur, 150 ft. above canyon, bears N.70°W. and S.70°E. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 35 | S 36
	1914
	from which
	An oak 4 ins. diam. bears S.54°E., 46 lks. dist., marked ¼ S 36 B T.
	An oak 4 ins. diam. bears S.64°30'W., 15 lks. dist., marked ¼ S 35 B T.
44.30	Gully, 100 ft. below spur, course S.85°E. Ascend.
49.00	Ridge, 150 ft. above gully, bears E. and W. Descend.

Chains	
54.00	Swale, 100 ft. below ridge, course S.25°E.
	Ascend.
62.30	Spur, 50 ft. above swale, bears N.25°W. and S.25°E.
	Descend.
72.80	Gully, 75 ft. below spur, course S.25°E.
	Ascend.
78.93	Intersect the S. bdy. of the Tp. 1.68 chs. E. of point for cor. of secs. 35 and 36, determined in retracement of S. bdy. of Tp., page 17, these notes.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 35 and 36, with brass cap marked

T 9 S R 3 E
S 35 | S 36
CC

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Land, mountainous.

Soil, rich, black loam with gravel in places and some rock.

Undergrowth, oak, maple, service berry, rose and deer brush.

Timber, aspen.

Good grass for grazing.

August 27, 1914: At this cor. I set off 10°11'N. on the decl. arc; and at 0h 2m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°00'N.

August 28, 1914: At 8h 1m a.m., l.m.t., I set off 40° 01'N. on the lat. arc; 9°54'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.

Thence

North, on a sectional guide meridian bet. secs. 25 and 26.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Over mountainous land, through scattering timber and very dense undergrowth; descend.
1.00	Shurtz Canyon, 30 ft. below cor., course N.25°E. Ascend gradually.
6.40	Spur, 50 ft. above canyon, bears N.30°E. and S.30°W. Descend.
7.00	Enter heavy aspen timber bearing NE. and SW.
13.00	Leave aspen and enter pine timber and maple undergrowth, bearing NE. and SW.
17.70	Gully, 75 ft. below spur, course N.50°E. Ascend.
20.00	Leave pine timber bearing N.50°E. and S.50°W.
22.40	Leave maple, enter oak brush, bearing NE. and SW.
23.30	Spur, 100 ft. above gully, bears E. and W. Descend.
30.00	Enter scattering aspen timber bearing E. and W.
33.70	Branch of Shurtz Canyon, 100 ft. below spur, course E. Ascend.
36.80	Enter dense chokecherry, leave other brush, bearing E. and W.
38.70	Leave chokecherry, enter dense maple and scattering oak, bearing E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 26 | S 25 1914 from which An oak 5 ins. diam. bears N.54°E., 14 lks. dist., marked ¼ S 25 B T. A maple 5 ins. diam. bears N.5°W., 37 lks. dist., marked ¼ S 26 B T.
61.00	Ridge, 300 ft. above canyon, bears NE. and SW.
66.00	Swale, 100 ft. below ridge, course W. Ascend.
70.00	Spur, 300 ft. above swale, bears N.40°E. and S.40°W. Descend.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 23, 24, 25 and 26, with brass cap marked

T 9 S R 3 E
S 23 | S 24
S 26 | S 25
1914

from which

A maple 6 ins. diam. bears N.37°E., 30 lks. dist., marked T 9 S R 3 E S 24 B T.

A maple 5 ins. diam. bears S.50°30'E., 88 lks. dist., marked T 9 S R 3 E S 25 B T.

A maple 4 ins. diam. bears S.47°30'W., 39 lks. dist., marked T 9 S R 3 E S 26 B T.

A maple 4 ins. diam. bears N.11°W., 34 lks. dist., marked T 9 S R 3 E S 23 B T.

Land, mountainous.

Soil, black mountain loam, 1 to 2 ft. deep.

Subsoil, hard clay and gravel, some rock.

Timber, pine, aspen and maple.

Undergrowth, oak, maple, service berry and rose.

Good grass for grazing.

August 28, 1914.

August 29, 1914: At 8h 1m a.m., l.m.t., I set off 40° 02'N. on the lat. arc; 9°33'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26.

Thence

East, on a random line bet. secs. 24 and 25.

40.00	Set temp. ¼ sec. cor.
80.10	Intersect E. bdy. of Tp. at the cor. of secs. 24 and 25, heretofore described.

Thence

West, on a true line bet. secs. 24 and 25.

SUBDIVISION OF T. 9 S., R. 3 E.

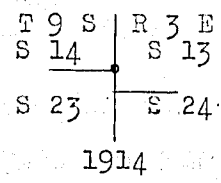
Chains	
	Over mountainous land, through dense undergrowth. Ascend gradually.
5.50	Begin steep ascent, bearing NE. and SW.
23.70	Leave tall oak and maple and enter scrub oak, maple, sage and buck brush, bearing N. and S.
34.50	Rocky spur, 1260 ft. above sec. cor., bears N.30°W. and S.30°E. Descend.
38.60	Swale, 100 ft. below ridge, course S.30°E. Ascend.
40.05	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 24 ¼ S 25 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
44.00	Divide bet. Shurtz and Pole canyons, 150 ft. above swale, bears N.60°E. and S.60°W. Descend.
49.60	Enter heavy aspen timber, leave scattering timber, bearing N. and S.
59.30	Swale, 250 ft. below ridge, course N.10°W. Ascend.
76.40	Same divide ridge, bet. Shurtz and Pole canyons, bears N.30°W. and S.30°E.
80.10	The cor. of secs. 23, 24, 25 and 26.
	Land, mountainous; high and steep.
	Soil, rich, black mountain loam, 1 to 2 ft. deep.
	Timber, aspen and pine.
	Undergrowth, oak, maple, sage and buck brush.
	Good grass for grazing.
	August 29, 1914: At this cor. I set off 9°28½'N. on the decl. arc; and at 0h 1m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°02'N.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	North, on a sectional guide meridian bet. secs. 23 and 24.
	Over mountainous land, through dense oak brush and aspen and maple timber. Descend gradually.
5.00	Swale, 40 ft. below cor., course NE. Ascend gradually.
12.80	Ridge, 100 ft. above swale, bears N.70°W. and S.70°E. Leave aspen and maple timber; enter tall, dense oak brush with scattering rows of buck and service berry. Descend abruptly.
14.00	Enter scattering pine and aspen timber, bearing N.70°W. and S.70°E.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 23 | S 24 1914 from which A maple 4 ins. diam. bears N.83°30'E., 32 lks. dist., marked ¼ S 24 B T. A maple 4 ins. diam. bears S.79°W., 19 lks. dist., marked ¼ S 23 B T.
47.50	Canyon, 500 ft. below ridge, course NW. Leave timber, bears NE. and SW. Ascend.
50.70	Spur, 200 ft. above canyon, bears NW. and SE. Descend.
54.40	Gully, 200 ft. below spur, course N.5°E. Ascend.
56.85	Spur, 50 ft. above gully, bears N.5°E. and S.5°W. Descend.
60.00	Gully, 70 ft. below spur, course N.70°W. Ascend.
64.70	Spur, 100 ft. above gully, bears N.85°W. Descend abruptly.
69.00	Gully, 100 ft. below spur, course N.85°W. Ascend.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
74.80	Spur, 75 ft. above gully, bears E. and W.
	Descend.
78.00	Gorge, 50 ft. deep, course W.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 14 and 23 only, with brass cap marked



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

Land, mountainous with steep slopes draining northerly.

Soil, rich, black mountain loam, 1 to 2 ft. deep with clay and gravel subsoil.

Undergrowth, oak, maple, rose, buck and service berry brush.

Good grass for grazing.

August 29, 1914.

September 8, 1914: At 7h 58m a.m., l.m.t., I set off 40°03'N. on the lat. arc; 5°53'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24, on the E. bdy. of the Tp., heretofore described.

Thence

West, on a retracement line bet. secs. 13 and 24.

Over mountainous land, through dense undergrowth; ascend.

5.00	Spur, 100 ft. above cor., bears N. and S.
	Descend.
24.60	Swale, 100 ft. below spur, course SE.
	Ascend.
30.00	Ridge, 600 ft. above swale, bears N. and S.
	Descend.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
40.00	Find no trace of the old ¼ sec. cor., after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 13 ¼ S 24 1914
	from which
	An oak 4 ins. diam. bears N.75°E., 10 lks. dist., marked ¼ S 13 B T.
	A maple 5 ins. diam. bears S.41°30'E., 16 lks. dist., marked ¼ S 24 B T.
	Continue line west.
56.70	Gulch, 500 ft. below ridge, course NW. Ascend abruptly.
62.00	Spur, 200 ft. above gulch, bears N.15°W. and S.15°E. Descend abruptly.
70.00	Leave oak and enter maple, bearing N. and S.
80.14	Intersect sectional guide meridian at a point 11.13 chs. S. of the cor. of secs. 14 and 23.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 13 and 24, with brass cap marked
	T 9 S | R 3 E S 14 | S 13 CC S 23 | S 24 1914
	from which
	A maple 5 ins. diam. bears N.40°E., 28 lks. dist., marked T 9 S R 3 E S 13 B T.
	A maple 4 ins. diam. bears S.50°E., 31 lks. dist., marked T 9 S R 3 E S 24 B T.
	Land, mountainous, with long, steep slopes and deep canyons.
	Soil, mountain loam 8 to 12 ins. deep.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Undergrowth, oak, maple, service berry, chokecherry and rose.
	No timber,
	Good grass for grazing.
	September 8, 1914: At this cor. I set off 5°49'N. on the decl. arc; and at 11h 58m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.
	From the cor. of secs. 14 and 23, I run
	North, on a sectional guide meridian bet. secs. 13 and 14.
	Over mountainous land, through dense undergrowth; ascend.
1.50	Spur, 50 ft. above cor., bears N.60°E. and S.60°W. Descend.
11.00	Gulch, 25 ft. below spur, course W.
17.50	Gulch, 50 ft. below last gulch, course W.
24.00	Spur, 250 ft. above gulch, bears E. and W. Descend.
30.00	Gulch, 50 ft. below spur, course W.
32.84	After completion of this mile, I return to this point and
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on W. side of sec. 13, with brass cap marked
	¼ S 13 | 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
38.50	Enter Pole Canyon, 150 ft. below gulch, course N.70°E. and S.70°W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 14 | 1914
	from which
	A chokecherry 8 ins. diam. bears N.6°45'W., 97

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	lks. dist., marked ¼ S 14 B T.
40.20	Old road bears NE. and SW.
44.50	Wash in Pole Canyon, 50 lks. wide, 5 ft. deep, course NE.
50.00	Leave Pole Canyon, bearing NE. and SW.
	Ascend.
63.00	Ridge, 250 ft. above canyon, bears NE. and SW.
	Descend.
65.00	Gulch, 50 ft. below ridge, course NE.
	Ascend.
68.00	Spur, 100 ft. above gulch, bears E. and W.
76.81	Intersect E. and W. line 154 lks. E. of the SW. cor. of sec. 12.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 13 and 14, with brass cap marked

T 9 S | R 3 E
S 12
CC
S 14 | S 13
1914

from which

An oak 4 ins. diam. bears S.61°E., 12 lks. dist., marked T 9 S R 3 E S 13 B T.

A maple 4 ins. diam. bears S.81°45'W., 35 lks. dist., marked T 9 S R 3 E S 14 B T.

Land, mountainous.

Soil, rich mountain loam, 1 to 2 ft. deep.

Subsoil, clay and gravel.

Undergrowth, oak, maple, chokecherry, service berry, rose and buck brush.

No timber.

Good grass for grazing.

September 8, 1914.

August 27, 1914; afternoon.

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

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	West, on a sectional correction line bet. secs. 26 and 35.
	Over mountainous land, through dense oak and maple and scattering pine and aspen timber; descend.
1.00	Shurtz Canyon, 30 ft. below cor., course NE. Ascend.
10.00	Leave timber, bears NE. and SW.
14.00	Spur, 100 ft. above canyon, bears N.60°W. and S.60°E. Descend.
20.00	Gulch, 50 ft. below spur, course S.60°E. Ascend.
32.00	Spur, 200 ft. above gulch, bears N.60°W. and S.60°E. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 26 ¼ S 35 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
42.30	Ravine, 75 ft. below spur, course S. Ascend.
47.30	Spur, 50 ft. above ravine, bears N. and S. Descend.
57.80	Shurtz Canyon, 300 ft. below spur, course S.60°E. Ascend.
60.00	Enter heavy aspen timber, bearing N. and S.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 26, 27, 34 and 35, with brass cap marked T 9 S | R 3 E S 27 | S 26 S 34 | S 35 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Chains	
	Land, mountainous.
	Soil, black mountain loam, 1 to 2 ft. deep.
	Undergrowth, oak and maple.
	Timber, pine and aspen.
	Good grass for grazing.
	August 27, 1914.
	September 15, 1914: At 7h 55m a.m., l.m.t., I set off 3°14'N. on the decl. arc; 40°01'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 26, 27, 34 and 35.
	Thence
	S.0°01'E., on a true line bet. secs. 34 and 35.
	Over mountainous land, through heavy pine and aspen timber and scattering larb, rose and oak brush.
	Descend.
1.00	Swale, 50 ft. below cor., course E.
	Ascend.
10.60	Ridge, 100 ft. above swale, bears E. and W.
	Descend. Leave timber, bearing E. and W.
14.10	Swale, 50 ft. below ridge, course E.
	Ascend.
18.60	Ridge, 100 ft. above swale, bears E. and W.
	Continue ascent.
26.60	Ridge, 170 ft. above last ridge, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 34 | S 35 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
70.00	Hollow, 500 ft. below ridge, course S.10°W.
	Ascend.
79.00	Intersect S. bdy. of Tp. 2.16 chs. E. of the cor. of secs. 34 and 35, which is now an angle point only

Chains

and so marked.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 34 and 35, with brass cap marked

T 9 S | R 3 E
S 34 | S 35
CC
1914

from which

A maple 5 ins. diam. bears N.48°E., 33 lks. dist., marked T 9 S R 3 E S 35 B T.

An aspen 4 ins. diam. bears N.48°W., 14 lks. dist., marked T 9 S R 3 E S 34 B T.

Land, mountainous with steep and high slopes.

Soil, rich mountain loam from 1 to 1½ ft. deep.

Subsoil, clay and gravel.

Timber, pine and aspen.

Undergrowth, oak, larb, maple and deer brush.

Good grass for grazing.

September 15, 1914: At this cor. I set off 3°09'N. on the decl. arc; and at 11h 55m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°00' N.

September 10, 1914: At 7h 57m a.m., l.m.t., I set off 40°01'N. on the lat. arc; 5°08'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 26, 27, 34 and 35.

Thence

N.0°01'W., bet. secs. 26 and 27.

Over mountainous land, through aspen and scattering pine timber and scattering oak, maple, larb and willows.

Ascend.

14.25 Ridge, 300 ft. above cor., bears NE. and SW. Descend abruptly.

33.70 Canyon, 600 ft. below ridge, course N.70°E.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Ascend abruptly.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 27 | S 26 1914 from which A maple 6 ins. diam. bears N.67°E., 36 lks. dist., marked ¼ S 26 B T. A maple 7 ins. diam. bears S.49°W., 27 lks. dist., marked ¼ S 27 B T.
44.10	Spur, 200 ft. above canyon, bears E. and W. Descend.
48.00	Canyon, 50 ft. below spur, course E. Ascend abruptly.
60.00	Divide ridge bet. Shurtz and Pole Canyons, 500 ft. above canyon, bears N.70°E. and S.70°W. Leave timber; enter dense undergrowth, bearing N.70°E. and S.70°W. Descend abruptly.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 22, 23, 26 and 27, with brass cap marked T 9 S | R 3 E S 22 | S 23 S 27 | S 26 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Land, mountainous, steep slopes. Soil, rich, black mountain loam about 1 ft. deep. Subsoil, gravel and clay. Timber, pine and aspen. Undergrowth, oak, maple, larb, rose, buck and deer brush. Good grass for grazing. September 10, 1914: At this cor. I set off 5°04'N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe

Chains	
	the sun on the meridian; the resulting lat. is 40°02'N.
	East, on a random line bet. secs. 23 and 26.
40.00	Set temp. ¼ sec. cor.
79.92	Intersect N. and S. line 7 lks. N. of the cor. of secs. 23, 24, 25 and 26.
	Thence
	N.89°57'W., on a true line bet. secs. 23 and 26.
	Over mountainous land, through heavy timber and dense undergrowth. Descend.
6.40	Head of branch of Shurtz Canyon, 150 ft. below cor., course S. Ascend.
7.80	Leave timber, bearing N. and S.
20.00	Divide ridge bet. Shurtz and Pole Canyons, 150 ft. above canyon, bears N.85°E. and S.85°W. Descend.
21.70	Enter heavy aspen and pine timber, bearing N. and S.
31.00	Head of branch of Pole Canyon, 100 ft. below ridge, course NE. Ascend.
36.00	Leave heavy and enter scattering timber, bearing N. and S.
39.96	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 23 ¼ S 26 1914 from which A pine 6 ins. diam. bears N.32°30'W., 75 lks. dist., marked ¼ S 23 B T. No other trees available; raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
46.80	Ridge, 600 ft. above canyon, bears N. and S. Descend abruptly over ledges.
75.00	Branch of Pole Canyon, 700 ft. below ridge, course N.

Chains	
	Ascend.
79.92	The cor. of secs. 22, 23, 26 and 27.
	Land, mountainous; high and steep.
	Soil, rich mountain loam, 1 to 1½ ft. deep.
	Subsoil, gravel and rock.
	Timber, pine, aspen and maple.
	Undergrowth, oak, service berry, buck and deer brush.
	Good grass for grazing.
	September 10, 1914.

September 11, 1914: At 7h 57m a.m., l.m.t., I set off 40°02'N. on the lat. arc; 4°45'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.

Thence

N.0°01'W., bet. secs. 22 and 23.

Over mountainous land, through scattering timber and dense undergrowth; descend.

20.00 Gulch, 400 ft. below cor., course N.10°E.

Ascend.

30.40 Spur, 250 ft. above gulch, bears N.70°E.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

¼ S 22 | S 23

1914

from which

An aspen 4 ins. diam. bears N.50°E., 14 lks. dist., marked ¼ S 23 B T.

An aspen 4 ins. diam. bears N.60°W., 10 lks. dist., marked ¼ S 22 B T.

45.00 Pole Canyon, 500 ft. below spur, course N.30°E.

Ascend.

60.00 Rocky spur, 300 ft. above canyons, bears N.80°W. and S.80°E. Descend.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
68.70	Gully, 200 ft. below spur, course S.80°E.
	Ascend.
74.00	Ridge, 300 ft. above gully, bears E. and W.
	Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 14, 15, 22 and 23, with brass cap marked

T 9 S	R 3 E
S 15	S 14
S 22	S 23

1914

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

Land, mountainous, high and steep slopes.

Soil, rich mountain loam about 1 ft. deep.

Subsoil, gravelly and rocky.

Timber, pine and aspen.

Undergrowth, chaparral, oak, maple, rose, buck and deer brush.

Good grass for grazing.

September 11, 1914: At this cor. I set off 4°41'N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.

	S.89°57'E., on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
79.88	Fall 5 lks. N. of the cor. of secs. 14 and 23.
	Thence
	N.89°55'W., on a true line bet. secs. 14 and 23.
	Over mountainous land, through dense undergrowth; descend.
5.00	East fork of Pole Canyon, 200 ft. below cor., course N.
	Ascend.
16.50	Ridge, 350 ft. above canyon, bears N. and S.
	Descend.
22.70	Enter scattering timber, bearing N. and S.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
31.80	Enter heavy aspen timber, bearing N. and S.
39.94	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 14 ¼ S 23 1914 from which An oak 4 ins. diam. bears N.7°W., 26 lks. dist., marked ¼ S 14 B T. An oak 4 ins. diam. bears S.12°W., 12 lks. dist., marked ¼ S 23 B T.
44.70	Enter dense maple, leave aspen timber, bearing N. and S.
48.00	West fork of Pole Canyon, 400 ft. below ridge, course N.25°E. Ascend.
65.00	Spur, 200 ft. above canyons, bears N.60°E. and S.60°W Descend.
67.80	Gully, 150 ft. below spur, course N.60°E. Ascend.
72.80	Leave timber, enter dense oak, bearing N. and S.
79.88	The cor. of secs. 14, 15, 22 and 23. Land, mountainous. Soil, black, rich mountain loam, 1 to 2 ft. deep. Timber, aspen. Undergrowth, oak and maple. September 11, 1914.

September 12, 1914: At 7h 56m a.m., l.m.t., I set off 4°22½'N. on the decl. arc; and 40°03'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 14, 15, 22 and 23.

Thence

N.0°01'W., bet. secs. 14 and 15.

Over mountainous land, through dense undergrowth; descend.

8.70 Gully, 100 ft. below cor., course E.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Ascend.
23.70	Ridge, 200 ft. above gully, bears E. and W.
	Descend.
30.00	Canyon, 400 ft. below ridge, course E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 15 | S 14 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
48.30	Ridge, 300 ft. above canyon, bears N.85°E. and S.85°W.
60.00	Hollow, 200 ft. below ridge, course E.
	Ascend.
73.70	Ridge, 600 ft. above hollow, bears E. and W.
	Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 10, 11, 14 and 15, with brass cap marked T 9 S | R 3 E S 10 | S 11 S 15 | S 14 1914 from which A pine 10 ins. diam. bears S.86°E., 67 lks. dist., marked T 9 S R 3 E S 14 B T. A pine 10 ins. diam. bears S.58°W., 56 lks. dist., marked T 9 S R 3 E S 15 B T. No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Land, mountainous. Soil, rich mountain loam with some gravel and red clay. Subsoil, clay and gravel. No timber. Undergrowth, dense, tall oak, scattering maple, larb, rose and willow.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Good grass for grazing.
	September 12, 1914: At this cor. I set off 4°18' N. on the decl. arc; and at 11h 56m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04' N.
	East, on a true line bet. secs. 11 and 14.
	Over mountainous land, through scattering timber and dense undergrowth; ascend.
11.00	Spur, 130 ft. above cor., bears N.20°E. and S.20°W. Descend.
16.00	Gully, 100 ft. below spur, course N.20°E. Ascend.
28.00	Spur, 100 ft. above gully, bears N. and S. Descend.
29.00	Gully, 25 ft. below spur, course N. Ascend.
30.00	Ridge, 50 ft. above gully, bears N. and S. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 11 / ¼ / S 14 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
43.40	Canyon, 150 ft. below ridge, course N.60°E. Ascend.
50.50	Ridge, 70 ft. above canyon, bears NE. and SW. Descend.
54.80	Gully, 140 ft. below ridge, course S.20°E. Ascend.
65.50	Ridge, 200 ft. above gully, bears N.40°W. and S.40°E. Descend.
77.90	Intersect N. and S. line 3.50 chs. N. of the SW. cor.

Chains

of sec. 12.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 11 and 14, with brass cap marked

T 9 S | R 3 E
S 11 | S 12
CC
S 14

1914

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

Land, mountainous.

Soil, black mountain loam, about 1 ft. deep; 2nd rate.

Subsoil, gravel and rock.

Timber, pine.

Undergrowth, oak, maple, deer and buck brush.

Good grass for grazing.

September 12, 1914.

September 16, 1914: At 7h 55m a.m., l.m.t., I set off 40°04'N. on the lat. arc; 2°51'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

Thence

North, on a true line bet. secs. 10 and 11.

Over mountainous land, through scattering timber and dense undergrowth; descend.

10.00 Canyon, 350 ft. below cor., course E.

Ascend.

22.00 Spur, 200 ft. above canyons, bears E. and W.

Descend abruptly.

28.00 Gulch, 250 ft. below spur, course SE.

Ascend abruptly.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

¼ S 10 | S 11

1914

Chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
41.80	Ridge, 1500 ft. above gulch, bears E. and W. Descend.
60.00	Canyons, 500 ft. below ridge, course NE. Ascend.
78.00	Ridge, 350 ft. above canyons, bears NE. and SW. Descend abruptly.
97.70	Intersect E. and W. line 20.30 chs. S.89°50'E. of the cor. of secs. 2 and 3, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 10 and 11, with brass cap marked

T 9 S | R 3 E
S 3 | S 2
CC
S 10 | S 11
1914

	and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Land, mountainous, very steep and high.
	Soil, mountain loam, about 6 ins. deep.
	Subsoil, gravel and clay.
	Timber, pine.
	Undergrowth, oak, maple, service berry, larb, and deer brush.
	September 16, 1914: At noon hour sky is overcast; solar observation not taken.
	September 16, 1914.

	September 21, 1914: At 7h 53m a.m., l.m.t., I set off 40°01'N. on the lat. arc; 0°54'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 26, 27, 34 and 35.
	Thence
	West, on a sectional correction line bet. secs. 27 and 34.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Over broken mountainous country, through scattering undergrowth and scattering timber; ascend.
9.70	Ridge, 300 ft. below cor., bears N.15°E. and S.15°W. Descend.
17.50	Same ridge, 100 ft. higher, bears N.60°W. and S.60°E. Descend.
22.40	Swale, 100 ft. below ridge, course S. Ascend.
23.50	Spur, 100 ft. above swale, bears N.10°W. and S.10°E. Descend.
29.00	Enter dense chokecherry brush, bearing N. and S.
31.00	Gully, 75 ft. below spur, course S. Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 27 ¼ S 34 1914 from which An aspen 5 ins. diam. bears N.9°30'W., 24 lks. dist., marked ¼ S 27 B T. An aspen 8 ins. diam. bears S.30°W., 35 lks. dist., marked ¼ S 34 B T.
43.50	Ridge, 120 ft. above gully, bears N. and S. Descend.
52.30	Wash, 12 ft. wide, 2 ft. deep in hollow, 60 ft. below ridge, course S.20°E. Ascend.
57.25	Ridge, 85 ft. above hollow, bears N. and S. Descend.
66.15	Swale, 125 ft. below ridge, course S. Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 27, 28, 33 and 34, with brass cap marked

Chains	
	T 9 S R 3 E S 28 | S 27 S 33 | S 34 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Land, mountainous, high and steep slopes. Soil, rich mountain loam, 1 to 2 ft. deep. Clay and rocky subsoil. Timber, aspen. Undergrowth, oak, sage, chokecherry. Good grass for grazing. September 21, 1914.
	September 23, 1914: At 7h 53m a.m., l.m.t., I set off 40°01'N. on the lat. arc; 0°08'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34. Thence S.0°02'E., on a true line bet. secs. 33 and 34. Over mountainous land, through dense undergrowth; descend steep slope.
25.00	Head of Crab Creek Canyon, 200 ft. below cor., course E. Ascend.
	Enter heavy timber, bearing E. and W.
39.50	Ridge, 150 ft. above canyon, bears E. and W.
	Leave timber. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 33 | S 34 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
56.00	Gully, 100 ft. below ridge, course E. Ascend.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
73.50	Spur, 100 ft. above gully, bears E. and W. Descend.
78.00	Branch of Crab Creek Canyon, head, 160 ft. below spur, course SE. Ascend.
85.40	Spur, 100 ft. above canyons, bears E. and W. Descend.
86.58	Intersect S. bdy. of Tp. 6.77 chs. S.89°55'W. of W.C. to cor. of secs. 33 and 34 T. 9 S., R. 3 E., which is also 50-mile post U. S. Forest Reserve Bdy. described in the retracement of the S. bdy. of this Tp.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 33 and 34, with brass cap marked

T 9 S | R 3 E
S 33 | S 34
CC
T 10 S | R 3 E

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Land, mountainous, high, steep and rough.

Soil, rich, mountain loam, about 6 ins. to 1 ft. deep.

Subsoil, hard clay and rock.

Timber, pine and aspen.

Undergrowth, sage, chokecherry and oak brush.

Good grass for grazing.

September 23, 1914: At this cor. I set off 0°03'W. on the decl. arc; and at 11h 53m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°00'N.

	N.0°02'W., bet. secs. 27 and 28.
	Over broken, mountainous country, through heavy timber and dense undergrowth; ascend.
3.50	Ridge, 50 ft. above cor. (divide ridge), bears N.35°E. and N.80°W.
20.90	Head of canyons, 300 ft. below ridge, course N.25°W.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

¼ S 28 | S 27

1914

from which

An aspen 6 ins. diam. bears N.35°E., 28 lks. dist., marked ¼ S 27 B T.

An aspen 5 ins. diam. bears S.21°W., 47 lks. dist., marked ¼ S 28 B T.

51.00 Ridge, 400 ft. above canyons, bears N.15°W. and S.15°E.

Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 21, 22, 27 and 28, with brass cap marked

T 9 S | R 3 E
S 21 | S 22
S 28 | S 27

1914

from which

An aspen 6 ins. diam. bears N.60°E., 10 lks. dist., marked T 9 S R 3 E S 22 B T.

An aspen 6 ins. diam. bears S.59°E., 24 lks. dist., marked T 9 S R 3 E S 27 B T.

An aspen 6 ins. diam. bears S.63°W., 30 lks. dist., marked T 9 S R 3 E S 28 B T.

An aspen 6 ins. diam. bears N.40°W., 26 lks. dist., marked T 9 S R 3 E S 21 B T.

Land, mountainous, high, steep and broken.

Soil, rich loam, 1 to 3 ft. deep.

Undergrowth, sage, oak, chokecherry and larb.

Timber, pine and aspen.

Good grass for grazing.

September 23, 1914.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	September 24, 1914: At 7h 52m a.m., l.m.t., I set off 40°02'N. on the lat. arc; 0°17'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.
	Thence
	East, on a random line bet. secs. 22 and 27.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S. line 7 lks. S. of the cor. of secs. 22, 23, 26 and 27.
	Thence
	S.89°57'W., on a true line bet. secs. 22 and 27.
	Over mountainous land, through heavy timber and dense undergrowth; ascend.
3.00	Spur, 100 ft. above cor., bears NE. and SW. Descend.
15.00	Hollow, 300 ft. below spur, course N.20°E. Ascend.
28.00	Ridge, 500 ft. above hollow, bears N.10°E. and S.10°W. Descend.
	Leave heavy timber, bearing N.10°E. and S.10°W.
39.98	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 22 / ¼ / S 27 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
46.00	Ridge, 200 ft. above cor. Descend.
55.00	Hollow, 150 ft. below ridge, course N. Ascend.
79.96	The cor. of secs. 21, 22, 27 and 28.
	Land, mountainous, steep and rough.
	Soil, rich loam, from 1 to 2 ft. deep.
	Subsoil, clay and gravel.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Timber, pine and aspen.
	Undergrowth, oak, sage, larb, maple and deer brush.
	Good grass for grazing.
	September 24, 1914: At this cor. I set off 0°20'S. on the decl. arc; and at 11h 52m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°02'N.
	N.0°02'W., bet. secs. 21 and 22.
	Over mountainous land, through heavy timber and dense undergrowth; descend abruptly.
23.40	Gulch, 125 ft. below cor., course E.
	Ascend.
27.20	Spur, 150 ft. above gulch, bears E. and W.
	Leave heavy and enter scattering timber, bearing same.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 21 | S 22 1914
	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.
42.80	Spur, 100 ft. above last spur, bears E. and W.
	Descend.
58.90	Gulch, 250 ft. below spur, course E.
	Ascend.
64.00	Ridge, 300 ft. above gulch, bears E. and W.
	Descend.
78.00	Gulch, 350 ft. above ridge, course E.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 15, 16, 21 and 22, with brass cap marked T 9 S | R 3 E S 16 | S 15 S 21 | S 22 1914

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Dig pits 18 x 18 x 12 ins. in each sec., 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
	Land, mountainous, sloping E. into Pole Canyon.
	Soil, rich black loam, 2 to 3 ft. deep.
	Subsoil, clay and gravel.
	Timber, pine and aspen.
	Undergrowth, dense tangle of oak, maple, bull brush, larb, rose and buck brush.
	Good grass for grazing.
	September 24, 1914.
	September 25, 1914: At 7h 52m a.m., l.m.t., I set off 40°03'N. on the lat. arc; 0°39'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.
	Thence
	N.89°57'E., on a random line bet. secs. 15 and 22.
40.00	Set temp. ¼ sec. cor.
79.90	Fall 16 lks. S. of the cor. of secs. 14, 15, 22 and 23.
	At this cor. I set off 0°44'S. on the decl. arc; and at 11h 52m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.
	Thence
	S.89°50'W., on a true line bet. secs. 15 and 22.
	Over mountainous land, through dense undergrowth; ascend abruptly.
1.80	Ledge, 15 ft. high, bears N. and S.
2.60	Ridge, 100 ft. above cor., bears N. and S. Descend abruptly.
8.00	Enter heavy maple timber, bearing N. and S.
12.70	Enter scattering aspen timber, bearing N. and S.
14.00	Canyon, 400 ft. below ridge, course S.70°E. Ascend abruptly.
22.00	Leave maple and aspen timber; enter dense oak brush,

Chains	
	bearing N. and S.
31.00	Ridge, 350 ft. above canyon, bears N. and S.
	Descend.
39.95	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 15 ¼ S 22 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
46.00	Canyon, 200 ft. below ridge, course N.
	Enter heavy timber, bears N. and S.
79.90	The cor. of secs. 15, 16, 21 and 22.
	Land, mountainous; very steep slopes.
	Soil, rich black loam, 1 to 1½ ft. deep.
	Subsoil, clay and gravel.
	Timber, pine, aspen and maple.
	Undergrowth, very dense larb, oak, maple, buck, deer and rose brush.
	Good grass for grazing.
	September 25, 1914.
	September 26, 1914: At 7h 52m a.m., l.m.t., I set off 40°03'N. on the lat. arc; 1°03'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.
	Thence
	N.0°02'W., bet. secs. 15 and 16.
	Over mountainous land, through dense undergrowth, ascending abruptly.
10.20	Ridge, 300 ft. above cor., bears N.60°E. and S.60°W.
	Enter scattering pine and aspen timber, bearing same.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	¼ S 16 | S 15 1914
	from which
	An aspen 6 ins. diam. bears N.5°E., 16 lks. dist., marked ¼ S 15 B T.
	An aspen 6 ins. diam. bears S.70°W., 65 lks. dist., marked ¼ S 16 B T.
41.00	Gulch, 300 ft. below ridge, course W.
	Ascend.
61.75	Divide ridge, 300 ft. above gulch, bears NW. and SE.
	Descend.
75.00	Gulch, 200 ft. below divide, course NE.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 9, 10, 15 and 16, with brass cap marked

T 9 S | R 3 E
S 9 | S 10
S 16 | S 15
1914

Dig pits 18 x 18 x 12 ins. in each sec., 5½ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, mountainous; very steep slopes, draining E.

Soil, rich mountain loam with some rock and gravel, about 1 ft. deep.

Subsoil, clay, gravel and rock.

Timber, pine and aspen.

Undergrowth, oak, maple, deer and larb brush.

Good grass for grazing.

September 26, 1914: At this cor. I set off 1°07'S. on the decl. arc; and at 11h 52m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.

N.89°50'E., on a random line bet. secs. 10 and 15.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
40.00	Set temp. ¼ sec. cor.
79.82	Intersect N. and S. line 5 lks. S. of the cor. of secs. 10, 11, 14 and 15.
	Thence
	S.89°48'W., bet. secs. 10 and 15.
	Over mountainous land, through very dense tangled brush and scattering pine and aspen timber on N. slope of ridge. Ascend.
39.91	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 10 ¼ S 15 1914 from which A pine 22 ins. diam. bears N.37°W., 100 lks. dist., marked ¼ S 10 B T. A pine 5 ins. diam. bears S.15°E., 18 lks. dist., marked ¼ S 15 B T.
49.20	Spur, 600 ft. above sec. cor., 200 ft. above ¼ sec. cor., bears N.80°W. and S.80°E. Descend.
55.00	Head of canyon, 40 ft. below spur, course S.70°E. Ascend.
60.70	Divide ridge, bears N.20°E. and S.20°W. Descend.
71.00	Canyon, 400 ft. below ridge, course N.10°E. Ascend.
79.82	The cor. of secs. 9, 10, 15 and 16.
	Land, mountainous with high and steep slopes.
	Soil, rich black loam, 1 to 2 ft. deep.
	Timber, pine and aspen.
	Undergrowth, dense tangled larb, chaparral, oak, maple and rose brush.
	Good grass for grazing.
	September 26, 1914.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	September 28, 1914: At 7h 51m a.m., l.m.t., I set off 40°04'N. on the lat. arc; 1°49'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9, 10, 15 and 16.
	Thence
	N.0°01'W., bet. secs. 9 and 10.
	Over mountainous land, through dense undergrowth and scattering timber; ascend.
7.00	Spur, 100 ft. above cor., bears N.60°E. and S.60°W. Descend.
18.00	Gully, 150 ft. below spur, course N.60°E. Ascend.
22.50	Spur, 200 ft. above gully, bears N.70°E. and S.70°W. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 9 | S 10 1914
	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.
45.00	Canyon, 500 ft. below spur, course N.35°W. Ascend.
55.70	Spur, 200 ft. above canyon, bears E. and W. Descend.
71.00	Swale, 100 ft. below spur, course W. Ascend.
78.50	Spur, 100 ft. above swale, bears E. and W. Descend.
82.30	Gulch, 130 ft. below spur, course W. Ascend.
98.45	Intersect E. and W. line at point 19.74 chs. S.89°50'E. of the cor. of secs. 3 and 4, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 9 and 10, with brass cap marked

SUBDIVISION OF T. 9 S., R. 3 E.

Chains

T 9 S R 3 E
S 4 | S 3
CC
S 9 | S 10
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Land, mountainous.

Soil, rich, black loam, 1 to 1½ ft. deep.

Subsoil, clay and gravel.

Timber, scattering pine and aspen.

Undergrowth, very dense and tangled oak, maple, larb, deer, chokecherry, buck and service berry brush.

Good grass for grazing.

September 28, 1914.

September 22, 1914: At 7h 53m a.m., l.m.t., I set off 40°01'N. on the lat. arc; 0°31'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34.

Thence

West, on a sectional correction line bet. secs. 28 and 33.

Over broken, mountainous land, through dense sage and chokecherry brush; descend.

12.80 Head of canyon, 70 ft. below cor., course SE. Ascend.

34.60 Divide ridge bet. Maple and Crab Creek Canyons, 860 ft. above canyon, bears NE. and S.

Enter scattering pine and aspen timber. Descend.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 28
¼
S 33
1914

SUBDIVISION OF T. 9 S., R. 3 E.

Chains

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

69.35 Maple Canyon, 1250 ft. below ridge, course N.

Enter heavy pine and aspen timber, bearing N. and S. Ascend abruptly.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 28, 29, 32 and 33, with brass cap marked

T 9 S S 29	R 3 E S 28
S 32	S 33

1914

from which

An aspen 4 ins. diam. bears N.12°E., 32 lks. dist., marked T 9 S R 3 E S 28 B T.

A pine 10 ins. diam. bears S.45°30'E., 15 lks. dist., marked T 9 S R 3 E S 33 B T.

An aspen 5 ins. diam. bears S.62°30'W., 6 lks. dist., marked T 9 S R 3 E S 32 B T.

An aspen 4 ins. diam. bears N.42°W., 16 lks. dist., marked T 9 S R 3 E S 29 B T.

Land, mountainous; high and steep slopes.

Soil, rich black loam 6 to 12 ins. deep with gravel and clay subsoil.

Timber, aspen and pine.

Undergrowth, sage, oak, chokecherry, service berry and larb.

Good grass for grazing.

September 22, 1914: At this cor. I set off 0°26'N. on the decl. arc; and at 11h 53m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40° 01'N.

September 29, 1914: At 7h 51m a.m., l.m.t., I set off 40°01'N. on the lat. arc; 2°13'S. on the decl. arc; and determine a meridian with the solar at the cor.

Chains	
	of secs. 28, 29, 32 and 33.
	Thence
	S.0°03'E., on a true line bet. secs. 32 and 33.
	Over mountainous land, through heavy pine and aspen timber and dense undergrowth; ascend.
15.00	Gulch, 25 ft. below cor., course NE. Ascend.
21.50	Spur, 100 ft. above gulch, bears NE. and SW. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 32 | S 33 1914
	from which
	A pine 5 ins. diam. bears S.33°E., 90 lks. dist., marked ¼ S 33 B T.
	A pine 7 ins. diam. bears N.39°W., 62 lks. dist., marked ¼ S 32 B T.
	September 29, 1914: At this cor. I set off 2°17'S. on the decl. arc; and at 11h 51m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°01'N.
41.00	Swale, 25 ft. below spur, course N.20°E. Ascend.
42.00	Leave aspen and enter heavy pine timber, bearing E. and W.
47.00	Rocky spur, 1000 ft. above swale, bears N.85°W. and S.85°E. Descend.
78.00	Rocky gulch, 150 ft. below spur, course N.85°W. Ascend.
86.00	Divide ridge, bet. Crab Creek and Maple Canyons, 200 ft. above gulch, bears N.20°E. and S.30°W.
	Leave timber; descend abruptly.
86.48	Intersect S. bdy. of Tp. at a point 8.91 chs. S.89°58'W. of W.C.for.cor.secs.4,5,32,and 33,which is also U.S. Forest Reserve Bdy.Post No.51.
	Set an iron post, 3 ft. long, 2 ins. in diam., 16 ins. in the ground to solid rock, with mound of stone and

Chains

earth around post, for closing cor. of secs. 32 and 33, with brass cap marked

T 9 S | R 3 E
S 32 | S 33
CC.
T 10 S R 3 E

1914

from which

A pine 30 ins. diam. bears N.7°E., 114 lks. dist., marked T 9 S R 3 E S 33 B T.

A pine 10 ins. diam. bears N.61°W., 68 lks. dist., marked T 9 S R 3 E S 32 B T.

I destroy marke on cor. of secs. 4 and 5 pertaining to secs. 32 and 33.

Land, mountainous; steep and rocky slopes.

Timber, pine and aspen.

Undergrowth, larb, sage, chokecherry, service berry brush.

Soil, rich loam on N. half mile and rocky and gravelly on S. half.

Subsoil, clay on N. half and rock on S. half.

Good grass for grazing.

September 29, 1914.

September 30, 1914: At 7h 50m a.m., l.m.t., I set off 40°01'N. on the lat. arc; 2°36'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 28, 29, 32 and 33.

Thence

N.0°03'W., bet. secs. 28 and 29.

Over broken mountainous land, through heavy timber and dense undergrowth; descend.

13.70 Ledge, 50 ft. high, bears NW. and SE.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

SUBDIVISION OF T. 9 S., R. 3 E.

Chains

¼ S 29	S 28

1914

from which

A pine 24 ins. diam. bears N.74°E., 40 lks. dist., marked ¼ S 28 B T.

A pine 15 ins. diam. bears S.47°30'W., 20 lks. dist., marked ¼ S 29 B T.

56.00 Maple Canyon, 600 ft. below sec. cor., course NW.

Leave heavy and enter scattering timber, bearing NW. and SE. Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 21 and 28 only, with brass cap marked

T 9 S S 20	R 3 E
S 29	S 21 S 28

1914

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

Land, mountainous.

Soil, rich, black mountain loam 1 to 2 ft. deep.

Timber, pine and aspen.

Undergrowth, very dense oak, maple, larb and rose brush.

Good grass for grazing.

September 30, 1914: At this cor. I set off 2°41'S. on the decl. arc; and at 11h 50m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°02'N.

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

40.00 Set temp. ¼ sec. cor.

79.98 Intersect N. and S. line 10 lks. S. of the cor. of secs. 21, 22, 27 and 28.

Thence

S.89°56'W., on a true line bet. secs. 21 and 28.

Over mountainous land, through heavy timber; ascend.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
16.70	Divide bet. Pole and Maple Canyons, 300 ft. above cor., bears N.20°W. and S.20°E.
	Enter dense service berry, oak and deer brush.
	Descend.
38.00	Canyon, 700 ft. below ridge, course N.60°W.
	Ascend.
39.99	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 21 ¼ S 28 1914
	from which
	An aspen 7 ins. diam. bears N.15°E., 50 lks. dist., marked ¼ S 21 B T.
	An aspen 10 ins. diam. bears S.5°W., 90 lks. dist., marked ¼ S 28 B T.
75.40	Ridge, 150 ft. above canyon, bears N.60°W. and S.60°E.
	Descend.
79.98	The cor. of secs. 21 and 28.
	Land, mountainous; high and steep slopes.
	Soil, mountain loam, 1 ft. deep.
	Subsoil, clay and gravel.
	Timber, pine and aspen.
	Undergrowth, service berry, oak and deer brush.
	Good grass for grazing.
	September 30, 1914.

October 1, 1914: At 7h 50m a.m., l.m.t., I set off 40° 02'N. on the lat. arc; 2°59'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 21 and 28.

Thence

N.0°03'W., along the W. side of sec. 21.

Over mountainous land, through dense undergrowth; ascend.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
1.00	Spur, 20 ft. above cor., bears N.80°W. and S.80°E. Descend.
6.00	Canyon, 200 ft. below spur, course W. Ascend abruptly over shale rock.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., for sec. 21 only, with brass cap marked ¼ S 21 1914 from which An aspen 4 ins. diam. bears S.88°30'E., 28 lks. dist., marked ¼ S 21 B T. and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
47.00	Ridge, 1500 ft. above canyon, bears N.80°W. and S.80°E. Enter scattering timber. Descend abruptly.
57.45	Note: October 16, 1914, I Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on E. side of sec. 20, with brass cap marked ¼ S 20 1914 from which An aspen 5 ins. diam. bears N.40°W., 22 lks. dist., marked ¼ S 20 B T. and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
58.00	Swale, 450 ft. below ridge, course N.20°E. Ascend.
78.00	Ridge, 150 ft. above swale, bears N.20°E. and S.20°W. Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 16 and 21 only, with brass cap marked T 9 S | R 3 E S 17 | S 16 S 20 | S 21 1914

Chains

from which

An aspen 4 ins. diam. bears N.84°E., 20 lks. dist., marked T 9 S R 3 E S 16 B T.

An aspen 4 ins. diam. bears S.58°E., 30 lks. dist., marked T 9 S R 3 E S 21 B T.

Land, mountainous; very high and steep.

Soil, mountain loam from 6 ins. to 12 ins. deep, with a great deal of shale rock (quartzite).

Timber, pine and aspen.

Undergrowth, oak, maple, larb, rose, chaparral and sage.

Good grass for grazing.

October 1, 1914: At this cor. I set off 3°04'S. on the decl. arc; and at 11h 50m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°03'N.

N.89°56'E., on a random line bet. secs. 16 and 21.

40.00 Set temp. ¼ sec. cor.

79.82 Intersect N. and S. line 2 lks. S. of the cor. of secs. 15, 16, 21 and 22.

Thence

S.89°55'W., on a true line bet. secs. 16 and 21.

Over mountainous land, through very dense brush and scattering timber, ascending abruptly.

8.50 Divide ridge bet. Pole and Water Canyons, 200 ft. above cor., bears N. and S. Descend.

24.00 Water Canyon, 600 ft. below ridge, course NW. Ascend.

32.00 Spur, 150 ft. above canyon, bears N. and S. Descend.

37.00 Hollow, 100 ft. below spur, course N. Ascend abruptly.

39.91 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 16
¼
S 21
1914

SUBDIVISION OF T. 9 S., R. 3 E.

Chains

from which

An aspen 4 ins. diam. bears N.34°W., 31 lks. dist., marked ¼ S 16 B T.

An aspen 4 ins. diam. bears S.74°W., 11 lks. dist., marked ¼ S 21 B T.

52.00 Ridge, 350 ft. above hollow, bears N.20°E. and S.20°W. Descend.

59.50 Gulch, 160 ft. below ridge, course N.20°E. Ascend.

63.70 Spur, 150 ft. above gulch, bears NE. and SW. Descend.

73.50 Gulch, 200 ft. below spur, course N.20°E. Ascend.

78.70 Spur, 100 ft. above gulch, bears N.20°E. and S.20°W. Descend.

79.82 The cor. of secs. 16 and 21, 20 ft. below spur.

Land, mountainous.

Soil, mountain loam about 1 ft. deep.

Subsoil, clay and gravel.

Undergrowth, oak, maple, larb, rose, service berry, chokecherry and deer brush.

Timber, aspen and pine.

Good grass for grazing.

October 1, 1914.

October 2, 1914: At 7h 50m a.m., l.m.t., I set off 40° 03'N. on the lat. arc; 3°22½'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16 and 21.

Thence

N.0°03'W., along the W. side of sec. 16.

Over mountainous land, through heavy timber and dense underrrowth; descend.

14.00 Gulch, 250 ft. below cor., course N.15°W. Ascend.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
17.00	Spur, 250 ft. above gulch, bears N.15°W. and S.15°E. Descend.
17.50	Leave aspen and enter pine timber, bearing E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor for sec. 16 only, with brass cap marked ¼ S 16 | 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
43.70	Water canyon, 1000 ft. below spur, course W. Ascend.
58.19	Note: On October 17, I Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on E. side of sec. 17, with brass cap marked ¼ S 17 | 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 9 and 16 only, with brass cap marked T 9 S | R 3 E S 8 | S 9 S 17 | S 16 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous.
	Soil, black mountain loam, 1 ft. deep. Subsoil, clay.
	Timber, pine and aspen. Good grass for grazing.
	Undergrowth, oak, maple and service berry.
	October 2, 1914: At this cor. I set off 3°27'S. on the decl. arc; and at 11h 50m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°04'N.
	N.89°55'E., on a random line bet. secs. 9 and 16.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
40.00	Set temp. ¼ sec. cor.
79.80	Intersect N. and S. line 10 lks. S. of the cor. of secs. 9, 10, 15 and 16.
	Thence
	S.89°51'W., on a true line bet. secs. 9 and 16.
	Over mountainous land, through dense undergrowth, ascend
7.00	Enter heavy timber, bearing N. and S.
35.00	Spur, 700 ft. above cor., bears N. and S. Descend.
39.90	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 9 / ¼ / S 16 / 1914
	from which
	An aspen 8 ins. diam. bears N.23°E., 32 lks. dist., marked ¼ S 9 B T.
	An aspen 8 ins. diam. bears S.49°E., 26 lks. dist., marked ¼ S 16 B T.
43.80	Head of gulch, 300 ft. below spur, course N.15°W. Ascend.
52.00	Ridge, 200 ft. above gulch, bears NW. and SE. Descend.
	Leave timber and enter dense larb, buck, deer and mahogany brush.
79.80	The cor. of secs. 9 and 16, 800 ft. below ridge.
	Land, mountainous, high and steep.
	Soil, rich mountain loam on E. 52.00 chs. and rocky and gravelly on rest of mile.
	Timber, aspen.
	Undergrowth, larb, buck, deer, oak, maple and mahogany.
	Good grass for grazing.
	October 2, 1914.

October 3, 1914: At 7h 49m a.m., l.m.t., I set off 40°04'N. on the lat. arc; 3°45½'S. on the decl. arc; and determine a meridian with the solar at the cor.

Chains	
	of secs. 9 and 16.
	Thence
	N.0°01'W., on a true line bet. secs. 8 and 9.
	Over mountainous land, through dense undergrowth.
	Ascend abruptly.
7.50	Ridge, 400 ft. above cor., bears NE. and SW.
	Descend.
14.50	Head of gulch, 100 ft. below ridge, course SW.
	Ascend.
16.70	Ridge, 150 ft. above gulch, bears NW. and SE.
	Descend abruptly.
26.00	Enter scattering aspen timber, bearing NW. and SE.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. of sec. 9 only, with brass cap marked
	¼ S 9 | 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
58.93	Note: On October 17, 1914, I
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 8 only, with brass cap marked
	¼ S 8 | 1914
	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.
64.00	Spring Canyon, 2500 ft. below ridge, course W.
	Ascend abruptly.
94.50	Ridge, 1600 ft. above canyon, bears N.80°E. and S.80°W.
	Descend.
99.13	Intersect E. and W. line 19.24 chs. S.89°50'E. of the cor. of secs. 4 and 5, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 8 and 9,

Chains

with brass cap marked

T 9 S | R 3 E
S 5 | S 4
CC
S 8. | S 9

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Land, mountainous.

Soil, gravelly loam.

No timber.

Undergrowth, oak, maple and deer brush.

Good grass for grazing.

October 3, 1914.

September 22, 1914, afternoon.

West, on a sectional correction line bet. secs. 29 and 32.

Over broken mountainous land, through dense undergrowth and heavy pine and aspen timber; ascending abruptly.

10.00 Ridge, 300 ft. above cor., bears NE. and SW.

13.50 Swale, 100 ft. below ridge, course N.25°E.

Ascend.

25.30 Wash, 10 lks. wide, 4 ft. deep, course N.15°W.

34.40 Ridge, 500 ft. above swale, bears N.20°E. and S.20°W.

Descend.

39.00 Gulch, 100 ft. below ridge, course N.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 29
¼
S 32

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
41.50	Ridge, 100 ft. above gulch, bears N.25°W. and S.25°E. Descend.
58.00	Gulch, 300 ft. below ridge, course N. Ascend.
64.20	Ridge, 200 ft. above gulch, bears N.25°W. and S.25°E. Descend.
66.00	Enter heavy aspen timber, bearing N.25°W. and S.25°E.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cof. of secs. 29, 30, 31 and 32, with brass cap marked

T 9 S	R 3 E
S 30	S 29
S 31	S 32

1914

from which

An aspen 5 ins. diam. bears N.34°E., 8 lks. dist., marked T 9 S R 3 E S 29 B T.

An aspen 5 ins. diam. bears S.31°E., 19 lks. dist., marked T 9 S R 3 E S 32 B T.

An aspen 4 ins. diam. bears S.43°W., 17 lks. dist., marked T 9 S R 3 E S 31 B T.

An aspen 5 ins. diam. bears N.80°W., 12 lks. dist., marked T 9 S R 3 E S 30 B T.

Land, mountainous, steep and broken.

Soil, rich mountain loam, 1 to 2 ft. deep.

Subsoil, clay and gravel.

Timber, pine and aspen.

Undergrowth, sagebrush.

Good grass for grazing.

September 22, 1914.

October 14, 1914, afternoon.

S.0°03'E., on a true line bet. secs. 31 and 32.

Over broken, mountainous land, through heavy timber and dense undergrowth; descend.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains

25.00 Gulch, 150 ft. below cor., course NW.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

¼ S 31 | S 32

1914

from which

A pine 8 ins. diam. bears S.35°E., 46 lks. dist., marked ¼ S 32 B T.

A pine 5 ins. diam. bears N.35°W., 8 lks. dist., marked ¼ S 31 B T.

54.60 Ridge, 400 ft. above gulch, bears NW. and SE.

Descend.

60.00 Swale, 30 ft. below ridge, course W.

Ascend.

64.00 Ridge, 40 ft. above swale, bears N.60°E. and S.60°W.

Descend.

70.00 Swale, 200 ft. below ridge, course S.60°W.

Ascend.

82.30 Spur, 100 ft. above swale, bears N.60°E. and S.60°W.

86.68 Intersect S. bdy. of Tp. 7.31 chs. west of the W.C.for cor. of secs. 5, 6, 31 and 32, described in the retracement of the S. bdy. of the Tp., which is also U.S.Forest Reserve Bdy.Post No.52

I destroy marks on said cor. pertaining to secs. 31 and 32. At point of intersection

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 31 and 32, with brass cap marked

T 9 S R 3 E
S 31 | S 32
CC
S 6 | S 5
T 10 S R 3 E

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

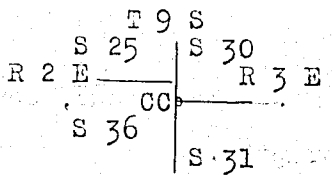
Land, mountainous; high and steep slopes.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Soil, rich mountain loam, 1 to 3 ft. deep; 1st rate. Subsoil, mostly rock, with some clay. Timber, aspen and pine. Undergrowth, rose, deer, larb, oak and service berry brush. Good grass for grazing. October 14, 1914.
	October 13, 1914: At 8h 46m a.m., l.m.t., I set off 40° 01'N. on the lat. arc; 7°35'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32. Thence West, on a sectional correction line bet. secs. 30 and 31. Over high and steep mountainous land, through heavy aspen timber and dense oak, rose, chokecherry and maple undergrowth. Descend steep west slope.
23.00	Bottom of canyon, 300 ft. below cor., course N.15°W. Leave aspen timber. Ascend abruptly.
28.70	Ridge, 500 ft. above canyon, bears NW. and SE. Descend.
34.90	Gulch, 400 ft. below ridge, course NW. Ascend abruptly.
38.00	Spur, 400 ft. below gulch, bears NW. and SE. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked for sec. 31 only ¼ S 31 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Swale, 100 ft. below spur, course NW.
	Ascend.
47.10	Ridge, 200 ft. above swale, bears NW. and SE.
	Descend.
56.67	Note: After completing this mile I return to this point and
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 30 only, with brass cap marked
	¼ S 30 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
66.70	Canyon, 800 ft. below ridge, course NW.
	Ascend abruptly.
77.00	Spur, 250 ft. above canyon, bears NW. and SE.
	Descend abruptly.
96.67	Intersect W. bdy. of Tp. at point 18.03 chs. S.0°13'E. of the cor. of secs. 25 and 36, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 30 and 31, with brass cap marked



1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Land, mountainous, sloping west into Utah Valley. Very steep and high.

Soil, black mountain loam, 1 to 2 ft. deep.

Subsoil, clay and gravel.

Undergrowth, dense, tall oak, rose, buck brush and chokecherry.

Timber, very heavy small aspen on E. 23.00 chs.

Chains	
	Good grass for grazing.
	Note: On account of the very steep slopes and dense brush it is very difficult for stock to graze on this country.
	October 13, 1914.
	October 12, 1914: At 8h 47m a.m., l.m.t., I set off 7°13'S. on the decl. arc; 40°01'N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32.
	Thence
	N.0°03'W., on a true line bet. secs. 29 and 30.
	Over mountainous land, through heavy aspen timber and dense oak, buck brush and rose.
	Ascend.
16.50	Ridge, 600 ft. above cor., bears N.80°E. and S.80°W.
	Leave heavy and enter scattering aspen timber.
	Descend abruptly.
20.00	Enter scattering pine timber, bearing E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., for sec. 29 only, with brass cap marked
	¼ S 29 / 1914
	from which
	An aspen 8 ins. diam. bears S.45°E., 9 lks. dist., marked ¼ S 29 B T.
43.00	Canyon, 1000 ft. below ridge, course N.60°W.
	Ascend abruptly.
57.20	Note: After completing this mile I return to this point and set ¼ cor. for sec. 30 only.
	October 12, 1914: At this point I set off 7°17'S. on the decl. arc; and at 11h 47m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40° 02'N.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 30 only, with brass cap marked

¼ S 30 |
1914

from which

A pine 8 ins. diam. bears N.55°W., 70 lks. dist., marked ¼ S 30 B T.

57.50 Ridge, 800 ft. above canyon, bears N.60°W. and S.60°E.

Descend abruptly over series of limestone ledges, through pine and aspen timber.

97.20 Intersect E. and W. line 17.22 chs. E. of cor. of secs. 19 and 20, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 29 and 30, with brass cap marked

T 9 S | R 3 E
S 19 | S 20
CC
S 30 | S 29
1914

from which

An oak 4 ins. diam. bears S.23°30'E., 25 lks. dist., marked T 9 S R 3 E S 29 B T.

An aspen 4 ins. diam. bears S.21°30'W., 37 lks. dist., marked T 9 S R 3 E S 30 B T.

Note: This cor. is about 2 chs. S. of bottom of Maple Canyon.

Land, mountainous; very rough and steep; general slope and drainage, west.

Soil, rich black mountain loam about 6 to 10 ins. deep; gravel and rock subsoil.

Timber, aspen and pine.

Undergrowth, oak, maple, larb, rose, buck and mahogany.

Good grass for grazing.

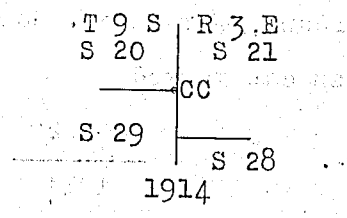
October 12, 1914.

Chains	
	October 10, 1914: At 8h 47m a.m., l.m.t., I set off 40°02'N. on the lat. arc; 6°27'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19 and 20, heretofore described.
	Thence
	East, on a retracement line on the S. side of sec. 20.
	Over mountainous land, through dense undergrowth and scattering pine and aspen timber; ascend.
9.50	Rocky spur, 125 ft. above cor., bears N. and S.
	Descend abruptly.
18.50	Maple canyon, 300 ft. below ridge, course NW.
	Enter scattering mahogany. Ascend abruptly over ledges.
40.00	Find no trace of old ¼ sec. cor., after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 20 only, with brass cap marked
	¼ S 20 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Thence on a true line
	East.
	October 10, 1914: At this cor. I set off 6°32'S. on the decl. arc; and at 11h 47m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°02'N.
57.26	Later,
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. for sec. 29 only, with brass cap marked
	¼ S 29 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
69.30	Rocky ledge, 50 ft. high, bears N. and S.
71.00	Swale, 75 ft. below ledge, course S.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	Ascend.
74.20	Rocky spur, 1450 ft. above Maple canyon, bears N. and S.
	Descend.
80.60	Swale, 100 ft. below spur, course S.
	Ascend.
86.60	Spur, 150 ft. above swale, bears N. and S.
	Descend.
93.00	Gully, 100 ft. below spur, course S.
	Ascend.
97.30	Intersect N. and S. line 17.25 chs. N.0°03'W. of the cor. of secs. 21 and 28.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 20 and 29, with brass cap marked



from which

An oak 4 ins. diam. bears N.55°W., 13.1lks. dist., marked T 9 S R 3 E S 20 B T.

An aspen 4 ins. diam. bears S.61°W., 14 1lks. dist., marked T 9 S R 3 E S 29 B T.

Land, mountainous, high and steep.

Soil, gravelly loam and rocky about 1 ft. deep.

Subsoil, clay and rocks.

Timber, scattering pine, aspen and mahogany.

Undergrowth, oak, rose, maple and service berry brush.

Good grass for grazing.

October 10, 1914.

October 16, 1914: At 7h 46m a.m., l.m.t., I set off 40°03'N. on the lat. arc; 8°41'S. on the decl. arc; and determine a meridian with the solar at the cor.

SUBDIVISION OF T. 9 S., R. 3 E.

Chains	
	of secs. 17, 18, 19 and 20, heretofore described.
	Thence
	East, on a retracement line bet. secs. 17 and 20.
	Over mountainous land, through dense undergrowth.
	Ascend abruptly over west slope of mountain.
10.00	Spur, 400 ft. above cor., bears NW. and SE.
	Descend.
20.00	Gulch, 25 ft. below spur, course NW.
	Ascend.
39.00	Spur, 600 ft. above gulch, bears NW. and SE.
	Descend.
40.00	Find no trace of old ¼ sec. cor., after diligent search.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 17 ¼ S 20 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Continue
	East, on a true line.
72.95	Ridge, 1800 ft. above spur, bears N.25°W. and S.25°E.
	Descend abruptly.
93.60	Hollow, 500 ft. below ridge, course N.15°W.
	Ascend.
97.98	Intersect N. and S. line 17.65 chs. N.0°03'W. of the cor. of secs. 16 and 21.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 17 and 20, with brass cap marked
	T 9 S | R 3 E S 17 | S 16 CC S 20 | S 21 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

SUBDIVISION OF T. 9 S., R. 5 E.

Chains

Land, mountainous.

Soil, clay and gravel about 1 ft. deep.

Subsoil, clay and rock.

No timber.

Undergrowth, very dense oak, maple, rose, larb and deer brush.

Good grass for grazing.

October 16, 1914.

October 17, 1914: At 7h 4m a.m., l.m.t., I set off 40° 04'N. on the lat. arc; 9°03'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18, heretofore described.

Thence

East, on a retracement line bet. secs. 8 and 17.

Over bench land, through dense undergrowth of sagebrush; ascend.

2.00 Enter patches of oak brush, bearing N. and S.

6.00 Leave bench; ascend ridge, bearing N. and S.

31.90 Trail to Dream Mine, bears N. and S.

33.90 Spur, 300 ft. above bench, bears N. and S.

Descend.

37.40 Trail to Dream Mine, bears N.15°E. and S.15°W.

40.00 Find no trace of old ¼ sec. cor., after diligent search.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 8
¼
S 17
1914

43.00 Gulch, 100 ft. below spur, course N.15°W.

Ascend abruptly.

49.70 The Dream Mine shaft house bears N. about 5 chs. dist.

53.00 Top of mountain 1500 ft. above gulch, bears N.60°W. and S.60°E. Descend.

58.30 Intersect N. and S. line at point 18.73 chs. N.0°01'W.

Chains.

of the cor. of secs. 9 and 19, already described.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 8 and 17, with brass cap marked

T 9 S. R. 3 E.
S. 8 | S 9.
CC
S. 17 | S 16
1914

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

Land, mountainous; very high, steep, and rocky.

Soil, clay and gravel with slide rock in places.

No timber.

Undergrowth, oak, sage and mahogany.

Good grass for grazing. October 17, 1914.

BOUNDARIES OF T. 9 S., R. 3 E.

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	N.88° 08'W.	41.24	1.35	.....	.....	41.22
	West	120.00	.....	.....	.....	120.00
	S.80° 49'W.	47.23	.....	7.54	.....	46.62
	S.89° 52'W.	24.19	.....	.06	.....	24.19
	S.89° 55'W.	77.66	.....	.11	.....	77.66
	S.89° 58'W.	40.43	.....	.02	.....	40.43
	S.89° 50'W.	41.05	.....	.12	.....	41.05
	West	103.52	.....	.....	.....	103.52
West Boundary	N. 3° 13'E.	23.35	23.31	.....	1.31	.....
	N. 2° 12'W.	41.60	41.57	.....	.....	1.60
	N. 0° 13'W.	39.99	39.99	.....	.....	.15
	N. 0° 27'W.	39.06	39.06	.....	.....	.31
	N. 0° 27'W.	40.07	40.07	.....	.....	.31
Bet. secs. 19 & 30	N.89° 50'E.	79.96	.23	.....	79.96	.....
" " 19 & 20	N. 0° 25'W.	80.56	80.56	.....	.....	.58
" " 17 & 18	N. 0° 12'E.	40.43	40.43	.....	.14	.....
" " " " "	N. 0° 29'W.	40.53	40.53	.....	.....	.34
" " 7 " 8	N. 0° 15'W.	40.18	40.18	.....	.....	.18
" " " " "	N. 0° 17'W.	40.60	40.60	.....	.....	.20
Bet. secs. 5-8, 4-9 3-10 and 2-11	S.89° 50'E.	316.40	.....	.92	316.40	.....
Bet. secs. 1 & 2	N. 0° 19'W.	82.01	82.01	.....	.....	.45
North Boundary	S.89° 16'E.	80.20	.....	1.03	80.19	.....
	South	20.13	.....	20.13	.....	.....
	N.88° 51'E.	20.00	.40	.....	20.00	.....
East Boundary	South	82.02	.....	82.02	.....	.....
	S. 0° 03'W.	80.11	.....	80.11	.....	.07
	S. 1° 18'E.	43.97	.....	43.96	1.00	.....
	S. 0° 51'E.	43.86	.....	43.86	.65	.....
	South	229.00	.....	229.00	.....	.....
Convergency					.47	
Totals			510.29	508.88	500.12	498.88
			508.88		498.88	
Errors in Lat. and Dep.			1.41		1.24	

GENERAL DESCRIPTION T. 9 S., R. 3 E.

This township is entirely in a mountainous country with steep ridges and deep canyons and hollows, with an elevation ranging from about 5,500 to 10,000 ft., with probably an average of 7,000 ft.

The drainage of the east half of the township finally reaches the Spanish Fork River, which flows through the northeastern corner of the township, and the drainage from the western portion finds its way directly into the Utah Valley.

The main line of the D. & R. G. R. R. from Denver to Salt Lake City runs through the northeastern part near the Spanish Fork River.

The entire township is covered with a dense growth of oak, maple, service berry, larb, buck brush and rose, with oak predominating. Heavy timber is found in some localities and scattering in some as indicated in the body of the notes.

The soil is generally a rich, black mountain loam and produces excellent and nutritious grass as well as the brush and timber noted. The chief value of the township is for grazing purposes.

No mineral was found in the township, except that at the Dream Mine in sec. 8, and none has been discovered at that point in commercial quantities so far as I can learn.

Mr. N. C. Christensen has several tracts of cultivated land in sec. 30, totaling about 25 acres. He claims 160 acres, as indicated on plat.

Martin A. Peterson has a Desert Entry claim of 160 acres, as indicated on the plat, in sec. 30, and has had considerable land broken up, but none in crops this season. None of his improvements could be seen from line. Mr. Shepherd has a house and about 5 acres of cultivated land in sec. 36, not seen from line.

GENERAL DESCRIPTION T. 9 S., R. 3 E. (CONT'D)

Mr. Joseph H. Shepherd has about 5 acres of cultivated land crossed on the S. bdy. of sec. 36, but his house is in sec. 1, T. 10 S., R. 3 E. There are no other settlers or improvements in the newly surveyed portion of this township.

John R Stewart

U. S. Surveyor.

4—680

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities ated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants see book "F" T. 10 S., R. 3 E.

the ..... Meridian, in the State of .....

hich are represented in the foregoing field notes as having been executed by him, and under his direc- on; and that said survey has been, in all respects, to the best of our knowledge and belief, well and ithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of U. S. Surveyor see book "F" T. 10 S., R. 3 E.

..... of the ..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, May 10, 1916.

The foregoing field notes of the ~~survey of~~ retracement, resurvey and survey of the subdivision, and retracement of the west, south and north boundaries of Township 9 South, Range 3 East, of the Salt Lake Base and Meridian, Utah,

.....

.....

.....

executed by John R. Stewart

under his special instructions dated May 14, 1914, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements, resurveys and surveys they describe, are hereby approved.

C. Thorsen

U. S. 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.

.....

U. S. Surveyor General.

6—2761

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Page

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Page

4—679

BOOK A-420

E

1915

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RETRACEMENT OF SOUTH AND EAST BOUNDARIES,

RETRACEMENT AND RESURVEY OF NORTH BOUNDARY,

AND

RETRACEMENT, RESURVEY AND SURVEY OF SUBDIVISION

OF

TOWNSHIP 5 SOUTH, RANGE 2 EAST

Of the Salt Lake Base and *Meridian,*

the State of Utah

EXECUTED BY

JOHN R. STEWART

the capacity of U. S. Surveyor, under instructions dated May 14, *1914,*

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

up No. 29, *which were approved by the Commissioner of the General Land*

ce, June 5, *1914, pursuant to authority contained in the Act of*

gress dated ....., *191*

Survey commenced October 19, *1914*

Survey completed November 27, *1914*

6—151

BOOK A-420

INDEX DIAGRAM.

Township 5 South, *Range* 2 East

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

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BOOK A-420

4—679 b

INDEX DIAGRAM.

Township 5 S, Range 2 E

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

6—4817

RETRACEMENT OF THE SOUTH BDY. OF T. 5 S., R. 2 E.

Survey commenced October 19, 1914, and executed with a Young & Sons light mountain transit, No. 8538, with Smith 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 declination arcs.

The instrument was approved for use in this survey by Mr. G. D. D. Kirkpatrick, Assistant Supervisor of Surveys.

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 made on Polaris, I proceed as follows:

At the cor. of secs. 26, 27, 34 and 35, T. 5 S., R. 2 E., approximate latitude 40°21'N., longitude 111°42'W. (for description of cor. see line bet. secs. 34 and 35, T. 5 S., R. 2 E.), I set off 40°21' on the lat. arc; 9°55'S. on the decl. arc; and at 3h 15m p.m., l.m.t., determine with the solar a meridian, and mark a point thereof, on a peg set firmly in the ground, about 5 chs. N.

At 5h 39m 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 set firmly in the ground, about 5 chs. N.

October 19, 1914.

October 20: At 7h 30m a.m., l.m.t., I lay off the azimuth of Polaris, 1°30' to the west, and find that this meridian falls on the solar meridian determined October 19.

RETRACEMENT OF THE SOUTH BDY. OF T. 5 S., R. 2 E.

Chains

At 7h 45m a.m., l.m.t., I set off 40°21' on the lat. arc; 10°09'S. on the decl. arc; and determine a meridian with the solar; this meridian also falls on the solar meridian determined October 19.

The solar apparatus, by a.m. and p.m. observations, defines positions for meridians which agree with the Polaris meridian; therefore, I conclude that the adjustments of the instrument are satisfactory.

A steel tape 5 chs. long was used in all the field work of this survey, together with a clinometer for determining slope angles, and the reduced horizontal distances only appear in the official field notes. The tape was tested, comparison being made with a standard tape 1 ch. long, kept and used for that purpose.

October 21: At 7h 45m a.m., l.m.t., I set off 40°20' on the lat. arc; 10°30'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of the Tp. For description of cor. see line bet. secs. 34 and 35, T. 5 S., R. 2 E.

Thence

N.89°46'E., retracing bet. secs. 2 and 35.

Over level land along road.

8.60 Provo reservoir canal, 20 lks. wide, 2 ft. deep, course N.30°E.

13.60 Power line bears N.70°W. and S.70°E.

40.00 Junction of roads bears N.10°E., S.10°W. and W.

40.32 Fall 13 lks. N. of the ¼ sec. cor., which is a limestone 5 x 10 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor., with brass cap marked

RETRACEMENT OF THE SOUTH BDY. OF T. 5 S., R. 2 E.

Chains

S 35
¼
S 2
1914

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

The true bearing of this line is therefore N.89°57'E., and the distance 40.32 chs.

From ¼ cor.

N.89°46'E.

53.50 Old house, 2 chs. N.

57.40 Power line, bears N.40°W. and S.40°E.

63.90 Dry creek, 2 lks. wide, 3 ins. deep, course S.10°W.

75.60 Wash, 15 lks. wide, 3 ft. deep, course S.15°W.

80.74 Fall 23 lks. N. of the cor. of secs. 1, 2, 35 and 36, which is a limestone 7 x 10 x 6 ins. above ground, firmly set, properly marked but not witnessed.

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 1, 2, 35 and 36, with brass cap marked

T 5 S
S 35 | S 36
R.2 E
S 2 | S 1
T 6 S
1914

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

The true bearing of this line is therefore S.89°54'E., and the distance 40.42 chs.

Land, gently rolling bench.

Soil, gravelly on gravelly subsoil; 3rd rate.

No timber.

No undergrowth.

October 21: At this cor. I set off 10°35'S. on the decl. arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°20'.

RETRACEMENT OF THE SOUTH BDY. OF T. 5 S., R. 2 E.

Chains	
	East, bet. secs. 1 and 36.
	Gradually ascending gently rolling bench, through dense sage and rabbit brush.
7.50	Base of mountain bears N. and S.
	Ascend.
34.00	Ridge, 300 ft. above cor., bears N.20°E. and S.20°W.
	Enter dense oak brush; descend.
39.76	Fall 2 lks. N. of the ¼ sec. cor., which is a limestone 10 x 12 x 6 ins. above ground, firmly set, properly marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor., with brass cap marked
	S 36 / ¼ / S 1 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The true bearing of this line is therefore S.89°58'E., and the distance 39.76 chs.
	From point 2 lks. N. of the ¼ cor., I continue
	East
63.20	Swale, 40 ft. below cor., course S. Ascend 100 ft. to
66.00	Spur, bears N. and S. Descend.
79.91	Fall 43 lks. N. of the cor. of Tps. 5 and 6 S., Rs. 2 and 3 E., which is a boulder 10 x 9 x 6 ins. above ground, firmly set, properly marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of Tps. 5 and 6 S., Rs. 2 and 3 E., with brass cap marked

T 5 S
R 2 E | R 3 E
S 36 | S 31
S 1 | S 6
R 2 E | R 3 E
T 6 S
1914

RETRACEMENT OF THE SOUTH BDY. OF T. 5 S., R. 2 E.

Chains

and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

The true bearing of this line is therefore S.89°25'E., and the distance 40.15 chs.

Land, W. 7.50 chs. gently rolling bench; soil, gravelly on gravelly and rocky subsoil; 4th rate. E. 72.41 chs. mountainous land, S. exposure; soil, gravelly and rocky on rocky subsoil; 4th rate.

No timber.

Undergrowth, oak, sage and rabbit brush.

Some grass.

October 21, 1914.

RETRACEMENT OF THE EAST BDY. OF T. 5 S., R. 2 E.

October 26: At 7h 44m a.m., l.m.t., I set off 40°20' on the lat. arc; 12°15'S. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 5 and 6 S., Rs. 2 and 3 E.

Thence

North, retracing bet. secs. 31 and 36.

Descending over mountainous land, through very dense oak and scattering sagebrush.

15.00 Swale, 50 ft. below cor., course E. Ascend.

36.00 Ridge, 250 ft. above swale, bears E. and W. Descend.

39.94 Intersect the ¼ sec. cor., which is a quartzite stone 10 x 10 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor., with brass cap marked

S ¼ 36 | S 31

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high,

RETRACEMENT OF THE EAST BDY. OF T. 5 S., R. 2 E.

Chains	
	W. of cor.
	The true bearing of this line is therefore north, and the distance 39.94 chs.
	From the ¼ sec. cor.
	North
68.70	Spur, 100 ft. above ¼ cor., bears E. and W.
	Descend.
79.70	Edge of small basin bears E. and W.
79.74	Fall 6 lks. W. of the cor. of secs. 25, 30, 31 and 36, which is a quartzite stone 10 x 10 x 10 ins. above ground, marked and witnessed as described by the surveyor general.
	Knowing from retracements that subdivisional lines of T. 5 S., R. 2 E., will fall out of limits on the E. bdy. of Tp., and closing cors. will be necessary, I re-establish cor. as follows:
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 30 and 31, W. bdy. of T. 5 S., R. 3 E., with brass cap marked

T 5 S
R 2 E | R 3 E
S 25 | S 30
S 36 | S 31
1914

	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The true bearing of this line is therefore N.0°05'E., and the distance 39.80 chs.
	Land, rolling mountainous; general E. exposure.
	Soil, mountain loam mixed with gravel on gravelly subsoil; 3rd rate.
	No timber.
	Undergrowth, dense oak and scattering sage.
	Good grass.
	October 26: At this cor. I set off 12°20'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the

RETRACEMENT OF THE EAST BDY. OF T. 5 S., R. 2 E.

Chains	
	sun on the meridian; the resulting lat. is 40°21'.
	North, retracing bet. secs. 25 and 30.
	Over rolling mountainous land, through dense oak and scattering maple, sage and mahogany, across basin.
1.00	Leave basin, bearing E. and W. Ascend.
14.50	Spur, 50 ft. above basin, projects N.75°E. Descend 50 ft. to
17.50	Swale, drains SW. Ascend 100 ft. to
22.40	Ridge, bears N.25°E. and S.25°W. Descend.
39.49	Intersect the ¼ sec. cor., which is a granite stone 10 x 7 x 7 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor. on W. bdy. of sec. 30, T. 5 S., R. 2 E., with brass cap marked
	S 30 | ¼ 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The true bearing of this line is therefore north, and the distance 39.49 chs.
	From ¼ sec. cor. North
41.78½	Later, November 9, at this point I set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on E. side of sec. 25, with brass cap marked
	| S 25 ¼ 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
50.75	Canyon, 250 ft. below ridge, course S.70°W.

RETRACEMENT OF THE EAST BDY. OF T. 5 S., R. 2 E.

Chains

52.50 Wash, 25 lks. wide, 10 ft. deep, course SW.

Ascend.

78.86 Intersect the cor. of secs. 19, 24, 25 and 30, which is a quartzite stone 9 x 12 x 5 ins. above ground, firmly set, properly marked, and witnessed as described by the surveyor general.

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 19 and 30, W. bdy. T. 5 S., R. 3 E., with brass cap marked

T 5 S
R 2 E | R 3 E
S 24 | S 19
S 25 | S 30
1914

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

The true bearing of this line is therefore north, and the distance 39.37 chs.

Land, mountainous; W. exposure.

Soil, rich black loam streaked with clay and mixed with gravel and loam, on gravelly subsoil; 2nd rate.

No timber.

Undergrowth, dense oak, sage, maple and mahogany.

October 26, 1914.

RESURVEY OF THE NORTH BDY. OF T. 5 S., R. 2 E.

November 3: For observation for meridian see random line, N. bdy. T. 5 S., R. 2 E.

From the cor. of secs. 4, 5, 32 and 33, on the N. bdy. of the Tp., which is a limestone 12 x 6 x 4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general, I run

East, resurveying bet. secs. 4 and 33.

Ascending over rough mountainous land, through dense

RESURVEY OF THE NORTH BDY. OF T. 5 S., R. 2 E.

Chains

undergrowth of oak, sage and maple.

40.00 No trace of old ¼ sec. cor.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 33
¼
S 4
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Land, rough mountainous.

Soil, rich mountain loam mixed with clay and gravel on loam and gravel subsoil; 2nd rate.

No timber.

Undergrowth, oak, maple and sage.

November 3, 1914.

RETRACEMENT OF THE NORTH BDY. OF T. 5 S., R. 2 E.

November 5: At 7h 44m a.m., l.m.t., I set off 40°25' on the lat. arc; 15°30'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32, on the N. bdy. of the Tp., which is a boulder set in cement, 5 x 6 x 5 ins., extending above surface, properly marked and witnessed as described by the surveyor general.

I re-establish cor. as follows:

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 5, 6, 31 and 32, with brass cap marked

T 4 S
S 31 | S 32
R 2 E
S 6 | S 5
T 5 S
1914

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

Thence

RETRACEMENT OF THE NORTH BDY. OF T. 5 S., R. 2 E.

Chains	
	East, retracing bet. secs. 5 and 32.
	Over nearly level plowed ground.
5.00	Leave plowed ground, enter dense cage, bearing N. and S.
8.70	Fence bears N. and S.
9.00	Road bears N. and S.
36.00	Begin ascent of mountain, bearing N. and S.
40.15	Fall 28 lks. S. of the ¼ sec. cor., which is a limestone 12 x 10 x 3 ins. above ground, firmly set, properly marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 1 in. in diam., 16 ins. in the ground and 10 ins. in a mound of stone, on solid rock, alongside old cor., for ¼ sec. cor., with brass cap marked
	S 32 / ¼ / S 5 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The true bearing of this line is therefore N.89°36'E., and the distance 40.15 chs.
	From a point 28 lks. S. of the ¼ sec. cor., I continue East
	Continue ascent through very dense oak brush.
80.53	Intersect the cor. of secs. 4, 5, 32 and 33, heretofore described in this book.
	I re-establish cor. as follows:
	Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 4, 5, 32 and 33, with brass cap marked
	T 4 S / S 32 | S 33 / R 2 E / S 5 | S 4 / T 5 S / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high,

RETRACEMENT OF THE NORTH BDY. OF T. 5 S., R. 2 E.

Chains

W. of cor.

The true bearing of this line is therefore S.89°36'E., and the distance 40.38 chs.

Land: W. 36.00 chs., gently rolling valley; E. 44.53 chs., rough mountainous, with W. exposure.

Soil: W. 36.00 chs., rich loam mixed with gravel on gravelly and sandy subsoil, 2nd rate; E. 44.53 chs., mountain loam mixed with gravel and clay on gravelly and shale subsoil, 3rd rate.

No timber.

Undergrowth, oak, sage and scattering grass.

November 5: At this cor. I set off 15°35'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°25'.

November 5, 1914.

RETRACEMENT OF SUBDIVISION OF T. 5 S., R. 2 E.

November 6: At 7h 44m a.m., l.m.t., I set off 40°20' on the lat. arc; 15°48'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of the Tp., heretofore described.

Thence

North, retracing bet. secs. 35 and 36.

Over rolling bench land, through dense undergrowth of sage, rabbit brush and scattering oak. Ascend.

10.00 Enter rolling foothills bearing E. and W.

25.00 Pipe line from Dry canyon (6-inch pipe), course SW.

36.00 Enter rough mountainous land, bearing E. and W. Ascend.

40.30 Intersect ¼ sec. cor., which is a limestone 10 x 10 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Chains

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 35 ¼ | S 36

1914

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

The true bearing of this line is therefore north, and the distance 40.30 chs.

For description of land, etc., see N. half mile bet. secs. 35 and 36.

October 20: For observation for meridian see page 2 this survey.

The cor. of secs. 26, 27, 34 and 35 is a limestone 16 x 10 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 26, 27, 34 and 35, with brass cap marked

T 5 S	R 2 E
S 27	S 26
S 34	S 35

1914

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

Thence

South, retracing bet. secs. 34 and 35.

40.00 No trace of ¼ cor. can be found.

81.00 Fall 75 lks. W. of the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of the Tp., which is a limestone set in cement.

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 2, 3, 34 and 35, with brass cap marked

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	T 5 S S 34 | S 35 R 2 E —————— S 3 | S 2 T 6 S 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	October 20: Sky overcast at noon; observation for lat. impossible.
	Thence I run
	N.0°32'W., resurveying bet. secs. 34 and 35.
	Over nearly level land in road, bearing E. and W.
.48	Cor. of fence bears W. and N.0°32'W.
	Thence along fence.
3.70	Power line, Olmstead to Mercur, Utah, bears N.20°W. and S.20°E.
26.90	Water ditch, 3 lks. wide, course W.
27.20	Road, bears N.10°E. and S.10°W.
31.00	Provo Reservoir canal, 25 lks. wide, water 2 ft. deep, course N.75°W.
	Enter cultivated land.
40.50	Proportionate point for ¼ sec. cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 34 | S 35 ¼ 1914
	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.
59.50	Road bears E. and W.
	Leave cultivated land; enter sagebrush.
67.20	Cor. of fences bearing W. and N.0°32'W.
69.70	Gulch, 25 ft. deep, drains W.
77.60	Power line, Olmstead to Mercur, Utah, bears N.35°W. and S.35°E.
81.00	The cor. of secs. 26, 27, 34 and 35.

Chains

Land, gently rolling valley, mostly all cultivated.
Soil, rich sandy loam mixed with gravel on sandy and gravelly subsoil; 2nd rate,
Undergrowth, sage.

October 20, 1914.

November 6: For solar observation see line bet. secs. 35 and 36.

From the cor. of secs. 26, 27, 34 and 35, I run East, resurveying bet. secs. 26 and 35.

Over bench land, through dense undergrowth of sagebrush.

1.00 Ascend over mountainous land, bearing N. and S.

4.00 Spur, 150 ft. above cor., bears N. and S.
Descend.

16.80 Gulch, 40 ft. below spur, drains S.30°E.
Ascend.

31.50 Spur, 200 ft. above gulch, bears NE. and SW.
Enter dense oak brush, gradually descending 100 ft. to

40.00 No trace of old ¼ cor. can be found.
Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 26
¼
S 35
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

November 6; At this cor. I set off 15°53'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°21'.

For description of land, etc., see E. half of this mile.

RETRACEMENT OF SUBDIVISION OF T. 5 S., R. 2 E.

October 22: At 7h 45m a.m., l.m.t., I set off 40°21' on the lat. arc; 10°52'S. on the decl. arc; and de-

RETRACEMENT OF SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	termine a meridian with the solar at the cor. of secs. 26, 27, 34 and 35.
	Thence
	North, retracing bet. secs. 26 and 27.
	Gradually ascend gently rolling land, through dense undergrowth of sage and rabbit brush.
1.00	Foot of mountain bears NW. and SE. Ascend.
4.50	Spur, 50 ft. above cor., bears NW. and SE. Descend.
16.00	Canyon, 75 ft. below spur, course S.60°W. Ascend.
27.40	Spur, 50 ft. above canyon, bears E. and W.
	Enter oak brush. Descend 25 ft. to
33.00	Gulch drains SW. Ascend along W. slope of mountain.
38.97	Fall 61 lks. W. of the ¼ sec. cor., which is a limestone 12 x 9 x 3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor., with brass cap marked
	S 27 ¼ | S 26
	1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The true bearing of this line is therefore N.0°54'E., and the distance 38.97 chs.
	From a point 61 lks. W. of the ¼ cor., I continue North
	Continue ascent on W. slope of mountain.
81.10	Fall 10 lks. W. of the cor. of secs. 22, 23, 26 and 27, which is a limestone 11 x 8 x 4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	Knowing that fallings of closing lines of subdivisions in this township will be out of limits at this cor. and closing cors. will be necessary, I re-establish

Chains	
	this cor. for 2 secs. only.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 22 and 27, with brass cap marked
	T 5 S R 2 E S 22 | S 23 S 27 | S 26 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The true bearing of this line is therefore N.0°42'W., and the distance 42.13 chs.
	Land, broken W. slope of high mountain, except S. 1 ch. of mile.
	Soil, shallow clay loam mixed with gravel and rocks on rocky subsoil; 3rd rate.
	No timber.
	Undergrowth, oak, sage and rabbit brush. Good grass.
	October 22: At this cor. I set off 10°57'S. on the decl. arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°22'.
	West, retracing bet. secs. 22 and 27.
	Descending over rocky, mountainous land, through dense undergrowth of oak and sagebrush.
15.25	Wire fence bears N.10°E. and S.10°W.
16.50	Road bears N.35°E. and S.35°W.
16.70	Barn 1.50 chs. S. of line.
18.00	Battle Creek, 15 lks. wide, 10 ins. deep, course S.25°W.
19.00	Telluride power plant, bears N.10 chs.
	Leave mountains and dense oak brush, bearing N. and S.
	Gradually descend.
20.50	Road bears N. and S.
20.80	Power line bears N. and S.
23.90	Road bears NW. and SE.

RETRACEMENT OF SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
25.44	Pipe line bears N.20°E.
27.10	Wire fence bears N. and S.
31.00	Irrigation ditch, 4 lks. wide, 4 ins. deep, course N.25°W.
35.00	Telephone line bears NE. and SW.
38.20	Creek, 4 lks. wide, 6 ins. deep, course S.20°W.
40.70	Fall 40 lks. N. of the ¼ sec. cor., which is a boulder 8 x 9 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor., with brass cap marked
	S 22 / ¼ / S 27 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Cor. stands at cor. of fence.
	The true bearing of this line is therefore S.89°26'W., and the distance 40.70 chs.
	From a point 40 lks. N. of the ¼ sec. cor., I continue West
44.30	Wire fence bears N. and S. Enter cultivated land.
47.60	Road bears N. and S.
47.70	Wire fence bears N. and S.
56.00	Combination wire fence bears N. 63 lks. distant. Leave cultivated land, enter sage.
60.30	Wash, 10 lks. wide, 7 ft. deep, course NW.
74.25	Wire fence bears N., S. and W.
81.28	Fall 79 lks. N. of the cor. of secs. 21, 22, 27 and 28, which is a limestone 15 x 10 x 6 ins. above ground, firmly set and properly marked but not witnessed.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 21, 22, 27 and 28, with brass cap marked

Chains

T 5 S	R 2 E
S 21	S 22
S 28	S 27

1914

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

Cor. stands at cor. of fence.

The true bearing of this line is therefore S.89°26'W., and the distance 40.58 chs.

Land: E. 19.00 chs., rough mountainous, W. exposure; remainder of mile, gently rolling valley, W. exposure.

Soil: E. 19.00 chs., mountain loam mixed with rocks on rocky and loam subsoil, 3rd rate; remainder of mile, sandy loam on loam subsoil, 1st rate.

Considerable land under cultivation.

No timber.

Undergrowth, dense oak and sage on mountainous part and scattering sage on valley. Considerable grass.

October 22, 1914.

October 23: At 7h 44m a.m., l.m.t., I set off 40°22' on the lat. arc; 11°13'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.

Thence

N.0°29'W., retracing bet. secs. 21 and 22.

Over gently rolling valley. Cultivated land on both sides of line.

10.00 Wire fence bears E. and W.

11.60 Wire fence bears E. and W.

13.40 Wash, 3 ft. deep, course S.70°W.

20.00 Wire fence bears E. and W.

40.00 Fall 1 lk. W. of the ¼ sec. cor., which is a cobblestone 15 x 9 x 6 ins. above ground, firmly set and properly marked but not witnessed.

RETRACEMENT OF SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor., with brass cap marked S 21 | S 22 ¼ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Cor. stands at cor. of fence.
	The true bearing of this line is therefore N.0°28'W., and the distance 40.00 chs.
	From a point 1 lk. W. of the ¼ sec. cor., I continue N.0°29'W.
43.40	Wire fence bears E. and W.
44.80	Old dry creek bed, course SW.
46.00	Road bears N.55°E. and S.55°W.
48.20	Telephone line bears NE. and SW.
49.50	Wire fence bears E. and W.
50.80	Wire fence bears E. and W.
51.40	Grove Creek, 6 lks. wide, 4 ins. deep, course S.60°W.
54.40	Wire fence bears NE. and SW.
66.80	Power line, Battle Creek plant to American Fork, Utah, bears N.50°W. and S.50°E.
72.10	Fence bears E. and W.
80.47	Fall 13 lks. W. of the cor. of secs. 15, 16, 21 and 22, which is a limestone 10 x 10 x 10 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 15, 16, 21 and 22, with brass cap marked T 5 S | R 2 E S 16 | S 15 S 21 | S 22 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Cor. stands at cor. of fence.

RETRACEMENT OF SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	The true bearing of this line is therefore N.0°19'W., and the distance 40.47 chs.
	Land, rolling valley; W. exposure.
	Soil, sandy loam, streaked with gravel and some rock, on sandy and gravelly subsoil; 2nd rate.
	Well adapted to fruit raising.
	No undergrowth. Land mostly all under cultivation.
	October 23, 1914.
	RETRACEMENT AND RESURVEY OF SUBDIVISION OF T.5 S., R.2 E.
	November 18: At 8h 45m a.m., l.m.t., I set off 40°23' on the lat. arc; 19°06'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.
	Thence
	East, retracing bet. secs. 15 and 22.
40.00	No trace of ¼ cor. can be found.
	Thence from cor. of secs. 15, 16, 21 and 22
	East, resurveying bet. secs. 15 and 22.
	Over rolling foothills, through dense undergrowth of sagebrush. Ascend gradually.
15.00	Foot of mountain bears NW. and SE. Ascend abruptly; enter oak and service brush undergrowth.
25.00	Spur, 150 ft. above cor., bears N.20°E. and S.20°W. Ascend abruptly.
26.20	Ledge, 40 ft. high, bears N.20°E. and S.20°W.
37.40	Canyon road, bears NW. and SE.
39.50	Limestone ledge, 50 ft. high, bears N. and S.
40.00	At foot of ledge and bank of creek,
	Set an iron post, 3 ft. long, 1 in. in diam., 14 ins. in the ground, and 12 ins. in a mound of stone on solid rock, for ¼ sec. cor., with brass cap marked

S 15
¼
———
S 22

1914

RETRACEMENT AND RESURVEY OF SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	from which
	A cottonwood 8 ins. diam. bears S.64°E., 38 lks. dist., marked ¼ S 22 B T.
	A limestone ledge marked X BO bears N.8°E., 15 lks. dist.
	For description of land, soil, etc., see E. half of this mile.
	November 18, 1914.
	November 23: At 8h 46m a.m., l.m.t., I set off 40°23' on the lat. arc; 20°14'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.
	Thence
	North, retracing bet. secs. 15 and 16.
40.00	No trace of ¼ sec. cor.
	Thence from cor. of secs. 15, 16, 21 and 22
	North, resurveying bet. secs. 15 and 16.
	Over rolling foothills, through dense undergrowth of sagebrush.
.40	Wash, 10 lks. wide, 18 ins. deep, course SW.
5.00	Foot of mountain bears E. and W. Ascend.
22.00	Spur, 100 ft. above cor., bears N.65°E. and S.65°W. Descend.
30.00	Swale; 40 ft. below spur, drains W. Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 16 ¼ | S 15 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	For description of land, soil, etc., see N. half of this mile.
	November 23, 1914.

Chains	
	October 23: For solar observation see line bet. secs. 21 and 22.
	From the cor. of secs. 15, 16, 21 and 22, I run S.89°46'W., retracing bet. secs. 16 and 21.
40.00	No trace of ¼ sec. cor.
80.68	Fall 56 lks. N. of the cor. of secs. 16, 17, 20 and 21, which is a limestone 1 x 9 x 5 ins. above ground, firmly set and properly marked but not witnessed.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 16, 17, 20 and 21, with brass cap marked

T 5 S | R 2 E
S 17 | S 16
S 20 | S 21

1914

	Dig pits 18 x 18 x 12 ins., in each sec., 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.
	October 23: At this cor. I set off 11°18'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°23'.
	Thence N.89°22'E., resurveying bet. secs. 16 and 21.
	Over nearly level cultivated land.
13.60	Irrigation ditch, 3 lks. wide, course N.
	Enter peach and apple orchard, bearing N. and S.
13.65	Fence bears N. and S.
23.60	Road bears N. and S.
25.30	Combination fence bears N. and S. Leave orchard; enter cultivated field.
32.60	Provo Reservoir canal, 25 lks. wide, water 2 ft. deep, course N.
32.70	Fence bears N. and S.
33.80	Fence bears N. and S. Enter orchard.
40.34	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

Chains	
	S 16 ¼ S 21 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
51.00	Fence bears N., S. and E. Leave orchard; enter dense sagebrush.
	Thence along fence.
54.00	Wash, 6 lks. wide, 3 ft. deep, course SW.
54.06	Fence bears N. and S.
59.50	Irrigation ditch, 3 lks. wide, course S.10°W.
65.70	Wash, 6 lks. wide, 3 ft. deep, course N.60°W.
67.20	Power line, Battle Creek to American Fork, brs. NW. & SE.
80.68	The cor. of secs. 15, 16, 21 and 22.
	Land, rolling valley; W. exposure.
	Soil, rich loam, 2 to 4 ft. deep, 1st rate.
	No timber.
	Undergrowth, sage on E. 29.68 chs., balance of mile under cultivation.
	From the cor. of secs. 16, 17, 20 and 21, I run North, retracing bet. secs. 16 and 17.
40.00	No trace of old ¼ cor.
81.69	Fall 94 lks. E. of the cor. of secs. 8, 9, 16 and 17, which is a limestone 24 x 10 x 10 ins., 10 ins. in the ground, firmly set and properly marked but not witnessed.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 8, 9, 16 and 17, with brass cap marked
	T 5 S | R 2 E S 8 | S 9 S 17 | S 16 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high,

Chains	
	W. of cor.
	Thence
	S.0°40'E., resurveying bet. secs. 16 and 17.
	Over mountainous land, through dense undergrowth of sage and scattering patches of oak. Ascend.
9.80	Old road bears N.65°W. and S.65°E.
13.70	Power line, Battle Creek to American Fork, brs. NW. & SE. on spur 50 ft. above cor.; spur bears E. and W. Descend.
23.50	Foot of mountain bears NW. and SE. Enter valley, descending gradually.
26.00	Provo Reservoir canal, 25 lks. wide, 2 ft. deep, course N.30°W.
40.50	Enter cultivated field, bearing N.15°W. and S.15°E.
40.85	Proportionate point for ¼ cor.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 17 ¼ | S 16 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
42.50	Fence bears N.30°W. and S.30°E.
43.70	Canal, 8 lks. wide, 1 ft. deep, course N.30°W.
50.70	Fence bears E. and W.
51.60	Fence bears E. and W.
58.00	Fence bears E. and W.
61.55	Fence bears E. and W.
69.30	Fence bears E. and W.
74.10	Fence bears E. and W.
81.70	The cor. of secs. 16, 17, 20 and 21.
	Land, N. 23.50 chs., mountainous, W. exposure; balance valley, of which S. 41.19 chs. is under cultivation.
	Soil, rich clay and sandy loam on gravelly and sandy subsoil; 2nd rate.
	No timber.
	Undergrowth, sage, and scattering patches of oak.
	October 23, 1914.

RETRACEMENT OF SUBDIVISION OF T. 5 S., R. 2 E.

Chains

November 23: For solar observation see line bet. secs. 15 and 16.

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

Over rough mountainous land, through dense undergrowth of oak and sagebrush. Ascend W. slope of mountain.

39.55 Fall 7 lks. S. of the $\frac{1}{4}$ sec. cor., which is a limestone 8 x 8 x 3 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for $\frac{1}{4}$ sec. cor., with brass cap marked

S 9
$\frac{1}{4}$
S 16
1914

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

The true bearing of this line is therefore N.89°54'E., and the distance 39.55 chs.

For description of land, soil, etc., see E. half of this mile.

November 23, 1914.

October 24: At 7h 44m a.m., l.m.t., I set off 40°23' on the lat. arc; 11°34'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.

Thence

North, retracing bet. secs. 8 and 9.

Descend over mountainous land, through dense undergrowth of sage and scattering patches of oak.

3.50 Gorge, 25 ft. deep, 50 lks. wide, course W.

9.60 Gorge, 50 ft. deep, 50 lks. wide, course W. Ascend.

18.20 Spur, 50 ft. high, projects N.60°E. Descend 75 ft. to

24.60 Gulch, draining W. Ascend.

Chains	
39.80	Fall 28 lks. E. of the ¼ sec. cor., which is a limestone 7 x 10 x 5 ins. above ground, firmly set and properly marked but not witnessed.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor., with brass cap marked
	S 8 ¼ | S 9 1914
	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.
	The true bearing of this line is therefore N.0°24'W., and the distance 39.80 chs.
	From a point 28 lks. E. of the ¼ cor., I continue North
43.00	Gully, 25 ft. deep, drains W. Ascend 50 ft. to
49.00	Spur, projects W. Descend 50 ft. to
49.80	Road, bears N.80°E. and S.80°W.
50.70	Old lime kiln, 50 lks. E. of line.
51.00	Old road, bears N.65°E. and S.65°W.
54.00	Gully, draining W.
79.60	Fall 44 lks. E. of the cor. of secs. 4, 5, 8 and 9, which is a limestone 11 x 9 x 3 ins. above ground, firmly set and properly marked but not witnessed.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 4, 5, 8 and 9, with brass cap marked
	T 5 S | R 2 E S 5 | S 4 S 8 | S 9 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The true bearing of this line is therefore N.0°14'W., and the distance 39.80 chs.
	Land, rocky mountainous with W. exposure.

Chains	
	Soil, gravelly and a clay loam about 1 ft. deep, on gravel subsoil; 3rd rate.
	No timber.
	Undergrowth, sage and scattering patches of oak.
	Some grass.
	West, retracing bet. secs. 5 and 8.
	Descend steep, rocky W. slope, over mountainous land, through dense undergrowth of sage and scattering patches of oak.
39.50	Wash, 30 lks. wide, 8 ft. deep, course SW.
40.29	Fall 21 lks. N. of the ¼ sec. cor., which is a limestone 10 x 18 x 12 ins. above ground, firmly set and properly marked but not witnessed.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor., with brass cap marked
	S 5 / ¼ / S 8 / 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The true bearing of this line is therefore S.89°42'W., and the distance 40.29 chs.
	From a point 21 lks. N. of the ¼ cor., I continue West
50.00	Foot of mountain; leave oak brush, bearing N. and S.
	Gradually descend over rolling valley.
60.35	Old house, bears N., 75 lks. distant.
60.95	Road bears N. and S.
61.95	Creek, 10 lks. wide, 6 ins. deep, course S.
	Thence down middle of lane about 3 rds. wide.
80.48	Fall 38 lks. N. of the cor. of secs. 5, 6, 7 and 8, which is a stone set in cement on edge of creek, course S.

Chains

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, alongside old cor., for cor. of secs. 5, 6, 7 and 8, with brass cap marked

T 5 S	R 2 E
S 6	S 5
S 7	S 8

1914

Unable to set accessories to cor.

The true bearing of this line is therefore S.89°45'W., and the distance 40.19 chs.

Land, E. 50 chs. rough mountainous with W. exposure; W. 30.48 chs. gently rolling valley.

Soil, loam and gravelly on gravelly subsoil; 2nd rate.

No timber.

Undergrowth, sage, oak and rabbit brush and scattering grass.

October 24: At this cor. I set off 11°39'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°24'.

North, retracing bet. secs. 5 and 6.

Over gently rolling land in center of lane about 3 rds. wide.

25.00 Leave lane, turns E.

40.23 Fall 9 lks. E. of the ¼ sec. cor., which is a boulder 10 x 10 x 6 ins. above ground, firmly set in cement, properly marked but not witnessed.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, alongside old cor., for ¼ sec. cor., with brass cap marked

S 6	S 5
¼	

1914

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

RETRACEMENT OF SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	The true bearing of this line is therefore N.0°08'W., and the distance 40.23 chs.
	From a point 9 lks. E. of the ¼ cor., I continue North
51.00	Power line from American Fork Canyon to Grove Creek plant bears N.10°W. and S.10°E.
64.30	Enter plowed ground, bearing E. and W.
79.95	Fall 36 lks. E. of the cor. of secs. 5, 6, 31 and 32, on the N. bdy. of the Tp., heretofore described.
	The true bearing of this line is therefore N.0°24'W., and the distance 39.72 chs.
	Land, gently rolling.
	Soil, sandy and clay loam streaked with gravel on sandy and gravelly subsoil; 1st rate.
	No timber.
	No undergrowth.
	October 24, 1914.

SUBDIVISION OF T. 5 S., R. 2 E.

	November 6: For solar observation see line bet. secs. 35 and 36.
	From the ¼ cor. bet. secs. 35 and 36, I run North, on a random line bet. secs. 35 and 36.
40.00	Set temp. point for cor. of secs. 25, 26, 35 and 36.
	From the ¼ cor. bet. secs. 26 and 35, I run East, on a random line bet. secs. 26 and 35.
41.62	Intersect N. and S. line 88 lks. N. of the temp. cor. of secs. 25, 26, 35 and 36.
	At intersection of random lines bet. secs. 35 and 36 and secs. 26 and 35,
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 25, 26, 35 and 36, with brass cap marked

SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	T 5 S | R 2 E S 26 | S 25 S 35 | S 36 1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Thence
	South, on a true line bet. secs. 35 and 36.
	Descending over mountainous land, through dense undergrowth of oak and scattering sagebrush.
40.88	The ¼ cor.
	Land, mountainous with general S. exposure.
	Soil, clay mixed with gravel on clay and gravelly subsoil; 2nd rate.
	No timber.
	Undergrowth, dense oak, scattering sage and grass.
	November 6: At this cor. I set off 15°53'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°20'.
	November 7: At 7h 44m a.m., l.m.t., I set off 40°21' on the lat. arc; 16°06'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.
	Thence
	East, on a random line bet. secs. 25 and 36.
40.00	Set temp. ¼ sec. cor.
79.86	Intersect E. bdy. of Tp., 1.86 chs. N. of the cor. of secs. 30 and 31, T. 5 S., R. 3 E., heretofore described.
	At intersection
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 25 and 36, with brass cap marked

Chains

T 5 S
R 2 E | R 3 E
S 25 | CC S 30
S 36 | S 31

1914

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

Thence

West, on a true line bet. secs. 25 and 36.

Over rough mountainous land, through dense undergrowth of oak, sage, maple and mahogany. Ascend 200 ft. to

16.00 Ridge, bears N.20°E. and S.20°W. Descend 400 ft. to

30.00 Dry canyon, course SW. Ascend.

39.93 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 25
¼
S 36

1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

November 7: At this cor. I set off 16°11'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°21'.

68.70 Ridge, 275 ft. above canyon, bears N. and S. Descend.

79.86 The cor. of secs. 25, 26, 35 and 36.

Land, mountainous, steep rocky slopes.

Soil, red and yellow clay mixed with gravel and rock, about 1 ft. deep, on gravel and blue limestone subsoil; 3rd rate.

No timber.

Undergrowth, dense oak, scattering sage, maple and mahogany.

Considerable grass.

November 7, 1914.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

November 9: At 7h 44m a.m., l.m.t., I set off 40°21' on the lat. arc; 16°41'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.

Thence

N.0°01'W., bet. secs. 25 and 26.

Over mountainous land, through dense oak brush and scattering patches of maple.

7.25 Spring branch, 2 lks. wide, 2 ins. deep, course S.25°W.

8.60 Metal water trough, 2 x 2 x 20 ft., bears E. 1.50 chs. dist.

Spring about 20 lks. E. of trough.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 26 ¼ | S 25

1914

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

56.50 Gully, 25 ft. deep, drains W.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 23, 24, 25 and 26, with brass cap marked

T 5 S | R 2 E
S 23 | S 24
S 26 | S 25

1914

from which

An oak 4 ins. diam. bears N.64°E., 33 lks. dist., marked T 5 S R 2 E S 24 B T.

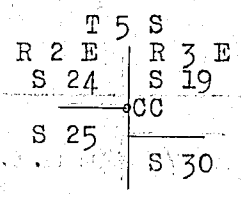
An oak 6 ins. diam. bears S.10°E., 13 lks. dist., marked T 5 S R 2 E S 25 B T.

An oak 5 ins. diam. bears S.66°W., 12 lks. dist., marked T 5 S R 2 E S 26 B T.

A maple 6 ins. diam. bears N.42°W., 65 lks. dist., marked T 5 S R 2 E S 23 B T.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	Land, mountainous, with general S. exposure.
	Soil, rich black loam mixed with gravel and patches of rock, 18 to 24 ins. deep, on gravelly and clay sub-soil; 2nd rate.
	No timber.
	Undergrowth, very dense oak and scattering patches of maple; scattering grass.
	November 9: At this cor. I set off 16°46'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°22'.
	East, on a random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec. cor.
79.82	Intersect E. bdy. of the Tp. 2.85 chs. N. of the cor. of secs. 19 and 30, on the W. bdy. of T. 5 S., R. 3 E., heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 24 and 25, with brass cap marked



1914

	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Thence
	West, on a true line bet. secs. 24 and 25.
	Over rough mountainous land, through dense undergrowth of oak, maple, deer and mahogany brush. Descend.
5.00	Swale, 50 ft. below cor., drains S.20°E. Ascend 50 ft. to
8.00	Spur, projects S.15°E. Descend 50 ft. to
10.00	Swale, drains S.15°E. Ascend 50 ft. to
13.00	Spur, projects N.15°W. Descend 150 ft. to

SUBDIVISION OF T. 5 S., R. 2 E.

Thence

[illegible].00 Gulch, drains S.15°E. Ascend 300 ft. to

38.00 Ridge, bears N.15°E. and S.15°W. Descend abruptly.

38.41 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 24
¼
S 25
1914

from which

An oak 6 ins. diam. bears N.9°E., 49 lks. dist., marked ¼ S 24 B T.

A mahogany 4 ins. diam. bears S.30°W., 8 lks. dist., marked ¼ S 25 B T.

73.[illegible] The cor. of secs. 23, 24, 25 and 26.

Land, rough mountainous, with steep slopes.

Soil, mountain loam mixed with loose rocks on loam and rocky subsoil; 3rd rate.

No timber.

Undergrowth, oak, maple, deer and mahogany brush.

Some grass.

November 9, 1914.

November 10: At 7h 44m a.m., l.m.t., I set off 40°22' on the lat. arc; 16°5[illegible]'E. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26.

Thence

N.0°01'W., lot. secs. 23 and 24.

Over rough mountainous land, through dense undergrowth of oak, and scattering maple, service berry, chokecherry, rose and buck brush. Ascend gradually 30 ft. to

[illegible] Ridge, bearing E. and W.

Descend into Battle Creek canyon.

[illegible].00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marke

Chains

S 23 ¼ | S 24

1914

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

November 10: At this cor. I set off 17°03'S. on the decl. arc; and at 11h 44m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°22'.

52.50 South Fork Battle Creek canyon and creek, 8 lks. wide, 4 ins. deep, in canyon 300 ft. below ridge, course S.70°W. Ascend 50 ft. to

56.00 Spur, projects S.70°W. Descend.

61.20 Stream, 7 lks. wide, 2 ins. deep, course SW.

70.50 North Fork Battle Creek, 10 lks. wide, 5 ins. deep, 50 ft. below spur, course SW. Ascend.

75.85 Stream, 2 lks. wide, 1 in. deep, course SW.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 13, 14, 23 and 24, with brass cap marked

T 5 S | R 2 E
S 14 | S 13
S 23 | S 24

1914

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

Land, mountainous.

Soil, rich mountain loam, 2 to 4 ft. deep, on clay subsoil; 2nd rate.

No timber.

Undergrowth, dense oak, scattering maple, service berry, chokecherry, rose and buck brush. Good grass for grazing.

November 10, 1914.

November 11: At 7h 44m a.m., l.m.t., I set off 40°23' on the lat. arc; 17°15'S. on the decl. arc; and de-

Chains

termine a meridian with the solar at the cor. of secs 13, 14, 23 and 24.

Thence

East, on a random line bet. secs. 13 and 24.

40.00 Set temp. ¼ sec. cor.

79.70 Intersect E. bdy. of Tp. 2.87 chs. N. of the cor. of secs. 18 and 19, on the W. bdy. of T. 5 S., R. 3 E., heretofore described.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 13 and 24, with brass cap marked

T 5 S
R 2 E | R 3 E
S 13 | S 18
CC
S 24 | S 19
1914

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

Thence

West, on a true line bet. secs. 13 and 24.

Over rough mountainous land, through dense undergrowth of oak, service and buck brush. Descend 150 ft. to

7.50 Gulch, drains S.55°W. Ascend 100 ft. to

14.00 Spur, projects SW. Descend 150 ft. to

30.00 Gulch, drains SW. Ascend 150 ft. to

35.80 Spur, projects S.20°W. Descend.

39.85 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 13
¼
S 24
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

November 11: At this cor. I set off 17°20'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the

Chains	
	sun on the meridian; the resulting lat. is 40°23'.
65.00	Bottom of canyon and creek, 3 lks. wide, 2 ins. deep, 200 ft. below spur, course SW. Ascend 100 ft. to
70.00	Spur, bears NE. and SW. Descend.
79.65	Power company's wood stave pipe, 2 ft. diam., course N.80°W.
79.70	The cor. of secs. 13, 14, 23 and 24.
	Land, rough mountainous.
	Soil, mountain and clay loam with considerable loose rocks and gravel on slopes; clay and rocky subsoil; 3rd rate.
	No timber.
	Undergrowth, oak, service and buck brush and considerable grass.
	November 11, 1914.
	November 12: At 7h 44m a.m., l.m.t., I set off 40°23' on the lat. arc; 17°32'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.
	Thence
	N.0°01'W., bet. secs. 13 and 14.
	Over mountainous land, through very dense undergrowth of oak, service berry, chokecherry and maple.
	Ascend.
.05	Power plant wood stave pipe line, 2 ft. diam., course N.80°W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 14 ¼ | S 13
	1914
	from which
	A chokecherry 5 ins. diam. bears S.47°30'E., 5 lks. dist., marked ¼ S 13 B T.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

A chokecherry 7 ins. diam. bears S.35°W., 4½ lks. dist., marked ¼ S 14 B T.

November 12: At this cor. I set off 17°37'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°23'.

63.00 Gulch, 25 ft. deep, drains SW.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 11, 12, 13 and 14, with brass cap marked

T 5 S	R 2 E
S 11	S 12
S 14	S 13

1914

Dig pits 18 x 18 x 12 ins., in each sec., 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, mountainous.

Soil, rich, black mountain loam, 2 to 4 ft. deep, on clay and gravel subsoil; 2nd rate.

No timber.

Undergrowth, oak, service berry, chokecherry, maple and deer brush. Good grass for grazing.

November 12, 1914.

November 13: At 7h 44m a.m., l.m.t., I set off 40°23' on the lat. arc; 17°49'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14.

Thence

East, on a random line bet. secs. 12 and 13.

40.00 Set temp. ¼ sec. cor.

79.78 Intersect the E. bdy. of Tp. 2.90 chs. N. of the true point for cor. of secs. 7 and 18, on the W. bdy. of Tp. 5 S., R. 3 E., heretofore described.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins.

Chains

in the ground, for closing cor. of secs. 12 and 13, with brass cap marked

T 5 S
R 2 E | R 3 E
S 12 | S 7
CC
S 13 | S 18
1914

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

Thence

West, on a true line bet. secs. 12 and 13.

Descend steep W. slope, over mountainous land, through dense undergrowth of oak, chokecherry, service and deer brush.

10.00 Gulch, 250 ft. below cor., drains SW. Ascend 150 ft. to

30.00 Spur, bears NE. and SW. Descend.

39.89 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 12
¼
S 13
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

November 13: At this cor. I set off 17°54'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°23'.

50.00 Enter dense aspen timber, bearing NE. and SW.

65.70 Wash, 25 ft. deep, course SW.

66.00 Leave timber, bearing NE. and SW.

79.78 The cor. of secs. 11, 12, 13 and 14.

Land, mountainous and steep; W. exposure.

Soil, rich black loam, 1 to 4 ft. deep, on clay and gravel subsoil; 2nd rate.

Timber, aspen.

Undergrowth, oak, chokecherry, service berry, deer

Chains	
	brush and considerable grass. November 13, 1914.
	November 14: At 7h 44m a.m., l.m.t., I set off 40°23' on the lat. arc; 18°04'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs 11, 12, 13 and 14.
	Thence
	N.0°01'W., bet. secs. 11 and 12.
	Ascend over mountainous land, through dense undergrowth of oak, chokecherry, service berry and deer brush.
5.00	Ridge, divide bet. Battle Creek and Grove Creek canyons bears E. and W. Descend.
13.00	Enter dense aspen timber, bearing E. and W.
25.00	Leave aspen, bearing E. and W.
36.50	Gulch, 40 ft. deep, drains W. Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 11 | S 12 ¼ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
40.70	Spur, 50 ft. above gulch, bears E. and W. Descend.
41.70	Gorge, 60 ft. deep, course N.85°W. Ascend 150 ft. to
59.40	Spur, bears N.70°E. and S.70°W. Descend.
68.00	Gulch, 30 ft. deep, drains SW. Ascend 175 ft. to
77.00	Spur, projects N.60°W. Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 1, 2, 11 and 12, with brass cap marked T 5 S | R 2 E S 2 | S 1 S 11 | S 12 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high,

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

W. of cor.

Land, mountainous.

Soil, rich black loam 2 to 4 ft. deep on clay subsoil; 2nd rate.

Timber, aspen.

Undergrowth, dense oak, chokecherry, service berry and deer brush. Considerable grass, good for grazing purposes.

November 14: At this cor. I set off 18°08'S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°24'.

East, on a random line bet. secs. 1 and 12.

40.00 Set temp. ¼ sec. cor.

79.84 Intersect E. bdy. of Tp. 3.00 chs. N. of the true point for cor. of secs. 6 and 7, and 7.63 chs. N. of the witness cor. to secs. 6 and 7, on the W. bdy. of T. 5 S., R. 3 E., heretofore described.

Point for closing cor. of secs. 1 and 12 falls on ledge. Cor. cannot be set at this point.

Thence

West, on a true line bet. secs. 1 and 12.

Ascend abruptly over mountainous land and broken limestone ledges.

4.84 Top of Timpanogos mountain, 200 ft. above cor. point, bears N. and S.

Set an iron post, 3 ft. long, 2 ins. in diam, 24 ins. in the ground, for witness cor. to closing cor. of secs. 1 and 12, with brass cap marked

T 5 S
R 2 E | R 3 E
S 1 |
—o WCCC S 6
S 12 |—
| S 7

1914

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

SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	Descend abruptly over W. slope of mountain, through scattering undergrowth of sage and oak brush.
25.00	Gulch, 800 ft. below top of mountain, drains SW. Ascend.
32.00	Spur, 50 ft. above gulch, projects N.30°E. Descend.
39.80	Head of canyon, 300 ft. below spur, course S.35°W. Ascend.
39.92	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 1 / ¼ / S 12 / 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
43.00	Ridge, 50 ft. above head of canyon, bears NE. and SW. Descend abruptly.
55.25	Ledge, 30 ft. high, bears N.15°E. and S.15°W.
67.00	Canyon, 2000 ft. below ridge, course S.60°W. Ascend.
76.00	Ridge, 50 ft. above canyon, bears NE. and SW. Descend.
79.84	The cor. of secs. 1, 2, 11 and 12.
	Land, very rough and broken mountainous, sloping E. and W. from Mt. Timpanogos.
	Soil, rocky and shallow mountain loam on rocky subsoil; 4th rate.
	No timber.
	Undergrowth, scant growth of sage and oak brush.
	Some grass.
	November 14, 1914.

November 16: At 7h 45m a.m., l.m.t., I set off 40°24' on the lat. arc; 18°34'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	Thence
	N.0°01'W., on a random line bet. secs. 1 and 2.
40.00	Set temp. ¼ sec. cor.
81.05	Intersect N. bdy. of Tp. 5 lks. E. of the cor. of secs. 1, 2, 35 and 36, heretofore described.
	Thence
	S.0°03'E., on a true line bet. secs. 1 and 2.
	Over rough mountainous land, through scattering pine and aspen timber and undergrowth of oak, sage, chokecherry and deer brush. Ascend abruptly.
15.00	Divide bet. Grove Creek and American Fork canyons, 200 ft. above cor., bears E. and W.
	Abrupt descent over ledges.
20.00	Leave timber, bearing E. and W.
41.05	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 2 ¼ | S 1 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	November 16: At this cor. I set off 18°40'S. on the decl. arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°25'.
79.00	Gulch, 500 ft. below ridge, drains N.70°W. Ascend.
81.05	The cor. of secs. 1, 2, 11 and 12.
	Land, rough, broken mountainous, with general W. exposure.
	Soil, clay loam mixed with gravel and rocks on gravelly subsoil; 3rd rate.
	Timber, scattering pine and aspen.
	Undergrowth, oak, sage, chokecherry and deer brush.
	Good grass.
	November 16, 1914.

Chains	
	November 6: For solar observation see line bet. secs. 35 and 36.
	From the ¼ cor. bet. secs. 26 and 35, I run
	East, on a true line bet. secs. 26 and 35.
	Descending over mountainous land, through dense undergrowth of oak and scattering patches of maple, service brush and scattering grass.
.10	Hollow, 100 ft. deep, drains SW. Ascend.
41.62	Intersect the cor. of secs. 25, 26, 35 and 36.
	Land, mountainous, draining W.
	Soil, clay loam mixed with some gravel and rocks, 1 ft. deep, on rocky and gravelly subsoil; 2nd rate.
	No timber.
	Undergrowth, oak, sage, and scattering patches of maple and service brush. Some grass.
	November 6, 1914.
	November 10: For solar observation see line bet. secs. 23 and 24.
	From the cor. of secs. 22 and 27, I run
	East, on a random line bet. secs. 23 and 26, for distance only.
40.00	Set temp. ¼ sec. cor.
81.44	Intersect N. and S. line 1.30 chs. N. of the cor. of secs. 23, 24, 25 and 26.
	Thence
	West, on a true line bet. secs. 23 and 26.
	Over mountainous land, through dense undergrowth of oak, maple, deer and buck brush. Descend gradually.
37.00	Swale, 200 ft. below cor., course N., Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on S. bdy. of sec. 23, with brass cap marked

S 23
¼
1914

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

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.

41.44 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on the N. bdy. of sec. 26, with brass cap marked

S 26
¼
1914

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, S. of cor.

55.00 Ridge, 55 ft. above swale, bears N. and S. Descend abruptly.

81.44 Intersect N. and S. line 1.30 chs. S.0°42'E. of the cor. of secs. 22 and 27.

At intersection

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 23 and 26, with brass cap marked

T 5 S R 2 E
S 22 | S 23
S 27
CC
S 26
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Cor. stands 2500 ft. below ridge.

Land, mountainous, steep, W. exposure.

Soil, clay loam mixed with loose lime rocks on clay and gravel subsoil; 2nd rate. W. 25 chs. very steep and covered with rocky slides.

No timber.

Undergrowth, oak, maple, deer and buck brush and scattering grass.

November 10, 1914.

Chains

November 17: At 8h 45m a.m., l.m.t., I set off 40°22' on the lat. arc; 18°51'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs 22 and 27.

Thence

North, on E. bdy. of sec. 22.

Over rough mountainous land, through dense undergrowth of oak, service and sage brush.

Descend gradually along W. slope.

20.00 Bottom of Battle Creek canyon and creek, 20 lks. wide, 6 ins. deep, 300 ft. below cor., course S.70°W.

Ascend abruptly over broken limestone ledges and slide rock.

Note: Cor. set at true point November 18.

39.88 Set an iron post, 3 ft. long, 1 in. in diam., 18 ins. in the ground and 18 ins. in a mound of stone on solid rock, with brass cap marked

S 22
¼
1914

from which

A cedar 6 ins. diam. bears N.1°W., 96 lks. dist., marked ¼ S 22 B T.

The ¼ cor. of W. bdy. of sec. 23 was afterwards set on this line. See line bet. secs. 14 and 23.

November 17: Sky overcast at noon; no observation taken.

40.65 Penstock, 3 ft. diam., for power plant at mouth of Battle Creek canyon, bears NE. and SW.

[illegible] Telluride power line from plant to intake on top of mountain, bears NE. and SW.

[illegible] Tramway, bears NE. and W.

[illegible] Drag road, bears NE. and SW.

[illegible] From this point, power company's house bears S.66°17'E., [illegible] chs. distant.

Head gate of penstock for power plant bears S.36°14'E., [illegible] chs.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

80.00 Set temp. point for cor. of secs. 15 and 22.

Cor. afterwards set permanently at 79.76 chs. See line bet. secs. 15 and 22.

Land, rough, broken mountainous; general W. exposure.

Soil, mountain loam and rocky, of limestone formation on gravelly and rocky subsoil; 4th rate.

Timber, a few scattering cedars, both sides of line.

Undergrowth, oak, sage, mahogany and scattering grass.

November 17, 1914.

November 18: For solar observation see W. half mile bet. secs. 15 and 22.

From temp. cor. of secs. 15 and 22, I run

West, on a random line bet. secs. 15 and 22.

41.80 Fall 24 lks. N. of the ¼ sec. cor. bet. secs. 15 and 22.

Thence

East, on a true line bet. secs. 15 and 22.

Over rough mountainous land, through undergrowth of oak, sage, service and mahogany.

Descend.

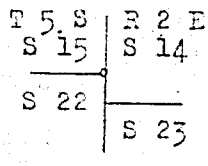
.25 Grove Creek in canyon, 6 lks. wide, rocky bottom, course S.50°W. Ascend abruptly over ledges.

38.90 Top of ledges and ridge, 2000 ft. above canyon, bears N.10°W. and S.10°E. Descend.

41.80 Intersect N. and S. line 24 lks. S. of the temp. cor. of secs. 15 and 22.

At intersection

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 15 and 22, with brass cap marked



1914

from which

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

A mahogany 5 ins. diam. bears S.5°W., 159 lks. dist., marked T 5 S R 2 E S 22 B T.

A mahogany 5 ins. diam. bears N.80°15'W., 143 lks. dist., marked T 5 S R 2 E S 15 B T.

Land, rough, broken and mountainous, with general W. exposure. E. 66.80 chs. very rough and ledgy.

Soil, shallow clay loam and gravel on gravelly subsoil W. of Grove Creek, and E. of same hardly any soil, chiefly barren limestone ledges.

Undergrowth, sage, oak, service and mahogany.

November 18: At this cor. I set off 19°09'S. on the decl. arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°23'.

November 18, 1914.

November 18: At 8h 46m a.m., l.m.t., I set off 40°23' on the lat. arc; 19°06'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.

Thence

West, on a true line bet. secs. 14 and 23.

Gradually descend over mountainous land, through dense undergrowth of oak and scattering patches of maple, chokecherry and service brush.

16.00 Gulch, 50 ft. below sec. cor., drains S.20°W.

Ascend 50 ft. to

20.00 Spur, projects S.15°W. Descend.

35.00 Wash, 10 lks. wide, 4 ft. deep, in bottom of swale, 100 ft. below spur, course S.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 14
¼
S 23
1914

Chains

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

November 18: At this cor. I set off 19°49'S. on the decl. arc; and at 11h 46m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°23'.

45.00 Spur, 100 ft. above swale, bears N. and S.

Descend abruptly 100 ft. to

47.50 Wash, 20 lks. wide, in swale, course S.

Ascend 75 ft. to

52.00 Spur, projects S.10°E. Descend 100 ft. to

65.00 Swale, drains S.

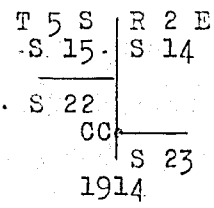
76.86 Power company's wood stave pipe, course S.10°W.

78.70 Road, bears N.10°W. and S.10°E.

81.36 Intersect N. and S. line 1.28 chs. S. of the cor. of secs. 15 and 22.

At intersection

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 14 and 23, with brass cap marked



and raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Land, mountainous.

Soil, rich black loam, quite rocky on ridges and spurs, on gravelly and clay subsoil; 3rd rate.

No timber.

Undergrowth, very dense oak, scattering patches of maple, chokecherry and service brush. Considerable grass good for grazing purposes.

I return to point on line bet. secs. 22 and 23, which is midway bet. the closing cor. of secs. 23 and 26, and 14 and 23, which point is 38.59 chs. N. of the cor.

Chains	
	of secs. 22 and 27, to set ¼ cor. for W. bdy. of sec. 23. This point falls on ledge and cor. cannot be set; therefore, at
39.20	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in a mound of stone on solid rock, for witness cor. to ¼ sec. cor. on the W. bdy. of sec. 23, with brass cap marked T 5 S | R 2 E S 23 WC ¼ 1914 from which A cedar 4 ins. diam. bears N.1°E., 158 lks. dist., marked W C ¼ S 23 B T.
	November 18: For solar observation see line bet. secs. 15 and 22, W. half.
	From the cor. of secs. 15 and 22, I run N.0°01'W., on the E. bdy. of sec. 15.
	Ascending over mountainous land, through dense undergrowth of oak and mahogany.
3.40	Road, bears N. and S.20°E.
6.00	Leave road, bearing N.20°E. and S.
7.60	Divide bet. Grove Creek and Battle Creek canyons, 30 ft. above cor., bears E. and W.
	Enter scattering pine timber. Descend abruptly.
16.70	Ledge, 15 ft. high, bears N.70°W. and S.70°E.
20.60	Ledge, 50 ft. high, bears E. and W.
24.00	Ledge, 25 ft. high, bears E. and W.
32.25	Ledge, 75 ft. high, bears N.70°W. and S.70°E.
33.00	Canyon, 75 ft. deep, course W.
35.00	Ledge, 50 ft. high, bears N.65°E. and S.65°W.
35.75	Gulch, 750 ft. deep, drains W.
38.50	Ledge, 100 ft. high, bears N.80°E. and S.80°W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground and 6 ins. in a mound of stone on solid rock, for ¼ sec. cor. on E. bdy. of sec. 15, with

Chains

brass cap marked

S 15 | $\frac{1}{4}$

1914

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

Cor. afterwards set for ¼ cor. on W. bdy. of sec. 14. See line bet. secs. 11 and 14.

40.90 Gorge, 75 ft. deep, course S.80°W.

42.00 Ledge, 50 ft. high, bears E. and W.

61.30 Ledge, 25 ft. high, bears E. and W.

68.80 Grove Creek canyon and stream, 4 lks. wide, 4 ins. deep, course W. Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 10 and 15, with brass cap marked

T 5 S R 2 E
S 10 | S 11
S 15
S 14
1914

from which

A red pine 8 ins. diam. bears N.17°W., 54 lks. dist., marked T 5 S R 2 E S 10 B T.

A red pine 6 ins. diam. bears S.63°15'W., 69 lks. dist., marked T 5 S R 2 E S 15 B T.

Land, rugged mountainous, draining SW.

Soil, shallow loam and loose shale rock on limestone bed rock; 4th rate.

Timber, young red and white pine and aspen, scattering on mile.

Undergrowth, service, oak, buck and mahogany.

Some grass.

November 18, 1914.

November 19: At 8h 45m a.m., l.m.t., I set off 40°23'

Chains

on the lat. arc; 19°20'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14.

Thence

West, on a true line bet. secs. 11 and 14.

Over mountainous land, through dense undergrowth of oak, maple, chokecherry, willow and service brush.

10.95 Prominent rock, 10 ft. high, on line, on divide bet. Grove and Battle creeks, bears NE. and SW.

Continue descent.

12.00 Enter dense aspen timber, bearing N. and S.

33.00 Wood road, bears N.25°E. and S.25°W.

38.50 Wood road, bears NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 11
¼
S 14
1914

from which

A willow 6 ins. diam. bears N.27°W., 14 lks. dist., marked ¼ S 11 B T.

An aspen 8 ins. diam. bears S.20°W., 22 lks. dist., marked ¼ S 14 B T.

47.70 Power company's steel pipe line, 16 ins. diam., course N.25°E.

53.50 Gulch, 300 ft. below sec. cor., drains SW.

Ascend.

56.00 Spur, 50 ft. above gulch, projects SW.

Descend.

61.00 Creek, 2 lks. wide, 2 ins. deep, course SW.

68.75 Creek, 4 lks. wide, 3 ins. deep, course S.15°W.

69.25 Creek, 3 lks. wide, 3 ins. deep, course S.25°W.

77.00 Enter scattering pine timber, bearing N. and S.

78.10 Grove Creek, 10 lks. wide, 5 ins. deep, course S.10°W.

Ascend.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

81.34 Intersect N. and S. line 1.32 chs. S.0°01'E. of the cor. of secs. 10 and 15.

At intersection

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 11 and 14, with brass cap marked

T 5 S R 2 E
S 10 | S 11
S 15
CC
S 14
1914

from which

A maple 6 ins. diam. bears N.12°E., 28 lks. dist., marked T 5 S R 2 E S 11 B T.

A maple 4 ins. diam. bears S.57°E., 43 lks. dist., marked T 5 S R 4 E S 14 B T.

Land, mountainous, draining SW.

Soil, rich mountain loam mixed with gravel and rocks, 2 to 4 ft. deep, on gravelly and clay subsoil; 3rd rate.

Timber, scattering red pine and aspen.

Undergrowth, oak, maple, chokecherry, willow and service brush. Some grass.

I return to point on line on E. bdy. of sec. 15 midway bet. the closing cor. of secs. 14 and 23 and closing cor. of secs. 11 and 14, which point is 38.70 chs. N. of the cor. of secs. 15 and 22, at which point I

Set an iron post, 3 ft. long, 1 in. in diam., 18 ins. in the ground and 8 ins. in a mound of stone on solid rock, for ¼ sec. cor. on the W. bdy. of sec. 14, with brass cap marked

| S 14
¼
1914

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

SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	From the cor. of secs. 10 and 15, I run N.0°01'W., on the E. bdy. of sec. 10.
	Over mountainous land, through aspen and scattering pine timber and undergrowth of deer, oak, service and choke cherry brush.
	Ascend gradually.
2.00	November 19: At this station I set off 19°23'S. on the decl. arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°23'.
3.70	Creek, 3 lks. wide, 3 ins. deep, course S.25°E.
16.00	Wash, 12 lks. wide, 2 ft. deep, course S.70°W.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on the E. bdy. of sec. 10, with brass cap marked

S 10
¼
1914

from which

An aspen 8 ins. diam. bears N.68°W., 19 lks. dist., marked ¼ S 10 B T.

Cor. afterwards set on this line for ¼ cor. on W. bdy. of sec. 11. See line bet. secs. 2 and 11.

42.75	Creek, 3 lks. wide, 3 ins. deep, course S.70°W.
64.35	Wood road, bears N.20°W. and S.20°E.
70.75	Creek, 2 lks. wide, 2 ins. deep, course S.20°W.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 3 and 10, with brass cap marked

T 5 S R 2 E
S.3 S.2
S 10 S 11
1914

from which

An aspen 4 ins. diam. bears S.48°W., 21 lks. dist., marked T 5 S R 2 E S.10 B T.

An aspen 4 ins. diam. bears N.34°W., 32 lks.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
	dist., marked T 5 S R 2 E S 3 B T.
	Land, mountainous, draining SW.
	Soil, rich, black mountain loam about 3 ft. deep on clay and gravelly subsoil; 2nd rate.
	Timber, aspen and scattering pine.
	Undergrowth, deer, oak, service and chokecherry brush.
	Good grass.
	November 19, 1914.
	November 20: At 8h 46m a.m., l.m.t., I set off 40°24' on the lat. arc; 19°34'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12.
	Thence
	West, on a true line bet. secs. 2 and 11.
	Descending abruptly over rough mountainous land, through dense undergrowth of oak, service berry and buck brush.
7.50	Canyon, 100 ft. below cor., course S.25°W.
	Ascend 50 ft. to
10.00	Spur, projects N.25°E. Descend 70 ft. to
14.50	Swale, drains S.25°W. Ascend 50 ft. to
17.00	Top of ascent, bears N. and S.
	Descend gradually.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 2 ¼ S 11 1914
	from which
	A chokecherry 4 ins. diam. bears N.80°30'E., 70 lks. dist., marked ¼ S 2 B T.
	No tree within limits in sec. 11; raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
47.30	Wood road, bears N.15°E. and S.15°W.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

70.00 Enter dense aspen timber, bearing N.15°E. and S.15°W.

81.38 Intersect N. and S. line 1.36 chs. S.0°01'E. of the cor. of secs. 3 and 10.

At intersection

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 2 and 11, with brass cap marked

T 5 S R 2 E
S 3 | S 2
S 10
CC
S 11
1914

from which

An aspen 6 ins. diam. bears N.20°30'E., 20 lks. dist., marked T 5 S R 2 E S 2 B T.

An aspen 4 ins. diam. bears S.22°E., 15 lks. dist., marked T 5 S R 2 E S 11 B T.

Land, mountainous.

Soil, rich black mountain loam mixed with gravel on gravelly and loam subsoil; 2nd rate.

Timber, aspen.

Undergrowth, oak, service berry, chokecherry and some buck brush. Considerable grass.

November 20: At this cor. I set off 19°37'S. on the decl. arc; and at 11h 46m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°24'.

I return to point on line of E. bdy. of sec. 10, midway bet. the closing cor. of secs. 11 and 14 and closing cor. of secs. 2 and 11, which point is 38.66 chs. N.0°01'W. of the cor. of secs. 10 and 15, and

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on W. bdy. of sec. 11, with brass cap marked

S 11
¼
1914

from which

Chains	
	An aspen 5 ins. diam. bears N.66°30'E., 11 lks. dist., marked ¼ S 11 B T.
	Knowing that a closing cor. will be necessary on the N. bdy. of the Tp., I run N.0°01'W., from the cor. of secs. 3 and 10, on a true line bet. secs. 2 and 3.
	Over mountainous land, through dense aspen timber and scattering undergrowth of deer and service brush.
35.00	Wash, 3 lks. wide, 4 ft. deep, course S.60°W.
38.64	A northing of 40.00 chs. from the closing cor. of secs. 2 and 11.
	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on W. bdy. of sec. 2, with brass cap marked S 2 ¼ 1914 from which An aspen 10 ins. diam. bears S.70°E., 10 lks. dist., marked ¼ S 2 B T.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on the E. bdy. of sec. 3, with brass cap marked S 3 ¼ 1914 from which An aspen 10 ins. diam. bears N.70°W., 21 lks. dist., marked ¼ S 3 B T.
50.00	Leave aspen timber, enter dense deer and sage brush, bearing E. and W.
64.00	Wash, 5 lks. wide, 3 ins. deep, course S.70°W.
79.74	Intersect N. bdy. of Tp. 1.35 chs. W. of the cor. of secs. 34 and 35, on the S. bdy. of T. 4 S., R. 2 E., heretofore described. At intersection

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 2 and 3, with brass cap marked

T 4 S
S 34 | S 35
CC
R 2 E
S 3 | S 2
T 5 S
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Land, mountainous, with general S. exposure.

Soil, rich, black mountain loam mixed with gravel, 2 to 4 ft. deep, on clay and gravel subsoil; 2nd rate.

Timber, aspen and some scattering pine.

Undergrowth, scattering deer, sage and service brush.

Good grass.

I return to a point on line of the S. bdy. of sec. 34, T. 4 S., R. 2 E., 40.00 chs. W. of the closing cor. of secs. 2 and 3, which is 38.65 chs. E. of the cor. of secs. 33 and 34. At this point I

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., on the N. bdy. of sec. 3, T. 5 S., R. 2 E., with brass cap marked

S 3
¼
1914

and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

November 20, 1914.

November 23: For solar observation see S. half mile bet. secs. 15 and 16.

From the ¼ sec. cor. bet. secs. 15 and 16, I run North, on a random line bet. secs. 15 and 16.

40.00 Set temp. cor. of secs. 9, 10, 15 and 16.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

From this temp. cor. I run

West, on a random line bet. secs. 9 and 16.

41.95 Fall 90 lks. S. of the ¼ sec. cor. bet. secs. 9 and 16, heretofore described.

November 23, 1914.

November 23, 1914:

From the ¼ sec. cor. bet. secs. 15 and 16, I run

North, on a true line bet. secs. 15 and 16.

Over broken W. slope of mountain, through dense undergrowth of sagebrush.

40.90 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 9 and 16, with brass cap marked

T 5 S | R 2 E
S 9 | S 10
S 16 | S 15
1914

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

Land, mountainous on N. 77.05 chs. and low hills on S. 3.85 chs.

Soil, considerable loose shale rock and gravel mixed with rich black loam on gravelly and clay loam subsoil; 3rd rate.

No timber.

Undergrowth, dense sagebrush.

November 23: At this cor. I set off 20°17'S. on the decl. arc; and at 11h 46m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°23',

November 23, 1914.

November 23, 1914: At 8h 47m a.m., l.m.t., I set off 40°23' on the lat. arc; 20°26'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

Chains	
	Thence
	West, on a true line bet. secs. 10 and 15.
	Over broken mountainous land, through dense undergrowth of oak, sage and mahogany, and scattering pine and aspen timber.
	Ascend.
2.00	Leave timber, bearing N. and S.
26.00	Enter ledges and S. slope of ridge, bearing N. and S.
34.00	Ridge, 800 ft. above cor., bears N.15°E. and S.15°W.
	Descend abruptly over ledges.
37.40	Point for ¼ cor. will fall on ledges where cor. cannot be set; therefore, at this point I
	Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground and 14 ins. in a mound of stone on solid rock, for witness cor. to ¼ cor. of secs. 10 and 15, with brass cap marked
	T 5 S R 2 E S 10 WC¼ —— S 15 1914
	from which
	A mahogany 6 ins. diam. bears N.8°E., 27 lks. dist., marked W C ¼ S 10 B T.
	A mahogany 4 ins. diam. bears S.14°E., 14 lks. dist., marked W C ¼ S 15 B T.
	Note: This cor. is set as witness for both secs. 10 and 15, as the cor. point in each case falls on ledge where it cannot be set.
	Continue abrupt descent over ledges.
40.00	Point for ¼ cor. for sec. 10 on ledge. Cor. cannot be set at this point.
41.75	Point for ¼ cor. for sec. 15 on ledge. Cor. cannot be set at this point.
81.75	Intersect N. and S. line 78 lks. S. of the cor. of secs. 9 and 16.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins.

Chains. in the ground, for closing cor. of secs. 10 and 15, with brass cap marked

T 5 S | R 2 E
S 9 | S 10
S 16 | CC
S 15
1914

and raise a mound of stone 2 ft. base, 1½ ft. high E. of cor.

Land, mountainous, very steep, rough and ledgy.

Soil, clay loam, packed hard and mixed with shale and rock on clay and rock subsoil; 4th rate.

Timber, scattering pine and aspen.

Undergrowth, oak, mahogany, sage, and scattering grass.

November 24: At the cor. of secs. 9 and 16 I set off 20° 29'S. on the decl. arc; and at 11h 47m a.m. l.m.t., observe the sun on the meridian; the resulting lat. is 40° 23'.

November 23, 1914.

November 24, 1914: For solar observation see line bet. secs. 10 and 15.

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

N. 0° 02'W. on a true line bet. secs. 9 and 10,

Over rough, mountainous land; through dense undergrowth of oak, mahogany, sage, and buck brush. Ascend abruptly over series of broken limestone ledges and loose shale rock.

39.23½ Point for ¼ sec. cor. W. bdy. sec. 10, afterwards ascertained, see page 64.

40.00 Point for ¼ sec. cor. on the E. bdy. of sec. 9 falls on ledges and cannot be set at this point.

48.91 Top of ridge, 2000 ft. above sec. cor., bears E. and W.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for witness cor. to ¼ sec. cor. on E. bdy. of sec. 9, with brass cap marked

Chains.

S $\frac{1}{4}$ 9 | 1914

from which

A mahogany, 8 ins. diam., bears N.43° W.35 lks. dist., marked W C $\frac{1}{4}$ S 9 B T

Witness cor. to $\frac{1}{4}$ sec. cor. on W. bdy. of sec. 10 afterwards set on this line; see line bet. secs. 3 and 10, page 64.

Descend abruptly 200 ft. to

56.00 Canyon, course W. Ascend.

65.00 Ridge, 300 ft. above canyon, bears E. and W. Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 4 and 9, with brass cap marked

T 5 S R 2 E
S 4 | S 3
S 9 | S 10
1914

and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.

Land, mountainous, very rough and ledgy, having west exposure.

Very little soil, only in crevices of rocks; limestone bed rock.

Timber, scrubby mahogany.

Undergrowth, oak, sage and buck brush.

November 24, 1914.

November 25: At 8h 47m a.m. l.m.t., I set off 40° 24' on the lat. arc; 20° 39' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3 and 10.

Thence .

West, on a true line bet. secs. 3 and 10,

Over mountainous land, through dense aspen timber and scattering undergrowth of oak, sage, mahogany, and buck brush.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
8.00	Creek, 2 lks. wide, 3 ins. deep, course S.10°W.
11.00	Road, bears N.10°E. and S.10°W.
20.00	Wash, 20 lks. wide, 4 ft. deep, course S.15°W.
	Leave timber, bearing N. and S.
25.00	Wash, 25 lks. wide, 5 ft. deep, course S.
37.80	Enter dense aspen, bearing N. and S.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 3
¼
S 10
1914

from which

An aspen 10 ins. diam. bears N.43°W., 68 lks. dist., marked ¼ S 3 B T.

An aspen 10 ins. diam. bears S.67°30'W., 20 lks. dist., marked ¼ S 10 B T.

43.80	Begin steep ascent, bearing N. and S.
55.00	Leave timber, bearing N. and S.
	Enter dense undergrowth.
68.20	Ridge, 1500 ft. above ¼ cor., bears N. and S.
74.00	Descend abruptly, bearing N. and S.
81.80	Intersect N. and S. line 75 lks. S.0°02'E. of the cor. of secs. 4 and 9.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 3 and 10, with brass cap marked

T 5 S | R 2 E
S 4 | S 3
S 9
CC
S 10
1914

from which

A rock marked X B O bears N.75°E., 136 lks. dist.

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

Chains

Note: Since the point for ¼ sec. cor. on W. side of sec. 10. i.e., N.0°02'W. 39.23½ chs. from the cor. of secs. 9 and 16, is inaccessible, a witness ¼ cor. was set 48.91 chs. N.0°02'W. from said cor.

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for witness cor. to ¼ sec. cor., with brass cap marked

S 10
¼
W C
1914

from which

A mahogany 6 ins. diam. bears N.27°E., 113 lks. dist., marked W C ¼ S 10 B T. (See page 61).

Land, rough mountainous.

Soil, rich black mountain loam mixed with gravel on clay and gravel subsoil; 2nd rate.

Timber, aspen.

Undergrowth, oak, sage, mahogany and buck brush.

Some grass, good for grazing.

November 25: At this cor. I set off 20°41'S. on the decl. arc; and at 11h 47m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°24'.

November 27: At 8h 48m a.m., l.m.t., I set off 40°24' on the lat. arc; 21°02'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4 and 9.

Thence

N.0°02'W., on a true line on E. bdy. of sec. 4.

Over mountainous land, through dense undergrowth of oak, sage and buck brush. Ascend abruptly.

18.30 Spur, 175 ft. above cor., bears N.80°W. and S.80°E. Descend.

32.00 Enter dense aspen, bearing E. and W.

39.25 A northing of 40.00 chs. from the closing cor. of secs. 3 and 10.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on W. bdy. of sec. 3, with brass cap marked

S 3
¼
1914

from which

An aspen 5 ins. diam. bears S.41°E., 43 lks. dist., marked ¼ S 3 B T.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. on E. bdy. of sec. 4, with brass cap marked

S 4
¼
1914

No trees within limits.

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

November 27: At this cor. I set off 21°04'S. on the decl. arc; and at 11h 48m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 40°25'.

47.50 Gulch, 250 ft. below spur, drains S.75°W.

Ascend.

64.00 Ridge, 300 ft. above gulch, bears E. and W.

Leave aspen; descend.

70.00 Swale, 100 ft. below ridge, drains NW.

Ascend.

79.02 Intersect the N. bdy. of Tp. 3.13 chs. W. of the cor. of secs. 33 and 34, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs. 3 and 4, with brass cap marked

T 4 S
S 33 | S 34
CC
R 2 E
S 4 | S 3
T 5 S
1914

Chains

and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Land, mountainous.

Soil, clay loam about 1 ft. deep on clay and gravel subsoil; 2nd rate.

Timber, aspen.

Undergrowth, oak, sage and buck brush.

November 27, 1914.

November 23: See W. half mile bet. secs. 9 and 16 for solar observation.

From the ¼ sec. cor. bet. secs. 9 and 16, I run East

Ascending over W. slope of high mountain, through dense undergrowth of oak and sage brush.

41.95 Intersect the cor. of secs. 9 and 16.

Land, mountainous, with W. exposure.

Soil, rich mountain loam mixed with considerable gravel and rock on gravelly and rocky subsoil; 3rd rate.

No timber.

Undergrowth, oak and sage. Some grass good for grazing.

November 24, 1914.

November 25: For solar observation see line bet. secs. 3 and 10.

From the cor. of secs. 4 and 9, I run

S.89°57'W., on a random line bet. secs. 4 and 9.

40.00 Set temp. ¼ sec. cor.

81.94 Intersect N. and S. line 40 lks. N. of the cor. of secs. 4, 5, 8 and 9.

Thence

N.89°40'E., on a true line bet. secs. 4 and 9.

Over mountainous land, through dense undergrowth of oak, sage and deer brush. Ascend abruptly 1500 ft. to

SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
15.00	Ridge bears N. and S. Descend 50 ft. to
28.50	Gully, drains S.40°W. Ascend 50 ft. to
31.90	Spur, projects N.30°E. Descend.
33.90	Gulch, 50 ft. deep, drains SW. Ascend abruptly.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked S 4 ¼ S 9 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
58.90	Spur, 800 ft. above gulch, bears N. and S. Descend 100 ft. to
68.00	Swale, drains SW. Ascend.
81.94	The cor. of secs. 4 and 9.
	Land, mountainous, steep slopes, with W. exposure.
	Soil, clay and gravel mixed with considerable shale rock on clay and gravelly subsoil; 2nd rate.
	No timber.
	Undergrowth, oak, sage and deer brush.
	November 25, 1914.

	November 5: For solar observation see line bet. secs. 5 and 32 on the N. bdy. of this Tp.
	From the cor. of secs. 4, 5, 8 and 9, I run North, on a random line bet. secs. 4 and 5.
40.00	Set temp. ¼ sec. cor.
79.66	Intersect the N. bdy. of Tp. 40 lks. E. of the cor. of secs. 4, 5, 32 and 33.
	Thence S.0°17'E., on a true line bet. secs. 4 and 5.
	Over mountainous land, through dense undergrowth of oak, sage and deer brush. Ascend 100 ft. to
5.00	Ridge bears E. and W. Descend.

SUBDIVISION OF T. 5 S., R. 2 E.

Chains	
28.00	Hollow, 100 ft. below ridge, drains W.
	Ascend 100 ft. to
33.00	Ridge, bears E. and W. Descend 150 ft. to
38.00	Hollow, drains W. Ascend.
39.66	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S 5 ¼ | S 4
	1914
	and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
51.00	Ridge, 200 ft. above hollow, bears E. and W.
	Descend 75 ft. to
73.00	Gulch, drains S.75°W. Ascend 50 ft. to
75.40	Spur, bears E. and W. Descend.
79.66	The cor. of secs. 4, 5, 8 and 9.
	Land, mountainous.
	Soil, mountain loam mixed with gravel on gravelly sub-soil; 2nd rate.
	No timber.
	Undergrowth, oak, sage and deer brush.
	November 5, 1914.

BOUNDARIES OF T. 5 S., R. 2 E.

Latitudes, Departures and Closing Errors.

Lines Designated		True Bearing	Dist.	Latitudes N.	Latitudes S.	Departures E.	Departures W.
			Chs.	Chs.	Chs.	Chs.	Chs.
N.Bdy.	T.5 S., R.2 E.	N.89°36'E.	40.15	.28	.....	40.15	.....
"	" "	S.89°36'E.	40.38	.....	.28	40.38	.....
"	" "	East	325.50	.....	.....	325.50	.....
E.Bdy.	" "	South	402.98	.....	402.98	.....	.....
"	" "	S.0°05'W.	39.80	.....	39.80	.....	.06
"	" "	South	39.94	.....	39.94	.....	.....
S.Bdy.	" "	N.89°25'W.	40.15	.41	.....	.....	40.15
"	" "	N.89°58'W.	39.76	.02	.....	.....	39.76
"	" "	N.89°54'W.	40.42	.07	.....	.....	40.42
"	" "	S.89°57'W.	40.32	.....	.04	.....	40.32
W.Bdy.	Sec. 35	N.0°32'W.	81.00	81.00	.....	.....	.75
"	" 26	N.0°54'E.	38.97	38.97	.....	.61	.....
"	" "	N.0°42'W.	42.13	42.13	.....	.....	.51
S.Bdy.	" 22	S.89°26'W.	40.70	.....	.40	.....	40.70
"	" "	S.89°26'W.	40.58	.....	.40	.....	40.58
W.Bdy.	" "	N.0°28'W.	40.00	40.00	.....	.....	.33
"	" "	N.0°19'W.	40.47	40.47	.....	.....	.22
S.Bdy.	" 16	S.89°22'W.	80.68	.....	.89	.....	80.68
W.Bdy.	" "	N.0°40'W.	81.70	81.70	.....	.....	.94
"	" 9	N.0°24'W.	39.80	39.80	.....	.....	.28
"	" "	N.0°14'W.	39.80	39.80	.....	.....	.16
S.Bdy.	" 5	S.89°42'W.	40.29	.....	.21	.....	40.29
"	" "	S.89°44'W.	40.19	.....	.18	.....	40.19
W.Bdy.	" "	N.0°08'W.	40.23	40.23	.....	.....	.09
"	" "	N.0°24'W.	39.72	39.72	.....	.....	.28
Convergency						.44	
		Totals		484.60	485.12 484.60	407.08 406.71	406.71
		Error in lat. and dep.			.52	.37	

GENERAL DESCRIPTION OF T. 5 S., R. 2 E.

This fractional township is rough and mountainous, lying on the west slope of Mt. Timpanogos. From the western range of sections the country rises abruptly to the east, the east boundary being at an elevation of about 11,000 ft. and the summit of Mt. Timpanogos.

The soil is generally a rich black mountain loam, streaked with clay and mixed with considerable gravel and loose rocks from 6 ins. to 2 ft. deep on a moist clay and gravel subsoil. The soil of the eastern range of sections and of the land as it approaches the summit of the mountain becomes rocky, of limestone formation, and in most cases large areas are covered with barren surface rock.

Some pine and aspen timber is found in secs. 2, 11, 14 and 23. The township in general is covered with a dense undergrowth of oak, sage, chokecherry, maple, willow, deer, rabbit and buck brush. As you approach the east boundary the undergrowth becomes scrubby, and at the summit of the mountain little or no undergrowth is found.

The township is well watered by Grove and Battle creeks, which head in the eastern part and flow through the township in a westerly direction.

The water from these streams is collected in a large pipe and carried in this pipe line which falls about 2000 ft. to the Utah Power and Light Company's plant in sec. 22.

There are no settlers in this township.

I find no indications of mineral in this township.

John R. Stewart

U. S. Surveyor.

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants see book "F" T. 10 S., R. 3 E.

f the ..... Meridian, in the State of .....

hich are represented in the foregoing field notes as having been executed 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 aithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of U. S. Surveyor see book "F" T. 10 S., R. 3 E.

..... of the ..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, May 10, 1916.

The foregoing field notes of the ~~surveyxofx~~ retracement of the south and east boundaries; retracement and resurvey of the north boundary, and retracement, resurvey and survey of the subdivision of Township 5 South, Range 2 East, of the Salt Lake Base and Meridian, Utah,

executed by John R. Stewart

under his special instructions dated May 14, 1914, having been critically examined, and the necessary corrections and explanations made, the ~~said~~ field notes, and the retracements, resurveys and surveys they describe, are hereby approved.

.....
U. S. 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.

.....
U. S. Surveyor General.

6—2761

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Page

4-630

BOOK A-420 F.

FIELD NOTES

OF THE SURVEY OF THE

RETRACEMENT, RESURVEY, AND SURVEY OF THE SUBDIVISION

OF

TOWNSHIP NO. 15 SOUTH, RANGE NO. 3 EAST

Of the [illegible] *Meridian,*

the State of [illegible]

EXECUTED BY

[illegible]

[illegible] and U.S. Commissioner

the capacity of U. S. Surveyor [illegible] *under instructions dated* [illegible], *191*[illegible],

[illegible] 24, [illegible], respectively

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

map Nos. [illegible], *which were approved by the Commissioner of the General Land*

June 5, 1934, respectively

ce, July 3, [illegible] *and* [illegible], *pursuant to authority contained in the Act of*

ngress dated [illegible], *191*[illegible]

Survey commenced November 11, *191*3

Survey completed August 3, *191*4.

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BOOK A-420

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INDEX DIAGRAM.

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Sub.T.10 S.,R.3 E.-

Survey commenced November 11,1912,and executed with a K.and E.Transit,No.20578,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 meridian at Salt Lake City,found correct,and was approved by the surveyor general for Utah, March 20, 1911.

I examine the adjustments of the instrument and correct the level and collimation errors;then,to test the solar apparatus by comparing its indications resulting from solar observations made during p.m.and.am.hours with a meridian established by Polaris observation,I proceed as follows:

At the cor.of secs.14,15,22,and 23,which is quartzite stone, 12x10x6 ins.,above ground,firmly set,and mkd.and witnessed as described by the surveyor general,latitude 39°56'28"N. longitude 111°35'41"W.,I set off 39°56'N.,on the lat.arc; 17°29'S.,on the decl.arc;and determine a meridian with the solar,at 3 h 44 m p.m.,l.m.t.,and mark a point thereof on a stone firmly set in the ground,5.00 chs.N.of the cor.

November 11,1912.

November 12,1912:At 4 h 11 m.a.m.,l.m.t.,I observe Polaris a western elongation,in accordance with the Manual,and mark a point thereof by a tack driven in a wooden plug set in the ground,5.00 chs.N.of the cor.

At 8 h 30 m a.m.,l.m.t.,I lay off the azimuth of Polaris 1°31'to the east ,and mark a point in the meridian thus determined by cutting a small groove in the stone, already set 5.00 chs.N.of the cor.;this mark falls 0.43 ins.east of the meridian determined with the solar.

Sub.T.10 S.,R.3 E.-Continued.-

Chains

At 7 h 44 m a.m.,l.m.t.,I set off 39°56'N.,on the lat. arc;17°40'S.,on the decl.arc;and mark the meridian determined with the solar,by a cross on the stone already set 5.00 chs.N.of the cor.;this mark falls 0.44 ins.east of the meridian established by Polaris observation.

The solar apparatus by p.m.and a.m.observations defines positions for meridians respectively about 0'22"west and 0'23"east of the meridian established by Polaris observation;therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the meridian at 8 h 30 m a.m.is N.16°50'W.the angle thus determined gives the mag.decl. 16°50'E.

oooooo

From the cor.of secs.14,15,22,and 23,described above John Oberhansley's house bears N.77°30'W.,about 15.00 chs. dist.His stack yard bears N.19°W.,about 3.00 chs.dist.

Thence I run

North,on a retracement line bet.secs.14 and 15.

Over mountainous land;through dense undergrowth.

Asc.

8.00 Top of ridge,100 ft.above cor.,bears N.60°E.and S.60°W.

Desc.

12.50 Wash,20 lks.wide,10 ft.deep,course SW.

14 60 Irrigation ditch,5 lks.wide,1 ft.deep,course NE.

16.08 Wire fence,bears E.and W.

22.50 Top of ridge,100 ft.above wash,bears NW and SE.

Desc.

40.75 Fall 110 lks.east of the ½ sec.cor.bet.secs.14 and 15. which is a quartzite stone,12x10x8 ins.,above ground, firmly set,and mkd.and witnessed as described by the surveyor general.The cor.is under a wire fence.

I destroy the old cor.and re-establish it in the same place as follows:

Sub.T.10 S.,R.3 E.-Continued.

Chains	
	Set an iron post,3 ft.long,1 in.in dia.,26 ins.in the gr ground,for ½ sec.cor.with brass cap mkd.
	½ | S 15 | S 14 1912.
	And raise a mound of stone,2 ft.base,1½ ft.high,W.of cor.
41.95	Fence ,bears NW and SE.
42.10	Irrigation ditch,5 lks.wide,1 ft.deep,course NW.
42.45	Same ditch in hollow,200 ft.below ridge,course E.
	Asc.
46.50	Farm road,bears N.80°W.and S.80°E.
46.60	John Oberhansley's house bears West about 3.00 chs.dist.
47.00	Top of broad ridge,50 ft.above hollow,bears E.and W.
	Desc .gradually.
58.57	Fence,bears E.and W.
60.00	Swale,40 ft.deep,course E.
	Asc.
81.51	Fall 220 lks.East of cor.of secs.10,11,14,and 15,which is an unmarked stone,at cor.of fence,which runs from this point East,West and South.This is the point accepted by the settlers as the cor.and is in line with the ½ sec. cor.and sec.cor.south;therefore I accept it as the cor. I set an iron post,3 ft.long,2 ins.in the dia.,24 ins.in the ground,for cor.of secs.10,11,14,and 15,with brass cap mkd.
	T 10 S R 3 E S 10 | S 11 S 15 | S 14 1912
	And raise a mound of stone,2 ft.base,1½ ft.high,W.of cor.
	Land,rolling mountainous.
	Soil,mountain loam;2nd rate.
	No timber,.
	Undergrowth,oak brush (dense).
	Good grass for grazing.
	Mountainous land,or land covered with dense undergrowth, 81.53 chs.
	The course of this mile is therefore N.1°33'W.,81.53 chs.
	November 12,1912.

Sub.T.10 S.,R.3 E.-Continued.

Chains	
	November 13,1912:At 7 h 44 m a.m.,l.m.t.,I set off 39°57' N.,on the lat.arc;17°56'S.,on the decl.arc;and determine a meridian with the solar,at the cor.of secs.10,11,14,and 15.
	Thence I run
	East,on a retracement line bet.secs.11 and 14.
	Over mountainous land;through dense undergrowth.
	Desc.gradually.
7.50	Bottom of hollow,60 ft.below cor.,course S.20°E.
	Asc.
16.80	Top of ridge,80 ft.above hollow,bears N.30°W.and S.30°E.
	Desc.
27.50	Bottom of hollow,175 ft.below ridge,course S.30°E.
	Asc.
32.20	Top of ridge,75 ft.above hollow,bears N.30°W.and S.30°E.
	Desc.
35.00	Bottom of hollow,75 ft.below ridge,course S.20°E.
	Asc.
40.61	Fall 62 lks.N.of the ¼ sec.cor.bet.secs.11 and 14,which is a limestone,11x10x9 ins.,above ground,well set,but not witnessed.
	I destroy the old cor.and re-establish it in the same place as follows:
	Set an iron post,3 ft.long,1 in in dia.26 ins.in the ground,for ¼ sec.cor.with brass cap mkd.
	¼ S 11 / S 14 / 1912
	And raise a mound of stone,2 ft.base,1½ ft.high,N.of cor.
42.00	Top of ridge,100 ft.above hollow,bears N.20°W.and S.20°E.
	Desc.
48.50	Irrigation ditch,10 lks.wide,2 ft.deep,course S.
52.80	Fence,bears N.20°W.and S.20°E.
67.90	Farm road,bears NW and SE.
73.40	Bottom of hollow, 100 ft.below ridge,course SE.
	Asc.gradually.

Chains.	
81.20	Fall 124 lks.north of the cor.of secs.11,12,13, and 14, which is a stationary sandstone boulder 36 x 30 x 12 ins.above ground, firmly set, and mkd. and witnessed as described by the surveyor general.
	I set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground, by the side of the boulder, for cor.of secs.11,12,13, and 14, with brass cap mkd.
	T 10 S R 3 E S 11 | S 12 S 14 | S 13 1912
	And raise a mound of stone,2 ft.base, 1½ ft.high W.of cor.
	The course of this mile is therefore S.89° 08'E.81.20 chs.
	Land,mountainous.
	Soil; mountain loam; 2nd rate, about 2 ft.deep. Subsoil gravel.
	No timber. Undergrowth,sage and oak brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth 81.20 chs.
	November 13, 1912: At this cor.I set off 18° 01'S.on the decl.arc; and at 11h 44m a.m.l.m.t., I observe the sun on the meridian; the resulting lat.is 39° 57' which is the proper lat.nearly.
	North on a retracement line bet.secs.11 and 12,
	Over rolling mountainous land; through dense sage and patches of oak brush. Asc.
2.50	Top of ridge, 25 ft.above cor., bears NW. and SE.
	Desc.
9.00	Bottom of hollow, 25 ft.below ridge, course S.70° E.
	Asc.
14.00	Top of ridge, 30 ft.above hollow, bears N.60° W. and S. 60° E. Desc.
20.20	Bottom of hollow, 40 ft.below ridge, course S.60° E.

Chains.	
	Asc.
29.50	Wash, 20 lks.wide, 5 ft.deep, course SE. Asc.
40.24	Fall 21 lks.east of the ¼ sec.cor.bet.secs.11 and 12, which is a sandstone 10 x 10 x 6 ins.above ground, firmly set, and mkd.and witnessed as described by the surveyor general.
	I destroy the old cor., and re-establish it in the same place as follows:
	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap mkd.
	¼ S 11 | S 12 1912
	And raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	The course of this half-mile is therefore N.0° 18'W., and distance 40.24 chs.
40.60	Fence bears E.and W.
63.60	Irrigation ditch, 10 lks.wide, 2 ft.deep, course S.70°W.
72.50	Top of ridge, 200 ft.above hollow, bears N.60° W. and S. 60° E. Desc.
75.43	Irrigation ditch, 10 lks.wide, 2 ft.deep, course SE.
80.02	Fall 40 lks.east of the cor.of secs.1,2,11, and 12,which is a sandstone 14 x 9 x 9 ins.above ground, firmly set and mkd.and witnessed as described by the surveyor general. I destroy the old cor.and re-establish it in the same place as follows:
	Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for cor.of secs.1,2,11, and 12, with brass cap marked T 10 S R 3 E S 2 | S 11 / S 11 | S 12 1912
	And raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	The course of this half-mile is therefore N.0° 16'W.and the distance 39.78 chs.
	Soil, mountain loam; 1st rate. No timber. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth

Chains	
	80.02 chs.
	November 13, 1912
	November 15, 1912: At 7h 45m a.m.l.m.t., I set off 39° 58'N.on the lat.arc; 18° 27'S.on the decl.arc; and determine a meridian with the solar at the cor.of secs. 1,2,11, and 12. Thence I run
	North on a retracement line bet.secs.1 and 2,
	Over mountainous land; through dense oak and sagebrush.
	Desc.
5.20	Bottom of hollow, 125 ft.below cor., course NE.
	Asc.
13.30	Top of ridge, 75 ft.above hollow, bears E. and W.
	Desc.
18.68	Wire fence, bears E. and W.
21.60	Bottom of hollow, 60 ft.below ridge, course E.
	Crab Creek 4 lks.wide, 6 ins.deep, in bottom, course E.
	Asc.
23.50	South edge of ploughed land, belonging to Joseph Shephard, bears E.and W.
	A log cabin bears S.7.50 chs.dist., claimant unknown.
25.30	N.edge of ploughed land, bears E.and W.; extends about 5.00 chs.east and 5.00 chs.west.
25.32	Spring branch, 2 lks.wide, 1 in.deep, course E.
25.35	Enter aspen timber, bears E.and W.
26.00	Log cabin(not finished)and belonging to Joseph Shepherd, bears west 3.00 chs.dist.
26.50	Fence, bears E. and W.
30.00	Top of ridge, 125 ft.above Crab Creek, bears E.and W.
	Desc.
34.50	Bottom of hollow, 75 ft.below ridge, course E.
	Asc.
36.50	Fall 10.69 chs.west of a sandstone 10 x 10 x 9 ins. above ground, and mkd.for the ¼ sec.cor.bet.secs.1

Chains.

and 36. This is the cor. set by Deputies Page and Lentz under their contract No.254 (rejected), and which I destroy, in accordance with instructions by telephone from the U.S.Surveyor General.

39.92 Fall 18 lks. east of the ¼ sec. cor. bet. secs. 1 and 2, which is a quartzite stone 10 x 12 x 8 ins. above ground, firmly set and mkd. and witnessed as described by the surveyor general.

44.35 Intersect N. bdy. of Tp. 20 lks. east of the closing cor. of secs. 1 and 2, which is a quartzite stone 14 x 12 x 8 ins. above ground, firmly set, and mkd. and witnessed as described by the surveyor general; and 8.40 chs. west of the ¼ sec. cor. on S. bdy. sec. 36, which is a volcanic stone 12 x 10 x 8 ins. above ground, firmly set and mkd. and witnessed as described by the surveyor general.

The ¼ sec. cor. although marked for sec. 36, is now only an angle point.

The course of this line is therefore N.0° 16'W. and the dist. 44.35 chs.

Land, mountainous.

Soil, sandy loam; 2nd rate.

Timber, aspen. Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous or heavily timbered land, or land covered with dense undergrowth 44.35 chs.

November 15, 1912.

John R. Stewart
U.S.Surveyor.

November 15, 1912: At 7h 44m a.m. l.m.t., I set off 39° 57' N. on the lat. arc; 17°56'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 10, 11, 14, and 15, heretofore described.

Note: Knowing from retracements made, that the line will not close within limits, I run

Chains

West, on a true line bet.secs.10 and 15

Over mountainous land; through dense oak brush.

Asc.

11.20 Top of ridge,100 ft.above cor.,bears NW and SE.

Desc.

17.80 Bottom of hollow,150 ft.below ridge,course SE.

Asc.

23.35 Top of ridge,200 ft.above hollow,bears NW and SE.

Desc.

31.15 Bottom of hollow,150 ft.below ridge,course SE.

Asc.

37.00 Top of spur,350 ft.above hollow,bears NW and SE.

Desc.

40.00 Set an iron post,3 ft.long,1 in.in dia.,26 ins.in the ground,for ¼ sec.cor.with brass cap mkd.

$$\frac{S\ \frac{1}{4}\ 10}{S\ \ 15}$$
1912

And raise a mound of stone,2 ft.base,1½ ft.high,N.of cor.

59.70 Bottom of hollow,250 ft.below spur,course S.

Asc.

66.50 Top of spur,300 ft.above hollow,bears N.and S.

Desc.

71.30 Bottom of hollow,200 ft.below spur,course SE.

Asc.

78.07 Intersect East bdy.of Payson Forest Reserve ,133 lks. N.of the cor.Numbered 47.,heretofore described.

Set an iron post,3 ft.long,2 ins.in dia.,24 ins.in the ground,for closing cor.of secs.10 and 15,with brass cap mkd.

T 10 S R 3 E
C | S 10
S 9 |
S 16 C S 15
1912

Dig pits,24x18x12 ins.,crosswise on each line,N.and S., 3 ft.,and E of post,7 ft.dist.;and raise a mound of earth, 4 ft.base,2 ft.high,E.of cor.

Note:I destroy all marks on the Forest reserve cor.

Chains

which pertain to secs.10 and 15.

Land,mountainous .

Soil,clay loam mixed with rock;2nd rate.

No timber.

Undergrowth,oak,service berry,and buck brush.

Good grass for grazing.

Mountainous land,or land covered with dense undergrowth,

78.07 chs.

November 13,1912.

November 14,1912:At 7 h 44 m a.m.,l.m.t.,I set off 39°57' N.,on the lat.arc;18°12'S.,on the decl.arc.and determine a meridian with the solar,at the cor.of secs.10,11,14, and 15.

Thence I run

North,bet.secs.10 and 11.

Over mountainous land;through dense undergrowth.

Asc.

19.75 Top of spur,100 ft.above cor.,bears NW and SE.

Desc.

31.50 Bottom of hollow,200 ft.below ridge,course SE.

Asc.

40.00 Set an iron post,3 ft.long,1 in.in dia.,26 ins.in the ground,for ¼ sec.cor.with brass cap mkd.

S.10 ¼ | S 11.
1912

Dig pits,18x18x12 ins.,N.and S.of post,3 ft.dist.and raise a mound of earth,3½ ft.base,1½ ft.high,W.of cor.

48.75 Top of ridge,350 ft.above hollow,bears NW and SE.

Desc.

56.70 Bottom of hollow,175 ft.below ridge,course E.

Asc.

80.00 Set an iron post,3 ft.long,2 ins.dia.,20 ins. in the ground,on rock,and surrounded by mound of stone,for

Sub.T.10 S.,R.3 E.-Continued.

Chains

cor.of secs.2,3,10,and 11,with brass cap mkd.

T 10 S R 3 E
S 3 | S 2
S 10 | S 11
1912

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

Land,mountainous.

Soil,clay loam and loose rock;2nd rate.

No timber.

Undergrowth,oak,service berry,and buck bruah.

Good grass for grazing.

Mountainous land,or land covered with dense undergrowth,

80.00 chs.

November 14,1912:At this cor.I set off 18°16'S.,on the decl.arc;and at 11 h 44 m a.m.,l.m.t.,I observe the sun on the meridian,the resulting lat.is 39°58'N.,which is the proper lat.nearly.

Claude L. Hart
U.S.Transitman

November 14,1912:At 7 h 44 m a.m.,l.m.t.,I set off 39°58' N.,on the lat.arc;18°12'S.,on the decl.arc;and determine a meridian with the solar,at the cor.of secs.1,2,11,and 12.

Thence I run

West,on a retracement line bet.secs.2 and 11.

Over mountainous land;through dense undergrowth.

Asc.

4.00 Irrigation ditch,10 lks.wide,2 ft.deep,course SE.

21.00 Top of ridge,100 ft.above cor.,bears NW and SE.

Desc. along south slope.

40.00 Find no trace of the old cor.

Set an iron post,3 ft.long,1 in.in dia.,26 ins.in the ground,for ½ sec.cor.,with brass cap mkd.

½
S 2
S 11
1912.

Sub.T.10 S.,R.3 E.-Continued.

Chains and raise a mound of stone,2 ft.base,1½ ft.high,N.of cor.

Thence I continue West bet.the west halves of secs.2 and 11 on a true line. Knowing from lines already run that it will not intersect the N.and S.line within limits.

Counting distances from cor.of secs.1,2,11,and 12.

55.00 Top of ridge,125 ft.above ½ sec.cor.,bears NE and SW.

Desc.

65.00 Head of hollow,100 ft.below ridge,course NE.

Asc.

72.00 Top of same ridge,150 ft.above hollow,bears NW.and SE.

Continue ascent along south side of ridge.

81.20 Intersect N.and S.line,1.60 chs.South of the cor.of secs. 2,3,10,and 11.

Set an iron post,3 ft.long,2 ins.in dia.,18 ins.in the ground,and surrounded by mound of stone,for closing cor.of secs.2 and 11,with brass cap mkd.

T 10 S R 3 E
S 3 | S 10 C | S 2
C | S 11
1912

And raise a mound of stone,2 ft.base,1½ ft.high,E.of cor.

Note:I destroy all marks on the cor.of secs.2,3,10,and 11 which pertain to secs.2 and 11.

Land,mountainous .

Soil,mountain loam;1st rate.about 1½ ft.deep,with gravelly subsoil.

No timber.

Undergrowth,oak brush.

Good grass for grazing.

Mountainous land or land covered with dense undergrowth, 81.20 chs.

November 14,1912.

John R Stewart

U.S.Surveyor.

Chains.

Survey commenced August 3,1914, and executed with a Young and Sons Light Mountain Transit No.8538, with solar attachment. The horizontal limb is provided with two double opposite verniers, reading to single minutes of arc; which is also the least count of the verniers of the la lat. and decl. arcs.

The instrument was examined, tested on the meridian at Salt Lake City, Utah, found correct, and was approved by the Asst. Supervisor of Surveys May 15, 1914.

Steel tapes 500 links long were used for measuring the slope angles and the horizontal distance determined by the use of the Standard Field Tables, and the vertical angles read by Leitz Clinometers.

A standard steel tape 100 links long was kept for testing the accuracy of the long tapes.

It was not considered necessary to test the solar apparatus of the instrument with a Polaris meridian, as the instrument was known to be in good adjustment from former tests in the adjoining townships to the north and as later determined in a test on August 7 and 8, as given in the retracement and resurvey of T. 9 S.,R.3 E.

At the cor. of secs. 3 and 10, T. 10 S., R. 3 E., latitude 39° 59'N., longitude 111° 35'W., which is an iron post, 2 ins. in diam., 14 ins. above ground and in stone mound, marked and witnessed as described by the Surveyor General:

August 3, 1914: At 9 h 0 m a. m., l. m. t., I set off 39° 59'N. on the lat. arc; 17°38'N., on the decl. arc; and determine a meridian with the solar at the above described cor.

Thence I run

West, on a true line bet. secs. 3 and 10.

Over mountainous land, through dense oak brush.

Ascend.

5.50 Top of spur, 150 ft. above sec. cor., bears N. and S.

Descend.

Chains.	
32.50	Bottom of hollow, 100 ft. below spur, course S.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor. mkd. on brass cap
	$\frac{1}{4}$ S.3 / S10 1914.
	And raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
46.50	Top of ridge, 400 ft. above hollow, bears NE. and SW.
	Continue ascent.
48.00	Enter heavy aspen timber, bears N. and S.
59.50	Leave timber, bears NW. and SE.
60.00	Top of same ridge as at 46.50 chs., bears NW. and SE.
	Continue ascent.
74.30	Top of same ridge, bears NE. and SW., 50 ft. above last c crossing.
	Descend.
75.00	Enter heavy aspen timber, bears NE. and SW.
77.72	Intersect East Bdy. of Payson Forest Reserve, 1.44 chs. N. of the cor. of secs. 3, 4, 9, and 10, which is also mile post No. 48 on said Bdy.; which is an iron post 3 ins. in diam., 12 ins. above ground, firmly set and marked and witnessed as described by the Surveyor General.
	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of secs 3 and 10, mkd. on brass cap

T 10 S R 3 E
S3
CC
S4 S10
S9
1914

from which

A pine, 6 ins. in diam., bears N.52°30'E. 87 lks. dist., mkd. T 10 S R 3 E S 3 B T.

An aspen, 4 ins. in diam., bears S.15 °E. 67 lks. dist.marked T 10 S R 3 E S 10 B T.

Chains.	
	Note. I destroy the marks on the cor. of secs. 3, 4, 9, and 10, which pertain to secs, 3 and 10.
	Land mountainous.
	Soil, gravelly loam, 2 nd rate; sub-soil, gravel and rock.
	Timber, aspen.
	Undergrowth, oak brush.
	Good grass for grazing.
	Mountainous land entire mile.
	August 3; at this cor. I set off 17° 36' N. on the decl. arc. and at 12 h 6 m l. m. t., observe the sun on the meridian; the resulting lat. is 39° 59' N.

	From the cor. of secs. 3 and 10, heretofore described I run
	North, on a true line, bet. secs. 2 and 3.
	Over mountainous land through dense undergrowth.
	Ascend.
10.00	Top of ridge, 400 ft. above sec. cor., bears E. and W.
	Descend.
12.70	Enter scattering aspen timber, bears E. and W.
28.50	Enter heavy aspen timber, bears E. and W.
30.00	Crab Creek, 2 lks wide, 2 ins. deep, in Canyon, 700 ft. below ridge, course SE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 ins. in diam., 14 ins. in the ground, on solid rock, and surrounded by mound of stone, 2 ft. base, 1 ft. high, for ¼ sec. cor., mkd. on brass cap ¼S3 | S2 1914. and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Cor mkd. for sec. 2, but refers to sec. 3 only.
42.57	Intersect N. Bdy. of Tp. 9.16 chs. west of the ¼ sec. cor. on the S. side of sec. 35, described in the notes of

Chains. said boundary by me. The $\frac{1}{4}$ sec. cor. although mkd. for sec 35 is now only an angle point.

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 2 and 3, mkd. on brass cap

T 9 S R 3 E
S34 | S35
CC
S3 | S2
T 10 S R 3 E

1914.

And raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.

Land mountainous.

Soil, gravelly loam, 2nd rate; subsoil gravel and rock.

Timber , aspen.

Undergrowth, oak brush.

Good grass for grazing.

August 3, 1914.

Latitudes Departures and Closing Errors.

Line Designated	Course	Dist	Latitudes N Chs.	Latitudes S Chs	Departures E Chs	Departures W Chs
S. side of Sec.10	West	78.07				78.07
W side of Sec. 10	N.0°2'W.	80.11	80.11			.05
W. side of Sec. 3	N.0°2'W.	34.76	34.76			.02
N. side of Sec. 3	N.80°49'E.	47.23	7.54		46.62	
N. side of Secs.3 &2	East	111.60			111.60	
E side of Sec. 2	S.0°16'E.	44.35		44.35	.21	
S. side of sec. 2	West	81.20				81.20
E. side of Sec.10	South	78.40		78.40		
Convergency					.03	
			122.41	122.75	158.46	159.34
Error in lat. and dep.				122.41		158.46
				.34		.88

General Description.

This fractional township is a high rough mountainous land, of an average elevation of about 9,000 ft. above sea level. It is covered with a dense growth of oak

and sage brush, with many kinds of native grasses and weeds; and with a heavy growth of aspen timber in parts, as indicated in the notes.

The soil is generally gravelly and rocky, mixed with mountain loam; and may be classed as 2d rate.

Crab Creek flows through secs. 2 and 3. There is an irrigation ditch extending from Crab Creek, through secs. 2 and 11; also one from a spring in sec. 15, through secs. 14 and 15. There is no other water in this fractional township; but plenty is available from above sources for stock-watering; and some for irrigation. The fractional township is mainly valuable for summer grazing purposes.

John Oberhansley has a house and fencing in the eastern part of sec. 15.

Joseph Shepherd has a house and fencing, and about 3 acres of cultivated land in the eastern part of sec. 2, not seen from line.

There are no other settlers in this fractional township.

No indications of mineral nor coal were found in this fractional township.

John P. Stewart
U.S. Surveyor.

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Page

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants for work done under Group No. 13, see book "P" T. 14 S., R. 2 W. Group No. 13.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursua
of special instructions received from the U. S. Surveyor General for .....
bearing date of the ..... day of ....., 191 , I have well, faithfully, and tru
in my own proper person, and in strict conformity with said instructions, the Manual of Surveyi
Instructions, and the laws of the United States, surveyed all those parts or portions of .....
.....
.....

For final oaths of U.S.Surveyor and U.S.Transitman for work done
under Group No.13, see book "P" T.14 S., R.2 W. Group No.13.

..... of the .....
..... Meridian, in the State of ....., which are represented
the foregoing field notes as having been executed by me, and under my direction; and I do furth
solemnly swear that all the corners of said survey have been established and perpetuated in strict accor
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Survey
General for ..... and in the specific manner described in the field notes, and th
the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me
this ..... day of ....., 191

SEAL

.....
.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 191

The foregoing field notes of the survey of .....
.....
.....
.....
.....
.....
.....
executed by .....
under his special instructions dated ....., 191 , having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

.....
U. S. 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.

6—2761

.....
U. S. Surveyor General.

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, John R. Stewart, U. S. Surveyor, during the periods and in the capacities ated opposite our several signatures, in surveying all those parts or portions of fractional T. 5 S. 2 E. - Tps. 9 S. Rs. 3-4, and 5 E. - with all necessary retracements and resurveys Exteriors and Subdivisions of names, and fractional subdivisions of T. 10 S. R. 3 E.

the Salt Lake Base & Meridian, in the State of Utah ich are represented in the foregoing field notes as having been executed by him, and under his direc- n; and that said survey has been, in all respects, to the best of our knowledge and belief, well and thfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
William Stowell	May 18, 1914	July 26, 1915	Cornerman
[illegible] Richman	July 27, 1914	Sept. 8, 1915	Cornerman
Isaac Hayes	May 22, 1914	Sept 11, 1915	Chainman
Miner Ellis	May 23, 1914	Sept. 15, 1914	Flagman
Morgan Hurst	May 18, 1914	Nov. 27, 1914	Chainman
[illegible]nne Phelps	May 22, 1914	Nov. 27, 1914	Axman Chainman
Dallin Southworth	Sept. 17, 1914	Nov. 27, 1914	Axman
Alvin Locander	Sept. 8, 1914	Nov. 27, 1914	Cornerman
[illegible]ar Anderson	Sept. 23, 1914	Nov. 27, 1914	Flagman

Subscribed and certified to before me on the dates of the final service as shown above.

John R. Stewart
U. S. Surveyor.

6—2761

455

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursu
of special instructions received from the U. S. Surveyor General for .....
bearing date of the ..... day of ....., 191 , I have well, faithfully, and tr
in my own proper person, and in strict conformity with said instructions, the Manual of Surve
Instructions, and the laws of the United States, surveyed all those parts or portions of .....
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.....
..... of the .....
..... Meridian, in the State of ....., which are represente
the foregoing field notes as having been executed by me, and under my direction; and I do fur
solemnly swear that all the corners of said survey have been established and perpetuated in strict acc
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surve
General for ..... and in the specific manner described in the field notes, and t
the foregoing are the original field notes of such survey.

.....
U. S. Surveyo

Subscribed by said ....., and sworn to before me
this ..... day of ....., 191

SEAL

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 191

The foregoing field notes of the survey of .....
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.....
executed by .....
under his special instructions dated ....., 191 , having be
critically examined, and the necessary corrections and explanations made, the said field notes, and t
surveys they describe, are hereby approved.

.....
U. S. 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.

6—2761

.....
U. S. Surveyor General.

456

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

f the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, John R. Stewart, U. S. Surveyor, do solemnly swear that, in pursuanc of special instructions received from the U. S. Surveyor General for Utah bearing date of the 14 day of May, 1914, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveyin Instructions, and the laws of the United States, surveyed all those parts or portions of retracemen W., S. and N.bdrs. and ret., res. and survey subdivision T.9 S., R.3 ret. and survey of W., ret. N.bdrs. and ret. res. and survey subdivision T.9 S., R.4 E.; ret. and res. S. and W.bdrs., ret. N. bdy., and ret., res and survey of E.bdy. and subdivision T.9 S. R.5 E.; ret. and survey E., re S., and ret., res. and survey N.bdy. and subdivision of T.5 S., R.2 E.; and survey of subdivisional lines in T.10 S., R.3 E. of the Salt Lake Base and Meridian, in the State of Utah, which are represented i the foregoing field notes in books A.B.C.D.E.& F as having been executed by me, and under my direction; and I do furthe solemnly swear that all the corners of said survey have been established and perpetuated in strict accord ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyo General for Utah and in the specific manner described in the field notes, and tha the foregoing are the original field notes of such survey.

John R. Stewart
U. S. Surveyor.

Subscribed by said John R. Stewart, and sworn to before me this 8 day of May, 1916

E. P. Palfreyman
County Clerk

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, May 10, 1916.

The foregoing field notes of the ~~survey of~~ retracement, resurvey and survey of the subdivisional lines of Township No. 10 South, Range No. 3 East, of the Salt Lake Base and Meridian, Utah,

executed by John R. Stewart and Claude L. Heist respectively, under ~~his~~ special instructions dated May 23, 1911 and May 14, 1914, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements, resurveys, and surveys they describe, are hereby approved.

A. O. Thorsen
U. S. 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.

6—2761

U. S. Surveyor General.

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U. S. Survey Office, Utah
MAY 31 1916
Salt Lake City, Utah

BOOK A-420 A

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RESURVEY OF THE EAST BOUNDARY: RETRACEMENT OF THE 4TH. STANDARD PARALLEL SOUTH THROUGH RANGE 2 EAST: RETRACEMENT, RESURVEY AND SURVEY OF THE SUBDIVISION OF T.20 S., R.2 E.

Of the SALT LAKE BASE AND *Meridian,*

he State of UTAH

EXECUTED BY

Howard W. Miller, U. S. Surveyor

and

Isaac Hayes, U. S. Transitman

~~in capacity of U.S. Surveyor~~, *under instructions dated* May 14, *1915,*

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

p No. 39, *which were approved by the Commissioner of the General Land*

, June 5, *1915*

Survey commenced May 25, *1915*

Survey completed June 22, *1915*

BOOK A-420

INDEX DIAGRAM.

Township 20 South, Range 2 East

6	5	4	3	2 29	1 9
7	8	9	10	16 11 38 36	12 46
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19	20	21	22	12 23 19 27 31 19	24 47
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3

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BOOK A-420

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INDEX DIAGRAM.

Township 20 S, *Range* 2 E

6	5	4	3	2	1 465
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7	8	9	10 478	11 500	12 527
				498	509
18	17	16	15 477	14 496	13 529
			475	491	506
19	20	21	22 474	23 482 481 489	24 531
				481 488	505
30	29	28	27 477	26 481 486	25 532
				482	503
31	32	33	34	35 485 484	36 534
				467	467

64-1817

Resurvey of E. bdy. of T.20 S.,R.2 E.

chains

Survey commenced May 25,1915 and executed with a Young and Sons light mountain transit No.8582, with Smith solar attachment and a W.& L.E.Gurley solar compass No.1043. The horizontal limb of the Young and Sons light mountain transit 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 declination arcs. The horizontal limb of the solar compass is provided with one vernier which reads to single minutes of arc which is also the least count of the verniers of the latitude and declination arcs.

The instruments were approved for use in this survey by The Assistant Supervisor of Surveys for Utah.

I examine the adjustments of the instruments and find them correct, then, to test the solar apparatus, by comparing their indications resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris, I proceed as follows:

(Note: The sky is overcast until the night of May 27, observations on Polaris until that date are impossible).

May 25: At my camp which is situated near the ¼ sec. cor. bet. secs. 22 and 27, T.20 S.,R.2 E., in approximate latitude 39°04'N., longitude 111° 42' W.; at 8h. a.m. apparent time, I set off 39°04' on the lat. arc; 20°51' N. on the decl. arc; and determine a meridian with the solar(transit No.8582) and mark a point on a wire fence to the south, about 7 chs. distant.

At 4h.p.m. apparent time, I set off 39°04' on the lat. arc; 20° 54'N., on the decl. arc; and determine a meridian with the solar and find that this meridian agrees with the one determined this a.m.

May 28,1915.

May 28: At 3h.12.7m.a.m.l.m.t., I observe Polaris at

chains

eastern elongation, in accordance with the Manual of Instructions, reverse the telescope and mark the direction of the line thus determined by setting a nail in a post at fence about 7 chs. S.

At 7h.45m.a.m.apparent time, I lay off the azimuth of Polaris, 1° 29' to the east and find that this point falls on the point established with the solar May 25.

The solar apparatus of transit No.8582 therefore defines positions for meridians that agree with the meridian established by observations on Polaris, I therefore conclude that the adjustments of this istrument are satisfactory.

At 8h.a.m. apparent time, I set off 39°04' on the lat. ar 21° 22'N., on the decl. arc; and determine a meridian with solar compass No.1043 and find that the meridian established by observations on Polaris bears S.0°01'E.

A 3h.p.m. apparent time, I set off 39°04' on the lat. arc 21° 25' N., on the decl. arc; and determine a meridian with the solar. The meridian established by observation on Polaris bears south.

As the solar meridians determined during a.m. and p.m. hours do not vary more than 1' from the true meridian I conclude that the adjustments of this instrument are satisfactory.

No magnetic decl. was taken on account of defective needles.

Measurements

Steel tapes, 5 chs. long, were used by both parties inmthe field, together with clinometers for determining slope angles and the reduced horizontal distances only appear in the official field notes. The tapes were tested, comparison being made with a standard tape, 1 ch. long, kept and used for that purpose only.

---

chains

In the decl. arc settings, .75 of the tabulated refraction for computing declinations is used, due to the altitude of the country.

June 11: At 7h. 30m.a.m. apparent time, I set off 39° 06' on the lat. arc; 23°03'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1 and 12 on the E. bdy. of the Tp. heretofore described.

Thence I run

North, on E. bdy. of sec. 1.

Over mountainous land, gradually descending along nearly E, slope into Clear Cr. canyon, through dense sage, scattering oak and buck brush and scattering scrub cedar timber.

12.50 Enter cottonwood timber with dense maple and oak brush, bears N.80°W. and S.80°E.

14.55 Bottom of Canyon and Clear Cr., 15 lks. wide, 4 ins. deep, clear water, 175 ft. below sec. cor., course NW.

Gradually ascend over SW. slope.

15.85 Leave cottonwood timber and maple undergrowth, bears NW. and SE.

16.40 Old log road, bears NW. and SE.

29.40 Spur, 90 ft. above creek, projects NW.

Gradually descend over NW. slope.

38.65 Fall 5 lks. W. of the ¼ sec. cor., which is a sandstone, 14 x 8 x 5 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground alongside old cor. for ¼ sec. cor. on E. bdy. of sec. 1, with brass cap marked

S 1
¼
1915

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

chains	
	The bearing of this ½ mile is N.0° 04'E., and the distance is 38.65 chs.
	From point 5 lks. W. of the ¼ sec. cor., I continue North
40.45	Ravine, 20 ft. below ¼ sec. cor., drains W.
	Gradually ascend.
46.75	Ridge spur, 45 ft. above ravine, bears E. and W.
	Gradually descend along W. slope.
52.75	Descend abruptly over N. slope into Twelve Mile Canyon.
66.95	Bottom of Twelve Mile Canyon and stream, 40 lks. wide, 1 to 3 ft. deep, swift current(high water), course W.
	Dense cottonwood timber and willow undergrowth along creek.
67.50	Road, Mayfield to Emery and Ferron, Utah, bears E. and W.
	Leave undergrowth and enter scrub cedar and pinon timber, bears E. and W.
	Ascend abruptly over rocky S. slope.
77.55	On S. slope at base of sandstone ledge, 30 ft. high, 365 ft. above creek, bears E. and W.
	Fall 8 lks. W. of the cor. of Tps. 19 and 20 S.,Rs. 2 and 3 E., which is a sandstone, 28 x 14 x 8 ins., lying on the ground, marked with 6 notches on four cornering edges. A few scattered stone about the cor.
	At exact position of old cor., I reset stone 21 ins. in the ground marked with 6 notches on N.,E.,S. and W. edges; set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground alongside old cor. for cor. of Tps. 19 and 20 S., Rs. 2 and 3 E., with brass cap marked

T 19 S
S 36 | S 31
R 2 E ——— R 3 E
S 1 | S 6
T 20 S
1915

	raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	No suitable trees within reasonable distance suitable for bearing trees.

chains

The bearing of this ½ mile is therefore N.0°03'E., and the distance is 38.90 chs.

Land, rough mountainous with steep slopes into canyons draining W.

Soil, gravelly and rocky with some shallow sandy loam on gravelly and rocky sub-soil.

Timber, scrub cedar and pinon and some cottonwood on creeks.

Undergrowth, oak, sage, maple and willow.

Fair grazing.

June 11,1915.

Retracement of the 4th. St. Par. S., through R.2 E.

May 31: For solar obsn. see line bet. secs. 35 and 36.

From the St. cor. of secs. 35 and 36, which is a sandstone 8 x 8 x 5 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general

I run

East, retracing along the S. side of sec. 36

Over rough mountainous land draining W., through dense undergrowth of oak, sage, scattering service and buck brush.

Ascend over W. slope of ridge.

37.00 Ridge, 310 ft. above sec. cor., bears N. and S.

Descend abruptly over E. slope, 200 ft. to

40.03 Intersect the St. ¼ sec. cor. which is a sandstone, 12 x 12 x 8 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

The bearing of this ½ mile is therefore East, and the distance is 40.03 chs.

This cor. is now an angle point cor. and W.C. to true cor point for ¼ sec. cor., S.bdy.sec.36

May 31,1915

June 1: At 9h.a.m. apparent time, I set off 39°02' on the lat. arc; 21° 59'N., on the decl. arc; and determine a meridian with the solar at the St. ¼ sec. cor.

Thence I continue

East

chains	
42.41	True cor. point for ¼ sec. cor. S.bdy.sec. 36.
45.70	Ravine, stream in same, 2 lks. wide, 1 in. deep, 65 ft. below ¼ sec. cor., course SE.
	Leave undergrowth, enter grassy flat, bears N. and S.
48.70	Wash, 50 lks. wide, 10 ft. deep, stream in same, 1 lk. wide, 1 in. deep, good water, course S.
	Gradually ascend.
51.55	Enter exceptionally dense service, oak, sage and buck brush, bears N. and S.
53.15	Low point, 35 ft. above ravine, falls S.
	Gradually descend.
55.60	A small seep, drains S.
58.65	Enter aspen timber, bears NE. and SW. Leave dense oak and service brush, enter choke cherry undergrowth, bears NE. and SW.
62.50	Ravine, 40 ft. below point, drains SW. Leave timber and undergrowth, bears N. and S.
	Thence up bottom of ravine from the E.
64.45	Forks of ravines from the E. and NE., stream from NE. ravine, 2 lks. wide, 2 ins. deep, good water, course SW.
	Continue in ravine from the E.
68.00	Stream from E. ravine, 2 lks. wide, 2 ins. deep, good water, course N.80°W.
69.75	Same stream, course SW. Heads about 1 ch. N.
	Leave ravine, bears N.80°W. and S.80°E.
	Ascend abruptly over SW. slope through dense undergrowth of oak, buck, service and sage brush.
82.41	On SW. slope 220 ft. above ravine.
	Fall 6 lks. N. of the St. cor. of Tps. 20 S., Rs. 2and 3 E., which is a gray sandstone, 12 x 8 x 12 ins., extending 10 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground alongside old cor. for St. cor. of Tp. 20 S., Rs. 2 and 3 E., with brass cap marked

chains	
	T. 20 S R 2 E | R 3 E S 36 | S 31 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The bearing of this ½ mile is therefore S.89°55'E., and the distance is 42.38 chs.
	Land, mountainous, general S. exposure and drainage.
	Soil, gravelly and shallow sandy loam on sub-soil of moist sticky clay, packed hard and mixed with gravel and rock.
	Timber, aspen.
	Undergrowth, oak, sage, service, buck, choke cherry and grass. Fair grazing.
	June 1: The sky is overcast at noon, observation for latitude is impossible.
	Storm of rain and snow in p.m. prevents field work.
	June 1,1915

	June 2: At 8h. a.m. apparent time, I set off 39°02' on the lat. arc; 22°07'N., on the decl. arc; and determine a meridian with the solar at the St. cor. of secs. 35 and 36
	Thence I run
	West, retracing on the S. side of sec. 35.
	Over mountainous land, gradually ascend across head of swale through dense undergrowth of sage and scattering oak brush.
6.00	Junction of spurs from NE. and SE., 105 ft. above sec. cor., projects SW.
	Descend over W. slope.
21.65	Old road, bears NE. and SW.
36.00	Enter dense oak brush, bears N. and S.
	Descend abruptly.
40.19	395 ft. below spur

chains	
	Fall 48 lks. S. of the ½ sec. cor. which is a sandstone, 8 x 9 x 7 ins. above ground, firmly set, marked as described by the surveyor general. No accessories to cor., I raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
	The bearing of this ½ mile is N.89°19'W., and the distance is 40.19 chs.
	From point 48 lks. S. of the ½ sec. cor., I continue West.
41.20	Begin very steep descent into Willow Cr. canyon.
46.25	Bottom of Willow Cr. canyon and creek, 6 lks. wide, 1 ft. deep, good clear water, 100 ft. below ½ sec. cor., course SW.
	Enter dense maple undergrowth, bears NE. and SW. Some cottonwood timber along creek.
	Ascend over SE. slope.
48.30	Leave maple undergrowth, enter cedar and pinon timber, bears NE. and SW.
64.80	Ridge, 170 ft. above creek, bears NE. and SW. Leave cedar and pinon timber, gradually descend across bench through dense oak and sage brush.
78.20	Descend abruptly over W. slope.
82.17	Fall 55 lks. S. of the St. cor. of secs. 34 and 35, which is a sandstone, 4 x 10 x 6 ins. above ground, firmly set and properly marked. No accessories to cor. I raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	The bearing of this ½ mile is N. 89°54'W., and the distance is 41.98 chs.
	Land, mountainous, general S. exposure and drainage.
	Soil, gravelly and shallow sandy loam mixed with rock on gravelly and rocky sub-soil.
	Timber, some cedar and pinon. Some cottonwood on creek.
	Undergrowth, sage, oak and maple.
	Fair grazing.
	Walking on line at noon, obsn. for lat. not taken.

chains	
	June 2,1915.
	Retracement and resurvey of subdivision of T.20 S.,R.2 E.
	June 10: For solar obsn. see line bet. secs. 11 and 12
	From the cor. of secs. 1 and 2, I run
	East, retracing the S. bdy. of sec. 1
2.85	June 10: At this station, I set off 22°59'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°06'
40.00	No trace of the old ¼ sec. cor. can be found.
78.81	Fall 52 lks. S. of the cor. of secs. 1 and 12 on the E. bdy. of the Tp. heretofore described.
	June 10,1915.
	Howard W. Miller
	U. S. Surveyor.
	June 22: I establish the resurvey line on S. bdy. of sec. 1 as follows:
	From the cor. of secs. 1 and 2
	N.89°37'E., on S. bdy. of sec. 1
	Over rough mountainous land draining N., through dense undergrowth of oak, buck, service and sage brush.
	Ascend.
2.85	Ridge, 50 ft. above sec. cor., bears N. and S.
	Descend abruptly over E. slope.
21.80	Bottom of ravine and stream, 2 lks. wide, 2 ins. deep, good water, 205 ft. below ridge, drains N.
	Thence gradually ascend over broken land sloping nearly N.
30.80	Stream, 2 lks. wide, 1 in. deep, good water, course NW.
38.81	A westing of 40.00 chs. from the cor. of secs. 1 and 12 on the E. bdy. of the Tp.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

chains	
	the ground for ¼ sec. cor. on the N. bdy. of secs. 12, with brass cap marked
	S 12 / ¼ / 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
39.40½	Proportionate measurement
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the S. bdy. of sec. 1, with brass cap marked
	S 1 / ¼ / 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Cor established 130 ft. above ravine.
	Continue ascent over nearly N. slope.
47.20	Ridge, 15 ft. above ¼ sec. cor., bears N. and S.
	Descend abruptly over E. slope.
54.85	Bottom of ravine and wash, 20 lks. wide, 6 ft. deep, 170 ft. below ridge, drains N.
	Ascend abruptly over NW. slope.
66.85	Point of spur, 130 ft. above ravine, falls N.
	Gradually descend over N. slope.
70.80	Ridge and top of steep descent, bears N. and S.
	Enter scrub cedar and pinon timber, descend abruptly over E. slope into Clear Cr. canyon.
78.81	The cor. of secs. 1 and 12, 400 ft. below ridge.
	Land, rough broken mountains, drain N.
	Soil, gravelly and rocky on rocky sub-soil.
	Timber, scrub cedar and pinon.
	Undergrowth, oak, sage, service, willow, rose and some maple. Fair grazing.
	June 28, 1915

Retracement and resurvey of subdivision of T.20 S.,R.2 E.

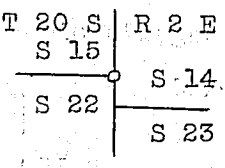
chains	
	May 25: At 9h. a.m. apparent time, I set off 39°05' on the lat. arc; 20° 51'N., on the decl. arc; and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 14 and 15, which is sandstone, 6 x 8 x 4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground alongside old cor. for ¼ sec. cor., with brass cap marked
	S ¼ 15 | S 14
	1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Thence I run
	S.0°30'E.bet.secs. 14 and 15, S:½ mile.
	Over rolling mountainous land draining W., through dense undergrowth of oak and sage brush and scattering scrub cedar timber.
	Gradually ascend.
3.00	Low spur, 6 ft. above ¼ sec. cor., projects NW.
	Descend.
8.45	Ravine, 90 ft. below spur, drains SW.
	Gradually ascend.
11.90	Spur, 5 ft. above ravine, projects W.
	Gradually descend over rocky SW. slope.
18.70	Begin steep descent into canyon.
22.75	Bottom of ravine, 35 ft. below top of steep descent, drains W. for 3 chs., thence NW.
	Ascend abruptly over N. slope through dense undergrowth.
	Scattering timber on both sides of line.
38.85	Ridge, 300 ft. above ravine, bears E. and W.
	Descend 30 ft. to
39.82	Fall 35 lks.E.of corof secs. 14,15,22 and 23, which is a limestone, 10 x 6 x 8 ins. above ground, firmly set,

chains

and marked and witnessed as described by the surveyor general.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground alongside old cor.

Note: I do not mark this cor. until June 8 when I find that it refers to secs. 15 and 22 only and then I mark brass cap as follows:-



1915

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

The bearing of this ½ mile is South and the dist.is 39.82c

May 25: The sky is overcast at noon, observations for lat. are impossible.

Land, mountainous, general W. exposure and drainage.

Soil, rocky and shallow sandy loam on gravelly and rocky sub-soil.

Timber, scattering scrub cedar and pinon.

Undergrowth, oak, sage, service, buck and maple.

Fair grazing.

Impracticable to run S.0°30'E., therefore I run South, retracing bet. secs. 22 and 23

40.00 No trace of the ¼ sec. cor. can be found.

80.00 No trace of the cor. of secs. 22,23,26 and 27 can be found.

Set temp. point. for cor. secs. 22,23,26 and 27.

May 25,1915

Isaac Hayes

U. S. Transitman.

June 5: For solar obsn. see line bet. secs. 26 and 27

From the temp. cor. of secs. 22,23,26 and 27, I run West

3.01 Fall 9 lks.S.of cor. of secs. 22,23,26 and 27 which is a sandstone boulder, 20 x 22 x 20 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Retracement and resurvey of subdivision of T.20 S.,R.2 E.

chains	
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground alongside old cor. for cor. of secs. 22,23, 26 and 27, with brass cap marked
	T 20 S | R 2 E S 22 | S 23 S 27 | S 26 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	No trees within reasonable distance suitable for bearing trees.
	Thence
	North, bet. secs. 22 and 23
	Over rough mountainous land draining W., through dense scrub cedar, pinon and mahogany timber and undergrowth of sage and manzanita brush.
	Ascend abruptly over S. slope of canyon.
5.50	Top of steep ascent and leave timber, 190 ft. above sec. cor., bears E. and W. Gradually ascend.
9.30	Spur, 15 ft. above top of steep ascent, projects NW.
	Gradually descend along W. slope through dense undergrowth sage, scattering mahogany, service and buck brush.
19.00	Old drag road, bears NW. and SE.
23.30	Edge of canyon, bears NW. and SE., 100 ft. below spur.
	Enter spruce timber, bears NW. and SE.
	Descend abruptly over N. slope.
31.60	Bottom of canyon, 360 ft. below top, drains NW.
	Thence in canyon, leave timber, enter dense oak, buck, mahogany and sage brush.
31.70	Stream, 2 lks. wide, 1 in. deep, good water, course NW.
33.30	Wash, 20 lks. wide, 15 ft. deep, course W.
	Leave canyon, ascend abruptly over S. slope.
39.65	200 ft. above canyon.
	Fall 2.64 chs. W. of the ¼ sec. cor., which is a limestone boulder 3 x 3 x 2½ ft., above ground, firmly set, marked ¼ on W. face. No accessories to cor.

Retracement and resurvey of subdivision of T.20 S.,R.2 E.

chains

Set an iron post, 3 ft. long, 1 in. in dia., 14 ins. in the ground on solid rock and 12 ins. in a mound of stone alongside old cor. for ¼ sec. cor., with brass cap mkd.

S 22 ¼ | S 23

1915

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

The bearing of this ½ mile is therefore N.3° 49' E., and the distance is 39.73 chs.

From ¼ sec. cor., I continue

North

2.00 Top of N. side of canyon, 30 ft. above ¼ sec. cor., bears E and W.

Gradually descend over NW. slope, very dense undergrowth.

9.80 Ridge, 75 ft. below edge of canyon, bears E. and W.

Gradually descend over N. slope. Scattering patches of maple on both sides of line.

37.00 Bottom of ravine, 190 ft. below ridge, drains W.

Ascend 90 ft. to

40.26 Fall 37.1lks. W. of the cor. of secs. 14,15,22 and 23.

The bearing of this ½ mile is therefore N. 0°32'E., and the distance is 40.26 chs.

Land, mountainous, general W. exposure and drainage.

Soil, shallow sandy loam mixed with gravel and rock on gravelly and rocky sub-soil.

Timber, cedar, pinon, mahogany and some spruce.

Undergrowth, oak, sage, service, buck, maple, manzanita and grass, Fair grazing.

June 5,1915.

May 27: At 8h. a.m. apparent time, I set off 39°04' on the lat. arc; 21°12'N., on the decl. arc; and determine a meridian with the solar at the temp. cor. of secs. 22,23,26 and 27

Thence I run

chains	
	S.0°30'E.retracing bet. secs. 26 and 27
40.00	No trace of the ¼ sec. cor. can be found.
80.00	No trace of the cor. of secs. 26,27,34 and 35 can be found.
	Set temp. point for sec. cor.
	May 27: At this sec. cor., I set off 21°13'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°03'.
	May 27,1915.
	June 5: At 8h. a.m. apparent time, I set off 39°03' on the lat. arc; 22° 29'N., on the decl. arc; and determine a meridian with the solar at the temp. cor. of secs. 26,27,34 and 35.
	Thence I run
	West
5.04	Fall 28 lks. N. of the old cor. of secs. 26,27,34 and 35 which is a sandstone, 12 x 10 x 6 ins. above ground, firmly set, properly marked and not witnessed.
	As the cor. of secs. 22,23,26 and 27 is later found 3.01 chs. W. and 9 lks. N. of the temp. cor. of secs. 22,23, 26 and 27 and the old cor. of secs. 26,27,34 and 35 is found 5.04 chs. W. and 28 lks. S. of temp. cor. for said secs. the course of the line connecting the old cors is therefore N.0° 57'E. and the distance is 80.38 chs.
	June 5,1915.
	Howard W. Miller
	U. S. Surveyor.

May 29: At 8h. a.m. apparent time, I set off 39°05' on the lat. arc; 21° 32'N., on the decl. arc; and determine a meridian with the solar at the ¼ sec. cor., bet. secs. 14 and 15

Thence I run

N.0°30'W., bet. secs. 14 and 15, N. ½ mile.

Gradually descend over NW. slope of mountainous land,

chains	
	through dense undergrowth of oak, buck, service and sage brush.
11.75	Ravine, 80 ft. below ½ sec. cor., drains NW.
	Ascend over SW. slope.
16.50	Top of ascent, 30 ft. above ravine, bears E. and W.
	Thence gradually descend over gentle NW. slope.
24.45	Thence over nearly W. slope.
39.75	On top of spur, projects NW.
	Fall 43 lks. W. of the cor. of secs. 10,11,14 and 15, which is a limestone, 12' x 6 x 6 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground alongside old cor. for cor. of secs. 10,11, 14 and 15 with brass cap marked

T 20 S.	R 2 E
S 10	S 11
S 15	S 14

1915

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

The bearing of this ½ mile is N.0°07'E., and the distance is 39.75 chs.

Land, mountainous, general W. exposure, drains NW.

Soil, shallow sandy loam, mixed with gravel and rock on gravelly and rocky sub-soil.

No timber.

Undergrowth, oak, buck, service, sage and chaparral.

Fair grazing.

From cor. of secs. 10,11,14 and 15, I run

N.0°30'W., bet. secs. 10 and 11

Over mountainous land draining NW., through dense undergrowth of oak, service, buck brush and chaparral.

Descend.

1.00 Descend abruptly over N. slope into canyon.

Retracement and resurvey of subdivision of T.20 S.,R.2 E.

chains	
21.90	Bottom of canyon and stream, 2 lks. wide, 1 in. deep, good water, 340 ft. below sec. cor., course NW.
	Ascend abruptly
23.05	Sandstone ledge, 10 ft. high and 55 ft. above canyon, bears NW. and SE.
	Gradually ascend.
30.95	Top of spur, 75 ft. above canyon, projects W. Descend.
32.00	Small ravine, 15 ft. below spur, drains SW.
	Ascend abruptly
36.30	Top of steep ascent, 85 ft. above ravine, bears NE. and SW.
	Thence over nearly W. slope.
39.39	Fall 40 lks. W. of the ¼ sec. cor., which is a limestone 8 x 11 x 4 ins. above ground, firmly set; and marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground alongside old cor. for ¼ sec. cor., with brass cap marked
	S 10 ¼ | S 11 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	The bearing of this ½ mile is N.0°05'E., and the distance is 39.39 chs.
	From point 40 lks. W. of the ¼ sec. cor., I continue N.0°30'W.
76.00	Enter scattering scrub cedar, pinon and mahogany timber, bears NW. and SE.
79.53	Fall 75 lks. W. of the cor. of secs. 2,3,10 and 11, which is a limestone, 10 x 14 x 9 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground alongside old cor. for cor. of secs. 2,3,10 and 11, with brass cap marked

Retracement and resurvey of subdivision of T.20 S.,R.2 E.

chains

T 20 S	R 2 E
S 3	S 2
S 10	S 11

1915

from which

A pinon, 8 ins. diam., bears N.31½°E., 163 lks. dist., marked T 20 S R 2 E S 2 B T.

A pinon limb, 7 ins. diam., bears S.66°E., 119 lks. dist., marked T 20 S R 2 E S 11 B T.

A pinon , 8 ins. diam., bears S.10¾°W., 19½ lks. dist., marked T 20 S R 2 E S 10 B T

No tree in sec. 3 .

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

The bearing of this ¼ mile is North, and the distance is 40.14 chs.

Land, rolling and broken mountainous, general NW. exposure and drainage.

Soil, light, moist, black loam, mixed with gravel and rock on gravelly and rocky sub-soil.

Timber, a few scattering cedar, pinon and mahogany.

Undergrowth, oak, sage, buck, service and chaparral.

Fair grazing.

May 29: At this sec. cor., I set off 21°33'N., on the decl. arc; and at apparent noon obs. the sun on the meridian, the resulting lat. is 39°06'.

May 29,1915.

Howard W. Miller.
U. S. Surveyor.

May 26: The sky is overcast all day, solar observations are impossible.

From the temp. cor. of secs. 22,23,26 and 27, I sight along the line bet. secs. 22 and 23 and deflect an angle of 90° to the east.

Thence I run

chains

East, retracing bet. secs. 23 and 26

39.95 No trace of the old ¼ sec. cor. can be found.

May 26: The sky is overcast at noon, observations for lat. are impossible.

76.84 Fall 21 lks. S. of Page's old cor. of secs. 23 and 26.

I make careful search for another old cor. but find no trace of same.

May 26,1915.

Isaac Hayes
U. S. Transitman

June 7: I find the cor. of secs. 22,23,26 and 27, 3.01 chs. W. and 9 lks. N. of the temp. cor. of secs. 22, 23,26 and 27; the bearing of the line bet. the old cor. of secs. 22,23,26 and 27 and Pages cor. of secs. 23 and 26 is therefore N.89°55'E. and the distance is 79.85 chs. I set a point "A" for cor. of secs. 23,24,25 and 26, 5 lks. E. and 12 lks. S. of Pages cor. of secs. 23 and 26, this being East, 79.90 chs. from the cor. of secs. 22,23,26 and 27.

June 7,1915

Howard W. Miller
U. S. Surveyor.

May 27: At 8h. a.m. apparent time, I set off 39°04' on the lat. arc; 21°12'N., on the decl. arc; and determine a meridian with the solar at Pages cor. of secs. 23 and 26.

Thence I run

North, retracing bet. secs. 23 and 24

40.00 No trace of the old ¼ sec. cor. can be found.

From Pages cor. of secs. 23 and 26, I run

South, retracing bet. secs. 25 and 26

19.60 Top of impassable ledges, down which I cannot chain.

To determine the distance, I triangulate as follows:

Set a point on line to the south and erect a flag at this

chains	
	station. From flag at base of ledges, I direct the telescope to the flag on top of ledges and turn an angle of 106°18' to the east and measure a base line 11.50 chs. to a point where base subtends an angle of 43°19' to the flag. I find the third angle of the triangle to be 30°23'.

Log 11.50 chs.	1.060698
Log sin 43°19'	9.836343
Cologsin 30°23'	0.296036
Log 15.60	1.193077

15.60 chs. added to 19.60 chs. gives

35.20 To point of triangulation.

40.00 No trace of the old ½ sec. cor. can be found.

May 27: Walking on line at noon, obsn. for lat. not taken.

80.00 No trace of the cor. of secs. 25,26,35 and 36 can be found. Set temp point "A" for said sec. cor.

May 27,1915.

May 28: At 8h.30m.a.m. apparent time, I set off 39°03' on the lat. arc; 21° 22'N., on the decl. arc; and determine a meridian with the solar at the temp. cor. of secs. 26,27,34 and 35.

Thence I run

East, retracing bet. secs. 26 and 35

39.98 No trace of the old ½ sec. cor. can be found.

May 28: Searching for old cor. at noon, obsn. for lat. not taken.

76.10 Fall 14 lks. S. of temp. point "A" for cor. of secs. 25, 26,35 and 36, set 80.00 chs. south of Pages cor. of secs. 23 and 26. I again make search in this vicinity for old sec. cor. but find no trace of same.

May 28,1915.

Isaac Hayes
U. S. Transitman.

June 7: I find the cor. of secs. 26,27,34 and 35, 5.04 chs. West and 28 lks. S. of the temp. cor. of secs.

Retracement and resurvey of subdivision of T.20 S., R.2 E.

chains

26.27,34 and 35. The bearing between the old cor. of secs. 26,27,34 and 35 and a point 14 lks. S. of point "A" for cor. of secs. 25,26,35 and 36 is N.89°48'E. and the distance is 81.14 chs. I set point "B" for cor. of secs. 25,26,35 and 36, 1.18 chs. west and 28 lks. S. of the point 14 lks. S. of point "A" for cor. of secs. 25,26,35 and 36, this point being 79.96 chs. east of the old cor. of secs. 26,27,34 and 35.

June 7,1915.

May 31: At 8h. p.m. apparent time, I set off 39°03' on the lat. arc; 21°50'N., on the decl. arc; and determine a meridian with the solar at a point 14 lks. S. of point "A" for cor. of secs. 25,26,35 and 36.

Thence I run

South, retracing bet. secs. 35 and 36

40.00 No trace of the old ¼ sec. cor. can be found.

May 31: Searching for cor. at noon, obsn. for lat. not taken.

82.66 Fall 56 lks. W. of the ST. cor. of secs. 35 and 36 on the S. bdy. of the Tp., heretofore described.

May 31,1915

June 7: I return to point 14 lks. S. of point "A" for cor. of secs. 25,26,35 and 36 and set point "C". for said sec. cor., 2.06 chs. south and 56 lks. East. From point "C" point "B" bears N.44°20'W., 2.43 chs. distant. I restore the cor. of secs. 25,26,35 and 36, midway on line connecting points "B" and "C". For description of cor. see resurvey line bet. secs. 35 and 36.

The bearing of the line bet. secs. 35 and 36 is N.0°37'W. and the distance is 80.89 chs.

The bearing of the line bet. secs. 26 and 35 is N.89°22'W. and the distance is 80.83 chs.

From the restored cor., point "A" for said cor. bears N. 1.31 chs. and E. 31 lks.

Retracement and resurvey of subdivision of T.20 S.,R.2 E.

chains	
	From Pages cor. of secs. 23 and 26, I set point "B" for cor. of secs. 23,24,25 and 26, 1.31 chs. S. and 31 lks. West. this point being 80.00 chs. North of the restored cor. of secs. 25,26,35 and 36. From point "B", point "A" for cor. of secs. 23,24,25 and 26 bears N.16°50'E., 1.24 chs. distant. I restore the cor. of secs. 23,24, 25 and 26, midway on line connecting points "A" and "B".
	The bearing of the line bet. secs. 25 and 26 is N.0°08'E. and the distance is 80.60 chs.
	The bearing of the line bet. secs. 23 and 26 is S.89°34'E and the distance is 79.72 chs.
	For description of cor. of secs. 23,24, 25 and 26 see resurvey line bet. secs. 25 and 26
	Note: I destroy Pages old cor. of secs. 23 and 26.

	From the St. cor. of secs. 35 and 36 on the S. bdy. of the Tp.
	N.0°37'W., resurveying bet. secs. 35 and 36
	Over rolling mountainous land, gradually descend across sage brush flat in small swale.
5.00	Bottom of swale, drains NE. Leave flat, enter dense oak, buck, service, rose brush and scattering maple.
	Ascend.
10.90	Low spur, 30 ft. above swale, projects E.
	Descend over NE. slope.
13.75	Enter scattering aspen timber, bears NW. and SE.
18.00	Leave scattering aspen timber and dense undergrowth, bears NW. and SE.
20.00	Bottom of draw, 100 ft. below spur, drains NW.
	Enter dense undergrowth, bears NW. and SE. Gradually asc.
26.80	Low point, falls W.
	Descend abruptly over N. slope into N. fork of Willow Cr.
33.70	Bottom of canyon and N. fork of Willow Cr., 8 lks. wide,

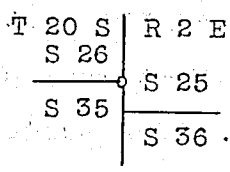
chains	
	5 ins. deep, good water, 165 ft. below point, course SW. Aspen timber along creek in bottom of canyon.
	Ascend abruptly over S. slope of canyon through very dense undergrowth
39.96½	Knowing that closing cors will be necessary upon the first meridional line west when running the latitudinal lines of the first range of secs., I establish cors. for two secs. and 2 quarters of one sec. only and after the closing cors. have been set against the first range line, I set ¼ sec. cors. midway between them for secs. in the first range, therefore
	June 16: I return to this point and
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the W. bdy. of sec. 36, with brass cap marked
	S 36 ¼ | 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
40.44½	Proportionate measurement, 210 ft. above canyon.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the E. bdy. of secs 35, with brass cap marked
	S 35 ¼ | 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Continue ascent over nearly S. slope.
59.00	Thence over SE. slope.
73.50	Top of spur, 550 ft. above ¼ sec. cor., projects SW.
	Gradually descend over NW. slope.
78.55	Small ravine, drains SW.
	Ascend.

chains

78.60 Enter scattering pine and spruce timber, bears E. and W.

80.89 Proportionate measurement, 40 ft. above ravine.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 26 and 35, with brass cap marked



1915

from which

A spruce, 11 ins. diam., bears S.53°W., 80 lks. dist., marked T 20 S R 2 E S 35 B T

A spruce, 12 ins. diam., bears N.60°W., 39 lks. dist., marked T 20 S R 2 E S 26 B T

Land, rough, broken mountainous slopes and drains N. and S. into N. fork Of Willow Cr.

Soil, rich, moist, mountain loam mixed with gravel and rocks on sandy and rocky sub-soil.

Timber, patches of aspen, pine and spruce.

Undergrowth, oak, service, buck, sage, rose brush and maple.

Fair grazing.

N.0°08'E., resurveying E. bdy. of sec. 26

Over rough mountainous land draining SE., Ascend abruptly over S. slope of spur, through dense undergrowth of oak, service and sage brush and scattering pine and spruce timber.

1.25 Top of spur, 40 ft. above sec. cor., projects SW.

Enter dense timber, bears NE. and SW. Gradually descend.

5.35 Bottom of swale, 30 ft. below spur, drains SW. Leave dense timber, bears NE. and SW.

Gradually ascend.

10.10 Begin abrupt ascent, bears E. and W.

16.05 Top of ridge and divide between Willow Cr. and Pole canyon, 140 ft. above swale, bears NE. and SW.

chains	
	Gradually ascend along head of Pole canyon through scattering patches of mahogany and aspen timber and undergrowth of oak, service and manzanita.
39.18½	June 21: A distance midway bet. the closing cor. of secs. 24 and 25 and closing cor. of secs. 25 and 36
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the W. bdy. of sec. 25, with brass cap marked
	S 25 ¼ 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
40.30	Proportionate measurement. In head of Pole canyon, 125 ft below divide.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in a mound of stone and earth on solid rock for ¼ sec.cor. on E. bdy. of sec. 26, with brass cap.marked
	S 26 ¼ 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Begin ascent over broken S. slope of canyon.
46.05	Point of triangulation.
	Thence over precipitous sandstone ledges.
61.71	Top of ledges and rim of canyon, 740 ft. above ¼ sec. cor., bears NE. and SW. Point of triangulation.
	Thence over rolling top of mountain through dense aspen and scattering pine timber. Leave dense undergrowth.
80.60	Proportionate measurement
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 23 and 26, with brass cap marked

chains	
	T 20 S | R 2 E S 23 | S 24 S 26 | S 25 1915
	from which
	An aspen, 8 ins. diam., bears S.60¾°W., 45 lks. dist., marked T 20 S R 2 E S 26 B T
	An aspen, 9 ins. diam., bears N.38¼°W., 75 lks. dist., marked T 20 S R 2 E S 23 B T
	Land, rough mountainous, SE. exposure and drainage on S.16.05 chs. Next 45.66 chs. rough broken land near head of Pole canyon, W. exposure and drainage. N.18.89 chs. rolling mountain top, slopes and drains W.
	Soil, sandy clay loam, mixed with gravel and rock with considerable bare surface rock on rocky sub-soil.
	Timber, aspen, pine and spruce.
	Undergrowth, oak, service, buck, mahogany and maple.
	Considerable grass, good for grazing.

	From the cor. of secs. 22,23,26 and 27
	S.89° 34'E., resurveying bet. secs. 23 and 26
	Over rough mountainous land draining W., through dense pinon, cedar and mahogany timber and undergrowth of manzanita and buck brush.
	Ascend along S. slope of canyon.
11.30	Sandstone ledge, 4 to 5 ft. high, bears N.80°W. and S.80°E.
36.40	Leave S. slope and dense pinon, cedar and mahogany timber bears NW. and SE. Ascend abruptly over W. slope through spruce and pine timber.
39.86	Proportionate measurement; 925 ft. above sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 23 ¼ S 26 1915

chains

from which

A spruce, 14 ins. diam., bears S.6°E., 30 lks. dist., marked ⊕ S 26 B T

A spruce, 10 ins. diam., bears N.14½°E., 22 lks. dist., marked ⊕ S 23 B T

55.20 Enter scattering aspen timber, bears N. and S.

Thence over series of benches near top of mountain.

64.55 Leave spruce and pine timber, bears N. and S.

69.00 Enter dense aspen and scattering pine timber, bears N. and S.

79.72 The cor. of secs. 23 and 26, 540 ft. above ⊕ sec. cor.

Land, rough broken mountains drain W. W. 36.40 chs. very steep S. slope of canyon, remainder of mile more rolling near top of Order mountain.

Soil, sandy and gravelly with rich black loam and rock on gravelly and rocky sub-soil.

Timber, pinon, cedar, mahogany, aspen, pine and spruce.

Undergrowth, buck, manzanita and sage brush.

Fair grazing.

June 7,1915

June 8: At 8h. a.m. apparent time, I set off 39°04' on the lat. arc; 22° 48'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 23 and 26

Thence I run

North, resurveying bet secs. 23 and 24

Over mountainous land on W. slope, near top of Order mountain, gradually descend through dense aspen and scattering pine timber and undergrowth of chaparral, grass and weeds.

14.00 Enter scattering spruce timber and begin abrupt descent over N. slope into canyon, bears E. and W.

21.40 Bottom of canyon, 265 ft. below sec. cor., drains NW.

Gradually ascend 15 ft. to

24.40 Low spur, projects W. Leave timber, bears E. and W.

Retracement and resurvey of subdivision of T.20 S.,R.2 E.

chains	
	Descend abruptly over N. slope.
29.30	Bottom of ravine; 130 ft. below spur, drains W.
	Ascend abruptly over S. slope through dense undergrowth.
38.81	June 22: A point midway between the closing cor. of secs. 13 and 24 and the closing cor. of secs. 24 and 25,
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the W. bdy. of sec. 24, with brass cap marked
	S 24 ¼ | 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
39.50	Top of steep ascent, 220 ft. above ravine, bears E. and W. Gradually ascend through pine and spruce timber.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the E. bdy. of sec. 23, with brass cap marked
	S 23 ¼ | 1915
	from which
	A spruce, 12 ins. diam., bears S.44½°W., 62 lks. dist., marked ½ S 23 B T
	A spruce, 10 ins. diam., bears N.45°W., 64 lks. dist., marked ½ S 23 B T
	Land, mountainous, general W. exposure and drainage. Land near top of high mountain ridge.
	Soil, shallow black loam and decayed vegetation mixed with gravel and rock on sub-soil of moist, sticky clay loam, packed hard and mixed with rock.
	Timber, aspen, pine and spruce.
	Undergrowth, chaparral, grass and weeds. Fair grazing.
	June 8,1915.

chains	
	May 29: For solar obsn. see N.½ mile bet. secs. 14 and 15.
	From the cor. of secs. 2,3,10 and 11, I run
	S.89°56'E., retracing bet. secs. 2 and 11
39.94	No trace of the ¼ sec. cor. can be found.
79.26	Fall 9.17 chs. S. of the cor. of secs. 1,2,11 and 12.
	The bearing of this mile is therefore N.83°28'E., and the distance is 79.78 chs.
	May 29,1915
	June 10:
	From cor. of secs. 2,3,10 and 11
	N.83° 28'E., resurveying bet. secs. 2 and 11
	Over mountainous land sloping W., through cedar, pinon and mahogany timber and undergrowth of sage, oak, service and buck brush. Ascend.
2.70	Ridge, 45 ft. above sec. cor., bears NW. and SE.
	Gradually descend over nearly N. slope.
4.55	Small ravine, 35 ft. below ridge, drains N.
	Ascend 15 ft. to
9.15	Spur, projects N. 4 chs. to canyon.
	Descend abruptly over NE. slope.
12.70	Bottom of canyon and stream, 2 lks. wide, 2 ins. deep, good water, 80 ft. below spur, course NW.
	Ascend abruptly over rocky SW. slope.
20.00	Top of ridge, 200 ft. above canyon, bears NW. and SE.
	A low saddle in ridge, bears SE. about 3 chs. A wire fence bearing E. and W. and an irrigation ditch course W. cross saddle.
	Gradually descend over E. slope.
27.00	Canyon, 80 ft. below ridge, course NW.
	Ascend abruptly over W. slope.
39.89	Proportionate measurement. 260 ft. above canyon on W. slope.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

chains

S 2
¼
———
S 11
1915

from which

A mahogany, 4 ins. diam., bears S.50°W., 15 lks. dist., marked ¼ S 11 B T

A pinon, 12 ins. diam., bears N.48½°W., 217 lks. dist., marked ¼ S 2 B T

Continue ascent.

57.00 Top of high ridge and leave timber, 440 ft. above ¼ sec. cor. bears NW. and S.80°E.

Descend abruptly over NE. slope of mountain through dense undergrowth of buck, oak brush and chaparral.

75.00 Bottom of ravine, heads about 12 chs. S., drains NW., 275 ft. below ridge.

Gradually ascend.

79.78 The cor. of secs. 1,2,11 and 12, which is a white limestone, 14 x 8 x 6 ins., lying on the ground, marked with 1 notch on one and 5 notches on cornering edge, witnessed by a scattered mound of stone about the cor.

At exact position of old cor. reset stone 9 ins. in the ground, marked with 1 notch on E. and 5 notches on S. edge.

Knowing that the subdivisional line bet. secs. 11 and 12 will not close within limits at this cor. and that a closing cor. will be necessary for secs. 11 and 12, I reestablish this cor. for secs. 1 and 2 as follows:

Set an iron post, 3 ft. long, 2 ins. in dia., 16 ins. in the ground on solid rock and 8 ins. in a mound of stone alongside old cor. for cor. of secs. 1 and 2, with brass cap marked

T 20 S | R 2 E
S 2 | S 1
———
S 11 | S 12
1915

raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

chains

Land, rough, broken mountains, steep slopes of ridges into ravines and canyons draining NW.

Soil, gravelly and rocky mixed with loose shales and red and blue clay on gravel and clay sub-soil.

Timber, pinon, cedar and mahogany.

Undergrowth, buck, oak, sage and service brush.

Fair grazing.

June 10,1915

Subdivision of T.20 S.,R.2 E.

June 8: For solar obs. this date see S. ¼ mile bet. secs. 23 and 24.

From the ¼ sec. cor. on the E. bdy. of secs. 23, I run N.0°14'W. on E. bdy. of sec. 23

Over mountainous land draining W., ascend over S. slope of ridge through pine and spruce timber and undergrowth of sage, manzanita and service brush.

4.80 Leave pine timber and enter dense aspen timber with choke cherry undergrowth, bears E. and SW.

6.30 Ridge, 50 ft. above ¼ sec. cor., bears E. and W.

Gradually descend over NW. slope.

9.10 Leave aspen and choke cherry undergrowth, enter dense sage brush, bears NE. and SW.

19.20 Enter aspen timber, bears E. and W. Descend over N. slope.

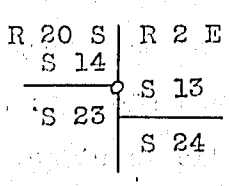
26.00 Begin steeper descent over NW. slope.

28.90 Leave aspen timber, bears E. and W.

34.00 Enter dense pine and spruce timber, bears E. and W,

40.00 On NW. slope, 400 ft. below ridge.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 14 and 23, with brass cap marked



1915

chains

from which

A fir, 9 ins. diam., bears S.76½°W., 22 lks. dist., marked T 20 S R 2 E S 23 B T

A fir, 9 ins. diam., bears N.42¼°W., 86 lks. dist., marked T 20 S R 2 E S 14 B T

Land, mountainous, near top of high mountain ridge, general W. exposure and drainage.

Soil, shallow mountain loam and decayed vegetation mixed with gravel and rock on gravelly and rocky sub-soil.

Timber, aspen, pine and spruce.

Undergrowth, sage, choke cherry, manzanita and buck and service brush. Fair grazing.

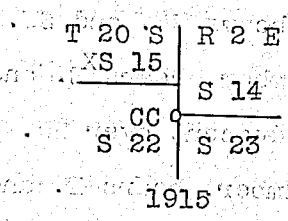
West, on a random line bet. secs. 14 and 23

40.00 Set temp. ¼ sec. cor.

June 8: At this cor., I set off 22° 49'N., on the decl. arc; and at apparent noon, obs. the sun on the meridian the resulting lat. is 39°05'.

76.50 Intersect E.bdy. of sec22,55 lks. S.0°32'W. of the cor. of secs. 14,15,22 and 23. At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 14 and 23, with brass cap marked



raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Thence

East, on true line bet. secs. 14 and 23

Over rough mountainous land draining W., through dense undergrowth of buck brush and manzanita.

Gradually ascend along S. slope of ridge.

3.10 Cross low saddle in ridge, bears NW. and SE. Ridge widens to the SE. Enter dense sage, oak, service and buck

chains	
	brush, bears NW. and S. A few scattering pine trees on both sides of line.
	Ascend abruptly over W. slope of mountain.
36.50	A westing of 40.00 chs. from the cor. of secs. 14 and 23.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the S. bdy of sec. 14, with brass cap marked
	S 14 ✓ ¼ 1915
	from which
	An oak, 4 ins. diam., bears N.2°W., 102 lks. dist., marked ¼ S 14 B T ✓
	A fir, 6 ins. diam., bears N.58°E., 207 lks. dist., marked ¼ S 14 B T ✓
38.25	On W. slope of mountain, 570 ft. above closing cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on N. bdy. of sec. 23, with brass cap marked
	¼ S 23 1915
	from which
	An oak, 4 ins. diam., bears S.14½°E., 141 lks. dist., marked ¼ S 23 B T ✓
	An oak, 6 ins. diam., bears S.32°W., 111 lks. dist., marked ¼ S 23 B T
41.90	Top of spur, projects NW. Leave dense undergrowth, enter dense pine and fir timber, bears NW. and SE.
	Thence along nearly N. slope of ravine.
51.25	Leave dense timber, bears N. and S.
56.70	Enter dense timber, bears N. and S.
70.50	Bottom of small ravine drains NW. 1 ch. to large ravine which drains W.
	Ascend abruptly over W. slope 180 ft. to
76.50	The cor. of secs. 14 and 23.

chains	
	Land, rough mountainous, N. and W. exposures, drains W.
	Soil, gravelly and black loam mixed with gravel and rock on gravelly and rocky sub-soil.
	Timber, pine and fir.
	Undergrowth, oak, service, buck, sage brush and manzanita.
	June 8,1915.

	June 9: At 8h. 15m. a.m. apparent time, I set off 39°05' on the lat. arc; 22°54'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 14 and 23.
	Thence I run
	N.0°14'W., on E. bdy. of sec. 14
	Over rough mountainous land draining W., through dense pine and fir timber and undergrowth of manzanita, buck brush and chaparral.
	Descend 20 ft. to
.85	Ravine drains W.
	Ascend abruptly over S. slope.
3.80	Enter dense undergrowth of mahogany, manzanita, oak and service brush, bears E. and W.
9.50	Leave timber, enter dense sage brush, bears E. and W.
12.40	Ridge, 160 ft. above ravine, bears E. and W. A ravine heads about 3 chs. W., drains N.
	Gradually descend over NW. slope along E. side of ravine.
15.20	Enter dense aspen timber and choke cherry undergrowth, bears E. and W.
19.90	Leave choke cherry undergrowth, bears NE. and SW.
30.00	Old corral, 1 ch. in diam., on line.
38.95	June 22: A distance midway bet. the closing cor. of secs. 12 and 13 and the closing cor. of secs. 13 and 24.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the W. bdy. of sec. 13, with brass cap marked

chains	
	S 13 ¼ ✓
	1915
	from which
	A fir, 10 ins. diam., bears N.33½°E., 9 lks. dist., marked ¼ S 13 B T ✓
	A fir, 8 ins. diam., bears S.23°E., 8 lks. dist., marked ¼ S 13 B T ✓
40.00	235 ft. below top of ridge
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the E. bdy. of sec. 14 with brass cap marked
	S 14 ¼ ✓
	1915
	from which
	A fir, 24 ins. diam., bears S.30½°W., 41 lks. dist., marked ¼ S 14 B T
	A fir, 6 ins. diam., bears N.57°W., 24 lks. dist., marked ¼ S 14 B T
43.30	Leave fir timber, bears NW. and SE.
48.00	Edge of canyon, bears NW. and SE
	Descend abruptly into canyon over broken limestone ledges and through dense undergrowth.
55.90	Bottom of canyon, 415 ft. below ¼ sec. cor., course NW.
	Ascend abruptly over small ledges.
66.10	East point of ledges, bears N.80°W. and S.80°E.
69.90	Top of sharp rocky ridge, covered with dense scrub mahogany timber, 225 ft. above bottom of canyon, bears N.30°W. and S.30°E.
	Descend abruptly over broken ledges, nearly N. slope.
74.00	Base of ledges, bears N.30°W. and S.30°E. Thence along nearly E. slope of ridge, through dense undergrowth.
80.00	400 ft. below ridge, on E. slope.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in

chains	
	the ground for cor. of secs. 11 and 14, with brass cap marked
	T 20 S | R 2 E S 11 | S 12 S 14 | S 13 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rough broken mountains, S. 69.90 chs. general W. exposure and drainage; N.10.10 chs. NE. exposure, drains W.
	Soil, gravelly, rocky and shallow sand and black loam on gravelly and rocky sub-soil.
	Timber, aspen, pine, spruce, balsam, pinon, cedar and mahogany.
	Undergrowth, oak, sage, service, buck and choke cherry.
	Fair grazing.
	June 9: At this cor., I set off 22° 54'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°05'.

	West, on a random line bet. secs. 11 and 14
40.00	Set temp. ¼ sec. cor.
75.83	Intersect N. and S. line 5 lks. S. of the cor. of secs. 10,11,14 and 15
	Thence
	S.89°58'E., on true line bet. secs. 11 and 14.
	Over rough mountainous land draining W., through dense undergrowth of oak, sage, service and buck brush.
	Gradually ascend.
2.30	Top of spur, projects NW.
	Gradually descend over N. slope.
5.85	Ravine, 40 ft. below spur, drains N.
	Ascend over W. slope.
12.75	Spur, 65 ft. above ravine, projects NW.
	Descend abruptly over NE. slope into canyon.

chains	
17.85	Enter scattering pine and fir timber and dense undergrowth of manzanita, bears N. and S. Base of steep descent, bears NW. and SE.
	Thence over nearly N. slope.
28.85	Enter scrub mahogany timber, bears N. and S.
31.45	Top of limestone ledge, 40 ft. high, bears N.80°W. and S.80°E. Bottom of canyon bears N. about 2 chs. Leave pine, fir and mahogany timber, bears with ledge.
	Descend abruptly
35.60	Leave oak, buck, manzanita and service brush, enter dense young aspen timber, bears N.70°W. and S.70°E.
35.83	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the N. bdy. of secs. 14, with brass cap marked

S 14
¼
1915

from which

An aspen, 4 ins. diam., bears S.60°E., 7 lks. dist., marked ¼ S 14 B T

An aspen, 4 ins. diam., bears S.26°W., 5 lks. dist., marked ¼ S 14 B T

36.80	Bottom of canyon and stream, 6 lks. wide, 3 ins. deep, good water, level with top of spur, course NW. Enter dense willow, choke cherry and alder brush, bears NW. and SE. Gradually ascend.
39.35	Leave aspen timber and willow, choke cherry and alder brush, enter dense oak, service and buck brush, bears NW. and SE.
	Ascend over SW. slope of canyon.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the S. bdy. of sec. 11, with brass cap marked

S 11
¼
1915

chains	
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No trees within reasonable distance suitable for bearing trees.
50.00	Begin ascent over limestone ledges, bear NW. and SE.
51.90	Top of ledge, 60 ft. high, bears NW. and SE.
56.60	Top of ledges, 540 ft. above canyon, bears N.80°W. and S.80°E. Leave dense oak, service and buck brush, enter very dense mahogany timber and sagebrush undergrowth, bears N.80°W. and S.80°E.
	Ascend abruptly over W. slope.
69.15	Top of sharp rocky ridge, 530 ft. above ledges, bears N.40°W. and S.40°E. Leave mahogany timber, enter dense oak, service and buck brush, bears with ridge.
	Descend.
70.60	Ledge, 30 ft. high, bears N.40°W. and S.40°E.
	Descend abruptly 245 ft. to
75.83	The cor. of secs. 11 and 14.
	Land, very rough broken mountains, general W. exposure on W. 69.15 chs. and E. exposure on E. 6.685chs. Land drains W.
	Soil, gravelly and rocky of limestone formation on rocky sub-soil.
	Timber, mahogany, aspen, pine and fir.
	Undergrowth, oak, sage, service, buck, willow, choke cherry and alder. Fair grazing.
	June 9,1915.

	June 10: At 8h. a.m. apparent time, I set off 39° 05' on the lat. arc; 22° 59' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11 and 14.
	Thence I run
	N.0°14'W., on a random line bet. secs. 11 and 12.
40.00	Set temp. ¼ sec. cor.
88.32	Intersect S.bdy.sec.2, 3.82 chs. S.83°28'W., of the cor.

chains

of secs. 1 and 2. At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 11 and 12, with brass cap marked

T 20 S | R 2 E
S 2 | S 1
CC
S 11 | S 12
1915

raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Thence

S.0°14'E., on true line bet. secs. 11 and 12

Over rough mountainous land draining NW., through dense undergrowth of oak, buck, service and sage brush.

Ascend abruptly over N. slope of ridge.

17.50 Top of high ridge, 430 ft. above cor., bears NW. and SE.

Enter scattering cedar, pinon and mahogany timber, bears NW. and SE.

Gradually descend.

27.30 Leave timber, bears E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec cor. on the E. bdy. of sec. 11, with brass cap marked

S 11 ¼
1915

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

Thence along W. slope through dense undergrowth.

44.10 Low spur, projects W.

Gradually descend over broken SW. slope.

47.30 Ravine, 35 ft. below spur, and 130 ft. below ridge, drains NW.

Gradually ascend along nearly W. slope.

49.32 June 22: A northing of 40.00 chs. from the closing cor.

Subdivision of T.20 S.,R.2 E.

chains	
	of secs. 12 and 13.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. on the W. bdy. of sec. 12, with brass cap marked
	S 12 ¼ 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
53.65	Spur, 75 ft. above ravine, projects W.
	Descend.
58.70	Ravine, 30 ft. below spur, drains W.
	Ascend over broken W. slope through dense undergrowth.
76.20	Stream, 2 lks. wide, 1½ ins. deep, good water, course NW.
	Enter dense young aspen timber, bears NW. and SE.
80.55	Bottom of ravine or canyon, 295 ft. above last ravine, course NW. Enter dense willows and choke cherry undergrowth, bears NW. and SE.
	Ascend abruptly over NE. slope.
81.70	Leave aspen timber and willow and choke cherry undergrowth bears NW. and SE.
88.32	The cor. of secs. 11 and 14, 300 ft. above canyon.
	Land, rough, broken mountains, general NW. exposure and drainage.
	Soil, gravelly and rocky of limestone formation, with some rich shallow black loam on gravelly and rocky sub-soil.
	Timber, cedar, pinon and mahogany.
	Undergrowth, oak, service, sage, buck, willow and choke cherry. Fair grazing.

June 10,1915

Howard W. Miller

U. S. Surveyor

chains	
	June 16: At 9h. a.m. apparent time, I set off 39°03' on the lat. arc; 23°20'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25,30,31 and 36 on the E. bdy. of the Tp. heretofore described.
	Thence I run
	N.89° 57'W., on a true line bet. secs. 25 and 36, knowing that a closing cor. will be necessary upon the first range line West.
	Over rough mountainous land draining SW., through dense undergrowth of oak, service, choke cherry, maple and buck brush.
.50	Stream, 1 lk. wide, 1 in. deep, good water, course SW.
4.85	Stream, 1 lk. wide, 1 in. deep, good water, course S.
5.95	Stream, 2 lks. wide, 3 ins. deep, good water, course SW.
8.95	Enter aspen timber, bears N.20°E. and S.20°W.
10.55	Bottom of gully and stream, 1 lk. wide, 2 ins. deep, good water, 40 ft. below sec. cor., course SW.
	Ascend.
12.15	Leave aspen timber, bears N. and S.
21.40	Ridge, 60 ft. above gully, bears NE. and SW.
	Descend.
29.95	Enter dense aspen and choke cherry undergrowth, bears N. and S.
38.90	Stream, 2 lks. wide, 2 ins. deep, course SW.
40.00	In dense willow patch
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 25 / ¼
	S 36 / 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
47.60	Stream, in bottom of forks of canyon, 5 lks. wide, 3 ins. deep good water, 280 ft. below ridge, course S. for about 1 ch., thence SW.

chains	
51.40	Stream, 4 lks. wide, 2 ins. deep, good water, course S.
	Leave timber, bears N. and S.
	Gradually ascend.
62.30	Stream, 5 lks. wide, 4 ins. deep, good water, course S.
75.00	Top of high ridge, 400 ft. above canyon at forks, bears N. and S.
	Thence over broken land.
83.00	Intersect E. bdy. sec.35, .96 chs. S.0°37'E. of the cor. of secs. 26 and 35. At intersection
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 25 and 36, with brass cap marked

T 20 S | R 2 E
S 26 | S 25
CC
S 35 | S 36
1915

raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Land, rough, broken mountains, general S. exposure and drainage.

Soil, rich black loam, mixed with gravel and rock on sub-soil of moist, sticky clay loam, packed hard and mixed with rock.

Timber, aspen.

Undergrowth, oak, service, sage, buck brush and willow.

Good grazing.

June 16: The sky is overcast at noon, observations for lat. are impossible.

June 16,1915.

June 15: At 9h. a.m. apparent time, I set off 39° 04' on the lat. arc; 23°18'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19,24,25 and 30 on the E. bdy. of the Tp. heretofore described

chains	
	Thence I run
	N.89°57'W., on true line bet. secs. 24 and 25
	Over mountainous land, through dense undergrowth of service brush and chaparral.
	Gradually ascend over E. slope of high mountain.
3.80	Enter scattering aspen timber, bears N. and S.
4.50	Begin steep descent, bears N. and S.
7.70	Enter dense aspen timber and heavy undergrowth, bears N. and S.
19.25	Enter scattering balsam fir and pine timber, bears N. and S.
24.35	Leave dense aspen, enter dense pine and fir timber, bears N. and S.
29.35	Spur, 390 ft. above sec. cor., projects NE. Leave dense timber and enter very dense undergrowth. Descend across small swale, thence ascend.
40.00	On E. slope of mountain, 375 ft. above spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 24 / ¼ / S 25 / 1915
	from which
	A balsam, 10 ins. diam., bears S.7½°E., 106 lks. dist., marked ¼ S 25 B T
	A balsam, 6 ins. diam., bears N.42°W., 113 lks. dist., marked ¼ S 24 B T
	June 15: Walking on line between transit stations at noon, observations for lat. are impossible.
44.25	Broken limestone ledge, 15 ft. high, bears N. and S.
50.30	Top of ridge and divide between Clear Cr. and South Hollow, 370 ft. above ½ sec. cor., bears N. and S.
	Leave dense undergrowth, gradually descend over grassy W. slope through scattering deer brush.
63.00	Enter dense aspen timber, bears N. and S.

chains

69.10 Swale, 160 ft. below ridge, drains N. Gradually ascend.

70.05 An old sheep corral bears N. about 5 chs.

73.70 Ridge, 75 ft. above swale, bears N. and S.

Gradually descend.

82.44 Intersect E. bdy. sec. 26, 1.27 chs. S.0°08'W., of the cor of secs. 23 and 26. At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 24 and 25, with brass cap marked

T 20 S | R 2 E
S 23 | S 24
CC
S 26 | S 25

1915

from which

A balsam, 12 ins. diam., bears N.71¾°E., 33 lks dist., marked CC T 20 S R 2 E S 24 B T

A balsam, 8 ins. diam., bears S.34½°E., 99 lks. dist., marked CC T 20 S R 2 E S 25 B T

Land, rough broken mountains, slopes and drains E. and W. from ridge divide.

Soil, Gravelly, rocky and shallow black loam on sub-soil of moist, sticky clay loam, packed hard and mixed with rock.

Timber, aspen, pine and fir.

Undergrowth, oak, sage, service, chaparral and deer brush. Fair grazing.

June 15,1915.

June 14: At 8h. 30m.a.m. apparent time, I set off 39°05' on the lat. arc; 23° 15'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 18,19 and 24 on the E. bdy. of the T. heretofore described

Thence I run

N.89°57'W., on true line bet. secs. 13 and 24

chains	
	over rough mountainous land, ascend abruptly over E. slope of mountain through dense underwrowth of oak, service, choke cherry, scattering maple, rose and sage brush
7.50	leave dense service and choke cherry underwrowth, bearing N. and E.
10.75	Spur, 200 ft. above cor. ser., projects N.20°E. Gradually descend into large ravine through dense underwrowth of deer brush; oak brush large but more scattering. Leave pine and fir timber on both sides of line.
11.50	Enter dense aspen timber, bearing N.10°E. and S.10°E.
13.50	Bottom of ravine and stream, 5 lks. wide, 1 to 2 ft. deep, good water, 25 ft. below spur, course N.[illegible]°E. Ascend abruptly over E. slope.
17.50	Leave dense aspen timber, enter dense brush aspen, scattering service and oak brush, bearing N. and E.
18.50	Top of ridge, 200 ft. above valley, thence over undulating land with general E. slope.
21.50	Valley, 40 ft. above top of ridge ascent, bearing N. and E. Leave oak and aspen, descend through dense service brush.
25.50	Enter dense aspen timber, bearing N. and E.
27.50	In bottom of ravine, bound with ridge, draining N. Set an iron post, 2 ft. long, 3 in. in dia., 2 ft. in the ground for 1 cor. ser., with stone cap marked

T 20
S
T 21
S
R 2
E
B.M.

from which

An aspen, 8 in. diam., bears N.34½°E., 10 lks. dist., marked T 20 B T

An aspen, 6 in. diam., bears S.30°E., 11 lks. dist., marked T 20 B T

June 14: At this cor., I set off 20°15'E. on the decl. arc; and at apparent noon obs. the sun on the meridian: the resulting lat. is 39°00' .

Gradually ascend.

chains

44.85 Leave dense aspen timber, enter dense oak brush, bears N. and S. Ascend abruptly over E. slope of mountain.

48.95 Enter dense maple undergrowth, bears N. and S.

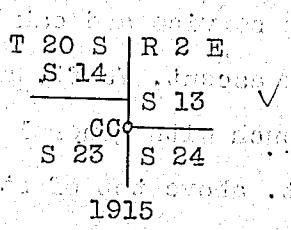
51.75 Leave maple, enter dense choke cherry undergrowth, bears N. and S.

69.75 Top of ridge and divide between Clear Cr. and South Hollow, 880 ft. above ¼ sec. cor., bears N. and S. Leave dense undergrowth, enter dense balsam and mahogany timber, bears with ridge.

Descend over W. slope 255 ft. to

82.65 Intersect E. bdy. sec. 23, 1.11 chs. S.0°14'E., of the cor. of secs. 14 and 23. At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs.13 and 24, with brass cap marked



from which

A balsam, 24 ins. diam., bears N.11°E., 14 lks. dist., marked CC T 20 S R 2 E S 13 B T

A balsam, 14 ins. diam., bears S.57°E., 27 lks. dist., marked CC T 20 S R 2 E S 24 B T

Land, rough mountains, E. and W. exposures and drainage from divide.

Soil, rich sandy and black loam, packed hard and moist, mixed with gravel and rock on moist sticky clay and rock sub-soil.

Timber, aspen, pine and fir.

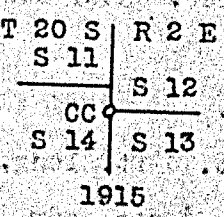
Undergrowth, oak, service, sage, choke cherry, mahogany, maple and deer brush. Good grass.

June 14,1915.

June 11: At 9h. a.m. apparent time, I set off 39°05' on

chains	
	the lat. arc; 23°03'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7,12,13 and 18 on the E. bdy. of the Tp. heretofore described.
	Thence I run
	N.89°57'W., on true line bet. secs. 12 and 13
	Over mountainous land, ascend abruptly over rocky E. slope of mountain, through dense undergrowth of oak, buck, service and maple brush.
18.10	Enter scattering balsam fir and pine timber, bears N. and S.
22.70	Top of steep ascent, 535 ft. above sec. cor., bears N. and S. Ascend more gradually.
27.90	Spur, 30 ft. above steep ascent, projects NE. Leave dense undergrowth enter heavier timber, bears N. and S.
	Gradually descend.
33.55	Swale, 25 ft. below spur, drains N.20°E.
	Leave dense fir timber, enter scattering aspen timber, bears N. and S.
34.55	Leave aspen timber, enter dense tall undergrowth, bears N. and S.
	Ascend abruptly.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 12 ¼ ——— S 13 1915
	from which
	A balsam, 8 ins. diam., bears N.36°E., 39 lks. dist., marked ¼ S 12 B T
	A balsam, 6 ins. diam., bears S.34°E., 34 lks. dist., marked ¼ S 13 B T
	Cor. established 105 ft. above swale.
	June 11: At this cor. I set off 23°04'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°05'.

chains	
	Leave undergrowth, enter sage brush flat, bears N. and
42.00	Leave flat, bears N. and S. Ascend abruptly through d service and oak brush.
46.15	Ridge, 150 ft. above ¼ sec. cor., bears N. and S.
	Descend 205 ft. to
55.70	Base of descent, descend more gradually.
66.70	Descend abruptly.
71.05	Enter dense young aspen timber, scattering oak, service, willow and maple undergrowth, bears NW. and SE.
74.80	Bottom of canyon and stream, 2 lks. wide, 1½ ins. deep, good water 365 ft. below ridge, course NW.
	Ascend abruptly.
77.30	Stream, 4 lks. wide, 2 ins. deep, heads about 2 chs. SW., flows NE.
82.65	Intersect E.bdy. sec. 14, 1.00 chs. S.0°14'E., of the cor. of secs. 11 and 14. At intersection
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 12 and 13, with brass cap marked



raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

Land, rough broken mountains, general E. exposure, drains N.

Soil, rich black loam, mixed with gravel and rock on sub-soil of rich, moist, sticky clay loam, packed hard and mixed with gravel and rock.

Timber, scattering aspen, pine and fir.

Undergrowth, oak, buck, service, sage, willow, choke cherry, maple and chaparral. Good grazing.

June 11,1915

Isaac Hazen

U. S. Transitman

General Description

This fractional township is rough and mountainous, lying on the N.,E. and W. slopes of a high mountain ridge called "Order Mountain". This ridges traverses the township in a northerly and southerly direction through secs. 12,13,24,25 and 35, its elevation ranges from approximately 5000 to 9000 ft. above sea. From this ridge numerous spurs project in easterly and westerly directions. The country drains E. into Clear Cr. on the N. central part, South into Willow Cr. in the southern part, West into South Hollow on the Western part and North into Twelve mile canyon in the northern portion. The soil is a rich black and brown loam mixed with limestone and sandstone rock and on the highest parts of the township is very shallow. The sub-soil is generally a moist, sticky brown clay loam, packed hard and mixed with rock and in many places surface rock covers large areas.

The township is well watered by many springs scattered throughout the mountains. The water is all clear and cold.

On the top of the mountain and on the E. and W. slopes near the top considerable spruce, balsam fir and pine with occasional patches of aspen timber is found. This timber is of good quality. On the lower slopes and near the base of the mountain a rank growth of oak, sage, service, choke cherry, buck, maple, deer and chaparral is found.

There are no settlers in the township.

I find no indications of mineral in the township.

Howard W. Miller
U. S. Surveyor

Isaac Hayes
U. S. Transitman.

For certificate of assistants and final oath of U. S. Surveyor and Transitman, see subdivision of T.20 S., R.3 E.

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BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities ted opposite our several signatures, in surveying all those parts or portions of .....

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the ..... Meridian, in the State of .....

ich are represented in the foregoing field notes as having been executed by him, and under his direc-n; and that said survey has been, in all respects, to the best of our knowledge and belief, well and thfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

..... of the ..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

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APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 2, 1917

The foregoing field notes of the survey of the east boundary, retracement of the Fourth Standard Parallel South through range 2 east, retracement, resurvey and survey of the subdivision of T. 20 S. R. 2 E.

executed by Howard W. Miller and Isaac Hayes under his special instructions dated May 14, 1915, having been critically examined, and the necessary corrections and explanations made, the ~~said field~~ notes, and the surveys they describe, are hereby approved.

M. A. Thoresen

U. S. 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.

.....

U. S. Surveyor General.

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4—072

B

BOOK A-420

FIELD NOTES

OF THE SURVEY OF THE

EAST BOUNDARY OF T.19 S.,R.2 E.; SOUTH AND EAST BOUNDARIES OF T.19 S.,R.3 E.; SOUTH BOUNDARY OF T.19 S.,R.4 E. AND EAST BOUNDARY OF T.20 S.,R.2 E

Of the SALT LAKE BASE AND *Meridian,*

the State of UTAH

EXECUTED BY

Howard H. Miller, U. S. Surveyor

and

Isaac Hayes, U. S. Transitman

in the capacity of U. S. Surveyor, under instructions dated May 14, *1915,*

issued by the United States Surveyor General to govern surveys included in Group No. 38, *which were approved by the Commissioner of the General Land Office,* June 5, *1915.*

Survey commenced June 1 *1915*

Survey completed July 28 *1915*

U. S. Surveyor General's Office
MAY 31 1916
SALT LAKE CITY, UTAH

BOOK A 420

INDEX DIAGRAM.

Township 20 South, Range 2 East.

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

4—679

BOOK A-420

FIELD NOTES

OF THE SURVEY OF THE

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Of the ..... *Meridian,*

n the State of .....

EXECUTED BY

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

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

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

Office, ..., *191* , *pursuant to authority contained in the Act of*

Congress dated ....., *191*.

Survey commenced ....., *191....*

Survey completed ....., *191....*

6—191

BOOK A-420

INDEX DIAGRAM.

Township 19 South, Range 4 East

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

6—151

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BOOK A-420

FIELD NOTES

OF THE SURVEY OF THE

Of the ..... *Meridian,*

n the State of .....

EXECUTED BY

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

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

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

Office, ..., *191*...., *pursuant to authority contained in the Act of*

Congress dated ....., *191*....

Survey commenced ....., *191*....

Survey completed ....., *191*....

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BOOK A-420

INDEX DIAGRAM.

Township 19 South, Range 2 East

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

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BOOK A-420

FIELD NOTES

OF THE SURVEY OF THE

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Of the ..... *Meridian,*

In the State of .....

EXECUTED BY

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

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

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

Office, ..., *191* ..., *pursuant to authority contained in the Act of*

Congress dated ....., *191*...

Survey commenced ....., *191*....

Survey completed ....., *191*....

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BOOK A-420

INDEX DIAGRAM.

Township 19 South, Range 3 East

6	5	4	3	2	1	56
7	8	9	10	11	12	55
18	17	16	15	14	13	53
19	20	21	22	23	24	52
30	29	28	27	26	25	51
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BOOK A-420

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INDEX DIAGRAM.

Township 19 S, Range 3 E

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19	20	21	22	23	24	576
30	29	28	27	26	25	575
31	32	33	34	35	36	573
571	569	567	566	565	563	

6—4817

chains

Survey commenced June 1,1915 and executed with a Young and Sons light mountain transit No.8582, with Smiths 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 declination arcs.

The instrument was approved for use in this survey by the Assistant Supervisor of Surveys for Utah.

I know the instrument to be in good adjustment, having tested it recently on a meridian determined by observations on Polaris. For record of this test, see subdivision of T.20 S.,R.2 E.

In the declination arc settings, .75 of the tabulated refraction for computing declinations is used, due to the altitude of the country.

Measurements

A steel tape, 5 chs. long was used in the field work of this survey together with a clinometer for determining slope angles and the reduced horizontal distances only appear in the field notes. The tape was tested, comparison being made with a standard tape, 1 ch. long, kept and used for that purpose only.

I begin at the standard cor. of T. 20 S.,Rs. 2 and 3 E.; approximate latitude 39°02'N., longitude 111° 40'W.

June 1: At this cor., I set off 39°02' on the lat. arc; 22°01'N., on the decl. arc; and at 2h. p.m. apparent time determine a meridian with the solar.

Thence I run

North, on a random line along the E. bdy. of T.20 S.,R.2 E. setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chs.

chains	
40.00	Cease work.
	June 1,1915.
	June 4: The sky is overcast all day, solar observations are impossible. By a backsight along my line carried fro the south, I continue
	North
80.00	Cease work.
	June 4,1915.
	June 5: The sky is overcast all day, solar observations are impossible. By a backsight along my line carried from the south, I continue
	North
120.00	Cease work.
	June 5,1915.
	June 7: At 8h.a.m. apparent time, I set off 39°03' on the lat. arc; 22°42'N., on the decl. arc; and determine a meridian with the solar.
	Thence I continue
	North
160.00	June 7: At this station, I set off 22° 43'N., on the decl. arc; and at apparent noon, obs. the sun on the mer.; the resulting lat. is 39°04'.
220.00	Cease work.
	June 7,1915.
	June 8: At 8h. a.m. apparent time, I set off 39°04' on the lat. arc; 22° 48'N., on the decl. arc; and determine a meridian with the solar.
	Thence I continue
	North
280.00	June 8: At this cor., I set off 22°49'N., on the decl. arc; and at apparent noon obs. the sun on the mer.; the resulting lat. is 39°05'.
320.00	Cease work.
	June 8,1915.
	June 9: At 8h.a.m. apparent time, I set off 39°05' on the lat. arc; 22° 53½'N., on the decl. arc; and deter-

chains

mine a meridian with the solar.

Thence I continue

North

380.00 June 9: The sky is overcast at noon, observations for latitude are impossible.

410.22 Fall 1.55 chs. E. of the old cor. of secs. 1,6,7 and 12 which is a sandstone, 12 x 8 x 4 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Knowing that a closing cor. will be necessary for secs. 6 and 7, T.20 S.,R.3 E. when closed upon this bdy., I reestablish this cor. for secs. 1 and 12, T.20 S.,R.2 E. as follows:

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground alongside old cor. for cor. of secs. 1 and 12, E. bdy. of T.20 S.,R.2 E., with brass cap marked

T 20 S
R 2 E | R 3 E
S 1
S 6
S 12
S 7
1915

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

This falling answers to a correction of 15½ lks. or 0°13' W. per half mile, counting from the cor. of T.20 S., Rs. 2 and 3 E.

June 9,1915.

I establish the cors. and mark the true line of survey of this bdy. as follows:

June 11:

From the cor. of secs. 1 and 12.

S.0°13'E., on E. bdy. sec.12, T.20 S.,R.2 E.

Over rough mountainous land on E. slope of Clear Cr. canyon through dense undergrowth of sage, buck, service, choke cherry and scattering maple and oak brush.

chains	
.93	Stream, 1 lk. wide, 1 in. deep, good water, course E. Ascend.
34.00	Enter grassy bench, 560 ft. above sec. cor., bears E. and W.
39.85	Leave bench, bears E. and W.
	Thence along broken E. slope of mountain.
50.22	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 12¼ | S 7
1915

from which

A pinon, 6 ins. diam., bears N.30°E., 57 lks. dist., marked ¼ S 7 B T

A pinon, 12 ins. diam., bears S.66°W., 33 lks. dist., marked ¼ S 12 B T

60.00	Ravine, 30 ft. below ¼ sec. cor. drains E.
	Ascend abruptly.
65.80	Spur, 130 ft. above ravine, projects E.
	Gradually ascend over broken E. slope.
90.22	On E. slope of mountain, 125 ft. above spur.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 7,12,13 and 18, with brass cap marked

T 20 S
R 2 E | R 3 E
S 12 | S 7
S 13 | S 18
1915

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

Land, rough mountainous, slopes and drains E. into Clear Cr. which flows N.

Soil, shallow sandy and mountain loam mixed with gravel and rock on sub-soil of hard, moist, sticky clay and rock.

Timber, a few scattering pinon and cedar.

chains	
	Undergrowth, service, oak, choke cherry, buck, sage and chaparral.
	Fair grazing.
	June 11,1915.

	June 14:
	S.0°13'E., bet. secs. 13 and 18
	Gradually ascend over broken mountainous land facing E., on W. side of Clear Cr. canyon, through dense undergrowth of oak, service, buck, choke cherry, maple, chaparral and weeds and scattering pinon and cedar timber.
31.55	Spur, 125 ft. above sec. cor., projects NE.
	Descend 85 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S ¼ 13 | S 18
	1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	(No suitable trees within limits)
41.95	Bottom of ravine and stream, 4 lks. wide, 2 ins. deep, good water, 65 ft. below ¼ sec. cor., course E.
	Enter aspen timber, bears E. and W.
	Ascend.
47.25	Top of spur, 40 ft. above ravine, projects E.
	Gradually descend.
52.45	Bottom of ravine and stream, 4 lks. wide, 3 to 4 ins. deep, good water, 65 ft. below spur, course NE.
	Enter red cedar, balsam fir and maple timber, bears NE. and SW.
	Gradually ascend.
53.96	Spur, 20 ft. above ravine, projects NE.
	Gradually descend.
56.30	Enter bottom of Clear Cr. canyon, 20 ft. below spur, bears NE. and SW.

chains	
	Thence in bottom of canyon.
58.55	Clear Cr., 10 lks. wide, 1½ to 2 ft. deep, good water, course NE.
60.35	Same creek, course NW.
67.50	Same creek, course NE. at bend from the SE.
	Leave canyon, bears NW. and SE.
	Ascend abruptly over E. slope.
75.50	Leave dense timber, bears E. and W.
80.00	On E. slope of canyon, 280 ft. above creek.
	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, with brass cap marked

T 20 S

R 2 E	R 3 E
S 13	S 18
S 24	S 19

1915

from which

An oak, 3 ins. diam., bears N.63°E., 9 lks. dist., marked T 20 S R 3 E S 18 B T ✓

An oak, 3 ins. diam., bears S.27°E., 10 lks. dist., marked T 20 S R 3 E S 19 B T ✓

An oak, 3 ins. diam., bears S.32°W., 14 lks. dist., marked T.20 S R 2 E S 24 B T ✓

An oak, 5 ins. diam., bears N.63°W., 56 lks. dist., marked T 20 S R 2 E S 13 B T ✓

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

Land, mountainous, slopes and drains E. into Clear Cr.

Soil, gravelly, rocky and rich black mountain loam on sub-soil of moist, sticky clay, packed hard and mixed with rock.

Timber, aspen, pine, balsam, cedar and pinon.

Undergrowth, service, oak, maple, choke cherry, buck, willows, weeds and grass. Fair grazing.

June 14,1915

June 15:

chains	
	S.0° 13' E., bet. secs. 19 and 24
	Ascend E. slope of canyon over rough mountainous land, through dense undergrowth of oak, service, choke cherry and chaparral. Dense timber E. of line.
5.85	Enter dense aspen timber, bears E. and W.
7.40	Stream, 1 lk. wide, 2 to 3 ins. deep, good water, course NE.
13.90	Leave dense aspen timber, bears E. and W.
17.30	Small wash, 8 lks. wide, 3 ft. deep, stream in same, 1 lk. wide, 1 in. deep, good water, course NE.
24.40	Enter dense balsam fir timber, bears E. and W.
26.80	Top of spur, 320 ft. above sec. cor., projects NE.
	Leave balsam, enter dense aspen timber, bears NE. and SW.
	Gradually ascend.
31.50	Stream, 1 lk. wide, 1 in. deep, good water, course NE.
36.90	Leave dense aspen timber, bears E. and W.
37.30	Spur, 130 ft. above last spur, projects NE.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 20 ins. in the ground on solid rock and 6 ins. in a mound of stone for ¼ sec. cor., with brass cap marked
	S 24 ¼ | S 19 1915
	from which
	An aspen, 6 ins. diam., bears N.48°E., 34 lks. dist., marked ¼ S 19 B T
	An oak, 4 ins. diam., bears N.65°W., 18 lks. dist., marked ¼ S 24 B T
42.35	Enter dense aspen timber, bears E. and W.
50.40	Ravine, 75 ft. below ¼ sec. cor., drains E.
	Ascend.
75.40	Leave aspen timber, bears E. and W.
80.00	180 ft. above ravine.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in

chains

the ground for cor. of secs. 19,24,25 and 30, with brass cap marked

T 20 S	
R 2 E	R 3 E
S 24	S 19
S 25	S 30

1915

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

Land, mountainous, slopes and drains E.

Soil, gravelly, rocky and rich, black mountain loam on sub-soil of moist, sticky clay, packed hard and mixed with rock.

Timber, aspen and fir.

Undergrowth, oak, service, choke cherry, maple, weeds, chaparral and grass. Fair grazing.

June 15,1915.

June 16:

N:0°13'E., bet. secs. 25 and 30.

Over mountainous land draining NE., ascend through dense undergrowth of service, oak, choke cherry, maple, buck and chaparral.

14.95 Leave dense choke cherry and service brush, bears E. and W.

16.60 Enter dense aspen timber, bears E. and W.

21.90 Bottom of ravine and stream, 3 lks. wide, 1 to 2 ins. deep, good water, 170 ft. above sec. cor., course E.

Leave aspen timber, enter dense service and choke cherry undergrowth, bears E. and W.

Ascend.

36.50 Leave dense service and choke cherry, enter aspen timber, bears E. and W. Ascend more gradually.

40.00 160 ft. above ravine.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

chains

S 25 1/4 | S 30

1915

from which

An aspen, 10 ins. diam., bears S.54½°E., 44 lks. dist., marked ¼ S 30 B T

An aspen, 6 ins. diam., bears S.30°W., 34 lks. dist., marked ¼ S 25 B T

42.40 Top of divide between Willow and Clear Creek canyons, bears N.60°E. and SW. Opening in timber, about 2 chs. wide, bears E. and W.

Descend.

53.45 Leave dense aspen timber, bears E. and W.

63.65 Stream, 1 lk. wide, 1 in. deep, good water, course SW.

68.40 Small patch of aspen timber, 70 lks. wide, bears E. and W.

71.70 Stream, 1 lk. wide, 1 to 2 ins. deep, course W.

74.20 Stream, 3 lks. wide, 3 ins. deep, good water, course S.

75.30 Same stream, turns SW.

80.00 155 ft. below top of divide.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 25,30,31 and 36, with brass cap marked

T 20 S
R 2 E | R 3 E
S 25 | S 30
S 36 | S 31
1915

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

Land, mountainous, slopes and drains N. and S. from divide at 42.40 chs.

Soil, gravelly and rocky mixed with rich black mountain loam on sub-soil of moist, dark brown clay, packed hard and mixed with rock.

Timber, aspen.

Undergrowth, oak, service, choke cherry, willows, chaparral and grass. Good grazing.

chains	June 16, 1915.
	June 21:
	S.0°13'E., bet. secs. 31 and 36.
	Over rough mountainous land draining SW., through undergrowth of oak, service, choke cherry, maple, chaparral and grass.
	Descend abruptly.
4.80	Leave dense oak and service brush, bears E. and W.
9.10	Bottom of ravine and stream, 6 lks. wide, 8 ins. deep, good water, 200 ft. below sec. cor., course W.
	Ascend 20 ft. to
10.85	Low spur, projects W. Descend.
12.85	Bottom of ravine and stream, 4 lks. wide, 2 to 4 ins. deep, good water, 35 ft. below spur, course W.
	Ascend abruptly
16.25	Top of steep ascent, asc. more gradually.
17.45	Enter dense aspen and scattering balsam fir timber, bears E. and W.
19.10	Leave balsam fir timber, bears E. and W.
28.05	Leave aspen timber, bears E. and W.
35.15	Top of ascent, 350 ft. above canyon, bears NW. and SE.
	Thence along W. slope of ridge through dense undergrowth.
40.00	40 ft. below top of ascent.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S ¼ 36 | S 31
	1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
50.10	Head of gulch, drains SW. Ascend.
54.50	Spur, projects SW. Descend.
66.00	Enter dense aspen, pine and fir timber, bears E. and W.
68.70	Bottom of ravine and stream, 2 lks. wide, 2 ins. deep, good water, 240 ft. below spur, course W.

chains	
	Ascend.
73.00	Top of spur, 80 ft. above ravine, projects SW.
	Leave timber, descend abruptly through dense oak and service brush.
80.00	The St. cor. of T.20 S.,Rs. 2 and 3 E.
	Land, rough mountainous, general SW. exposure and drainage.
	Soil, gravelly and rocky with some rich black loam and decayed vegetation on sub-soil of moist sticky clay, packed hard and mixed with rock.
	Timber, aspen, fir and pine.
	Undergrowth, oak, service, choke cherry, buck, maple and chaparral.
	Good grazing.
	June 21,1915.
	Isaac Hayes
	U. S. Transitman.

Boundaries of T.20 S.,R.2 E.

Latitudes, departures and closing errors.

Lines designated	True bearings	Distances	Latitudes N.	Latitudes S.	Departures E.	Departures W.
S.bdy.sec.36	N.89°55'W.	42.38	.06	------	------	42.38
"	West	40.03	------	------	------	40.03
E.bdy.sec.35	N.0°37'W.	80.89	80.89	------	------	.87
E.bdy.sec.26	N.0°08'E.	80.60	80.60	------	.19	------
S.bdy.sec.23	N.89°34'W.	79.72	.60	------	------	79.72
W.bdy.sec.23	N.3°49'E.	39.73	39.65	------	2.64	------
"	N.0°32'E.	40.26	40.26	------	.37	------
W.bdy.sec.14	North	39.82	39.82	------	------	------
"	N.0°07'E.	39.75	39.75	------	.08	------
W.bdy.sec.11	N.0°05'E.	39.39	39.39	------	.06	------
"	North	40.14	40.14	------	------	------
S.bdy.sec.2	N.83°28'E.	79.78	9.17	------	79.26	------
S.bdy.sec.1	N.89°37'E.	78.81	.52	------	78.81	------
E.bdy.T20SR2E	S.0°13'E.	410.22	------	410.22	1.55	------
Convergency			------	------	.15	------
			410.85	410.22	163.11	163.00

Error in latitude -- 410.85 − 410.22 = .63

Error in departure 163.00 − 163.11 = .11

For general description see subdivision of T.20 S.,R.2 E.

For certificate of assistants and final oaths of U.S. surveyor and Transitman, see subdivision of T.19 S.,R. 2 E.

Howard W. Miller

U. S. Surveyor.

chains

Survey commenced July 16,1915 and executed with Young and Sons light mountain Transits Nos. 8538 and 8582, with Smiths solar attachments.

For complete description of instruments and approval of same see subdivision of T.19 S.,R.4 E.

The instruments were examined, tested on a meridian determined by observations on Polaris and found correct. For complete record of this test, see subdivision of T.19 S.,R.4 E.

Measurements

Steel tapes, 5 chs. long were used by both parties in the field, together with clinometers for determining slope angles and the reduced horizontal distances only appear in the official field notes.

In the declination arc settings, .75 of the tabulated refraction for computing declinations is used, due to the altitude of the country.

I begin at the cor. of Tps. 19 and 20 S.,Rs. 3 and 4 E., heretofore described, approximate latitude 39° 07' N., longitude 111° 34'W.

July 16 : At 8h. a.m. apparent time, I set off 39°07' on the lat. arc; 21° 30'N., on the decl. arc; and determine a meridian with the solar at the above described Tp. cor.

Thence I run

East, on a random line along the S. bdy. of T.19 S.,R.4 E. setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chs.

160.00 In dense timber at noon, obsn. for lat. is impossible.

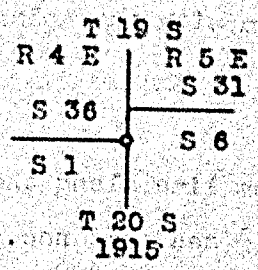
210.00 Cease work.

July 16,1915.

Isaac Hayes

U. S. Transitman.

chains	
	July 17: At 8h. a.m. apparent time, I set off 39°07' on the lat. arc; 21° 20'N., on the decl. arc; and determine a meridian with the solar.
	Thence I continue
	East
290.00	In dense timber at noon, obsn. for lat. is impossible.
330.00	Cease work.
	July 17,1915.
	July 19: At 8h. a.m. apparent time, I set off 39°07' on the lat. arc; 21°00'N., on the decl. arc; and determine a meridian with the solar.
	Thence I continue
	East
410.00	July 19: At this station, I set off 20° 58'N., on the decl. arc; and at apparent noon obs. the sun on the mer.; the resulting lat. is 39°07'.
453.51	Intersect N. and S. line 63.08 chs. S. of the cor. of Tps. 19 and 20 S.,Rs. 4 and 5 E., which is an iron post, 3 ins. in dia., extending 12 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.
	At intersection,
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of Tps. 19 and 20 S., R.4 E., with brass cap marked



from which

A jack pine, 12 ins. diam., bears S.30¾°W., 278 lks. dist., marked T 20 S R 4 E S 1 B T

A jack pine, 6 ins. diam., bears N.32¾°W., 50 lks. dist., marked T 19 S R 4 E S 36 B T

chains

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

Note: I destroy all marks on old cor. referring to Tps. 19 and 20 S., R.4 E. and deface bearing trees.

July 19,1915

July 22: At 8h. a.m. apparent time, I set off 39°07' on the lat. arc; 20° 26'N., on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 19 and 20 S., R. 4 E.

Thence

West, on true line bet. secs. 1 and 36

Over rolling mountainous land, sloping and draining S. into Horse canyon, through scattering patches of aspen and pine timber and undergrowth of sage brush.

31.15 Stream, 1 lk. wide, 1 in. deep, good water, heads 20 lks. N. flows S.

Enter dense aspen timber, bears N. and S.

34.65 Bottom of canyon and Horse Cr., 5 lks. wide 4 ins. deep, good water, 35 ft. below Tp. cor., flows SE.

Enter heavier pine timber, bears NW. and SE.

Thence in bottom of canyon, crossing and recrossing creek.

38.05 Leave canyon bottom, bears NW. and SE.

Gradually ascend along N. slope.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. with brass cap marked

S 36
¼

S 1
1915

from which

A balsam, 5 ins. diam., bears S.3°E., 71 lks. dist., marked ¼ S 1 B T

A spruce, 16 ins. diam., bears N.5°W., 23 lks. dist., marked ¼ S 36 B T

Continue gradual ascent along N. slope through fir and spruce timber.

chains	
66.00	Enter dead and fallen timber, bears N. and S.
75.00	Stream, 4 lks. wide, 2 ins. deep, good water, course NE.
78.80	Stream, 2 lks. wide, 2 ins. deep, good water, course NE.
80.00	On N. slope, 170 ft. above ¼ sec. cor.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 1,2,35 and 36, with brass cap marked

T 19 S R 4 E

S 35	S 36
S 2	S 1

T 20 S
1915

from which

A spruce, 10 ins. diam., bears N.72½°E., 111 lks. dist., marked T 19 S R 4 E S 36 B T

A spruce, 16 ins. diam., bears S.47¾°E., 98 lks. dist., marked T 20 S R 4 E S 1 B T

A spruce, 10 ins. diam., bears S.50½° W., 55 lks. dist., marked T 20 S R 4 E S 2 B T

A balsam, 8 ins. diam., bears N.56¼°W., 146 lks. dist., marked T 19 S R 4 E S 35 B T

Land, mountainous N. and S. exposures with gentle slopes into Horse canyon.

Soil, rich, black mountain loam mixed with gravel and rocks on rocky and moist, sticky clay loam sub-soil.

Timber, aspen, pine, spruce and balsam fir.

Undergrowth, sage brush, grass and weeds.

Good grazing.

July 22: At this cor., I set off 20° 24'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°07'.

West, bet. secs. 2 and 35

Gradually ascend over mountainous land sloping N. into Horse canyon, through pine, fir and spruce timber and undergrowth of chaparral, grass and weeds.

chains	
19.20	Old corral, bears N. 1.50 chs.
21.50	Base of steep ascent , bears N. and S.
	Ascend abruptly.
24.60	Stream, 3 lks. wide, 2 ins. deep, good water, flows NE., course at a bend from the NW.
28.10	Same stream, flows NE.
39.10	Top of steep ascent and edge of bench called "The Jump", 320 ft. above sec. cor., bears NE. and SW.
	Thence along N. slope through very dense timber.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground on solid rock and 14 ins. in a mound of stone for ¼ sec. cor., with brass cap marked

S 35 ½ ✓
S 2
1915

from which

A balsam, 10 ins. diam., bears N.68°E., 21 lks. dist., marked ¼ S 35 B T ✓

A balsam, 12 ins. diam., bears S.55½°W., 133 lks. dist., marked ¼ S 2 B T ✓

76.05	Head of small spring, 1 lk. in dia., bears N. 10 lks., stream flows E.
80.00	On N. slope in S. side of large basin, 300 ft. above ¼ sec. cor.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 2,3,34 and 35, with brass cap marked

T 19 S R 4 E

S 34	S 35 ✓
S 3	S 2

T 20 S
1915

from which

A spruce, 24 ins. diam., bears N.49½°E., 22 lks. dist., marked T 19 S R 4 E S 35 B T

chains	
	A spruce, 18 ins. diam., bears S.24½°E., 28 lks. dist., marked T 20 S R 4 E S 2 B T ✓
	A spruce, 16 ins. diam., bears S.77°W., 41 lks., dist., marked T 20 S R 4 E S 3 B T ✓
	A spruce, 40 ins. diam., bears N.11¼°W., 30 lks. dist., marked T 19 S R 4 E S 34 B T ✓
	Land, mountainous, general NE. exposure, drains E.
	Soil, shallow black loam mixed with gravel and rock on sub-soil of moist sticky clay, packed hard and mixed with rock.
	Timber, pine, fir and spruce.
	Undergrowth, chaparral, grass and weeds.
	Good grazing.
	July 22,1915
	Howard W. Miller, U. S. Surveyor

	July 28: For solar obsn. see line bet. secs. 32 and 33, subdivision of T.19 S.,R.4 E.
	West, bet. secs. 3 and 34
	Ascend abruptly over rough mountainous land at SW. end of large basin, through dense pine, spruce and fir timber and undergrowth of chaparral, grass and weeds.
12.55	Ledge, 20 ft. high, bears NW. and SE.
14.60	Top of high ridge spur from Hileotrope mountain, 240 ft above sec. cor., bears NW. and SE. Leave timber and undergrowth, descend abruptly over NW. slope of limestone ledges, loose shales and slide rock.
27.05	Ledge, 40 ft. high, bears NW. and SE.
30.70	Base of steep rocky slide, enter pine timber, bears NW. and SE.
	Continue descent over ledges.
33.30	Base of ledges, bears NW. and SE. Gradually descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

chains

the ground for ¼ sec. cor., with brass cap marked

S 34
¼
S 3
1915

from which

A pine, 8 ins. diam., bears south, 7 lks. dist., marked ¼ S 3 B T

A pine, 16 ins. diam., bears N.25°W., 60 lks. dist., marked ¼ S 34 B T

47.65 Base of descent, 35 ft. below ¼ sec. cor., bears NW. and SE.

Leave timber and undergrowth, ascend abruptly.

60.65 Top of steep ascent, bears NE. and SW. Thence along nearly S. slope.

64.15 High point of Hileotrope mountain, 250 ft. above base of descent, falls S.

Descend abruptly.

71.50 Enter pine, fir and spruce timber, bears N. and S.

73.10 Leave slide rock, bears NW. and SE.

80.00 On SW. slope of mountain, 570 ft. below point.

Set an iron post, 3 ft. long, 3 ins. in dia., 8 ins. in the ground on solid rock and 16 ins. in a mound of stone for cor. of secs. 3,4,33 and 34, with brass cap marked

T 19 S

R 4 E	S 33	S 34
	S 4	S 3

T 20 S
1915

from which

A pine, 6 ins. diam., bears N.35½°E., 44 lks. dist., marked T 19 S R 4 E S 34 B T

A pine, 10 ins. diam., bears S.46°E., 81 lks. dist., marked T 20 S R 4 E S 3 B T

A pine, 8 ins. diam., bears S.47°W., 69 lks. dist., marked T 20 S R 4 E S 4 B T

chains	
	A pine, 24 ins. diam., bears N.36°W., 69 lks. dist., marked T 19 S R 4 E S 33 B T
	Land, rough mountainous, general S. exposure from top of Hileotrope mountain.
	Soil, rocky of limestone formation on rocky sub-soil.
	Timber, pine, fir and spruce.
	Undergrowth, chaparral and weeds.

	West, bet. secs. 4 and 33
	Over rough mountainous land, descending over SW. slope of Hileotrope mountain, through balsam fir, jack and red pine timber and undergrowth of chaparral and weeds.
17.30	Base of steep descent, bears NW. and SE. Leave dense pine and fir timber, enter aspen timber, bears NW. and SE.
	Gradually descend.
34.60	Base of descent, bears NW. and SE. Oley's lake, 3 chs. x 3 chs., bears S.50 lks.
	Thence across small rolling flat.
38.40	Road, Emery to Mayfield, Utah, bears NW. and SE.
40.00	675 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S 33 / ¼ / S 4 / 1915
	from which
	A fir, 15 ins. diam., bears S.60°W., 61 lks. dist., marked ¼ S 4 B T
	A fir, 14 ins. diam., bears N.80°W., 22 lks. dist., marked ¼ S 33 B T
	Descend over W. slope.
42.70	U.S.Forest Service telephone line, bears N. and S.
53.75	Bottom of canyon & Muddy Cr., 20 lks. wide, 5 ins. deep, good water, 260 ft. below ¼ sec. cor., course S.
	Ascend.

chains

63.85 Stream, 5 lks. wide, 4 ins. deep, good water, course from the W. to SE.

Ascend along stream and across head of numerous small springs.

73.00 Head of springs flowing E.

80.00 On E. slope, 260 ft. above canyon.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 4,5,32 and 33, with brass cap marked

T 19 S

R 4 E — S 32 | S 33 ✓ / S 5 | S 4

T 20 S

1915

from which

A pine, 12 ins. diam., bears N.53°E., 63 lks. dist., marked T 19 S R 4 E S 33 B T ✓

A pine, 10 ins. diam., bears S.53°E., 82 lks. dist., marked T 20 S R 4 E S 4 B T ✓

A pine, 10 ins. diam., bears S.35°W., 44 lks. dist., marked T 20 S R 4 E S 5 B T ✓

An aspen, 6 ins. diam., bears N.54°W., 190 lks. dist., marked T 19 S R 4 E S 32 B T ✓

Land, rough and mountainous, E. exposure and drainage on W. 28 chs. and SW. exposure and drainage on E.52 chs.

Soil, E. ½ mile very rocky of limestone formation on rocky sub-soil. W. ½ mile black mountain loam, very shallow and mixed with rock on sub-soil of moist, sticky clay, packed hard and mixed with rock.

Timber, fir, jack and red pine and aspen.

Undergrowth, chaparral, weeds and grass. Good grazing on W. ½ mile.

West, bet. secs. 5 and 32.

Over rough mountainous land, ascend abruptly over E. slope through aspen, scattering pine and fir timber and

chains	
	undergrowth of chaparral, grass and weeds.
3.30	Leave aspen timber, bears N. and S.
27.60	Ridge, 505 ft. above sec. cor., bears N. and S.
	Descend abruptly.
29.20	Small swale, 35 ft. below ridge, drains S.
	Gradually ascend 190 ft. to
40.00	On gentle E. slope.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 32 ¼ S 5 1915
	from which
	A pine, 8 ins. diam., bears N.45½°E., 118 lks. dist., marked ¼ S 32 B T
	A pine, 28 ins. diam., bears S.77°E., 174 lks. dist., marked ¼ S. 5 B T
46.85	Top of ridge and divide between San Pete and Castle valleys, bears N. and S.
	Descend abruptly over W. slope
56.50	Limestone ledge, 25 ft. high, bears N. and S.
64.10	Leave timber, bears NW. and SE.
71.00	Base of steep descent at S. end of Mt. Baldy, bears N. and S.
	Gradually descend over rolling bench land sloping W.
80.00	On rolling bench, 905 ft. below divide.
	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 5,6,31 and 32, with brass cap marked
	T 19 S R 4 E: S 31 | S 32 / S 6 | S 5 T 20 S 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

chains

Land, rough mountainous, slopes and drains E. and W. from divide.

Soil, shallow black loam, mixed with gravel and rocks on sub-soil of moist, sticky clay, packed hard and mixed with rock.

Timber, aspen, scattering fir and pine.

Undergrowth, chaparral, grass and weeds. Fair grazing.

West, bet. secs. 6 and 31

Gradually descend over rolling bench sloping W., through short undergrowth of grass and weeds.

15.66 Leave bench, bears N. and S. Enter aspen timber.

Descend abruptly over W. slope.

40.00 On W. slope, 195 ft. below sec. cor.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 31
¼
———
S 6
1915

from which

An aspen, 6 ins. diam., bears S.19°E., 68 lks. dist., marked ¼ S 6 B T

An aspen, 10 ins. diam., bears N.45°W., 212 lks. dist., marked ¼ S 31 B T

Continue descent.

53.51 The cor. of Tps. 19 and 20 S.,Rs. 3 and 4 E., 65 ft. below ¼ sec. cor.

Land, mountainous, W. exposure and drainage.

Soil, shallow black loam, mixed with gravel and rocks on sub-soil of moist clay, packed hard and mixed with rock.

Timber, aspen.

Undergrowth, weeds and grass. Fair grazing.

July 28,1915.

Isaac Hayes
U. S. Transitman

Boundaries of T.19 S.,R.4 E.

Latitudes, departures and closing errors.

Lines designated	True bearing	Distances	Latitudes N.	Latitudes S.	Departures E.	Departures W.
S.bdy.T19SR4E	East	453.51	------	------	453.51	------
S.bdy.T19SR4E	North	63.08	63.08	------	------	------
"	North	40.16	40.16	------	------	------
"	N.0°38'E.	39.44	39.44	------	------	.06
"	N.0°15'W.	18.52	18.52	------	------	.09
"	N.0°03'W.	40.11	40.11	------	------	.11
"	N.0°04'W.	39.96	39.96	------	------	.09
"	N.0°12'E.	39.46	39.46	------	.14	------
"	N.0°03'W.	40.02	40.02	------	------	.38
"	N.0°55'E.	40.31	40.30	------	.35	------
"	N.0°10'E.	40.74	40.74	------	.12	------
"	N.0°35'W.	104.38	104.38	------	------	1.06
"	North	.90	.90	------	------	------
N.bdy.T19SR4E	West	451.98	------	------	------	451.98
N.bdy.T19SR4E	South	507.82	------	507.82	------	------
Convergency	---------	------	------	------	------	.59
			507.07	507.82	454.42	454.31
				507.07		
			Error in latitude------	.75	454.31	
			Error in departure		.11	

For general description see subdivision of T.19 S.,R.4 E.

For final oath of Surveyor and Transitman and certificate of assistants, see subdivision of T.20 S.,R.3 E.

Howard Miller
U. S. Surveyor

Isaac Hayes
U. S. Transitman

4—679 b

INDEX DIAGRAM.

Township 19 S, Range 4 E

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6—4817

chains

Survey commenced June 11,1915 and executed with a Young and Sons light mountain transit No.8582 with Smiths solar attachment and a W.& L.E. Gurley solar compass No.1043. For complete description, test, and approval of these instruments see subdivision of T.20 S.,R.2 E. and T.19 S.,R.3 E.

In the decl. arc;settings, .80 of the tabulated refraction for computing declinations is used, due to the altitude of the country.

Measurements

A steel tape, 5 chs. long was used in the field work, together with a clinometer for determining slope angles and the reduced horizontal distances only appear in the field notes.

June 11: I begin at the cor. of Tps. 19 and 20 S.,Rs. 2 and 3 E. heretofore described; approximate latitude 39°07'N.; longitude 111°40'W. For solar observation this date see E. bdy. sec. 1, T.20 S.,R.2 E.

(Knowing from previous surveys that a line connecting the cor. of Tps. 19 and 20 S.,Rs. 2 and 3 E. and the cor. of Tps. 18 and 19 S.,Rs. 2 and 3 E. will be out of limits and that a closing cor. will be necessary for T.19 S., Rs. 2 and 3 E., I do not run a random line as per the special instructions but run north on a true line of survey setting cors. at intervals of 40.00 chs.)

From Tps. cor., I run

North, bet. secs. 31 and 36

Over rough mountainous land draining S., through undergrowth of oak, sage and chaparral undergrowth. Some scattering cedar and pinon timber on both sides of line.

Ascend abruptly over broken sandstone ledges and huge boulders.

chains	
7.65	Enter dense cedar and pinon timber and leave ledges, bears E. and W.
9.45	Top of spur, 185 ft. above cor., projects SW.
	June 11: At this station I set off 23°04'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°07'.
	Gradually descend over west slope.
11.80	Ravine, 50 ft. below spur, drains SW.
	Ascend abruptly over SE. slope.
16.80	Spur, 100 ft. above ravine, projects SW. Leave cedar and pinon timber, bears E. and W.
	Gradually descend over W. slope through dense sage brush.
21.10	Enter dense oak and buck brush, bears NE. and SW.
22.80	Wash, 20 lks. wide, 5 ft. deep, 5 ft. below spur, drains SW. Leave dense oak and buck brush, gradually ascend over S. slope, bears E. and W.
30.70	Stream, 1 lk. wide, 1 in. deep, course SW.
39.60	Enter cedar and pinon timber, bears E. and W.
40.00	190 ft. above wash.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ½ sec. cor., with brass cap marked
	S 36½ | S 31
	1915
	from which
	A cedar, 4 ins. diam., bears S.36°E., 42 lks. dist., marked ½ S 31 B T
	A pinon, 18 ins. diam., bears S.64°W., 33 lks. dist., marked ½ S 36 B T
50.35	Leave cedar and pinon timber, enter dense mahogany, oak and service brush, bears E. and W.
57.40	Leave mahogany, bears E. and W.
80.00	On S. slope of mountain, 735 ft. above ½ sec. cor.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 25,30,31 and 36, with brass cap marked

chains

T 19 S	
R 2 E	R 3 E
S 25	S 30
S 36	S 31

1915

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

Land, rough mountainous, slopes and drains S. into Twelve Mile canyon.

Soil, gravelly and rocky mixed with shallow black and brown sandy loam on gravelly and rocky sub-soil.

Timber, cedar, pinon and mahogany.

Undergrowth, oak, sage, service, buck brush and chaparral.

Good grazing.

June 11,1915.

Howard W. Miller
U. S. Surveyor.

July 6: For solar observation, see line bet. secs. 30 and 31, T.19 S.,R.3 E.

North, bet. secs. 25 and 30

Over rough mountainous land draining S., ascend abruptly over steep S. and SE. slopes of mountain through dense oak and service brush.

4.15 Leave oak brush, enter dense mahogany , bears E. and W.

19.20 Leave dense timber and undergrowth, bears NE. and SW.

19.40 Top of high ridge, 600 ft. above sec. cor., bears NE. and SW. Enter scattering spruce and pine timber and sage brush undergrowth, bears NE. and SW.

Thence along nearly W. slope.

37.65 Leave mahogany timber, enter sage, service brush and scattering spruce and pine timber, bears E. and W.

40.00 On nearly W. slope

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

chains	
	S 25½ | S 30 1915
	from which
	A spruce, 12 ins. diam., bears S.78°E., 7 lks. dist., marked ½ S 30 B T
	A spruce, 10 ins. diam., bears N.24½°W., 157 lks. dist., marked ½ S 25 B T
	July 6,1915
	July 7: At 9h.a.m. apparent time, I set off 39° 08' on the lat. arc; 22°41'N., on the decl. arc; and determine a meridian with the solar.
	Thence I continue
	North
	Gradually ascend.
52.20	Spur, 30 ft. above ½ sec. cor., projects W.
	Gradually descend.
75.15	Swale, 90 ft. below spur, drains W.
	Gradually ascend.
76.15	Spur, 25 ft. above swale, projects W.
	Descend 30 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs.19,24,25 and 30, with brass cap marked
	T 19 S R 2 E | R 3 E S 24 | S 19 S 25 | S 30 1915
	from which
	A fir, 20 ins. diam., bears N.47°E., 81 lks. dist., marked T 19 S R 3 E S 19 B T
	A fir, 20 ins. diam., bears S.65°E., 103 lks. dist., marked T 19 S R 3 E S 30 B T
	A spruce, 16 ins. diam., bears S.62°W., 72 lks. dist., marked T 19 S R 2 E S 25 B T
	A spruce, 6 ins. diam., bears N.49°W., 38 lks.

chains	
	dist., marked T 19 S R 2 E S 24 B T
	Land, rough and rolling mountainous. S.19.40 chs. rough and broken SE. slope of ridge, drains S. into Twelve Mile canyon. N.60.60 chs. rolling mountain top slopes and drains W.
	Soil, gravelly and rocky with some shallow sandy loam on sub-soil of moist, sticky clay, packed hard and mixed with rock.
	Timber, mahogany, pine and fir.
	Undergrowth, sage, oak, service, buck brush and chaparral.
	Fair grazing in the N. ½ mile.
	July 7: Walking on line at noon, obsn. for lat. not taken.

	North, bet. secs. 19 and 24.
	Over rolling mountainous land draining W., near top of mountain through dense undergrowth of sage and scattering service brush and scattering pine and fir timber.
	Descend abruptly
2.55	Swale, 50 ft. below sec. cor., drains W. Ascend.
2.95	Leave pine and fir timber, enter oak brush, bears E. and W.
11.00	Spur, 130 ft. above swale, projects W. Leave oak brush, enter pine and fir timber, bears E. and W.
	Descend.
22.10	Leave pine and fir timber, enter oak brush, bears E. and W.
35.95	Leave undergrowth, enter pine and fir timber, bears E. and W.
40.00	On N. slope, 35 ft. below spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 20 ins. in the ground on solid rock and 6 ins. in a mound of stone for ¼ sec. cor., with brass cap marked
	S 24¼ | S 19
	1915
	from which
	A fir, 6 ins. diam., bears S.83°E., 14 lks.

chains

dist., marked ¼ S 19 B T

A fir, 14 ins. diam., bears S.58°W., 54 lks. dist., marked ¼ S 24 B T

Continue descent.

43.90 Enter mahogany timber, bears E. and W.

53.15 Leave timber, bears E. and W. Descend abruptly.

55.25 Enter dense service and choke cherry undergrowth, bears E. and W.

57.00 Bottom of ravine and stream, 1 lk. wide, 3 ins. deep, good water, 255 ft. below ¼ sec. cor., course SW.

Ascend abruptly

62.60 Enter mahogany timber and dense oak brush, bears E. and W.

68.20 Leave timber and all undergrowth except sage brush, bears E. and W.

80.00 On top of spur, 255 ft. above ravine, projects W.

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, with brass cap marked

T 19 S.

R 2 E	R 3 E
S 13	S 18
S 24	S 19

1915

dig pits, 18 x 18 x 12 ins. in each sec., 5½ ft. dist., raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, rolling mountainous, slopes and drains W.

Soil, sandy loam and gravelly on sub-soil of moist clay, packed hard and mixed with rock.

Timber, pine, fir and mahogany.

Undergrowth, oak, sage, service, choke cherry, buck brush and grass. Good grazing.

July 7,1915.

July 8: At 8h. a.m. apparent time, I set off 39° 10' on the lat. arc; 22° 34' N., on the decl. arc; and determine

chains	
	a meridian with the solar at the cor. of secs. 13,18, 19 and 24.
	Thence I run
	North, bet. secs. 13 and 18
	Over rolling mountainous land facing and draining nearly W., through dense undergrowth of sage and scattering service brush.
4.00	Enter aspen thicket, bears E. and W.
4.80	Leave aspen thicket, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 13½ | S 18 ✓ 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
55.00	Enter dense service and sage brush, bears NE. and SW.
61.45	Leave service and sage brush, enter dense aspen timber and choke cherry undergrowth, bears E. and W.
64.60	Low spur, 40 ft. above ¼ sec. cor., projects SW.
	Gradually descend over NW. slope.
77.75	Leave aspen timber, enter dense choke cherry and sage brush, bears N.20°W. and SE.
80.00	On NW. slope 100 ft. below spur.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 7,12,13 and 18, with brass cap marked
	T 19 S R 2 E | R 3 E ✓ S 12 | S 7 S 13 | S 18 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rolling mountain top, slopes and drains W.
	Soil, gravelly and light, dry clay loam on sub-soil of

chains	
	hard, dry clay and rock.
	Timber, patches of aspen.
	Undergrowth, sage, choke cherry and service brush.
	Good grazing.

	North, bet. secs. 7 and 12
	Over mountainous land draining W., gradually descend through dense undergrowth of choke cherry and sage brush.
3.60	Enter dense aspen timber and choke cherry undergrowth, leave sage brush, bears E. and W.
10.40	Leave aspen, enter pine and fir timber, bears E. and W.
22.20	Leave pine and fir timber, enter aspen timber and rose brush, bears NE. and SW.
23.20	Bottom of ravine, 135 ft. below sec. cor., drains NW. Ascend.
23.90	Leave aspen timber and rose brush, enter dense service, oak and buck brush, bears E. and W.
32.25	Leave service, oak and buck brush, enter dense sage brush, bears E. and W.
40.00	On W. slope, 140 ft. above sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S 12 ¼ | S 7 ✓ 1915
	dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist.; raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.
44.00	Leave sage brush, enter aspen thicket and choke cherry undergrowth, bears E. and W.
45.20	Leave aspen thicket and choke cherry undergrowth, bears NW. and SE. Enter sage brush.
58.00	Saddle in ridge, 45 ft. above ¼ sec. cor., bears NE. and SW.
	Gradually descend.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in

chains

the ground for cor. of secs. 1,6,7 and 12, with brass cap marked

T 19 S
R 2 E | R 3 E
S 1 | S 6
S 12 | S 7
1915

dig pits, 18 x 18 x 12 ins., in each sec. 5½ ft. dist.; raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, rolling mountain top, slopes and drains W.

Soil, light, dry sandy loam and gravel on sub-soil of moist clay, packed hard and mixed with rock.

Timber, scattering patches of aspen.

Undergrowth, oak, sage, service, choke cherry, buck brush and grass.

Good grazing.

July 8: At this cor., I set off 22° 33' W., on the decl. arc and at apparent noon observe the sun on the meridian; the resulting lat. is 39°12'.

North, bet. secs. 1 and 6

Over rolling mountainous land draining W., through dense undergrowth of sage brush. Gradually descend.

6.00 Enter pine, cedar and pinon timber and choke cherry undergrowth, bears E. and W.

18.00 Ravine, 240 ft. below sec. cor., drains NW.

Gradually ascend.

23.05 Low spur, projects W.

Descend abruptly over ledges.

27.90 Leave large pines, thence through pinon and cedar timber and oak, service and buck brush, bears E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 1¼ | S 6
1915

chains

raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

No suitable trees within limits.

Land, mountainous, drains W.

Soil, gravelly and rocky of limestone formation with some shallow sandy loam on gravel and hard clay sub-soil.

Timber, pine, aspen, pinon and cedar.

Undergrowth, service, oak, sage, buck and chaparral.

Good grazing.

July 9,1915

Isaac Hayes
U. S. Transitman

Latitudes, departures and closing errors.

Lines designated	True bearings	Distances	Latitudes N	Latitudes S	Departures E	Departures W.
S. bdy.sec.36	S.89°56'W.	38.89	------	.04	------	38.89
"	S.89°49'W.	40.23	------	.13	------	40.23
W.bdy.sec.36	N.3°13'E.	80.95	80.82	------	4.54	------
W.bdy.sec.25	N.0°13'W.	81.46	81.46	------	------	.31
W.bdy.sec.24	N.0°24'W.	82.07	82.07	------	------	.58
W.bdy.sec.13	N.0°34'E.	39.85	39.85	------	.40	------
W.bdy.sec.13	N.1°00'W.	40.49	40.47	------	------	.71
W.bdy.sec.12	N.1°23'E.	81.44	81.43	------	------	1.97
W.bdy.sec.1	N.3°19'W.	100.48	100.25	------	------	5.81
E.bdy.sec.36, T.18 S.,R.2 E	N.89°06'E.	20.07	.32	------	20.07	------
	N.89°25'E.	38.11	.39	------	38.11	------
S.bdy.sec.31. T.19S.,R.3 E.	N.89°55'E.	26.00	.04	------	26.00	------
E.bdy.T19SR3E	South	507.82	------	507.82	------	------
Convergency			------	------	.10	------
			507.10	507.99	89.22	88.50
				507.10		
Error in latitude------				.89	88.50	
Error in departure					.72	

For general description see subdivision of T.19 S.,R.2 E.

For final oath of U. S. Surveyor and Transitman see subdivision of T.20 S.,R.3 E. For certificate of assistants see subdivision of T.20 S.,R.3 E.

Howard W. Miller
U. S. Surveyor.

BOOK A-420

4—679 b

INDEX DIAGRAM.

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6—4817

chains

Survey commenced June 10,1915 and executed with Young and Sons light mountain transits Nos. 8538 and 8582, with Smiths solar attachment. For complete description and approval of instruments see subdivision of T.19 S., R.3 E.

I examine the adjustments of the transits and correct the level and collimation errors, then to test the solar apparatus by comparing their 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 situated near the ¼ sec. cor. on the S. bdy. of sec. 31, T.19 S.,R.3 E., in approximate lat. 39°07'N., longitude 111° 40' W., at 8h. 03m.p.m. by my watch which is 27 minutes fast of l.m.t., I obs. Polaris in accordance with instructions in the Manual and note that an angle from the star to tree about 2 miles distant at time observation is N.11° 12'W.

Watch time of obsn.	8h. 03m.p.m.
Corrected for L.M.T., long.111°40'W.	27m.
L.M.T. of obsn. June 10 ----------	7h. 36m.p.m.
U.C.Polaris June 10,1915	8h. 18.2m.a.m.
Corrected for long, 111°40'W., sub.	1.2m.
L.M.T. of U.C.Pol. at station	8h. 17m.a.m.
Time elapsed between U.C. Polaris and obsn. ----------	11h. 19m.
Hour angle of Pol. at obsn. ---------	11h. 19m.

Azimuth of Pol. at obsn. ---------- N.0°15'W.

11° 12' + 0°15' = 11° 27' or N.11° 27'W. is the true bearing of the tree.

June 10,1915.

Instrument No.8538

June 13: At 9h.a.m. apparent time, I set off 39°07' on the lat. arc; 23°11' N., on the decl. arc; and determine a meridian with the solar and find that the tree bears N.11° 27'W.

At 3h.p.m. apparent time, I set off 39°07' on the lat. arc; 23°12'N., on the decl. arc; and determine a meridian with the solar and find that the tree bears

chains

N.11° 27'W.

June 13: At 8h. 45m.a.m. apparent time, I set off 39°07' on the lat. arc; 23°11' on the dec. arc; and determine a meridian with the solar and find that the tree bears N.11° 27'W.

At 4h. p.m. apparent time, I set off 39°07' on the lat. arc; 23°13'N., on the decl. arc; and determine a meridian with the solar and find that the tree bears N.11°27'W.

In the decl. arc settings, .80 of the tabulated refractions for computing declinations is used, due to the altitude of the country.

Measurements

Steel tapes, 5 chs. long were used by both parties in the field, together with clinometers for determining slope angles and the reduced horizontal distances only appear in the field notes.

June 12,1915: I begin at the cor. of Tps. 19 and 20 S., Rs. 2 and 3 E., heretofore described, approximate latitude 39°07'N., longsitude 111° 40' W.

At 9 h.a.m. apparent time, I set off 39°07' on the lat. arc; 23°08'N., on the decl. arc; and determine a meridian with the solar at the above described Tp cor.

Thence I run

East, on a random line along the S. bdy. of T.19 S.,R.3 E setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chs.

80.00 June 12: At this station, I set off 23° 08'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°07'.

120.00 Cease work.

June 12,1915.

chains

June 14: At 8h. a.m. apparent time, I set off 39°07' on the lat. arc; 23°15'N., on the decl. arc; and determine a meridian with the solar at the 120.00 ch. point.

Thence I continue

East, on a random line.

June 14: Walking on line at noon, obsn. for lat. not taken.

240.00 Cease work.

June 14,1915.

Howard W. Miller
U. S. Surveyor

June 17: At 8h. a.m. apparent time, I set off 39° 07' on the lat. arc; 23° 23'N., on the decl. arc; and determine a meridian with the solar at the 240.00 ch. point.

Thence I continue

East, on random line.

June 17: Walking on line at noon, obsn. for lat. not taken.

360.00 Cease work.

June 17,1915.

June 18: At 8h. a.m. apparent time, I set off 39°07' on the lat. arc; 23° 25'N., on the decl. arc; and determine a meridian with the solar at the 360.00 ch. point.

Thence I continue

East, on random line.

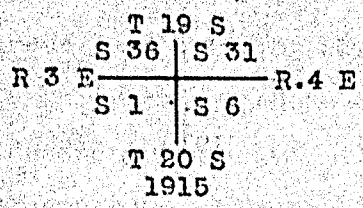
400.00 June 18: At this station, I set off 23°25'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°07'.

481.15 Intersect N. and S. line, 18 lks. N. of the temp. cor. of Tps. 19 and 20 S.,Rs. 3 and 4 E., set 488.00 chs. N. of the St. cor. of T. 20 S.,Rs. 3 and 4 E.

At intersection

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of Tps. 19 and 20 S.,Rs. 3 and 4 E. with brass cap marked

Chains



from which

An aspen, 10 ins. diam., bears N.31½°E., 62 lks. dist., marked T 19 S R 4 E S 31 B T

An aspen, 15 ins. diam., bears S.16½°E., 150 lks. dist., marked T 20 S R 4 E S 6 B T

An aspen, 16 ins. diam., bears S.46½°W., 82 lks. dist., marked T 20 S R 3 E S 1 B T

An aspen, 12 ins. diam., bears N.35½°W., 115 lks. dist., marked T 19 S R 3 E S 36 B T

June 18,1915.

June 22: At 8h. a.m. apparent time, I set off 39°07' on the lat. arc; 23° 28'N., on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 19 and 20 S.,Rs. 3 and 4 E.

Thence I run

West, bet. secs. 1 and 36

Over mountainous land draining SW., through dense aspen timber and undergrowth of chaparral, weeds and grass.

Gradually descend.

3.55 Bottom of swale and stream, 2 lks. wide, 2 ins. deep, good water, 10 ft. below Tp. cor., course SW.

Gradually ascend.

9.70 Ridge, 30 ft. above swale, bears N. and S.

Descend.

15.70 Leave dense aspen, enter dense fir timber, bears N. and S.

21.45 Small ledge, 5 ft. high, bears N. and S.

28.20 Leave dense fir timber, bears N. and S.

29.15 Leave fir, enter aspen timber, bears N. and S.

40.00 On gradual W. slope, 375 ft. below ridge.

Set an iron post, 3 ft. long, 1 in. in dia., 20 ins. in the ground on solid rock and 6 ins. in a mound of stone for ¼ sec. cor., with brass cap marked

chains

S 36 ¼

S 1
1915

from which

An aspen, 5 ins. diam., bears N. 52° E., 65 lks. dist., marked ¼ S 36 B T

An aspen, 8 ins. diam., bears S.50°W., 55 lks. dist., marked ¼ S 1 B T

Continue descent over W. and SW. slopes through aspen timber and choke cherry undergrowth.

52.65 Stream 1 lk. wide, 1 in. deep, course SW. Ascend.
80.00 On gradual SW. slope 515 ft. below ¼ sec. cor.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 1,2,35 and 36, with brass cap marked

T 19 S	R 3 E
S 35	S 36
S 2	S 1

T 20 S
1915

from which

An aspen, 4 ins. diam., bears N.28½°E., 23 lks. dist., marked T 19 S R 3 E S 36 B T

An aspen, 9 ins. diam., bears S.82½°E., 17 lks. dist., marked T 20 S R 3 E S 1 B T

An aspen, 5 ins. diam., bears S. 80½°W., 26 lks. dist., marked T 20 S R 3 E S 2 B T

An aspen, 5 ins. diam., bears N.78°W., 36 lks. dist., marked T 19 S R 3 E S 35 B T

Land, mountainous, general SW. exposure and drainage.

Soil, rich black mountain loam and decayed vegetation on sub-soil of moist, clay loam, mixed with gravel and rock.

Timber, aspen, pine and fir.

Undergrowth, choke cherry, chaparral, weeds and grass.

Good grazing.

West, bet. secs. 2 and 35

chains	
	Over mountainous land draining SW., through aspen timber and dense undergrowth of choke cherry, willows, chaparral, weeds and grass.
	Gradually descend over SW. slope.
5.00	Stream, 2 lks. wide, 1 in. deep, good water, course SW.
6.50	Stream, 3 lks. wide, 2 ins. deep, good water, course S.
9.80	Stream, 3 lks. wide, 3 ins. deep, good water, also base of descent, 100 ft. below sec. cor., course S.
	Gradually ascend.
21.55	Ridge, covered with strip of oak brush about 1 ch. wide, 60 ft. above base of descent, bears NE. and S.
	Descend.
40.00	185 ft. below ridge.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S 35 ¼ ——— S 2 1915 from which An aspen, 4 ins. diam., bears S.29°E., 39 lks. dist., marked ¼ S 2 B T An aspen, 8 ins. diam., bears N.38°W., 45 lks. dist., marked ¼ S 35 B T
	Continue descent.
55.25	Leave dense choke cherry, enter dense oak brush and scattering fir timber, bears NE. and SW.
68.25	Stream, 4 lks. wide, 5 ins. deep, good water, course SW.
	Leave choke cherry, enter willow undergrowth, bears NE. and SW.
71.35	Stream, 4 lks. wide, 4 ins. deep, good water, also base of descent, 310 ft. below ¼ sec. cor., course S.
	Ascend.
71.65	Leave fir timber and willow undergrowth, bears N. and S.
	Ascend abruptly, E. slope through dense oak and service brush.

chains	
80.00	On brink of steep E. slope, 125 ft. above stream.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 2,3,34 and 35, with brass cap marked
	T 19 S | R 3 E S 34 | S 35 ——— S 3 | S 2 T 20 S 1915
	raise a moun d of stone , 2 ft. base, 1½ ft. high, W. of cor.
	Land, mountainous, general S. exposure and drainage.
	Soil, black mountain loam and decayed vegetation mixed with gravel and rock on sub-soil of moist clay loam, packed hard and rocky.
	Timber, aspen and scattering fir.
	Undergrowth, choke cherry, willow, oak, service buck brush, chap arral, weeds and grass.
	Good grazing land.

	West, bet. secs. 3 and 34
	Gradually ascend along S. slope of steep mountain through exceptionally dense undergrowth of service, oak, buck brush, weeds and grass.
13.40	Top of point, 75 ft. above sec. cor., falls S.
	Continue along broken S. slope.
40.00	190 ft. below spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 34 ¼ ——— S 3 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
45.95	Descend more rapidly.
64.20	Top of steep descent, bears NE. and SW. Descend abruptly over W. and NW. slopes.

chains

80.00 Near bottom of ravine, 530 ft. below top of steepdescent.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 3,4,33 and 34, with brass cap marked

T 19 S

R 3 E — S 33 | S 34 / S 4 | S 3

T 20 S

1915

from which

An oak, 3 ins. diam., bears N.58°E., 34 lks. dist., marked T 19 S R 3 E S 34 B T

An oak, 3 ins. diam., bears S.56°E., 14 lks. dist., marked T 20 S R 3 E S 3 B T

An oak, 3 ins. diam., bears S.72°W., 39 lks. dist., marked T 20 S R 3 E S 4 B T

An oak, 3 ins. diam., bears N.28°W., 18 lks. dist., marked T 19 S R 3 E S 33 B T

Land, rough broken mountains, general S. exposure and drainage.

Soil, shallow brown loam, gravelly and rocky on gravelly and rocky sub-soil.

No timber.

Undergrowth, exceptionally dense oak, service, buck, chaparral, weeds and some grass.

Fair grazing land.

June22: At this cor., I set off 23° 28'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°07'.

West, bet. secs. 4 and 33

Over rough mountainous land draining S., through dense undergrowth of oak, service, maple and buck brush.

Gradually descend.

1.10 Ravine, 10 ft. below sec. cor., drains SW.

Leave dense oak brush, enter scrub cedar and pinon timber,

chains	
	bears NE. and SW. Ascend abruptly over SE. slope.
7.60	Spur, 105 ft. above ravine, projects S.
	Descend abruptly over SW. slope.
40.00	On Steep S. slope, 455 ft. below spur and 50 lks. S. of a ledge.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 33 / ¼ / S 4 / 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	No suitable trees within limits.
	Continue descent.
41.15	Leave timber, bears N. and S.
47.80	Old road, bears NW. and SE. Enter dense willow, service, birch and rose brush, bears NW. and SE.
48.85	Bottom of S. Fork Of Twelve Mile canyon and creek, 30 lks. wide, 1 ft. deep, good water, 205 ft. below ¼ sec. cor., course NW. Thence in canyon.
53.95	Ledge, 50 ft. high, and leave dense undergrowth, bears NW. and SE. Ascend abruptly through dense sagebrush and oak.
64.35	Spur, 170 ft. above canyon projects N.
	Descend.
66.90	Wash, 10 lks. wide, 5 ft. deep, 70 ft. below spur, drains N. Gradually ascend 45 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 4,5,32 and 33, with brass cap marked
	T 19 S / S 32 | S 33 / R 3 E / S 5 | S 4 / T 20 S / 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

chains	
	Land, mountainous, slopes and drains N. and S. into S. Fork of Twelve Mile canyon.
	Soil, gravelly, rocky and shallow sandy brown loam on gravelly and rocky sub-soil.
	Timber, scrub cedar and pinon.
	Undergrowth, oak, service, buck, maple, sagebrush, buck brush, chaparral and grass.
	Fair grazing land.
	June 22, 1915.

	July 2: At 7h. a.m. apparent time, I set off 39°07' on the lat. arc; 23°07'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4,5,32 and 33.
	Thence I run
	West, bet. secs. 5 and 32.
	Over mountainous land draining N., through dense undergrowth of sagebrush and oak brush.
	Gradually ascend.
4.00	Spur, 40 ft. above sec. cor., projects N.
	Gradually descend along broken N. slope of bench.
35.30	Low spur, 290 ft. below spur, projects N.
	Descend over NW. slope
40.00	On NW. slope 75 ft. below spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 32 / ¼ / S 5 / 1915
	raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
43.50	Small swale, 40 ft. below ¼ sec. cor., drains N.
	Gradually ascend.
48.85	Spur, 15 ft. above swale, projects N.
	Descend over W. slope towards junction of Beaver and Twelve Mile canyons.

chains	
51.30	Road, Mayfield, Utah to Beaver canon and Saw Mill, bears NW. and SE
52.30	Same road, bears NE. and SW. Road along a dugway to SW.
57.30	Bottom of canyon, 195 ft. below spur, bears S. and NE.
	Thence in canyon at Junctions of Twelve Mile and Beaver canyons.
58.85	Road, Mayfield, Utah to Beaver canyon and Saw Mill bears N. and S. Road crossed creek about 25 lks. N.
59.40	Twelve Mile Creek, 50 lks. wide, 3 ft. deep, good water course SW.
	Thence in bottom of canyon through dense willow undergrowth and cotton wood timber.
59.88	Junction of Beaver and Twelve Mile creeks bears S. about 1 ch.
66.40	Leave cottonwood timber and willow undergrowth, Twelve Mile creek, 60 lks. wide, 3 ft. deep, good water, course N.35°W. Leave canyon, gradually ascend.
71.85	Top of ascent, 45 ft. above creek, bears N. and S. Gradually descend.
73.75	Bottom of draw, stream in same, 3 lks. wide, 1 in. deep, good water, 25 ft. below top of ascent, course N. Gradually ascend.
74.30	Stream, 1 lk. wide, 1½ ins. deep, good water, course N.
80.00	On gentle NE. slope, 25 ft. above draw.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 5,6,31 and 32, with brass cap marked

T 19 S

R 3 E — S 31 | S 32 / S 6 | S 5

T 20 S

1915

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

Land, mountainous, slopes and drains N. into Twelve Mile canyon.

chains	
	Soil, shallow brown loam, gravelly and rocky on moist clay and gravel sub-soil.
	Timber, cottonwood in canyons.
	Undergrowth, sagebrush, oak, service, willow and chaparral.
	Fair grazing land.

	West, bet. secs. 6 and 31
	Over mountainous land draining N. into Twelve Mile canyon through dense undergrowth of oak, sagebrush, buck and service brush.
	Ascend.
1.40	Low spur, 20 ft. above sec. cor., projects N.
	Descend gradually along N. slope.
10.95	Ravine, 65 ft. below spur, drains N.
	Ascend abruptly over NE. slope
17.45	Spur, 180 ft. above ravine, projects NW.
	Gradually descend.
27.55	Ravine, 105 ft. below spur, drains N.
	Gradually ascend.
31.50	Spur, 25 ft. above ravine, projects N.20°E.
	Descend over NW. slope.
35.60	Enter dense cedar timber, bears N. and S.
40.00	On gradual NW. slope 210 ft. below spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 31 ¼ ——— S 6 1915
	from which
	A cedar, 10 ins. diam., bears S.28°W., 17 lks. dist., marked ¼ S 6 B T
	A cedar, 14 ins. diam., bears N.59°W., 40 lks. dist., marked ¼ S 31 B T
	Continue descent.
42.40	Enter cottonwood timber, bears N.35°E. and S.35°W.

chains	
43.20	Bottom of Twelve Mile canyon and Creek, 60 lks. wide, 3 ft. deep, good water, 20 ft. below ¼ sec. cor., course S.30°W.
	Gradually ascend over SE. slope.
47.75	Leave cottonwood timber, bears N.80°E. and S.80°W. U. S. Forest Service Telephone line from Mayfield to Emery, Utah, bears NE. and SW.
49.45	Road, Mayfield to Ferron and Emery, Utah, bears NE. and SW.
	Begin ascent over SE. slope of mountain.
54.65	Leave oak brush, bears N. and S.
81.15	The cor. of Tps. 19 and 20 S.,Rs. 2 and 3 E., 180 ft. above creek.
	Land, mountainous, slopes and drains N. and S. into Twelve Mile canyon.
	Soil, gravelly, rocky and shallow sandy loam on gravelly and rocky sub-soil.
	Timber, pinon, cedar and cottonwood.
	Undergrowth, oak, service, sagebrush, buck brush and chaparral.
	Fair grazing land.

July 2,1915.

Isaac Hayes

U. S. Transitman.

EAST BOUNDARY OF T.19 S.,R.3 E.

I begin atvthe cor. of Tps. 19 and 20 S., Rs. 3 and 4 E. and knowing that a closing cor. will be necessary for T.19 S.,Rs. 3 and 4 E. at the intersection with the S. bdy. of T.18 S., I run North on a true line setting ¼ sec. and sec. cors. at intervals of 40.00 chs.

chains	
	June 18: For solar obsn. see line bet. secs. 7 and 12, E. bdy. of T.20 S.,R.3 E.
	From cor. of Tps. 19 and 20 S.,Rs. 3 and 4 E.
	North, bet. secs. 31 and 36
	Over mountainous land draining SW., through dense aspen timber and undergrowth of chaparral, weeds and grass. Ascend.
6.25	Top of ascent, 40 ft. above cor., bears E. and W.
	Descend abruptly over N. slope.
10.45	Ravine, 65 ft. below top of ascent, drains W.
	Ascend abruptly over SW. slope.
18.80	From this point Gunnison Irrigation Companys Resevoir, about 10 chs. N. and S. and 5 chs. E. and W.,bears W. about 10 chs. Outlet of resevoir on W. side.
28.00	Top of ascent and W. edge of broken bench, 195 ft. above ravine, bears NW. and SE.
	Descend abruptly over N. slope. Enter scattering pine and spruce timber, bears NW. and SE.
40.00	On N. slope, 155 ft. below top of ascent and about 20 chs. W. of base of Bald mountain.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 36 ¼ | S 31

1915

from which

An aspen, 5 ins. diam., bears S.88°E., 71 lks. dist., marked ¼ S 31 B T

An aspen, 18 ins. diam., bears N.89°W., 53 lks. dist., marked ¼ S 36 B T

	Continue descent.
40.90	Ditch to resevoir, 5 lks. wide, flows W. Flume 1 ch. E. of line.
41.70	Bottom of ravine and stream, 6 lks. wide, 3 ins. deep, good water, 80 ft. below ¼ sec. cor., course W.
	Gradually ascend.

chains	
43.15	Stream, 6 lks. wide, 3 ins. deep, good water, course SW.
47.10	Low spur, 5 ft. above ravine, projects W.
	Descend.
52.50	Stream and base of descent, 2 lks. wide, 3 ins. deep, good water, 55 ft. below spur, course W.
	Gradually ascend over SW. slope.
56.50	Enter dense willow undergrowth, bears E. and W.
59.50	A lake about 5 x 5 chs., bears W. about 4 chs.
61.90	Leave willow undergrowth, bears E. and W.
80.00	185 ft. above base of descent.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 25,30,31 and 36, with brass cap marked

T 19 S

R 3 E	R 4 E
S 25	S 30
S 36	S 31

1915

from which

An aspen, 10 ins. diam., bears N.32°E., 92½ lks. dist., marked T 19 S R 4 E S 30 B T

An aspen, 9 ins. diam., bears S.50°E., 79 lks. dist., marked T 19 S R 4 E S 31 B T

An aspen, 9 ins. diam., bears S.35½°W., 37 lks. dist., marked T 19 S R 3 E S 36 B T

A fir, 10 ins. diam., bears N.77°W., 37 lks. dist., marked T 19 S R 3 E S 25 B T

Land, rough mountainous, general SW. exposure and drainage.

Soil, rich black mountain loam mixed with gravel and rock on gravelly and moist, sticky clay sub-soil.

Timber, aspen and scattering pine and fir.

Undergrowth, chaparral, willows, weeds and grass.

Good grazing land.

June 18,1915

chains

June 19: At 7h.a.m. apparent time, I set off 39°08' on the lat. arc; 23° 26'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25,30,31 and 36.

Thence I run

North, bet. secs. 25 and 30.

Over mountainous land draining SW., through aspen and scattering pine and fir timber and undergrowth of weeds and grass.

Gradually ascend over SW. slope at base of Bald mountain.

17.50 Leave timber, bears E. and W. Thence over open W. slope.

22.85 Top of ascent and divide between N. and S. Forks of Twelve Mile canyon, 85 ft. above sec. cor., bears E. and W.

Gradually descend along W. slope.

40.00 55 ft. below top of divide.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 25¼ | S 30

1915

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

44.10 Begin descent over NW. slope.

59.55 Stream, 1½ lks. wide, 1 in. deep, in slight depression, course NW.

78.35 Enter aspen timber, bears 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. 19,24,25 and 30, with brass cap marked

T 19 S

R 3 E	R 4 E
S 24	S 19
S 25	S 30

1915

from which

An aspen, 8 ins. diam., bears N.40½°E., 16 lks.

chains

dist., marked T 19 S R 4 E S 19 B T

An aspen, 10 ins. diam., bears S.54°E., 32 lks.

dist., marked T 19 S R 4 E S 30 B T

An aspen, 6 ins. diam., bears S.10½°W., 99 lks.

dist., marked T 19 S R 3 E S 25 B T

An aspen, 7 ins. diam., bears N.12°W., 36 lks.

dist., marked T 19 S R 3 E S 24 B T

Land, mountainous, general W. exposure, drains SW. on S. 22.85 chs. and NW. on N. 57.15 chs.

Soil, shallow mountain loam mixed with gravel and rock on sub-soil of gravel and moist, sticky clay.

Timber, scattering patches of aspen, pine and fir.

Undergrowth, weeds and grass.

Fair grazing land.

North, bet. secs. 19 and 24

Over mountainous land sloping and draining NW., through aspen timber and undergrowth of chaparral, weeds and grass. Descend over NW. slope.

11.65 Small wash, drains NW. Gradually ascend.

17.70 Top of steep descent, bears E. and W. Leave dense timber, descend abruptly over N. slope.

21.25 Road, Mayfield to Ferron and Emery, Utah, bears E. and W.

32.75 U. S. Forest Service Telephone line, Mayfield to Emery, Utah, bears E. and W. Enter dense pine timber.

35.65 Bottom of N. Fork of Twelve Mile canyon and creek, 25 lks. wide, 10 ins. deep, good water, 195 ft. below sec. cor. course W.

Ascend abruptly.

36.40 Top of steep ascent and leave timber, bears E. and W.

Gradually ascend over open land.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 24 | S 19

chains	
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
49.80	Enter aspen timber, bears E. and W.
73.60	Stream, 4 lks. wide, 2 ins. deep, good water, course SW.
	Leave aspen timber, enter dense willow undergrowth, bears NE. and SW.
75.95	Stream, 3 lks. wide, 2 ins. deep, good water, course SW.
80.00	430 ft. above ¼ sec. cor., in dense willow patch.
	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, with brass cap marked

T 19 S
R 3 E | R 4 E
S 13 | S 18
S 24 | S 19
1915

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

Land, mountainous, slopes and drains N. and S. into Twelve Mile canyon.

Soil, shallow mountain loam, gravelly and rocky on subsoil of moist clay, packed hard and mixed with rock.

Timber, aspen with scattering patches of pine and fir.

Undergrowth, chaparral, weeds, willow and grass.

Good grazing land.

June 19: At this cor., I set off 23° 26'N., on the decl. arc; and at apparent noon obs. the sun on the meridian; the resulting lat. is 39°10'.

North, bet. secs. 13 and 18

Over rough mountainous land draining S., through dense undergrowth of willows.

Ascend abruptly over S. slope of Twelve Mile canyon.

6.05	Leave willows, enter choke cherry, chaparral and weeds, bears E. and W.
23.15	Base of broken limestone ledges and huge boulders, bears E. and W. Ascend more abruptly.

chains	
38.40	Top of ledges and S. edge of flat topped ridge and divide between Six and Twelve Mile canyons, 1220 ft. above sec. cor., bears N.80°W. and S.80°E.
	Gradually ascend over rolling top of ridge.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ½ sec. cor., with brass cap marked S 13½ | S 18 1915 raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
43.40	Top of ascent on ridge, bears E. and W. Gradually descend.
47.90	N. brink of divide and enter dense pine and fir timber, bears NW. and SE.
	Descend abruptly over NE. slope.
63.85	Descend more gradually.
80.00	590 ft. below ridge.
	Set an iron post, 3 ft. long, 3 ins. in dia., 16 ins. in the ground on solid rock and 8 ins. in a mound of stone for cor. of secs. 7,12,13 and 18, with brass cap marked T 19 S R 3 E | R 4 E S 12 | S 7 S 13 | S 18 1915 from which A fir, 5 ins. diam., bears N.10¼°E., 35 lks. dist., marked T 19 S R 4 E S 7 B T A fir, 11 ins. diam., bears S.17¼°E., 86 lks. dist., marked T 19 S R 4 E S 18 B T A fir, 10 ins. diam., bears S.49°W., 80 lks. dist., marked T 19 S R 3 E S 13 B T A fir, 12 ins. diam., bears N.47½°W., 79 lks. dist., marked T 19 S R 3 E S 12 B T
	Land, rough mountains, slopes and drains S. from divide on S. 43.40 chs. and NE. on N. 36.60 chs.

chains

Soil, gravelly and rocky of limestone formation with some shallow mountain loam and decayed vegetation on gravelly and rocky sub-soil.

Timber, pine and fir.

Undergrowth, willow, choke cherry, chaparral and weeds,

Some grass, good for grazing.

June 19,1915.

Howard W. Miller
U. S. Surveyor.

July 19: At 9h.a.m. apparent time, I set off 39°11' on the lat. arc; 20° 59'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 mountainous land draining E., through pine and fir timber. Considerable dead and fallen timber and scattering large boulders.

Gradually descend.

14.15 Timber becomes more scattering, bears E. and W.

30.15 Leave dead timber, enter dense living timber, bears E. and W.

32.50 Bottom of swale, 175 ft. below sec. cor., drains E.

Leave timber, ascend abruptly over S. slope of spur, bears E. and W.

40.00 On grassy S. slope, 45 ft. above swale.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 12½ | S 7

1915

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

July 19: Walking on line at noon, obsn. for lat. not taken.

chains

46.75 Spur, 100 ft. above ¼ sec. cor., projects NE.
Gradually descend over N. slope.

54.90 Enter dense pine and fir timber, bears E. and W.
Descend abruptly over N. slope.

71.30 Stream, 3 lks. wide, 2 ins. deep, good water, course NW.

80.00 At foot of steep descent, 890 ft. below spur.
Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 1,6,7 and 12, with brass cap marked

T 19 S

R 3 E	R 4 E
S 1	S 6
S 12	S 7

1915

from which

A fir, 16 ins. diam., bears N.68°E., 22 lks. dist., marked T 19 S R 4 E S 6 B T

A fir, 16 ins. diam., bears S.35°E., 82 lks. dist., marked T 19 S R 4 E S 7 B T

A fir, 8 ins. diam., bears S.74½°W., 45 lks. dist., marked T 19 S R 3 E S 12 B T

A fir, 5 ins., diam., bears N.69½°W., 50 lks. dist., marked T 19 S R 3 E S 1 B T

Land, rough mountainous, general NE. exposure and drainage
Soil, rocky of limestone formation with some shallow mountain loam on gravelly and moist clay sub-soil.
Timber, pine and fir.
Undergrowth, chaparral, grass and weeds.
Good grazing land.

July 19,1915.

July 20; At 8h. a.m. apparent time, I set off 39°12' on the lat. arc; 20° 48'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1, 6,7, and 12.

Thence I run

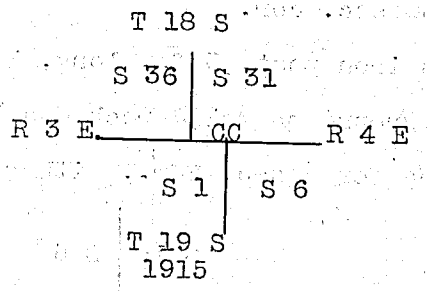
North, bet. secs. 1 and 6.

chains	
	Over rolling mountainous land draining N., through dense pine and fir timber and undergrowth of chaparral, weeds and grass.
	Gradually descend.
6.00	Stream, 8 lks. wide, 4 to 5 ins. deep, good water, course NW.
22.50	Old road, bears NW. and SE.
40.00	In N. edge of grassy opening about 5 chs. wide, 145 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 13 ins. in the ground on solid rock and 13 ins. in a mound of stone for ¼ sec. cor., with brass cap marked
	S 1¼ | S 6 1915
	from which
	A pine, 10 ins. diam., bears S.79°E., 120 lks. dist., marked ¼ S 6 B T
	A pine, 20 ins. diam., bears N.68°W., 123 lks. dist., marked ¼ S 1 B T
	July 20: Walking on line at noon, obsn. for lat. not taken.
43.60	Bottom of S. Fork of Six Mile canyon and creek, 20 lks. wide, 6 to 8 ins. deep, good water, course W.
44.70	Stream, 15 lks. wide, 5 ins. deep, good water, course SW.
	Streams join about 1 ch. west.
	Begin ascent over gradual SW. slope of mountain.
51.10	Leave pine and fir, enter dense aspen timber, bears E. and W.
75.10	Leave dense aspen, enter scattering pinon and cedar timber, bears E. and SW. Thence over rocky SW. slope
98.30	Leave pinon timber, bears E. and W.
104.50	Thence over series of broken limestone ledges, bears NW. and SE. Leave timber.
107.82	Intersect N. bdy. of the Tp. 14.63 chs. West of the ¼ sec. cor. bet. secs. 6 and 31, Tps. 18 and 19 S.,

R. . 4 E., which is an iron post, 1 in. in dia., extending 10 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

At intersection

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in a mound of stone and earth on solid rock for closing cor. of Tps. 19 S.,Rs. 3 and 4 E., with brass cap marked



raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Note: I return to the cor. of Tps. 18 and 19 S.,Rs. 3 and 4 E. and destroy all marks on cor. referring to T.19 S.

Land, rough broken mountains, slope and drain N. and S. into S. Fork of Six Mile canyon which drains NW. N.½ mile very rough. Closing cor. established 1045 ft. above canyon.

Soil, gravelly and rocky of limestone formation with some shallow mountain loam on gravelly and rocky subsoil.

Timber, pine, fir, aspen, pinon and cedar.

Undergrowth, chaparral, grass and weeds.

Good grazing land on S.½ mile.

July 20,1915.

Isaac Hayes
U. S. Transitman.

Boundaries of T.19 S.,R.3 E.

Latitudes, departures and closing errors.

Lines designated	True bearings	Distances	Latitudes N.	Latitudes S.	Departures E.	Departures W.
W.bdy. T19SR3E	South	507.82	------	507.82	------	------
S.bdy "	East	481.15	------	------	481.15	------
E.bdy "	North	507.82	507.82	------	------	------
S.bdy T18SR4E	West	24.19	------	------	------	24.19
S,bdy T18SR3E	West	321.27	------	------	------	321.27
"	S.89°44'W.	40.61	------	.19	------	40.61
"	S.89°53'W.	40.29	------	.08	------	40.29
"	S.89°43'W.	39.94	------	.20	------	39.94
"	S.89°55'W.	14.32	------	.02	------	14.32
Convergency			------	------	------	.59
			507.82	508.31	481.15	481.21
				507.82		
		Error in latitude		.49		
						4481.15
		Error in departure				.06

For general description see subdivision of T.19 S.,R.3 E.

For certificate of assistants and final oath of U. S. Surveyor and Transitman see subdivision of T.20 S.,R. 3 E.

Howard W. Miller
U. S. Surveyor

Isaac Hayes
U. S. Transitman

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Page

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities tated opposite our several signatures, in surveying all those parts or portions of .....

.....

.....

.....

.....

.....

.....

f the ..... Meridian, in the State of .....

vhich are represented in the foregoing field notes as having been executed by him, and under his direc-ion; and that said survey has been, in all respects, to the best of our knowledge and belief, well and aithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

..... of the .....

..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed 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 U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 2 1917

The foregoing field notes of the survey of the east boundary T. 19 S.R.2 E., south and east boundaries of T. 19 S.R.3 E., south boundary of T. 19 S.R.4 E and east boundary T. 20 S.R. 2 E.,

executed by ..... Howard W. Miller and Isaac Hayes

under his special instructions dated ..... May 14 ..... 1915 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

N. C. Thorsen
U. S. 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.

.....
U. S. Surveyor General.

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4—670

BOOK A-420 C

FIELD NOTES

RETRACEMENT
OF THE ~~SURVEY OF THE~~
and
SURVEY OF FOURTH STANDARD PARALLEL SOUTH

through

RANGES 3 & 4 EAST

and

SURVEY EAST BOUNDARY

and

SUBDIVISIONS

T. 20 S. R. 3 E.

Of the Salt Lake Base and *Meridian,*

In the State of Utah

EXECUTED BY

Howard W. Miller and Isaac Hayes

and Transitman

In the capacity of U. S. Surveyor, under instructions dated May 14, *1915,*

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

Group No. 39, *which were approved by the Commissioner of the General Land*

Office, June 5, *1915*; assignment instructions issued by the Asst. Supervisor of Surveys for the District of Utah May 17, 1915.

Survey commenced June 2, *1915*

Survey completed September 23, *1915*

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BOOK A-420

INDEX DIAGRAM.

Township 20 South, *Range* 3 East

6	120	5	95	4	78	3	61	2	47	1	27
118		117		94		76		60		44	
7	115	8	91	9	74	10	58	11	42	12	25
113		112		90		73		57		40	
18	110	17	88	16	71	15	55	14	38	13	24
108		107		87		70		54		37	
19	105	20	85	21	69	22	52	23	35	24	22
104		103		84		67		51		34	
30	102	29	82	28	65	27	50	26	32	25	21
100		98		81		64		49		30	
31	97	32	79	33	63	34	48	35	28	36	19
2--8		3--10		5--12		6--14		7--15		7--17	19

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BOOK A-420

4—679 b

INDEX DIAGRAM.

Township 20 S, Range 3 E.

6	710	5	685	4	667	3	641	2	636	1	609
708		707		683		666		650		634	
7	705	8	681	9	664	10	648	11	632	12	615
703		701		680		663		646		630	
18	700	17	678	16	661	15	645	14	628	13	614
698		697		677		660		643		627	
19	695	20	675	21	659	22	642	23	625	24	612
694		693		674		657		641		623	
30	692	29	672	28	655	27	640	26	622	25	611
690		688		671		654		639		620	
31	687	32	669	33	653	34	638	35	618	36	609
592		593		595		596		597		599	598
598		600		602		604		605		607	

6—4817

RETRACEMENT

FOURTH STANDARD PARALLEL SOUTH THROUGH R. 3 EAST

Survey commenced June 2, 1915, and executed with Young and Sons light mountain transits Nos. 8582, 8297 and 8538, with Smith Solar attachments. The horizontal limbs are 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 latitude and declination arcs.

The instruments were approved for use in this survey by the Assistant Supervisor of Surveys for Utah.

I examine the adjustments of the transits Nos. 8582 and 8297 and correct the level and collimation errors; then to test the solar apparati by comparing their indications, resulting from solar observations made during a.m. and p.m. hours with meridians determined by observations on Polaris, I proceed as follows:

Sept. 8, 1915: At my camp, which is in sec. 15, T. 20 S. R. 3 E., latitude 39°05'N., longitude 111°34'W., I set off 39°05'N. on the lat. arc, and 5°57'N. on the decl. arc, and at 9h a.m., apparent time, determine a meridian with the solar and note that a tree bears S. 36°03'E.

At 6h 32m p.m.,l.m.t., I make an hour angle observation on Polaris in accordance with the Manual of Instructions:

Correct l.m.t. of obs. Sept.8,1915	6 32 p.m.
Correct l.m.t. of U.C.Polaris Sept.8	2 24.6 a.m.
Time from U.C.Polaris to time of obsn.	16 07.4
Hour angle of Polaris at obs.	7 48.7

Azimuth of Polaris at obs. 1°18'E.

Angle to tree = 37°21'E. from S.

Bearing of tree = S.36°03'E.

Both instruments were tested on this meridian by a.m. and p.m. observations and as neither varied over one minute, I conclude that the adjustments are satisfactory.

Note: For test of instrument No.8538 see S. Bdy. T. 19 S. R. 3 E.

Owing to local attraction, no magnetic declination is taken.

Chains	
	A steel tape 5 chs. long was used in the field work, together with a clinometer for determining slope angles, and the reduced horizontal distances only appear in the field notes. The tape was tested, comparison being made with a standard tape 1 ch. long, kept and used for that purpose only.
	The altitude being 8400 ft. above sea level, I apply a coefficient of refraction of .75 to all declinations.
	June 2: At 8h a.m., apparent time, I set off 39°02' on the lat. arc, 22°07'N. on the decl. arc, and determine a meridian with the solar at the St. cor. of Tp. 20 S. Rs. 2 and 3 E., heretofore described.
	Thence
	East along the south boundary of sec. 31, retracing.
	No difference between measurement of 13.86 chs. by two sets of chainmen.
13.86	Fall 14 lks. S. of the old St. ¼ sec. cor., which is a conglomerate stone 10x8x6 ins. lying on the ground, marked S ¼ C on upper face.
	The course of this line is therefore N.89°25'E., and the distance 13.86 chs.
	From point 14 lks. S. of cor.,
	Continue east.
15.50	To a point 17 lks. S. of the closing cor. of Tp. 21 S. Rs. 2 and 3 E., which is a sandstone 12x10x4 ins., firmly set, properly marked with a mound of stone south.
	Difference between measurements of 40 chs. by two sets of chainmen is 4 lks., position of middle point
	By 1st set 40.02 chs.
	By 2nd set 39.98 chs.,
	the mean of which is
40.00	Set temp. St. ¼ sec. cor.
	No difference between measurement of 53.99 chs. by two sets of chainmen.

Chains	
53.99	Fall 2 lks. N. of the St. cor. of secs. 31 and 32, which is a cottonwood post, 2 ins. square lying on the ground, properly marked with two bearing trees.
	The course of this line is therefore S.89°46'E. and the distance 40.13 chs.
	From point 2 lks. N. of corner,
	Continue east.
	Difference between measurements of 80 chs. by two sets of chainmen is 4 lks., position of middle point
	By 1st set 80.02 chs.
	By 2nd set 79.98 chs.,
	the mean of which is
80.00	Set temp. St. cor. for secs. 31 and 32.
	From temp. St. cor. secs. 31 and 32
	East along the south boundary of sec. 32.
	Difference between measurements of 10.90 chs. by two sets of chainmen is 1 lk., position of middle point
	By 1st set 10.91 chs.,
	By 2nd set 10.90 chs.,
	the mean of which is
10.90	Intersect the CC of secs. 5 and 6, T. 21 S. R. 3 E., which is a limestone 12x14x10 ins. above ground, firmly set, properly marked and witnessed as described by the U.S.Surveyor General.
	Difference between measurement of 13.37 chs. by two sets of chainmen is 1 lk., position of middle point
	By 1st set 13.38 chs.,
	By 2nd set 13.37 chs.,
	the mean of which is
13.37	Fall 3 lks. N. of the St. ¼ sec. cor. sec. 32, which is

Chains

a limestone 8x9x5 ins. above ground, firmly set, properly marked and witnessed as described by the U.S. Surveyor General.

The course of this line is therefore S.89°59'E., and the distance 39.38 chs.

June 2, 1915:

From point 3 lks. N.,

I continue east.

40.00 Set temp. St. ¼ sec. cor.

Set flag at about 10 chs. westerly and

At this station, which is in latitude 39°02'N., longitude 111°34'W., observe Polaris as follows:

Correct l.m.t. of obs. June 2	7h 26m p.m.
Correct l.m.t. of U.C.Polaris at station	8h 48.3m a.m.
Time from U.C.Polaris to time of obsn.	10h 37.7m

Azimuth of Polaris = 0°30'W. of N.

Angle to flag = 89°20'W. of N.

True bearing to flag = N.89°50'W.

June 2, 1915.

June 3, 1915:

Thence east on a tangent line retracing.

Note: This retracement was run on tangent line E. from this point. Difference in measurement of 53.55 chs. by two sets of chainmen is 1 lk., position of middle point

By 1st set 53.55 chs.,

By 2nd set 53.56 chs.,

the mean of which is

53.55 To point 5 lks. N. of the St. cor. of secs. 32 and 33, which is a limestone 10x9x5 ins. above ground, firmly set, properly marked and witnessed as described by the U.S. Surveyor General.

Chains	
	The course of this line is therefore S.89°58'E., and the distance 40.18 chs.
	No difference in measurement of 80.00 chs. by two sets of chainmen.
80.00	Set temp. St. cor. for secs. 32 and 33.
	Thence continue from temp. standard cor. of secs. 32 and 33,
	East along south boundary of sec. 33.
	Difference between measurement of 11.36 chs. by two sets of chainmen is 2 lks., position of middle point
	By 1st set 11.35 chs.
	By 2nd set 11.37 chs., the mean of which is
11.36	To point 23 lks. N. of the CC of secs. 4 and 5, T. 21 S. R. 3 E., which is a limestone 8x14x6 ins. above ground, firmly set, properly marked and witnessed as described by the U.S.Surveyor General.
	No difference between measurement of 13.70 chs. by two sets of chainmen.
13.70	To point 27 lks. N. of the St. ¼ sec. cor. of sec. 33, which is a sandstone 12x16x6 ins. above ground, firmly set, properly marked with the mound of stone north.
	The course of this line is therefore S.89°41'E., and the distance 40.15 chs.
	Difference between measurement of 40.00 chs. by two sets of chainmen is 4 lks., position of middle point
	By 1st set 39.98 chs.,
	By 2nd set 40.02 chs.,
	the mean of which is
40.00	Set temp. St. ¼ sec. cor. Thence S.89°59'E.
	Difference between measurement of 53.46 chs. by two sets of chainmen is 2 lks., position of middle point

Chains	
	By 1st set 53.45 chs.,
	By 2nd set 53.47 chs., the mean of which is
53.46	To point 4 lks. N. of St. cor. of secs. 33 and 34, which is a limestone 8x14x6 ins. above ground, firmly set, properly marked with two bearing trees.
	The course of this line is therefore N.89°41'E., and the distance 39.76 chs.
80.00	Set temp. St. cor. for secs. 33 and 34.
	Thence from temp. St. cor. secs. 33 and 34.
	S.89°59'E. along south boundary sec. 34.
11.62	To point 26 lks. N. of the CC of secs. 3 and 4, T. 21 S. R. 3 E., which is a limestone 10x14x13 ins. above ground, firmly set, properly marked with two bearing tree
	No difference in measurement of 13.62 chs. by two sets of chainmen.
13.62	To point 27 lks. N. of the St. ¼ cor. of sec. 34, which is a rotten gray sandstone with marks obliterated and having two bearing trees as accessories.
	The course of this line is therefore S.89°39'E. and the distance 40.16 chs.
	No difference in measurement of 40.00 chs. by two sets of chainmen.
40.00	Set temp. St. ¼ sec. cor.
	June 3, 1915.
	June 15:
	Thence S.89°58'E. with transit No. 8538.
	Difference in measurement of 53.63 chs. by two sets of chainmen is 1 lk., position of middle point
	By 1st set 53.64 chs.
	By 2nd set 53.63 chs., the mean of which is
53.63	To point 7 lks. S. of the St. cor. of secs. 34 and 35, which is a limestone 16x17x4 ins. above ground, firmly set, properly marked with two bearing trees.
	The course of this line is therefore N.89°32'E. and the distance 41.01 chs.

FOURTH STANDARD PARALLEL SOUTH THROUGH R.3 EAST

Chains	
	No difference in measurement of 80.00 chs. by two sets of chainmen.
80.00	Set temp. St. cor. for secs. 34 and 35.
	Thence from temp. St. cor. secs. 34 and 35 S.89°58'E. along south boundary of sec. 35.
	No difference in measurement of 11.83 chs. by two sets of chainmen.
11.83	To point 11 lks. S. of the CC of secs. 2 and 3, T. 21 S. R. 3 E., which is a limestone 16x10x7 ins. above ground, firmly set, properly marked with two bearing trees.
	No difference in measurement of 13.65 chs. by two sets of chainmen.
13.65	To point 8 lks. S. of the St. ¼ cor. of sec. 35, which is a gray sandstone 12x14x10 ins. above ground, firmly set, properly marked with two bearing trees.
	The course of this line is therefore S.89°59'E., and the distance 40.02 chs.
	June 15, 1915.
	June 16:
40.00	Set temp. St. ¼ sec. cor.
	Thence S.89°57'E. retracing
	No difference between measurement of 53.51 chs. by two sets of chainmen.
53.51	To point 5 lks. S. of the St. cor. of secs. 35 and 36, which is a cobble stone 14x14x8 ins. above ground, firmly set, properly marked with mound of stone north.
	The course of this line is therefore S.89°56'E., and the distance 39.86 chs.
80.00	Set temp. St. cor. for secs. 35 and 36.
	Thence from temp. St. cor. secs. 35 and 36. S.89°57'E. along south boundary of sec. 36.
11.29	To point 46 lks. S. of the CC of secs. 1 and 2, T. 21 S.

Chains	
	R. 3 E., which is a white limestone 14x12x8 ins., firmly set, properly marked with two bearing trees.
13.47	To point 44 lks. S. of the St. ¼ cor. sec. 36, which is a limestone 8x8x4 ins. above ground, firmly set, properly marked with two bearing trees.
	The course of this line is therefore N.89°29'E., and the distance 39.96 chs.
40.00	Set temp. St. ¼ sec. cor.
53.33	To point 19 lks. S. of the St. cor. of T. 20 S. Rs. 3 and 4 E., which is a white limestone 15x14x5 ins. above ground, firmly set, properly marked with two bearing trees.
	The course of this line is therefore S.89°36'E., and the distance 39.86 chs.
80.00	Set temp. St. cor. Tp. 20 S. Rs. 3 and 4 E.
	Thence continue from temp. St. Tp. cor.
	S.89°57'E. along south boundary sec. 31, T.20 S. R. 4 E.
11.16	To point 19 lks. S. of the CC for T. 21 S. Rs. 3 and 4 E. which corner is buried under a snow bank. This point faces two bearing trees.
13.31	Fall 19 lks. S. of the St. ¼ cor. on S. bdy. sec. 31, which is a white limestone 14x14x8 ins. above ground, firmly set, properly marked with two bearing trees.
	The course of this line is therefore S.89°56'E., and the distance is 39.98 chs.
	June 16, 1915.
	June 4, 1915:
	From the cor. of Tp. 20 S. Rs. 2 and 3 E., heretofore described
	N.89°25'E. along the south boundary of sec. 31.
	Ascending gradually over mountainous land sloping S. into ravine, through very dense service berry, oak, buck and chaparral brush and a few scattering pine timber.

Chains	
13.86	The old St. ¼ sec, cor. on S. bdy. sec. 31. I reset stone and destroy marks on same, leaving it an angle point.
	Thence
	S.89°46'E. with continuous chaining.
15.50	The closing corner of Tps. 21 S. Rs. 2 and 3 E. bears 3 lks. N.
21.42	Enter dense aspen timber bearing NW. and SE. Begin ascent W. slope.
24.80	Leave aspen timber and enter scattering spruce and pine timber and buck brush and manzaneta undergrowth bearing N. and S. Dense pine timber N. of line 3 chs., bearing E. and W.
26.95	Ascend abruptly SW. slope.
34.16	Top of steep ascent. Enter dense pine and fir timber bearing N. and S. and undergrowth of service berry and chaparral.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the St. ¼ sec. cor. of sec. 31, marked on brass cap S 31 ¼ 1915 from which Spruce 18 ins. dia., bears N.56°30'E., 36 lks. dist. mkd. SC ¼ S 31 B T. Spruce 12 ins. dia., bears N.40°W., 84 lks. dist. mkd. SC ¼ S 31 B T. Enter very dense pine and fir timber bearing NW. and S.
48.65	Leave dense pine and fir timber and enter dense aspen timber and chokecherry undergrowth bearing N. and S.
53.99	The old St. cor. of secs. 31 and 32. I destroy marks on same, also marks on bearing trees, excepting BT. This corner is now an angle point.
	Thence
	S.89°59'E. with continuous chaining.
59.60	Enter dense service berry brush bearing N. and S.

Chains	
75.50	Top of high ridge bearing NE. and SW. Descend abruptly over E. slope into fork of Willow Creek.
78.60	Enter dense aspen timber bearing N. and S.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the St. cor. of secs. 31 and 32, marked on brass cap

T 20 S R 3 E
S 31 | S 32
1915

from which

Aspen 4 ins. dia., bears N.51°E.,
27 lks. dist. mkd. SC T 20 S R 3 E S 32 B T.
Aspen 4 ins. dia., bears N.65°W.,
20 lks. dist. mkd. SC T 20 S R 3 E S 31 B T.

Land rough mountains with general S. exposure.
Soil rich black mountain loam mixed with gravel and rocks on hard, moist loam and clay subsoil, 2nd rate.
Timber aspen, fir and pine.
Undergrowth oak, service berry, chokecherry and sage brush.
Some good grass for grazing.

S.89°59'E. along the south boundary sec. 32.
Over rough mountainous land sloping SE. into Willow Creek, through aspen timber and undergrowth of chokecherry and service berry brush.
Descend.

10.90	Intersect CC of secs. 5 and 6, T. 21 S. R. 3 E., heretofore described.
13.37	The St. ¼ sec. cor. on S. bdy. sec. 32, heretofore described. I destroy marks on same, also marks on bearing trees, excepting BT. This corner is now an angle point.

Thence
S.89°58'E. with continuous chaining.

27.09	Top of steep descent bearing NW. and SE., 138 ft. below

Chains	
	sec. cor.
28.99	Creek 5 lks. wide, 3 ins. deep, 296 ft. below sec. cor., course SE.
	Gradually descend.
31.25	Base of descent.
	Ascend gradually.
35.28	Spur projecting S., 50 ft. above base of descent.
	Descend gradually along S. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. sec. 32, marked on brass cap
	$\frac{S\ 32\ \frac{1}{4}}{1915}$
	from which
	Aspen 6 ins. dia., bears N.61°E., 60 lks. dist. mkd. SC $\frac{1}{4}$ S 32 B T.
	Aspen 7 ins. dia., bears N.57°30'W., $7\frac{1}{2}$ lks. dist. mkd. SC $\frac{1}{4}$ S 32 B T.
41.60	Bottom of canon. Willow Creek in same, 6 lks. wide, 8 ins. deep, course SW., 24 ft. below spur.
	Ascend.
45.90	Enter fir timber bearing N. and S.
47.75	Thence over 4 chs. of marshy ground.
51.12	Leave fir timber bearing N. and S.
53.55	The St. cor. secs. 32 and 33. I destroy marks on same; also marks on bearing trees, excepting BT. This corner is now an angle point.
	Thence
	S.89°41'E. with continuous chaining.
70.45	Top of ridge bearing NE. and SW., 250 ft. above canon.
	Gradually descend over E. slope.
74.05	Stream in ravine, 8 lks. wide, 4 ins. deep, 88 ft. below ridge, course SW. Ascend gradually.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 32 and 33, marked on brass cap

Chains

T 20 S R 3 E
S 32 | S 33
1915

from which

Pine 20 ins. dia., bears N.24°E.,
40 lks. dist. mkd. SC T 20 S R 3 E S 33 B T.
Aspen 10 ins. dia., bears N.26°W.,
96 lks. dist. mkd. SC T 20 S R 3 E S 32 B T.

Corner falls on gradual W. slope on edge of small bog and timber.

Land mountainous with general S. exposure.

Soil black loam, mixed with gravel on rich, moist loam subsoil, 1st rate. Timber aspen and fir.

Undergrowth chokecherry and service berry brush.

S.89°41'E. along south boundary sec. 33.

Ascending W. slope through scattering aspen timber and patches of chokecherry undergrowth.

11.36 The CC of secs. 4 and 5, T. 21 S. R. 3 E. bears north 4 lks.

13.70 The old St. ¼ sec. cor. sec. 33.

I destroy all marks on same, leaving it as angle point.

Thence

N.89°41'E. with continuous chaining.

25.30 Top of high ridge bearing N.20°E. and S.20°W., 315 ft. above sec. cor.

From this point SE. cor. of corral bears N.67°15'E.

Gradually descend S. slope 79 ft. to

34.50 Small stream, 3 lks. wide, course SW.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the St. ¼ sec. cor. sec. 33, marked on brass cap

S 33 ¼
1915

from which

Chains	
	Aspen 8 ins. dia., bears N.12°15'W.,
	120 lks. dist. mkd. SC ¼ S 33 B T.
	Aspen 8 ins. dia., bears N.39°30'E.,
	101 lks. dist. mkd. SC ¼ S 33 B T.
42.05	Small spur projecting SW., 20 ft. above ¼ sec. cor.
	Leave aspen timber bearing NE. and SW.
	From this point corral bears about 8 chs. N.
	Thence across low saddle in divide.
47.00	Enter dense aspen timber bearing N. and S.
	Gradually descend.
53.46	The old St. cor. of secs. 33 and 34.
	I destroy marks on same, also marks on bearing trees excepting BT. This cor. is now an angle point.
	Thence
	S.89°39'E. with continuous chaining.
53.90	Small stream, 3 lks. wide, course S.
58.95	Enter dense willows bearing N. and SE.
64.90	At S. end of Mary's Nipple, begin steep descent over E. slope of mountain.
80.00	Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground for St. cor. of secs. 33 and 34, marked on brass cap

T 20 S R 3 E
S 33 | S 34
1915

from which

Aspen 8 ins. dia., bears N.30°E.,

11 lks, dist. mkd. SC T 20 S R 3 E S 34 B T.

Aspen 10 ins. dia., bears N.73°15'W.,

12 lks. dist. mkd. T 20 S R 3 E S 33 B T.

Corner falls on slope 260 ft. below top of steep descent.

Land mountainous draining SW. and S. with general S. exposure.

Soil light, shallow mountain loam, rather moist, mixed with gravel and rocks on moist loam subsoil.

Timber aspen.

Chains	
	Undergrowth willow, chokecherry and sagebrush.
	June 4, 1915.
	Sept. 2:
	S.89°39'E, along the south bdy. sec. 34.
	Gradually descending over mountainous land draining SE., through aspen timber and undergrowth of chokecherry and willows.
11.62	The CC of secs. 3 and 4, T. 21 S. R. 3 E., 20 lks. north.
13.62	The old St. ¼ sec. cor. on S. bdy. sec. 34.
	I destroy marks on same, also marks on bearing trees, excepting BT. This corner is now an angle point.
	Thence
	N.89°32'E. with continuous measurement.
14.10	Bottom of ravine.
	Stream in bottom of same, 2 lks. wide, 3 ins. deep, course SW., 70 ft. below sec. cor.
	Leave aspen timber bearing N. and S. and ascend over open and broken slope.
21.45	Enter aspen and Jack pine timber bearing N. and S.
27.75	Ridge bearing N.20°W. and S.20°E., 257 ft. above ravine.
	Gradually descend E. slope leaving Jack pine timber.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for St. ¼ sec. cor., marked on brass cap
	S 34 ¼ / 1915
	and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Corner falls in opening, 100 ft. below ridge.
40.10	Stream 2 lks. wide, 1 in. deep, course SE.
53.63	The St. cor. of secs. 34 and 35, 125 ft. below ¼ sec. cor.
	I destroy marks on same; also marks on bearing trees, excepting BT. This corner is now an angle point.
	S.89°59'E. with continuous chaining.
55.77	Stream 1 lk. wide, 1 in. deep, course SE.

Chains	
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for St. cor. of secs. 34 and 35, marked on brass cap T 20 S R 3 E S 34 | S 35 1915 from which Aspen 8 ins. dia., bears N.59°E., 11 lks. dist. mkd. SC T 20 S R 3 E S 35 B T. Aspen 10 ins. dia., bears N.60°W., 14 lks. dist. mkd. SC T 20 S R 3 E S 34 B T. Corner falls on slope, 151 ft. below old St. cor. Land mountainous with general SE. exposure. Soil rich, black, moist loam mixed with gravel on moist loam subsoil, 1st rate. Timber aspen and some pine. Undergrowth chokecherry and willow. Good grass for grazing.
	S.89°59'E, along the south bdy. sec. 35. Over mountainous land draining E. into Salina Creek, through dense aspen timber and chokecherry undergrowth. Gradually descend over SE. slope.
11.83	The CC of secs. 2 and 3, T. 21 S. R. 3 E. bears 4 lks. north.
11.90	Stream 5 lks. wide, 3 ins. deep, course S.
13.65	The old St. ¼ sec. cor. on S. bdy. sec. 35. I destroy marks on same, also marks on bearing trees, excepting BT. This corner is now an angle point.
	Thence S.89°56'E. with continuous chaining.
19.30	Stream 2 lks. wide, 1 in. deep, course SE.
24.22	Enter bottom of Salina Creek Canyon bearing N. and S. and draining S., 145 ft. below sec. cor. Thence over rocky bottom.
26.45	Salina Creek in canyon, 10 lks. wide, 6 ins. deep,

Chains	
	course S.
	Leave canon ascending abruptly W. slope, through scattering aspen timber and laurel and buck brush undergrowth.
30.40	Enter scattering Jack pine bearing N. and S.
33.22	Top of steep ascent bearing NW. and SE., 215 ft. above creek.
	Ascend gradually leaving pine timber.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for St. $\frac{1}{4}$ sec. cor. sec. 35, marked on brass cap $\frac{S\ 35\ \frac{1}{4}}{1915}$ from which Aspen 6 ins. dia., bears N.19°E., 36 lks. dist. mkd. SC $\frac{1}{4}$ S 35 B T. Aspen 8 ins. dia., bears N.29°15'W., 50 lks. dist. mkd. SC $\frac{1}{4}$ S 35 B T. Corner falls on slope, 145 ft. above top of steep ascent.
47.02	Leave timber bearing N. and S.
	Gradually ascend over open grassy flat.
53.51	The old St. cor. of secs. 35 and 36. I destroy marks on same, leaving it for angle point.
	Thence
	N.89°29'E. with continuous measurement.
71.62	Brink of canyon bearing NE. and SW. Leave flat 135 ft. above $\frac{1}{4}$ sec. cor. and descend gradually over SE. slope, through scattering aspen timber bearing NE. and SW.
73.52	Leave aspen timber and descend abruptly through dense service berry brush, chokecherry and chaparral bearing NE. and SW.
78.65	Enter aspen timber bearing NE. and SW.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the St. cor. of secs. 35 and 36, marked on brass cap T 20 S R 3 E $\frac{S\ 35 \mid S\ 36}{1915}$

Chains	
	from which
	Aspen 5 ins. dia., bears N.61°45'W.,
	27 lks. dist. mkd. SC T 20 S R 3 E S 35 B T.
	Aspen 6 ins. dia., bears N.41°E.,
	34 lks. dist. mkd. SC T 20 S R 3 E S 36 B T.
	Corner falls on slope, 110 ft. below top of bench.
	Land mountainous with general S. exposure.
	Soil light, mountain loam, mixed with gravel on hard, moist, sticky clay and gravel subsoil.
	Timber aspen and some pine.
	Undergrowth service berry, chokecherry and chaparral.
	Good grass for grazing.
	N.89°29'E. on the south boundary of sec. 36.
	Descending gradually over S. slope mountainous land draining SW., through aspen timber and undergrowth of weeds and grass.
1.60	Bottom of ravine. Stream in same 6 lks. wide, 2 ins. deep, course SW.
	Ascend.
3.99	Stream, 4 lks. wide, 2 ins. deep, course SW.
11.29	The CC of secs. 1 and 2 bears North 15 lks.
13.47	The old St. ¼ sec. cor. sec. 36. I destroy marks on same, also marks on bearing trees, excepting BT. This corner is now an angle point.
	Thence
	S.89°36'E. with continuous chaining.
19.45	Foot of steep ascent bearing N. and S.
	Leave aspen timber and ascend abruptly W. slope.
23.71	Enter aspen and pine timber bearing N. and S.
31.24	Spur projects N., 445 ft. above ravine.
	Descend.
35.80	Base of descent, 35 ft. below spur.
	Ascend.
37.39	Stream 2 lks. wide, 2 ins. deep, drains SE.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Chains

the ground for the St. ¼ sec. cor. sec. 36, marked on brass cap

S° 36 ¼
1915

from which

Aspen 10 ins. dia., bears N.42°W.,
13 lks. dist. mkd. SC ¼ S 36 B T.
Aspen 12 ins. dia., bears N.37°E.,
15 lks. dist. mkd. SC ¼ S 36 B T.

Corner falls on slope 80 ft. above base of descent.

53.33 The old cor. of Tp. 20 S. Rs. 3 and 4 E.

I destroy marks on same, also marks on bearing trees, excepting BT. This corner is now an angle point.

Thence

S.89°56'E. with continuous measurement.

71.86 Leave aspen timber, enter large boulders.

Begin steep ascent W. slope of White Mountain.

80.00 Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the St. cor. of Tp. 20 S. Rs. 3 and 4 E., marked on brass cap

T 20 S
R 3 E | R 4 E
S 36 | S 31
1915

from which

Pine 12 ins. dia., bears N.69°15'W.,
42 lks. dist. mkd. SC T 20 S R 3 E S 36 B T.
Balsam 14 ins. dia., bears N.69°30'E.,
23 lks. dist. mkd. SC T 20 S R 4 E S 31 B T.

Corner falls on slope, 710 ft. above ¼ sec. cor.

Land rough broken mountains, with general W. and NW. exposures.

Soil light, moist, black mountain loam mixed with gravel and rocks on moist clay and gravel subsoil. Soil on E. end of mile very rocky.

Timber aspen with some pine and fir.

Undergrowth weeds and some good grass for grazing.

SOUTH BOUNDARY T. 20 S. R. 4 E.

Chains	
	From the St. Tp. cor. of T. 20 S. Rs. 3 and 4 E.
	S.89°56'E. along the south boundary sec. 31.
	Ascending abruptly over W. face of White Mountain, through pine and fir timber and undergrowth of chaparral and laurel.
10.42	Top of divide, 232 ft. above Tp. cor., bears N. and S.
	Descend.
11.16	The CC of Tp. 21 S. Rs. 3 and 4 E. on line.
13.31	The St. ¼ sec. cor. on S. bdy. sec. 31, T. 20 S. R. 4 E. heretofore described.
	I destroy marks on same, also marks on bearing trees, excepting BT. This corner is now an angle point.
	Land rough mountains.
	Soil rocky limestone formation.
	Timber pine and fir.
	Undergrowth chaparral and laurel.
	Sept. 2, 1915.

EAST BOUNDARY T. 20 S. R. 3 E.

	June 16: At 2h p.m., apparent time, I set off 39°02' on the lat. arc, 23°21'N. on the decl. arc, and determine a meridian with the solar at the St. cor. of Tp. 20 S. Rs. 3 and 4 E.
	Thence
	North bet. secs. 31 and 36.
	Ascending over rough mountainous land through Jack pine and second growth pine timber and undergrowth of wild gooseberry.
5.06	Leave Jack pine timber bearing N. and W.
6.66	Stream, 1 lk. wide, 1 in. deep, course W.
10.26	Descend gradually W. slope of White Mountain, over rough broken limestone ledges, 18 ft. above the cor.
38.11	Bottom of canon draining W., 313 ft. below sec. cor.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. of secs. 31 and 36, marked on brass cap

Chains	
	¼ S 36 | S 31 1915
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Thence ascend S. slope through undergrowth of wild gooseberries.
44.59	Enter Jack pines bearing E. and W.
56.05	Top of point, 582 ft. above canyon, falls NW. about 8 chs. to rim of mountain.
	Descend N. slope.
61.36	Enter dense balsam and spruce timber bearing E. and SW.
71.25	Bottom of canyon course W., 187 ft. below ridge.
	Ascend abruptly S. slope, leaving balsam and spruce timber bearing E. and W.
80.00	Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 25, 30, 31 and 36, marked on brass cap

T 20 S
R 3 E | R 4 E
S 25 | S 30
S 36 | S 31
1915

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

Corner falls on top of ridge, 159 ft. above bottom of canyon.

Land rough mountains W. exposure.

Soil black, sandy loam, mixed with shale.

Timber balsam, fir and spruce with Jack pine.

Undergrowth wild gooseberries.

Some grass for grazing.

June 16, 1915.

June 17: At 7h 30m a.m., l.m.t., I set off 39°03' on the lat. arc, 23°23'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 30, 31 and 36.

Chains

Thence

North bet. secs. 25 and 30.

Ascending over rough mountainous land, across flat top of ridge.

Small grove of balsam timber bears 1 chain east.

22.40 Top of ascent bearing N.20°W. and S.20°E., 26 ft. above cor.

Leave ridge descending abruptly over E. slope.

Large basin containing lakes E. of line.

23.65 Enter spruce timber bearing E. and W.

40.00 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 25 and 30, marked on brass cap

¼ S 25 | S 30

1915

from which

Spruce 22 ins. dia., bears N.77°15'E., 69 lks. dist. mkd. ¼ S 30 B T.

Spruce 16 ins. dia., bears N.35°E., 88 lks. dist. mkd. ¼ S 30 B T.

Corner falls on E. slope, 129 ft. below top of ascent.

50.53 Descend into large natural basin having no outlet.

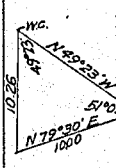
61.19 Bottom of basin, 161 ft. below ¼ sec. cor., bears NW. and SE. Thence across rolling bottom.

68.40 S. bank of lake, 13 chs. wide, bears 5 chs. E. and 8 chs. W., 195 ft. below ¼ sec. cor.

Point for sec. cor. falls in lake, therefore I return to a point 66.40 chs. on line and triangulate to flag set on small peninsula in lake as follows:

Set a flag on line on small peninsula, then measure a base N.79°30'E., 10 chs. to a point from which the flag bears N.49°23'W. From the flag, east end of base bears S.49°23'E. Therefore the distance is $\frac{10.00 \text{ Sin } 51°07'}{\text{Sin } 49°23'}$

log.	10.00 =	1.000000
log.sin.	51°07 =	9.891217
colog.sin.	49°23 =	0.119711
log.	10.26 =	1.010928



Chains	
	which added to 66.40 chs. makes
76.66	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the WC of secs. 19, 24, 25 and 30, marked on brass cap

T 20 S
R 3 E | R 4 E
S 24 | S 19
WC
S 25 | S 30
1915

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

80.00 True point for cor. falls in lake. Corner not set.

Land rough mountains.

Soil black mountain loam, mixed with gravel and rock. Subsoil same.

Timber balsam and spruce.

Undergrowth chaparral, weeds, and grass.

North bet. secs. 19 and 24.

From true cor. point for secs. 19, 24, 25 and 30, line N. crosses over lake. I therefore triangulate as follows:

From WC set flag on N. end of lake and return to my point on line bet. secs. 25 and 30, and at 66.40 chain point measure a base N.79°30'E.,10.00 ch., whence flag bears N.25°23'W. From flag east end of base bears S.25°23'E. Therefore the distance is $\frac{10.00 \text{ Sin } 75°07'}{\text{Sin } 25°23'}$ or

log. 10.00	= 1.000000
log.sin. 75°07'	= 9.985180
Colog.sin. 25°23'	= 0.367875
log. 22.55	= 1.353055

which added to 66.40 makes 88.95 chs. or

8.95 N. bank of lake bearing S. about 1 chain, SE. 5 chs. and W. about 8 chs. Leave basin, enter spruce timber bearing NW. and SE.

Ascend over rocky mountainous land, abrupt SW. slope.

30.25 Ascend gradually over nearly W. slope.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 19 and 24, marked

Chains

on brass cap

¼ S 24 | S 19

1915

from which.

Balsam 18 ins. dia., bears N.57°30'W.,

51 lks. dist. mkd. ¼ S 24 B T.

Balsam 4 ins. dia., bears N.19°45'E.,

77 lks. dist. mkd. ¼ S 19 B T.

Corner falls on W. slope, 431 ft. above N. bank of lake.

June 17: At this cor. I set off 23°23'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°04'.

64.65 Top of divide ridge bearing W. and SE., 100 ft. above ¼ sec. cor.

Descend abruptly over NE. slope.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 13, 18, 19 and 24, marked on brass cap

T. 20 S.

R 3 E | R 4 E

S 13 | S 18

S 24 | S 19

1915

from which

Spruce 12 ins. dia., bears S.33°45'W.,

115 lks. dist. mkd. T 20 S R 3 E S 24 B T.

Spruce 32 ins. dia., bears S.34°E.,

146 lks. dist. mkd. T 20 S R 4 E S 19 B T.

Spruce 21 ins. dia., bears N.33°E.,

418 lks. dist. mkd. T 20 S R 4 E S 18 B T.

Spruce 20 ins. dia., bears N.35°30'W.,

177 lks. dist. mkd. T 20 S R 3 E S 13 B T.

Corner falls on NE. slope, 209 ft. below top of divide.

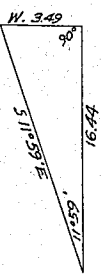
Land mountainous with 64.65 chs. SW. exposure; 15.35 chs. NE. exposure.

Soil black sandy loam with white limestone subsoil.

Timber spruce.

Some good grass for grazing.

Chains	
	North bet. secs. 13 and 18.
	Ascending gradually over rough rolling E. slope of mountain land, through spruce and balsam timber and undergrowth of scattering chaparral.
8.59	Top of ascent, 10 ft. above the cor.
	Descend gradually.
24.18	From this point a lake covering about 30 acres bears about 12 chs. east.
37.04	Bottom of canon. Stream in same 3 lks. wide, 3 ins. deep, course W., 276 ft. below top of ascent.
	Ascend gradually.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 13 and 18, marked on brass cap
	¼ S 13 | S 18
	1915
	from which
	Spruce 5 ins. dia., bears N.5°45'W.,
	23 lks. dist. mkd. ¼ S 13 B T.
	Spruce 26 ins. dia., bears N.34°45'E.,
	55 lks. dist. mkd. ¼ S 18 B T.
	Corner falls on bench, 23 ft. above canyon.
	Ascend abruptly S. slope.
58.23	Top of point, 217 ft. above ¼ sec. cor. projects W.
	Descend abruptly over NW. slope.
62.48	Top of impassable ledges bearing NE. and SW., 62 ft. below top of point, down which I cannot chain. To determine distance I triangulate as follows:
	Set flag on line. From point on line at base of ledges, I measure a base West 3.49 chs., (no longer base obtainable), to a point from which the flag on top of ledges bears S.11°59'E. From flag the west end of base bears N.11°59'W. The distance is therefore 3.49 cot. 11°59' = 3.49 x 4.71137 = 16.44, which added to 62.48 makes 78.92 to flag, point of triangulation.
77.92	Base of ledges bearing NE. and SW. 920 ft. below top of impassable ledges.



Chains	
	Descend gradually over bench through dense spruce timber.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 7, 12, 13 and 18, marked on brass cap

T 20 S
R 3 E | R 4 E
S 12 | S 7
S 13 | S 18
1915

from which

Spruce 14 ins. dia., bears N.57°E.,
31 lks. dist. mkd. T 20 S R 4 E S 7 B T.
Spruce 14 ins. dia., bears S.57°E.,
10 lks. dist. mkd. T 20 S R 4 E S 18 B T.
Spruce 9 ins. dia., bears S.67°W.,
47 lks. dist. mkd. T 20 S R 3 E S 13 B T.
Spruce 20 ins. dia., bears N.33°15'W.,
24 lks. dist. mkd. T 20 S R 3 E S 12 B T.

Land rough mountains with 40.00 chs. E. exposure, 21.77 chs. W. exposure, remainder NW. exposure.

Soil black sandy loam mixed with gravel, 3rd rate.

Timber spruce and balsam.

Undergrowth chaparral and weeds.

Some good grass for grazing.

June 17, 1915.

June 18: At 7h a.m., apparent time, I set off 39°05' on the lat. arc, 23°25'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence

North bet. secs. 7 and 12.

	Over rough mountainous land descending gradually N. slope through dense spruce timber and second growth of pine.
14.04	Swale draining SE.
	Descend.

Chains	
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 7 and 12, marked on brass cap
	¼ S 12 | S 7 1915
	from which
	Spruce 28 ins. dia., bears S.38°E.,
	35 lks. dist. mkd. ¼ S 7 B T.
	Balsam 8 ins. dia., bears S.32°W.,
	43 lks. dist. mkd. ¼ S 12 B T.
	Corner falls on N. slope, 215 ft. below swale.
50.05	Stream, outlet to lake, 10 lks. wide, 4 ins. deep, course W. From this point lake, 5 chs. in diameter, bears E. 2 chs. Enter aspen timber bearing E. and W.
62.48	Stream 10 lks. wide, 3 ins. deep, course W., 159 ft. below ¼ sec. cor.
67.98	Bottom of descent.
	Stream 3 lks. wide, 3 ins. deep, course W.
	Leave pine timber bearing E. and W. and ascend abruptly S. slope to small bench.
	Thence across rolling bench.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 1, 6, 7 and 12, with brass cap marked
	T 20 S R 3 E | R 4 E S 1 | S 6 S 12 | S 7 1915
	from which
	Aspen 9 ins. dia., bears N.33°E.,
	266 lks. dist. mkd. T 20 S R 4 E S 6 B T.
	Aspen 14 ins. dia., bears S.64°30'E.,
	297 lks. dist. mkd. T 20 S R 4 E S 7 B T.
	Aspen 10 ins. dia., bears S.34°45'W.,
	180 lks. dist. mkd. T 20 S R 3 E S 12 B T.
	Aspen 8 ins. dia., bears N.50°45'W.,
	129 lks. dist. mkd. T 20 S R 3 E S 1 B T.

Chains	
	Corner falls on bench, 32 ft. above bottom of descent.
	Land mountainous with 53.93 chs. N. exposure, 14.04 chs. W. exposure and 13.03 chs. S. exposure.
	Soil rich black sandy loam, 2nd rate.
	Timber spruce, balsam and aspen.
	Undergrowth second growth pine.
	Some good grass for grazing.
	North bet. secs. 1 and 6.
	Descending gradually over rolling bench, through aspen timber and undergrowth of grass and weeds.
7.49	Top brink of bench, 145 ft. below sec. cor.
	Descend abruptly NW. slope.
20.55	Stream 3 lks. wide, 4 ins. deep, course NW.
25.25	Creek 8 lks. wide, 6 ins. deep, course W.
29.15	Stream 4 lks. wide, 2 ins. deep, course NW.
32.75	Bottom of canyon. Creek in same 10 lks. wide, 8 ins. deep, course SW., 54 ft. below brink of bench.
	Ascend SE. slope.
35.93	Point of small spur projecting W., 19 ft. above creek.
	Descend gradually over NW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 1 and 6, marked on brass cap
	¼ S.1 | S 6 1915
	from which
	Aspen 12 ins. dia., bears S.82°W., 56½ lks. dist. mkd. ¼ S 1 B T.
	Aspen 8 ins. dia., bears N.84°E., 68 lks. dist. mkd. ¼ S 6 B T.
	Corner falls on rocky W. slope, 20 ft. below point of small spur.
	Ascend gradually.
61.92	Top of bench bearing E. and W., 222 ft. above ¼ sec. cor.
	Thence descend gradually over top of bench.

Chains	
	June 18: At this station I set off 23°25'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°07'.
88.00	Set temp. cor. for secs. 1, 6, 31 and 36, T. 20 S. Rs. 3 and 4 E.
	Corner falls in small flat, 150 ft. below top of bench.
88.18	The cor. of secs. 1, 6, 31 and 36, Tps. 19 and 20 S. Rs. 3 and 4 E., described in notes of S. bdy. T. 19 S. R. 3 E.
	Land mountainous wigh general west exposure.
	Soil black sandy loam, 3rd rate.
	Timber aspen.
	Undergrowth weeds.
	Some good grass for grazing.
	June 18, 1915.

SUBDIVISIONS T. 20 S. R. 3 E.

	Sept. 2: At 2h p.m., apparent time, I set off 39°02' on the lat. arc, 8°06'N. on the decl. arc, and determine a meridian with the solar at the St. cor. of secs. 35 and 36 on the south boundary of the township, heretofore described.
	Thence
	N.0°01'W. bet. secs. 35 and 36.
	Ascending abruptly S. slope of mountainous land, through dense undergrowth of chokecherry brush.
4.00	Leave chokecherry bearing E. and W.
5.32	Top of spur projects SW., 125 ft. above sec. cor.
	Descend gradually over west slope, through scattering pine timber bearing NE. and SW.
8.42	Enter aspen timber bearing E. and W. with undergrowth of weeds and grass.
18.42	Bottom of descent.
	Ascend gradually.
26.80	Top of spur projecting SW.
	Descend abruptly NW. slope.

Chains	
33.32	Bottom of ravine with wash draining SW., 116 ft. above sec. cor.
	Ascend abruptly SE. slope.
37.21	Top of steep ascent, 98 ft. above bottom of ravine.
	Thence over nearly W. slope.
39.00	Leave aspen timber bearing E. and W.
	Thence across open flat sloping W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor., marked on brass cap S 35 | S 36 ¼ 1915
	from which
	Aspen 8 ins. dia., bears S.12°45'W., 121 lks. dist. mkd. ¼ S 35 B T.
	Aspen 9 ins. dia., bears S.39°E., 100 lks. dist. mkd. ¼ S 36 B T.
	Corner falls on nearly W. slope of mountain, 14 ft. above wash.
	From ¼ sec. cor., tallest pine on top of Mary's Nipple bears N.70°26'W.
	Ascend gradually over nearly W. slope.
51.15	Enter aspen and scattering balsam timber bearing E. and W.
61.42	Leave timber bearing E. and W.
	Timber continues 1 chain W. of line.
70.22	Enter aspen timber and scattering pines bearing E. and W.
71.58	Enter dense pine and scattering aspen timber with undergrowth of rose brush.
76.72	Leave timber bearing E. and W., also undergrowth of rose brush.
77.98	Bottom of ravine, course SW., 24 ft. below ¼ sec. cor.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 25, 26, 35 and 36, marked on brass cap T 20 S R 3 E S 26 | S 25 S 35 | S 36 1915

Chains	
	from which
	Aspen 15 ins. dia., bears N.11°30'E.,
	126 lks. dist. mkd. T 20 S R 3 E S 25 B T.
	Aspen 18 ins. dia., bears S.25°45'E.,
	304 lks. dist. mkd. T 20 S R 3 E S 36 B T.
	Balsam 10 ins. dia., bears S.1°45'W.,
	328 lks. dist. mkd. T 20 S R 3 E S 35 B T.
	Aspen 20 ins. dia., bears N.68°W.,
	251 lks. dist. mkd. T 20 S R 3 E S 26 B T.
	Corner falls on S. slope of swale, 14 ft. above bottom of ravine.
	From the cor. a tree on Mary's Nipple bears N.81°50'W.
	Land rolling mountains with W. exposure and SW. drainage.
	Soil light, mountain loam mixed with gravel and rock and subsoil of moist, sticky clay loam, mixed with gravel and rocks.
	Timber pine, aspen and balsam.
	Undergrowth chokecherry, rose brush and weeds.
	Some good grass for grazing.
	Storming all p.m.
	Sept. 2, 1915.
	Sept. 4: At 9h a.m., apparent time, I set off 39°03' on the lat. arc, 7°26'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.
	Thence
	S.89°54'E. on random line bet. secs. 25 and 36.
40.00	Set temp. ¼ sec. cor.
80.20	Intersect N. and S. line 14 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	Thence
	West on true line bet. secs. 25 and 36.
	Ascending over practically level ground on top of ridge, in berry brush.
1.63	Begin abrupt descent, bearing N. and S.

Chains	
8.48	Bottom of abrupt descent bearing N. and S.
	Descend more gradually.
18.41	Top of steep descent, leaving berry brush undergrowth and entering aspen and pine timber. Edge of cliffs.
31.55	Leave cliffs.
	Thence along N. edge of broken limestone ledges.
34.99	Leave young aspen and pine timber.
38.30	Wash course SW. and base of steep descent.
	Thence over bench gradually descending.
40.10	On small bench 631 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked on brass cap
	S 25 / $\frac{1}{4}$ / S 36 / 1915
	from which
	Aspen 11 ins. dia., bears S.78°E., 255 lks. dist. mkd. $\frac{1}{4}$ S 36 B T.
	and raise a mound of stone 2 ft. base, 2 ft. high N. of cor.
49.42	Stream, small, 2 lks. wide, 1 in. deep, course S.
50.10	Top of abrupt descent from bench bearing N. and S.
	Enter aspen timber bearing N. and S.
57.06	Leave aspen timber bearing N. and S.
	Descend abruptly over SW. slope of mountainous land, to
80.20	The corner of secs. 25, 30, 31 and 36, 322 ft. below $\frac{1}{4}$ sec. cor.
	Land rolling mountains with W. exposure and SW. drainage.
	Soil light mountain loam mixed with gravel and rocks; subsoil moist; sticky clay loam mixed with gravel and rocks.
	Timber pine and aspen.
	Undergrowth weeds and berry brushes.
	Some good grass for grazing.
	Sept. 4: Sky overcast at noon, latitude observation

Chains

impossible.

N.0°01'W. bet. secs. 25 and 26.

Ascending abruptly SW. slope of mountainous land, through undergrowth of weeds and grass.

2.56 Top of steep ascent. Enter aspen timber bearing E. and W. Continue over nearly W. slope.

9.22 Enter dense pine and scattering aspen timber bearing E. and W.

22.10 Base of ravine, course W., 30 ft. below sec. cor. Leave timber.

24.59 Enter aspen timber and scattering pine timber bearing E. and W.

39.11 Descend abruptly N. slope. Leave aspen timber bearing E. and W. and enter dense pine timber.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor., marked on brass cap

S ¼ 26 | S 25

1915

from which

Balsam 12 ins. dia., bears S.41°30'E., 20 lks. dist. mkd. ¼ S 25 B.T.

Balsam 8 ins. dia., bears N.53°15'W., 19 lks. dist. mkd. ¼ S 26 B.T.

Corner falls on N. slope of ravine, 84 ft. below sec. cor. Continue gradual descent N. slope.

46.75 Wash 8 lks. wide, course W.

Base of ravine bearing E. and W., 55 ft. below ¼ sec. cor. Ascend abruptly leaving dense pine and entering aspen and scattering pine timber.

58.30 Top of ascent, 150 ft. above ravine, bearing E. and W. Descend gradually over nearly W. slope through aspen timber and scattering pine timber and undergrowth of weeds and grass.

62.12 Base of ravine course SW.

Chains

Ascend abruptly S. slope.

72.52 Top of abrupt ascent.

Continue over nearly W. slope.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 23, 24, 25 and 26, marked on brass cap

T 20 S R 3 E
S 23 | S 24
S 26 | S 25
1915

from which

Aspen 8 ins. dia., bears N.29°E.,
47 lks. dist. mkd. T 20 S R 3 E S 24 B T.
Aspen 10 ins. dia., bears S.40°E.,
30 lks. dist. mkd. T 20 S R 3 E S 25 B T.
Aspen 10 ins. dia., bears S.71°30'W.,
38 lks. dist. mkd. T 20 S R 3 E S 26 B T.
Aspen 9 ins. dia., bears N.8°W.,
53 lks. dist. mkd. T 20 S R 3 E S 23 B T.

Corner falls on nearly W. slope of mountain, 109 ft. above base of ravine.

Land rolling mountains.

Soil light mountain loam mixed with gravel and rocks; subsoil moist clay mixed with gravel and rocks.

Timber aspen and pine.

Undergrowth weeds, with some grass.

Sept. 4, 1915.

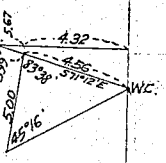
Howard W. Meier
U.S. Surveyor.

Sept. 7: At 8h a.m., apparent time, I set off 39°04' on the lat. arc, 6°20'S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26.

Thence

East on random line bet. secs. 24 and 25.

Chains	
40.00	Set temp. $\frac{1}{4}$ sec. cor.
70.40	From this point WC to secs. 19, 24, 25 and 30 on E. bdy. of Tp. bears S.71°12'E.
	Thence S.71°12'E. and at 76.39 chs. or easting of 76.07 chs., set point for triangulation on W. edge of lake bearing N. and S., with telescope directed to WC. Turn angle to the right 83°38' and measure a base 5 chs. to a point whence angle between point at north end of base and witness corner measures 45°16'.



log. 5.00 = 0.698970
colog. sin. 51°06' = 0.108885
log. sin. 45°16' = 9.851497 = 4.56 chs.
0.659352

or an easting of 4.32 chs., which added to 76.07 chs. = 80.39 chs.

The falling computed on true random line from 70.40 chs. point equals

80.39	Intersect E. bdy. of Tp. 3.40 chs. north of witness corner or 6 lks. north of true point for corner of secs. 19, 24, 25 and 30.
	Thence from true cor. point N.89°58'W. on true line bet. secs. 24 and 25.
	Across lake.
4.32	Point of triangulation and W. edge of lake bearing N. and S.
11.58	Top of spur projecting SE.
	Descend.
16.08	Bottom of steep descent.
	Thence over S. slope, leaving pine timber.
26.88	Small spur projecting S.
	Thence descend over SW. slope.
39.12	Descend over steep slide rock SW. slope through scattering pine timber and undergrowth of wild currant bushes.
40.19½	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. mkd. on brass cap

S 24
$\frac{1}{4}$
S 25
1915

Chains	
	from which
	Pine 16 ins. dia., bears S.29°E.,
	92 lks. dist. mkd. ¼ S 25 B T.
	Pine 24 ins. dia., bears N.82°E.,
	100 lks. dist. mkd. ¼ S 24 B T.
	Corner falls on nearly W. slope of mountain, 296 ft. below top of spur.
	Descend nearly W. slope of mountain.
63.51	Head of spring course SW. Also base of small swale.
72.09	Enter timber bearing N. and S.
	Thence descend through aspen timber to
80.39	The cor; of secs. 19, 24, 25 and 30.
	Land mountainous with 68.81 chs. S. and W. exposure and 11.58 chs. E. exposure.
	Soil light mountain loam mixed with gravel and rocks; sticky gravel subsoil.
	Timber aspen and pine;
	Undergrowth wild currant bushes and weeds.
	Some good grass for grazing.
	N.0°01'W. bet. secs. 23 and 24.
	Over nearly W. slope of rolling mountainous land, through aspen timber and undergrowth of weeds and grass.
24.70	Enter scattering pine timber bearing E. and W.
38.55	Base of ravine; course SW., 130 ft. below sec. cor; Ascend gradually S. slope; leaving scattering pine timber.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. of secs. 23 and 24, marked on brass cap
	S ¼ 23 | S 24
	1915
	from which
	Aspen 12 ins. dia., bears N.50°E.,
	95 lks. dist. mkd. ¼ S 24 B T.

Chains	
	Aspen 14 ins. dia., bears N.60°W.,
	111 lks. dist. mkd. ¼ S 23 B T.
	Corner falls on S. slope, 14 ft. above base of ravine in center of small opening about 2 chs. wide.
	Sept. 7: At this cor. I set off 6°16'N. on the decl. arc, and at apparent noon observe the sun on the meridian; the resulting lat. is 39°04'.
	Ascend.
42.66	Top of S. slope; continue over nearly SW. slope.
58.03	Enter scattering pine timber.
75.91	Enter dense pine timber bearing E. and W. with some scattering aspens.
78.21	Beginning of abrupt descent of N. slope.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 13, 14, 23 and 24, marked on brass cap

T 20 S R 3 E
S 14 | S 13
S 23 | S 24
1915

from which

Pine 16 ins. dia., bears N.18°E.,
9 lks. dist. mkd. T 20 S R 3 E S 13 B T.
Pine 12 ins. dia., bears S.62°E.,
34 lks. dist. mkd. T 20 S R 3 E S 24 B T.
Pine 24 ins. dia., bears S.12°W.,
50 lks. dist. mkd. T 20 S R 3 E S 23 B T.
Pine 20 ins. dia., bears N.60°W.,
51 lks. dist. mkd. T 20 S R 3 E S 14 B T.

Corner falls on steep N. slope, 135 ft. above ¼ sec. cor.

Land rolling mountains with west exposure.

Soil dark mountain loam mixed with rocks; subsoil moist sticky clay mixed with rocks.

Timber aspen and pine.

Undergrowth weeds.

Good grass for grazing.

September 7, 1915.

Chains	
	Isaac Hayes U.S.Transitman.
	Sept. 8: At 8h a.m., apparent time, I set off 39°05' on the lat. arc, 5°58'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.
	Thence
	S.89°58'E. on random line bet. secs. 13 and 24.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.12	Intersect N. and S. line 5 lks. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence
	S.89°56'W. on true line bet. secs. 13 and 24.
	Over rough mountainous land, through pine timber.
	Ascend.
3.91	Base of slack rock ledges.
	Ascend abruptly.
7.96	Perpendicular rock ledges about 50 ft. high bearing N. and S.
8.10	Foot of very steep ascent. Enter undergrowth of weeds and grass.
10.55	Bench 1 ch. wide, bearing N. and S. Enter slack rock.
	Ascend abruptly E. slope.
12.08	Top of slack rock divide ridge bearing N. and S., 441 ft. above base of ledges.
	Descend more gradually over boulders.
17.51	Top of perpendicular rock ledges bearing N. and S.
	Descend abruptly.
19.47	Bottom of abrupt descent.
	Enter undergrowth of currant berry bushes.
	Thence across bench.
23.27	West edge of boulder strewn bench, 380 lks. wide, bearing N. and S. Descend over ledges.

Chains	
28.89	End of broken ledges bearing N. and S.
37.22	Leave pine timber bearing NW. and SW.
	Descend.
40.06	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. marked on brass cap

$$\frac{S\ \frac{1}{4}\ 13}{S\ 24}$$
1915

from which

Balsam 12 ins. dia., bears N.39°15'E., 261 lks. dist. mkd. ¼ S 13 B T.

Balsam 14 ins. dia., bears S.41°E., 267 lks. dist. mkd. ¼ S 24 B T.

Corner falls on nearly W. slope, 522 ft. below divide.

51.01	Road bears N. and S. Leave dense currant berry bushes; pine timber 5 chs. N. and 7 chs. S. of line.
70.18	Enter pine timber bearing NE. and SW.
	Thence continue descent to
80.12	The cor. of secs. 13, 18, 19 and 24, 570 ft. below ¼ sec. cor.

Land W. half rolling and E. half rough mountainous.

Soil light gravelly and rocky; subsoil sticky clay.

Timber pine.

Undergrowth currant berry brush and weeds.

Some good grass for grazing.

Sept. 8, 1915,

Howard W Meier

U.S. Surveyor.

Sept. 8: At 9h a.m., apparent time, I set off 39°05' on the lat. arc, 5°57'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.

Thence

N.0°01'W. bet. secs. 13 and 14.

Chains	
	Descending over mountainous land through dense pine and fir timber and undergrowth of weeds and grass bearing E. and W.
2.05	Leave pine and fir timber bearing E. and W.
2.55	Small wash in ravine, 3 ft. wide, 2 ins. deep, course W. 26 ft. below sec. cor. Enter dense aspen timber bearing E. and W.
	Ascending gradual SW. slope.
9.18	Top of ascent, 102 ft. above ravine.
	Thence along gradual W. slope.
15.58	Descend gradually NW. slope.
23.60	Leave aspen timber bearing E. and W.
31.31	Road bearing SE. and NW., 121 ft. below descent.
	Swale drains SW.
	Ascend gradually rocky SE. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 13 and 14, marked on brass cap
	¼ S 14 | S 13 1915
	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Corner falls on gradual S. slope, 141 ft. above swale.
43.66	Top of ascent, 35 ft. above ¼ sec. cor.
	Thence over rolling mountainous land with gentle W. exposure.
66.62	Descend gradually N. slope.
77.06	Swale draining NW., 95 ft. below descent.
	Thence over gentle SW. slope.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for the cor. of secs. 11, 12, 13 and 14, marked on brass cap
	T 20 S R 3 E S 11 | S 12 S 14 | S 13 1915
	from which

Series

Aspen 10 ins. dia., bears N.60°30'E.,
126 lks. dist. mkd. T 20 S R 3 E S 12 B T.
Fir 7 ins. dia., bears S.84°30'E.,
147 lks. dist. mkd. T 20 S R 3 E S 13 B T.
Aspen 16 ins. dia., bears S.75°W.,
55 lks. dist. mkd. T 20 S R 3 E S 14 B T.
Aspen 10 ins. dia., bears N.29°30'W.,
96 lks. dist. mkd. T 20 S R 3 E S 11 B T.

Corner falls on gentle SW. slope on S. edge of aspen grove and about 2 chs. W. of brink of abrupt E. slope.

Land rolling mountain with general SW. drainage.

Soil rich, black loam mixed with gravel; subsoil rocky black loam.

Timber pine, fir and aspen.

Undergrowth weeds.

Good grass for grazing.

Sept. 5: At this cor. I set off 5°54'N. on the decl. arc, and at apparent noon observe the sun on the meridian; the resulting lat. is 39°05'.

S.79°16'E. on random line bet. secs. 12 and 13.

40.00 Set temp. ¼ sec. cor.

50.16 Intersect N. and S. line 2 lks. N. of the cor. of secs. 7, 12, 13 and 18, heretofore described.

Thence

N.72°21'W. on true line bet. secs. 12 and 13.

Over rough mountainous land through pine timber and chaparral undergrowth.

Descend abrupt NW. slope of mountain and land slides.

12.00 Break water line bears north of line about 3 chs. covering one acre.

12.51 Edge of steep descent, 427 ft. below sec. cor., bears N. and W.

Thence over bench, leaving undergrowth of chaparral.

14.21 Edge bearing north of line about 25 chs., covering about 3 acres. Thence over slide, descending abruptly.

Chains	
30.46	Enter willow and chaparral undergrowth bearing N. and S. Pine timber becomes more dense.
	Base of abrupt descent. Descend more gradually in bottom of large basin draining N.
34.29	Enter aspen timber bearing N. and S. and leave willow undergrowth bearing N. and S.
40.09½	Set an iron post 3 ft. long, 1 in. in dia., 10 ins. in the ground and 16 ins. in mound of stone for the ¼ sec. cor., marked on brass cap S 12 ¼ S 13 1915 from which Fir 36 ins. dia., bears N.51°E., 54 lks. dist. mkd. ¼ S 12 B T. Fir 10 ins. dia., bears south, 5 lks. dist. mkd. ¼ S 13 B T. Corner falls in dense pine and aspen timber.
44.45	Stream 2 lks. wide, 2 to 4 ins. deep, course N.
45.95	Stream 10 lks. wide, 3 to 4 ins. deep, course N.
	Ascend.
55.74	End of spur projecting N. Descend abruptly NW. slope.
57.42	Bottom of descent bearing N. and S.
	Ascend from head of canyon precipitous E. and NE. slopes over series of broken ledges, through dense timber bearing N. and S.
66.19	Leave aspen bearing N. and S. Spring 4 lks. wide, 3 to 4 ins. deep, at base of ledge, course N. for two chains thence NE.
76.15	Broken conglomerate ledge about 75 ft. high, bears SE. and NW.
78.19	Top of abrupt ascent and edge of mountain, 560 ft. above ascent, bears N. and S.
	Leave pine and fir, enter aspen timber bearing N. and S. Gradually descend.

Chains

80.19 The cor. of secs. 11, 12, 13 and 14.

Land rough mountains with W. and SW. drainage for 2 chs. thence general exposure and drainage N.

Soil rich, black rocky loam mixed with sand; subsoil rocky black loam.

Timber pine, fir and aspen.

Undergrowth sunberry, deer brush and weeds.

Good grass for grazing.

Sept. 8, 1915,

Isaac Hayes

U.S.Transitman.

Sept. 16: At 8h a.m., apparent time, I set off 39°05' on the lat. arc, 2°56'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14.

Thence

N.0°01'W. bet. secs. 11 and 12.

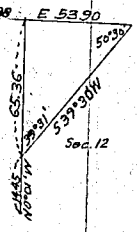
Ascending gradually over rolling mountainous land, through aspen timber and undergrowth of weeds and grass.

6.87 Enter scattering pine timber.

Line falls 50 lks. W. of ledge and edge of mountain top.

8.96 Top of ascent, edge of mountain bearing NW. and SE., 55 ft. above sec. cor. Begin very steep descent of NE. slope over perpendicular ledges. Leave aspen timber, enter dense pine timber bearing NW. and SE.

14.45 Edge of perpendicular ledge of rock; impossible to chain. Point of triangulation, set flag. Thence set flag on line to the north. From temporary ¼ sec. cor. between secs. 2 and 11, run east and at 39.88 chs. intersect line projected N.0°01'W. from point at 14.45 chs. between secs. 11 and 12. Set temp. point for sec. cor. Thence run east between secs. 1 and 12 to 53.90 ch. point, whence flag at 14.45 ch. point bears S.39°30'W. Therefore distance on line = $\frac{53.90 \times \text{Sin } 50°30'}{\text{Sin } 39°31'}$ or



Chains

log. sin 50°30'	=	9.857406
log. 53.90	=	1.731589
colog. sin 39°31'	=	0.196336
		1.815331

equals 65.36, which added to 14.45 = 79.81 to temporary sec. cor.

From 14.45 ch. point, I continue N.0°01'W. with approximate topography to 44.90 chs.

Descend precipitous break of mountain ledges, 100 to 200 ft. high.

40.00 Point for ¼ sec. cor. falls on broken limestone ledges, and cannot be set.

44.90 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for WC ¼ of sec. 11 and 12, marked on brass cap

T 20 S R 3 E
S 11 | S 12
W C ¼
1915

from which

Pine 10 ins. dia., bears S.74°45'E.,
62 lks. dist. mkd. WC ¼ S 12 B T.
Balsam 6 ins. dia., bears N.67°45'W.,
89 lks. dist. mkd. WC ¼ S 11 B T.

Corner falls about 1000 ft. below top of mountain.

Continue steep descent over NE. slope of ledges and slide rocks.

48.71 Bottom of steep descent. Leave pine and enter aspen timber bearing E. and W.

55.69 Leave aspen timber bearing E. and W. and enter pine timber. Begin abrupt descent of N. slope.

58.05 Bottom of abrupt descent. Enter willow undergrowth.

58.14 Stream 3 lks. wide, 4 ins. deep, course NW.

60.14 Stream, spur from main stream, 1 lk. wide, 1 in. deep, course NW.

60.64 Leave willow undergrowth and pine and enter dense aspen timber bearing E. and W.

63.83 Log cabin, 1 chain west of line, partly destroyed.

68.09 Stream 2 lks. wide, 2 ins. deep, course NW.

Chains	
68.40	Site of old saw mill, 150 lks. W. of line.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, 19 lks. N. of temp. point, for the cor. of secs. 1, 2, 11 and 12, marked on brass cap T 20 S R 3 E S 2 | S 1 S 11 | S 12 1915 from which Pine 10 ins. dia., bears N.37°45'E., 60 lks. dist. mkd. T 20 S R 3 E S 1 B T. Aspen 5 ins. dia., bears S.52°15'E., 44 lks. dist. mkd. T 20 S R 3 E S 12 B T. Aspen 4 ins. dia., bears S.53°W., 31 lks. dist. mkd. T 20 S R 3 E S 11 B T. Pine 10 ins. dia., bears N.33°15'W., 66 lks. dist. mkd. T 20 S R 3 E S 2 B T. Corner falls on NW. slope 380 ft. below ¼ sec. cor. at junction of streams, from SE. and W., course NE. Land mountainous draining NW. Soil rich black rocky loam. Timber pine and aspen. Undergrowth willows and weeds. Some good grass for grazing.
	S.89°55'E. on random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
80.30	Intersect N. and S. line 2 lks. S. of the cor. of secs. 1, 6, 7 and 12, heretofore described.
	Thence
	N.89°56'W. on true line bet. secs. 1 and 12. Descending gently through dense aspen and scattering pine timber, over mountainous land sloping SW.
9.68	Top of steep descent, bearing N. and S.
	Descend abruptly W. slope.

Chains	
16.77	Thence descend over nearly NW. slope.
23.23	West edge of bench bears N. and S.
	Descend NW. slope.
33.29	Stream 4 lks. wide, 2 ins. deep, course NW.
	Descend gradually over NW. slope.
40.15	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 1 and 12, marked on brass cap
	S 1 / ¼ / S 12 / 1915
	from which
	Spruce 14 ins. dia., bears N.60°15'E., 31 lks. dist. mkd. ¼ S 1 B T.
	Aspen 8 ins. dia., bears S.7°45'W., 16 lks. dist. mkd. ¼ S 12 B T.
	Corner falls on NW. slope, 485 ft. below sec. cor.
	Descend nearly W. slope.
44.56	Thence descend nearly N. slope, leaving dense aspen timber.
46.18	Leave scattering pine timber bearing N. and S.
48.78	Descend over nearly W. slope.
52.03	Small stream 2 lks. wide, 1½ ins. deep, course NW.
58.04	Small stream 1 lk. wide, 1½ ins. deep, course NW.
	Enter dense willow undergrowth.
62.44	Small wash in ravine, draining N.
	Thence over nearly N. slope through dense aspen timber.
63.34	Leave dense willow undergrowth bearing N. and S.
79.42	Stream 5 lks. wide, 3 ins. deep, course NW.
	Thence descend gradually over nearly N. slope to
80.30	The cor. of secs. 1, 2, 11 and 12, 306 ft. below ¼ sec. cor.
	Land mountainous draining NW.
	Soil rich black loam.
	Timber scattering pine and dense aspen.
	Undergrowth dense willow.
	Sept. 16, 1915.

Chains	
	Sept. 17: At 8h 30m a.m., apparent time, I set off 39° 06' on the lat. arc, 2°32'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12.
	Thence
	N.0°01'W. on random line bet. secs. 1 and 2.
40.00	Set temp. ¼ sec. cor.
88.21	Intersect N. bdy. of Tp. 52 lks. W. of the cor. of secs. 1, 2, 35 and 36, heretofore described.
	Thence
	S.0°19'W. on true line bet. secs. 1 and 2. Descending over mountainous land through dense choke cherry brush and aspen timber.
10.72	Leave dense choke cherry, enter oak brush, bears E. and W.
12.68	Begin steep descent; leave oak and dense choke cherry brush undergrowth bearing E. and W.
15.02	Enter pine and leave aspen timber and undergrowth of weeds and grass.
16.81	Enter willow undergrowth and aspen timber; leave pine timber bearing E. and W.
18.09	Leave willow undergrowth bearing E. and W. Begin steep descent of SW. slope.
18.69	Bottom of steep descent, bearing NW. and SE.
19.56	Enter willow undergrowth bearing E. and W.
20.56	Leave willow undergrowth bearing E. and W.
22.45	Enter dense willows bearing E. and W. Descend gradually SW. slope.
24.75	Stream 1 lk. wide, 1½ ins. deep, course from S. to NW. Thence along stream.
26.50	Junction of small streams, 3 lks. wide, 2 ins. deep, with N. and NW. courses.
33.08	Old wagon road bearing NW. and SE. (Not in use)
36.26	Leave dense willow undergrowth, enter dense chokecherry.
38.79	Stream 1 lk. wide, 1 in. deep, course W. Descend SW. slope.
39.55	Descend gradually over SW. slope.
43.42	Leave dense chokecherry undergrowth.

Chains	
45.42	Stream 25 lks. wide, 8 ins. deep, course NW. Ascend NE. slope.
47.62	Thence over NW. slope, ascending gradually.
48.21	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor., marked on brass cap S ¼ 2 | S 1 1915 from which Aspen 12 ins. dia., bears N.52°E., 7 lks. dist. mkd. ¼ S 1 B T. Aspen 8 ins. dia., bears S.57°W., 39 lks. dist. mkd. ¼ S 2 B T. Corner falls on NW. slope.
54.85	Enter chaparral undergrowth.
56.35	Leave dense aspen timber and chaparral undergrowth, enter pine timber bearing E. and W.
	Wash 12 lks. wide, 14 ins. deep, course NW., 34 ft. above ¼ sec. cor.
	Begin abrupt ascent NE. slope.
59.93	Leave pine timber, enter dense aspen and chokecherry undergrowth bearing E. and W.
65.69	Leave chokecherry undergrowth bearing E. and W.
73.24	Leave chaparral undergrowth bearing E. and W.
81.74	Small old sheep corral, 50 lks. long, 75 lks. wide on line.
87.52	Stream 6 lks. wide, 2 ins. deep, course NW. Thence ascend gradually to
88.21	The cor. of secs. 1, 2, 11 and 12.
	Corner falls 299 ft. above wash.
	Land mountainous draining W.
	Soil rich, black mountain loam, mixed with gravel and rocks.
	Timber scattering oak, aspen and dense pine.
	Undergrowth chokecherry, willow and chaparral.
	Some grass for grazing.
	Sept. 17, 1915.

Chains	
	Howard W Keller U.S. Surveyor.
	Sept. 2: At 9h a.m., apparent time, I set off 39°02' on the lat. arc, 8°10'N. on the decl. arc, and determine a meridian with the solar at the St. cor. of secs. 34 and 35 on the S. bdy. of the Tp.
	Thence
	N.0°01'W. bet. secs. 34 and 35.
	Ascending over rolling mountainous land draining SE., through dense aspen timber and undergrowth of weeds, grass and scattering chokecherry.
12.45	Leave dense aspen timber bearing E. and W. and enter grassy slope.
20.51	Enter aspen timber bearing E. and W., leaving grassy slope.
34.38	Leave aspen timber bearing E. and W.
36.41	Enter aspen timber bearing E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 34 and 35, marked on brass cap S ¼ 34 | S 35 1915 from which Aspen 8 ins. dia., bears N.25°E., 44 lks. dist. mkd. ¼ S 35 B T. Aspen 8 ins. dia., bears N.15°W., 32 lks. dist. mkd. ¼ S 34 B T. Corner falls on SE. slope, 159 ft. above sec. cor. Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 26, 27, 34 and 35, marked on brass cap T 20 S R 3 E S 27 | S 26 S 34 | S 35 1915

Chains	
	from which
	Aspen 10 ins. dia., bears N.79°E.,
	125 lks. dist. mkd. T 20 S R 3 E S 26 B T.
	Aspen 12 ins. dia., bears S.51°15'E.,
	124 lks. dist. mkd. T 20 S R 3 E S 30 B T.
	Aspen 14 ins. dia., bears S.48°15'W.,
	238 lks. dist. mkd. T 20 S R 3 E S 34 B T.
	Aspen 12 ins. dia., bears N.17°30'W.,
	127 lks. dist. mkd. T 20 S R 3 E S 27 B T.
	Land rolling mountains with general SE. exposure.
	Soil black, sandy mountain loam mixed with rock and gravel.
	Timber aspen.
	Undergrowth scattering chokecherry brush and weeds.
	Some good grass for grazing.
	Storming at noon; observation for latitude impossible.
	N.89°52'E. on random line bet. secs. 26 and 35.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.99	Intersect N. and S. line 19 lks. N. of the cor. of secs. 25, 26, 35 and 36.
	Thence
	West on true line bet. secs. 26 and 35.
	Over grassy SW. slope of mountainous land, descending.
32.16	Leave grassy slope and enter aspen timber bearing N. and S.
39.99½	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked on brass cap
	S 26 $\frac{1}{4}$ S 35 1915
	from which
	Aspen 18 ins. dia., bears N.60°E.,
	24 lks. dist. mkd. $\frac{1}{4}$ S 26 B T.
	Aspen 10 ins. dia., bears S.3°E.,
	54 lks. dist. mkd. $\frac{1}{4}$ S 35 B T.

Chains

Corner falls on SW. slope, 376 ft. below sec. cor.

Descend abruptly over SW. slope.

45.29 Bottom of abrupt descent. Enter dense balsam timber bearing N. and S.

Head waters of Salina Creek 8 lks. wide, 7 ins. deep, cours SE., 69 ft. below $\frac{1}{4}$ sec. cor.

Ascend general E. slope of mountain.

50.44 Leave dense balsam timber bearing N. and S.

Thence ascend gradually to

79.99 The cor. of secs. 26, 27, 34 and 35, 318 ft. above creek.

Land mountainous with general E. and W. slopes into canyon draining S.

Soil rocky mountainous loam.

Timber aspen and balsam.

Undergrowth weeds.

Good grass for grazing.

Sept. 2, 1915.

Sept. 4: At 9h a.m., apparent time, I set off 39°03' on the lat. arc, 7°26'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 26, 27, 34 and 35.

Thence

N.0°01'W. bet. secs. 26 and 27.

Over rolling mountainous land through aspen timber and undergrowth of grass and blackheads along west side of Gunnison Valley.

34.87 Leave aspen timber bearing NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 26 and 27, marked on brass cap

S $\frac{27}{1}$ | S 26

1915

from which

Aspen 10 ins. dia., bears S.28°15'E.,

Chains	
	·175 lks. dist. mkd. ¼·S 26 B T.
	Aspen 8 ins. dia., bears N.5°W.,
	336·lks. dist. mkd. ¼ S 27 B T.
43.30	Enter aspen timber bearing E. and W.
45.40	Leave aspen timber bearing E. and W.
63.00	Small clump of aspen, 2 chains wide.
72.94	Descend gradually through aspen timber bearing E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 26 ins. in the ground for the cor. of secs. 22, 23, 26 and 27, marked on brass cap

T 20 S R 3 E
S 22 | S 23
S 27 | S 26
1915

from which

Aspen 10 ins. dia., bears N.61°30'E.,
93 lks. dist. mkd. T 20 S R 3 E S 23 B T.
Aspen 8 ins. dia., bears S.16°E.,
96 lks. dist. mkd. T 20 S R 3 E S 26 B T.
Aspen 9 ins. dia., bears S.77°30'W.,
87 lks. dist. mkd. T 20 S R 3 E S 27 B T.
Aspen 8 ins. dia., bears N.20°30'W.,
87 lks. dist. mkd. T 20 S R 3 E S 22 B T.

Corner falls on SE. slope.

Land moundintainous with general E. exposure and drainage.

Soil black loam mixed with gravel.

Timber aspen.

Good grass for grazing.

	East on random line bet. secs. 23 and 26.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line 16 lks. S. of the cor. of secs. 23, 24, 25 and 26.

Sept. 4: Cloudy at noon; no lat. observation taken.

Thence

S.89°53'W. on true line bet. secs. 23 and 26.

Over mountainous land through aspen timber and under-

Chains

growth of weeds. Descend gradually W. slope of mountain.

14.39 Leave aspen timber bearing N. and S.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 23 and 26, marked on brass cap

S 23
$\frac{1}{4}$
S 26
1915

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

Corner falls on nearly W. slope of mountain, 329 ft. below sec. cor. Old sheep corral 132 lks. S. of line.

45.89 Wash, 4 lks. wide, 2 ft. deep, drains S. in bottom of Gunnison Valley.

Small group of pines on line.

Thence ascend over nearly E. slope through weeds.

73.42 Enter aspen timber bearing N. and S.

80.00 The cor. of secs. 22, 23, 26 and 27, 261 ft. above wash.

Land rolling mountains sloping E. and W. to wash draining S.

Soil light, mountain loam mixed with gravel and rocks; subsoil moist clay loam mixed with rocks.

Timber pine and aspen.

Undergrowth weeds.

Some good grass for grazing.

N.0°01'W. bet. secs. 22 and 23.

Over rolling mountainous land, ascending gradually E. slope of Gunnison Valley through dense aspen timber and undergrowth of weeds.

16.53 Top of ascent, 90 ft. above sec. cor.

Descend gradually W. slope through scattering aspen timber.

36.92 Bottom of descent.

Thence ascend gradually over SE. slope.

Chains	
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 22 and 23, marked on brass cap S ¼ 22 | S 23 1915 from which Aspen 10 ins. dia., bears S.34°E., 41 lks. dist. mkd. ¼ S 23 B T. Aspen 16 ins. dia., bears N.24°15'W., 74 lks. dist. mkd. ¼ S 22 B T. Corner falls on SE. slope, 6 ft. above bottom of descent.
44.58	Leave aspen timber bearing E. and W.
60.53	Stream, 10 lks. wide, 8 ins. deep, drains SE.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 14, 15, 22 and 23, marked on brass cap T 20 S R 3 E S 15 | S 14 S 22 | S 23 1915 and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Land gently rolling with general drainage S.
	Soil light, sandy loam and gravel; subsoil hard pan and gravel.
	Timber aspen.
	Undergrowth weeds.
	Good grass for grazing.
	Sept. 4, 1915.

	Sept. 7:
	N.89°53'E. on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
79.99	Intersect N. and S. line 5 lks. S. of the cor. of secs. 13, 14, 23 and 24.

Chains	
	Thence
	S.89°51'W. on true line bet. secs. 14 and 23.
	Descending gradually over N. slope of rolling mountain through dense pine and balsam timber and undergrowth of weeds and grass.
8.38	Leave timber bearing N. and S.
13.81	Base of swale, course SW. Descend SW. slope.
14.31	Enter aspen timber bearing N. and S.
15.31	Leave aspen timber bearing N. and S.
31.57	Enter aspen timber bearing N. and S.
34.37	W. edge of bench bearing N. and S.
38.22	Leave timber bearing N. and S.
39.99½	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. 14 and 23, marked on brass cap
	S 14 ¼ S 23 1915
	from which
	Aspen 10 ins. dia., bears N.77°E., 173 lks. dist. mkd. ¼ S 14 B T.
	Aspen 8 ins. dia., bears S.83°30'E., 183 lks. dist. mkd. ¼ S 23 B T.
	Corner falls on NE. slope, 284 ft. below sec. cor.
	Descend gradually.
56.01	Top of abrupt descent bearing N. and S.
59.67	Wash 5 lks. wide, 1 ft. deep, course S. in bottom of Gunnison Valley, 45 ft. below ¼ sec. cor.
	Thence ascend E. slope near head of Gunnison Valley and Salina Creek.
71.07	Road bearing N. and S.
79.99	The cor. of secs. 14, 15, 22 and 23.
	Land rolling mountains with E. and W. slopes to wash draining S.
	Soil light mountain loam mixed with gravel; subsoil light, moist, sticky clay mixed with gravel and rock.

Chains	
	Timber pine and balsam.
	Undergrowth weeds.
	Good grass for grazing.
	Sept. 7, 1915.

	Sept. 9: At 8h a.m., apparent time, I set off 39°05' on the lat. arc, 5°36'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 14, 15, 22 and 23.
	Thence
	N.0°01'W. bet. secs. 14 and 15.
	Over rolling mountainous land through undergrowth of weeds and grass, E. slope.
1.30	Enter dense timber bearing E. and W.
19.68	Enter scattering pine timber bearing E. and W.
26.97	Leave timber bearing NW. and SE. Timber continues 2 chs. W. of line on nearly N. slope.
	Thence on nearly N. slope.
34.46	Enter dense aspen and scattering pine timber bearing E. and W. Descend gradually NW. slope.
37.76	Beginning of abrupt descent over NW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 14 and 15, marked on brass cap

S 15 ¼ | S 14

1915

from which

Pine 14 ins. dia., bears S.18°E.,

49 lks. dist. mkd. ¼ S 14 B T.

Aspen 8 ins. dia., bears N.37°30'W.,

118 lks. dist. mkd. ¼ S 15 B T.

Corner falls on nearly W. slope, 36 ft. below sec. cor.

Small bench 75 lks. W., bears NE.

Descend gradually NW. slope.

46.47	Base of descent. Ascend gradually SW. slope.

Chains

48.27 Road bearing NE. and SW.

Begin descent over W. slope of mountain near N. end of Gunnison Valley.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 10, 11, 14 and 15, marked on brass cap

T 20 S R 3 E
S 10 | S 11
S 15 | S 14
1915

from which

Balsam 8 ins. dia., bears N.65°45'E.,
37 lks. dist. mkd. T 20 S R 3 E S 11 B T.
Balsam 9 ins. dia., bears S.4°E.,
64 lks. dist. mkd. T 20 S R 3 E S 14 B T.
Balsam 16 ins. dia., bears S.42°W.,
125 lks. dist. mkd. T 20 S R 3 E S 15 B T.
Balsam 8 ins. dia., bears N.66°30'W.,
69 lks. dist. mkd. T 20 S R 3 E S 10 B T.

Land rolling mountains with E. and W. exposure.
Soil light, mountainous loam mixed with gravel and rocks; subsoil moist, sticky clay mixed with rocks.
Timber pine and aspen.
Undergrowth weeds and scattering wild currant bushes.
Some good grass for grazing.

Sept. 9, 1915.

Sept. 11: At 9h a.m., apparent time, I set off 39°05' on the lat. arc, 4°46'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

Thence

N.89°51'E. on random line bet. secs. 11 and 14.

40.00 Set temp. ¼ sec. cor.

79.95 Intersect N. and S. line 9 lks. N. of the cor. of secs. 11, 12, 13 and 14, heretofore described.

Thence

Chains	
	S.89°55'W. on true line bet. secs. 11 and 14.
	Over rolling mountainous bench land, descending gradually gentle SW. grassy slope through aspen timber.
1.00	Leave aspen bearing N. and S. and enter grassy opening.
14.89	Enter dense aspen timber bearing N. and S. thence nearly S. gentle slope of swale, 118 ft. below sec. cor.
29.89	Ridge bearing NE. and SW. Thence over rolling mountainous bench land with general S. exposure.
32.29	Leave aspen timber bearing S. and descend gradual NW. slope into head of swale.
39.97½	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 11 and 14, marked on brass cap

S 11
¼
S 14
1915

from which

Aspen 16 ins. dia., bears S.31°W.,
418 lks. dist. mkd. ¼ S 14 B T.

and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.

Corner falls in swale at edge of small wash, 5 ft. wide, 4 ft. deep, course SW.

Thence along nearly S. gentle grassy slope over low bench.

68.98	Enter dense aspen, pine and fir timber bearing N. and S. with undergrowth of scant grass and weeds.
69.98	Descend gradually W. slope of bench.
79.95	The cor. of secs. 10, 11, 14 and 15, 140 ft. below top of descent.

Land rolling mountainous bench with general drainage S.

Soil black loam mixed with rock and gravel.

Timber pine, fir and aspen.

Undergrowth weeds and sunberry.

Some good grass for grazing.

Sept. 11: Cloudy at noon; no lat. observations taken.

Chains	
	Isaac Hayes U.S.Transitman.
	Sept. 9: At the cor. of secs. 10, 11, 14 and 15, I set off 5°31' on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting latitude is 39°06'.
	Thence
	N.0°01'W. bet. secs. 10 and 11.
	Descending abruptly NW. slope of rolling mountainous land through dense aspen and scattering pine timber and undergrowth of weeds and grass.
9.63	Leave aspen and enter dense pine timber bearing E. and W.
12.26	Leave dense timber bearing E. and W. and enter dense aspen and scattering pine timber with undergrowth of dense chaparral.
16.06	Leave aspen and enter dense pine timber bearing E. and W.
16.58	Enter dense aspen and scattering pine timber bearing E. and W.
24.99	Bottom of steep descent. Thence over nearly level bench.
30.38	Beginning of abrupt descent of NW. slope. Leave dense aspen and enter dense pine timber.
34.66	Leave pine and enter dense aspen timber.
	Continue over nearly W. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 10 and 11, marked on brass cap
	S ¼ 10 | S 11 1915
	from which
	Aspen 3 ins. dia., bears S.80°15'E., 11 lks. dist. mkd. ¼ S 11 B T.
	Aspen 6 ins. dia., bears N.22°W., 52 lks. dist. mkd. ¼ S 10 B T.
	Corner falls on nearly W. slope of mountain, 509 ft.

Chains	
	below sec. cor.
	Sept. 9, 1915.
	Sept. 15: At 8h 30m a.m., apparent time, I set off 39° 06' on the lat. arc, 3°18'N. on the decl. arc, and determine a meridian with the solar at the ¼ sec. cor. secs. 10 and 11.
	Thence continue from ¼ cor. over nearly W. slope.
49.67	Begin abrupt descent of NW. slope.
	Enter dense pine and scattering aspen timber.
58.65	Enter dense undergrowth of chokecherry and rose weeds.
	Leave pine timber bearing E. and W.
65.57	Enter dense pine timber and undergrowth of service berry brush bearing E. and W.
70.16	Leave pine and enter dense aspen timber bearing E. and W.
72.59	Leave service berry undergrowth at base of abrupt descent.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 2, 3, 10 and 11, marked on brass cap

T 20 S R 3 E
S 3 | S 2
S 10 | S 11
1915

from which

Aspen 7 ins. dia., bears N.29°30'E.,
19 lks. dist. mkd. T 20 S R 3 E S 2 B T.
Aspen 9 ins. dia., bears S.20°30'E.,
24 lks. dist. mkd. T 20 S R 3 E S 11 B T.
Aspen 9 ins. dia., bears S.20°15'W.,
16 lks. dist. mkd. T 20 S R 3 E S 10 B T.
Aspen 9 ins. dia., bears N.36°45'W.,
19 lks. dist. mkd. T 20 S R 3 E S 3 B T.

Corner falls on bench, 412 ft. below ¼ sec. cor.

Land rolling mountains with W. exposure.

Soil light mountain loam mixed with rocks.

Timber aspen and pine.

Undergrowth chokecherry, rose, service berry brush and weeds.

Chains	
	Some good grass for grazing.
	N.89°55'E. on random line bet. secs. 2 and 11.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.88	Intersect N. and S. line 5 lks. S. of the cor. of secs. 1, 2, 11 and 12.
	Thence
	S.89°53'W. on true line bet. secs. 2 and 11.
	Over rolling mountainous land through pine and aspen timber and undergrowth of willows.
.52	Stream, 4 lks. wide, 3 ins. deep, course NE. from the W. Thence along stream, through dense willows.
1.42	Same stream course E. from S.
	Leave willow undergrowth bearing NE. and SW.
15.32	Enter willow undergrowth bearing N. and S.
	Descend abruptly N. slope.
21.62	Swale draining N. in base of descent.
	Ascend abrupt E. slope.
23.78	Gradually ascend nearly N. slope.
39.94	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 2 and 11, marked on brass cap
	S 2 / $\frac{1}{4}$ / S 11 / 1915
	from which
	Aspen 9 ins. dia., bears S.38°15'E., 37 lks. dist. mkd. $\frac{1}{4}$ S 11 B T.
	Aspen 20 ins. dia., bears N.89°59'E., 30 lks. dist. mkd. $\frac{1}{4}$ S 2 B T.
	Corner falls 95 ft. below sec. cor.
	Sept. 15: At this cor. I set off 3°14'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°06'.
43.60	Leave timber bearing N. and S.
46.10	Enter timber bearing N. and S.

Chains	
47.90	Enter willow undergrowth bearing N. and S.
51.45	Stream, 2 lks. wide, 1½ ins. deep, course N.
55.39	Leave scattering pine and aspen timber with undergrowth of weeds, willow and grass, bearing N. and S. Descend gradually N. slope.
57.11	Wash, 10 ft. deep, perpendicular sides, course N. in base of descent. Enter scattering pine timber and willow undergrowth.
	Ascend abruptly N. slope.
60.93	Leave scattering pine and willow undergrowth.
65.33	Slope changes from N. to nearly E.
67.83	Top abrupt ascent of nearly E. slope, bearing NW. and SE. Thence over nearly level country to
79.88	The cor. of secs. 1, 2, 11 and 12, 190 ft. above wash.
	Land rolling mountains with N. exposure and drainage.
	Soil light black mountain loam, mixed with rock.
	Timber aspen and pine.
	Undergrowth willows and weeds.
	Some good grass for grazing.
	Sept. 15, 1915.
	Sept. 17:
	N.0°16'E. on a random line bet. secs. 2 and 3.
40.00	Set temp. ¼ sec. cor.
88.55	Intersect N. bdy. of Tp. 44 lks. W. of the cor. of secs. 2, 3, 34 and 35, heretofore described.
	Thence
	S.0°16'W. on true line bet. secs. 2 and 3.
	Over rough mountainous land draining S. into Twelve Mile Canyon.
	Descending abruptly SE. slope through very dense scrub oak and service berry brush.
1.85	Continue descent S. slope through very dense brush.
9.85	Ravine course SE., 250 ft. below cor.
	Ascend abruptly.

Chains	
15.00	Top of sharp spur, 80 ft. above ravine, bears E. and W. Rocky knoll on spur bears W. 2 chs. Descend abruptly.
23.00	Creek 15 lks. wide, 3 ins. deep, course W. in bottom of fork of Twelve Mile Canyon, 200 ft. below spur. Leave dense undergrowth and ascend through dense aspen timber facing nearly N.
41.88	Enter very dense willows bearing E. and W.
42.96	Leave dense willow bearing E. and W.
48.55	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 2 and 3, marked on brass cap S ¼ 3 | S 2 1915 from which Aspen 5 ins. dia., bears N.45°45'E., 29 lks. dist. mkd. ¼ S 2 B T. Aspen 5 ins. dia., bears west, 4 lks. dist. mkd. ¼ S 3 B T. Corner falls on steep NE. slope of mountain, 300 ft. above canyon, in scattering maple timber bearing E. and W.
68.23	Enter scattering spruce timber bearing E. and W.
79.10	Leave dense aspen timber bearing E. and W.
86.88	Enter dense aspen timber bearing E. and W. Edge of bench bearing E. and W.
88.55	The cor. of secs. 2, 3, 10 and 11, 645 ft. above ¼ sec. cor. Land rough mountains, with first half draining N., remainder draining S. Soil dry, black clay loam, mixed with rock and gravel; subsoil dry gravelly clay. Timber aspen, spruce and maple. Undergrowth willow, rose brush and weeds. Some good grass for grazing.

Sept. 17, 1915.

Chains	
	Sept. 10: At 8h a.m., apparent time, I set off 39°02' on the lat. arc, 5°13'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 33 and 34 on the S. bdy. of Tp.
	Thence
	N.0°02'W. bet. secs. 33 and 34.
	Over rough mountainous land through dense aspen and fir timber and undergrowth of weeds, scattering willows and grass.
	Ascend abruptly over SE. slope.
12.48	Enter dense fir timber, bears E. and W.
28.84	Top of steep ascent, 516 ft. above sec. cor.
	Ascend gradually.
32.34	Thence ascend abruptly SE. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 33 and 34, marked on brass cap
	S ¼ 33 | S 34 1915
	from which
	Balsam 10 ins. dia., bears S.40°30'E., 52 lks. dist. mkd. ¼ S 34 B T.
	Pine 12 ins. dia., bears S.18°45'W., 42 lks. dist. mkd. ¼ S 33 B T.
	Corner falls on rocky SE. slope, 185 ft. above top of steep ascent.
40.55	Leave dense spruce and aspen timber bearing NE. and SW.
42.55	S. end of broken limestone ledge about 10 chs. long, bears W. 1 chain.
44.60	Thence ascend more gradually along SE. slope of crest of Mary's Nipple, through undergrowth of chaparral.
64.70	Top of point, 406 ft. above ¼ sec. cor.
	Thence descend gradually NE. slope into swale.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 27, 28, 33 and 34, marked on brass cap

Chains	
	T 20 S R 3 E S 28 | S 27 S 33 | S 34 1915
	from which
	Spruce 16 ins. dia., bears N.33°E.,
	121 lks. dist. mkd. T 20 S R 3 E S 27 B T.
	Spruce 36 ins. dia., bears N.18°W.,
	123 lks. dist. mkd. T 20 S R 3 E S 28 B T.
	Spruce 12 ins. dia., bears S.86°45'E.,
	244 lks. dist. mkd. T 20 S R 3 E S 34 B T.
	Spruce 24 ins. dia., bears S.78°30'W.,
	220 lks. dist. mkd. T 20 S R 3 E S 33 B T.
	Land rough mountains, drainage SE.
	Soil black loam mixed with shale rock, hard shale subsoil.
	Timber spruce and aspen.
	Undergrowth chaparral, scattering willows and weeds.
	Some good grass for grazing.
	N.89°50'E. on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ sec. cor.
80.09	Intersect N. and S. line 2 lks. N. of the cor. of secs. 26, 27, 34 and 35.
	Thence
	S.89°51'W. on true line bet. secs. 27 and 34.
	Ascending gradually SE. slope of rough mountainous land draining SE., through undergrowth of weeds and grass,
4.14	Enter aspen timber bearing N. and S.
7.64	Stream 1 lk. wide, 1 in. deep, course SE.
9.49	Leave aspen timber bearing N. and S., enter grassy slope.
22.70	Leave grassy slope bearing N. and S. and enter aspen timber bearing N. and S.
37.68	Leave aspen timber bearing N. and S.
40.04½	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 27 and 34, marked on brass cap

Chains	
	S 27 / 1/4 / S 34 / 1915
	from which.
	Aspen 8 ins. dia., bears N.81°E.,
	306 lks. dist. mkd. 1/4 S 27 B T.
	Aspen 7 ins. dia., bears S.66°15'E.,
	388 lks. dist. mkd. 1/4 S 34 B T.
	Corner falls on SE. slope, 396 ft. above sec. cor.
50.78	Stream 2 lks. wide, 1/2 in. deep, course SE.
	Enter aspen timber bearing N. and S.
60.56	Enter scattering jack pine and spruce and fir timber bearing N. and S.
66.02	Intersect rough boulders and base of steep ascent bearing N. and S.
	Thence ascend abruptly over broken limestone ledges.
70.42	Top of broken ledges.
	Thence ascend more gradually.
80.09	The cor. of secs. 27, 28, 33 and 34, 628 ft. above 1/4 sec. cor.
	Land rough mountains with SE. exposure.
	Soil black loam mixed with rock; subsoil hard dry loam.
	Timber aspen, spruce and fir.
	Undergrowth weeds.
	Some good grass for grazing.
	N.0°02'W. bet. secs. 27 and 28.
	Over rolling mountainous land, ascending gradual SE. slope through undergrowth of weeds and chaparral.
.50	Enter fir timber bearing E. and W.
2.13	Stream 1/2 lk. wide, 1/4 in. deep, course SE.
5.32	Leave spruce timber bearing E. and W.
17.10	Brink of bench, 235 ft. above sec. cor.
	Thence across nearly level bench with E. exposure.
24.60	From this point Mary's Nipple bears W. about 15 chs.

Chains	
34.05	Ridge bearing NE. and SW., divide between head waters of Salina Canyon and Twelve Mile Canyon. Desc. abruptly NW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 27 and 28, marked on brass cap.

S ¼ 28 | S 27

1915

from which

Spruce 24 ins. dia., bears S.57°15'E., 86 lks. dist. mkd. ¼ S 27 B T.

Spruce 16 ins. dia., bears S.23°W., 174 lks. dist. mkd. ¼ S 28 B T.

Corner falls on NW. slope, 138 ft. below brink of bench and ridge, in spruce timber bearing E. and W.

Sept. 10, 1915.

Sept. 11: At this cor. at 8h a.m., apparent time, I set off 39°03' on the lat. arc, 4°50'N. on the decl. arc, and determine a meridian with the solar.

Thence

47.99	Descend abruptly over broken ledges bearing NE. and SW.
55.62	Bottom of steep descent. Thence descend more gradually over limestone boulders NW. slope.
69.92	Leave limestone boulders bearing N.10°E. and SW.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 21, 22, 27 and 28, marked on brass cap

T 20 S R 3 E

S 21 | S 22

S 28 | S 27

1915

from which

Pine 14 ins. dia., bears N.12°30'E., 20 lks. dist. mkd. T 20 S R 3 E S 22 B T.

Spruce 12 ins. dia., bears S.30°E., 16 lks. dist. mkd. T 20 S R 3 E S 27 B T.

Balsam 14 ins. dia., bears S.25°45'W., 23 lks. dist. mkd. T 20 S R 3 E S 28 B T.

Chains

Balsam 9 ins. dia., bears N.48°30'W., 15 lks. dist. mkd. T 20 S R 3 E S 21 B T.

Corner falls on NW. slope, 558 ft. below top of steep descent.

Land rough mountains with SE. and NW. exposure.

Soil black mountain loam mixed with rock and gravel.

Timber spruce, pine, fir and balsam.

Undergrowth weeds and chaparral.

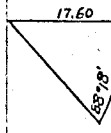
Good grass for grazing.

N.89°51'E. on random line bet. secs. 22 and 27.

5.69 Set flag on line.

16.00 On account of impassable ledges and slide rock, impossible to chain. Triangulate as follows:

From point ahead on line direct telescope to flag at 5.69 chs. and turn an angle of 70°50' to the left, and measure a base 6.27 chs. From south end of base, angle between points on line measures 88°18'. Therefore the distance on line = $\frac{6.27 \times \text{Sin } 88°18'}{\text{Sin } 20°52'}$ or



log. 6.27	=	0.797268
log. sin. 88°18'	=	9.999809
colog. sin. 20°52'	=	0.448313
		1.245390 =

17.60 + 5.69 = 23.29 chs. to top of ledges.

40.00 Set temp. ¼ sec. cor.

80.10 Intersect N. and S. line 35 lks. N. of the cor. of secs. 22, 23, 26 and 27.

Sept. 11: At this cor. I set off 4°46'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°04'.

Thence

S.89°54'W. on true line bet. secs. 22 and 27.

Ascending over SE. slope of mountainous land through aspen timber and undergrowth of weeds and chaparral.

7.93 Enter dense willows bearing N. and S.

9.93 Leave dense willows bearing N. and S.

Chains	
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 22 and 27, marked on brass cap S 22 ¼ S 27 1915 from which Aspen 6 ins. dia., bears N.17°W., 61 lks. dist. mkd. ¼ S 22 B T. Aspen 14 ins. dia., bears S.21°30'W., 29 lks. dist. mkd. ¼ S 27 B T. Corner falls on slope, 373 ft. above sec. cor. Thence ascend gradually.
45.99	Foot of steep ascent bearing N. and S. Leave undergrowth of weeds and chaparral bearing N. and S. Thence ascend E. slope from Gunnison Valley, head of Salina Canyon.
51.42	Leave aspen timber bearing N. and S.
56.81	Top of high ridge spur bearing NE. and SW., 353 ft. above ¼ sec. cor., divide between Salina and Twelve Mile Canyons. Point of triangulation. Descend over limestone ledges and slides.
64.10	Base of ledges bearing N. and S. Continue descent over boulders.
73.68	Leave limestone boulders bearing N. and S., enter aspen timber bearing N. and S.
74.41	Leave aspen timber bearing N. and S. and enter dense pine and fir timber. Point of triangulation. Descend NW. slope to
80.10	The cor. of secs. 21, 22, 27 and 28, 510 ft. below ridge. Land rough mountains with 23.29 chs. NW. exposure and 56.81 chs. SE. exposure. Soil black mountain loam mixed with rock and gravel. Subsoil dry, black loam mixed with gravel. Timber aspen, spruce and fir. Undergrowth weeds and chaparral. Good grass for grazing.

Chains	
	N.0°02'W. bet. secs. 21 and 22.
	Over rough mountainous land facing and draining NW., through spruce and fir timber and undergrowth of weeds and chaparral, descending over large boulders.
3.56	Enter aspen timber bearing E. and W.
29.33	Stream 1 lk. wide, 1 in. deep, course SW.
	Bottom of descent, 188 ft. below sec. cor.
	Ascend gradually S. slope, leaving large boulders.
32.21	Ridge bearing E. and W., 21 ft. above bottom of descent,
	Descend gradually.
33.55	Road bearing NW. and SE.
38.09	Road bearing NW. and SE.
40.00	Point for ¼ sec. cor. falls in small pond, about 1 chain in dia., corner not set.
40.85	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the WC ¼ cor. of secs. 21 and 22, marked on brass cap

T 20 S R 3 E
S 21 | S 22
WC ¼
1915

from which

Aspen 10 ins. dia., bears N.58°E.,
24 lks. dist. mkd. WC ¼ S 22 B T,
Aspen 16 ins. dia., bears N.63°30'W.,
73 lks. dist. mkd. WC ¼ S 21 B T.

49.74	Small lake 1 chain in dia.
55.30	Stream 4 lks. wide, 2 ins. deep, flows NW.
57.30	Old saw mill sight bears about 2 chs. W.
	Ascend gradually.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 15, 16, 21 and 22, marked on brass cap

T 20 S R 3 E
S 16 | S 15
S 21 | S 22
1915

from which

Chains

Aspen 8 ins. dia., bears N.58°15'E.,
219 lks. dist. mkd. T 20 S R 3 E S 15 B T.
Aspen 8 ins. dia., bears S.7°15'E.,
349 lks. dist. mkd. T 20 S R 3 E S 22 B T.
Aspen 8 ins. dia., bears S.77°15'W.,
196 lks. dist. mkd. T 20 S R 3 E S 21 B T.
Aspen 8 ins. dia., bears N.26°45'W.,
167 lks. dist. mkd. T 20 S R 3 E S 16 B T.

Corner falls on NW. slope, 32 ft. above stream.

Land rough mountains with general NW. drainage.

Soil black mountain loam, mixed with gravel and rock; subsoil dry black gravelly loam.

Timber spruce, fir and aspen.

Undergrowth weeds and chaparral.

Good grass for grazing.

Sept. 11, 1915.

Sept. 13: At 8h a.m., apparent time, I set off 39°05' on the lat. arc, 4°05'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.

Thence

N.89°54'E. on random line bet. secs. 15 and 22.

40.00 Set temp. ¼ sec. cor.

80.07 Intersect N. and S. line 14 lks. N. of the cor. of secs. 14, 15, 22 and 23.

Thence

West on true line bet. secs. 15 and 22.

Ascending gradually SE. slope of rolling mountainous land draining SE. into Gunnison Valley, head waters of Salina Canyon, through undergrowth of weeds and grass.

7.95 Enter aspen timber bearing N. and S.

14.68 Top of ridge between Gunnison Valley and Twelve Mile Canyon bearing NE. and SW., 193 ft. above sec. cor.

Chains	
	Enter spruce and fir timber, bearing N. and S.
	Thence descend abruptly over NW. slope.
37.71	From this point small lake bears N. about 2 chs.
40.03½	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 15 and 22, marked on brass cap
	S 15 ¼ ——— S 22 1915
	from which
	Red pine 10 ins. dia., bears N.34°W., 31 lks. dist. mkd. ¼ S 15 B T.
	Balsam 6 ins. dia., bears S.69°45'W., 87 lks. dist. mkd. ¼ S 22 B T.
	Corner falls on S. edge of bench, 436 ft. below top ridge.
40.05	Ascend gradually across rolling mountainous land. Enter aspen timber bearing N. and S.
46.94	Enter dense willow patch bearing N. and S.
48.94	Leave dense willow patch bearing N. and S.
76.24	Top of ascent, ridge bearing NW. and SE., 99 ft. above ¼ sec. cor.
	Thence descend gradually NW. slope of open slope.
80.07	The cor. of secs. 15, 16, 21 and 22, 36 ft. below ridge.
	Land mountainous, E. half very rough, W. half rolling.
	Soil black loam E half rocky, W. half gravelly; subsoil black and gravelly.
	Timber aspen, pine, spruce, fir and balsam.
	Undergrowth weeds and chaparral.
	Good grass for grazing.
	N.0°02'W. bet. secs. 15 and 16.
	Over mountainous land facing and draining NW, descending gradually NW. slope through aspen timber and undergrowth of weeds.

Chains

11.36 Thence descend abruptly over nearly N. slope.

35.00 At this station I set off 4°00'N. on the decl. arc, and at apparent noon observe the sun on the meridian; the resulting lat. is 39°05'.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 15 and 16, marked on brass cap

S ¼ 16 | S 15

1915

from which

Aspen 16 ins. dia., bears S.26°E., 50 lks. dist. mkd. ¼ S 15 B T.

Aspen 10 ins. dia., bears S.81°30'W., 77 lks. dist. mkd. ¼ S 16 B T.

Corner falls on N. slope, 406 ft. below sec. cor.

48.24 Wash 4 lks. wide, 6 ft. deep, course NW.

58.80 Leave aspen timber bearing E. and W.

62.60 At this point timber bears E. 2 chs. and W. about 4 chs.

64.30 Enter aspen timber bearing E. and W.

67.00 Stream 2 lks. wide, 2 ins. deep, course W. in bottom of descent; 128 ft. below ¼ sec. cor.

Thence ascend gradually along nearly W. slope.

76.10 Enter chokecherry brush bearing E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 9, 10, 15 and 16, marked on brass cap

T 20 S R 3 E
S 9 | S 10
S 16 | S 15
1915

from which

Aspen 14 ins. dia., bears N.27°45'E., 179 lks. dist. mkd. T 20 S R 3 E S 10 B T.

Aspen 4 ins. dia., bears N.58°30'W., 128 lks. dist. mkd. T 20 S R 3 E S 9 B T.

Aspen 10 ins. dia., bears S.72°W., 131 lks. dist. mkd. T 20 S R 3 E S 16 B T.

Chains	
	Aspen 7 ins. dia., bears S.10°30'E., 396 lks. dist. mkd. T 20 S R 3 E S 15 B T. Corner falls on nearly W. slope, 29 ft. above bottom of descent.
	Land rolling mountains draining NW.
	Soil black mountain loam mixed with gravel; subsoil dry clay.
	Timber aspen and scattering spruce.
	Undergrowth weeds, chaparral and chokecherry brush.
	Good grass for grazing.
	East on random line bet. secs. 10 and 15.
40.00	Set temp. ¼ sec. cor.
	Sept. 13, 1915.
	Sept. 14: At this point at 8h a.m., apparent time, I set off 39°06' on the lat. arc, 3°42'N. on the decl. arc, and determine a meridian with the solar.
	Thence
79.90	Intersect the cor. of secs. 10, 11, 14 and 15.
	West on true line bet. secs. 10 and 15.
	Descending abruptly over broken ledges, 20 ft. high, bearing NE. and SW., mountainous land, through balsam, spruce and aspen timber and undergrowth of willows.
10.25	Base of abrupt descent bears N. and S.
37.22	Gradually descend over N. and NW. slopes at head of large canyon.
37.22	Leave balsam timber bearing N. and S.
39.95	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 10 and 15, marked on brass cap

S 10
¼
S 15
1915

from which

Aspen 10 ins. dia., bears N.60°E., 42 lks. dist. mkd. ¼ S 10 B T.

Chains	
	Balsam 8 ins. dia., bears S.11°30'W., 53 lks. dist. mkd. ¼ S 15 B T.
	Corner falls on NW. slope, 710 ft. below sec. cor.
45.41	Stream 1 lk. wide, 1 in. deep, course N.
48.11	Old water channel course NW.
49.51	Bottom of descent, 91 ft. below ¼ sec. cor.
	Ascend over NE. slope.
53.43	Leave willows bearing NW. and SE.
54.70	Leave scattering spruce and balsam timber bearing NW. and SE.
62.64	Top of ridge bearing NW. and SE., 79 ft. above base of descent.
	Enter dense chokecherry undergrowth.
	Descend W. slope.
64.41	Leave aspen timber bearing NW. and SE.
73.70	Road bearing NW. and SE.
	Enter aspen timber bearing N. and S.
79.99	The cor. of secs. 9, 10, 15 and 16, 183 ft. below ridge.
	Land rough mountains, draining NW.
	Soil black mountain loam on W. half, rocky and gravelly on E. half; subsoil dry and gravelly.
	Timber balsam and aspen.
	Undergrowth chokecherry brush, willows, rose brush, chaparral and weeds.
	Good grass for grazing.
	N.0°02'W. bet. secs. 9 and 10.
	Ascending gradually W. slope mountainous land through aspen timber and undergrowth of chokecherry brush and weeds.
2.40	Small ridge projects NW., 4 ft. above sec. cor.
	Descend gradually NW. slope.
16.21	Enter dense willow patch 50 lks. wide, bearing E. and W.
21.75	Small swale in bottom of descent, 141 ft. below ridge.
	Ascend gradually.

Chains	
27.14	Top of spur projects NW., 15 ft. above swale. Descend gradually.
28.64	Leave aspen timber bearing E. and W., enter sagebrush undergrowth.
30.74	Road to Mayfield, Utah, bears E. and W.
32.64	Descend abruptly over NE. slope.
35.74	Enter dense aspen timber and maple willows bearing NW. and SE.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 9 and 10, marked on brass cap S 9 ¼ | S 10 1915 from which Aspen 16 ins. dia., bears N.52°30'E., 53 lks. dist. mkd. ¼ S 10 B T. Aspen 16 ins. dia., bears N.38°W., 13 lks. dist. mkd. ¼ S 9 B T. Corner falls on NE. slope, 124 ft. below top of spur. Sept. 14: At this ¼ sec. cor. I set off 3°37'N. on the decl. arc, and at apparent noon, observe the sun on the meridian; the resulting lat. is 39°06'.
47.00	Enter scattering balsam timber bearing E. and W.
63.63	Enter very dense willows, service berry and rose brush bearing E. and W., land subject to slides.
72.75	Leave dense willows bearing E. and W. and enter scattering willows. Creek in bottom of canyon, 3 lks. wide, 3 ins. deep, course NW., 560 ft. below ¼ sec. cor. Thence along creek, crossing and recrossing same.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 3, 4, 9 and 10, marked on brass cap T 20 S R 3 E S 4 | S 3 S 9 | S 10 1915

Chains

from which

Aspen 8 ins. dia., bears N.16°30'E.,
64 lks. dist. mkd. T 20 S R 3 E S 3 B T.
Aspen 5 ins. dia., bears N.74°W.,
23 lks. dist. mkd. T 20 S R 3 E S 4 B T.
Aspen 4 ins. dia., bears S.65°W.,
18 lks. dist. mkd. T 20 S R 3 E S 9 B T.
Aspen 5 ins. dia., bears S.31°30'E.,
42 lks. dist. mkd. T 20 S R 3 E S 10 B T.

Corner falls in bottom of canyon, 560 ft. below ¼ sec. cor. and 52 lks. N. of creek.

Land rough mountains draining NE. and NW.

Soil black mountain loam mixed with gravel; subsoil wet, gray sand.

Timber aspen and scattering balsam.

Undergrowth chokecherry, service berry and rose brush with weeds and willows.

Good grass for grazing.

Sept. 14, 1915.

Sept. 15:

East on a random line bet. secs. 3 and 10.

40.00 Set temp. ¼ sec. cor.

80.02 Intersect N. and S. line at the cor. of secs. 2, 3, 10. and 11.

Thence

West on a true line bet. secs. 3 and 10.

Descending gradually over rough mountainous land through undergrowth of chokecherry and weeds and balsam, oak and maple timber.

3.79 Begin abrupt descent over NW. slope, through scattering pine timber.

7.09 Enter dense young aspen bearing N. and S.

Leave chokecherry brush and enter dense tall willow bearing N. and S.

32.79 Stream 4 lks. wide, 4 ins. deep, course N.

Chains	
	Base of descent, 420 ft. below sec. cor.
	Ascend gradually NE. slope through dense chokecherry bearing N. and E.
38.93	Leave chokecherry undergrowth.
40.01	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 3 and 10, marked on brass cap

S ¼ 3
S 10
1915

from which

Aspen 10 ins. dia., bears S.2°45'W., 38½ lks. dist. mkd. ¼ S 10 B T.

Aspen 9 ins. dia., bears N.14°45'W., 35 lks. dist. mkd. ¼ S 3 B T.

Sept. 15, 1915.

	Sept. 14:
40.90	Enter dense scrub oak undergrowth, also dense chokecherry brush.
49.69	Top of high ridge bearing N. and S., 67 ft. above stream. Thence descend abruptly W. slope.
59.22	Leave scattering balsam timber bearing N. and S.
65.24	Leave scattering oak bearing N. and S.
76.88	Leave dense maple bearing N. and S., land subject to slides.
80.02	The cor. of secs. 3, 4, 9 and 10, 671 ft. below ridge.
	Land rough mountains draining nearly N.
	Soil black mountain loam mixed with gravel.
	Timber aspen, oak, maple and balsam.
	Undergrowth scrub oak, chokecherry, weeds and willow.

Sept. 14, 1915.

	Sept. 21:
	N.0°02'W. on random line bet. secs. 3 and 4.
40.00	Set temp. ¼ sec. cor.
88.60	Intersect N. bdy. of Tp. 57 lks. W. of the cor. of secs.

Chains	
	3, 4, 33 and 34, heretofore described.
	Thence
	S.0°20'W. on true line bet. secs. 3 and 4.
	Ascending NW. slope mountainous land through fir and aspen timber and undergrowth of sagebrush.
8.72	Spur projects SW.
	Descend S. slope into Twelve Mile Canyon.
14.72	Old road bearing E. and W.
16.85	Creek 10 lks. wide, 8 ins. deep, course W. in bottom of canyon, 399 ft. below spur.
	Ascend abruptly NE. slope.
21.17	Thence along W. side of small canyon from the S.
30.70	Stream 1 lk. wide, 1 in. deep, in canyon, course NE.
	Thence on E. side stream in canyon.
	Leave fir timber, enter birch, willow and oak undergrowth bearing E. and W.
37.88	Same stream, 1 lk. wide, 1 in. deep, course N.10°W.
	Ascend more rapidly along W. slope.
42.11	Enter dense birch bearing E. and W.
48.60	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 3 and 4, marked on brass cap
	S ¼ 4 | S 3
	1915
	from which
	Aspen 3 ins. dia., bears N.10°30'E., 6 lks. dist. mkd. ¼ S 3 B T.
	Aspen 3 ins. dia., bears N.83°30'W., 48 lks. dist. mkd. ¼ S 4 B T.
	Corner falls 399 ft. above Twelve Mile Canyon.
	Sept. 21: Not on line at noon; observation for lat. impossible.
53.60	Stream 1 lk. wide, 1 in. deep, course W.
71.45	Spur, 168 ft. above ¼ sec. cor., projects W.
	Leave birch undergrowth bearing E. and W.
	Descend NW. slope.

Chains	
75.43	Bottom of descent, 11 ft. below spur.
	Leave oak brush bearing E. and W.
	Ascend gradually W. slope.
87.40	Enter wash 8 lks. wide, 4 ft. deep, course NW.
87.98	Same wash course N. from SW.
	Thence ascend to
88.60	The cor. of secs. 3, 4, 9 and 10, 33 ft. above base of descent.
	Land rough mountains draining N. and S.
	Soil black mountain loam mixed with scattering rock and gravel; subsoil dry and gravelly.
	Timber aspen and fir.
	Undergrowth oak, service berry, chokecherry and rose brush, chaparral and weeds.
	Good grass for grazing.
	Sept. 21, 1915.
	Howard W. Miller
	U.S. Surveyor.
	Sept. 10: At 9h a.m., apparent time, I set off 39°02' on the lat. arc, 5°12'N. on the decl. arc, and determine a meridian with the solar at the St. cor. of secs. 32 and 33 on the S. bdy. of the Tp.
	Thence
	N.0°03'W. bet. secs. 32 and 33.
	Ascending gradually SW. slope mountainous land, through dense aspen and scattering pine timber and undergrowth of weeds, scattering service berry, deer and willow brush bearing E. and W.
.75	Small wash and stream nearly dry, course SW.
9.98	Dry water course 6 ft. wide, 2 ins. deep, course SW.
	Thence over SW. slope of rolling mountainous land, covered with conglomerate boulders.
25.10	Stream 1 lk. wide, 1 in. deep, course W.
29.80	Creek bed with small stream 2 lks. wide, 4 ins. deep, course SW.

Chains	
32.70	Small basin and head of spring about 1 chain W. of line.
33.70	Ascend abruptly short S. slope through very dense undergrowth of chokecherry.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 32 and 33, marked on brass cap S $\frac{1}{4}$ 32 | S 33 1915 from which Aspen 5 ins. dia., bears N.28°30'E., 82 lks. dist. mkd. $\frac{1}{4}$ S 33 B T. Aspen 9 ins. dia., bears N.45°W., 39 lks. dist. mkd. $\frac{1}{4}$ S 32 B T. Corner falls on grassy SW. slope in chokecherry undergrowth and aspen timber, 130 ft. above abrupt ascent.
53.11	Along E. slope of spur.
55.76	Top of spur projects S., 190 ft. above $\frac{1}{4}$ sec. cor. Thence ascend gradually S. slope.
63.16	Enter pine, fir and aspen timber bearing E. and W.
70.24	Base of abrupt ascent over steep S. slope, covered with conglomerate boulders.
74.72	Broken conglomerate ledges bearing E. and W. Leave aspen timber bearing E. and W. and continue through scrub pine timber.
80.00	Point for corner falls on top of ledges, 463 ft. above spur, on slide rock. Cor. not set.
81.40	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for WC corner of secs. 28, 29, 32 and 33, marked on brass cap T 20 S R 3 E S 29 | S 28 W.C S 32 | S 33 1915 and raise a mound of stone 2 ft. base, 1½ ft. high west of corner. Land rough mountains, draining SW.

Chains	
	Soil black rocky loam with black rocky subsoil.
	Timber pine, aspen and fir.
	Undergrowth service berry and deer brush, weeds and willows.
	Good grass for grazing.
	Sept. 10: Sky overcast at noon; observation for lat. impossible.
	From true point for cor. secs. 28, 29, 32 and 33.
	S.89°59'E. on random line bet. secs. 28 and 33.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.13	Intersect N. and S. line 23 lks. S. of the cor. of secs. 27, 28, 33 and 34.
	Thence
	S.89°51'W. on true line bet. secs. 28 and 33.
	Ascending over mountainous land, through scattering pine timber and undergrowth of deer brush and sunberry, along rocky SE. slope.
2.12	Ascend gradually E. slope.
10.17	Ridge bearing N. and S., 218 ft. above sec. cor. Descend abruptly over SW. and S. slopes.
25.59	Descend abruptly over broken conglomerate ledges bearing SE. and NW. Enter aspen timber and undergrowth bearing N. and S.
32.13	Leave ledges.
	Descend steep SW. slope over shale rock slides bearing NW. and SE.
	Enter heavier timber.
33.39	Base of steep descent and shale slide, 518 ft. below ridge bearing NW. and SE. Descend gradually 48 ft. to
40.06½	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 28 and 33, marked on brass cap

S 28
$\frac{1}{4}$
S 33
1915

Chains	
	from which
	Aspen 10 ins. dia., bears N.57°E.,
	25 lks. dist. mkd. ¼ S 28 B T.
	Fir 6 ins. dia., bears S.30°W.,
	20 lks. dist. mkd. ¼ S 33 B T.
	Corner falls on SW. slope in dense aspen and pine timber.
47.02	Leave pine and fir timber bearing N. and S.
51.34	Wash 10 ft. wide, 8 ft. deep, course SW., 45 ft. below ¼ sec. cor.
	Gradually ascend rough S. slope.
63.87	Enter pine timber bearing N. and S.
69.95	Leave pine, fir and aspen timber bearing N. and S.
	Base of steep ascent, 115 ft. above wash, bearing N. and S. Ascend abruptly over series of ledges.
76.00	Broken conglomerate ledges, 50 ft. high, bearing NE. and SW.
77.09	Spur projects S., 279 ft. above base of steep ascent.
	Thence descend 16 ft. to
80.13	Point for cor. of secs. 28, 29, 32 and 33.
	Land rough mountains draining SW. 69.95 chs., thence E.
	Soil rocky black loam; subsoil same.
	Timber aspen, pine and fir.
	Undergrowth deer brush, sunberry and weeds.
	Good grass for grazing.
	Sept. 10, 1915.

Sept. 11: At 8h 30m a.m., apparent time, I set off 39° 03' on the lat. arc, 4°50'N. on the decl. arc, and determine a meridian with the solar at the true cor. point of secs. 28, 29, 32 and 33.

Thence

N.0°03'W. bet. secs. 28 and 29.

Over rough mountainous land, ascending abruptly steep S. slope and shale slide through scattering scrub pine timber and sunberry undergrowth bearing E. and W.

Chains	
1.15	Top of ridge bearing SE. and NW., 53 ft. above point for sec. cor.
	Thence descend gradually over nearly NW. slope.
1.40	WC to Secs. 28, 29, 32 and 33.
7.42	Ravine draining W.
	Thence over nearly gentle SW. slope, through undergrowth of weeds, grass and scattering sunberry bearing E. and W.
21.07	Top of ascent, 46 ft. above ravine. Thence descend abruptly over slide rock through pine timber and undergrowth of weeds, willows and grass bearing NW.
33.00	Wash 15 ft. wide, 2 ft. deep, course W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 28 and 29, marked on brass cap
	S ¼ 29 | S 28 1915
	from which
	Pine 10 ins. dia., bears N.88°E.,
	37 lks. dist. mkd. ¼ S 28 B T.
	Pine 10 ins. dia., bears N.16°W.,
	16 lks. dist. mkd. ¼ S 29 B T.
42.11	Spring 50 lks. E. of line.
58.34	Bottom of slope, 667 ft. below top of ascent.
	Ascend gradually through pine and aspen timber.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 20, 21, 28 and 29, marked on brass cap
	T 20 S R 3 E S 20 | S 21 S 29 | S 28 1915
	from which
	Aspen 12 ins. dia., bears N.15°E.,
	312 lks. dist. mkd. T 20 S R 3 E S 21 B T.
	Aspen 12 ins. dia., bears S.74°E.,
	100 lks. dist. mkd. T 20 S R 3 E S 28 B T.

Chains	
	Aspen 10 ins. dia., bears S.73°15'W., 98 lks. dist. mkd. T 20 S R 3 E S 29 B T.
	Aspen 16 ins. dia., bears N.52°W., 113 lks. dist. mkd. T 20 S R 3 E S 20 B T.
	Land rough mountains draining SW. for 21.07 chs. thence NW.
	Soil rocky black loam.
	Timber aspen, pine and fir.
	Undergrowth deer brush, sunberry and weeds.
	Good grass for grazing.
	Sept. 11: Cloudy at noon, observation for lat. impossible.
	N.89°51'E. on random line bet. secs. 21 and 28.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.13	Intersect N. and S. line at the cor. of secs. 21, 22, 27 and 28.
	Thence
	S.89°51'W. on true line bet. secs. 21 and 28.
	Descending over mountainous land through pine and aspen timber and undergrowth of sunberry and weeds.
26.81	Ridge bearing NW. and SE., 194 ft. below sec. cor.
32.45	Rocky ravine course NW., 59 ft. below ridge.
36.63	Head of spring, $2\frac{1}{2}$ lks. wide, 2 to 3 ins. deep, course N. Ascend.
40.06$\frac{1}{2}$	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 21 and 28, marked on brass cap

S 21
$\frac{1}{4}$
S 28
1915

	from which
	Aspen 6 ins. dia., bears N.33°W., 71 lks. dist. mkd. $\frac{1}{4}$ S 21 B T.
	Aspen 8 ins. dia., bears S.39°W., 26 lks. dist. mkd. $\frac{1}{4}$ S 28 B T.
	Corner falls on rough N. slope, 22 ft. above ravine.

Chains	
	Ascend gradually NW. slope over rolling mountainous land, in head of canyon.
49.83	Spur projects N. 51 ft. above ¼ sec. cor.
	Descend abruptly nearly W. slope.
50.53	Descend gradually NW. slope.
55.47	Spring 3 lks. wide, 2 ins. deep, course NW.
58.71	Bottom of descent, 151 ft. below spur.
	Thence along rough broken N. slope in head of Beaver Canyon.
59.51	Spring 1 lk. wide, 1 in. deep, course N.
63.77	Land boggy, with series of small springs for distance of 3 chs.
73.61	Ridge bearing SE. and NW., 146 ft. above base of descent.
	Thence descend gradually SW slope 60 ft. to
80.13	The cor. of secs. 20, 21, 28 and 29.
	Land rough and rolling mountains draining W. for 6.52 chs., thence NW.
	Soil rich black rocky loam with black sandy loam subsoil.
	Timber aspen, pine and fir.
	Undergrowth deer brush, sunberry and weeds.
	Good grass for grazing.
	Sept. 11, 1915.
	Sept. 13: At 8h a.m., apparent time, I set off 39°04' on the lat. arc, 4°05'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 20, 21, 28 and 29.
	N.0°03'W. bet. secs. 20 and 21.
	Over gently SW. slope rolling mountainous land through dense aspen and pine timber and undergrowth of dense weeds and sunberry bearing E. and W.
9.89	Descend abruptly short N. slope into canyon.
	Timber becomes very dense.
40;00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 20 and 21, marked on brass cap

Chains

S $\frac{1}{4}$ 20 | S 21

1915

from which

Aspen 12 ins. dia., bears S.65°E.,

9 lks. dist. mkd. $\frac{1}{4}$ S 21 B T.

Aspen 12 ins. dia., bears N.72°W.,

23 lks. dist. mkd. $\frac{1}{4}$ S 20 B T.

Corner falls on NW. slope, 508 ft. below sec. cor.

Descend gradually NW. slope.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 15, 16, 20 and 21, marked on brass cap

T 20 S R 3 E
S 17 | S 16
S 20 | S 21
1915

from which

Fir 9 ins. dia., bears N.54°E.,

13 lks. dist. mkd. T 20 S R 3 E S 16 B T.

Aspen 10 ins. dia., bears S.15°E.,

57 lks. dist. mkd. T 20 S R 3 E S 21 B T.

Aspen 16 ins. dia., bears S.62°W.,

49 lks. dist. mkd. T 20 S R 3 E S 20 B T.

Aspen 24 ins. dia., bears N.29°W.,

53 lks. dist. mkd. T 20 S R 3 E S 17 B T.

Corner falls on E. side of ravine, 503 ft. below $\frac{1}{4}$ sec. cor. Stream 2 lks. wide, 2 ins. deep, course NE. bears W. of cor. about 30 lks.

Land rolling mountains draining SW. for 9.89 chs. thence N.

Soil rocky black loam. Timber dense aspen, fir and pine.

Undergrowth weeds and sunberry.

Good grass for grazing.

Sept. 13: At this cor. I set off 4°00'N. on the decl. arc, and at apparent noon observe the sun on the meridian; the resulting lat. is 39°05'.

Chains	
	N.89°51'E. on random line bet. secs. 16 and 21.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.20	Intersect N. and S. line 5 lks. N. of the cor. of secs. 15, 16, 21 and 22. Thence
	S.89°53'W. on true line bet. secs. 16 and 21.
	Descending over mountainous land and undergrowth of chokecherry and sunberry.
6.65	Enter dense pine, fir and aspen bearing N. and S.
26.40	Head of ravine draining NW., 339 ft. below sec. cor.
	Gradually descend NW. slope.
33.50	Marsh 50 by 100 lks., and spring 3 lks. wide, 3 ins. deep, course NW.
39.28	Stream 3 lks. wide, 3 ins. deep, course N.60 lks. thence NW.
40.10	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 16 and 21, marked on brass cap
	S 16 / $\frac{1}{4}$ / S 21 / 1915
	from which
	Aspen 16 ins. dia., bears N.10°30'E., 54 lks. dist. mkd. $\frac{1}{4}$ S 16 B T.
	Aspen 18 ins. dia., bears S.60°W., 43 lks. dist. mkd. $\frac{1}{4}$ S 21 B T.
	Corner falls on NW. slope.
59.35	Base of steep descent from short W. slope.
	Thence gradually descend over NW. slope.
65.03	Top of steep descent.
	Descend abruptly W. slope through dense undergrowth of deer brush and chokecherry undergrowth.
67.64	Ravine with stream 3 lks. wide, 2 to 3 ins. deep, course N., 434 ft. below $\frac{1}{4}$ sec. cor. Ascend abruptly NE. slope.
76.60	Spur projecting SW. 75 ft. above sec. cor.
	Descend W. slope of ravine.
80.20	The cor. of secs. 16, 17, 20 and 21.
	Land rough mountains draining NW. for 3.60 chs., thence W.
	Soil rich black rocky loam with subsoil same.

Chains	
	Timber aspen, pine and fir.
	Undergrowth dense chokecherry, sunberry and weeds.
	Good grass for grazing.
	Sept. 13, 1915.
	Sept. 14: At 8h a.m., apparent time, I set off 39°05' on the lat. arc, 3°42'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21. Thence
	N.0°03'W. bet. secs. 16 and 17.
	Descending gradual E. side of ravine, over mountainous land through dense pine, fir and aspen timber and undergrowth of weeds, bearing E. and W.
1.39	Stream in ravine, nearly dry, course NE., 14 ft. below sec. cor. Descend gradually NE. slope.
5.82	Across small marsh about 1 chain in dia.
8.40	Enter dense willow undergrowth bearing E. and W.
24.83	Stream, clear water, 3 lks. wide, 2 to 3 ins. deep, course N.
25.43	Same stream course N.10°E.
31.99	Same ravine drains NE., 307 ft. below sec. cor. Ascend gradually nearly E. slope through dense undergrowth of chokecherry bearing E. and W.
34.19	Enter very dense service berry, chokecherry and willow undergrowth bearing E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 16 and 17, marked on brass cap
	S ¼ 17 | S 16 1915
	from which
	Aspen 8 ins. dia., bears N.42°45'E., 16 lks. dist. mkd. ¼ S 16 B T.
	Aspen 7 ins. dia., bears N.12°W., 18 lks. dist. mkd. ¼ S 17 B T.
	Corner falls on steep E. slope, 36 ft. above ravine.
	Enter scattering oak and maple timber among pine and aspen timber bearing E. and W.
	Ascend.

Chains	
42.71	Spur projecting N. about 20 ft. above $\frac{1}{4}$ sec. cor. Descend gradually nearly E. slope.
64.63	Descend abruptly nearly N. slope.
67.30	Creek in canyon 20 lks. wide, 4 to 6 ins. deep, course NW., 360 ft. below spur. Old drag road crosses creek bearing SE. and NW.
	Ascend abruptly SW. slope leaving aspen timber bearing E. and W.
69.56	Enter dense undergrowth of oak brush bearing E. and W. Pine and fir timber becomes dense.
73.13	Top of ascent, 83 ft. above canyon. Descend gradually NW. slope.
	Sept. 14: At this station I set off 3°37'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°05'.
75.27	Drag road bearing NE. and SW.
75.90	Descend abruptly NW. slope, leaving oak brush bearing E. and W.
77.06	Enter dense aspen and pine timber bearing E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 8, 9, 16 and 17, marked on brass cap

T 20 S R 3 E
S 8 | S 9
S 17 | S 16
1915

from which

Aspen 6 ins. dia., bears N.51°E.,
30 lks. dist. mkd. T 20 S R 3 E S 9 B T.
Aspen 8 ins.dia., bears S.69°E.,
16 lks. dist. mkd. T 20 S R 3 E S 16 B T.
Fir 10 ins. dia., bears N.52°W.,
12 lks. dist. mkd. T 20 S R 3 E S 8 B T.
Fir 4 ins. dia., bears S.42°30'W.,
76 lks. dist. mkd. T 20 S R 3 E S 17 B T.

Corner falls on steep NW. slope, 138 ft. below top of ascent.

Chains	
	Land rough mountains draining NW.
	Soil rich black loam with black sandy subsoil mixed with rock.
	Timber aspen, pine, fir and maple.
	Undergrowth willow, chokecherry, service berry and oak brush and weeds.
	Good grass for grazing.
	Sept. 14, 1915.
	Sept. 15: At 9h a.m., apparent time, I set off 39°05' on the lat. arc, 3°17'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.
	Thence
	N.89°53'E. on random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
79.97	Intersect N. and S. line 23 lks. N. of the cor. of secs. 9, 10, 15 and 16.
	Thence
	N.89°57'W. on true line bet. secs. 9 and 16.
	Over mountainous land, descending through aspen timber and chokecherry undergrowth.
14.53	Ravine with stream, 2 lks. wide, 2 ins. deep, course NW; 203 ft. below sec. cor. Descend SW. slope.
39.98½	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 9 and 16, marked on brass cap
	S 9 / ¼ / S 16 / 1915
	from which
	Aspen 6 ins. dia., bears N.36°30'E., 45 lks. dist. mkd. ¼ S 9 B T.
	Aspen 8 ins. dia., bears S.8°45'E., 75 lks. dist. mkd. ¼ S 16 B T.
	Corner falls at head of small swale, 116 ft. below ravine.

Chains	
	Sept. 15: Not on line at noon; observation for latitude impossible.
	Ascend NE. slope.
42.35	Road bearing SE. and NW.
43.40	Ridge bearing SE. and NW.
	Descend gradual SW. slope.
52.83	Enter oak brush bearing N. and S.
55.17	Enter pine timber and leave dense oak brush bearing N. and S.
63.94	Road bearing NW. and S.
	Descend gradually SW. slope through dense undergrowth of chokecherry and service berry brush.
75.03	Stream in canyon 7 lks. wide, 4 to 6 ins. deep, course NW., 431 ft. below ridge.
	Leave chokecherry and service berry brush bearing N. and S.
	Ascend abruptly NE. slope.
77.81	Spur projects N., 60 ft. above stream.
	Thence descend gradually 52 ft. to
79.97	The cor. of secs. 8, 9, 16 and 17.
	Land rough mountains draining NW.
	Soil black, sandy loam mixed with gravel.
	Timber aspen, pine and fir.
	Undergrowth chokecherry, service berry and deer brush.
	Good grass for grazing.
	Sept. 15, 1915.
	Sept. 14:
	N.0°03'W. bet. secs. 8 and 9.
	Descending NW. slope of mountainous land through dense pine, fir and aspen timber and dense undergrowth of deer and chokecherry brush and chaparral bearing E. and W.
4.00	Stream in canyon, 10 lks. wide, 6 ins. deep, course NW. 106 ft. below sec. cor.
	Ascend abruptly rocky SW. slope.

Chains	
4.50	Leave dense pine and aspen timber bearing E. and W. and enter dense undergrowth of oak, chokecherry and service berry brush bearing E. and W.
9.55	Leave oak brush bearing E. and W. and enter dense aspen and scattering pine timber bearing E. and W.
	Top of steep ascent, 89 ft. above canyon.
	Thence over gentle SW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 16 ins. in the ground and 10 ins. in mound of stone for the $\frac{1}{4}$ cor. of secs. 8 and 9, marked on brass cap
	S $\frac{1}{4}$ 8. | S 9
	1915
	from which
	Double aspen 8 ins. dia., bears S.75°E.,
	21 lks. dist. mkd. $\frac{1}{4}$ S 9 B T.
	Aspen 6 ins. dia., bears S.48°W.,
	12 lks. dist. mkd. $\frac{1}{4}$ S 8 B T.
	Corner falls on steep W. slope, near the top, 175 ft. above top of ascent.
	Sept. 14, 1915.
	Isaac Hayes
	U.S.Transitman.
	Sept. 18: At 8h a.m., apparent time, I set off 39°06' on the lat. arc, 2°09'N. on the decl. arc; and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. secs. 8 and 9.
	Thence continue from $\frac{1}{4}$ sec. cor. N.0°03'W.
	Through dense aspen timber and very dense undergrowth of oak, service berry and chokecherry brush and weeds, ascending gradually N. slope.
51.34	Bottom of descent and wash, 4 ft. wide, 4 ins. deep, draining NW., 175 ft. below $\frac{1}{4}$ sec. cor.
	Leave aspen timber bearing NW. and SE. and ascend gradually over SW. slope through very dense undergrowth.
66.84	Top of spur projecting W., 71 ft. above bottom of descent.
	Thence along NW. slope through scattering sagebrush.

Chains

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 4, 5, 8 and 9, marked on brass cap

T 20 S R 3 E
S 5 | S 4
S 8 | S 9
1915

from which

Oak 4 ins. dia., bears N.55°30'E.,
9 lks. dist. mkd. T 20 S R 3 E S 4 B T.
Oak 4 ins. dia., bears S.39°E.,
40 lks. dist. mkd. T 20 S R 3 E S 9 B T.
Oak 4 ins. dia., bears S.17°45'W.,
27 lks. dist. mkd. T 20 S R 3 E S 8 B T.
Oak 4 ins. dia., bears N.42°15'W.,
51 lks. dist. mkd. T 20 S R 3 E S 5 B T.

Corner falls on NW. slope, 52 ft. below top of spur.

Land rolling mountains draining NW.

Soil black mountain loam with dry clay subsoil.

Timber aspen.

Undergrowth dense service berry, oak, chokecherry, rose and sage brush and weeds.

Good grass for grazing.

Sept. 18: At the cor. of secs. 4, 5, 8 and 9, I set off 2°05'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°06'.

Thence

S.89°57'E. on random line bet. secs. 4 and 9.

40.00 Set temp. ¼ sec. cor.

Sept. 18, 1915.

Sept. 21: At 8h a.m., apparent time, I set off 39°06' on the lat. arc, 00°59'N. on the decl. arc, and determine a meridian with the solar at the temp. ¼ sec. cor. secs. 4 and 9.

Thence continue S.89°57'E.

Chains	
79.90	Intersect N. and S. line 21 lks. N. of the cor. of secs. 3, 4, 9 and 10.
	Thence
	N.89°51'W. on true line bet. secs. 4 and 9.
	Descend over mountainous land through dense maple and aspen timber and dense undergrowth of service berry, chokecherry, chaparral, oak and sage brush and willows.
.25	Wash in bottom of canyon 8 lks. wide, 4 ft. deep, draining NE.
	Ascend abruptly NE. and E. slopes of ridge.
15.79	Leave dense willows bearing N. and S.
21.18	Leave oak brush bearing N. and S.
26.69	Leave dense undergrowth of chokecherry, chaparral, service berry and rose brush and maple bearing NW. and SE.
	Leave dense aspen timber bearing N. and S.
	Ascend abruptly NE. slope.
30.68	Top of high ridge bearing N. and S., 552 ft. above canyon.
	Descend.
35.36	Enter dense chokecherry and maple and aspen timber bearing NE. and SW.
37.30	Leave dense maple bearing N. and S.
39.95	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 4 and 9, marked on brass cap

S 4
¼
S 9
1915

from which

Aspen 4 ins. dia., bears N.37°30'E.,
39 lks. dist. mkd. ¼ S 4 B T.

Aspen 4 ins. dia., bears S.27°45'W.,
7 lks. dist. mkd. ¼ S 9 B T.

Corner falls on NW. slope, 95 ft. below ridge.

Chains	
47.05	Leave dense aspen timber bearing N. and S.
49.20	Enter dense aspen timber bearing N. and S.
60.80	Small bench, 350 ft. wide, bears N. and S.
62.99	Leave dense aspen timber bearing N. and S.
79.15	Road to Mayfield, Utah bearing NW. and SE.
	Descend to
79.90	The cor; of secs. 4, 5, 8 and 9, 572 ft. below ¼ sec. cor.
	Land rolling mountains, with W. half draining NW. and E. half draining NE.
	Soil black mountain loam mixed with gravel; subsoil W. half dry and gravelly, E. half sandy loam.
	Timber aspen.
	Undergrowth dense chokecherry, service berry, chaparral, rose, oak and scattering sage brush and willows.
	Good grass for grazing.
	Sept. 21, 1915.
	Sept. 23:
	From the cor. of secs. 4, 5, 8 and 9.
	N.0°03'W. on random line bet. secs. 4 and 5.
40.00	Set temp. ¼ sec. cor.
88.32	Intersect N. bdy. of Tp. 54 lks. W. of the cor. of secs. 4, 5, 32 and 33 heretofore described.
	Sept. 23: At 9h a.m., apparent time, I set off 39°07' on the lat. arc, 0°12'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 4, 5, 32 and 33 on N. bdy. of Tp.
	Thence
	S.0°18'W. on true line bet. secs. 4 and 5.
	Over rolling mountainous land facing nearly NE., draining NW., ascending gradually E. slope of bench through undergrowth of scattering oak and dense sage brush.
13.62	Enter dense oak brush bearing E. and W.
	Ascend abruptly N. slope.
19.55	Top of abrupt ascent.
	Thence ascend more gradually along W. slope, leaving

Chains	
	dense oak brush bearing E. and W. and enter scattering oak brush and service berry brush.
38.67	Wash 10 lks. wide, 6 ft. deep, course N.70°W.
47.97	Stream 2 lks. wide, 1½ ins. deep, course W.
48.32	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 4 and 5, marked on brass cap

S 5 | S 4
¼

1915

from which

Oak 5 ins. dia., bears S.45°30'E.,
21 lks. dist. mkd. ¼ S 4 B.T.
Oak 4 ins. dia., bears N.43°15'W.,
137 lks. dist. mkd. ¼ S 5 B T.

Corner falls on NW. slope, 321 ft. above sec. cor.

50.50	Enter boggy land bearing E. and W.
51.60	Leave boggy land bearing E. and W.
56.49	Enter dense oak and service berry brush bearing E. and W.
84.45	Road to Mayfield, Utah, bearing NW. and SE.
87.45	Junction of same roads bearing N.35°E. and N.35°W.
88.32	The cor. of secs. 4, 5, 8 and 9, 374 ft. above ¼ sec. cor.

Land rolling mountains with NE. and NW. exposure.

Soil black mountain loam mixed with gray sandstone and gravel; subsoil dry, black loam.

Timber scattering oak.

Undergrowth sage, oak, service berry, chokecherry brush and weeds.

Good grass for grazing.

Sept. 23, 1915,

Howard W. Miller

U.S. Surveyor.

Sept. 16: At 9h a.m., apparent time, I set off 2°54'N. on the decl. arc, 39°02' on the lat. arc, and determine a meridian with the solar at the cor. of secs. 31 and 32 on S. bdy. of Tp.

Chains	
	Thence
	N.0°03'W. bet. secs. 31 and 32.
	Ascending gradual SE. slope over rough mountainous land through dense aspen timber and dense undergrowth of chokecherry bearing E. and W.
4.71	Leave aspen timber bearing E. and W., thence through chokecherry brush bearing E. and W.
9.68	Enter scattering pinon and aspen timber bearing E. and W.
16.58	Top of ascent, 110 ft. above cor.
	Thence along nearly W. slope.
22.78	Low saddle in ridge bears NE. and SW. through chokecherry brush opening; thence along saddle through very dense chokecherry bearing E. and W.
38.14	Enter dense aspen timber bearing E. and W.
	Ascend gradual SW. slope, west exposure draining SW.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 31 and 32, marked on brass cap
	S ¼ 31 | S 32
	1915
	from which
	Aspen 4 ins. dia., bears N.6°E., 69 lks. dist. mkd. ¼ S 32 B T.
	Aspen 4 ins. dia., bears S.60°30'W., 97 lks. dist. mkd. ¼ S 31 B T.
41.74	Enter scattering pine and fir timber bearing E. and W.
49.59	Leave dense undergrowth of chokecherry brush bearing E. and W.
54.59	Leave dense aspen timber bearing E. and W. and enter dense pine and fir timber and undergrowth of deer brush and chaparral bearing E. and W.
58.69	Enter dense aspen, pine and fir timber bearing E. and W.
60.19	Top of ascent, 213 ft. above ¼ sec. cor.
	Thence descend gradual NW. slope.
65.00	Leave pine and fir timber bearing E. and W.
	Thence through dense aspen timber.

Chains	
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 26 ins. in the ground for the cor. of secs. 29, 30, 31 and 32, marked on brass cap T 20 S R 3 E S 30 | S 29 S 31 | S 32 1915 from which Aspen 8 ins. dia., bears N.7°E., 65 lks. dist. mkd. T 20 S R 3 E S 29 B T. Aspen 5 ins. dia., bears S.78°E., 31 lks. dist. mkd. T 20 S R 3 E S 32 B T. Aspen 6 ins. dia., bears S.78°W., 120 lks. dist. mkd. T 20 S R 3 E S 31 B T. Aspen 9 ins. dia., bears N.62°15'W., 113 lks. dist. mkd. T 20 S R 3 E S 30 B T. Corner falls on gentle NW. slope, 315 ft. below descent. Land rough mountains draining SE. for 16.58 chs. SW. for 14.61 chs. thence NW. Soil rocky, sandy clay loam/ Timber dense aspen, pine and fir. Undergrowth chokecherry, deer brush, chaparral and weeds. Good grass for grazing. Sept. 16: At this cor. I set off 2°15'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°03'.
	S.89°52'E. on a random line bet. secs. 29 and 32.
40.00	Set temp. ¼ sec. cor.
79.97	Intersect N. and S. line 2 lks. N. of the true cor. point for secs. 28, 29, 32 and 33.
	Thence
	N.89°51'W. on true line bet. secs. 29 and 32.
	Over rolling mountainous land, along ridge.
9.12	Top of ascent.
	Thence descend abruptly NW. slope covered with brush and grass.

Chains	
11.97	Enter dead timber and dense undergrowth of sunberry bearing N. and S.
17.29	Top of ledges bearing N. and S. Leave dead timber and descend over slide rock and series of broken white ledges bearing N. and S, through dense pine and fir timber.
21.81	Base of ledges bears N. and S.
	Continue steep descent.
30.08	Head of spring 2 lks. wide, 2 ins. deep, course SW.
	Thence through dense pine and fir timber bearing N. and S.
31.25	Enter aspen timber bearing N. and S.
39.98½	Set an iron post, 3 ft. long, 1 in. in dia., 8 ins. in the ground in mound of stone for the ¼ sec. cor. secs. 29 and 32, marked on brass cap
	S 29 ¼ S 32 1915
	from which
	Aspen 12 ins. dia., bears N.62°W.,
	40 lks. dist. mkd. ¼ S 29 B T.
	Aspen 10 ins. dia., bears S.66°W.,
	52 lks. dist. mkd. ¼ S 32 B T.
	Underlying rock prevents setting post more than 8 ins. in the ground.
	Corner falls on NW. slope, 592 ft. below top of ascent.
58.33	Head of small spring course NW.
	Thence through very dense aspen, pine and fir timber bearing N. and S.
71.88	Leave pine and fir timber, dense, bears N. and S.
75.28	Leave scattering pine and fir timber with a few aspen bearing N. and S.
79.97	The cor. of secs. 29, 30, 31 and 32, 233 ft. below ¼ sec. cor.
	Land rolling and rough mountains draining NW.
	Soil dark, rocky, sandy loam.

Chains	
	Timber dense aspen, pine and fir. Undergrowth sunberry and weeds. Good grass for grazing. Sept. 16, 1915.
	Sept. 17: At 8h a.m., apparent time, I set off 39°03' on the lat. arc, 2°32'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32. Thence N.89°59'W. on random line bet. secs. 30 and 31.
40.00	Set temp. ¼ sec. cor.
80.17	Intersect W. bdy. of Tp. 7 lks. N. of the cor. of secs. 25, 30, 31 and 36, heretofore described. Sept. 17: At this cor. I set off 2°28'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°03'. Thence N.89°58'E. on true line bet. secs. 30 and 31. Ascending SW. slope mountainous land through dense undergrowth of service berry, oak, chokecherry and deer brush.
3.06	Top of gradual ascent, 29 ft. above sec. cor. Descend gradually.
6.95	Oak brush becomes scattering, bearing N. and S. Descend abruptly.
9.63	Leave dense service berry and oak brush bearing N. and S. and enter aspen timber bearing N. and S. Descend gradually SE. slope.
11.22	Canyon, 93 ft. below top of ascent, course SW. Enter dense pine timber bearing N. and S., thence through scattering aspen timber and dense undergrowth of oak and service berry brush bearing N. and S. Ascend abruptly.
15.57	Head of small spring and ravine, course S. Enter dense timber.

Chains	
23.53	Top of steep ascent.
	Leave dense pine and fir timber and dense undergrowth of service berry and deer brush bearing N. and S.
26.17	Enter dense aspen timber and leave dense pine and fir timber bearing N. and S.
40.17	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 30 and 31, marked on brass cap
	S ¼ 30 / S 31 1915
	from which
	Aspen 10 ins. dia., bears N.56°W., 74 lks. dist. mkd. ¼ S 30 B T.
	Aspen 10 ins. dia., bears S.36°W., 79 lks. dist. mkd. ¼ S 31 B T.
	Corner falls on nearly W. slope in aspen timber and dense chokecherry undergrowth, 432 ft. above canyon.
	Thence through dense aspen.
57.77	Enter dense pine and fir timber bearing N. and S.
67.17	Leave dense pine and fir timber, with some aspen bearing N. and S.
74.09	Leave dense undergrowth of chokecherry brush bearing N. and S.
	Ascend NW. slope to
80.17	The cor. of secs. 29, 30, 31 and 32, 644 ft. above the ¼ sec. cor.
	Land rough mountains with 68.95 chs. draining NW., thence SW.
	Soil dark rocky, sandy loam.
	Timber dense aspen, pine, fir and maple.
	Undergrowth dense chokecherry, service berry and oak brush and weeds.
	Good grass for grazing.

Chains	
	N.0°03'W. bet. secs. 29 and 30.
	Descending NW. slope rolling mountainous land through dense aspen timber and dense undergrowth of weeds, bearing E. and W.
19.50	Stream 2 lks. wide, 2 ins. deep, course W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. of secs. 29 and 30, marked on brass cap
	S ¼ 30 | S 29 1915
	from which
	Aspen 12 ins. dia., bears S.41°E.,
	112 lks. dist. mkd. ¼ S 29 B T.
	Aspen 6 ins. dia., bears N.61°30'W.,
	83 lks. dist. mkd. ¼ S 30 B T.
	Corner falls on slope, 249 ft. below sec. cor.
	Spring 1 chain dist. bears NE.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 19, 20, 29 and 30, marked on brass cap
	T 20 S R 3 E S 19 | S 20 S 30 | S 29 1915
	from which
	Aspen 5 ins. dia, bears N.36°30'E.,
	128 lks. dist. mkd. T 20 S R 3 E S 20 B T.
	Aspen 10 ins. dia., bears N.40°15'W.,
	85 lks. dist. mkd. T 20 S R 3 E S 19 B T.
	Aspen 6 ins. dia., bears S.28°15'W.,
	73 lks. dist. mkd. T 20 S R 3 E S 30 B T.
	Aspen 6 ins. dia., bears S.24°30'E.,
	74 lks. dist. mkd. T 20 S R 3 E S 29 B T.
	Corner falls 320 ft. below ¼ sec. cor.
	Land rolling mountains draining NW.
	Soil dark, rocky, sandy loam.
	Timber aspen.

Chains	
	Undergrowth weeds.
	Good grass for grazing.
	Sept. 17, 1915.
	Sept. 18: At 8h a.m., apparent time, I set off 39°04' on the lat. arc, 2°09'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30.
	Thence
	S.89°51'E. on random line bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
80.05	Intersect N. and S. line 2 lks. N. of the cor. of secs. 20, 21, 28 and 29.
	Thence
	N.89°50'W. on true line bet. secs. 20 and 29.
	Descending over mountainous land, through dense pine and fir timber with some aspen timber.
14.88	Leave dense pine and fir bearing N. and S;
40.02½	Point for ¼ sec. cor. falls in creek bed where high water would destroy it. Cor. not set.
40.27	Stream 3 lks. wide, 3 ins. deep, course NW.
40.75	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for WC ¼ sec. cor. secs. 20 and 29, marked on brass cap

T 20 S R 3 E
¼ S 20
S 29 WC
1915

from which

Aspen 8 ins. dia., bears N.38°W.,
10 lks. dist. mkd. WC ¼ S 20 B T.
Aspen 12 ins. dia., bears S.28°W.,
22 lks. dist. mkd. WC ¼ S 29 B T.

Corner falls 340 ft. below sec. cor.

67.97	Wash 30 lks. wide, 10 lks. deep with stream 1 lk. wide, 1 in. deep, course NW.
	Descend gradually NW. slope to

Chains	
80.05	The cor. of secs. 19, 20, 29 and 30, 370 ft. below $\frac{1}{4}$ sec. cor. Land rolling mountainous, draining NW. Soil rocky, sandy loam. Timber aspen, pine and fir. Undergrowth willows and weeds. Good grass for grazing.
	S.89°58'W. on random line bet. secs. 19 and 30.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.30	Intersect W. bdy. of Tp. 14 lks. S. of the cor. of secs. 19, 24, 25 and 30, heretofore described. Sept. 18: Not on line at noon; observation for latitude impossible. Thence S.89°56'E. on a true line bet. secs. 19 and 30. Descending E. slope of mountainous land through aspen timber and dense chokecherry undergrowth.
6.90	Clear Creek, now dry, in canyon, course NW., 70 ft. below sec. cor. Ascend W. slope of canyon.
24.70	Leave dense chokecherry brush bearing N. and S.
40.30	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 19 and 30, marked on brass cap S 19 $\frac{1}{4}$ S 30 1915 from which Aspen 4 ins. dia., bears N.62°W., 19 lks. dist. mkd. $\frac{1}{4}$ S 19 B T. Aspen 8 ins. dia., bears S.13°E., 34 lks. dist. mkd. $\frac{1}{4}$ S 30 B T. Corner falls on W. slope, 223 ft. above creek.
48.41	Enter dense undergrowth of chokecherry bearing N. and S.
51.06	Leave dense undergrowth of chokecherry bearing N. and S.

Chains	
60.60	Ascend gradually NW. slope from Clear Creek Canyon.
80.30	The cor. of secs. 19, 20, 29 and 30, 182 ft. above ¼ sec. cor.
	Land rolling mountains draining NW. for 73.40 chs., thence E. exposure draining NW.
	Soil dark, sandy loam mixed with gravel.
	Timber aspen and pine.
	Undergrowth dense chokecherry and weeds.
	Good grass for grazing.
	Sept. 18, 1915.
	Sept. 20:
	N.0°03'W. bet. secs. 19 and 20.
	Descend gradually NW. slope rolling mountainous land, through dense aspen timber and undergrowth of weeds.
10.20	Wash 7 lks. wide, 3 to 4 ft. deep, course NW.
20.20	Enter dense pine and fir timber bearing E. and W.
23.74	Stream in bottom of canyon, 10 lks. wide 4 to 5 ins. deep, course W., 250 ft. below sec. cor.
	Ascend gradually SW. slope.
26.10	Spur projects NW. 23 ft. above canyon.
	Descend.
28.10	Stream in ravine, 3 lks. wide, 2 to 3 ins. deep, course NW.
	Leave dense timber bearing E. and W. and enter dense oak and service berry brush bearing E. and W.
	Ascend abruptly rocky SW. slope.
35.00	Enter dense aspen and pine timber bearing E. and W.
36.50	Ridge bearing SE. and NW., 92 ft. above spur.
	Leave oak undergrowth bearing E. and W. and descend gradual NW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 19 and 20, marked on brass cap

S 19 | S 20
¼

1915

Chains

from which

Aspen 9 ins. dia., bears N.44°E.,

11 lks. dist. mkd. ¼ S 20 B T.

Pine 16 ins. dia., bears S.19°15'W.,

32 lks. dist. mkd. ¼ S 19 B T.

Corner falls on N. slope, 52 ft. below ridge.

40.90 Ravine draining NW.

Leave aspen timber bearing E. and W. and ascend gradually SW. slope through dense pine and fir timber and dense undergrowth of deer and service berry brush bearing E. and W.

52.30 Leave dense pine and fir timber bearing E. and W. and enter dense aspen timber bearing E. and W.

Thence along gradual W. slope.

62.80 Leave dense aspen and enter dense pine and fir and maple bearing E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 17, 18, 19 and 20, marked on brass cap

T 20 S R 3 E
S 18 | S 17
S 19 | S 20
1915

from which

Aspen 8 ins. dia., bears N.58°E.,

30 lks. dist. mkd. T 20 S R 3 E S 17 B T.

Aspen 9 ins. dia., bears S.84°E.,

21 lks. dist. mkd. T 20 S R 3 E S 20 B T.

Pine 16 ins. dia., bears S.44°15'W.,

33 lks. dist. mkd. T 20 S R 3 E S 19 B T.

Pine 15 ins. dia., bears N.76°W.,

35 lks. dist. mkd. T 20 S R 3 E S 18 B T.

Land rolling mountains draining NW.

Soil black, sandy loam mixed with rock and gravel.

Timber dense aspen, pine and fir.

Undergrowth dense oak, service berry, deer brush and weeds.

Good grass for grazing.

Chains	
	Sept. 20: At 8h a.m., apparent time, I set off 39°05' on the lat. arc, 1°23'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.
	Thence
	S.89°50'E. on random line bet. secs. 17 and 20.
40.00	Set temp. ¼ sec. cor.
79.88	Intersect N. and S. line 7 lks. N. of the cor. of secs. 17, 18, 19 and 20.
	Thence
	N.89°47'W. on true line bet. secs. 17 and 20.
	Ascending gradual SE. slope rough and rolling mountains draining NE., through dense aspen and scattering pine and fir timber and undergrowth of weeds bearing N. and S. with some grass.
.30	Ravine and stream nearly dry, course NE.
8.93	Enter dense willow, service and deer brush bearing N. and S. Ascend abrupt E. slope.
12.60	Leave willow and service berry brush and enter dense chokecherry bearing N. and S.
19.09	Leave dense chokecherry bearing N. and S.
22.80	Ridge bearing SE. and NW., 345 ft. above sec. cor. Thence descend gradual W. exposure.
39.94	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 17 and 20, marked on brass cap

S 17
¼
S 20
1915

from which

Aspen 8 ins. dia., bears N.30°30'E.,
31 lks. dist. mkd. ¼ S 17 B T.
Aspen 8 ins. dia., bears S.73°W.,
49 lks. dist. mkd. ¼ S 20 B T.

40.00	Stream, nearly dry, draining NW., 225 ft. below ridge. Ascend gradual NE. slope, entering dense chokecherry bearing N. and S.

Chains	
46.10	Head of small spring bears S. 30 lks. of line.
52.90	Spur projects N., 180 ft. above $\frac{1}{4}$ sec. cor.
	Thence descend gradual NW. slope with pine timber becoming more dense.
67.35	Enter extra dense maple and chaparral bearing N. and S.
72.30	Leave maple bearing N. and S.
79.88	The cor. of secs. 17, 18, 19 and 20, 394 ft. below spur.
	Sept. 20: At this cor. I set off 1°19'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°05'.
	Land rough and rolling mountains draining NE. for 22.80 chs. thence NW.
	Soil black, sandy loam mixed with rock and gravel.
	Timber aspen, pine, fir and maple.
	Undergrowth service berry, chokecherry and willow brush and weeds.
	Good grass for grazing.
	Sept. 20, 1915.

	Sept. 21: At 8h 30m a.m., apparent time, I set off 39°05' on the lat. arc, 0°59'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.
	Thence
	N.89°56'W. on random line bet. secs. 18 and 19.
35.18	Line passes over broken ledges and jungle in bottom of canyon, impracticable to chain. Therefore I triangulate as follows:
	Set flag at this point, also set flag on line at intersection with W. bdy. of township at point 2 lks. N. of the cor. of secs. 13, 18, 19 and 24, then measure a base N.0°13'W., 39.98 chs. to point from which angle between flags measures 48°14'.

log. 39.98	= 1.601843	
colog. sin. 41°29'	= 0.178878	
log. sin. 48°14'	= 9.872659	= 45.01
	1.653380	

which added to 35.18 = 80.19.

Chains	
80.19	Intersect W. bdy. of Tp. 2 lks. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described. Thence
	S.89°57'E. on true line bet. secs. 18 and 19.
	Approximate topography to 45.01 ch. point as follows:
	Over rough mountainous land through exceptionally dense aspen and scattering pine timber and chokecherry undergrowth and jungle across bottom of Clear Creek Canyon.
5.00	Bottom of Clear Creek Canyon. Stream 3 lks. wide, 4 ins. deep, course N.
	Thence ascend over broken ledges.
40.19	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 18 and 19, marked on brass cap
	S 18 / $\frac{1}{4}$ / S 19 / 1915
	and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of the cor.
	Ascend through dense oak, service berry and buck brush on W. edge of canyon.
45.01	To point of triangulation.
45.94	Top of abrupt ascent, entering pine timber bearing N. and S. Leave dense aspen timber.
	Thence through dense service berry, chokecherry, oak brush undergrowth and scattering pine timber bearing N. and S.
	Ascend gradually W. slope.
63.69	Enter dense aspen timber bearing N. and S.
80.19	The cor. of secs. 17, 18, 19 and 20.
	Land rolling mountains draining NW.
	Soil black, sandy loam.
	Timber aspen and pine.
	Undergrowth chokecherry, service berry and oak brush.

Chains	
	N.0°03'W. bet. secs. 17 and 18.
	Over rough mountainous land through dense aspen timber and dense undergrowth of chokecherry brush bearing E. and W.
8.37	Opening, in timber, bearing E. and W.
13.47	Leave dense undergrowth of chokecherry brush bearing E. and W.
19.50	Enter dense aspen timber bearing E. and W.
21.90	Ridge bearing SE. and NW.
	Descend gradually gentle NE. slope. Enter undergrowth of chokecherry brush bearing E. and W.
23.00	Enter dense pine and fir timber with aspen scattered throughout. Undergrowth becomes very dense.
34.36	Leave dense chokecherry and enter dense maple undergrowth bearing E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 17 and 18, marked on brass cap
	S 18 ¼ | S 17 1915
	from which
	Aspen 4 ins. dia., bears S.55°E., 24 lks. dist. mkd. ¼ S 17 B T.
	Pine 20 ins. dia., bears S.53°W., 7 lks. dist. mkd. ¼ S 18 B T.
	Corner falls on gradual NE. slope, 263 ft. below ridge.
42.00	Leave aspen and maple timber bearing E. and W. and enter dense oak, chokecherry and chaparral undergrowth with pine timber bearing E. and W.
	Thence along ridge.
47.30	Descend abruptly E. slope of ridge; timber very dense.
59.30	Canyon, 358 ft. below ¼ sec. cor., course NW.
	Ascend abruptly SW. slope.
61.50	Leave pine timber bearing E. and W., enter dense service berry, oak and buck brush bearing E. and W.

Chains	
67.70	Solid conglomerate ledge about 75 ft. high, bears SE. and NW. about 2 chs. W. of line.
71.68	Top of ascent, 216 ft. above canyon. Descend gradually NW. slope.
73.76	Enter scattering aspen and pine timber bearing E. and W.
77.96	Enter dense undergrowth of sagebrush bearing E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 7, 8, 17 and 18, marked on brass cap

T 20 S R 3 E
S 7 | S 8
S 18 | S 17
1915

from which

Spruce 6 ins. dia., bears N.64°E.,
73 lks. dist. mkd. T 20 S R 3 E S 8 B T.
Spruce 8 ins. dia., bears S.51°15'E.,
77 lks. dist. mkd. T 20 S R 3 E S 17 B T.
Spruce 5 ins. dia., bears S.53°30'W.,
60 lks. dist. mkd. T 20 S R 3 E S 18 B T.
Spruce 4 ins. dia., bears N.25°W.,
137 lks. dist. mkd. T 20 S R 3 E S 7 B T.

Corner falls on NW. slope, 93 ft. below top of ascent.

Land rough mountainous draining NW.

Soil black, sandy loam mixed with rock and gravel.

Timber dense aspen, pine, fir and maple.

Undergrowth weeds, chokecherry, buck, oak brush and chaparral.

Good grass for grazing.

Sept. 21, 1915.

Isaac Hayes
U.S. Transitman.

S.89°47'E. on random line bet. secs. 8 and 17.

40.00	Set temp. ¼ sec. cor.
79.59	Intersect N. and S. line 35 lks. S. of the cor. of secs.

Chains	
	8, 9, 16 and 17.
	Sept. 22: At 8h a.m., l.m.t., I set off 39°05' on the lat. arc, 0°36'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.
	Thence
	S.89°58'W. on true line bet. secs. 8 and 17.
	Descending NW. slope rough mountainous land draining NW. through dense aspen, balsam and fir timber and undergrowth of chaparral, oak brush, weeds and grass, into Beaver Creek.
3.49	Beaver Creek, 5 lks. wide, 6 ins. deep, course NW., 96 ft. below sec. cor.
	Thence ascend abruptly SE. slope; enter dense chokecherry bearing N. and S.
6.71	Top of sharp rocky spur bearing N. and S., 102 ft. above Beaver Creek. Thence descend abruptly over nearly W. slope.
7.93	Stream 1 lk. wide, 1 in. deep, course N. Also bottom of descent and swale; enter maple timber bearing N; and S. Thence ascend abruptly NE. slope.
22.30	Small spring 20 lks. S. of line, 1 lk. wide, 1 in. deep, course N.
28.55	Thence ascend more gradually.
33.45	Enter dense spruce and balsam timber bearing N. and S.
39.94½	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. secs. 8 and 17, marked on brass cap

S 8
¼
S 17
1915

from which

Balsam 16 ins. dia., bears N.59°30'E., 49 lks. dist. mkd. ¼ S.8 B T.

Aspen 8 ins. dia., bears S.55°15'W., 31 lks. dist. mkd. ¼ S 17 B T.

Chains	
	Corner falls on NE. slope, 273 ft. above swale.
50.21	Leave aspen timber bearing N. and S.
53.86	Leave dense pine timber bearing N. and S., enter aspen timber. Ascend abruptly.
57.13	Leave dense aspen timber bearing N. and S.
57.83	Top of ridge bearing N. and S., 166 ft. above 1/4 sec. cor. Descend abruptly over W. slope; enter very dense oak, service and scattering sage brush.
68.06	Enter scattering aspen timber and pine timber bearing N. and S.
79.89	The cor. of secs. 7, 8, 17 and 18, 453 ft. below top of ridge.
	Land rough mountainous draining NE. for 57.83 chs., thence W. for 21.06 chs.
	Soil black, mountain loam mixed with rock and gravel; subsoil black mountain loam mixed with gravel and rock.
	Timber aspen, spruce, pine, balsam and maple.
	Undergrowth oak, service berry, chokecherry, rose, sage brush and chaparral and weeds.
	Good grass for grazing.
	Sept. 22: At this cor. I set off 0°32'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°05'.
	N.89°57'W. on random line bet. secs. 7 and 18.
40.00	Set temp. 1/4 sec. cor.
80.44	Intersect W. bdy. of Tp. 7 lks. south of the cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence
	S.89°54'E. on true line bet. secs. 7 and 18.
	Over rough mountainous land through aspen and pine timber and undergrowth of dense buck, oak and service berry brush.
	Descend abruptly E. slope of Clear Creek Canyon.
10.90	Enter dense maple and scattering cottonwood timber bears N. and S.

Chains	
12.48	Clear Creek, 4 lks. wide, 5 ins. deep, course N. in canyon, 430 ft. below sec. cor.
	Leave dense maple and cottonwood bearing N. and S.
	Ascend abruptly W. slope canyon, through dense oak, buck and service berry brush.
36.45	Top of ridge bearing N. and S., 660 ft. above creek.
	Descend gradually leaving dense buck and service berry brush bearing N. and S.
40.44	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 7 and 18, marked on brass cap
	S $\frac{1}{4}$ 7 / S 18 1915
	and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
	Corner falls on NE. slope, 48 ft. below top of ridge.
43.29	Stream 2 lks. wide, 3 ins. deep, course N.
	Enter aspen and pine timber bearing NW. and SE. and descend abruptly NE. slope to
49.65	Stream in bottom of canyon 1 lk. wide, 2 ins. deep, course NW., 124 ft. below $\frac{1}{4}$ sec. cor. Leave aspen and pine timber bearing NW. and SE.
	Ascend abruptly from canyon through dense oak, service berry and chokecherry brush.
61.74	Top of limestone ledges, 20 ft. high, bearing SE. and NW.
	Gradually ascend leaving very dense oak, service berry and chokecherry brush.
73.38	Top of spur projecting NW., 702 ft. above canyon.
	Descend gradually NE. slope.
75.47	Wide swale, 12 ft. below top of spur, draining south.
79.69	Enter scattering pine and aspen timber bearing N. and S.
	Ascend gradually NW. slope to
80.44	The cor. of secs. 7, 8, 17 and 18, 38 ft. above swale.

Chains	
	Land rough mountainous draining W. for 67.96 chs. thence E. 12.48 chs.
	Soil black, mountainous loam mixed with gravel and rock; subsoil black and dry, mixed with gravel.
	Timber pine and aspen and dense maple.
	Undergrowth oak, buck, service berry, chokecherry, sage, rose brush and weeds.
	Good grass for grazing.
	Sept. 22, 1915. Howard W. Miller U.S. Surveyor.
	Sept. 23: At 8h 30m a.m., I set off 39°05' on the lat. arc, 0°12'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.
	Thence
	N.0°03'W. bet. secs. 7 and 8.
	Descending over NW. slope mountainous land through scattering pine timber and undergrowth of service berry, oak and sage brush bearing E. and W.
11.00	Ravine draining NW., 119 ft. below sec. cor.
	Ascend gradually SW. slope, leaving sage brush bearing E. and W. and entering dense buck brush and manzanita bearing E. and W. Pine timber becomes more dense.
21.40	Leave dense pine and fir bearing E. and W. and enter scattering pinon pine and cedar timber and dense undergrowth of sage, oak and buck brush with service brush bearing E. and W.
	Ascend more abruptly SW. slope.
26.10	Leave sage brush and enter dense brigham brush bearing E. and W.
29.60	Top of ascent, 176 ft. above ravine.
	Thence over W. slope, leaving brigham brush undergrowth.
37.30	Enter dense pine and fir timber bearing E. and W.
	Descend gradually NW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Chains	
	the ground for the $\frac{1}{4}$ sec. cor. secs. 7 and 8, marked on brass cap
	S $\frac{1}{4}$ 7 | S 8 1915
	from which
	Fir 5 ins. dia., bears N.49°30'E.,
	66 lks. dist. mkd. $\frac{1}{4}$ S 8 B T.
	Pine 10 ins. dia., bears west,
	17 lks. dist. mkd. $\frac{1}{4}$ S 7 B T.
	Corner falls on NW. slope, 25 ft. below top of descent.
44.68	Leave pine and fir timber bearing E. and W., thence through dense oak, service berry and sage brush bearing E. and W.
59.30	East edge of pinon, aspen and maple grove bearing E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 5, 6, 7 and 8, marked on brass cap
	T 20 S R 3 E S 6 | S 5 S 7 | S 8 1915
	and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
	Corner falls on W. slope, 265 ft. below $\frac{1}{4}$ sec. cor.
	Land rough mountainous draining NW.
	Soil rocky, sandy loam.
	Timber pine, fir, cedar, aspen and maple.
	Undergrowth service berry, buck, oak and sage brush.
	Good grass for grazing.
	Sept. 23: At this cor. I set off 0°09'N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. is 39°06'.

Isaac Hayes

U.S.Transitman.

Chains	
	N.89°58'E. on random line bet. secs. 5 and 8.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.82	Intersect N. and S. line 19 lks. N. of the cor. of secs. 4, 5, 8 and 9.
	Thence
	S.89°54'W. on true line bet. secs. 5 and 8.
	Descending gradual NW. slope over rough mountainous land draining NW., through dense oak, service, sage, rose brush and chaparral undergrowth.
16.09	Thence descend abruptly SW. slope into Beaver Creek Canyon. Enter dense undergrowth of buck brush bearing N. and S.
19.99	Beaver Creek 5 lks. wide, 4 ins. deep, course NW., 502 ft. below sec. cor. Thence ascend abruptly NE. slope.
	Enter aspen and scattering pine timber bearing N. and S.
20.87	Old road in Beaver Creek canyon, bearing N. and S.
23.48	Enter dense maple timber bearing N. and S.
32.10	Small spur projects N. 100 ft. above creek.
	Descend gradually nearly W. slope into swale.
35.03	Bottom of swale and stream 2 lks. wide, 3 ins. deep, course N., 28 ft. below small spur.
	Ascend gradually NE. slope.
39.91	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 5 and 8, marked on brass cap

$$\frac{S\ \frac{1}{4}\ 5}{S\ 8\ 1915}$$

from which

Aspen 5 ins. dia., bears N.64°30'E., 26 lks. dist. mkd. $\frac{1}{4}$ S 5 B T.

Aspen 7 ins. dia., bears S.9°15'E., 38 lks. dist. mkd. $\frac{1}{4}$ S 8 B T.

Corner falls on NE. slope, 79 ft. above swale.

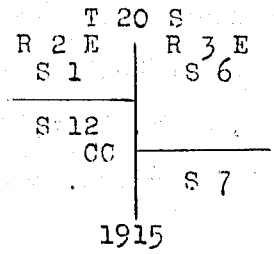
Sept. 23: Not on line at noon, latitude observation not taken.

Chains	
45.17	Leave aspen and scattering pine timber bearing N, and S.
48.40	Sagebrush bench bearing N. and S.
	Ascend gradually across bench. Leave dense maple, oak and service berry brush bearing N. and S.
53.36	Leave sagebrush bench bearing N. and S.
	Ascend abruptly E. slope. Enter dense oak and service berry and rose brush.
65.68	Top of high ridge bearing N. and S., 279 ft. above $\frac{1}{4}$ sec. cor. Descend gradual W. slope.
79.82	The cor. of secs. 5, 6, 7 and 8, 233 ft. below top of ridge.
	Land rolling mountainous, draining N.
	Soil black, dry mountain loam mixed with white limestone and shale rock.
	Timber aspen, pine and spruce.
	Undergrowth oak, buck brush, service berry, rose and sage brush, chokecherry and weeds.
	Good grass for grazing.
	Knowing that CC will be necessary on the W. bdy. of Tp. N.89°54'W. on true line bet. secs. 6 and 7.
	Descending gradually W. slope through dense undergrowth of sage, service berry and oak brush.
16.90	Enter dense buck brush bearing N. and S.
20.25	Thence along nearly N. slope.
25.08	Enter dense manzanita brush bearing N. and S.
	Descend over W. slope.
35.52	Small stream 2 lks. wide, 2 ins. deep, course NW.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. secs. 6 and 7, marked on brass cap

S 6
$\frac{1}{4}$
S 7
1915

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

Chains	
	Corner falls on small bench bearing N. and S., 625 ft. below sec. cor.
	Sept. 23, 1915.
	Sept. 24: At 9h a.m., apparent time, I set off 39°06' on the lat. arc, 0°12'S. on the decl. arc, and determine a meridian with the solar at the ¼ sec. cor. secs. 6 and 7.
	Thence
43.96	Descend. W. slope.
72.02	Bottom of canyon and Clear Creek, 6 lks. wide, 4 ins. deep, course N., 607 ft. below ¼ sec. cor. Some cottonwood in canyon.
	Ascend abruptly E. slope.
80.72	Intersect W. bdy. of Tp. 10.22 chs. S.0°13'E. of the cor. of secs. 1 and 12, Tp. 20 S. R. 2 E.
	At point of intersection
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the CC. of secs. 6 and 7, marked on brass cap



and raise a mound of stone 2 ft. base, 1½ ft. high E. of cor.

Corner falls on E. slope, 257 ft. above Clear Creek.

Land rolling and mountainous draining W. for 72 chs., thence E.

Soil black, mountain loam mixed with gravel rock; subsoil dry, gravelly clay.

Timber none.

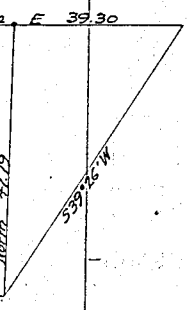
Undergrowth sage, service berry, oak and manzanita brush.

Good grass for grazing.

Howard W. Miller

U.S. Surveyor.

Chains	
	Sept. 23 :
	N.0°03'W. on random line bet. secs. 5 and 6.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
	Line descends over series of limestone ledges, too steep to chain, therefore triangulate as follows:
	Offset E 19 lks. to a point S. of the cor. of secs. 5, 6, 31 and 32 on the N. bdy. of Tp.; measure a base east 39.30 chs. from the cor. of secs. 5, 6, 31 and 32 to point whence point 19 lks. E. of temp. $\frac{1}{4}$ sec. cor. bears S.39°26'W. From point 19 lks. E. of temp. $\frac{1}{4}$ sec. cor., E. end of base bears N.39°26'E. Therefore



$$\begin{array}{rl} \text{log. } 39.30 & = 1.594393 \\ \text{log.cot. } 39°26' & = \underline{10.084925} \\ & \quad 1.679318 \end{array} =$$

47.79, which added to 40.00 = 87.79.

87.79	Intersect N. bdy. of Tp. on random line, 22 lks. W. of the cor. of secs. 5, 6, 31 and 32, heretofore described.
	Thence
	S.0°05'W. on true line bet. secs. 5 and 6.
	Over precipitous N. slope of mountain, over ledges and exceptionally dense undergrowth of oak, service berry, sage and buck brush bearing E. and W.
47.79	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 5 and 6, marked on brass cap

$$S\,\tfrac{1}{4}\,6 \,\big|\, S\,5$$

1915

and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.

Corner falls on steep N. slope of mountain, about 1000 ft. above sec. cor.

Continue abrupt ascent.

Ascend gradual NW. slope.

61.79	Top of ascent, 270 ft. above $\frac{1}{4}$ sec. cor., bearing NW. and SE.
	Thence over nearly W. slope.
87.79	The cor. of secs. 5, 6, 7 and 8.

Chains

Land rough mountains draining S. for 26 chs. thence N.
North half of mile very rough.
Soil shallow, brown loam mixed with limerocks and gravel on rocky and gravelly subsoil, 3rd rate.
No timber.
Undergrowth oak, sage, service berry and buck brush.

Sept. 23, 1915.

Isaac Hayes
U.S.Transitman.

GENERAL DESCRIPTION.

This township, being situated on the summit spur of the Wasatch Mountain, is rough and mountainous, with an elevation ranging from 7000 to 10500 ft; Mary's Nipple is sec. 28 and White Mountain in east half secs. 12 and 13 being the highest point of elevation.

The soil is generally a rich, black mountain loam, mixed with gravel and rocks on a moist loam and gravel subsoil, generally packed hard. On the highest portions and steep slopes the ground is usually barren and covered with loose rock, while in the canyon bottom the soil lies deep.

Secs. 13, 14, 23, 24, 25, 26, 27, 34, 35 and 36 are situated in what is called Gunnison Valley or head waters of Salina Creek; the remainder of the township has a general exposure to the NW. and drains into Twelve Mile Creek. Gunnison Valley has very gradual slopes and is the only part of the township that is not rough.

Twelve Mile Creek and its tributaries run through this township in a northwesterly direction. There is a good water supply, the water being used for irrigating purposes in the valley to the west.

Considerable pine, spruce, balsam and fir are found in the east half of the township, but none in the west. Aspen timber predominates being very dense in the east

half of the township and more scattering in the west. There is a rank growth of oak, service berry, sage, maple, buck, alder and willow brush in the west half of the township, but the undergrowth becomes more scattering in the east portion of the township where it changes to chokecherry and chaparral.

There are no settlers in this township.

We find no indications of mineral in this township.

Boundaries of T. 20 S. R. 3 E.

Latitudes, Departures and closing Errors.

Line designated	True bearing	Distance chs.	Latitude N. chs.	Latitude S. chs.	Departure E. chs.	Departure W. chs.
W.Bdy.	N.0°13'W.	410.22	410.22			1.55
	N.0°04'E.	38.65	38.65		.05	
	N.0°03'E.	38.90	38.90		.03	
N.Bdy.	East	481.15			481.15	
E.Bdy.	South	488.18		488.18		
4th St.Par.S.	N.89°56'W.	26.67	.03			26.67
	N.89°36'W.	39.86	.28			39.86
	S.89°29'W.	39.96		.36		39.96
	N.89°56'W.	39.86	.05			39.86
	N.89°59'W.	40.02	.01			40.02
	S.89°32'W.	40.01		.33		40.01
	N.89°39'W.	40.16	.24			40.16
	S.89°41'W.	39.76		.22		39.76
	N.89°41'W.	40.15	.22			40.15
	N.89°58'W.	40.18	.02			40.18
	N.89°59'W.	39.38	.01			39.38
	N.89°46'W.	40.13	.16			40.13
	S.89°25'W.	13.86		.41		13.86
Convergency					.59	
			488.79	489.59	481.82	481.55
				488.79	481.55	
Error in latitude				.71		
Error in departure					.27	

Howard W Miller

U.S.Surveyor.

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Page

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, _____, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of _____

_____

_____

_____

_____

_____

_____

of the _____ Meridian, in the State of _____ which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

_____

U. S. Surveyor.

FINAL OATH OF UNITED STATES ~~SURVEYOR~~ TRANSITMAN

I, Isaac Hayes, U.S. Transitman, ~~U.S. Surveyor~~, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 14 day of May, 1915, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Survey E. bdy., retracement S. bdy., retracement, resurvey and survey of subdivision of T.20 S., R.2 E.; Survey E., S. & W. bdrs. and resurvey N. bdy. and survey subdivision of T.19 S., R.3 E.; Survey S. bdy., resurvey E. bdy. and survey subdivision of T.19 S., R.4 E.; Resurvey S. bdy., survey E. bdy. and survey of subdivision of T.20 S., R.3 E of the Salt Lake Base Meridian, in the State of Utah, which are represented in the foregoing field notes in books "A" to "F" inclusive as having been executed 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 U. S. 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.

Isaac Hayes
U. S. Transitman ~~U.S. Surveyor.~~

Subscribed by said Isaac Hayes, and sworn to before me this 15 day of May, 1916

Fred D. Broadbent
Clerk of Court

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

~~Salt Lake City, Utah, March 31, 1917~~

The foregoing field notes of the ~~survey of~~ retracement and survey of Fourth Standard Parallel South through Rgs. 3 & 4 E. and survey East boundary and subdivisions T. 20 S. R. 3 E.

executed by Howard W. Miller and Isaac Hayes under his special instructions dated May 14, 1915, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. 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.

U. S. Surveyor General.

6—2761

4—680

BOOK A-420

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Howard W. Miller & Isaac Hayes, U. S. Surveyor and U. S. Transitman, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of survey E. bdy., retracement S. bdy., retracement, resurvey and survey subdivision T. 20 S., R. 2 E.; Survey E. S. & W. bdrs, resurvey N. bdy. and survey subdivision T. 19 S. R. 3 E.; survey S. bdy., resurvey E. bdy. and survey subdivision T. 19 S., R. 4 E.; resurvey S. bdy., survey E. bdy. and survey subdivision of T. 20 S. R. 3 E.

of the Salt Lake Base and Meridian, in the State of Utah which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
William Monson	May 23, 1915	May 31, 1915	flagman
Edward Nelson	May 23, 1915	Aug. 29, 1915	chainman
Edward R. Nelson	May 23, 1915	July 31, 1915	flagman
Melvin Jensen	July 6, 1915 Sept. 3, 1915	August 7, 1915 Sept. 23, 1915	axman cornerman
Jake A. Jensen	August 4, 1915	August 9, 1915	axman
Hyrum W. Littlock	June 28, 1915	Sept. 23, 1915	axman
Angus Christiansen	August 2, 1915	Sept. 23, 1915	axman
Carl Ray	May 23, 1915	Sept. 23, 1915	chainman
William Fredrickson	May 23, 1915	Sept. 23, 1915	"
Rufus W. Riley	August 3, 1915	Sept. 23, 1915	"
Edward Jones	May 23, 1915	Sept. 23, 1915	"
Edward Oliver	May 23, 1915	Sept. 23, 1915	flagman
Leo N. Kunzler	May 23, 1915	Sept. 23, 1915	"
James Tyrrell	May 23, 1915	Sept. 23, 1915	cornerman
Harvey Fox	May 23, 1915	Sept. 23, 1915	"

Subscribed and certified to before me on the dates of the final service as shown above.

Howard W. Miller
U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, Howard W. Miller, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 14 day of May, 191 5, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Survey E.bdy. retracement S.bdy., retracement, resurvey and survey of subdivision of T.20 S.R.2 E.; survey E.S.& W.bdrs. and resurvey N.bdy. and survey subdivision of T.19 S.R.3 E.; survey S.bdy., resurvey E.bdy. and survey subdivision of T.19 S.R.4 E.; resurvey S.bdy., survey E.bdy. and survey of subdivision of T. 20 S. R. 3 E., of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes in books "A" to "F" inclusive as having been executed 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 U. S. 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.

Howard W. Miller
U. S. Surveyor.

Subscribed by said Howard W. Miller, and sworn to before me this 29th day of March, 191 7

M. A. Thorsen
U.S. Surveyor General for Utah.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 31, 191 7

The foregoing field notes of the ~~survey of~~ retracement and survey of Fourth Standard Parallel South through Rgs. 3 & 4 E. and survey East boundary and subdivisions T. 20 S.R.3 E.

executed by Howard W. Miller and Isaac Hayes under ~~his~~ their special instructions dated May 14, 1915, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and surveys they describe, are hereby approved.

M. A. Thorsen
U. S. 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.

6—2761

U. S. Surveyor General.