Volume

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BOOK A-431

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FIELD NOTES

OF THE ~~SURVEY OF THE~~

U. S. Surveyor General's Office
MAR 3 1914
SALT LAKE CITY, UTAH.

U. S. Surveyor General's Office
JAN 16 1918
SALT LAKE CITY, UTAH.

RETRACEMENT, RESURVEY, AND SURVEY OF THE SUBDIVISION

RETRACEMENT AND RESURVEY OF WEST BOUNDARY

TOWNSHIP 16 SOUTH, RANGE 4 EAST,

AND

RETRACEMENT AND RESURVEY OF THE THIRD STANDARD PARALLEL SOUTH RANGE 4 EAST

Of the SALT LAKE BASE AND *Meridian,*

In the State of U T A H

EXECUTED BY

HOWARD W. MILLER AND THOMAS C. RATHBONE

In the capacity of U. S. Surveyor, and Transitman *under instructions dated* July 19, *1913, issued by the United States Surveyor General to govern surveys included in Group No.* 25, *which were approved by the Commissioner of the General Land Office,* August 13, *1913, pursuant to authority contained in the Act of Congress dated* *191*

Survey commenced October 16, *1913*

Survey completed November 29, *1913.*

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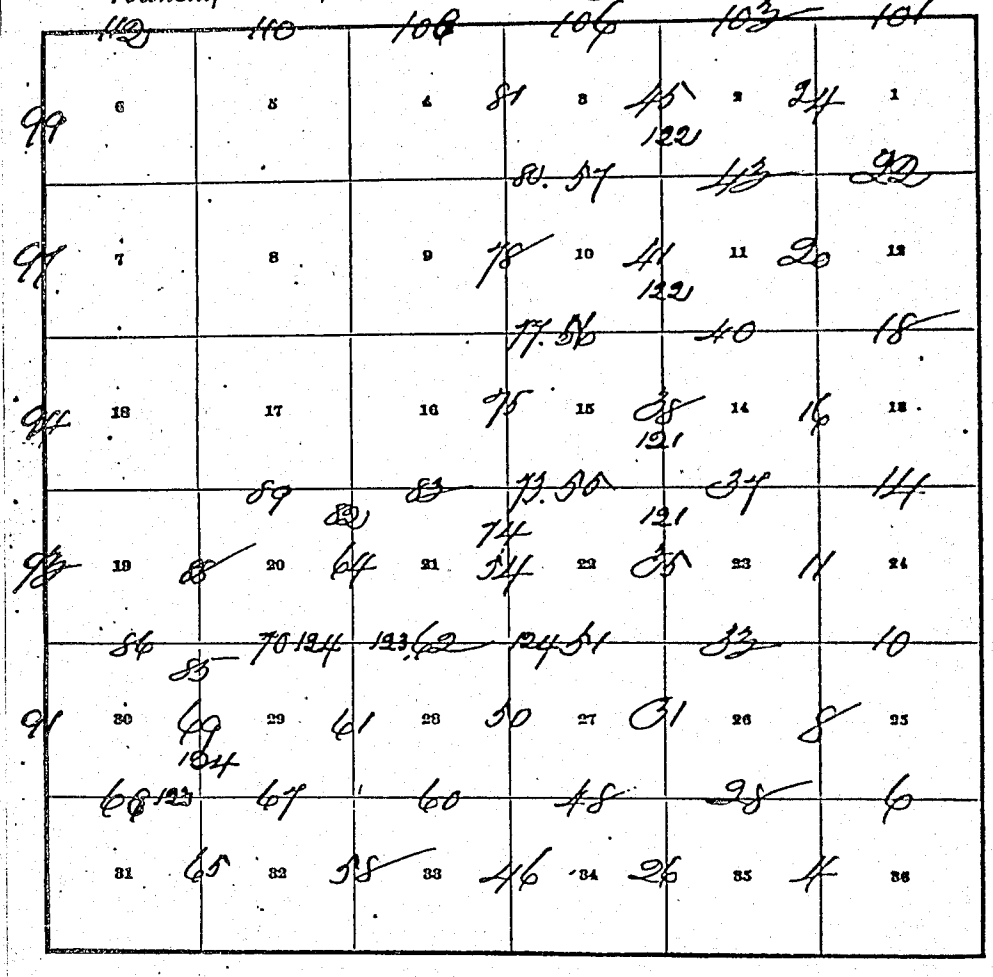
INDEX DIAGRAM.

Township 16 South, Range 4 East



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BOOK A-431

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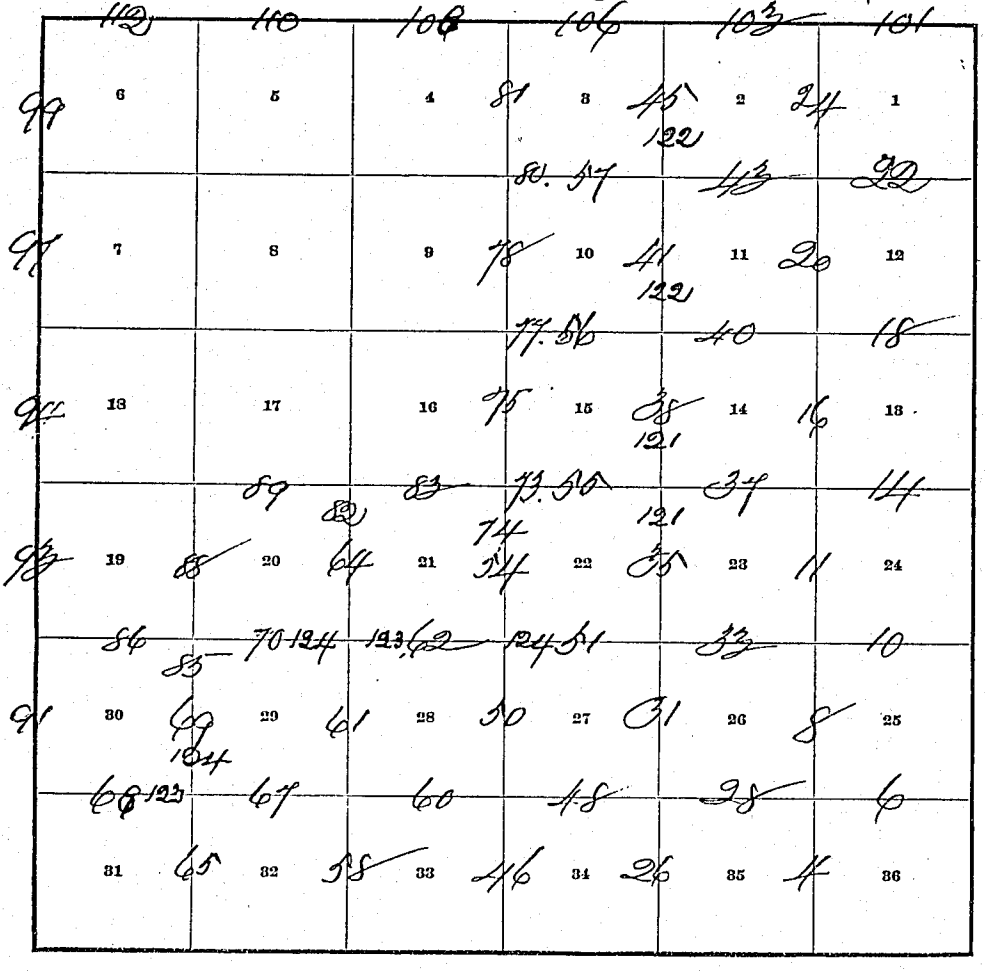
INDEX DIAGRAM.

Township 16 South, Range 4 East



6—1817

Subdivision of T.16 S., R.4 E.

Survey commenced October 16, 1913, and executed with Young and Sons light mountain transits Nos.8584, 8515, and 8589.

For complete descriptions and tests of instruments see book "A" page 44 for transit No.8584, page 27 this book for No.8515, and book "A" page 90 for No.8589.

I examine the adjustments of transit No.8584, and correct the level and collimation errors; then, to test the solar apparatus by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At my camp, which is situated near the cor. of secs.4,5, 8, and 9, T.17 S., R.4 E., in approximate lat.39°22' N.; long.111° 31'W., I set off 39° 22'N. on the lat. arc; 8° 53'S. on the decl. arc; and at 3h 46m 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 my station.

At 7h 00m p.m.l.m.t., I place the transit over the above desccibed station; set the verniers of the plates at zero, and direct the telescope to the stone already set 5 ch.N.

At 7h 10m a.m.l.m.t., I unclamp the vernier plate, observe Polaris in accordance with the Manual of Instructions, and mark the direction thus determined by a nail driven in a hub, set firmly in the ground 5 chs.N. of the station. The readings of the horizontal limb at the time of observation are as follows:

Telescope direct, ...1° 24'
Telescope reversed, ...1° 23'
Mean, ...1°23' 30"

U.C.Polaris October 16, 1913, ...11h 49m
Time of observation, ... 7h 10m

Time argument, ... 4h 39m

Azimuth of Polaris at observation, ...N.1° 24'E.

The true bearing of the meridian determined with the

Chains. solar is therefore N.1° 00' 30" E.

October 16, 1913.

October 17: At 8h 45m a.m.l.m.t., I set off 39° 22'N. on the lat.arc; 9° 10'S.on the decl.arc; and determine a meridian with the solar, and find that the Polaris meridian determined October 16 bears N.1°25'E.

The solar apparatus by p.m.and a.m.observations defines positions for meridian respectively about 30" E.and 1'W.of the true meridian established by observations made on Polaris; I therefore conclude that the instrument is in perfect adjustment.

The magnetic bearing of the true meridian at 9h a.m. is N.17° E., the angle thus determined gives the magnetic decl.17° 00'E.

October 20: At 1h 45m p.m.l.m.t., I set off 39° 23'N. on the lat.arc; 10° 21'S.on the decl.arc; and determine a meridian with the solar at the cor.of secs.1, 2,35, and 36, heretofore described.

Thence I run

N.0° 01'W.bet.secs.35 and 36,

Over rough mountainous land facing NW.; through dense undergrowth of wild gooseberry and chaparral.

Descend.

4.40 Small hollow, drains NW.

Ascend rapidly.

8.80 Enter dense aspen timber, bears E. and W.

12.80 Top of spur, 50 ft.high, projects NW.

Descend rapidly.

17.40 Hollow, 50 ft.deep, drains NW.

Ascend.

Subdivision of T.16 S.,R.4 E.

chains	
	Enter scattering pine and spruce timber , bears E. and W.
19.20	Top of spur , 75 ft. high , projects NW.
	Descend
22.30	Hollow , 50 ft. deep , course NE.
	Gradually ascend.
31.00	Small spur , projects NE.
	Gradually descend along NW. slope/
34.50	Descend abruptly over N. slope.
37.00	Perpendicular ledge , 30 ft. high , bears NE. and SW.
37.20	Gulch , drains N.15°E.
40.00	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S $\frac{1}{4}$ 35 | S 36

1913

from which

A pine , 12 ins. diam., bears N.17$\frac{3}{4}$°E.,31 lks. dist., marked $\frac{1}{4}$ S 36 B T

A pine , 10 ins. diam., bears N.79°W., 8 lks. dist., marked $\frac{1}{4}$ S 35 B T

October 20 , 1913

October 21 : At 8 h. 45 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 10° 37' S., on the decl. arc ; and determine a meridian with the solar at the $\frac{1}{4}$ sec, cor. bet secs. 35 and 36.

Thence I run

N.0° 01' W.

Thence along E. side of ridge , about 200 ft., above hollow to the east.

54.50 Begin steep descent over land facing NE.

60.00 October 21 : The sky is overcast at noon , observations for latitude are impossible.

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in the ground for cor. of secs. 25 , 26 , 35 and 36 with brass cap marked

Subdivision of T.16 S., R. 4 E.

chains

T 16 S S 26	R 4 E S 25
S 35	S 36

1913

from which

An aspen ,10 ins. diam., bears N.43¼°E., 48 lks. dist., marked T 16 S R 4 E S 25 B T

An aspen , 8 ins. diam., bears S.89½°E.,66 lks. dist ., marked T 16 S R 4 E S 36 B T

A pine , 8 ins. diam., bears S.80½° W.,243 lks. dist., marked T 16 S R 4 E S 35 B T

A pine , 8 ins. diam., bears N. 12½° W.,60 lks. dist., marked T.16 S R 4 E S 26 B T

Land rough mountainous with a general N. exposure , and lying on the N. slope of The Horse Shoe Mountain.

Soil , rocky , gravelly and decayed vegetation , on a hard moist , sub-soil of gravel and rich mountain soil; 3 rd. rate.

Timber aspen , pine and spruce of good commercial value.

Undergrowth , wild goose berry , chaparral and rich mountain grasses excellent for grazing purposes.

Land mountainous , heavily timbered and covered with dense undergrowth 80.00 chs.

October 21 , 1913

October 31 : At 8 h. 44 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 14° 03' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 25 , 26 , 35 and 36.

Thence I run

East , on a random line bet. secs. 25 and 36

40.00 Set temp ¼ sec. cor.

80.00 Intersect E. bdy. of the tp. at the cor. of secs. 25 , 30 , 31 and 36 heretofore described.

chains	
	Thence
	West , on true line bet. secs. 25 and 36
	Over rough mountainous land through dense forest of aspen , scattering spruce and balsam fir timber and under-growth of chaparral and service brush.
	Ascend abruptly over E. face of high mountain ridge.
24.80	Top of ridge , 600 ft. above sec. cor., bears N. and S.
	Descend over west slope.
40.00	200 ft. below top of ridge.
	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{S\ 25}{\frac{1}{4}}$ / S 36
	1913
	from which
	An aspen , 18 ins. diam., bears S. 31½° W.,48 lks. dist., marked $\frac{1}{4}$ S 36 B T
	An aspen , 21 ins. diam., bears N. 20½° W.,41 lks. dist., marked $\frac{1}{4}$ S 25 B T
	October 31 : At this $\frac{1}{4}$ sec. cor. I set off 14° 63' S., on the decl. arc ; and at 11 h. 45 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 23'.
74.30	Bottom of canyon , 500 ft. below $\frac{1}{4}$ sec. cor., course N. 15° W.
	Ascend 60 ft. to
80.00	The cor. of secs. 25 , 26 , 35 and 36.
	Land rough mountainous , with steep E. and W. slopes from high ridge into canyons draining N.
	Soil , gravelly and rocky mixed with some rich mountain soil , on a hard moist sub-soil of gravel and decayed vegetation ; 3 rd. rate.
	Timber , dense aspen , and scattering spruce and balsam fir of good commercial value.
	Undergrowth , chaparral and service berry brush with

chains

an abundant growth of rich mountain grasses good for grazing purposes.

Land mountainous , heavily timbered and covered with dense undergrowth 80.00 chs.

October 31 , 1913

October 29 : At 8 h. 44 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 13° 24' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 25 , 26 , 35 and 36

Thence I run

N.0° 01' W., bet. secs. 25 and 26

Gradually descend over rough mountainous land near bottom of canyon , through dense forest of aspen , scattering spruce , balsam fir and pine and dense undergrowth of service berry , buck brush and chaparral.

22.50 Stream, 3 lks. wide , 2 ins. deep , good water , course NE.

Ascend over bank of stream , thence descend rapidly

30.50 Stream , 4 lks. wide , 2 ins. deep , good water , course N.20° W.

Gradually ascend

35.00 Same stream , course NE.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

$$S\ \frac{1}{4}\ 26 \mid S\ 25$$

1913

from which

An aspen , 16 ins. diam., bears S. 76° E., 101 lks. dist., marked $\frac{1}{4}$ S 25 B T

An aspen , 14 ims. diam., bears N.80$\frac{3}{4}$° W.,96 lks. dist., marked $\frac{1}{4}$ S 26 B T

chains

60.00 Leave timber , bears N.5°E. and W.

Thence follow along east side of ridge , 50 ft. below top through dense undergrowth of choke cherry and buck brush.

70.40 Enter dense aspen timber , bears E. and W.

80.00 Set an iron post , 3 ft.long , 2 ins. in dia., 24 ins. in the ground for cor. of secs. 23 , 24 , 25 and 26 with brass cap marked

T 16 S S 23	R 4 E S 24
S 26	S 25

1913

from which

An aspen , 6 ins. diam.,bears N.30° E.,14 lks. dist., marked T 16 S R 4 E S 24 B T

An aspen , 6 ins. diam., bears S.50½°E.,36 lks. dist., marked T 16 S R 4 E S 25 B T

An aspen , 6 ins. diam., bears S.72½° W.,23 lks. dist., marked T 16 S R 4 E S 26 B T

An aspen , 7 ins. diam., bears N.55½°W.,17 lks. dist., marked T.16 S R 4 E S 23 B T

Land , rough mountainous with a general E. exposure and with a general N. drainage.

Soil , gravelly and rocky mixed with some rich black mountain soil , on a hard , moist sub-soil of rocks and decayed vegetation ; 2 nd. rate.

Timber , aspen , scattering spruce , balsam fir and pine of good commercial value.

Undergrowth , dense chaparral , service berry , choke cherry and rose brush.

Good mountain grass for grazing purposes.

Land mountainous heavily timbered and covered with dense undergrowth 80.00 chs.

October 29 : At this sec. cor. I set off 13° 28' E., on the decl. arc ; and at 11 h. 44 m. a. m. I, m. t.,

chains	
	observe the sun on the meridian ; the resulting lat. is 39° 24'.
	November 4 : Heavy fog delays work in a. m.
	At 1 h. 44 m. p. m. l. m. t., I set off 39° 24' on the lat. arc ; 15° 23' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 23 , 24 , 25 and 26
	Thence I run
	East , on a random line bet. secs. 24 and 25
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.96	Intersect E. bdy. of the tp. 13 lks. N. of the cor. of secs. 19 , 24 . 25 and 30 heretofore described
	Thence
	N.89° 55' W., on true line bet. secs. 24 and 25
	Over rough mountainous land , through dense forest of scrub aspen and scattering balsam fir , pine and spruce timber . Undergrowth , dense chaparral , choke cherry and service berry.brush.
	Ascend over NE. face of ridge.
5.57	Top of spur , 50 ft. above sec. cor., projects NW.
	Descend gradually.
13.79	Descend abruptly.
22.00	Bottom of hollow , 75 ft. deep , course N.20° W.
	Ascend.
39.95	Top of spur , 50 ft. above hollow , projects N.10° W. Wagon road , from saw mill to Spring City , Utah , bears N.10° W. and S.10° E.
	Descend abruptly.
39.98	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

$$\frac{S\ 24\ \frac{1}{4}}{S\ 25}$$

1913

Subdivision of T.16 S., R.4 E

chains	
	from which
	A spruce , 9 ins. diam., bears North , 44 lks. dist., marked ¼ S 24 B T
	A spruce , 18 ins. diam., bears S.30¼° W.,22 lks. dist., marked ¼ S 25 B T
	Descend abruptly 75 ft. to
41.30	Bottom of canyon and fork of Canal Creek , 5 lks. wide , 2 to 4 ins. deep , good water , course N.15° W.
	Ascend abruptly through dense timber.
55.10	Spur , 150 ft. above creek , projects N.
	Descend abruptly.
56.65	Stream , 1 lk. wide , 2 ins. deep , good water , course N.15° E.
	Ascend abruptly over E. face of high mountain ridge
79.96	250 ft. above creek.
	The cor. of secs. 23 , 24 , 25 and 26.
	Land rough mountainous with steep E. and W. slopes of ridges and a general drainage to the N.
	Soil , gravelly , rocky , and rich mountain soil on a hard , moist sub-soil of rich mountain soil and rocks; 3 rd. rate.
	Timber , dense aspen , scattering spruce , and pine.
	Undergrowth , chaparral and service brush.
	Some good grass for grazing purposes.
	Land mountainous , heavily timbered andcovered with dense undergrowth 79.96 chs.
	November 4 , 1913

October 29 : For solar observation see line bet. secs. 25 and 26.

N.0° 01' W., bet. secs. 23 and 24.

Over rough mountainous land sloping N., through dense forest of aspen , balsam fir , spruce and pine and undergrowth of buck brush , chaparral , service berry ,

Subdivision of T.16 S., R.4 E.

chains

and oak brush.

Descend over N. face of mountain towards Canal Creek.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

$$\frac{S\ 23}{\frac{1}{4}} \Big| S\ 24$$

1913

from which

A pine , 6 ins. diam., bears N. 18° E.,16 lks. dist., marked $\frac{1}{4}$ S 24 B T

A pine , 7 ins. diam., bears S. 26¾° W., 66 lks. dist., marked $\frac{1}{4}$ S 23 B T

October 29 , 1913

Thos. Castleton

U. S. Transitman

November 3 : The sky is overcast during the entire night observations on Polaris are impossible.

November 4 : Heavy fog delays work in a. m.

At 1 h. 44 m. p. m. l. m. t., I set off 39° 25' on the lat. arc ; 15° 33' S., on the decl. arc ; and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 23 and 24.

Thence I run

N.0° 01' W.

Continue steep descent into Canal Canyon.

43.40 Wagon road and bottom of Canal Canyon , 300 ft. below $\frac{1}{4}$ sec. cor., bears N.80° E. and S. 80° W.

[illegible] Canal Creek , in gulch , 10 lks. wide , 2 to 5 ins. deep , [illegible] water , course W.

Leave timber , enter exceptionally dense undergrowth of oak , service berry and buck brush.

Ascend abruptly over S. face of high mountain ridge.

84.00 Top of steep ascent , 350 ft. above canyon , bears NE.

Subdivision of T.16 S.,R.4 E

chains

and SW.

Thence over land sloping almost W.

78.00 Enter aspen , and scattering spruce timber , bears NW. and SE.

80.00 On west slope near top of high ridge.

Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in the ground for cor. of secs. 13 , 14 , 23 and 24 with brass cap marked

T 16 S S 14	R 4 E S 13
S 23	S 24

1913

from which

An aspen ,6 ins. diam., bears N.45½°E.,15 lks. dist., marked T 16 S R 4 E S 13 B T

An aspen , 5 ins. diam., bears S. 24¼° E.,18 lks. dist., marked T 16 S R 4 E S 24 B T

An aspen , 9 ins. diam., bears S. 22¼° W.,18 lks. dist., marked T 16 S R 4 E S 23 B T

An aspen , 8 ins. diam., bears N.13¼° W.,28 lks. dist., marked T 16 S R 4 E S 14 B T

Land rough mountainous with steep N. S. and W. slopes into Canal canyon which drains W.

Soil , rocky and decayed vegetation on hard , moist , rock and black loam sub-soil ; 2 nd, rate.

Timber , dense aspen , spruce and balsam fir on S.52.00 chs.

Undergrowth , dense oak , service berry , choke cherry , buck and chaparral.

Some good grass for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth 80.00 chs.

Note; The N.½ of this mile was run with a Young and Sons light mountain transit No.8589 , before the preliminary test in the field could be made.A complete test of the instrument is made this day and recorded in book "F"

BOOK A 431

Subdivision of T. 16 S., R. 4 E.

chains	
	of this survey. I will test the bearing of the N. ½ of this mile as soon as possible and make the necessary corrections should the line be defective.
	November 4 , 1913
	November 6 : At 8 h. 44 m. a. m. l. m. t., I set off 39° 25' on the lat. arc ; 15° 54' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 13 , 14 , 23 and 24.
	A flag set at the ¼ sec. cor. bet. secs. 23 and 24 bears as follows:
	1 st. reading ----------S. 0° 01' E.
	2 nd, reading ----------S. 0° 01' E.
	3 rd. reading ----------S. 0° 02' E.
	The mean ---------- S. 0° 01½ E.
	I therefore conclude that the line as run by me Nov. 4 , is correct.
	S. 89° 55' E., on a random line bet. secs. 13 and 24
40.00	Set temp. ¼ sec. cor.
80.16	Intersect E. bdy. of the tp. at the cor. of secs. 13 , 18 , 19 and 24 heretofore described.
	Thence
	N. 89° 55' W., on true line bet. secs. 13 and 24.
	Over rough mountainous land through dense undergrowth of wild goose berry and chaparral.
	Descend abruptly over W. face of mountain.
9.40	Enter aspen timber , bears N. and S
17.15	Base of steep descent , 200 ft. below sec. cor., bears N. and S.
	Gradually descend.
36.00	Hollow , near head , 250 ft. below sec. cor., drains N.

Subdivision of T.16 S.,R.4 E.

chains	
	Gradually ascend.
40.08	Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high for $\frac{1}{4}$ sec. cor., with brass cap marked $\frac{S\ 13}{\frac{1}{4}}$ S 24 1913 from which An aspen , 12 ins. diam., bears N.31° E., 19 lks. dist., marked $\frac{1}{4}$ S 13 B T An aspen , 12 ins. diam., bears S.37° E. 10 lks. dist., marked $\frac{1}{4}$ S 24 B T.
	Note: On account of natural obstacles I am unable to set post more than 12 ins. in the ground.
	November 6 : At this $\frac{1}{4}$ sec. cor. I set off 15° 58' S., on the decl. arc ; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 25'
41.00	Top of ridge , 20 ft. above hollow , bears NW. and SE.
	Leave dense timber , enterr heavy oak and service berry brush.
	Descend abruptly over SW. slope.
60.15	Hollow , 140 ft. below ridge , drains S.
	Ascend abruptly.
70.60	Top of high ridge , 175 ft. above hollow , bears NE. and SW.
	Enter dense scrub aspen timber and exceptionally heavy brush.
	Descend over W. slope of ridge.
80.16	100 ft. below top.
	The cor. of secs. 13 , 14 , 23 and 24.
	Land rough , broken mountains , with a general S. and W. exposure and forming the N. wall of Canal Canyon.
	Soil , decayed vegetation and rocky on a rich , moist sub soil of richmountain soil and rocks : 3 rd. rate.

chains	
	Timber , aspen and scattering spruce and balsam fir.
	Undergrowth , chaparral , oak , service berry , buck and wild goose berry brush.
	Some good grass for grazing purposes.
	Land mountainous , heavily timbered or covered with dense undergrowth , 80.16 chs.
	November 6 , 1913
	November 7 : At 8 h. 44 m. a. m. l. m. t., I set off 39° 25' on the lat. arc ; 16° 13' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 13 , 14 , 23-and 24.
	Thence I run
	N.0° 01' W., bet. secs. 13 and 14.
	Over rough mountainous land.
	Gradually ascend over rolling W. face of ridge , through exceptionally dense undergrowth , of choke cherry , service brush , buck brush and chaparral and scattering aspen timber.
8.87	Top of spur , 15 ft. above sec. cor., projects W.
	Thence over level land on top of spur , gradually descending through dense aspen , spruce and balsam fir timber.
27.13	Top of descent , bears NE. and SW.
	Descend over N. slope into hollow.
40.00	Set an iron post , 3 ft. long , 1 in, in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked $S\ \frac{1}{4}\ 14 \mid S\ 13$ 1913 from which
	An aspen , 16 ins. diam., bears N.67½° E.,88 lks. dist., marked $\frac{1}{4}$ S 13 B T
	An [illegible] , [illegible]

Subdivision of T. 16 S., R. 4 E.

chains

An aspen , 12 ins. diam., bears N.67¼°W.,51 lks. dist., marked ¼ S 14 B T

40.50 Leave timber , bears E. and W.

42.00 Bottom of hollow , 125 ft. below spur , course W.

44.00 Leave hollow , bears E. and W.

Ascend abruptly over S. face of ridge , through dense undergrowth of oak , service berry , buck and sage brush.

65.00 Spur , 80 ft. above hollow , projects SW.

Enter dense sage brush and choke cherry .

Gradually descend over gentle N. slope.

73.90 Drag road bears E.and W.

80.00 50 ft. below top of ridge.

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

T 16 S S 11	R 4 E S 12
S 14	S 13

1913

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 mountainous with general N. and S. slopes and general drainage to the west.

Soil , rich decayed vegetation , gravelly and rocky on a hard moist sub-soil of rich mountain soil and rocks ; 2 nd. rate.

Timber , aspen , scattering spruce , balsam fir and pine of good commercial value on S. 40.50 chs.

Undergrowth , sage , oak , service berry , choke cherry , buck brush and chaparral.

Good grass for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth , 80.00 chs.

November 7 : At this sec. cor., I set off 16° 16' S., on

BOOK A-431

chains

the decl. arc ; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 26'

S.89° 55' E., on a random line bet. secs. 12 and 13

40.00 Set temp. ¼ sec. cor.

Cease work.

November 7 , 1913.

Howard W. Miller

U. S. Surveyor

November 20 : At 8 h. 44 m. a. m. l. m. t., I set off 39°26' on the lat. arc ; 19° 38' S., on the decl. arc ; and determine a meridian with the solar at the temp. ¼ sec, cor., bet. secs. 12 and 13

Thence I continue

S.89° 55' E., on random line bet. secs. 12 and 13

80.14 Intersect E. bdy of the tp. 5 lks. N. of the cor. of secs. 7 , 12 , 13 and 18 heretofore described

Thence

N.89° 53 ' W., on true line bet. secs, 12 and 13

Over rough mountainous land through dense undergrowth of oak , service brush , choke cherry and chaparral.

Descend abruptly into S. fork of Oak creek.

9.95 S. fork of Oak Creek , in canyon , 3 lks. wide , 2 to 4 ins. deep , good water , course NW., 150 ft. below sec. cor.

Enter dense forest of aspen , scattering spruce and balsam fir. Leave dense undergrowth.

Ascend abruptly over E. face of high mountain ridge.

39.50 Top of steep ascent , 600 ft. above creek , bears NW. and SE.

Thence gradually ascend.

40.07 Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth

Subdivision of T.16 S.,R.4 E.

chains

4 ft. base , 1 ft. high , for $\frac{1}{4}$ sec. cor., with brass cap marked

S 12
$\frac{1}{4}$
S. 13
1913

from which

An aspen , 4 ins. diam., bears N.$42\frac{3}{4}$° E., 19 lks. dist., marked $\frac{1}{4}$ S 12 B T

An aspen , 4 ins. diam., bears S.$18\frac{1}{2}$° E., 17 lks. dist., marked $\frac{1}{4}$ S 13 B T

Note:

On account of natural obstacles I am unable to set post more than 12 ins. in the ground.

Begin gradual ascent over series of small benches.

47.64 Leave timber , enter dense sage brush , bears N. and S.

60.57 Leave sage brush opening enter dense aspen timber , bears N. and S.

63.20 Top of steep ascent , bears N. and S.

Leave timber , thence through dense sage brush.

70.20 Old drag road , bears N. and S.

73.15 Top of high ridge , bears N. and S.

Descend

78.15 Hollow , 30 ft. deep , drains N.

Leave timber , ascend through dense choke cherry brush.

80.14 25 ft. above hollow.

The cor. of secs. 11 , 12 , 13 and 14

Land rough mountainous with E. and W. slopes into canyons draining N.

Soil , gravelly and rocky mixed with some rich decayed vegetation on a hard , moist sub-soil of decayed vegetation and rocks ; 3 rd. rate.

Timber , scattering patches of aspen, spruce , balsam fir and pine.

Undergrowth , sage brush , service berry , choke cherry ,

BOOK A-431

Subdivision of T.16 S.,R.4 E.

chains

buck , oak brush and chaparral.

Good grass for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth 80.14 chs.

Heavy snow storm at 11:30 a. m. prevents field work for the remainder of the day.

November 20 , 1913.

November 21: Continuous storm of snow prevents field work this day.

November 22 : At 8 h. 44 m. a. m. l. m. t., I set off 39° 26' on the lat. arc ; 20° 05' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs, 11 , 12 , 13 and 14.

Thence I run

N.0° 01' W., bet. secs. 11 and 12

Over rough mountainous land facing almost E., through dense undergrowth of choke cherry, buck brush and maple.

Gradually descend along east slope of ridge.

4.39 Enter dense forest of aspen , spruce , scattering balsam fir., bears N.15° W. and S.15° E.

24.61 Old wood road , bears NE. and SW.

30.01 Same road , bears NW. and SE

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S $\frac{1}{4}$ 11 | S 12

1913

from which

An aspen , 4 ins. diam., bears N.77½°E., 5 lks.

Subdivision of T.16 S.,R.4 E.

chains

dist., marked ¼ S 12 B T

An aspen , 5 ins. diam., bears S.80½°W., 17 lks. dist., marked ¼ S 11 B T

Continue descent over eastern slope of ridge.

80.00 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

T16S S 2	R4E S 1
S 11	S 12

1913

from which

An aspen , 6 ins. diam., bears N.42½°E.,23 lks. dist., marked T 16 S R 4 E S 1 B T

A pine , 14 ins. diam., bears S.10¾°E., 7 lks. dist., marked T 16 S R 4 E S 12 B T

A pine , 12 ins. diam., bears S.43½°W.,62 lks. dist., marked T 16 S R 4 E S 11 B T

A pine , 10 ins. diam., bears N.7½°W., 77 lks. dist., marked T 16 S R 4 E S 2 B T.

Land mountainous with a general E. exposure and general N. drainage.

Soil , gravelly , rocky and rich decayed vegetation on a hard moist sub-soil of rich mountain soil and rocks ; 2 nd. rate.

Timber , aspen , spruce and scattering balsam fir and pine of good commercial value.

Undergrowth , choke cherry , oak , service berry , buck brush and chaparral

Good grass for grazing purposes

Land mountainous , heavily timbered and covered with dense undergrowth 80.00 chs.

November 22: At this sec. cor. I set off 20° 07' S., on the decl. arc ; and at 11 h. 46 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat.

chains	
	is 39° 27'.
	S.89° 53' E., on a random line bet. secs. 1 and 12
40.00	Set temp. ¼ sec. cor.
	Cease work.
	November 22 , 1913
	November 23 : At 8 h. 16 m. a. m. l. m. t., I set off 39° 27' on the lat. arc ; 20° 17' S., on the decl. arc; and determine a meridian with the solar at the temp. ¼ sec. cor. bet. secs. 1 and 12
	Thence I continue
	S.89° 53' E. on a random line bet. secs. 1 and 12.
80.26	Intersect E. bdy. of the tp. 15 lks. S. of the true cor. point or 2.20 chs. S. of the witness cor. to secs. 1 , 6 , 7 and 12 heretofore described.
	Thence
	West , on true line bet. secs. 1 and 12
	In bottom of N. fork of Oak Creek Canyon , crossing and re-crossing Oak Creek which flows in a westerly direction , through dense forest of spruce , balsam fir , aspen and some pine and dense undergrowth of oak , service berry and buck brush.
17.55	Oak Creek , 10 lks.wide , 4 ins.-deep , good water , course S.80°W.
	Leave canyon bottom and dense timber , bears N.80°E. and S.80° W.
	Enter rough mountainous land , ascend abruptly over SE. face of spur.
17.75	Old wagon road , bears N.80°E. and S.80°W.
26.70	Spur , 150 ft. above creek , projects SW. about 20 chs.
	Descend abruptly into Oak Creek canyon.
40.13	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

Subdivision of T.16 S.,R.4 E.

chains	
	S 1 1/4 / S 12 1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
48.30	Wagon road and bottom of Oak Creek canyon , bears N. and S.
	Thence in canyon bottom.
51.70	Oak Creek , 10 lks. wide , 4 ins. deep , good water , course N.20°W.
	Enter exceptionally dense undergrowth of birch , willow and maple and scruby aspen timber.
	Ascend abruptly from canyon.
58.88	Spring branch , 2 lks. wide , 1 in. deep , good water , course N.20°E.
62.00	Leave dense undergrowth of birch , willow , and maple and scrub aspen timber , thence through dense oak brush , service berry , buck brush and artemisia., and scattering cedar and pinon.
69.75	Top of long ridge , 250 ft. above creek , bears N. and S.
	Descend abruptly.
78.60	Canyon , 300 ft. deep , drains NW.
	Enter aspen timber , bears N. and S.
	Ascend30 ft. to
80.26	The cor. of secs. 1 , 2 , 11 and 12.
	Land rough mountainous with steep E. and W. slopes of ridges into canyons draining N.
	Soil , gravelly and rocky , mixed with some rich mountain soil , on a hard , moist sub-soil of decayed vegetation and rocks., 3 rd. rate.
	Timber , dense aspen , balsam fir , spruce and pine on E. 17.55 chs. Scattering scrub timber on remainder of mile.
	Undergrowth , dense oak , service berry , chaparral , maple , buck brush , maple , birch and willow , very thick in places.

chains

Some good grass for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth , 80.26 chs.

November 24: At 8 h. 47 m. a. m. l. m. t., I set off 39° 27' on the lat. arc ; 20° 30' S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1 , 2 , 11 and 12.

(Knowing that closing cors. will be necessary upon the N. bdy. of the tp.) I run

N.0°01'W., on true line bet. secs. 1 and 2.

Over rough mountainous land draining NW., through dense forest of aspen , pine and spruce and dense undergrowth of choke cherry , oak , and buck brush.

Descend 25 ft. to

1.20 Bottom of canyon , drains NW.

2.43 Leave timber and canyon bottom , bears N.20°W. and S.20°E.

Gradually ascend along W. side of long ridge through dense undergrowth.

32.29 Spur , 100 ft. above canyon , projects W. 10 chs.

Gradually descend.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

$$\frac{S\ 2}{\frac{1}{4}} \Big| S\ 1$$

1913

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

62.40 Near N. point of high mountain ridge.

Terminus of ditch and head of penstock for Spring City Power house , bears East , 1.05 chs. dist.

November 24 : At this station I set off 20° 32' S., on the decl. arc ; and at 11 h. 47 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 27'.

Subdivision of T.16 S.,R.4 E.

chains	
62.63	NE. cor. of Spring City power house , bears N.53°50'W.
62.69	Wire fence , bears N.80°W. and S.80°E.
62.85	Submerged penstock (12" pipe) bears N.75° W. and S.75°E. from head works to power house.
63.55	Spring City water supply ditch , 10 lks. wide , 8 ins. deep , course N.70°W.
	Descend abruptly through dense buck brush and artemisia.
76.53	Base of mountain , 100 ft. below power ditch , bears SE. and SW.
76.55	Canyon road , bears SE. and N.70°W.
	Thence over rolling land through sage brush undergrowth .
79.35	Oak creek , 6 lks. wide , 3 ins. deep , good water , course N.75°W.
86.62	NE. cor. of Spring City power house , bears S.23° 45'W.
88.35	Wagon road , bears N.10°W. and S.10°E.
89.90	Same road , bears N.5°E. and S.5°W.
91.08	Wire fence , bears E. and W.
	Intersect 3 rd. Standard Parallel South , 3.61 chs., S.89° 18'W., of the standard cor. of secs. 35 and 36 , described in ret. and res. of 3d St.Par.S.R.4 E. At intersection
	Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 1 and 2 , with brass cap marked

T 15 S R 4 E
S 35 | S 36
CC
S 2 | S 1
T 16 S

1913

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

Land mountainous on S. 76.53 chs. and rolling on N. 13.55 chs., all of which has a general N. and W. drainage and exposure.

Soil, stony and rocky , mixed with some rich sandy and black loam on a hard , moist sub-soil of decayed

Subdivision of T.16 S.,R.4 E.

chains

vegetation and rocks ; 3 rd. rate.

Timber , aspen spruce and some pine on S. 2.43 chs.

Undergrowth , oak , chaparral ,service berry , buck brush and artemisia.

Some good grass for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth , 91.08 chs.

November 24 , 1913

October 22: At 7 h. 45 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 10° 58' 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. heretofore described.

Thence I run

N.0° 01' W., bet. secs. 34 and 35

Over mountainous land facing N., through dense undergrowth of chaparral and buck brush.

3.50 Begin steep descent over N. slope.

11.50 Enter dense aspen and scattering pine timber , bears E. and W.

17.57 Hollow , 200 ft. deep , drains W.

Ascend abruptly.

36.00 Top of spur , projects W.

Descend gradually along W. slope of ridge.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins, in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

$S\ \frac{1}{4}\ 34 \mid S\ 35$

1913

from which

An aspen , 8 ins. diam., bears S.76$\frac{1}{4}$°E.,78 lks. dist., marked $\frac{1}{4}$ S 35 B T

An aspen , 8 ins. diam. bears N. 21° W.,64 lks.

chains

dist., marked ¼ S 34 B T

October 22 : At this ¼ sec. cor. I set off 11° 02' S., on the decl. arc ; and at 11 h. 45 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 23'. . . . . .

46.50 Descend abruptly over N. slope.

61.40 Stream of clear pure water , 5 lks. wide , 2 ins. deep , in gulch , 100 ft. deep , flows N.80°W.

Gradually ascend along W. slope through dense aspen timber.

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

T 16 S S 27	R 4 E S 26
S 34	S 35

1913

from which

An aspen , 8 ins. diam., bears N.76°E., 113 lks. dist., marked T 16 S R 4 E S 26 B T

An aspen , 8 ins. diam., bears S.16¼°E.,62 lks. dist., marked T 16 S R 4 E S 35 B T

An aspen , 8 ins. diam., bears S.55½°W.,32 lks. dist., marked T 16 S R 4 E S 34 B T

An aspen , 6 ins. diam., bears N.50¾°W., 58 lks. dist., marked T 16 S R 4 E S 27 B T

Land mountainous with a general W exposure and a northerly drainange

Soil , gravelly and rocky mixed with some rich mountain soil on a hard , moist sub-soil of decayed vegetation and rocks ; 3 rd. rate.

Timber , dense aspen and scattering pine and spruce of good commercial value.

Undergrowth , chaparral and buck brush.

Land mountainous , heavily timbered and covered with

chains

dense undergrowth 80.00 chs.

October 22 , 1913

October 23 : At 8 h. 44 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 11° 20' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 26 , 27 , 34 and 35.

Thence I run

East on a random line bet. secs. 26 and 35

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.85 Intersect N. and S. line 16 lks. N. of the cor. of secs. 25 , 26 , 35 and 36

Thence

N.89° 53' W., on true line bet. secs. 26 and 35

Over mountainous land.

Gradually ascend through aspen timber and undergrowth of chaparral.

8.70 Spring branch , 1 lk. wide , 1 in. deep , good water , course N.

Thence up steep ascent , through dense spruce and aspen timber.

24.00 Top of ridge , 150 ft. above sec. cor., bears N. and S.

Leave timber , thence gradually descend over bare top of ridge.

39.92½ Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

$$\frac{S\ 26}{\frac{1}{4}}$$

$$\frac{S\ 35}{1913}$$

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

October 23 : At this $\frac{1}{4}$ sec. cor. I set off 11° 23' S., on the decl. arc ; and at 11 h. 45 m. a. m. l. m. t.,

chains	
	observe the sun on the meridian ; the resulting lat. is 39° 23'.
51.00	Base of descent , bears N. and S.
	Gradually ascend.
54.00	Enter spruce and aspen timber , bears N. and S.
56.00	Top of ascent , bears N. and S.
	Descend abruptly through dense timber.
63.00	Base of steep descent , bears N. and S., thence descend through scattering timber.
68.00	Base of descent. Ascend.
71.00	Top of ascent . Thence descend through dense aspen timber.
79.85	The cor. of secs. 26 , 27 , 34 and 35.
	Land mountainous , draining W. and NW.
	Soil , gravelly and rocky mixed with rich decayed vegetation on a hard moist sub-soil of decayed vegetation and rocks ; 2 nd. rate.
	Timber , aspen and spruce of good commercial value.
	Undergrowth , dense buck brush , chaparral and rich mountain grass , good for grazing purposes.
	Land mountainous , heavily timbered and covered with dense undergrowth , 79.85 chs.

October 23 , 1913

October 27 P Young and Sons light mountain transit No. 85-84 is damaged and cannot be repaired in the field and on this date receive another transit., and test it as follows;

Survey completed with a Young and Sons light mountain transit No, 8515 , with solar attachment. The instrument 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 lat. and decl. arcs.

The instrument was examined , tested and approved by the

Subdivision of T.16 S.,R.4 E.

chains

Assistant Supervisor of surveys for the district of Utah and Nevada.

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

At my camp which is situated near the ¼ sec. cor. bet. secs. 34 and 35 , in approximate lat. 39° 23' N., longitude 111° 29' W., I set off 39° 23' on the lat. arc ; 12° 48' S., on the decl. arc ; and at 3 h. 14 m. p. m. l. m.t., determine with the solar a meridian ; and mark a point thereof , by a nail driven in a hub , set firmly in the ground about 5 chs. N. of my station.

At 6 h. 30 m. p. m. l. m. t., I place my instrument over the above described station , set the verniers of the plates at zero , and direct the telescope to the nail set in the hub , about 5 chs. N.

At 6 h. 35 m. p. m. l. m.t., I unclamp the vernier plate , observe Polaris in accordance with the Manual Of Instructions , and mark the direction thus determined by a nail driven in a hub , set firmly in the ground about 5 chs. N. of the station. The readings of the horizontal limb at the time of observation are as follows:

Telescope direct ----------1° 23'

Telescope reversed ----------1° 23'

Mean ----------1° 23'

U.C.Polaris October 27 , 1913 ---------- 11 h. 06 m.

Time of observation ---------- 6 h. 35 m.

Time arguement ---------- 4 h. 31 m.

Azimuth of Polaris at observation ----------N.1° 23' E.

The true bearing of the meridian determined with the solar is therefore due north.

Subdivision of T.16 S., R.4 E.

chains

October 27 , 1913

October 28 : At 7 h. 44 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 13° 00' S., on the decl.arc; and determine a meridian with the solar . This meridian falls 1' E. of the meridian determined with the solar October 27:

The solar apparatus by a. m. and p. m. observations defines positions for meridians respectively about 1' E. and coincident with the Polaris meridian , I therefore conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 h. 30 m. a. m. is N. 17° 00'W., the angle thus determined gives the magnetic decl. 17° 00' E.

From the cor. of secs. 26 , 27 , 34 and 35

I run

N.0° 01' W., bet. secs. 26 and 27.

Over mountainous land facing almost west , through dense forest of aspen and scattering pine and undergrowth of choke cherry , buck brush and chaparral.

Gradually descend over nearly W. slope.

9.30 Descend rapidly.

14.00 Descend more gradually.

38.00 Descend abruptly.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 27 | S 26
¼ |
1913

from which

An aspen , 8 ins. diam., bears N.76° E., 8 lks.

chains

dist., marked $\frac{1}{4}$ S 26 B T

A pine , 8 ins. diam., bears S.41° W., 37 lks. dist., marked $\frac{1}{4}$ S 27 B T

October 28 : At this $\frac{1}{4}$ sec. cor. I set off 13° 06' S., on the decl. arc ; and at 11 h. 44 m. a. m. l. m. t. , observe the sun on the meridian , the resulting lat. is 39° 24'

47.86 Gradually descend through dense timber and enter willow undergrowth.

65.29 Descend abruptly through dense pine and aspen timber and undergrowth.

80.00 500 ft. below the cor. of secs. 26 , 27 , 34 and 35

Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in the ground for cor. of secs. 22 , 23 , 26 and 27 , with brass cap marked

T 16 S S 22	R 4 E S 23
S 27	S 26

1913

from which.

An aspen , 9 ins. diam., bears N.55$\frac{1}{4}$°E., 20 lks. dist., marked T 16 S R 4 E S 23 B T

An aspen , 4 ins. diam., bears S.20$\frac{1}{4}$°E., 15 lks. dist., marked T 16 S R 4 E S 26 B T

An aspen , 10 ins. diam., bears S.68$\frac{3}{4}$°W., 27 lks. dist., marked T 16 S R 4 E S 27 B T

An aspen , 5 ins. diam., bears N.28$\frac{1}{2}$°W., 15 lks. dist., marked T 16 S R 4 E S 22 B T

Land mountainous with W. and NW. exposure. General drainage of country to the NW.

Soil , rich decayed vegetation and gravelly , with some rocks , on a hard , moist sub-soil of rich mountain soil and rocks ; 2 nd rate.

Timber aspen and some pine of good commercial value,

Undergrowth , choke cherry , buck brush , maple and chap-

Subdivision of T.16 S.,R.4 E.

Chains

arral. Some willow undergrowth on N. 32.15 chs.
Land mountainous , heavily timbered and covered with dense undergrowth , 80.00 chs.

October 28 , 1913

October 30 : At 1 h. 44 m. a. m. l. m. t., I set off 39° 24' on the lat. arc ; 13° 48' S. on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 22 , 23 , 26 and 27.

Thence I run

S. 89° 53' E., on a random line bet. secs. 23 and 26.

40.00 Set temp. ¼ sec. cor.

Cease work.

October 30 , 1913

November 5 : At 8 h. 44 m. a. m. l. m. t., I set off 39° 24' on the lat. arc ; 15° 37' S., on the decl. arc ; and determine a meridian with the solar at the temp. ¼ sec. cor. bet. secs. 23 and 26

Thence I continue

S. 89° 53' E., on a random line bet. secs. 23 and 26.

79.85 Intersect N. and S. line , 5 lks. S. of the cor. of secs. 23 , 24 , 25 and 26 , heretofore described.

Thence I run

N.89° 55' W., on true line bet. secs. 23 and 26.

Over mountainous land through dense forest of aspen and undergrowth of chaparral , choke cherry and buck brush.

Gradually ascend over rolling top of ridge.

5.40 Leave aspen timber , enter dense pine timber.

Begin to descend.

10.45 Leave pine timber , enter aspen timber , bears N. and S

November 5 : At this station I set off 15° 40' S., on the decl. arc ; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 24'.

15.68 Descend more gradual through very dense timber

38.67 Descend abruptly

Subdivision of T.16 S., R.4 E.

chains

39.92 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. with brass cap marked —

S 23
¼
S 26
1913

from which

An aspen , 9 ins. diam., bears S.7°W., 24 lks. dist., marked ¼ S 26 B T

An aspen , 7 ins. diam., bears N.15°W., 19 lks. dist., marked ¼ S 23 B T

43.00 Thence over nearly level land.

67.59 Stream , 3 lks. wide , 2 ins. deep , good water , course N.75°W.

Ascend abruptly.

69.00 Descend abruptly through dense brush.

74.35 Same creek , course S.50°W.

75.55 Same creek , course N.80°W.

77.05 Old wood road , bears N.80°W. and S.80° E.

Ascend.

79.85 The cor. of secs. 23 , 23 , 26 and 27.

Land mountainous with a general S. and W. exposure and with a northerly drainage.

Soil , rocky and gravelly , mixed with some rich decayed vegetation on a hard , moist , sub-soil of rich mountain soil , and rocks ; 3 rd. rate.

Timber , aspen and pine of good commercial value.

Undergrowth , choke cherry ,chaparral , service berry and oak brush with some short rich mountain grass good for grazing purposes.

Land mountainous , heavily timbered and covered with dense undergrowth ,79.85 chs.

November 5 , 1913

November 5 : At 8 h. 14 m. a. m. l. m. t., I set off 34' 24" on the lat. arc ; 15° 54'S., on the decl. arc;

Subdivision of T.16 S.,R.4 E.

chains	
	and determine a meridian with the solar at the cor. of secs. 22 , 23 , 26 and 27.
	Thence I run
	N.0° 01' W., bet. secs. 22 and 23.
	Over mountainous land , descending rapidly through dense forest of aspen and undergrowth of choke cherry , service berry , oak brush and rose bushes.
1.20	Wagon road , bears N.80°W. and S.80°E.
2.27	Stream in bottom of canyon , 3 lks. wide , 2 ins. deep , good water , course N.80°W.
	Leave timber , ascend abruptly through dense undergrowth of oak and service brush., over SW. face of high ridge.
13.59	Descend gradually.
23.42	Ascend gradually.
34.49	Descend gradually.
40.00	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. on the W. bdy. of sec. 23 , with brass cap marked S 23 $\frac{1}{4}$ 1913 raise a mound of stone , 2 ft. base , $1\frac{1}{2}$ ft. high , E. of cor.
42.00	Gradually ascend.
58.50	Top of ridge and divide between forks of Canal Creek , 350 ft. above canyon to the S., bears NW. and SE.
	Enter dense aspen , spruce , balsam fir and pine timber.
	Descend abruptly
70.95	Base of steep descent and bottom of canyon , 400 ft., below ridge , bears NW. and SE.
	Gradually descend.
72.75	Wagon road , bears NW. and SE. Leave timber.
73.43	Canal creek , 10 lks. wide , 6 ins. deep , course NW.
	Thence over rocky ground in canyon bottom.
77.53	Leave canyon bottom , bears NW. and SE.

Correcti notes Book "D page 1.

chains

Ascend abruptly over SW. slope of spur , through dense undergrowth of oak and service berry brush.

80.00 75 ft. above creek.

(Knowing that closing corners will be necessary upon this line N. of this point , when closing from old work to the east , I therefore set all sec. cors. from this point and north for cors. common to 2 secs. only.)

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

T 16 S | R 4 E
S 14
S 23
1913

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

Land mountainous with SW. and steep N. slopes of ridges.

General drainage of surrounding country to the NW.

Soil , rocky and stony with some rich mountain soil on hard , moist sub-soil of decayed vegetation and gravel; 3 rd. rate.

Timber , dense aspen spruce , balsam fir and pine of good commercial value on 9.52 chs.

Undergrowth , dense oak , service berry , buck brush , chaparral and sage brush.

Land mountainous , heavily timbered and covered with dense undergrowth 80.00 chs.

November 6: At this sec. cor., I set off 15° 58' S., on the decl. arc., and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat.is 39° 25'

November 7 : At 8 h. 14 m. a. m. l. m. t., I set off 39° 25' on the lat. arc ; 16° 11' S., on the decl. arc ; and determine a meridian with the solar at the cor. of

Subdivision of T.16 S.,R.4 E.

chains	
	secs. 14 and 23.
	Thence I run
	S. 89° 55' E., on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
79.76	Intersect N. and S. 7.1lks. S. of the cor. of secs. 13., 14 , 23 and 24..
	Thence
	N.89° 58'W., on true line bet. secs. 14 and 23
	Over rough mountainous land through dense forest of aspen and undergrowth of oak brush., service berry , choke cherry and chaparral.
	Descend abruptly over SW. slope.
2.00	Leave timber , bears NW. and SE.
	Thence through exceptionally heavy brush.
13.00	Ravine , 150 ft. below sec. cor., drains SW.
	Thence gradually ascend over land sloping almost S.
18.55	Spur , projects S. about 6 chs.
	Descend gradually over nearly S. face of mountain ridge into Canal Canyon.
39.88	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 14 / ¼ / S 23 / 1913
	raise a mound of stone , 2 ft. base., 1½ ft. high , N. of cor.
	November 7: At this ¼ sec. cor., I set off 16° 16' S., on the decl. arc ; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 25'
50.86	Canal Creek , 10 lks. wide , 6 ins. deep , good water , 250 ft. below spur , course N.80°W.
	Thence in channel of creek .
51.90	Creek turns S.85°W.
	Thence along N. side of creek through exceptionally dense

Subdivision of T.16 S., R.4 E.

chains	
	undergrowth of oak , service berry , maple and rose brush.
68.80	Leave canyon bottom , begin ascent over SE. slope.
71.90	Top of spur , 60 ft. above creek , projects SW.
	Descend 50 ft. to
79.76	The cor. of secs. 14 and 23.
	Land rough mountainous ,facing S. and forming a part of the N. wall of Canal Canyon.
	Soil , stony and gravelly on stony and rocky sub-soil ; 3 rd. rate.
	Timber , aspen on E. 2 chs.
	Undergrowth , dense oak , service berry , choke cherry , rose brush , maple and chaparral . Some good mountain grass , excellent for grazing purposes.
	Land mountainous , heavily timbered or covered with dense undergrowth 79.76 chs.

November 7 , 1913

November 6 : For solar observation see line bet. secs. 22 and 23.

N.0° 01' W., along the W. bdy. of sec. 14.

Over rough mountainous land through dense undergrowth of oak , buck brush and chaparral.

Ascend over SW. slope.

5.50 Spur , 30 ft. above sec. cor., projects N.80°W.

Gradually descend.

11.19 Descend abruptly into hollow.

13.59 Bottom of hollow , 75 ft. deep , drains S.75°W.

Enter dense mohogany , cedar and pinon pine timber , bears N.70°E and S.75°W.

Ascend abruptly over S. face of high ridge , crossing over numerous large boulders.

40.00 500 ft. above hollow on S. face of ridge.

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in

chains

the ground for $\frac{1}{4}$ sec. cor. on the W. bdy . of sec. 14 , with brass cap marked

S 14
$\frac{1}{4}$
1913

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

Correcti notes Book "D" page 1.

November 6 , 1913

November 8 : At 7 h. 44 m. a. m. l. m. t., I set off 39° 26' on the lat. arc ; 16° 28' S., on the decl. arc ; and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. on the W. bdy. of sec. 14

Thence I run

N.0° 01' W.

Continue steep ascent

41.40 Top of ridge , 50 ft. above $\frac{1}{4}$ sec. cor., bears E. and W.

Leave cedar , pinon and mahogany timber , enter dense undergrowth of sage brush , oak brush and choke cherry.

Gradually descend.

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

T 16 S | R 4 E
S 11
S 14
1913

dig pits , 24 x 24 x 12 ins., in each sec. , 6 ft. dist., raise a mound of earth , 4 ft. base , 2 ft. high, E. of cor.

Land , rough mountainous and rolling. S. 41.40 chs., rough mountainous land with steep N. and S. slopes of ridges into canyons draining SW. N. 38.60 chs. rolling mountain top with general N. and W. exposure.

Soil , gravelly and rocky on mountainous portion and rich decayed vegetation , black loam and gravelly on

Subdivision of T.16 S.,R.4 E.

chains	
	hard moist sub-soil ; 2 nd rate.
	Timber dense cedar , mohogany and pinon on 30. 20 chs.
	Undergrowth , oak , service berry , choke cherry , sage brush and chaparral. , with some rich mountain grass good for grazing purposes.
	Land mountainous , heavily timbered or covered with dense undergrowth 80.00 chs.
	S.89° 58' E. on a random line bet. secs. 11 and 14
40.00	Set temp. ¼ sec. cor.
80.01	Intersect N. and S line , 7 lks. N. of the cor. of secs. 11 , 12 , 13 and 14.
	Thence
	N.89° 55' W., on true line bet. secs. 11 and 14
	Over rough mountainous land through dense undergrowth of choke cherry , sage brush , service berry , sage brush and chaparral.
	Ascend abrutly 25 ft. to
2.00	Ridge , bears N. and S.
	Gradually descend.
2.75	Wood road , bears N. and S.
20.30	Base of descent bears N. and S., Thence over nearly level land
30.40	Hollow , 100 ft. deep , drains S.15°W.
	Ascend abruptly
35.15	Ridge , 90 ft. above hollow , bears N. and S.
	Descend over W. slope of rolling mountain top.
37.32	Wire fence , bears N. and S.
40.00½	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S ¼ 11

S 14
1913

dig , pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft.

chains

dist, raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

November 8 : At this ¼ sec. cor., I set off 16° 34' S., on the decl. arc; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 26'

80.01 The cor. of secs. 11 and 14

Land , mountainous draining SW. on E. 20.30 chs. and NW. on W. 44.86 chs.

Soil , rich black loam and gravelly on a hard , moist , sub-soil of rich mountain soil and gravel ; 2 nd. rate.

No timber.

Undergrowth , dense sage , oak , service berry , choke cherry , buck brush and chaparral , with an abundant growth of rich mountain grass , good for grazing purposes.

Land mountainous and covered with dense undergrowth , 80.01 chs.

November 8 , 1913

Hugh C. Cathcart

U. S. Transitman.

November 12 : At 7 h. 44 m. a. m. l. m. t., I set off 39° 26' on the lat. arc ; 17° 36' S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11 and 14.

Thence I run

N.0° 01' W., on the W. bdy. of sec. 11

Over rolling mountainous land draining NW., through dense undergrowth of sage , oak , service and buck brush.

Gradually ascend.

15.00 Top of low ridge , bears NE. and SW

Thence gradually descend over western slope of mountain ridge.

Subdivision of T.16 S.,R.4 E.

chains

38.16 Top of steep descent , bears E. and W.

Descend abruptly.

40.00 100 ft. below ridge.

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. on the W. bdy. of sec. 11 , with brass cap marked

S $\frac{1}{4}$ 11

1913

dig pits , 18 x 18 x 12 ins. N. and S. of post , 3 ft. dist. raise a mound of earth ,3 ft. base , $1\frac{1}{2}$ ft. high , E. of cor.

November 12 , 1913

Howard W. Miller

U. S. Surveyor.

November 23 : for solar observation see E.$\frac{1}{2}$ mile bet. secs. 1 and 12.

From the above described $\frac{1}{4}$ sec. cor. I continue N.0°01'W.

Continue to descend

51.00 Hollow , 60 ft. below $\frac{1}{4}$ sec. cor., drains W.

Enter cedar , pinon and mohogany timber , bears E. and W.

Ascend.

62.00 Wire fence , bears NW.and SE.

64.38 Ridge , 60 ft. above hollow , bears E. and W.

Gradually descend over N. slope.

72.50 Hollow , 30 ft. below ridge , drains NW.

Ascend.

75.00 Top of spur , projects W.

Descend over land facing N.

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for cor. of secs. 2 and 11 , with brass cap marked

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ge 2.

Subdivision of T.16 S.,R.4 E.

chains

T 16 S R 4 E
S 2
S 11
1913

dig pits , 24 x 24 x 12 ins., in each sec. 6 ft. dist ., raise a mound of earth , 4 ft. base , 2 ft. high , E. of cor.

Note:

On account of natural obstacles I am unable to set post more than 12 ins. in the ground.

Land mountainous with a general W. exposure.

Soil ,gravelly , rocky and sandy loam on a hard moist sub-soil ; 3 rd. rate.

Timber , cedar , mohogany and pinon on 39.00 chs.

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

Land mountainous heavily timbered or covered with dense undergrowth 80.00 chs.

November 33 : At this sec. cor. I set off 20° 20' S., on the decl arc ; and at 11 h. 46 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat . is 39° 27'

S. 89° 55' E., on a rahdom line bet. secs. 2 and 11

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.92 Intersect N. and S. line 12 lks. N. of the cor. of secs. 1 , 2 , 11 and 12

Thence

N.89° 50' W., on true line bet. secs. 2 and 11

Over mountainous land draining NW . through dnse aspen timber and undergrowth of service berry , oak , maple , buck brush and choke cherry.

Ascend abruptly.

.70 Old wood road , bears N. and S.

Subdivision of T.16 S.,R.4 E.

chains	
2.50	Leave timber , bears N. and S.
7.84	Brow of a ridge , ascend gradually.
10.44	Top of ridge , bears N.15.00 chs. and S.
	Gradually descend through exceptionally dense undergrowth.
30.61	Enter aspen timber , bears N. and S.
	Leave exceptionally dense undergrowth.
33.57	Hollow , 75 ft. deep , drains N.
	Wood road , bears N. and S.
	Gradually ascend.
39.96	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap marked
	S 2 / $\frac{1}{4}$ / S 11 / 1913
	raise a mound of stone , 2 ft. base , $1\frac{1}{2}$ ft. high , N. of cor.
60.19	Wood road , bears N. and S.
67.07	Top of long mountain ridge , bears N. and S.
	Gradually descendthrough scattering cedar and mohogany and dense undergrowth.
74.92	Enter dense mohogany and cedar , bears N. and S.
79.92	The cor. of secs. 2 and 11.
	Land , mountainous with E. and W. slopes of ridges into hollows draining N.
	Soil , rocky , gravelly and sandy loam , on a hard , moist sub-soil of rich mountain soil and rocks ; 2 nd. rate.
	Timber , scattering patches of aspen and cedar , mohogany , and pinon pine.
	Undergrowth , oak , sage , service berry , buck brush and choke cherry.
	Land mountainous , heavily timbered or covered with dense undergrowth 79.92 chs.

November 23 , 1913 .

chains	
	Thos. C. Cathcart U. S. Transitman
	November 23: For solar observation see line of S. bdy. sec. 34 , N. bdy. of this tp.
	November 23: At the cor. of secs. 2 and 11 , I set off 20° 20' S., on the decl. arc ; and at 11 h. 46 m. a. m. l. .m .t., observe the sun on the meridian ; the resulting lat. is 39° 27'
	Thence I run
	N.0° 01' W., on the W. bdy. of sec. 2
	Over mountainous land , gradually descending along NW.. slope of ridge , through dense forest of mahogany , cedar and pinon and undergrowth of oak brush , service berry , choke cherry and chaparral.
40.00	100 ft. below sec. cor.
	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. on the W. bdy. of sec. 2 , with brass cap marked S $\frac{1}{4}$ 2 1913 raise a mound of stone , 2 ft. base , 1½ ft. high , E. of cor.
	Descend abruptly.
42.00	Hollow , 50 ft. deep , drains NW.
	Gradually ascend over SW. slope.
45.00	Enter dense scrub cedar timber , bears E. and W.
53.90	Spur , 30 ft. above hollow , projects W.
	Gradually descend over gentle N. slope.
86.40	Road , bears NE. and SW.
86.90	Wash and base of descent , 75 ft. below spur , drains SW.
	Leave dense timber , bears NE. and SW.
	Gradually ascend.
89.60	Wagon road , bears NW. and SE.
89.73	Intersect 3 rd. Standard Parallel South , 1.92 chs., S.89° 00' W., of the standard cor. of secs. 34 and 35

Correctly notes Book "I page 2.

chains

heretofore described.

At intersection , set an iron post , 3 ft. long , 2 ins. in dia., 12 ins. in the ground and 12 ins. in a mound of stone , 4 ft. base , 1 ft. high for closing cor. of secs. 2 and 3 , with brass cap marked

T 15 S R 4 E
S 34 | S 35
CC
S 3 | S 2
1913

from which

A cedar , 5 ins. diam., bears S.54°E., 95 lks. dist., marked CC T 16 S R 4 E S 2 B T

A cedar , 4 ins. diam., bears S.32¼°W., 140 lks. dist., marked CC T 16 S R 4 E S 3 B T

Note:
On account of natural obstacles I am unable to set post more than 12 ins. in the ground.

Land , mountainous with a general NW. exposure.

Soil , decayed vegetation on gravelly and rocky sub-soil; ; 3 rd. rate.

Timber , scrub cedar , mahogany and pinon pine.

Undergrowth , oak brush , service berry , buck brush and chaparral , very dense on S.½ mile.

Land mountainous , heavily timbered or covered with dense undergrowth , 89.73 chs.

Howard W. Miller

U. S. Surveyor

October 17 : At 8 h. 15 m. a. m. l.m. t., I set off 39° 23' on the lat. arc ; 9° 09' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 3 , 4, 33 and 34 on the S. bdy. of the tp. heretofore described.

Thence I run

N.0° 02' W., bet. secs. 33 and 34

Over rolling land along top of E. side of long mountain

chains

ridge bearing N. and S., through scattering aspen timber and undergrowth of sage and oak brush.

11.00 Leave timber , bears E. and W.

38.00 Enter aspen timber , bears E. and W.

40.00 Set an iron post , 3 ft. long , 1 ins. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S 33 | S 34
$\frac{1}{4}$
1913

from which

An aspen , 6 ins. diam., bears S.86$\frac{1}{4}$°E., 163 lks. dist., marked $\frac{1}{4}$ S 34 B T

An aspen , 8 ins. diam., bears N.76°W., 119 lks. dist., marked $\frac{1}{4}$ S 33 B T

52.00 Top of high mountain ridge , bears N.2° E. and S.2°W.

Thence gradually descend along gentle W. slope.

60.00 Leave aspen timber , bears NW. and SE., enter dense sage brush.

October 17 : At this station I set off 9° 14' S., on the decl. arc ; and at 11 h. 45 m. a. m. l.m. t., observe the sun on the meridian , the resulting lat. is 39° 23'.

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in the ground for cor. of secs. 27 , 28 , 33 and 34 with brass cap marked

T 16 S | R 4 E
S 28 | S 27

S 33 | S 34
1913

dig pits , 18 x 18 x 12 ins., in each sec. , 5$\frac{1}{2}$ ft. dist. raise a mound of earth , 4 ft. base , 2 ft. high , W. of cor.

Land rolling lying near the top of the E. and W. slopes of a high mountain ridge bearing N. and S.

Soil , sandy loam , gravelly and rocky on a hard , moist , sub-soil of rich mountain soil and gravel ; 2 nd. rate.

Subdivision of T.16 S., R.4 E.

chains	
	Timber , scattering patches of aspen.
	Undergrowth , sage brush , oak brush and some srvice berry.
	October 17 ,1913
	November 1: At 8 h. 44 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 14° 22' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 27 , 28 , 33 and 34
	Thence I run
	East , on a random line bet. secs. 27 and 34
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.91	Intersect N. and S. line at the cor. of secs. 26 , 27 , 34 and 35.
	Thence
	West , on ,true line bet. secs. 27 and 34
	Over rough mountainous land , through dense forest of aspen and scattering pine timber and undergrowth of sevice berry and chaparral.
	Descend.
12.22	Stream , 3 lks. wide , 2 ins. deep , good water , course NW.
	Ascend abruptly.
13.60	Thence over mearly level land.
26.93	Leave timber , bears N. and S.
	Ascend abruptly.
31.88	Enter dense undergrowth of buck brush and choke cherry.
34.54.	Enter aspen timber , bears N. and S.
35.47	Top of ridge , bears N. and S.
	Descend abruptly.
39.95½	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

chains

S 27 ¼

S 34

1913

from which

An aspen , 7 ins. diam., bears N.10½°E., 35 lks. dist., marked ¼ S 27 B T

An aspen , 5 ins. diam., bears S.9¼°W., 41 lks. dist., marked ¼ S 34 B T

November 1 : At this ¼ sec. cor. I set off 14° 25' S., on the decl. arc ; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 26'

55.61 Bottom of canyon , 200 ft. below ¼ sec. cor., course N.

Ascend abruptly over E. face of high mountain ridge.

57.01 Ditch , 12 lks. wide , course N.

64.00 Leave aspen timber , bears N. and S., enter dense choke cherry undergrowth .

75.14 Top of high mountain ridge , 570 ft. above canyon , bears N. and S.

Leave choke cherry undergrowth , enter dense sage brush.

Gradually descend over W. face of ridge.

79.91 20 ft. below top.

The cor. of secs. 27 , 28 , 33 and 34.

Land mountainous , with steep E. and W. slopes of ridges into canyons draining N.

Soil , sandy loam and gravelly on a hard , moist , sub-soil of rich mountain soil and rocks ; 2 nd rate.

Timber aspen and some pine on E. 64.00 chs.

Undergrowth , dense choke cherry , service berry , sage brush and a short rich mountain grass good for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth 79.91 chs.

November 1 , 1913

Subdivision of T.16 S.,R.4 E.

chains	
	Thos. Cathcart U. S. Transitman.
	November 10 : At 8 h. 44 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 17° 05' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs, 27 ; 28 , 33 and 34
	Thence I run
	N.0° 02' W., bet. secs. 27 and 28
	Over rough mountainous land along W. face of high mountain ridge , through dense undergrowth of choke cherry and sage brush.
.50	Descend abruptly
18.75	Enter exceptionally dense undergrowth of choke cherry and aspen timber , bears E. and W.
27.21	Hollow , 90 ft. below sec. cor., drains NW
	Enter dense forest of spruce and balsam fir , bears E. and W. Gradually ascend.
36.00	Spur , 60 ft. above hollow , projects NW.
	Gradually descend.
40.00	Set an iron post , 3 ft. long, , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked $S\ \frac{1}{4}\ 28 \mid S\ 27$ 1913
	from which
	A balsam , 10 ins. diam., bears N.44°E., 47 lks. dist., marked $\frac{1}{4}$ S 27 B T
	A forked spruce , 12 ins. diam., bears N.71°W.,48 lks. dist., marked $\frac{1}{4}$ S 28 B T
54.70	Descend abruptly into canyon.
71.02	Bottom of canyon , 225 ft. below $\frac{1}{4}$ sec. cor., course NW.
	Leave timber , ascend abruptly over S. face of ridge through dense undergrowth.
80.00	150 ft. above canyon.

chains

Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high for cor. of secs. 27 and 28 , with brass cap marked

T 16 S R 4 E
S 28 | S 27
1913

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

Note:

On account of natural obstacles I am unable to set post in the ground.

Land , mountainous with a general W. exposure , running along the west side of a high mountain ridge.

Soil , gravelly and rocky on rocky sub-soil , 3 rd. rate.

Timber , aspen , spruce , balsam fir and pine of good commercial value.

Undergrowth , choke cherry , service berry , oak , chaparral and mansineta.

Land mountainous , heavily timbered or covered with dense undergrowth , 80.00 chs.

November 10 : At this sec. cor., I set off 17° 08' S., on the decl. arc ; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 24'

East , on a random line along N. bdy. of sec. 27.

40.00 Set temp. ¼ sec. cor.

Cease work.

November 10 , 1913

November 11 : Heavy storm of rain prevents field work in a. m.

At 1 h. 44 m. a. m. l. m. t., I set off 39° 24' on the lat. arc ; 17° 26' S., on the decl. arc ; and deter-

Subdivision of T.16 S.,R.4 E.

chains	
	mine a meridian with the solar at the temp. ¼ sec. cor. bet. secs. 22 and 27.
	Thence I continue
	East , on a random line along N. bdy. of sec. 27.
79.87	Intersect N. and S. line , 5 lks. N. of the cor. of secs. 22 , 23 , 26 and 27.
	Thence
	N.89° 58' W., on true line along N. bdy. of sec. 27.
	Over rough mountainous land through dense forest of aspen , spruce , balsam fir and pine and undergrowth of choke cherry , service brush , willow , oak and chaparral.
	Ascend abruptly.
10.57	Spur , 80 ft. above sec. cor., projects NW.
	Descend abruptly.
14.61	Base of steep descent , gradually descend.
19.31	Descend abruptly.
22.50	Stream , 6 lks. wide , 2 to 4 ins. deep , good water , course N.10°W.
	Ascend abruptly.
28.40	Old road , bears N. and S.
33.08	Ridge , 100 ft. above creek , bears N. and S.
	Descend abruptly over W. slope into canyon.
39.90	Bottom of canyon and creek , 2 lks. wide , 1 in deep , good water , course N.
39.93½	Point for ¼ sec. cor. falls in canyon and on unsafe ground No. cor. set.
	Ascend abruptly over E. face of ridge , through dense undergrowth and scattering timber.
40.80	Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for witness cor. to the ¼ sec. cor., with brass cap marked

T 16 S R 4 E

WC ¼

S 27

1913

chains

Note: This corner refers to sec.27 only.

An aspen , 6 ins. diam., bears S.45°W., 5½ lks. dist., marked W C ¼ S 27 B T

A pine , 6 ins. diam., bears N. 80° W.,12 lks. dist., marked W C ¼ S 22 B T

41.90 Bottom of ledge , bears N. and S.

42.03 Top of ledge, 85 ft. high , bears N. and S.

43.45 Bottom of ledge , bears N. and S.

43.52 Top of ledge 30 ft. high , bears N. and S.

60.53 Leave timber , bears N. and S.

Ascend through exceptionally heavy brush.

64.12 Top of high ridge , 350 ft. above canyon , bears N. and S

Descend abruptly over SW. slope through dense undergrowth of oak and service brush.

79.87 150 ft. below top of ridge .

The cor. of secs. 27. and 28

Land rough mountainous , with steep ,E. and W. slopes of ridges into canyons draining N. and NW.

Soil , rich decayed vegetation and gravelly on a hard , moist sub-soil of rich mountain soil and rocks ; 3 rd. rate.

Timber , aspen , scattering spruce , balsam fir and pine.

Undergrowth , oak brush , service berry , choke cherry , sage brush , willow and chaparral. Some rich mountain grass good for grazing purposes.

Land mountainous , heavily timbered and covered with dense undergrowth , 79.87 chs.

November 11 , 1913

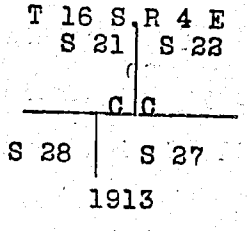
Howard W Miller

U. S. Surveyor.

November 12: At 8 h. 44 m. a. m. l. m. t., I set off 39° 24' on the lat. arc ; 17° 38' S., on the decl. arc ; and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 21 and 22 hereinafter described, on page 72.

Subdivision of T.16 S.,R.4 E.

chains	
	(Knowing that the intersection of this line with the E. and W. line at the cor. of secs. 27 and 28 will be out of limits) , I run
	S.0° 02' E., on true line bet. secs. 21 and 22.
	Over rough mountainous land along the NW. slope of high mountain ridge , through dense undergrowth of oak , sage and buck brush.
	Gradually ascend.
4.00	Enter scattering spruce and pine timber , bears E. and W.
36.00	Spur , 100 ft. above $\frac{1}{4}$ sec. cor., projects W.
	Leave timber , descend through dense brush.
45.29	Intersect E. and W. line , 3.55 chs. S.89° 58'E., of the cor. of secs. 27 and 28.
	At intersection , set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in the ground for. closing cor. of secs. 21 and 22 , with brass cap marked



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

Land , mountainous with a general NW. exposure on N. 36.00 chs. and SW. exposure on S. 9.29 chs. General drainage of the country to the west.

Soil , gravelly and rocky or stony and rocky sub-soil ; 3 rd. rate.

Timber , scattering spruce , balsam fir and pine on 32.00 chs.

Undergrowth , oak brush , service berry and sage brush , with an abundant growth of rich mountain grass , excellent for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth 45.29 chs.

chains	
	November 12: At this closing cor. I set off 17° 41' S., on the decl. arc ; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian , the resulting lat. is 39° 24'.
	November 12 ; For solar observation see S.½ mile bet. secs. 21 and 22.
	From the ¼ sec. cor. bet. secs. 15 and 22 hereinafter described , page 70, I run
	East , on true line bet. secs. 15 and 22
	Over mountainous land through dense undergrowth of service berry and oak brush.
	Ascend abruptly over W. face of spur.
16.35	Spur , 100 ft. above ¼ sec. cor., projects N. about 6 chs.
	Descend abruptly.
23.84	Base of spur , 90 ft. below top , bears NW. and SE
	Thence over level land in bottom of Canal Canyon.
27.24	Wagon road in canyon , bears N.10°W. and S.10°E.
	Leave heavy undergrowth.
28.45	Canal creek in canyon , 10 lks. wide , 4 to 6 ins. deep , good water , course NW.
	Ascend abruptly over SW. slope of canyon through dense undergrowth.
36.16	90 ft. above creek.
	Intersect N. and S. line , 5.98 chs. N.0° 01' W., 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. 15 and 22 , with brass cap marked

T 16 S | R 4 E
S 15 | CC S 14
S 22 | S 23

1913

Subdivision of T.16 S., R.4 E.

chains

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

Land mountainous draining NW.

Soil , gravelly and rocky ; 3 rd. rate on hard moist sub-soil of decayed vegetation and rocks.

Timber , a few aspen andspruce in canyons.

Undergrowth , dense oak , service berry and buck brush.

Some good grass for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth , 36.16 chs.

November 12 , 1913.

Geo. C. Cathcart

U. S. Transitman.

November 12: For solar observation see line bet. secs. 10 and 11.

From the ¼ sec. cor. bet. secs. 10 and 15 hereinafter described., page 75, I run

East , on true line bet. secs. 10 and 15

Over rough mountainous land , ascending through dense forest of scrub cedar , pinon and mahogany timber and undergrowth of oak brush , service berry and chaparral.

9.60 Enter exceptionally dense undergrowth of mahogany.

13.80 Top of ridge , 150 ft. above ¼ sec. cor., bears NW. and SE. Leave undergrowth of oak brush , service berry and chaparral , thence over land facing nearly N., through dense undergrowth of sage brush.

29.12 Head of hollow , drains N.80°W.

Thence over rolling bench land covered with scattering patches of dense oak brush.

36.61 Intersect N. and S. line 6.92 chs. N.0° 01'W., of the cor. of secs. 11 and 14.

At intersection set an iron post , 3 ft. long , 2 ins. diam., 24 ins. in the ground for closing cor. of secs.

Subdivision of T.16 S.,R.4 E.

chains

10 and 15 , with brass cap marked

T 16 S	R 4 E
S 10	CC
S 15	S 11
	S 14

1913

dig pits , 24 x 18 x 12 ins., crosswise on each line , N. and S. 3 ft. and W. of post 7 ft. dist., raise a mound of earth , 4 ft. base , 2 ft. high , W. of cor.

Land mountainous with a general W. exposure.

Soil., gravelly and rocky with some rich decayed vegetation on a hard moist sub-soil of decayed vegetation and rocks ; 3 rd. rate.

Timber ,cedar , pinon and mahogany very dense on E.13.80 chs.

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

Land mountainous , heavily timbered or covered with dense undergrowth 36.61 chs.

Heavy storm of rain and snow prevents field work after 2;30 p. m.

November 12 , 1913

November23 : For solar observation see S. bdy. sec. 34 , page 104 of this book.

From the $\frac{1}{4}$ sec. cor. bet. secs. 3 and 10 , hereinafter described , page 78, I run

East , on true line bet. secs. 3 and 10

Over rough mountainous land , ascending through scatter-scrub cedar , pinon and mahogany timber and undergrowth of oak brush , sage brush , service berry and chaparral.

38.05 200 ft. above $\frac{1}{4}$ sec. cor. and on W. slope of high mountain ridge.

Intersect N. and S. line ,7.65 chs. N.0°01'W., of the cor. of secs. 2 and 11.

Subdivision of T.16 S.,R.4 E.

chains

At intersection , set an iron post , 3 ft. long , 2 ins. diam., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for closing cor. of secs. 3 and 10 , with brass cap marked

T 16 S | R 4 E
S 3 | CC
S 10. | S 2
| S 11
1913

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

Note:
On account of natural obstacles , I am unable to set post , more than 12 ins. in the ground.

Land mountainous with west exposure.

Soil , gravelly and rich mountain soil on sub-soil of rocks and gravel ; 3 rd. rate

Timber , scattering scrub cedar , pinon and mahogany.

Undergrowth , oak brush , service berry , sage brush and chaparral.

Land mountainous , heavily timbered and covered with dense undergrowth , 38.05 chs.

November 23 , 1913

Howard M. Miller

U. S. Surveyor.

October 24 : At 7 h. 44 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ;11° 39' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 4 , 5 , 32 and 33 on the S. bdy. of the tp ,, heretofore described.

Thence I run

N.0° 03' W., bet. secs. 32 and 33

Subdivision of T.16 S.,R.4 E.

chains	
	Over mountainous land sloping gently west , through dense undergrowth of choke cherry , oak brush , service berry , and scrub maple.
14.00	Begin gradual descent.
20.00	Enter dense aspen thicket , bears E. and W.
	Descend abruptly.
28.00	Descend more gradually.
35.00	Leave aspen thicket , bears E. and W.
40.00	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked S 32 $\frac{1}{4}$ | S 33 1913 raise a mound of stone , 2 ft. base , $1\frac{1}{2}$ ft. high , W. of cor.
	October 24 : At this $\frac{1}{4}$ sec. cor., I set off 11° 44' S., on the decl. arc ; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 23'.
46.50	Stream , 2 lks. wide , 1 in. deep , good water , course W.
	Enter aspen timber , bears E. and W.
56.00	Leave aspen timber , bears E. and W. Ascend abruptly.
65.08	Ascend gradually through dense oak and buck brush.
71.48	Wagon road , bears E. and W.
78.00	Descend gradually.
80.00	Set an iron post , 3 ft. long , 2 ins. diam., 24 ins. in the ground for cor. of secs. 28 , 29 , 32 and 33 , with brass cap marked T 16 S | R 4 E S 29 | S 28 S 32 | S 33 1913 dig pits 18 x 18 x 12 ins., in each sec., $5\frac{1}{2}$ ft. dist., raise a mound of earth , 4 ft. base , 2 ft. high , W.

Subdivision of T.16 S.,R.4 E.

chains

of cor.

Land mountainous , with a general W. exposure.

Soil , rich decayed vegetation and gravelly on a hard , moist sub-soil of decayed vegetation and rocks ; 3 rd. rate.

Timber scattering patches of aspen.

Undergrowth , dense oak , service berry , buck brush and chaparral. Some good grass for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth , 80.00 chs.

October 24 , 1913

October 25 : Heavy fog delays work in a. m.

At 1 h. 44 m. p. m. l. m. t., I set off 39° 23' on the lat. arc ; 12° 06' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 28 . 29 , 32 and 33 .

Thence I run

East , on a random line bet. secs. 28 and 33

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.24 Intersect N. and S. line 9 lks. S. of the cor. of secs. 27 , 28 , 33 and 34

Thence

S. 89° 56' W., on true line bet. secs. 28 and 33.

Descend abruptly over rough mountainous land facing west , through dense undergrowth of oak , choke cherry , service berry and buck brush , and scattering aspen and pine timber.

38.00 Descend more gradually.

40.12 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor.,with brass cap marked

S 28
$\frac{1}{4}$
S 33
1913

from which

Subdivision of T.16 S.,R.4 E.

chains	
	A pine , 9 ins.diam., bears N.19½°E., 30 lks. dist., marked ¼ S 28 B T
	A pine , 12 ins. diam., bears S.45°W., 34 lks. dist., marked ¼ S 33 B T
69.00	Water ditch , course N.15°W.
80.24	The cor. of secs. 28 , 29 , 32 and 33
	Land , mountainous with a general W. exposure.
	Soil , gravelly , stony and rich decayed vegetation on a hard , moist sub-soil of rich moist mountain soil and rocks ; 3 rd. rate.
	Timber , aspen and scattering pine.
	Undergrowth , oak , service berry , choke cherry , buck brush and chaparral.
	Land mountainous , heavily timbered and covered with dense undergrowth 80.24 chs.
	October 25 , 1913

November 14 : At 8 h. 44 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 18° 10' S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 28 , 29 , 32 and 33.

Thence I run

N.0° 03' W., bet. secs. 28 and 29.

Over mountainous land sloping W., through dense undergrowth of oak , choke cherry and buck brush.

13.20	Ditch , 10 lks. wide , 2 ft. deep , course W.
16.00	Wagon road , bears N.60°E. and S.60°W.
26.92	Descend rapidly through dense undergrowth.
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

$$\frac{S\ 29}{\frac{1}{4}} \Big| S\ 28$$

1913

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

chains

of cor.

November 14: The sky is overcast at noon , observations for lat. are impossible.

48.20 Road to timber, bears N.30° W. and S.30° E.

50.40 Spring branch , 2 lks. wide , 1 in. deep , good water , course N.15°W.

54.00 Bottom of gulch , course N.10°W.

Thence over land with a general W. exposure through exceptionally heavy undergrowth.

80.00 Set an iron post , 3 ft. long , 2 ins. diam., 24 ins. in the ground for.cor. of secs. 28 and 29 , with brass cap marked

T 16 S R 4 E

S 29 | S 28

1913

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

Land mountainous with a general W. and N. exposure.

Soil , gravelly and rich black loam on a hard , moist sub-soil of rich black mountain soil and rocks; 2 nd. rate,

No timber.

Undergrowth , dense oak , buck , choke cherry , service berry , maple anddchaparral. Some good mountain grass for grazing purposes.

Land mountainous , heavily timbered ar covered with dense undergrowth , 80.00 chs.

November 14 , 1913

November 15 : At 8 h. 15 m. a. m. l. m. t., I set off 39° 24' on the lat. arc ; 18° 25' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 28 and 29

Thence I run

N.89° 56' E., on a random line on the N. bdy. of sec. 28

40.00 Set temp. ¼ sec. cor.

Subdivision of T.16 S.,R.4 E.

chains	
80.40	Intersect N. and S. line 2 lks. S. of the cor. of secs. 27 and 28
	Thence
	S.89° 55' W., on true line on N. bdy. of sec. 28
	Over rough mountainous land through dense undergrowth of oak and chaparral., and some cedar timber.
	Descend abruptly over SW. slope into canyon.
28.56	Bottom of canyon , 270 ft. below sec. cor., drains NW.
	Thence over land facing nearly N. through exceptionally heavy underbrush.
38.90	Stream of clear pure water , 3 lks. wide , course NW.
40.20	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. on the N. bdy. of sec. 28 . with brass cap marked
	S 28 $\frac{1}{4}$ 1913
	from which
	A cedar , 8 ins. diam., bears S.16½°E.,17 lks. dist., marked $\frac{1}{4}$ S 28 B T
	Gradually descend.
80.40	The cor. of secs. 28 and 29
	November 15 : At this sec. cor., I set off 18° 28' S., on the decl. arc ; and at 11 h. 45 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 24'.
	Land mountainous with steep SW. slope on E. 28.56 chs. and general N. slope on W. 51.74 chs.
	Soil , gravelly and rocky on rock and decayed vegetation sub-soil ; 3 rd. rate.
	Timber , a few scattering cedar and pine.
	Undergrowth , dense oak , service-berry , maple , buck brush and chaparral.
	Land mountainous heavily timbered or covered with dense undergrowth 80.40 chs.
	November 15 , 1913

Correct notes Book "D" page 2.

Subdivision of T.16 S.,R.4 E.

chains

November 17: For solar observation see line bet. secs. 16 and 21.

From the ¼ sec. cor. bet. secs. 20 and 21 hereinafter described , I run

S. 0° 03'E., on true line bet. secs. 20 and 21.

Gradually ascend over rocky mountainous land through scattering scrub cedar and pinon timber and dense undergrowth.

2.10 Old drag road , bears E. and W.

Descend abruptly.

7.86 Base of steep descent ; thence along nearly level W. slope.

12.85 Descend abruptly.

17.33 Bottom of canyon and wagon road , bears N.55°W. and S.60° E. Enter exceptionall dense undergrowth of maple , service berry , oak , buck and birch brush.

18.43 Stream in bottom of canyon , 4 lks. wide , 2 ins. deep , good water ; course N.75°W.

Ascend abruptly.

28.51 Small stream , 1 lk. wide . 1 in. deep , good water , course NW.

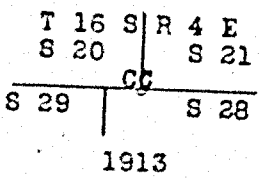
30.55 Stream of good clear water , 2 lks. wide , 2 ins. deep , course NW.

35.00 Same stream , course NE.

37.08 Same stream , course NW.

44.18 Intersect E. and W. line , 2.24 chs. N. 89° 55' E., of the cor. of secs. 28 and 29

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



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

chains	
	cor.
	Land mountainous with a general NW. drainage.
	Soil , rich black loam and gravel on a hard , moist sub-soil of decayed vegetation and gravel ; 2 nd. rate.
	Timber , some scrub cedar and pinon.
	Undergrowth , dense maple , oak brush , buck brush , service berry , choke cherry and birch. Some good mountain grass for grazing purposes.
	Land mountainous , heavily timbered or covered with dense undergrowth 44.18 chs.

November 17 . 1913

Thos. C. Cathcart

U. S. Transitman

November 17 : At 7 h. 45 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 18° 52' S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5 , 6 , 31 and 32 on the S. bdy. of the tp. heretofore described.

Thence I run

N.0°03' W., bet. secs. 31 and 32

Over rough mountainous land through dense undergrowth of oak and service berry brush.

Descend.

2.40 Hollow , 40 ft. below sec. cor., drains NW.

Ascend.

12.11 Spur , 50 ft. above hollow , projects W.

Descend abruptly.

22.00 Pidgeon Hollow and creek , 2 lks. wide , 1 in. deep , good water , 75 ft. below spur , course W.

Leave dense undergrowth.

Ascend abruptly over S. face of high ridge , through dense cedar and pinon timber.

Subdivision of T.16 S.,R.4 E.

chains.

40.00 175 ft. above hollow.

Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for ¼ sec. cor., with brass cap marked

S 31 | S 32
¼
1913

from which

A pinon , 10 ins. diam., bears S.66½°E.,4 lks. dist., marked ¼ S 32 B T

A pinon , 10 ins. diam., bears N.80½°W., 43 lks. dist., marked ¼ S 31 B T

Note : On account of natural obstacles I am unable to set post more than 12 ins. in the ground.

Continue to ascend.

51.68 Top of ridge , 75 ft. above ¼ sec. cor., bears E. and W.

Leave cedar and pinon timber , enter dense oak , service berry and sage brush.

Gradually descend over N. slope of ridge.

70.00 Wood road , bears E. and W.

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

T 16 S R 4 E
S 31 | S 32
1913

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

Land mountainous with N. and S. slopes of ridges into hollows draining W.

Soil , gravelly , rocky and some clay on rocky and stony sub-soil ; 3 rd. rate.

Timber , dense scrub cedar and pinon on 39.68 chs.

Undergrowth , oak , service berry and sage brush.

Land mountainous , heavily timbered or covered with dense

chains	
	undergrowth , 80.00 chs.
	November 17 : At this sec. cor. I set off 18° 58' S., on the decl. arc; and at 11 h. 45 m. a. m. l. m. t., observe the sun on the meridian.; the resulting lat. is 39° 23'
	November 18 : At 8 h. 15 m. a. m. l. m. t., I set off 39° 23' on the lat. arc ; 19° 09' S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 31 and 32.
	Thence I run
	East , on a random line on the N. bdy. of sec. 32
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.95	Intersect N. and S. line 7 lks. N. of the cor. of secs. 28 . 29 , 32 and 33.
	Thence
	N. 89° 57' W., on true line on N. bdy. of sec. 32
	Over mountainous land through dense undergrowth of oak and choke cherry brush.
	Gradually descend.
30.00	Begin steeper descent.
39.97½	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. on the N. bdy. of sec. 32 , with brass cap marked
	S 32 / $\frac{1}{4}$ / 1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , S. of cor.
49.00	Bottom of hollow , 75 ft. deep , courseN.
	Ascend abruptly.
53.53	Spur , 40 ft. above hollow , projects N.
	Enter scattering cedar and pinon timber.
	Descend abruptly.

Subdivision of T.16 S.,R.4 E.

chains	
69.00	Hollow near head , 80 ft. below spur , course N.80°W.
	Thence over land sloping nearly N., through exceptionally dense undergrowth.
79.95	The cor. of secs. 31 and 32.
	Land mountainous with a general W. exposure.
	Soil , gravelly and rocky on rich black loam and rock subsoil ; 3 rd. rate.
	Timber , a few scattering scrub cedar and pinon.
	Undergrowth , dense oak , service berry and buck brush.
	Land mountainous heavily timbered or covered with dense undergrowth 79.95 chs.
	November 18; The sky is overcast at noon , observations for lat. are impossible.

November 17.

Knowing that a closing cor. will be necessary upon the W. bdy. of the tp., I run

West , on true line on the N. bdy. of sec. 31

Over mountainous land through dense undergrowth of oak and sage brush,

Gradually ascend.

10.00	Spur , 30 ft. above sec. cor., projects N.
	Gradually descend.
18.00	Top of steep descent bears N. and S.
	Descend abruptly.
29.30	Enter scattering scrub cedar and pinon timber , bears N. and S.
40.00	150 ft. below top of ridge.

rrective
tes,
"D"
3.

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. on the N. bdy. of sec. 31 , with brass cap marked

---

S 31
$\frac{1}{4}$

1913

from which

A cedar , 5 ins. diam., bears S.48$\frac{1}{4}$°W., 92 lks.

Subdivision of T.16 S.,R.4 E.

chains

dist., marked ¼ S 31 B T

51.06 Hollow , 40 ft. below ¼ sec. cor., course SW.

Gradually ascend.

57.00 Wood road , bears NE. and SW.

60.35 Spur , 50 ft. above hollow , projects SW

Descend abruptly.

79.52 50 ft. below spur.

Intersect W. bdy. of the Tp. 1.16 chs. South of the cor. of secs. 25 and 36 , heretofore described.

At intersection, set an iron post , 3 ft. long , 2 ins. dia., 24 ins. in the ground for closing cor. of secs. 30 and 31 , with brass cap marked

T 16 S
R 3 E | R 4 E
S 25
S 36 | S 30
CC
S 31
1913

dig pits , 24 x 18 x 12 ins., crosswise on each line , N. and S. 3 ft., and E. of post , 7 ft. dist., raise a mound of earth , 4 ft. base , 2 ft. high , E. of cor.

Land mountainous with a general W. and NW. exposure.

Soil , gravelly , rocky and clay on clay and rock sub-soil ; 3 rd. rate.

Timber , scattering cedar and pinon on 50.32 chs.

Undergrowth , oak , buck and sage brush.

Land mountainous heavily timbered or covered with dense undergrowth , 79.52 chs.

November 17 , 1913

November 18 : From the ¼ sec. cor. bet. secs. 29 and 30 hereinafter described , page 84, I run

S.0° 03' E., on true line bet. secs. 29 and 30

Over mountainous land through scattering cedar and pinon timber and dense undergrowth,oak and service brush.

Gradually ascend over N. slope of spur.

Correcti
notes
Book "D"
page 3.

chains

9.03 Top of spur , 50 ft. above ¼ sec. cor., projects NW.
Thence over rolling bench land.

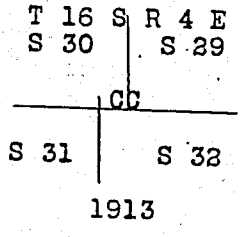
10.00 Old wood road , bears NW. and SE.

19.02 Begin descent over gradual S. slope.

36.38 Hollow , 50 ft. below spur , drains W.
Ascend.

42.39 Intersect E. and W. line 1.14 chs. S. 89° 57' E., of the cor. of secs. 31 and 32.

At intersection , set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 29 and 30 , with brass cap marked



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

Land mountainous , draining W.

Soil , stony and gravelly on rocky sub-soil mixed with some rich black loam ; 3 rd. rate.

Timber , scattering scrub cedar and pinon.

Undergrowth , oak , buck and sage brush.

Land mountainous , heavily timbered or covered with dense undergrowth 42.39 chs.

November 18 , 1913

Howard W Miller

U. S. Surveyor

November 18 : At 8 h. 45 m. a. m. l. m. t., I set off 39° 24' on the lat. arc ; 19° 10' S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 28 and 29.

(Knowing that a closing cor. will be necessary in

chains

closing upon the cor. of secs. 19 , 20 , 29 and 30)

I run

N.89° 57' W., on true line on the N. bdy. of sec. 29

Over mountainous land sloping nearly NW., through exceptionally dense undergrowth of oak , service berry , buck brush and maple.

Gradually descend.

11.75 Hollow , 50 ft. below sec. cor., drains N.

12.00 Wood road , bears N. and S.
Ascend abruptly.

20.02 Spur , 60 ft. above hollow , projects N.

Leave dense undergrowth , thence through scattering oak brush.

Descend

40.00 125 ft. below spur.

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. on the N. bdy. of sec. 29 , with brass cap marked

S 29
$\frac{1}{4}$
1913

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

November 18: The sky is overcast at noon , observations for lat. are impossible.

54.00 Hollow , 30 ft. below $\frac{1}{4}$ sec. cor., drains N.

Ascend

57.00 Spur , 20 ft. above hollow , projects N.

Gradually descend over W. slope of spur , through dense scrub cedar and pinon timber.

78.90 Intersect N. and S. line 2.81 chs. S.0° 32' E., of the cor. of secs. 19 , 20 , 29 and 30 hereinafter described, p.83.

At intersection , set an iron post , 3 ft. long , 2 ins. in dia.,24 ins. in the ground for closing cor. of secs. 20 and 29 , with brass cap marked

T 16 S | R 4 E
S 19 |
S 30 | S 20
GC | S 29
1913

Corrective notes Book "D" page 3-4

Subdivision of T.16 S.,R.4 E.

chains

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

I destroy all marks on old cor. referring to secs. 20 and 29

Land mountainous.with a general NW. exposure.

Soil , sandy clay , gravelly and rocky on a hard moist sub-soil of decayed vegetation and rocks ; 3 rd. rate.

Timber , some cedar and pinon.

Undergrowth , oak , buck , service berry , maple and chaparral , very dense on E. 20.02 chs.

Some good grass for grazing purposes.

Land mountainous , heavily timbered or covered with dense undergrowth , 78.90 chs.

November 18 , 1913

Thos. C. Rattiboire

U. S. Transitman.

Retracement of Subdivision of T.16 S.,R.4 E.

November 8 : At 7 h. 44 m. a. m. l. m. t., I set off 39° 25' on the lat. arc ; 16° 29' S., on the decl. arc; and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 15 and 22 which is a sandstone 14 x 11 x7 ins. above ground , firmly set , and marked and witnessed as described by the surveyor general.

I destroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established ¼ sec. cor., with brass cap marked

S 15
¼
S 22
1913

Retracement of Subdivision of T.16 S.,R.4 E.

chains	
	raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
	Thence I run
	West , retracing bet. secs. 15 and 22.
	Over mountainous land , through dense undergrowth of oak , buck brush and maple and scattering aspen timber.
4.50	Bottom of canyon and fork of Canal Creek , 5 lks. wide , 6 to 8 ins. deep ; good water , course N.
5.20	Old road , bears N. and S.
5.25	Enter dense aspen thicket , bears N. and S.
5.63	Spring branch , 2 lks. wide , 2 ins. deep , good water , course N.
6.50	Spring branch , 2 lks. wide , 1 in. deep , good water , course NE.
7.00	Leave aspen thicket and canyon bottom , bears N. and S. Ascend abruptly over E. face of ridge.
11.30	Top of steep ascent , 100 ft. above canyon , bears N. and S. Thence over rolling N. face of mountain.
40.85	Fall 42 lks. N. of the cor. of secs. 15 , 16 , 21 and 22 , which is a sandstone , 10 x 8 x 8 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.
	I destroy all traces of the old cor. and re-establish it at the same point as follows :
	Set an iron post , 3 ft. long , 2 ins.in dia., 24 ins. in the ground for re-established cor. of secs. 15 , 16 , 21, and 22 , with brass cap marked

T 16 S S 16	R 4 E S 15
S 21	S 22

1913

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

The true bearing of this line is therefore S. 89° 25' W., and the distance is 40.85 chs.

Retracement of Subdivision of T.16 S.,R.4 E.

chains

Land mountainous with a general N. exposure.

Soil , gravelly and rocky mixed with some rich mountain soil , on a hard , moist sub-soil of rich decayed vegetation and rocks ; 3 rd. rate.

Timber , some aspen in canyon bottom.

Undergrowth , dense oak , artemisia , service berry and buck brush with a short undergrowth of rich mountain grass good for commercial purposes.

Land mountainous , heavily timbered or covered with dense undergrowth , 40.85 chs.

From the cor. of secs. 15 , 16 , 21 and 22., I run S.0° 02'E., retracing bet. secs. 21 and 22.

Ascend over rolling NW. slope of high mountain ridge , through dense undergrowth of oak , buck , artemisia , and service berry brush.

14.48 Enter scattering spruce timber , bears E. and W.

29.94 Enter dense spruce timber , bears E. and W.

37.26 Leave timber , bears NE. and SW. Thence through dense undergrowth.

40.09 Fall 47 lks. W. of the $\frac{1}{4}$ sec. cor., which is a sandstone , 7 x 7 x 7 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., with brass cap marked

$$S\ \frac{21}{1/4}\ |\ S\ 22$$

1913

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

The true bearing of this line is S.0° 42' E., and the distance is 40.09 chs.

Retracement of Subdivision of T.16 S.,R.4 E.

chains

Land mountainous with a general NW. exposure.

Soil , gravelly , rocky and rich black loam on hard , moist sub-soil of rich mountain soil and rocks ; 3 rd. rate.

Timber , spruce on 22.78 chs.

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

Land mountainous heavily timbered or covered with dense undergrowth 40.09 chs.

November 8: At this ¼ sec. cor., I set off 16° 34' S., on the decl. arc ; and at 11 h. 44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 25'.

RESURVEY OF SUBDIVISION OF T.16 S.,R.4 E.

From the cor. of secs. 15 , 16 , 21 and 22 , I run

N.0° 02' W., retracing bet. secs. 15 and 16

40.00 No trace of the old ¼ sec. cor. can be found.

81.02 Fall 99 lks. E. of the cor. of secs. 9 , 10 , 15 and 16 which is a limestone , 7 x 8 x 4 ins. above ground , firmly set and marked and witnessed as described by the Surveyor General.

The true bearing of this line is N.0°45'W., and the distance is 81.02 chs.

I return to the cor. of secs. 15 , 16 , 21 and 22 ,

Thence I run

N. 0° 45' W., re-surveying bet. secs. 15 and 16

Over rough mountainous land through dense undergrowth of oak , service berry and buck brush.

Descend over N. face of mountain into Canal Canyon.

30.00 Bottom of canyon and creek , 10 lks. wide , 4 to 6 ins. deep , good water , 450 ft. below sec. cor., course N.10°W.

Gradually ascend.

35.00 Main canyon road , bears NW. and SE. East of line 50 lks.

Retracement and Re-survey of Subdivision of T.16 S.,R.4 E.

chains

dist., is a gate through a wire fence , bearing N. and S.

39.50 Wire fence , bears E. and W.

40.51 Porportionate measurement.

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S $\frac{1}{4}$ 16 | S 15

1913

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

43.50 Low spur , projects NW.

Gradually descend.

44.00 Small hollow , drains W.

Gradually ascend over land sloping nearly W.

79.00 Spur , 60 ft. above hollow , projects W.

Descend.

81.02 20 ft. below top of spur.

The cor. of secs. 9 , 10 , 15 and 16.

I destroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post ,3 ft. long , 2 ins. diam., 24 ins. in the ground for re-established cor. of secs. 9 , 10 , 15 and 16 , with brass cap marked

T 16 S S 9	R 4 E S 10
S 16	S 15

1913

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

Land rough mountainous with a N. exposure on S. 30.00 chs. and rolling mountainous with W. exposure on N 51.02 chs.

Soil , gravelly , rocky , and some sandy loam on hard sub-soil of gravel and rocks ; 3 rd. rate.

No timber.

Undergrowth , oak , service berry and buck brush , very dense on S. 30 chs.

chains

Land mountainous heavily timbered or covered with dense undergrowth 81.02 chs.

November 12: For solar observation see line bet. secs. 10 and 11

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

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

Gradually ascend over N. slope of spur.

21.14 Spur , 50 ft. above sec. cor., projects N.

Descend.

25.00 Hollow , 50 ft. deep , drains N.

Ascend abruptly.

34.75 Spur , 75 ft. above hollow , projects N.

Descend gradually.

39.00 Hollow , 40 ft. deep , drains NW.

Enter cedar and pinon timber , bears NW. and SE.

Ascend abruptly.

41.37 Fall 43 lks. S. of the $\frac{1}{4}$ sec. cor., which is a limestone 14 x 10 x 2 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old $\frac{1}{4}$ sec. cor., and re-establish it at the same point as follows;

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., with brass cap marked

$$\frac{S\ 10}{\frac{1}{4}}$$

$$\frac{S\ 15}{1913}$$

from which

A pinon , 10 ins. diam., bears N.31° E., 20 lks. dist., marked $\frac{1}{4}$ S 10 B T

chains	
	A pinon , 8 ins. diam., bears S.33½° W., 24 lks. dist., marked ¼ S 15 B T
	The true bearing of this line is therefore N.89° 24'E., and the distance is 41.37 chs.
	Land , mountainous , with a general W. exposure.
	Soil , gravelly , rocky and rich black loam on a hard , moist sub-soil of rocks and decayed vegatation ; 3 rd. rate.
	Timber , scrub cedar and pinon on E . 1.37 chs.
	Undergrowth , oak , service berry and buck brush.
	Land mountainous , heavily timbered and covered with dense undergrowth 41.37 chs.
	November 12: The sky is overcast at noon , observations for lat. are impossible.

	November 8 : For solar observation see line bet. secs. 15 and 22
	From the cor. of secs. 9 , 10 , 15 and 16 , I run
	N.0° 02' W., retracing bet. secs. 9 and 10
40.00	No trace of the ¼ sec. cor. can be found.
	Cease work.
	November 8 , 1913
	November 19 : At 8 h. 15 m. a. m. l. m. t., I set off 39° 26' on the lat. arc ; 19° 24' S., on the decl. arc ; and determine a meridian with the solar at the point for ¼ sec. cor. bet. secs. 9 and 10.
	Thence I continue
	N.0°02'W., retracing bet. secs. 9 and 10
80.54	Fall 82 lks. E. of the cor. of secs. 3 , 4 , 9 and 10 which is a sandstone , 8 x 7 x 4 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.
	The true bearing of this line is N.0°37'W., and the distance is 80.54 chs.
	I return to the cor. of secs. 9 , 10 , 15 and 16

chains

Thence I run

N.0° 37' W., re-surveying bet. secs. 9 and 10

Gradually descend over mountainous land facing N.,
through undergrowth of oak , service berry and chaparral.

12.00 Base of mountain , 60 ft. below sec. cor., bears NE. and SW. Thence over nearly level land.

15.40 Wire fence , bears E. and W.

Enter cultivate d field.

40.27 Porportionate measurement. Point for $\frac{1}{4}$ sec. cor. falls in center of cultivated field., not being able to find a suitable place to set this cor. within a radius of 20.00 chs. I set the cor. at this point as follows :

Set an iron post , 3 ft. long , 1 in. in dia., 1 ft. under the surface of the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S $\frac{1}{4}$ 9 | S 10

1913.

Note: As the cor. falls in a cultivated field I do not build any accessories.

60.10 Junction of fences , bears E. W. and N.

Thence along E. side of fence.

80.54 The cor. of secs. 3 , 4, 9 and 10.

I destroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 2 ins. diam., 24 ins. in the ground for re-established cor. of secs. 3 , 4 , 9 and 10 with brass cap marked

T 16 S., R 4 E
S 4 | S 3
S 9 | S 10

1913

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

Land rolling and mountainous.

S. 12.00 chs. mountainous land sloping N. soil , gravelly

chains	
	and rocky on rocky sub-soil ; 4 th. rate.
	N. 68.54 chs. nearly level land. Soil , rich sandy loam on a deep , moist , sandy sub-soil ; 1 st. rate.
	Notimber.
	Undergrowth , oak , service berry and choke cherry brush on S. 12.00 chs.
	Mountainous land and covered with undergrowth 12.00 chs.
	East , retracing bet. secs. 3 and 10
	Over level cultivated land sloping gently N.
13.90	Pole fence , bears N. and S. Leave cultivated land.
15.00	N. of line 3.00 chs. dist., is an old corral. Base of mountain , bears N. and S. Enter scrub cedar and pinon timber. Ascend.
19.70	Spur , 30 ft. high , projects NW. 5 chs. dist.
	Gradually descend over gentle NE. slope.
30.00	Hollow , 40 ft. deep , drains NW.
	Ascend.
40.77	Fall 52 lks. S. of the $\frac{1}{4}$ sec. cor., which is a sandstone , 10 x 9 x 4 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.
	I destroy all traces of the old cor. and re-establish it at the same point as follows:
	Set an iron post , 3 ft. long , 1 in. in dia. 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for re-established $\frac{1}{4}$ sec. cor. with brass cap marked
	$\frac{S\ 3}{\frac{1}{4}}$ / $\frac{S\ 10}{1913}$
	raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
	The true bearing of this line is therefore N. 89° 16' E.,

Retracement and re-survey of the subdivision of T.16 S.,R.4 E.

chains

and the distance is 40.77 chs.

Land , level and rolling mountainous having a general W. and NW. exposure.

Soilof W. 15.00 chs. or rolling portion , rich sandy loam on deep sandy sub-soil ; 1 st. rate. Soil of remaining part , rocky and clay on clay and rock sub-soil ; 4 th. rate.

Timber , scrub cedar and pinon on 25.77 chs.

Undergrowth , chaparral.

Land mountainous or heavily timbered 40.77 chs.

November 19: At this $\frac{1}{4}$ sec. cor. I set off 19° 27' S., on the decl. arc ; and at 11 h. 45 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 27'

From the cor. of secs. 3 , 4 , 33 and 34 on the N. bdy. of the tp., heretofore described , I run

S.0° 50' E., retracing bet. secs. 3 and 4

Gradually descend over rolling land sloping S., through short undergrowth of sage brush , following along E. side of wire fence.

20.70 Junction of fences , bears N.,S.,E. and W.

40.70 The $\frac{1}{4}$ sec. cor., which is a sandstone , 15 x.12 x 10 ins., buried 12 ins. in the ground , marked and witnessed as described by the Surveyor General.

I destry all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

$$S\ \frac{1}{4}\ 4 \mid S\ 3$$

1913

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

Retracement and re-survey of the subdivision of T.16 S.,R.4 E.

chains

of cor.

Note: This cor. stands at junction of fences bearing N., E. and W.

The true bearing of this line is S.0° 50'E., and the distance is 40.70 chs.

From ¼ sec. cor. I run

S.0°50'E.

Across cultivated field.

15.00 Small wash , drains W.

Gradually ascend.

20.40 Junction of fences , bears E., W., and S.

Thence along E. side of fence.

40.56 The cor. of secs. 3 , 4, 9 and 10.

Land gently rolling.

Soil , sandy loam on deep , moist sand sub-soil ; 1 st. rate.

No timber.

Undergrowth , short sage brush on N. 40.70 chs.

November 19., 1913

Howard M. Miller

U. S. Surveyor.

November 15: For solar observation see line of N. bdy. sec. 28:

From the cor. of secs. 16 , 17 , 20 and 21 , hereinafter described , page 88, I run

S.0° 35'E., retracing bet. secs. 20 and 21

Over mountainous land through dense undergrowth of oak , buck and sage brush and scattering cedar and pinon timber.

Gradually ascend over W. point of ridge.

40.49 Top of spur , 200 ft. above sec. cor., Projects SW.

The ¼ sec. cor., which is a sandstone 7 x 10 x 7 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

Retracement and re-survey of the subdivision of T.16 S.,R.4 E.

chains

I destroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established ¼ sec. cor., with brass cap marked

S ¼ 20 | S21

1913

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

The true bearing of this line is S.0° 35'E., and the distance is 40.49 chs.

Land , mountainous with NW. exposure.

Soil , gravelly and rocky on rocky sub-soil ; 4 th. rate.

Timber , a few scattering cedar and pinon.

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

Land mountainous , heavily timbered or covered with dense undergrowth 40.49 chs.

November 15 , 1913.

November 17 : At 7 h. 45 m. a. m. l. m. t., I set off 39° 25' on the lat. arc ; 18° 54' S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16 , 17 , 20 and 21

Thence I run

N.89° 25' E., retracing bet. secs. 16 and 21

Gradually ascend through dense undergrowth of oak and sage brush

5.68 Mouth of gulch , drains NW.

Ascend abruptly over W. slope of ridge,

13.68 Top of ridge , 100 ft. above gulch , bears NW.and SE.

Descend.

16.08 Gulch , 40 ft. deep , course S.

Ascend.

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chains

40.87 Fall 5 lks. S. of the $\frac{1}{4}$ sec. cor., which is a sandstone 8 x 9 x 7 ins. above ground , firmly set , and marked and witnessedas described by the Surveyor General.

I destroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., with brass cap marked

$$\frac{S\ 16}{\frac{1}{4}}$$

$$S\ 21$$
$$1913$$

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

The true bearing of this line is N.89° 21'E., and the distance is 40.87 chs.

From the $\frac{1}{4}$ sec. cor. I continue N.89° 25'E.

14.77 Spur , projects N.30°W., 20 chs. dist..

Descend gradually.

31.50 Ascend abruptly through dense undergrowth.

33.19 Ascend gradually.

41.01 Fall 6 lks. N. of the cor. of secs. 15 , 16 , 21 and 22 heretofore described

The true bearing of this line is N.89° 30' E., and the distance is 41.01 chs.

Land , mountainous with a general NW. exposure.

Soil , gravelly and rocky on rocky sub-soil ; 4 th. rate.

No timber.

Undergrowth , dense oak , buck and sage brush.

Land mountainous , heavily timbered or covered with dense undergrowth 41.01 chs.

November 17: At this sec. cor. I set off 18° 58' S., on the decl. arc ; and at 11 h. 45 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 25'

Retracement and re-survey of the subdivision of T.16 S.,R.4 E.

chains

Geo. C. Rathbone.

U. S. Transitman.

November 14: At 7 h. 44 m. a. m. l. m. t., I set off 39° 24' on the lat. arc ; 18° 08' S., on the decl. arc; and determine a meridian with the solar at the cor. of secs.19 , 20 , 29 and 30 , which is a sandstone 6 x 8 x 4 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old cor. and re-establish it at the same point as follows:

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

T 16 S S 19	R 4 E S 20
S 30	S 29

1913

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

Thence I run

S.0° 35' E., retracing bet. secs. 29 and 30

Over mountainous land through scattering forest of scrub cedar and pinon and undergrowth of oak and sage brush,

Ascend.

7.24 Spur , 50 ft. above sec. cor., projects W.

Descend abruptly.

13.00 Hollow , 60 ft. below spur , drains W.

Ascend.

17.40 Spur , 35 ft. above hollow , projects W.

Descend.

20.00 Hollow , 50 ft. deep , drains W.

Ascend abruptly over N. face of ridge through dense service berry brush.

31.00 Top of steep ascent , 130 ft. above hollow , bears E. and W.

chains

Thence over nearly level land.

40.22 Fall 3½ lks. E. of the ¼ sec. cor., which is a limestone 12 x 7 x 6 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old ¼ sec. cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established ¼ sec. cor., with brass cap marked

S ¼ 30

1913

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft. dist., raise a mound of earth , 3 ft. base , 1½ ft. high , W. of cor.

Corrective Notes Book "D" page 3.

The true bearing of this line is S.0° 32' E., and the distance is 40.22 chs.

Land mountainous draining NW., with N. and S. slopes of ridges.

Soil , gravelly , rocky , blue clay and some rich black loam , on hard , moist gravel and rock sub-soil ; 3 rd. rate.

Timber , scattering scrub cedar and pinon.

Undergrowth , oak , sage and service berry brush.

Land mountainous , heavily timbered or covered with dense undergrowth 40.22 chs.

From the cor. of secs. 19 , 24 , 25 and 30 on the W. bdy. of the tp. heretofore described., I run

N. 89° 25' E., retracing bet. secs. 19 and 30

Gradually ascend across Charles Johanson's field along N. side of wire fence.

20.10 Wire fence , bears N. and W., Leave field.

20.40 Wagon road , bears N. and W.

Thence over rolling foot hills , through scattering scrub cedar and pinon timber.

Retracement and re-survey of the subdivision of T.16 S.,R.4 E.

chains

40.44 Fall 24 lks. S., of the ¼ sec. cor. which is a stone 8 x 8 x 7 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

Idestroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base, 1 ft. high , for re-established ¼ sec. cor., with brass cap marked

S 19
¼
S 30
1913

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

Note:
On account of natural obstacles I am unable to set post more than 12 ins. in the ground.

The true bearing of this line is therefore N.89° 05' E., and the distance is 40.44 chs.

From the ¼ sec. cor., I continue

N.89° 25' E.

13.40 Road , bears N.10°E. and S.10°W.

Gradually ascend.

40.50 Fall 19 lks. S. of the cor. of secs. 19 , 20 , 29 and 30.

The true bearing of this line is N.89°09'E., and the distance is 40.50 chs.

Land , rolling and mountainous with general W. exposure.

Soil , W.20.10 chs., rich sandy loam and gravel on sandy sub-soil ; 1 st. rate. E.60.84 chs. soil is gravelly and rocky usually very hard and dry., 3 rd. rate.

Timber , scrub cedar and pinon on E. 60.84 chs.

Undergrowth , short sage brush.

Mountainous or timbered land 60.84 chs.

From the cor. of secs. 19 , 20 , 29 and 30 , I run

Retracement and re-survey of subdivision of T.16 S.,R.4 E.

chains

N.0° 35'W., retracing bet. secs. 19 and 20.

Over rolling mountainous land sloping NW., gradually descending through scattering cedar and pinon timber and undergrowth of sage brush.

26.32 Hollow , 60 ft. below sec. cor., course W.

W. of line , 5 chs. dist. is anold sheep shearing corral.

Leave mountainous land , bears NE. and SW. Thence over gently rolling land.

29.60 Road , bears E. and W.

31.00 Bills Creek , 5 lks. wide , 5 ins. deep , good water , course , W.

Gradually ascend.

40.25 Fall 16 lks. E. of the $\frac{1}{4}$ sec. cor., which is a sandstone 15 x 10 x 8 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., with brass cap marked

$S\ \frac{19}{4}\ |\ S\ 20$

1913

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

The true bearing of this line is therefore N.0° 49'W., and the distance is 40.25 chs.

November 14 : At this $\frac{1}{4}$ sec. cor., I set off 18° 13' S., on the decl. arc ; and at 11 h.44 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 25'

From the $\frac{1}{4}$ sec. cor. I continue

N.0° 35' W.

13.80 Wash , 20 lks. wide , 10 ft. deep , drains SW.

14.50 W. of line 50 lks. dist. is a wire fence , bearing N. and W.

38.60 Wash , 30 lks. wide , 15 ft. deep , course W.

Retracement and Resurvey of Subdivision of T.16 S., R.4 E.

Chains.	
40.40.	Fall 17½ lks.E.of the cor.of secs.17,18,19, and 20,which is a limestone 8x8x4 ins.above ground,firmly set,and mkd.and witnessed as described by the surveyor general.
	I destroy all traces of the old cor.and re-establish it at the same point as follows:
	Set an iron post 3 ft.long,2 ins.dia.,24 ins.in the ground,for re-established cor.of secs.17,18,19, and 20, with brass cap marked
	T 16 S R 4 E S 18 | S 17 S 19 | S 20 1913
	raise a mound of stone,2 ft.base,1½ ft.high W.of cor.
	The true bearing of this line is N.0°50'W.40.40 chs.
	Land rolling and mountainous,draining W.
	S.26.32 chs.mountainous land. Soil rocky and clay on rocky and gravelly subsoil;4th rate. N.54.33 chs.rolling land; soil, rich sandy loam with occasional outcroppings of rocks, on a deep sandy and rocky subsoil; 2nd rate.
	Timber,some scattering cedar and pinon on S.26.32 chs.
	Undergrowth, sagebrush with scattering patches of oak.
	Mountainous or timbered land 26.32 chs.
	From the cor.of secs.17,18,19 and 20 I run N.89°25'E.,retracing bet.secs.17 and 20,
	Gradually ascend over rolling land, sloping W.; through undergrowth of sage and scattering oak brush.
21.00	Enter scattering cedar timber, bears N.and S.
40.78	Fall 10½ lks.S.of the ¼ sec.cor., which is a limestone 7 x 8 x 3 ins.above ground, firmly set, and marked and witnessed as described by the surveyor general.
	I destroy all traces of the old cor., and re-establish it at the same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 24 ins.in the ground,for re-established ¼ sec.cor.with brass cap mkd.
	S 17 ¼ S 20 1913.

Chains.

dig pits 18x18x18 ins.E.and W.of post 3 ft.dist.; raise a mound of earth 3 ft.base,1½ ft.high N.of cor.

The true bearing of this line is therefore N.89°16'E. and the distance is 40.78 chs.

From the ¼ sec.cor.I continue N.89°25'E.

11.90 Wash 30 lks.wide, 10 ft.deep, course SW.

36.40 Enter heavy oak and service brush,bearing N.and S.

38.60 Road bears N.and S.

40.89 Fall 11 lks.S.of the cor.of secs.16,17,20, and 21,which is a sandstone 5x9x5 ins.above ground,firmly set,and mkd.and witnessed as described by the surveyor general.

I destroy all traces of the old cor., and re-establish it at the same point as follows:

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

T 16 S	R 4 E
S 17	S 16
S 20	S 21

1913

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

The true bearing of this line is therefore N.89°16'E. and the distance is 40.89 chs.

Land, rolling with gentle W.exposure. Soil, sandy,gravelly and some rocky on a hard, dry subsoil of sand and rocks; 3d rate.

Timber, a few scrub cedar and pinon.Undergrowth, sagebrush with scattering patches of oak.Good grass for grazing purposes.

November 14, 1913.

Howard W. Miller

U.S.Surveyor.

Retracement and Resurvey of the W.Bdy.of T.16 S., R.4 E .

Chains.	
	Survey commenced Nov.15, 1913, and executed with a Young and Sons light mountain transit, No.8589, for description and test of which see line between secs. 19 and 24 on E.bdy.of T.16 S., R.4 E.
	Nov.15; At the corner of secs.25 and 36 on the E.bdy.of T.16 S., R.3 E., heretofore described, I set off 18° 38' S.on the decl.arc; and at 11h 45m a.m.l.m.t., observe the sun on the meridian; the resulting lat.is 39° 24'
	Thence I run
	North, retracing bet.secs.25 and 30,
	Over rolling mountainous land, with a general west exposure; through scattering scrub cedar and pinon timber; gradually descending over west slope.
14.50	Leave mountainous land and timber, bears NE. and SW.
	Thence over rolling land; through dense sagebrush undergrowth.
26.50	Wagon road, bears NE. and SW.
26.80	Wash, 10 lks.wide, 5 ft.deep, drains SW.
39.50	Fall 34 lks.E.of the old ¼ sec.cor., which is a limestone 12 x 8 x 9 ins.above ground, firmly set and marked and witnessed as described by the surveyor general.
	I destroy all traces of the old corner, and re-establish it at the same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 24 ins.in the ground, for re-established ¼ sec.cor., with brass cap marked S 25 ¼ | 1913
	raise a mound of stone, 2 ft.base, 1½ ft.high W.of cor.
	The true bearing of this line is therefore N.0° 30'W., and the distance is 39.50 chs.

Retracement and Resurvey of the W.Bdy.of T.16 S., R.4 E.

Chains.

From the $\frac{1}{4}$ sec.cor., I continue

North

0.05 The SE.cor.of a field and wire fence, which bears N.and W., bears W.60 lks.

Thence along E.side of fence.

17.65 Wash, 15 lks.wide, 10 ft deep, course SW.

39.50 The NE.cor.of field and wire fence bears W.20 lks.

40.40 Wagon road bears E.and W.

40.65 Wash, 10 lks.wide, 3 ft.deep, course W.

40.75 Wire fence and S.side of Charles Johanson's field, bears E.and W.

Fall 31 lks.E.of the cor.of secs.19, 24, 25, and 30, which is a sandstone 5 x 9 x 4 ins.above the ground, firmly set, and marked and witnessed as described by the surveyor-general.

I destroy all traces of the old cor., and re-establish it at the same point as follows:

Set an iron post 3 ft.long, 3 ins.in dia., 12 ins.in the ground, and 12 ins.in a mound of stone and earth 4 ft.base, 1 ft.high, for re-established cor.of secs. 19,24,25, and 30, with brass cap marked

T 16 S
R 3 E | R 4 E
S 24 | S 19
S 25 | S 30

1913

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

Note:

On account of natural obstalces I am unable to set post more than 12 ins.in the ground.

The true bearing of this line is N.0° 26'W., and the distance is 40.75 chs.

Land, rolling mountainous on S.14.50 chs., and gently rolling ground on N.65.75 chs., and having a general W.

Re-survey and retracement of the W. bdy. of T. 16 S., R. 4 E.

chains

exposure.

Soil, gravelly, stony and light, fine, dry, warm sandy loam, on hard dry sub-soil of sandy loam and rocks., 2 nd and 3 rd. rate.

Timber, a few scattering scrub cedar and pinon on S. 14.50 chs.

Undergrowth, sage brush.

Good grass for grazing purposes.

Mountainous land on S. 14.50 chs.

November 15, 1913

O. Howard W. Miller

U. S. Surveyor.

November 26 : At 8 h. 47 m. a. m. l. m. t., I set off 39° 24' N., on the lat. arc ; 20° 52' S., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30.

Thence I run

North, retracing bet. secs. 19 and 24.

40.00 No trace of the old ¼ sec. cor., can be found. I therefore continue my line North and at 121.56 chs. fall 1.61 chs. E. of the old ¼ sec. cor. bet. secs. 13 and 18 which is a sandstone 10 x 10 x 4 ins. above ground, firmly set, and marked and witnessed as described by the Surveyor General. This falling answers to a correction of 107.3 lks. pr. 0° 46' per mile counting from the cor. of secs. 19, 24, 25 and 30. I return to the cor. of secs. 19, 24, 25 and 30

Thence I run

N. 0° 46' W., re-surveying bet. secs. 19 and 24

Gradually ascend across Charles Johanson's cultivated wheat field

Re-survey and retracment of the W. bdy. of T. 16 S., R. 4 E.

chains	
16.00	Bills Creek , 3 lks. wide , 2 ins. deep , good water , in wash , 40 lks. wide , 10 ft. deep , course S. 80°W.
16.50	Road , bears E. and W.
16.60	Wire fence , bears E. and W.
21.20	Wire fence , bears E. and W.
	Charles Johanson's house , bears E. 6 chs. dist.
	Barn bears E., 2.50 chs. dist.
21.40	Road , bears E. and W.
40.00	Irrigation ditch , 6 lks. wide , 1½ ft. deep , flows W.
	A small resevoir bears E. about 11 chs. dist.
40.52	Set an iron post , 3 ft. long , 1 in . in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked S 24¼ | S 19 1913 raise a mound of stone , 2 ft. base, 1½ ft. high , W. of cor.
51.10	Wire fence and leave field , bears E. and S. 35° W.
51.20	Road , bears N. and S. 35° W.
	Thence along road , crossing and re-crossing the same.
60.30	Wire fence , bears E. and W.
61.00	Wash , 40 lks. wide , 10 ft. deep , course W.
81.04	Point for cor. of secs. 13 , 18 , 19 and 24 falls in center of wash , 40 lks. wide 8 ft. deep , draining W.
	No cor. set.
	Land rolling with a general W. exposure.
	Soil , rich , fine , dry sandy loam and gravelly on a deep , rich sandy loam sub-soil , 1 st. rate.
	No timber.
	No undergrowth.

N. 0°46' W., re-surveying bet. secs. 13 and 18.

Over nearly level land with general W. drainage.

Ascend from wash.

Re-survey and retracement of the W. bdy. of T. 16 S., R. 4 E.

chains

0.35 Set an iron post , 3 ft. long , 3 ins. in dia., 24 ins. in the ground for witness cor. to the cor. of secs. 13 , 18 , 19 and 24 , with brass cap marked

T 16 S
R 3 E | R 4 E
S 13 | S 18
WC
S 24 | S 19
1913

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

Thence along road , crossing and re-crossing the same.

14.80 The SW. cor. of an orchard , bears E. 20 lks.

21.10 The NW. cor. of orchard , bears E. 20 lks.

21.20 Junction of roads , bears E. to Canal Canyon , S. to Ephraim , Utah and N. to Spring City , Utah.

23.00 H. P. Larson's house , bears E. 1.25 chs.

28.00 Wire fence , bears E. and S.

Thence through sage brush undergrowth , along E. edge of road.

40.52 The ¼ sec. cor., bet. secs. 13 and 18 heretofore described.

I destroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for re-established ¼ sec. cor. , with brass cap marked

S 13 ¼ | S 18
1913

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

Note:

On account of natural obstacles I am unable to set

chains

post more than 12 ins. in the ground.

Land , level.

Soil , rich sandy loam ; 1 st. rate.

Undergrowth sage brush , on N. 12. 42 chs.

No timber.

November 26 : at this ¼ sec. cor., I set off 20° 56' S., on the decl. arc; and at 11 h. 47 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 25'

November 28 : At 1 h. 47 m. p. m. l. m. t., I set off 39°. 25' N., on the lat. arc ; 21° 19' S., on the decl. arc ; and determine a meridian with the solar at the ¼ sec. cor., bet. secs. 13 and 18.

Thence I run

North , retracing bet. secs. 13 and 18

Gradually ascend over gently rolling land along E. side of road , through dense undergrowth of sage brush.

30.00 State road , from Ephraim, Utah to Spring City , Utah , bears N. 30° E., and S. 30° W.

Enter mountainous land , gradually ascend over gradual SE. slope.

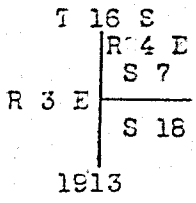
40.59 Fall 53 lks. E. of the cor. of secs. 7 , 12 , 13 and 18 which is a limestone 10 x 14 x 4 ins. above ground firmly set and marked and witnessed as described by the Surveyor General.

Knowing that a closing cor. will be nescessary on this bdy. for. secs. 12 and 13 , T. 16 S., R. 3 E., I destroy all traces of the old cor. and re-establish it at the same point for cor. of secs. 7 and 18 , T. 16 S., R. 4 E., as follows:

Set an iron post , 3 ft. long , 3 ins. in dia., 24 ins. in the ground for re-established cor. of secs. 7 and 18 with brass cap marked

Re-survey and retracement of the W. bdy. of T.16 S.,R.4 E.

chains



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

The true bearing of this line is therefore N.0° 45' W., and the distance is 40.59 chs.

Land rolling mountainous , with a general SE. exposure ,

Soil , gravelly, , stony and rich sandy loam , on a hard , dry , sandy loam and gravelly sub-soil : 2 nd. rate.

No timber.

Undergrowth , short sage brush.

Some good grass for grazing purposes.

Mountainous land on N. 10.58 chs.

North , retracing bet. secs. 7 and 12.

Over rolling mountainous land with a general SE. exposure , through scattering forest of scrub cedar and pinon and undergrowth of sage brush.

Gradually ascend.

15.50 Wood road , bears N.80°E. and S.80°W.

32.20 Begin steep ascent of S. face of ridge.

33.30 Top of ridge , 200 ft. above sec. cor., bears E. and W.

Gradually descend.

40.13 Fall 83 lks. E. of the ¼ sec. cor., Which is a sandstone 20 x 10 x 5 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old ¼ sec. cor., and re-establish it at the same point as follows :

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established ¼ sec. cor. on the W. bdy. of sec. 7 , T. 16 S.,R.4 E., with brass cap marked

Re-survey and retracement of the W. bdy. of T.16 S.,R.4 E.

chains

	¼ S 7
	1913
	raise a mound of stone . 2 ft. base , 1½ ft. high , E. of cor.
	The true bearing of this line is therefore N.1°11'W., and the distance is 40.13 chs.
	November 28 ,1913
	November 29 : At 7 h. 48 m. a. m. l. m.t., I set off 39° 26' N., on the lat. arc ; 21° 24' S., on the decl. arc; and determine a meridian with the solar at the ¼ sec. cor. on the W. bdy. of sec. 7 , T.16 S.,R.4 E.
	Thence I run
	North , continuing to retrace bet. secs. 7 and 12
	Continue to descend
6.74	Enter dense scrub cedar and pinon timber , and some mahogany , bears SE. and SW.
14.93	Head of hollow , 100 ft. below ¼ sec. cor., drains NW. Wagon road also bears E. and W.
	Gradually ascend.
24.26	Leave timber , bears N.10°W. and E.
37.42	Top of ridge , bears N.
40.02	Wire fence , bears E. and W.
40.68	Fall 7 lks. E. of the cor. of secs. 1 , 6 , 7 and 12 , which is a limestone , 30 x 14 x 6 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.
	I destroy all traces of the old sec. cor.,and re-establish it at the same point as follows :
	Set an iron post , 3 ft. long , 3 ins. in dia., 24 ins. in the ground for re-established cor. of secs. 1 , 6 , 7 and 12 with brass cap marked

T 16 S

R 3 E	R 4 E
S 1	S 6
S 12	S 7

1913

Re-survey and retracement of the W. bdy. of T.16 S., R.4 E.

chains	
	raise a mound of stone , 2 ft. base , 1½ ft. high , W. of cor.
	The true bearing of this line is therefore N.0°06'W., and the distance is 40.68 chs.
	Land , rolling mountainous , with a general E. and NW., exposure and lying near the east end of a low range of hills.
	Soil , gravelly and stony mixed with some sandy loam , very dry ; on a hard , packed sub-soil of gravel and rocks ; 3 rd. rate.
	Timber , scattering scrub cedar and pinon and mahogany,
	Undergrowth , sage brush and some chaparral.
	Some good grass for grazing purposes,
	Land mountainous , heavily timbered or covered with dense undergrowth 80.70 chs.
	North , retracing bet. secs. 1 and 6.
	Over rolling mountainous land draining NW., through scattering scrub cedar , pinon and mahogany , and undergrowth of sage brush.
	Gradually descend.
10.78	Wire fence , 4 lks. E. of line , bears N. and S.
16.08	Wagon road , bears E. and W.
	Gradually ascend
19.88	Wire fence , bears E. and W.
40.06	Fall 30 lks. E. of the old ¼ sec. cor., which is a limestone , 12 x 10 x 4 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.
	I destroy all traces of the old ¼ sec. cor. and re-establish it at the same point as follows:
	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established ¼ sec. cor., with brass cap marked

chains

S 1¼ | S 6

1913

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

The true bearing of this line is therefore N.0°26'W., and the distance is 40.06 chs.

From the ¼ sec. cor. I continue North.

Gradually descend

4.97 A log fence , 5 lks. E. of line , bears N. and S.

39.97 Log fence turns E.

40.21 Fall 47 lks.E. of the cor. of Tp's. 15 and 16 S., R's. 3 and 4 E., described on page 109 of this book.

The true bearing of this line is N.0°40'W., and the distance is 40.21 chs.

Land , rolling mountainous with a general NW. exposure.

Soil , gravelly and stony mixed with some lightclay , very dry , on a hard sub-soil of rocks. and clay ; 3 rd. rate.

Timber , scattering scrub cedar and pinon.

Undergrowth , sage brush.

Some good grass for grazing purposes.

Land , mountainous , heavily timbered or covered with dense undergrowth 80.27 chs.

November 29, 1913.

Thos. C. Cathcart

U. S. Transitman.

For general description see Book "E" of this survey.

Retracement and re-survey of the 3 rd. Stan. Par. S., through R.4 E.

chains

Survey commenced November 23 , 1913 and executed with a Young and Sons light mountain transit No. 8589.

For description and test of instrument see book "A" of this survey, E.bdy.of T.16 S. , R.4 E.

I know the instrument to be in perfect adjustment by recent tests made on Polaris.

November 24 : I begin at the standard cor. of T. 15 S., R's. 4 and 5 E. which is a sandstone , 14 x 10 x 12 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General. Approximate latitude 39°28' N., longitude 111° 27' W.

I destroy all traces of the old cor. and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 3 ins. in dia., 24 ins. in the ground for re-established cor. of T. 15 S., R's. 4 and 5 E., with brass cap marked

T 15 S
R 4 E | R 5 E
S 36 | S 31

1913

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

At 8 h. 47 m. a. m. l. m. t., I set off 39° 28' N., on the lat. arc ; 20° 30 ' S., on the decl. arc., and determine a meridian with the solar at the above described cor.

Thence I run

S.89° 20' W., retracing on the S. bdy. of sec. 36.

Gradually descend over W. face of mountain , through dense undergrowth of oak , service berry , chaparral and buck brush. A few scattering aspen trees along the line. Line follows along the S. side of a wire fence which bears N. 89° 20' E. and S. 89°20'W.

15.00 Old drag road , bears NW. and SE

40.67 Intersect old standard ¼ sec. cor., which is a sandstone 16 x 14 x 8 ins. above ground , firmly set , and

Retracement and re-survey of the 3 rd. Stan. Par. S., through R. 4 E
chains.

marked and witnessed as described by the Surveyor General.

I destroy all traces of the old cor. and re-establish it at the same point as follows :

Set an iron post , 3 ft. long , 1 in. in dia., 13 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base . 1 ft. high , for re-established standard $\frac{1}{4}$ sec. cor., with brass cap marked

$$\frac{S\ 36}{\frac{1}{4}}$$
$$1913$$

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

Note:
On account of natural obstacles I am unable to set post more than 12 ins. in the ground.

The true bearing of this line is therefore S.89°20'W., and the distance is 40.67 chs.

From the $\frac{1}{4}$ sec. cor. I continue
S.89° 20' W.

5.00 Base of steep descent , 230 ft. below Tp. cor., bears N. and S.

Thence across nearly level bench.

20.00 Leave bench , bears N. and S.

Begin gradual descent.

39.92 Fall 1 lk. N. of the standard cor. of secs. 35 and 36 which is a sandstone , 16 x 16 x 8 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old cor. and re-establish it at the same point as follows :

Set an iron post , 3 ft. long , 3 ins. in dia., 24 ins. in the ground for re-established standard cor. of secs. 35 and 36 , with brass cap marked

Retracement and re-survey of the 3 rd.Stan.Par.S.,through R.4 E.

chains	
	T 15 S | R 4 E S 35 | S 36
	1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
	The true bearing of this line is therefore S.89° 19'W., and the distance is 3992 chs.
	Land , mountainous sloping and draining W.
	Soil , gravelly , rocky and rich mountain soil on a hard , moist sub-soil of decayed vegetation and rocks ; 3 rd. rate.
	Timber , a few aspen.
	Undergrowth , oak , service berry , chaparral and buck brush.
	Little or no grazing on this mile.
	Land mountainous or covered with dense undergrowth 80.59 chs.
	S.89° 20' W., retracing on the S. bdy. of sec. 35
	Over rolling mountainous land draining NW., through dense undergrowth of oak , service berry , buck and sage brush.
	Gradually descend.along S. side of fence.
3.50	Road , bears N. and S. A gate in fence , bears N. 3 lks.
7.97	Leave fence , bears S. and E.
	Thence over rolling broken land.
15.60	Old wagon road in hollow , bears NW. and SE. Hollow drains NW.
	Thence over nearly level land gradually descending.
19.50	Oak creek , 6 lks. wide , 5 to 7 ins. deep , good water., course NW.
35.00	Wagon road from power plant to Spring City , Utah bears N.80° W. and SE.
35.50	Oak creek , 7 lks.wide , course SW.

Retracement and re-survey of the 3 rd. Stan. Par. S.,through R.4 E

chains

40.72 Fall 8½ lks. N. of the standard ¼ sec. cor., which is a sandstone 8 x 8 x 4 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old ¼ sec. cor. and re-establish it at the same point as follows.

Set an iron post , 3 ft. long , 1 in. in dia., 13 ins. in the ground and 12 ins. in a mound of stone , 4 ft. base , 1 ft. high for re-established standard ¼ sec. cor., with brass cap marked

S 35
¼
1913

raise a mound of stone , 3 ft. base , 1½ ft. high , N. of cor.

Note:
On account of natural obstacles I am unable to set post more than 12 ins. in the ground.

The true bearing of this line is therefore S. 89° 18'W., and the distance is 40.72 chs.

From the ¼ sec. cor. I continue
S.89° 20'W.

.80 Oak creek , 7 lks. wide , course NW.

Thence along N. side of wire fence bearing N.89°E. and S. 89°W., through dense undergrowth of sage brush.

4.00 Top of low spur , 30 ft. above creek , bears NW. and SE. Gradually descend.

[illegible] Spring city power line , bears NW. and SE.

[illegible] Wire fence , bears N. and S.

Leave E. and W. fence.

[illegible] Small hollow , drains NW.

Ascend

[illegible] Top of rocky spur , projects N. about 4 chs.

Pulver scrub cedar and pinon pine.

Descend.

Retracement and re-survey of the 3 rd. Stan. Par. S.,through R.4 E.

chains

35.00 Small hollow and wash , 15 lks. wide , 5 ft.deep , drains SW. Leave cedar and pinon , bears NE. and S.80°W.

Thence over open rolling land

37.00 Road , bears NE. and SW.

40.72 Fall 27 lks. N. of the standard cor. of secs. 34 and 35 which is a sandstone 18 x 10 x 5 ins. above ground , firmly set , and marked and witnessed as described by the surveyor General.

I destroy all traces of the old cor. and re-establish it at the same point as follows :

Set an iron post , 3 ft. long , 3 ins. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high for re-established standard cor. of secs. 34 and 35 with brass cap marked

T 15 S R 4 E
S 34 | S 35

1913

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

Note:
On account of natural obstacles I am unable to set post in the ground.

The true bearing of this line is S.88° 57' W., and the distance is 40.72 chs.

Land rolling hills with a general N. exposure.

Soil , gravelly , rocky and some rich , moist sandy loam on a sub-soil of rich mountainsoil and rocks ; 3 rd. rate.

No timber.

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

Good bunch grass for grazing purposes.

Land mountainous or covered with dense undergrowth 81.44 chs.

November 24 : At this cor. I set off 20° 32' S., on the decl. arc ; and at 11 h. 46 m. a. m. l. m. t., observe the sun on the meridian , the resulting lat. is

Retracement and re-survey of the 3 rd. Stan. Par.S., through R.4 E.,

chains

39° 28'

November 23: At 7 h. 46 m. a. m. l. m. t., I set off secs. 39° 28' on the lat. arc; 20° 15' S., on the decl. arc; and determine a meridian with the solar at the standard cor. of secs. 34 and 35

Thence I run

S.89°20'W., retracing along the S. bdy. of sec. 34

Over rolling land sloping gently west , through dense undergrowth of sage brush .

Gradually descend.

2.00 Road , bears NW. and SE.

21.00 Junctionof two fences , bears N. S. and W

Thence along N. side of fense.

41.02 Fall 15 lks. N. of the standard $\frac{1}{4}$ sec. cor. which is a sandstone , 14 x 17 x 6 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old cor. and re-establish it at the same point as follows :

Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high for re-established standard $\frac{1}{4}$ sec. cor., with brass cap marked

$$\frac{S\ 34}{\frac{1}{4}}$$

1913

raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor. This cor. is also $\frac{1}{4}$ sec. cor. on N. bdy. sec. 3.

Note:

On account of natural obstacles I am unable to set post more than 12 ins. in the ground.

The true bearing of this line is therefore S.89° 07'W., and the distance is 41.02 chs.

From the $\frac{1}{4}$ sec. cor. I continue

S.89° 20'W.

Retracement and re-survey of the 3 rd.Stan. Par. S.,through R.4 E.

chains	
.02	Junction of two fences bears N. S. and E.
	Thence gradually descend through short undergrowth of sage brush.
20.75	Wire fence , bears N. and S.
30.50	Enter plowed ground , bears N. and S.
32.00	Leave plowed ground , bears N. and S.
40.95	Fall 14 lks. N. of the stand.cor.of secs.3,4, 33 and 34 which is a sandstone 10 x 10 x 6 ins. above ground , firmly set and marked and witnessed as described by the Surveyor General.
	I destroy all traces of the old cor. and re-establish it at the same point as follows :
	Set an iron post , 3 ft. long , 3 ins. dia., 6 ins. in the ground and 18 ins. in a mound of stone and earth , 4 ft. base , 1½ ft. high for re-established standard cor. of secs. 33 and 34 , with brass cap marked

T 15 S R 4 E
S 33 | S 34
S 4 | S 3
T 16 S
1913

raise a mound of stone , 2 ft. base , 1½ ft. high , W. of cor. This is also the cor.of secs.3 and 4 T.16 S.R.4 E.

Note:

On account of natural obstacles I am unable to set post more than 6 ins. in the ground.

The true bearing of this line is S.89°08'W., and the distance is 40.95 chs,

Land rolling , sloping and draining W.

Soil , sandy loam , gravelly and stony., on sub-soil of rich sandy loam and rocks ; 2 nd. rate.

No timber.

Undergrowth , short sage brush.

Some good grass for grazing purposes.

November 23 , 1913

chains	
	November 25 : At 8 h . 17 m, a. m. l. m. t., I set off 39° 28' N., on the lat. arc ; 20° 41' S., on the decl. arc ; and determine a meridian with the solar at the standard cor, of secs. 33 and 34
	Thence I run
	S.89°20'W., retracing on the S. bdy. of sec. 33
	Gradually descend over nearly level land sloping NW., through short undergrowth of sage brush.
.02	NE. cor. of wire fence , bears S.1°E. and S.89°20'W.
	Thence along N. side of fence
40.57	Fall 14 lks. N. of the standard $\frac{1}{4}$ sec. cor., which is a sandstone 11 x 16 x 4 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.
	I destroy all traces of the old cor. and re-establish it at the same point as follows :
	Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for re-established $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{S\ 33}{\frac{1}{4}}$ / 1913
	raise a mound of stone , 2 ft. base , $1\frac{1}{2}$ ft. high , N. of cor. This cor. is also $\frac{1}{4}$ sec. cor. on N. bdy. sec. 4.
	Note:
	On account of natural obstacles I am unable to set post , more than 12 ins. in the ground.
	This cor. stands at the NW. cor. of a fence which bears N.89°20'E. and S.
	The true bearing of this line is therefore S.89° 08'W., and the distance is 40.57 chs.
	From the $\frac{1}{4}$ sec. cor. I continue
	S.89° 20' W.
.24	Wagon road , bears N.10° E and S.10°W.

Retracement and re-survey of the 3 rd. Stan.Par.S.,through R.4 E.

chains	
12.40	Wagon road , bears NW. and SE.
18.00	Wagon road , bears N. and S.
18.90	Irrigation ditch , 6 lks. wide , flows N.
19.00	Wire fence , bears N. and S.
22.30	Wire fence , bears N. and S
22.50	Canal Creek 7 lks. wide , 4 to 6 ins. deep , good water , course NW.
	Thence gradually ascend along N. side of wire fence.
41.13	Fall 13 lks. N. of the standard cor. of secs. 32 and 33 , which is a sandstone , 18 x 10 x 8 ins. above ground , firmly set , and marked and witnessed as described by the surveyor General.
	I destroy all traces of the old cor. and re-establish it at the same point as follows:
	Set an iron post , 3 ft. long , 3 ins. in dia., 24 ins. in the ground for re-established cor. of secs, 4 , 5 , 32 and 33 , with brass cap marked

T 15 S R 4 E

S 32	S 33
S 5	S 4

T 16 S

1913

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

Note:

This cor. stands at the junction of fences bearing N.S. E. and W.

The true bearing of this line is therefore S. 89° 09'W., and the distance is 41.13 chs.

Land rolling , with a general N. exposure.

Soil , rich sandy loam and gravelly on a hard sub-soil of sandy loam and rocks ; 3 rd. rate.

No timber.

Undergrowth , short sage brush.

chains

S. 89° 20' W., retracing on the S. bdy. of sec. 32.

Gradually ascend over rolling land along N. side of wire fence , through dense undergrowth of sage brush and scattering scrub cedar .

5.00 Top of low spur , 20 ft. above sec. cor., projects N.5 chs.

Gradually descend.

7.20 Wire fence , bears N. and S.

Leave sage brush and cedar , thence over level cultivated field.

17.80 Wire fence , bears N. and S,

27.10 Wire fence , bears N. and S.

36.60 Wire fence , bears N. and S. 20 lks.

Enter lane , bears S.89° 20' W., and SE.

Thence along N. side of road in lane.

40.90 Fall 15 lks. N. of the standard $\frac{1}{4}$ sec. cor. which is a sandstone , 18 x 10 x 6 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General.

I destroy all traces of the old cor., and re-establish it at the same point as follows:

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for re-established $\frac{1}{4}$ sec. cor., with brass cap marked

$$\frac{S\ 32\ \frac{1}{4}}{S\ 5}$$

1913

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 S.89° 07'W., and the distance is 40.90 chs.

November 25 : At this $\frac{1}{4}$ sec. cor. I set off 20° 44' S., on the decl. arc ; and at 11 h. 47 m. a. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 39° 28'.

Retracement and re-survey of the 3 rd. Stan. Par.S., through R.4 E.

chains	
	From the ¼ sec. cor. I continue retracing S.89° 20' W.
40.00	No trace of the old cor. of secs. 5 , 6 , 31 and 32 can be found. I therefore continue my line S.89° 20' W., making careful searches at intervals of 40.00 chs. for old ¼ sec. and sec. cors. and at 121.44 chs. intersect N. and S. line 24 lks. N. of the cor. of Tp'S. 15 and 16 S.,R's. 3 and 4 E., which is limestone 30 x 12 x 8 ins. above ground , firmly set , and marked and witnessed as described by the Surveyor General. This falling answers to a correction of 0° 07' or 8. lks. per ½ mile counting from the ¼ sec. cor. bet. secs. 5 and 32.
	I return to the ¼ sec. cor. bet. secs. 5 and 32 .
	Thence I run S. 89° 13'W., re-surveying bet. secs. 5 and 32.
	Over level land., in center of lane.
26.50	State wagon road , from Spring City , Utah to Ephraim , Utah , bears N.10°E. and S.10°W.
27.70	SE. cor. of field and wire fence , bears N.10°E. and S.89 ° W.
	Thence along S. side of fence.
	Difference between porportionate measurements of 40.48 chs., by two sets of chainmen , is 2 lks.;position of middle point
	By 1 st. set , 40.49 chs.
	By 2 nd. set , 40.47 chs, the mean of which is
40.48	Set an iron post , 3 ft. long , 3 ins. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for cor. of secs. 5 , 6 , 31 and 32 , with brass cap marked.

T 15 S R 4 E
S 31	S 32
S 6	S 5

T 16 S
1913

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

chains	
	of cor.
	Note:
	On account of natural obstacles I am unable to set post more than 12 ins. in the ground.
	Land , level.
	Soil , sandy loam and gravelly , 2 nd. rate.
	No timber.
	No undergrowth.
	S.89° 13' W.,re-surveying bet. secs. 6 and 31.
	Over level land.
.60	Enter lane , and road , bears SE. and W.
30.00	Small hollow , drains NW.
	Gradually ascend
	Difference between proportionate measurements of 40.48 chs., by two sets of chainmen , is 2 lks.; position of middle point
	By 1 st. set , 40.49 chs.
	By 2 nd. set , 40.47 chs.; the mean of which is
40.48	Point for $\frac{1}{4}$ sec. cor. falls in center of road where cor. cannot be set., therefore , N. 16 lks. from the true cor. point I set witness cor. as follows :
	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for witness cor. to the $\frac{1}{4}$ sec. cor., with brass cap marked
	T 15 S R 4 E S 31 W C $\frac{1}{4}$ S.6 T 16 S 1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
61.28	Leave lane and road turns S.80°W.
62.00	Enter scattering scrub cedar and pinon and dense undergrowth of sage brush,
	Ascend
72.00	Top of low ridge , bears N. and S.

Retracement and Resurvey of the 3rd Stan.Par.S.,through R.4 E.

Chains

Descend.

77.78 Wagon road, bears NW. and SE.

Difference between proportionate measurements of 80.96 chs.by two sets of chainmen is 6 lks.; position of middle point

By 1st set 80.99 chs.

By 2nd set 80.93 chs.; the mean of which is

80.96 The cor.of Tps.15 and 16 S., Rs.3 and 4 E., heretofore described.

I destroy all traces of the old cor., and re-establish it at the same point as follows:

Set an iron post, 3 ft. long, 3 ins.in dia., 24 ins.in a mound of stone and earth, 4 ft.base, 2 ft.high for re-established cor.of Tps.15 and 16 S., Rs.3 and 4 E. with brass cap marked

T 15 S
R 3 E | R 4 E
S 36 | S 31
S 1 | S 6
R 3 E | R 4 E
T 16 S
1913

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

Note:

On account of natural obstacles I am unable to set post in the ground.

Land, rolling.

Soil, sandy loam of godd quality on E.61.28 chs., and stony and rocky on W.19.68 chs.

Undergrowth, some sagebrush on W.19.68 chs.

November 25, 1913.

Howard W. Miller

U.S.Surveyor.

General Description T.16 S., R.4 E.

The greater of the southeastern portion of this township lies on the rough mountainous west side of the main divide between San Pete and Castle valleys. The mountains degenerate into San Pete Valley, along a line which traverses the township diagonally from sec. 2 to sec.30. The part of the valley included in the township slopes gradually to the west, covered with sagebrush, buck brush and scattering scrub cedar timber; and partly under cultivation.

The mountainous portion is very rugged, being cut by four deep canyons which run in a general north - western direction toward the valley. The largest is Canal Creek Canyon, which enters the township from the east in sec.25, and runs NW., leaving the surveyed portion in sec.15. Oak Creek, the next largest enters the township in sec.13, runs NW., and enters the valley in the NE.part of sec.2. Pidgeon Creek heads in sec. 33, runs nearly west through sec.31. Bill Allred Canyon is the smallest,heading in sec.27, and enters the valley in sec.19. All of these canyons are enclosed by high ridges with steep sides.

The highest area is in the SE.portion of the township, where the spurs from Horse Shoe Mountain have an elevation of about 11,000 ft.

The mountainous portion of the township is well watered, containing numerous springs of good pure water. The high areas intercept much moisture all times of the year, the annual precipitation being around 30 inches. The creeks become torrents in flood season, carrying down much debris and large boulders.

The mountainous portion of the township is well timbered with valuable spruce, balsam, fir, pine,and aspen; while oak brush, cedar, pinon pine and mahogany predominate in the foothills. Undergrowth of service-berry, choke cherry, buck brush, maple, willow, chap-

arral, artemisia, juniper, hawthorn, and sage brush are abundant.

The soil is generally very rich and fertile, being composed of rich decayed vegetation, but is mixed with so much rock and gravel that it makes it practically worthless. Along the foothills the soil becomes more sandy, and with less rocks, and is adapted for cultivation.

Oak Creek is being utilized to develop electric power for Spring City, Utah. The power house, a small wooden structure, with one generator, is in the NE. corner of sec.2. Water is diverted from the creek in sec.1, the intake being invisible from the line, into an earth canal, reinforced in places by wooden flume, which runs along the east side of the ridge in secs. 1 and 2. In the NW.cor.of sec.1, the water is conveyed into a steel penstock, and the tail water from the plant is conveyed toward Spring City, Utah, in an earth canal. The transmission line runs NW.into Spring City. The telephone line from the power plant to Spring City is strung on the transmission poles. Value of improvements $5000.00.

In the NW.part of sec.2 about 40 acres are under cultivation. Owner of the place unknown. Value of improvements $1000.00.

In the western part of sec.3, about 120 acres are under cultivation. Owner's name unknown. Value of improvements $1500.00.

About 50 acres of land are cultivated in the western part of sec.10. Owners of places unknown. Value of improvements $1000.00

The mountainous portion is too steep and rocky to permit cultivation.

General Description T.16 S., R.4 E.

There are no indications of mineral to warrant any of the land being set aside.

Howard W. Miller

U.S. Surveyor.

Thos. C. Rathbone

U.S. Transitman.

Volume
#
R0431

4—680

BOOK A-431

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 "H" T.18 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.

6—2761

BOOK A 431

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuanc 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 Howard W.Miller, U.S.Surveyor, see book "H" T.18 S., R.3 E.

For final oath of Thos.C.Rathbone, U.S.transitman, see book "E" T.16 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, October 28, 1915.

The foregoing field notes of the ~~xxxxxx~~ retracement, resurvey, and survey of the subdivisional lines; retracement and resurvey of the west boundary of Township No.16 South, Range No.4 East; and the retracement and resurvey of the Third Standard Parallel South, through Range 4 East of the Salt Lake Base and Meridian, Utah

executed by Howard W.Miller and Thomas C.Rathbone under ~~xx~~ special instructions dated July 19, 191 1, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

retracements, resurveys, and

_____

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.

BOOK A-431 : 4—679

D 1

FIELD NOTES

AMENDED
OF THE SURVEY OF THE

SUBDIVISION

OF

TOWNSHIP NO. 16 SOUTH, RANGE NO. 4 EAST

Of the SALT LAKE BASE AND *Meridian,*

In the State of UTAH

EXECUTED BY

HOWARD W. MILLER

In the capacity of U. S. Surveyor, under instructions dated July 19, *1913,* and supplemental special instructions dated September 15, 1916 *issued by the United States Surveyor General to govern surveys included in Group No.* 25, *which were approved by the Commissioner of the General Land Office,* August 13, *1913,* and September 23, 1916, respectively. Supplemental assignment instructions issued by the assistant supervisor of surveys, August 14, 1917.

Amended *Survey commenced* September 4, *1917*

Amended *Survey completed* September 8, *1917.*

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BOOK A-431

INDEX DIAGRAM.

Township 16 South, *Range* 4 East

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31	32	33	34	35	36

AMENDED SURVEY SUBDIVISION T. 16 S., R. 4 E.

Chains

Amended survey commenced September 4, 1917, and executed with a Buff and Buff light mountain transit, No. 8964, for full description and complete test of which see notes of T. 44 S., R. 3 W., recently surveyed by me, under Group No. 50, Utah.

Sept. 5, 1917: I proceed to the ¼ sec. cor. on W. bdy. sec. 23, established in 1913, and described in the notes of the original survey, book "D" of this group.

Thence N. 0° 01' W. bet. secs. 22 ans 23.

2.00 Gradually ascend.

5.98 A southing of 40.00 chs. from the closing cor. of secs. 15 and 22.

Origin notes Book " page 3

Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. on E. bdy. sec. 22, with brass cap marked

S ¼ 22 | 1917

from which

An oak 4 ins. diam., bears S. 63° W. 4 1 lks. dist. marked ¼ S 22 B T

An oak 4 ins. diam., bears N. 34½° W. 58 lks. dist. marked ¼ S 22 B T

From the ¼ sec. cor. W. bdy. sec. 14 established in 1913, described in Book "D", I run N. 0° 01' W. bet. secs. 14 and 15.

Sept. 7, 1917:

6.45 Position mid way bet. the closing cor. of secs. 15 and 22 and closing cor. of secs. 10 and 15.

Origin notes Book " page 3

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. on E. bdy. sec. 15, with brass cap marked

S ¼ 15 | 1917

Chains

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

From the ¼ cor. W. bdy. sec. 11, established in 1913, I run, N.0° 01' W., bet. secs. 10 and 11.

Sept. 6, 1917:

7.28 Position midway bet. the closing cor. of secs. 10 and 15 and the closing cor. of seqs. 3 and 10.

Original notes Book "D" page 39

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. 10, with brass cap marked

$$S\ \frac{1}{4}\ 10 \mid 1917$$

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

From the ¼ cor. W. bdy. sec. 2, established in 1913, I run N.0° 01' W. bet. secs. 2 and 3.

September 6, 1917:

8.69 A northing of 41.04 chs. from the closing cor. of secs. 3 and 10 and a distance proportional to the original record distance of the W. bdy. sec. 3.

riginal otes ook "D" age 42

Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground, on solid rock, and 20 ins. in a mound of stone for ¼ sec. cor. E. bdy. sec. 3, with brass cap marked

$$S\ \frac{1}{4}\ 3 \mid 1917$$

from which

A pinon 6 ins. diam. bears S.7° W. 37 lks. dist. marked ¼ S 3 B T

A cedar, 4 ins. diam., bears N.15°W. 44 lks. dist. marked ¼ S 3 B T

AMENDED SURVEY SUBDIVISION T. 16 S., R. 4 E.

Chains	
	From the cor. of secs. 27 and 28, established in 1913, I run, S. 89° 55' W. along S. bdy. sec. 21.
	September 8, 1917:
37.30½	Position midway bet. the closing cor. of secs. 20 and 21 and the closing cor. of secs. 21 and 22,
	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. 21, with brass cap marked
	¼ S 21
	1917
	from which
	A spruce, 6 ins. diam., bears N. 5° E. 12 lks. dist. marked ¼ S 21 B T
	A spruce, 14 ins. diam., bears N. 86° W. 56 lks. dist. marked ¼ S 21 B T
40.20	Intersect ¼ sec. cor., N. bdy. sec. 28.
	From the cor. of secs. 31 and 32, established in 1913, I run, W. along S. bdy. sec. 30.
	September 4, 1917:
39.19	An easting of 40.33 chs. from the closing cor. of secs. 29 and 30, or a point midway between the closing cor. of secs. 30 and 31 and the closing cor. of secs. 29 and 30.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor. S. bdy. of sec. 30, with brass cap marked
	¼ S 30
	1917
	Raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
40.00	Intersect ¼ sec. cor. N. bdy. sec. 31.

Origina notes Book " page 60

Origin notes Book " page 6

AMENDED SURVEY SUBDIVISION T. 16 S., R. 4 E.

	Chains	
		September 4, 1917: From the ¼ sec. cor. on E. bdy. sec. 30, described page 84, notes of original survey, book "D" of this group,
		S. 0° 03' E. on true line bet. secs. 29 and 30;
Original notes Book "D" page 83	2.49	Point midway bet. the closing cor. of secs. 20 and 29 and the closing cor. of secs. 29 and 30,
		Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor. on W. bdy. sec. 29, with brass cap marked
		S 29 / ¼ / 1917
		Raise a mound of stone 2 ft. base, 1½ ft. high E. of cor.
		From the cor. of secs. 28 and 29, established in 1913, I run N. 89° 57' W. along S. bdy. sec. 20.
		September 4, 1917:
	38.33	Point midway between the closing cor. of secs. 20 and 29 and the closing cor. of secs. 20 and 21,
riginal otes ook "D" age 68		Set an iron post, 3 ft. long, 1 in. in dia., 16 ins. in the ground on solid rock and 10 ins. in a mound of stone for ¼ sec. cor. on the S. bdy. of sec. 20, with brass cap marked
		¼ S 20
		1917
		Raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
	40.00	Intersect ¼ sec. cor. N. bdy. sec. 29.
		From the cor. of secs. 22, 23, 26 and 27, established in 1913, I run N. 89° 58' W. along S. bdy. sec. 22.
		September 5, 1917:
	36.32	An easting of 40.00 chs. from the closing cor. of secs. 21 and 22, point for ¼ sec. cor. S. bdy. sec. 22.

AMENDED SURVEY SUBDIVISION T. 16 S., R. 4 E.

Chains		Origin notes Book " page 4
	This point falls on steep W. slope of canyon on land subject to slides. No cor. set.	
	I continue on my line.	
39.93½	Intersect point for ¼ sec. cor., N. bdy. sec. 27, established in 1913.	
40.80	Intersect witness cor. of ¼ sec. cor., N. bdy. sec. 27, established in 1913.	
	I additionally mark "S 22" on the brass cap of this corner post, thus making it also a witness cor. of ¼ sec. cor. S. bdy. sec. 22, and it is therefore 4.48 chs. N. 89° 58' W. of its true position.	

Blank

Page

BOOK A-431

4—680

FIELD ASSISTANTS.

NAMES.	CAPACITY.
Rellis Dorius	Chainman.

d—2764

BOOK A-451

CERTIFICATE OF UNITED STATES SURVEYOR.

I, Howard W. Miller, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General for Utah and supplemental special instructions dated Sept. 15, 1916 bearing date of the 19th day of July, 1913, 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 the subdivision of Township No. 16 South, Range No. 4 East

of the Salt Lake Base and Meridian, in the State of Utah, which are represented by the foregoing field notes as having been executed by me, and under my direction; and 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

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 22, 191

The foregoing field notes of the ~~survey of~~ amended survey of subdivisional lines in Township No. 16 South, Range No. 4 East of the Salt Lake Base and Meridian, Utah,

executed by Howard W. Miller under his special instructions dated July 19, 1913 and Supplemental special instructions dated Sept. 15, 1[9]16, 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the survey they describe, are hereby approved.

M. O. 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.

6—2764

Filed Feb. 25, 1915.

BOOK A-431 4-679 Refiled Jan. 16, 1918.

E.R. H.

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RESURVEY AND RETRACEMENT

O F

WEST AND NORTH BOUNDARIES;

RETRACEMENT, RESURVEY, AND SURVEY

O F

S U B D I V I S I O N

O F

TOWNSHIP NO. 18 SOUTH, RANGE NO. 3 EAST

Of the SALT LAKE BASE AND *Meridian,*

In the State of U T A H

EXECUTED BY

HOWARD W. MILLER

In the capacity of U. S. Surveyor, under instructions dated July 19, *191 3, issued by the United States Surveyor General to govern surveys included in Group No.* 25, *which were approved by the Commissioner of the General Land Office,* August 13, *1913.* Supplemental assignment instructions dated May 1, 1914, and Nov. 25, 1916, respectively.

Survey commenced August 10, *1914*

Survey completed December 4, *1916.*

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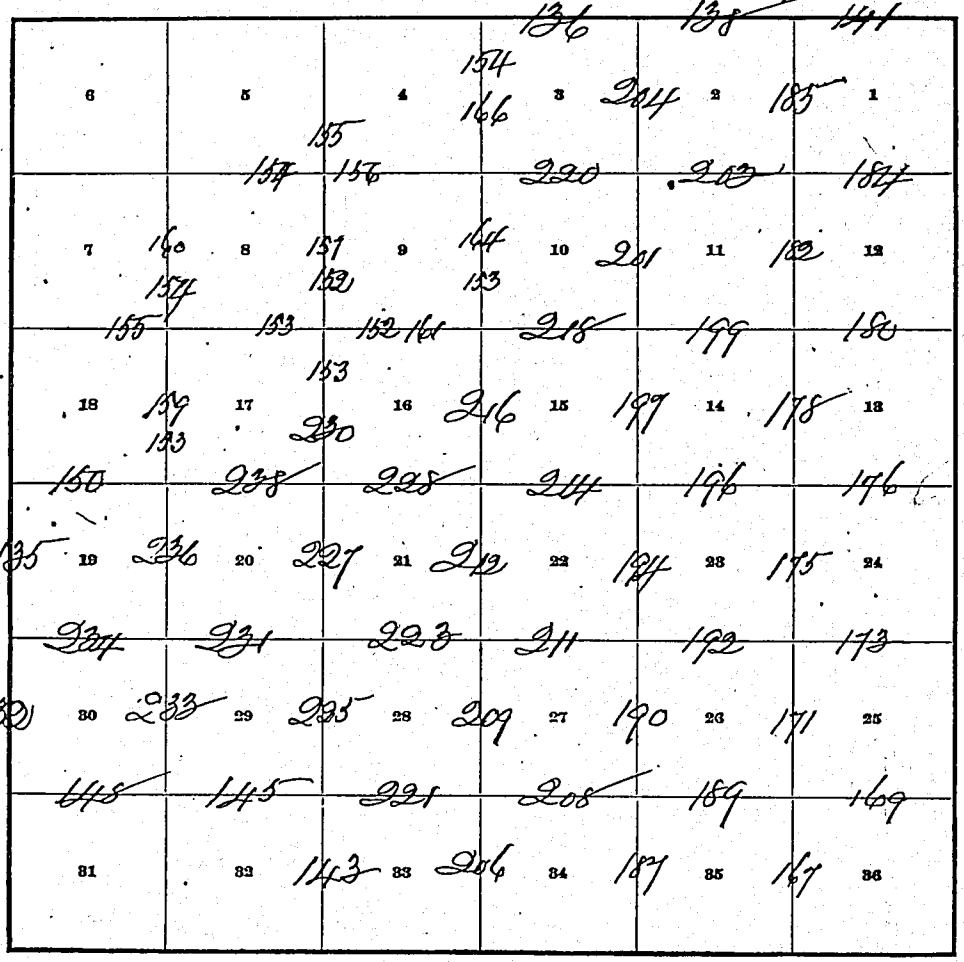
BOOK A-431

4—679 b

INDEX DIAGRAM.

Township 18 South, Range 3 East



6—4817

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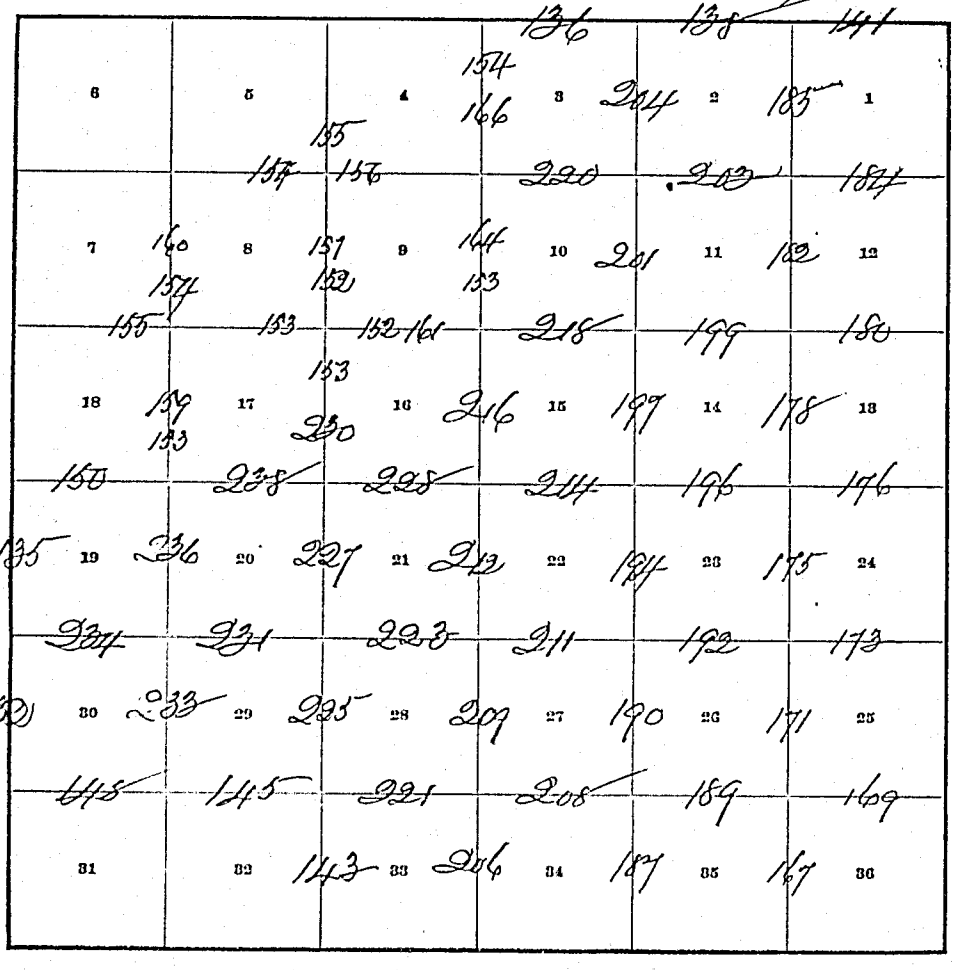
BOOK A-431

4—679 b

INDEX DIAGRAM.

Township 18 South, Range 3 East



6—4817

RETRACEMENT AND RESURVEY OF THE W.BDY.OF T.18 S.R.3 E.

Survey commenced August 10, 1914, and executed with a Young and Sons light mountain transit No. 8517 with solar attachment. The horizontal limb is provided with two double verniers, placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the lat. and decl. arcs. The instrument was approved for use in this survey by Mr. G. D. D. Kirkpatrick, Ass't. Supervisor of Surveys.

I examine the adjustments of the transit and find no errors, then to test the solar apparatus by comparing its indications resulting from solar obsns. made during a.m. and p.m. hours with a meridian determined by observations made on Polaris, I proceed as follows:

At my camp, which is situated near the cor. of secs. 27, 28, 33 and 34 in approximate lat. 39°13'N., longitude 111°37'W., I set off 39°13' on the lat. arc, 15°36'N. on the decl. arc, and at 5h 05m p.m., l.m.t., determine a meridian with the solar and mark the direction of the line thus determined by noting that a tree on a high ridge to the N. bears N. 5°12'W.

At 7h 55m p.m., l.m.t., I make an hour angle obsn. on Polaris in accordance with the Manual of Instructions and note that an angle to the tree at time of observation is 6°25' to the W.

Correct lmt.of obsn.Aug.10,1914	.....7h. 55m. p.m.
Correct lmt.of U.C.Pol.Aug.10,1914 red.to long.111°37'W.	.....4h. 17m a.m.
Time elapsed bet.U.C.Pol.and time of obsn.	.....15h. 38m.
Subtract from	.....23h. 56.1 m.
Hour angle of Pol. at obsn.	..... 8h. 18.1 m.
Azimuth of Pol. at obsn.	.....1°13'E.

6° 25' - 1°13' = 5°12'; therefore the true bearing to the tree is N. 5°12'W., which agrees with the solar meridian taken this p.m.

August 10, 1914.

August 11: At 8h 05m a.m., l.m.t., I set off 39°13' on lat. arc, 15°26'N. on decl. arc, and determine a meridian

RETRACEMENT AND RESURVEY OF THE W.BDY.OF T.18 S.R.3 E.

Chains

with the solar and find that the tree bears N. 5°12'W.

The solar apparatus by p.m. and a.m. observations defines positions for meridians that agree with the Pol. meridian; I therefore conclude that the transit is in good adjustment.

The magnetic bearing of the true meridian at 8h 10m a.m., l.m.t., is N. 16°40'W., the angle thus determined gives the mag. decl. 16°40'E.

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 distance only appear in the official field notes. The tape was tested at the beginning of the survey, comparison being made with a standard tape 1 ch. long, kept and used for that purpose.

In the decl. arc settings, .77 of the tabulated refraction for computing decls. is used, due to the alt. of the country which is approximately 7600 ft.

I begin at the cor. of secs. 25, 30, 31 and 36 on the W. bdy. of the tp., which is a dilapidated md. of stone with a sandstone dimly mkd. with 1 notch on one and 5 notches on opposite edge. I recognize this as being the cor. as its position practically agrees with old topography on this line.

August 26: At 8h 02 m a.m., l.m.t., I set off 39°13' on lat. arc, 10°35'N. on decl. arc, and determine a meridian with the solar at this cor.

Thence I run

North retracing bet. secs. 25 and 30.

Over rough mountainous land draining W., through scattering scrub cedar and pinon timber and undergrowth of sage - brush and chaparral.

Descend abruptly over ledges into Six Mile Canyon.

RETRACEMENT AND RESURVEY OF THE W. BDY. T.18 S., R.3 E.

Chains.	
.20	Wagon road, bears E.and W.
.30	Bottom of canon and Six Mile Creek, 30 lks.wide, 10 ins. deep, good water, 25 ft.below sec.cor., course W. Ascend abruptly over sandstone boulders.
3.80	Base of sandstone ledges, bears E.and W. Asc.over ledges.
7.70	Top of ledges, 270 ft.above creek, bears E.and W.
10.00	Enter scattering oak and mahogany, bears E.and W.
27.15	Ravine and wash, 20 lks.wide, 10 ft.deep, course SW. Ascend over broken land facing S., and series of small spurs and ravines.
39.93	Intersect the old ¼ sec.cor., which is a limestone 16 x 8 x 9 ins.lying on the ground, marked ¼ on upper face and witnessed by a few scattered stones about the cor. I reset this stone at same point, 12 ins.in the ground with marks facing to the W. Knowing from retracements and surveys on the Sub.of T. 18 S., R.3 E., that this ¼ sec.cor.will not refer to T.18 S., R.3 E., I re-establish same as follows: Set an iron post 3 ft.long, 1 in.in dia., 24 ins.in the ground, alongside old cor., for ¼ sec.cor.on the E.bdy. of sec.25, T.18 S., R.2 E., with brass cap marked S 25 ¼ | 1914 from which A pinon pine 8 ins.dia., bears S.29° 45' W. 7 lks. dist., mkd.¼ S 25 B T The true bearing of this half-mile is therefore north, and the distance is 39.93 chs.
	From the ¼ sec.cor. I run north
.10	Ravine drains S.10° W. Ascend over broken S.face of mountain.
3.10	Dec.1, 1916: E. 12 lks.of line at a point N.2° 14' E.of the ¼ sec.cor.E.bdy.sec.25, T.18 S., R.2 E., which is a southing of 40.00 chs.from CC. secs.19 and 30.

RETRACEMENT AND RESURVEY OF THE W.BDY.T.18 S., R.3 E.

Chains.

Set an iron post, 3 ft.long, .1 in.in dia., 26 ins.in mound of stone to solid rock, for the $\frac{1}{4}$ sec.cor.sec. 30, marked on brass cap

$\frac{1}{4}$ S 30
1916

from which

A pinon 8 ins.dia., bears N.5° 45'E.30 lks.dist. mkd. $\frac{1}{4}$ S 30 B T

No other trees available; raise a mound of stone 2 ft. base, 1½ ft.high E.of cor.

Aug.26, 1914:

23.10 Top of ridge, 515 ft.above $\frac{1}{4}$ sec.cor., bears E.and W. Gradually descend NW.slope of ridge,through scattering cedar and pinon timber;undergrowth,oak,sage and chaparra

42.21 Fall 1.65 chs.W.of the cor.of secs.19,24,25, and 30,whic is a limestone 8x10x7 ins.above ground,firmly set mkd. and witnessed as described by the surveyor general.

Knowing that the line bet.secs.19 and 30 T.18 S.R.3 E.wi not intersect this cor.within limits and that a CC.wil be nedessary, I re-establish this cor.for 2 secs.for T.18 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 secs.24 and 25 T.18 S.R. 2 E., with brass cap marked

T18S
R 2E | R 3E
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 half-mile is therefore N.2°14'E, and the dist.42.24 chs.

Land, mountainous;general SW.exposure.
Soil, gravelly and rocky,sandstone formation, on gravel and rocky subsoil,4th rate.Timber scrub cedar and pinon
Undergrowth, sage, oak, and chaparral.

August 26, 1914.

Sept.25, 1914: At 7h 22m a.m.l.m.t., I set off 39° 14' on the lat.arc, 0° 39' S.on the decl.arc; and determine a meridian with the solar at the cor.of secs.24 and 25, T.18 S., R.2 E. Thence I run

RETRACEMENT AND RESURVEY OF THE W.BDY.T.18 S.R.3 E.

Chains	
	North retracing along E. bdy. sec. 24, T.18 S.R.2 E.
40.00	No trace of old ¼ sec. cor. can be found.
74.45	Fall 23 lks. W. of the cor. of secs. 13, 18, 19 and 24, which is a sandstone 16x8x8 ins. lying on the ground marked with 3 notches on one and 3 notches on opposite edge. No accessories to cor. I re-set this stone at same point 12 ins. in the ground with notches facing N. and S., and set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground alongside old cor. for re-established cor. to secs. 13, 18, 19 and 24 with brass cap marked

T 18 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. True bearing of this mile is therefore N.0°10'E. and distance 74.45 chs. I return to the cor. of secs. 24 and 25. Thence I run
	N.0°10'E. re-surveying on E. bdy. sec. 24.
	Over mountainous land draining W., through scrub cedar and pinon timber and undergrowth of sage and buck brush. Descend abruptly.
3.15	Ravine, 60 ft. below sec.cor., drs. W.Asc.abruptly SW.slope.
11.50	Spur, 90 ft. above ravine, projects W.
	Gradually descend NW. slope of spur.
36.10	Ravine, 420 ft. below spur, course NW.
	Ascend abruptly rocky S. slope.
37.22½	Proportionate measurement
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in mound of stone and earth, 4 ft. base, 2 ft. high for ¼ cor. of E. bdy. of sec. 24, T.18 S.R.2 E., with brass cap marked

S 24 ¼
1914

	and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	NOTE: On account of underlying rock I am unable to set post in the ground.
40.85	Spur 85 ft. above ravine, projects SW.

RETRACEMENT AND RESURVEY OF W.BDY.T. 18 S. R. 3 E.

Chains	
40.90	Dec. 1,1916: A northing of 40.00 chs. from CC of secs. 19 and 30,
	Set an iron post 3 ft. long, 1 in. in dia., 20 ins. the ground on solid rock and 6 ins. in a mound of stone for $\frac{1}{4}$ sec. cor. W. bdy. sec. 19, marked on brass cap
	$\frac{1}{4}$ S 19 / 1916
	and raise a mound of stone 2 ft. base, 1½ ft. high E.of cor. Gradually descend over NE. slope of spur.
	Sept.25, 1914:
51.65	Ravine, 190 ft. below spur, drains NW.
	Gradually ascend over SW. slope of spur.
58.50	Spur, 80 ft. above ravine, projects W.
	Thence over broken rocky land facing W.
74.45	The cor. of secs. 13, 18, 19 and 24.
	Land mountainous with W. exposure, cut by numerous ravines draining W.
	Soil gravelly and rocky sandstone formation on rocky subsoil,4th rate. Timber scrub cedar and pinon.
	Undergrowth sage and scattering buck brush.
	September 25, 1914.

Sept. 18: At 8h 25 m a.m.,l.m.t.,I set off 39°17' on the lat. arc, 2°03'N. on the decl.arc, and determine a meridian with the solar at the cor. of secs. 3,4,33 and 34, which is a limestone 9x10x3 ins.above ground,firmly set, marked and witnessed as described by the Surveyor General I re-establish this cor. 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. 3, 4, 33 and 34, with brass cap marked

T 17 S
R 3 E — S 33 | S 34
S 4 | S 3
T 18 S
1914

and raise mound of stone,2 ft.base,1½ ft.high W.of cor. Thence N.89°29'E., retracing bet. secs. 3 and 34. Over mountainous land draining NW., through dense undergrowth of oak and buck brush.

RETRACEMENT AND RESURVEY N.BDY. T.18 S., R.3 E.

Chains.

Ascend over NW. slope of mountain.

20.00 Enter small patch of maples, bearing NW. and SE.

22.00 Leave maples, bearing NW. and SE.

26.20 Leave dense oak brush; thence through scattering oak, sage, and service brush.

37.31 Dec. 4, 1916: S.12 lks. of line which is 37.31 chs. N.89° 41' E. of cor. of secs. 3, 4, 33, and 34, or a westing of 40.00 chs. from CC sec. 2 and 3,

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for the ¼ sec. cor. N.bdy. sec. 3 T.18 S., R.3 E. marked on brass cap

¼ S 3
1916

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

Sept. 18, 1914:

39.25 480 ft. above sec. cor.

Fall 13 lks. N. of the ¼ sec. cor., which is a limestone 9 x 11 x 8 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.

Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor. on S.bdy. sec. 34 T.17 S., R.3 E. with brass cap marked

S ¼ 34
1914

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

The true bearing of this line is therefore N.89° 41' E. and the distance 39.25 chs. Sept. 18, 1914.

Sept. 19: At 8h 24m a.m. l.m.t., I set off 39° 17.' on the lat. arc; 1° 40'; N. on the decl. arc; and determine a meridian with the solar at the ¼ sec. cor. on S.bdy. of sec. 34, T.17 S., R.3 E. Thence N.89° 20'. E. along E. half-mile of S.bdy. sec. 34,

Continue ascent.

17.45 Ridge 320 ft. above ¼ sec. cor., bears N. and S. Descend; leav leave oak, service and buck brush bearing N. and S.

RETRACEMENT AND RESURVEY N. BDY. T. 18 S., R. 3 E.

Chains.

23.00 Ravine, 35 ft. below ridge, drains N. Ascend W. slope of ravine; through sagebrush.

39.18 Fall 4 lks. N. of cor. of secs. 2, 3, 34, and 35 which is a limestone 14 x 12 x 4 ins. above ground, firmly set and marked and witnessed as described by the Surveyor Gene: Knowing that the line bet. secs. 2 and 3 T. 18 S. R. 3 E. will not intersect this cor. within limits, I re-establish it for cor. of secs. 34 and 35 T. 17 S., R. 3 E. as follows: Set an iron post 3 ft. long, 3 ins. in dia., alongside old cor., 24 ins. in mound of stone and earth, 4 ft. base, 2 ft. high for cor. of secs. 34 and 35 T. 17 S., R. 3 E. with brass cap marked

T 17 S
S 34 | S 35
R 3 E
S 3 | S 2
T 18 S
1914

and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. On account of underlying rock I am unable to set post in the ground.

The true bearing of this line is therefore N. 89° 24' E. and the dist. 39.18 chs.

Land, mountainous; general N. exposure.

Soil, gravelly, rocky and some black loam on gravelly and rocky subsoil, 4th rate.

No timber. Undergrowth, dense sage, oak, service, buck and maple. Some good grass for grazing purposes.

N. 89° 24' E. retracing bet. secs. 2 and 35,:

Over mountainous land facing W.; through dense undergrowth of sagebrush. Ascend W. slope of ridge.

3.50 Enter choke cherry undergrowth bearing N. and S.

8.00 Leave choke cherry undergrowth, bears N. and S.

21.10 Top of ridge, 340 ft. above sec. cor.; bears N. and S. Gradually descend.

28.75 Ravine, 60 ft. below ridge, drains N. Ascend W. slope of ravine.

RETRACEMENT AND RESURVEY OF N.BDY.T. 18 S., R.3 E.

Chains.

38.78 Dec.4, 1916: N.47 lks.of line, which is N.88° 43' E.
38.78 chs.of cor.of secs.34 and 35 or position midway between CC of secs.2 and 3 and CC of secs.1 and 2 T. 18 S., R.3 E.

Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground for ¼ sec.cor.N.bdy.sec.2 T.18 S., R.3 E. marked on brass cap

¼ S.2.
1916

No accessories to cor.; deep snow; no stone and the ground frozen.

Sept.19, 1914:

39.57 Fall 48 lks.S.of the ¼ sec.cor. which is a porphyry stone 9 x 5 x 5 ins.above ground, firmly set, marked ¼ on N.face. No accessories to cor.

Set an iron post 3 ft.long, 1 in.in dia., 24 ins.in the ground, for ¼ sec.cor.S.bdy.sec.35 T.17 S., R.3 E. with brass cap marked

S 35
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 N. of cor.

The true bearing of this line is therefore N.88°43' E. and the dist.39.57 chs.

Sept.19, 1914: At this cor.I set off 1° 36' N.on the decl.arc; and at 11h 54m a.m.l.m.t., observe the sun on the meridian; the resulting lat.is 39° 17'

Sept.9: For solar observation see line bet.secs.1 and 12 page 54 of this book.

From the ¼ sec.cor. I run N.89° 20' E. retracing along E.half-mile S.bdy.sec.35.

40.00 No trace of old sec.cor.can be found.

Sept.9: At this station I set off 5° 26' N.on the decl.

RETRACEMENT AND RESURVEY OF N.BDY.T.18 S.R.3 E.

Chains.	
	arc; and at 11h 58m a.m.l.m.t., observe the sun on the meridian; the resulting lat. is 39° 17'
	I continue my line N.89° 20' E., and at
118.77	Fall 7 lks.S.of the cor.of Tps.17 and 18 S., Rs.3 and 4 E., heretofore described.
	The falling answers to a correction of 0° 02' or 2½ lks. N.per half-mile, counting from ¼ sec.cor.on S.bdy.sec. 35; the course therefore being N.89°18' E.
	I begin at the ¼ sec.cor.on S.bdy.sec.35 and establish true resurvey line as follows:
	N.89° 18' E. bet.secs.2 and 35,
	Over mountainous land draining N.; through dense undergrowth of sage and scattering service brush. Ascend W.slope of ridge.
18.00	Ridge 215 ft.above ¼ sec.cor., bears N.and S.Desc.gradually
19.00	Enter choke cherry undergrowth, bears N.and S. Descend abruptly over E.slope of ridge.
25.35	Leave choke cherry; enter dense sage and chaparral.
29.50	Leave sage and chaparral; enter dense maple undergrowth, bears N.and S.
31.20	Leave maple; enter dense choke cherry, bears N.and S. Descend more gradually.
37.30	Enter aspen thicket, bears N.and S.
38.00	Leave aspen and undergrowth, bears N.and SE.
39.59	Proportionate measurement,
	Set an iron post, 3 ft.long, 3 ins.in dia., 24 ins.in the ground for cor.of secs.35 and 36 S.bdy.T.17 S., R. 3 E., with brass cap marked
	T 17 S | R 3 E S 35 | S 36 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
	Land, mountainous, draining N., with steep E.and W. slopes of ridge.
	Soil, gravelly and rich black loam in deep, moist loam and gravel subsoil; 2nd rate.
	Timber some aspen on both sides of line.

RETRACEMENT AND RESURVEY OF N.BDY. T.18 S.R. 3 E.

Chains	
	Undergrowth sage, choke cherry, service, maple and buck brush.
	Considerable grass good for grazing purposes.
	N.89°18'E. re-surveying bet. secs. 1 and 36.
	Over mountainous land draining N., through scattering sagebrush. Descend.
2.10	Bottom of ravine and stream, 2 lks. wide, 1 in. deep, good water, course N.
	Ascend through dense sagebrush.
5.00	Leave sage, enter dense choke cherry brush, bears N. and S.
6.70	Leave choke cherry, enter dense sage and scattering service berry brush bears N. and S.
15.10	Ridge 220 ft. above ravine, bears N. and S.
	Descend over NE. slope.
20.90	Enter S. edge of young aspen grove, bears NW. and SE.
22.00	Leave aspen grove, bears N. and S.
	Descend abruptly E. slope over series of small benches.
32.50	Enter oak brush, leave sagebrush, bears N. and S.
33.90	Enter aspen thicket, leave oak brush, bears N. and S.
37.45	Leave aspen timber, enter dense sage and scattering oak brush.
39.35	Dec. 2, 1916: Position midway bet. CC of secs. 1 and 2 and corner of Tps. 17 and 18 S. Rs. 3 and 4 E.
	Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground on solid rock and 8 ins. in mound of stone for the $\frac{1}{4}$ sec. cor. N. bdy. sec. 1, T. 18 S R 3 E., marked on brass cap
	$\frac{\frac{1}{4} \text{ S } 1}{1916}$
	from which
	Aspen 3 ins.dia., bears S.79°W.,
	147 lks. dist. mkd. $\frac{1}{4}$ S 1 B T.
	Aspen 4 ins. dia., bears S.40°W.,
	158 lks. dist. mkd. $\frac{1}{4}$ S 1 B T.
	Sept.9, 1914:
39.59	Proportionate measurement
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in

RETRACEMENT AND RESURVEY OF N.BDY.T. 18 S. R. 3 E.

Chains	
	the ground for $\frac{1}{4}$ sec. cor. S. bdy. sec. 36, T.17 S.R.3 E with brass cap marked $\frac{S\ \frac{1}{4}\ 36}{1914}$ from which
	An oak, 3 ins. dia., bears N.10°E., 85 lks. dist. mkd. $\frac{1}{4}$ S 36 B T.
	Oak $3\frac{1}{2}$ ins. dia., bears N.43°30'W., 38 lks. dist. mkd. $\frac{1}{4}$ S 36 B T.
42.20	Enter dense aspen timber and choke cherry undergrowth, bears N. and S.
46.48	Bottom of ravine and stream, 2 lks. wide, 1 in. deep, good water, 50 ft. below $\frac{1}{4}$ sec. cor. and 250 ft. below ridge, course N. Leave choke cherry undergrowth. Gradually ascend W. slope of ravine.
48.20	Leave aspen timber, enter dense sagebrush, brs.N. and S.
64.90	Ridge, 160 ft. above ravine, bears N. and S. Descend abruptly over E. slope of ravine.
67.78	Enter aspen timber and choke cherry undergrowth; leave sagebrush, bears N. and S.
68.28	Bottom of ravine and branch of Willow Creek, 5 lks. wide, 1 in. deep, good water, 70 ft. below ridge, course NW. Ascend nearly W. slope.
77.51	Leave aspen timber, enter small opening, bears NW.and SE.
79.00	Enter aspen timber bears N. and SW.
79.18	The cor. of Tps. 17 and 18 S., Rs. 3 and 4 E.
	Land mountainous, draining N., having steep E. and W. slopes of ridge.
	Soil rich decayed vegetation, black loam and gravel on gravelly and rich black loam subsoil, 2nd rate.
	Timber scattering patches of aspen.
	Undergrowth, dense sage, oak, service, chokecherry and chaparral; usually found in dense patches.
	Considerable grass, good for grazing purposes.
	September 9, 1914.

RETRACEMENT AND RESURVEY OF SUBDIVISION T.18 S., R.3 E.

Chains.	
	August 20, 1914: At 9h 03m a.m. l.m.t., I set off 39° 12' on the lat.arc; 12° 36' N. on the decl.arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 32, and 33 on the S.bdy. of Tp., heretofore described.
	Thence I run N.0° 42' E. retracing bet. secs. 32 and 33,
	Over mountainous land, covered with dense undergrowth of sage and scattering oak brush. Gradually ascend.
2.25	Ridge, 10 ft. above sec. cor., bears NW. and SE.
	Leave sage and oak brush; enter dense aspen timber and chaparral undergrowth, bearing NW. and SE.
	Descend abruptly over nearly N. slope.
2.30	Head of spring, 2 lks. in dia., flowing stream 1 lk. wide 1 in. deep; good water; course NE.
13.00	Enter dense willow and scattering service brush; also enter scattering spruce and balsam fir timber, bearing E. and W. Gradually descend.
15.70	Leave willow undergrowth; enter dense spruce and balsam fir timber, bearing E. and W. Descend abruptly.
19.50	Old wood road, bears NW. and SE. Leave dense timber; enter dense undergrowth of oak brush. Gradually descend.
22.40	Leave oak brush; enter scattering maple and dense aspen timber, bearing E. and W.
30.80	Enter dense high willow undergrowth, bearing NE. and SW.
39.05	Stream, 8 lks. wide, 4 ins. deep, good water, 500 ft. below sec. cor., course NW. Thence on nearly level bench.
39.44	Fall 12 lks. E. of $\frac{1}{4}$ sec. cor., which is a sandstone 8 x 10 x 4 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. I re-establish this cor. as follows:
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, alongside old cor., for $\frac{1}{4}$ sec. cor. sec. 32, with brass cap marked
	$S\ \frac{1}{4}\ 32 \mid 1914$
	from which

RETRACEMENT AND RESURVEY OF SUBDIVISION T.18 S.R.3 E.

Chains.

An aspen 6 ins. in dia., bears N.8¾°W.31 lks. dist., mkd. ¼ S 32 B T

An aspen, 6 ins. dia., bears S.23¼°W.14 lks. dist., mkd. ¼ S 32 B T

The true bearing of this half-mile is therefore N.0° 32' E., and the distance 39.44 chs.

39.94 Dec. 1, 1916: W.12 lks. of line at a point N.0° 41' W. of the ¼ sec. cor. on E. bdy. Sec. 32,

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for witness cor. to ¼ sec. cor. sec. 33, with brass cap marked

W C
¼ S 33
1916

from which

An aspen 4 ins. dia., bears S.16° E. 17 lks. dist. marked W C ¼ S 33 B T

An aspen 8 ins. dia., bears N.75° E. 3½ lks. dist. marked W C ¼ S 33 B T

40.05½ W.12 lks. is a position midway between cor. of secs. 32 and 33 S. bdy. of Tp. and the NW. cor. sec. 33, and is point for ¼ sec. cor. W. bdy. sec. 33. Point falls in creek, corner not set.

August 20, 1914: From the ¼ sec. cor. E. bdy. sec. 32 I run N.0° 56' W. retracing bet. secs. 32 and 33,

1.00 Creek, 5 lks. wide, 1 in. deep, good water, course N.80° W.

2.00 Leave dense undergrowth; enter scattering oak brush and cedar timber.

5.00 Leave aspen, spruce and balsam fir timber, bears E. and W.

23.45 Descend abruptly into Six Mile Canyon.

25.15 Bottom of canyon and Six Mile Creek, 30 lks. wide, 7 ins. deep, good water, 300 ft. below ¼ sec. cor., course W.

Leave oak brush; ascend abruptly over steep S. slope, through scrub cedar and pinon timber and scattering service brush.

25.96 Wagon road bears N.75° W. and S.75° E.

38.20 Top of steep ascent, 320 ft. above creek, bears E. and W.

RETRACEMENT AND RESURVEY OF SUBDIVISION T.18 S., R.3 E.

Chains.

39.95 Leave cedar and pinon timber. Gradually ascend.
Fall 17 lks.W.of the cor.of secs.28,29,32, and 33,which is a sandstone 10 x 8 x 5 ins.above ground, firmly set marked and witnessed as described by the surveyor-general.
Knowing that the lines bet.secs.28 and 29 and 28 and 33 will not intersect this cor.within limits, I re-establish same for NE.cor.of sec.32 as follows:
Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in the ground alongside old cor.for the NE.cor.of sec.32,with brass cap marked

T 18 S R 3 E
S 28
S 29
S 32 S 33
1914

Raise a mound of stone 2 ft.base, 1½ ft.high SW.of cor.
The true bearing of this line is therefore N.0° 41' W. and the distance 39.95 chs.
Land, mountainous with N.exposure on S.64.59 chs. and S. exposure on N.14.80 chs. General drainage W.
Soil, gravelly, rocky and decayed vegetation on gravelly and rocky subsoil; 4th rate.
Timber, aspen, spruce and balsam fir on S.44.44 chs.; cedar and pinon timber on N.34.95 chs.
Undergrowth, dense oak, willow, service, buck and chaparral. Some grass, good for grazing purposes.
August 20, 1914: At this cor.I set off 12° 33' N.on the decl.arc; and at 12h 03m p.m.l.m.t., observe the sun on the meridian; the resulting lat.is 39° 13'

From the NE.cor.of Sec.32 I run
West retracing on N.bdy.sec.32,
Over rough mountainous land; through scattering scrub cedar and pinon timber and undergrowth of oak,service,

Chains.	
	and chaparral. Gradually descend SW. slope.
6.30	Ravine, 95 ft. below sec. cor., course S. Gradually ascend.
7.10	Spur, 20 ft. above ravine, projects S. Descend.
26.10	Bottom of ravine, and stream 1½ lks. wide, 1 in. deep, good water, 200 ft. below spur, course S. Ascend abruptly 80 ft. to
29.30	Spur, projects SW. Descend gradually.
34.15	Ravine, 125 ft. below spur, course S.30° W. Gradually descend over broken land facing S.
38.62½	Dec. 1, 1916: ...28 lks. S. of line at a point S.89° 35' W. of NE. cor. of sec. 32 and midway between closing cor. of secs. 28 and 29 and 29 and 30
	Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in the ground, and 14 ins. in mound of stone for ¼ sec. cor. S. bdy. sec. 29, marked
	¼ S 29 / 1916
	from which
	A pinon 5 ins. dia., bears N.67¼° E. 50 lks. dist. marked ¼ S 29 B T
	A pinon 8 ins. dia., bears N.75¾° W. 72 lks. dist. marked ¼ S 29 B T
39.73	August 20, 1914: Fall 29 lks. N. of the ¼ sec. cor., which is a sandstone 8 x 12 x 4 ins. above ground, firmly set marked ¼ on N. face. No accessories to cor.
	I re-establish this cor. as follows:
	Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground alongside old cor., for ¼ sec. cor. N. bdy. sec. 32 with brass cap marked
	S 32 / ¼ / 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high S. of cor.
	The marks on stone were changed, ¼ being on S. face of stone.
	The true bearing of this line is therefore S.89° 35' W.

RETRACEMENT AND RESURVEY OF SUBDIVISION T.18 S., R.3 E.

Chains.

and distance 39.73 chs. August 20, 1914.

Aug. 21: At 8h 03m a.m.l.m.t., I set off 39° 13' N.on the lat.arc; 12° 17' N.on the decl.arc; and determine a meridian with the solar at the ¼ sec.cor.N.bdy.sec.32.

Thence I run

West retracing N.half-mile of N.bdy.sec.32,

Gradually descend through dense oak and sagebrush and scattering cedar and pinon timber.

1.50 Wagon road, bears NW. and SE.

9.00 Six Mile Creek, bottom of canyon, 30 lks.wide, 8 ins. deep, good water, 90 ft.below ¼ cor., course N.85° W.

Enter exceptionally dense undergrowth of willow and chaparral and cottonwood timber, bearing N.and S.

Thence in bottom of canyon, crossing and recrossing creek.

27.00 Thence along S.side of canyon. Leave cottonwood timber and dense undergrowth.

39.95 Fall 13 lks.N.of cor.of secs.29,30,31, and 32, which is a sandstone 13 x 8 x 8 ins. above ground, firmly set, marked and witnessed as described by surveyor general.

Knowing from previous retracements and resurveys in this Tp. that the line bet.secs.29 and 30 will not intersect the N.bdy.of sec.32 within 50 lks.of the cor.of secs.29,30,31, and 32, and that a closing cor.will be necessary, I re-establish this cor.for secs.31 and 32 as follows:

Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground alongside old cor.for secs.31 and 32, with brass cap marked

T 18 S, R 3 E
S 30 | S 29.
S 31 | S 32
1914

from which

A red cedar 5 ins.dia., bears S.14½° E. 16½ lks. dist., marked T 18 S R 3 E S 32 B T

RETRACEMENT AND RESURVEY OF SUBDIVISION T.18 S.R.3 E.

Chains.	
	A yellow pine 3 ins.dia., bears S.54½° W. 100 lks. dist., marked T 18 S R 3 E S 31 B T
	The true bearing of this line is therefore S.89° 49' W. and the distance 39.95 chs.
	Land, mountainous with S.exposure on E.18.73 chs.; level rocky canyon bottom on next 18 chs. and mountainous with N.exposure on W.12.95 chs.
	Soil generally rocky of sandstone and blue limestone formation on rocky subsoil; 4th rate.
	Timber, cottonwood in canyon bottom with scattering cedar and pinon on both sides.
	Undergrowth, dense willow, oak, sage and service brush.
	West, retracing along N.bdy.sec.31,
	Over mountainous land; through scattering cedar, pine and cottonwood timber and dense undergrowth of oak and chaparral. Descend over land facing N.on S.side of Six Mile Creek.
5.85	Six Mile Creek, 30 lks.wide, 8 ins.deep, good water, course at bend from NE. to W. Thence in creek.
7.25	Leave creek, turns NW. Thence on S.side of creek.
11.15	Same creek, course SW.
15.75	Stream in wash, 1 lk.wide, 1 in.deep; wash 30 lks.wide, course W. Thence follow in wash.
19.00	Leave wash, course SW.
24.00	Six Mile Creek in rocky channel, 25 lks.wide, 10 ins.deep course N.80° W. Ascend NE. slope.
32.80	Spur, 100 ft.above creek, projects N. Gradually descend broken land facing NW.
38.97	Dec.1, 1916: S.40 lks.of line at a point S.89° 25' W.of the cor.of secs.31 and 32 and a westing of 40.00 chs. from C.C.of secs.29 and 30;
	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground for ¼ sec cor.S.bdy.sec.30, with brass cap mkd.

RETRACEMENT AND RESURVEY SUBDIVISION T.18 S.R.3 W.

Chains.	
	$\frac{\frac{1}{4} \text{ S } 30}{1916}$
	Raise a mound of stone 2 ft.base, 1½ ft.high NE.of cor.
	Impossible to set mound N.of cor.
	August 21, 1914:
42.60	Ravine, 50 ft.below spur, course N.
43.08	Fall 44 lks.N.of ¼ sec.cor., which is a limestone 9 x 8 x 6 ins.above the ground, firmly set, marked and witnessed as described by the surveyor general.
	Knowing from retracements in this Tp. that this cor.will not refer to sec.30, I re-establish same for ¼ cor.on N.bdy.of sec.31. I destroy old marks on cor.and mark ¼ on S.face.
	Set an iron post, 3 ft.long, 1 in.in dia., 24 ins.in the ground alongside old cor.for ¼ sec.cor.on N.bdy. of sec.31, marked on brass cap
	$\frac{\text{S } 31}{\frac{1}{4}}$ 1914
	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'W. and the distance 43.08 chs.
	On line at noon, obs.for lat.impossible.
	From the ¼ sec.cor., I run west
	Gradually ascending through scattering undergrowth and timber.
11.00	Spur, 40 ft.above cor., projects N. Descend.
13.90	Ravine, 25 ft.below spur, course N., heads about 2.00 chs.S. Ascend.
22.00	Spur, 110 ft.above ravine, projects N.60° W. Descend.
28.15	Enter dense oak brush, bears N.and S.
30.10	Bottom of ravine and stream 1 lk.wide, 1 in.deep, 150 ft. below spur, course N.
37.36	Fall 1.35 chs.N.of the cor.of secs.25,30,31, and 36,heretofore described. I re-establish cor.as follows:
	Set an iron post, 3 ft.long, 3 ins.in dia., 12 ins.in the ground and 12 ins.in a mound of stone and earth 4,

Chains.

ft.base, 1 ft.high for cor.of secs.25,30,31, and 36, mkd.on brass cap

T 18 S
R 2 E | R 3 E.
S 25 | S 30
S 36 | S 31
1914

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

Note: On account of underlying rock I am unable to set post more than 12 ins.in the ground.

The course of this line is therefore S.87° 56'W.and the distance is 37.38 chs.

Land, mountainous, draining N., near bottom of S side of Six Mile Canyon.

Soil, gravelly and rocky, of red sandstone formation on rocky subsoil, 4th rate.

Timber, scrub cedar, pinon and cottonwood.

Undergrowth, dense oak, willow, sage and service brush.

August 21, 1914.

Sept.25, 1914: For solar observation see line bet.secs. 19 and 24 on the W.bdy.of this Tp.

From the cor.of secs.13,18,19, and 24 W.bdy.of Tp., heretofore described, I run

East bet.secs.18 and 19,

Ascend over rough,broken W.face of mountain;through scrub cedar and pinon timber and undergrowth of sage and chaparral.

18.50 Wood road,bears N.and W.Enter scattering oak and service brush.

28.50 Spur, 560 ft.above sec.cor.projects N.Gradually descend.

Sept.25: At this station I set off 0° 44'S.on the decl. arc; and at 11h 62m a.m.l.m.t., observe the sun on the meridian; the resulting lat.is 39° 15'.

32.20 Ravine,25 ft.below spur, course N.Thence over broken rocky land, sloping N.

40.06 Fall 36 lks.N.of the ¼ sec.cor., which is a limestone

Chains.

13 x 8 x 7 ins. lying on the ground, marked $\frac{1}{4}$ on one face. No accessories to cor. I reset stone 8 ins. in the ground and face marks to the N., and set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, alongside stone for $\frac{1}{4}$ sec. cor., with brass cap marked

S 18
$\frac{1}{4}$
S 19
1914

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

The true bearing of this line is therefore S. 89° 30' E. and the dist. 40.06 chs.

From the $\frac{1}{4}$ sec. cor. I run East

5.33 Ravine, course NW. Ascend abruptly.

8.20 Spur, 80 ft. above ravine, projects N.

Enter dense undergrowth of oak, buck and sagebrush. Gradually descend over NE. slope of spur.

18.35 Ravine, 80 ft. below spur, course NW. Ascend 75 ft. to

35.00 Low spur, projects NW. Gradually descend over nearly N. slope of spur.

39.00 Small ravine, drains NW. Gradually ascend.

39.93 Fall 78 lks. S. of the cor. of secs. 17, 18, 19 and 20, which is a limestone 17 x 12 x 7 ins. lying on the ground, marked with 5 notches on one edge. No other marks on stone. A few scattered stones about the cor.

Having retraced the W. bdy. of this Tp. and knowing that a closing corner will be necessary upon the E. bdy. of sec. 18 when running the line bet. secs. 17 and 20, I re-establish this cor. for secs. 18 and 19 as follows:

Reset stone 12 ins. in the ground, with 5 notches on E. and mark 3 notches on S. edge, and set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground alongside old cor. for secs. 18 and 19, marked on brass cap

T 18 S R 3 E
S 17
S 18 | S 20
S 19
1914

Chains.

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
The true bearing of this line is therefore N.88° 53'E.
and dist. 39.94 chs.
Land, mountainous with general NW. exposure.
Soil, gravelly and rocky with some rich black loam on gravelly and sandy subsoil; 3rd rate.
Timber, scrub cedar and pinon.
Undergrowth, sage, oak, service, and buck brush.
Some good grass for grazing purposes.

Sept. 25, 1914.

In order to close the subdivisional lines bet. secs. 3 and 10, 10 and 15, 15 and 16, 16 and 17, and 17 and 20 upon old surveys, I make extensive retracements of the old work to locate and restore old cors. as follows:
Sept. 15: For solar observations see line bet. secs. 10 and 15 of this survey.
From my temporary point set 80.40 chs. N.89°58'W. of cor. of secs. 10, 11, 14, and 15, set this a.m., for description of which see line bet. secs. 10 and 15, I run
West retracing bet. secs. 9 and 16,
40.00 No trace of old cor. can be found. Set temp. point and flag.
80.00 No trace of cor. of secs. 8, 9, 16, and 17 can be found.
Set temporary point No. 1.
Sept. 15: Not on line at noon, observation for lat. impossible.

Sept. 15, 1914.

Sept. 16: At 7h 55m a.m. l.m.t. I set off 39° 15'N. on the lat. arc; 2°. 50'N. on the decl. arc; and determine a meridian with the solar at the temporary point No. 1 for the cor. of secs. 8, 9, 16, and 17. Thence I run
North, retracing bet. secs. 8 and 9,
40.00 No trace of old ¼ sec. cor. can be found.

RETRACEMENT AND RESURVEY OF SUBDIVISION T.18 S., R.3 E.

Chains.	
	From temp.point No.1 for secs.8,9,16 and 17, I run West retracing bet.secs.8 and 17,
40.00	No trace of ¼ cor.can be found.
80.00	No trace of cor.of secs.7,8,17 and 18 can be found. Set temporary point.
	Sept.16: At this point I set off 2° 46'N.on the decl. arc; and at 11h 55m a.m.l.m.t., observe the sun on the meridian, the resulting lat.is 39° 15'
	From the temp.point for cor.secs.7,8,17, and 18 I run South, retracing bet.secs.17 and 18,
40.00	No trace of the ¼ sec.cor.can be found. Set temp.point. Sept.16, 1914.
	Sept.25: Retracement of S.½ mile bet.secs.17 and 18. For solar observation see line bet.secs.19 and 24 W. bdy.of this Tp.
	From the cor.of secs.18 and 19 I run North retracing bet.secs.17 and 18,
46.01	Fall 83 lks.E.of the temp.¼ sec.cor.set 40.00 chs.S.of the temporary cor.of secs.7,8,17, and 18. Sept.25, 1914.
	Sept.17: For solar obs.see line bet.secs.15 and 16. From the temporary point No.1, 80.40 chs.N.89°58'W.of cor.of secs.10,11,14, and 15, heretofore described, I run North, retracing bet.secs.9 and 10.
39.74	Fall 70 lks.W.of the ¼ sec.cor.described on page 35. I return to point No.1, 80.40 chs.N.89°58'W.of cor.secs.10, 11,14 and 15, and from it run E.70 lks.and S 26 lks. and set temp.point No.2, for cor.of secs.9,10,15, and 16.
	Sept.17: At this point 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 39° 16'. From the ¼ sec.cor.bet.secs.9 and 10, I run North
40.00	No trace of the cor.of secs.3,4,9, and 10 can be found.

RETRACEMENT AND RESURVEY OF SUBDIVISION T.18 S.R.3 E.

Chains.	
	Set temporary point No.1. Sept.17, 1914.
	Sept.18: For solar obs.see line bet.secs.3 and 34 on N.bdy.of the Tp.
	From the cor.of secs.3,4,33, and 34 on N.bdy.of Tp., heretofore described, I run
	South bet.secs.3 and 4,
39.95	No trace of ¼ sec.cor.can be found. Set temp.point.
	Sept.18: At this cor.I set off 1° 59'N.on the decl.arc; and at 11h 55m a.m.l.m.t., observe the sun on the meridian; the resulting lat.is 39° 17'.
79.95	No trace of the cor.of secs.3,4,9, and 10 can be found. Set temp.point No.2. Sept.18, 1914.
	Sept.22:At 7h 52m a.m.l.m.t., I set off 39° 16' on the lat.arc;0°31'N.on the decl.arc;and determine a meridian with the solar at the temp.cor.of secs.7,8,17, and 18.
	Thence I run
	North retracing bet.secs.7 and 8,
40.00	No trace of ¼ sec.cor.can be found.
78.49	Fall 3.01 chs.W.of the cor.of secs.5,6,7, and 8,which is a limestone 16 x 12 x 3 ins., lying on the ground, marked with 5 notches on one and 5 notches on cornering edge. No accessories to cor.
	I reset stone 10 ins.in the ground with notches on E.and S.edges;raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.Cor.stands alongside fence bearing E.and W.
	From the cor.of secs.5,6,7, and 8 I run
	N.89° 56'E.retracing bet.secs.5 and 8,
40.00	No trace of the ¼ sec.cor.can be found.
	Sept.22: At this station 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 39° 16'

RETRACEMENT AND RESURVEY SUBDIVISION T.18 S., R.3 E.

Chains.

80.00 No trace of the cor. of secs. 4, 5, 8, and 9 can be found.

Set temp. point No. 1 for sec. cor.

September 22, 1914.

Sept. 23: At 1h 53m p.m. l.m.t., I set off 39° 16' on the lat. arc, and 0° 01'N. on the decl. arc; and determine a meridian with the solar at the temp. cor. of secs. 7, 8, 17 and 18. Thence I run

West, retracing bet. secs. 7 and 18,

40.00 No trace of $\frac{1}{4}$ sec. cor. can be found.

80.00 After a long and careful search, I am unable to find any trace of cor. of secs. 7, 12, 13, and 18.

I abandon this line and do not use it in any way to restore any of the interior sec. cors.

Sept. 23, 1914.

Sept. 24: At 7h 22m a.m. l.m.t., I set off 39° 16' on the lat. arc; 0°15'S. on the decl. arc; and determine a meridian with the solar at the temp. cor. of secs. 4, 5, 8, and 9. Thence I run

North retracing bet. secs. 4 and 5,

40.00 No trace of $\frac{1}{4}$ sec. cor. can be found.

80.84 Fall 11 lks. W. of the cor. of secs. 4, 5, 32, and 33, on N. bdy. of Tp., which is a limestone 16x10x9 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.

I return and set a point 79.83 chs. S. of this cor., which is the distance of this line as returned in the original field notes, and from it cor. point No. 1 set 80.00 chs. N. 89°56'E. of cor. of secs. 5, 6, 7, and 8 bears S. 6° 40'W. 1.01½ chs. dist. I re-establish cor. point for secs. 4, 5, 8, and 9 midway on line connecting the two points.

The course of the line bet. secs. 4 and 5 is therefore S. 0° 02'W. and the distance is 80.33 chs.

The course of the line bet. secs. 5 and 8 is therefore N. 89°34'E., and the distance is 80.06 chs.

RETRACEMENT AND RESURVEY SUBDIVISION T.18 S., R.3 E.

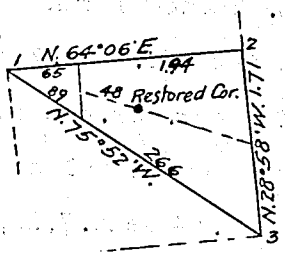
Chains.

From the re-established cor.point for secs.4, 5, 8, and 9, East, retracing bet.secs.4 and 9,

40.00 No trace of ¼ sec.cor. can be found.

80.00 No trace of the cor.of secs.3, 4, 9, and 10 can be found. Set temp.point No.3,

From this point temp.point No.1 bears N.75°52'W.2.66 chs. dist.; from this point temp.point No.2 bears N.28° 58' W.1.71 chs.dist.; from point No.1 point No.2 bears N. 64° 06'E.1.94 chs.



The ¼ sec.cor.bet.secs.9 and 10 being twice as close to the cor.point of secs.3, 4, 9 and 10 as the cor.of secs. 4, 5, 8, and 9 and cor.of secs.3, 4, 33, and 34, I give point No.1 set from the ¼ sec.cor.bet.secs.9 and 10 double weight over points 2 and 3, set from cor.of secs. 3, 4, 33, and 34 and 4, 5, 8, and 9 respectively, and restore cor.of secs.3, 4, 9, and 10 proportionately from the 3 points.

At restored cor.point for secs.3, 4, 9, and 10, I Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in a mound of stone, 4 ft.base, 2 ft.high for cor.of secs.3, 4, 9, and 10, with brass cap marked

T 18 S R 3 E
S 4 | S 3
S 9 | S 10
1914

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

On account of underlying rock, am unable to set post in ground

The true bearing of line bet.secs.3 and 4 is therefore N.0° 23'E.and dist.80.75 chs.

The true bearing of line bet.secs.4 and 9 is therefore S.89°29'W.and distance 78.62 chs.

Sept.2: At this cor.I set off 0° 21'S.on the decl.arc; and at 11h 52m a.m.l.m.t., observe the sun on the meridian; the resulting lat.is 39° 16'.

RETRACEMENT AND RESURVEY SUBDIVISION T. 18 S. R. 3 E.

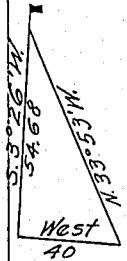
Chains

From restored cor. point of secs. 4, 5, 8 and 9, I run South, bet. secs. 8 and 9.

24.52 Top of high ledges and ridge, bears N.60°E. and S.60°W.

Being unable to chain further on this line, I triangulate as follows:

From this station cor. point No. 1, for secs. 8, 9, 16 and 17 previously set, bears S.3°26'W., the flag set at temp. ¼ sec. cor. bet. secs. 9 and 16, 40.00 chs. E. of temp. point No. 1 for secs. 8, 9, 16 and 17, bears S. 33°53'E. From the flag set at temp. ¼ sec. cor., flag at point of triangulation bears N.33°53'W.



Log. 40.00 chs.	1.602060
Log. sin 56°07'	9.919169 - 10
Colog sin 37°19'	0.217370
Log. 54.78 chs.	11.738599 - 10

54.78 chs. x cos. 3°26' or 54.78 x .99821 = 54.68 chs. or the correct southing of triangulation.

54.68+24.52 chs. = 79.20 chs., the distance bet. point for cor. of secs. 4, 5, 8 and 9 and point No. 1 for cor. of secs. 8, 9, 16 and 17.

From temp. point No. 1 for secs. 8, 9, 16 and 17, I measure E. 3.28 chs. and S. 80 chs. and set temp. point No. 2 for same cor., this point (2) being south 80 chs. from restored cor. point for cor. of secs. 4, 5, 8 and 9.

Sept. 24, 1914.

Sept. 28: From the temp. point No. 1 for cor. of secs. 8, 9, 16 and 17, I measure S. 3.90 chs. and E. 1.92 chs. to a point S.89°54'E. 80.00 chs. dist. from true re-established cor. point for secs. 7, 8, 17 and 18, which is set midway on a line connecting cor. of secs. 18 and 19 with the cor. of secs. 5, 6, 7 and 8 and set temp. point No. 3. From point No. 3 for cor. of secs. 8, 9, 16 and 17, point No. 2 for said cor. bears N.23° 41'E., 3.38 chs. dist., therefore point for restored cor. falls on line midway between the two points.

RETRACEMENT AND RESURVEY SUBDIVISION T. 18 S. R. 3 E.

Chains

The restored cor. point for secs. 8, 9, 16 and 17 falls on land subject to land slides, therefore I measure S.89°W., 1.67 chs. and set an iron post, 3 ft. long 2 ins. in dia., 24 ins. in the ground for witness cor. to secs. 8, 9, 16 and 17, with brass cap marked

T 18 S R 3 E
S 8 | S 9
WC
S 17 | S 16
1914

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

The true bearing of the line bet. secs. 8 and 9 is therefore N.0°29'E. and the dist. 81.55 chs.

The true bearing of the line bet. secs. 8 and 17 is therefore S.89°W. and the dist. 80.69 chs.

Sept. 28, 1914.

Sept. 30: From temp. point No. 1 for cor. of secs. 9, 10, 15 and 16, I measure east 2.60 chs. and S. 2.35 chs. to a point 80.00 chs. E. of the restored cor. of secs. 8, 9, 16 and 17, where I set temp. point No. 3 for cor. of secs. 9, 10, 15 and 16. From temp. point No. 3, temp. point No. 2 bears N.42°17'W., 2.82 chs.

Temp. point No. 2 having been established from the ¼ sec. cor. bet. secs. 9 and 10 or ½ mile from the lost cor. point and temp. point No. 3 1 mile from the cor. point, I therefore re-establish lost cor. point on a line connecting points 2 and 3, giving point No. 2 double weight over point No. 3.

Knowing that subdivisional lines bet. secs. 10 and 15 and 15 and 16 will not intersect the restored cor. of secs. 9, 10, 15 and 16 within the prescribed limits, I therefore restore cor. for SE. cor. of sec. 9 as follows:

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for SE. cor. of sec. 9, with brass cap marked

RETRACEMENT AND RESURVEY SUBDIVISION T.18 S., R. 3 E.

Chains	
	T 18 S R 3 E S 9 | S 10 S 16 | S 15 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high NW. of cor.
	The true bearing of the line bet. secs. 9 and 16 is S. 88°59'W., and dist. 78.75 chs.
	The true bearing of the S. ½ mile bet. secs. 9 and 10 is N.0°55'W., and dist. 40.70 chs.
	Having made a retracement of lines bet. secs. 17 and 18 and 7 and 8 and not finding any corners, I re-survey said lines on a straight line connecting the cor. secs. 18 and 19 and 5, 6, 7 and 8, setting cors. at proportionate distances, the course of this line being N.0° 46'E. and the distance 164.50 chs.
	From the cor. of secs. 18 and 19, I establish re-survey line N.0°46'E. on E. bdy. of sec. 18.
	Over rolling bench land draining W. through scattering cedar and pinon timber and undergrowth of oak, service, sage and buck brush.
16.15	Leave spur, bears NW. and SE.
	Descend over broken NE. slope.
41.12½	275 ft. below spur. Point for ¼ sec.cor. falls on rocky slope, where cor. cannot be set.
41.48½	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for WC to ¼ sec. corner sections 17 and 18, with brass cap marked S 18 | S 17 WC ¼ 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
48.25	Enter dense maple and oak brush and cottonwood timber.
51.15	Bottom of ravine, 40 ft. below ¼ cor., course NW.

RETRACEMENT AND RESURVEY SUBDIVISION T.18 S.R. 3 E.

Chains	
	Leave dense undergrowth and timber, thence ascend over broken land sloping nearly W.
63.40	Spur, 75 ft. above ravine, projects W.
	Descend N. slope of ravine.
68.38	Ravine, 80 ft. below spur, course NW.
	Ascend.
73.25	Spur, 65 ft. above ravine, projects W. Leave timber.
	Descend N. slope through sage and buck brush.
82.20	Road, Manti, Utah, to Power plant, bears NE. and SW.
83.35	Proportionate measurement
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 7, 8, 17 and 18, with brass cap marked

T 18 S R 3 E

S 7	S 8
S 18	S 17

1914

	and raise a mound of stone, 3 ft. base, 1½ ft. high W. of cor.
	Land mountainous, general drainage NW.
	Soil gravelly and rocky of red sandstone formation on hard, dry sand, gravel and rock subsoil, 4th rate.
	Timber, scrub cedar and pinon with some cottonwood in bottom of large ravine.
	Undergrowth, sage, oak, service and buck brush.
	N.0°46'E., resurveying bet. secs. 7 and 8.
	Over rolling land in bottom of Manti Canyon, through short undergrowth of sagebrush.
.75	Enter rocky channel of Manti Creek, bears NE. and W.
3.50	Manti Creek, 50 lks. wide, 4 ins. deep, good water, course SW.
5.60	Leave channel of Manti Creek, bears NE. and SW.
	Gradually ascend.
7.35	Wagon road, Manti, Utah to saw mill, bears NE. and SW.
	Asc. abruptly over S. slope.

RETRACEMENT AND RESURVEY OF SUBDIVISION T.18 S., R.3 E.

Chains.	
11.55	Bottom of perpendicular ledge, bears N.75° E., and S.75° W. Ascend ledge, 60 ft. high.
11.70	Top of ledge, bearing N. and S. Continue steep ascent.
15.30	Top of high ridge, 270 ft. above creek, bears N.75° E. and S.75° W. Enter scrub cedar timber. Thence descend gradually over NW. slope of ridge.
22.42	Wire fence bears E. and W.
27.75	Thence over series of small ridges and ravines.
33.75	Ravine, 255 ft. below ridge, course NW. Ascend.
36.25	Spur, 65 ft. above ravine, projects NW. Descend.
41.12½	By proportionate measurement,
	Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked
	S ¼ 7 | S S
	1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
45.50	Ravine, 65 ft. below ¼ sec. cor., course NW.
	Thence over small ridges and spurs.
56.00	Spur, 50 ft. above ravine, projects NW. Descend.
57.90	Ravine, 80 ft. below spur, course NW.
62.40	SE. cor. of corral, bears W. 3.50 chs.
64.10	NE. cor. of corral, bears W. 3.50 chs.
66.05	Low spur, projects NW.
	Thence descend over land sloping nearly NW.
82.25	The cor. of secs. 5, 6, 7, and 8.
	Land mountainous with a general NW. exposure and lying near the foot of high mountains.
	Soil, gravelly, red sand, hard blue clay and rocks on rocky subsoil; 4th rate.
	Timber, scrub cedar. Undergrowth, short sagebrush.

From SE. cor. of sec. 9, I run

S. 88° 59' W. resurveying on S. bdy. of sec. 9,

Over rough mountainous land, covered with dense under-

Chains.	
	growth of oak, service and buck brush. Gradually ascend.
6.55	Spur, 85 ft. above cor., projects N. Gradually descend.
16.35	Ravine, 90 ft. below spur, course N. Ascend NE. slope of spur.
26.90	Spur, 100 ft. above ravine, projects NW. Descend abruptly.
31.15	Ravine, 25 ft. below spur, course N.20° W. Ascend NE. slope of spur.
33.60	Enter dense oak, maple, and buck brush and aspen timber bearing N. and S.
35.40	Stream, 1 lk. wide, 1 in. deep, course NE.
36.35	Leave timber; thence ascend through dense oak and buck brush.
39.37½	By proportionate measurement, Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor. on S. bdy. sec. 9, with brass cap mkd. S 9. / ¼ / 1914 Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
39.50	Spur, projects N. Descend over W. slope.
40.85½	Nov. 30, 1916: Position midway bet. C.C. secs. 15 and 16 and C.C. secs. 16 and 17. Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor. N. bdy. sec. 16, with brass cap mkd. ¼ S 16 / 1916 Raise a mound of stone 2 ft. base, 1½ ft. high S. of cor.
	Sept. 30, 1914:
43.15	Ravine, 50 ft. below spur, course N. Ascend abruptly.
49.80	Spur, 90 ft. above ravine, projects N. Thence over land facing nearly N.
54.95	Enter scrub cedar and pinon timber, bearing N. and S.
	Descend over broken W. slope.
61.00	Ravine, 180 ft. below spur, course N.
	Ascend.

RETRACEMENT AND RESURVEY SUBDIVISION T.18 S. R. 3 E.

Chains	
70.80	Spur, 50 ft. above ravine, projects N.
	Gradually descend.
77.35	Enter dense willow undergrowth and soft, wet ground subject to land slides.
78.75	Point for restored cor. of secs. 8, 9, 16 and 17. Witness cor. to said cor. bears S.89°W. 1.67 chs.
	No cor. set at this point.
	Land, mountainous, draining N. into Mantic canyon and having steep E. and W. slopes of spurs.
	Soil, gravelly and rocky with some red clay on gravelly and rocky subsoil, 4th rate.
	Timber, scrub cedar and pinon and some aspen.
	Undergrowth, oak, service, sage and maple.

From restored cor. point for secs. 8,9,16 and 17, I run S.89°W., resurveying on S. bdy. of sec. 8.

Over rough mountainous land through dense willow undergrowth and scattering cedar and pinon timber.

Desc. over soft, wet ground subject to land slides.

.25	Head of numerous springs, flowing N.
1.40	Bottom of ravine, drains N.
	Ascend abruptly over E. slope.
2.30	Leave willow undergrowth, bears N. and S.
4.90	Spur, 120 ft. above ravine, projects N.
	Gradually descend.
9.60	Ravine, 70 ft. below spur, course NE.
	Ascend.
12.65	Spur, 75 ft. above ravine, projects N.
	Gradually descend land facing N.
29.10	Ravine, 140 ft. below spur, course N. Ascend abruptly.
34.00	Spur, 100 ft. above ravine, projects N.
	Gradually descend land facing N. through dense sagebrush.
40.34½	Proportionate measurement
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in

RETRACEMENT AND RESURVEY SUBDIVISION T.18 S. R. 3 E.

Chains	
	the ground for $\frac{1}{4}$ sec. cor. secs. 8 and 17, with brass cap marked $\frac{S\ 8}{\frac{1}{4}\ S\ 17\ 1914}$ and raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
50.75	Ravine, 35 ft. below spur, course N. Ascend.
52.60	Spur, projects N. Penstock for Manti City Power Plant bears N. about 6 chs. Descend abruptly.
56.60	Ravine, 60 ft. below spur, course NW. Ascend abruptly.
59.00	Spur, 50 ft. above ravine, projects N. Thence descend over broken land facing N. on S. side of Manti Canyon.
70.40	Manti City Power Plant, bears N. about 7 chs.
80.00	Wagon road, Manti, Utah, to Power Plant, brs. NE. and SW.
80.69	The restored cor. of secs. 7, 8, 17 and 18. Land mountainous with general N. exposure. Soil, gravelly and rocky, sandstone formation on rocky subsoil, 4th rate. Timber, scattering scrub cedar and pinon. Undergrowth, sage, scattering buck and willow brush.

From restored SE. cor. of sec. 9, I run N.0°55'W., resurveying bet. secs. 9 and 10. Over rough mountainous land covered with dense undergrowth of buck, service and oak brush. Desc. over N. slope into Manti Canyon.

5.10	Leave oak brush, enter scattering cedar and pinon timber bears E. and W.
16.00	Bottom of steep descent and old road, bears E. and W. Gradually descend.
16.35	Bottom of Manti Canyon and Creek, 50 lks. wide, 10 ins. deep, good water, 300 ft. below sec. cor., course S.65°W.

RETRACEMENT AND RESURVEY SUBDIVISION T.18 S., R.3 E.

Chains. Enter dense oak brush; gradually ascend over S.slope.

19.95 Large wash, 70 lks.wide, 6 ft.deep, drains SW.

Leave oak brush.

20.95 Wagon road, Manti, Utah, to saw mill and summit of mountain, bears N.70° W., and S.70° E.

26.20 Spur, 125 ft.above creek, projects SW. Descend.

27.95 Ravine, 20 ft.below spur, course SW. Ascend.

29.95 Spur, 135 ft.above ravine, projects SW. Descend.

35.00 Ravine, 55 ft.below spur, course SW. Ascend abruptly.

40.70 The $\frac{1}{4}$ sec. cor. bet. secs. 9 and 10, which is center mound of stone with sandstone 10 x 6 x 6 ins. in diam., dimly marked $\frac{1}{4}$ on W.face.

Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, alongside old cor., for $\frac{1}{4}$ sec. cor., with brass cap marked

$S\ \frac{1}{4}\ 9 \mid S\ 10$

1914

from which

A pinon pine 6 ins. dia., bears N.55°W. 68 lks. dist., marked $\frac{1}{4}$ S 9 B T

A pinon 10 ins. dia., bears S.57°30'E. 33 lks. dist., marked $\frac{1}{4}$ S 10 B T

From the $\frac{1}{4}$ sec. cor. I run N.1° 43'E. resurveying the N. half-mile bet. secs. 9 and 10.

Continue steep ascent.

6.50 Flat ridge spur, 175 ft.above ravine, projects SW.

Thence ascend over broken rocky SW.face of mountain.

34.00 Enter loose shale rock and broken limestone ledges, bearing E. and W. Ascend land facing S.

40.07 500 ft.above spur, The cor. of secs. 3, 4, 9, and 10.

Land, rough mountainous, facing N.on S.16.25 chs., and S.and SW.on N.63.46 chs.

Soil, rocky on rocky subsoil, sandstone and limestone formation on rocky subsoil; 4th rate.

Timber, scrub cedar and pinon pine.

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

RETRACEMENT AND RESURVEY SUBDIVISION T.15 S., R.3 E.

Chains. From the restored cor. of secs. 3, 4, 9, and 10, I run N.0° 23'E. resurveying bet. secs. 3 and 4,

Over rough mountainous land, through cedar and pinon timber. Ascend abruptly over broken limestone ledges and loose shale rock.

4.25 Leave cedar and pinon timber; enter dense mahogany timber, bearing E. and W.

7.00 Top of divide between Manti Canyon and Willow Creek, 210 ft. above sec. cor., bears E. and W. Leave mahogany timber. Thence descend over NW. slope of divide; through scattering sage and service brush.

11.35 Enter dense service brush, bears E. and W.

30.00 Descend abruptly over N. slope.

35.00 Small draw, drains NW.

40.00 Dec. 2, 1916: Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor. W. bdy. sec. 3, with brass cap marked

$\frac{1}{4}$ S 3
1916

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

Sept. 30, 1914:

40.40 Proportionate measurement.

Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor. E. bdy. sec. 4, with brass cap mkd.

S $\frac{1}{4}$ 4
1914

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

Cor. 330 ft. below divide.

Thence over land sloping nearly W.

53.00 Descend abruptly over broken NE. slope.

62.50 Bottom of ravine, 125 ft. below top of steep descent, course NW. Enter dense maple and oak brush, bearing NW. and SE.

67.50 Leave maple and high oak brush; thence through scrubby brush, land facing nearly W.

80.75 The cor. of secs. 3, 4, 33, and 34 on the N. bdy. of the Tp. heretofore described.

RETRACEMENT AND RESURVEY SUBDIVISION T.18 S. R. 3 E.

Chains	
	Land, rough mountainous, sloping S. on S. 7 chs. and N. and NW. on N. 73.75 chs.
	Soil, loose shale rock, gravelly and rocky with some black loam on gravelly and rocky subsoil, 4th rate.
	Timber, scrub cedar, piñon and mahogany on S. 7 chs.
	Undergrowth, service, sage, oak and maple.
	Some grass, good for grazing purposes.
	August 11: At 9h 05m a.m., l.m.t., I set off 39°12' on the lat. arc, 15°25'N. on the decl. arc, and determine a meridian at the cor. of secs. 1, 2, 35 and 36 on the S. bdy. of Tp. heretofore described.
	Thence I run
	N.0°01'W. bet. secs. 35 and 36.
	Over rough mountainous land through dense spruce, balsam fir and scattering aspen timber and dense undergrowth of 2nd growth pine and chaparral.
	Asc. abruptly from bottom of S. fork of Six Mile Canyon.
1.00	Leave dense spruce and balsam fir timber, enter dense aspen timber and choke cherry undergrowth, bears NW. and SE.
9.35	Top of bench, 150 ft. above sec. cor., bears NW. and SE.
	Gradually ascend across bench.
10.00	Stream, 2 lks. wide, 2 ins. deep, good water, course W.
13.60	Leave bench, ascend abruptly over SW. slope.
15.80	Top of steep ascent, 100 ft. above bench, brs. NW. and SE.
	Gradually ascend.
18.90	Spur, 30 ft. above steep ascent, projects NW.
	Gradually descend.
22.00	Ravine, 25 ft. below spur, course W.
	Gradually ascend land facing nearly W.
38.60	Stream, 4 lks. wide, 2 ins. deep, good water, course SW.
33.40	Spur, 80 ft. above ravine, projects W.
	Thence over land sloping nearly W.
37.50	Stream, 4 lks. wide, 3 ins. deep, good water, course SW.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. with brass cap marked S ¼ 35 | S 36 / 1914 from which An aspen, 6 ins. diam., bears S.25°E., 22 lks. dist., marked ¼ S 36 B T. A spruce, 11 ins. diam., bears N.59°W., 35 lks. dist., marked ¼ S 35 B T.
	Gradually ascend.
42.95	Stream, 2 lks. wide, 2 ins. deep, course SW.
49.44	Top of divide bet. N. and S. Forks Six Mile Creek, 50 ft. above ¼ sec. cor., bears E. and W.
	Gradually descend NW. slope.
60.20	Stream, 8 lks. wide, 1 in. deep, course NW.
	Enter scattering spruce timber, bears E. and W.
63.10	Enter swamp and dense willow undergrowth, brs. E. and W.
64.70	Stream, 4 lks. wide, 1½ ins. deep, course NW.
69.50	Leave swamp and willow undergrowth, bears NW. and SE.
	Gradually ascend land facing nearly W.
71.80	Low spur, 25 ft. above swamp, projects W.
	Gradually descend.
73.80	Stream, 2 lks. wide, 1 in. deep, good water, course NW.
77.70	Stream, 3 lks. wide, 1 in. deep, good water, course W.
77.90	Enter scattering willow undergrowth and E. edge of swamp.
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, with brass cap marked T 18 S R 3 E / S 26 | S 25 / S 35 | S 36 / 1914 from which An aspen, 13 ins. in diam., bears N.40°45'E., 20 lks. dist., marked T 18 S R 3 E S 25 B T. An aspen, 17 ins. diam., bears S. 23°E., 26 lks. dist., marked T 18 S R 3 E S 36 B T.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	An aspen, 9 ins. diam., bears S. 17½° W.,
	36 lks. dist. marked T. 18 S R. 3 E S. 35 B T.
	An aspen, 14 ins. diam., bears N. 60½° W.,
	27 lks. dist. marked T. 18 S. R. 3 E. S. 26 B T.
	Land mountainous with NW. and SW. exposures forming divide bet. N. and S. Forks Six Mile Creek.
	Soil, rich black loam on deep, moist black loam subsoil, 1st rate.
	Timber, dense aspen and scattering patches of spruce, balsam fir and pine.
	Undergrowth, chaparral, choke cherry and second growth pine.
	Good grass for grazing purposes.
	Aug. 11: At this cor. I set off 15°22' N. on the decl. arc, and at 12h 05m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°13'.
	East on a random line bet. secs. 25 and 36.
40.00	Set temp. ¼ sec. cor.
	Cease work.
	Aug. 11, 1914.
	Aug. 12: At 8h 05m a.m., l.m.t., I set off 39°13' on the lat. arc, 15°08' N. on the decl. arc, and determine a meridian with the solar at the temp. ¼ sec. cor.
	Thence I continue.
	East on random line bet. secs. 25 and 36.
79.91	Intersect E. bdy. of tp. 9 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	Thence I run
	S. 89°56' W. on a true line bet. secs. 25 and 36.
	Over mountainous land through scattering aspen, spruce and balsam fir timber and undergrowth of chaparral.
	Gradually descend along N. side of N. Fork Six Mile Creek.
7.35	Bottom of canyon and N. Fork Six Mile Creek, 15 lks. wide, 4 ins. deep, good water, course NW.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Ascend abruptly from creek.
9.65	Top of steep ascent, 40 ft. above creek, bears NW. and SE.
	Enter dense forest of spruce, balsam fir and pine timber.
	Gradually ascend over N. slope of mountain.
10.45	Old road, bears N.60°W. and S.60°E.
39.95½	125 ft. above creek.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked $\frac{S\ 25\ \frac{1}{4}}{S\ 36}$ 1914 from which
	A spruce, 6 ins. in dia., bears N.32°E., 24 lks. dist. marked ¼ S 25 B T.
	A spruce, 11 ins. in dia., bears S.14°W., 19 lks. dist. marked ¼ S 36 B T.
41.50	Spur, projects NW.
	Leave dense spruce, balsam fir and pine timber, enter aspen timber, bears NW. and SE.
	Descend abruptly over W. slope.
47.95	Stream in ravine, 1 lk. wide, 1 in. deep, good water, 180 ft. below spur, course N.
	Gradually ascend.
50.00	Spur, 20 ft. above stream, projects N.
	Descend N. slope through dense timber.
60.40	Ravine, 80 ft. below spur, course NW. Gradually ascend.
61.00	Old road, bears NE. and SW.
64.40	Spur, 25 ft. above ravine, projects N.
	Descend abruptly.
67.40	Old road, bears N.30°W. and S.30°E.
71.60	Ravine, 60 ft. below spur, course N.
	Enter swamp and dense willow undergrowth, brs. N. and S.
73.40	Leave willow undergrowth and swamp, bears NE. and SW.
	Gradually ascend.
75.20	Spur, 35 ft. above swamp, projects N.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Descend land facing W.
79.91	55 ft. below spur, the cor. of secs. 25, 26, 35 and 36.
	Land, mountainous with general N. exposure.
	Soil, rich black loam and decayed vegetation on deep, moist black loam subsoil, 1st rate.
	Timber, aspen, balsam fir, spruce and pine of good quality.
	Undergrowth, chaparral, choke cherry and willow.
	Good grass for grazing purposes.
	August 12: At this cor. I set off 15°04'N. on the decl. arc, and at 12h 05m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°13'.
	N.0°01'W. bet. secs. 25 and 26.
	Over mountainous land through dense forest of aspen and spruce timber and undergrowth of chaparral and choke cherry.
	Desc. over nearly N. slope.
3.20	Stream, 3 lks. wide, 1 in. deep, good water, course W.
8.70	Bottom of canyon and N. Fork Six Mile Creek, 15 lks. wide, 5 ins. deep, good water, 56 ft. below sec. cor., course N.80°W.
	Leave dense timber and undergrowth. Gradually ascend.
9.50	Old road, bears E. and W. Begin ascent over S. face of mountain.
14.15	Enter exceptionally dense choke cherry undergrowth and aspen timber, bears E. and W.
19.95	Leave choke cherry undergrowth and aspen timber, enter service and oak brush, brs. E. and W.
23.00	Leave dense service and oak brush.
34.00	Edge of small bench, brs. E. and W.
	Thence across bench land, through scattering aspen timber.
35.25	Leave bench, asc. abruptly over S. slope.
40.00	960 ft. above Six Mile Creek.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. of secs. 25 and 26, with brass cap marked

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	$S\frac{1}{4}$ 26 | S 25 1914
	from which
	A spruce, 12 ins. in dia., bears N.$80\frac{3}{4}$°E.,
	70 lks. dist. marked $\frac{1}{4}$ S 25 B T.
	An aspen, 8 ins. dia., bears S.10°W.,
	151 lks. dist. marked $\frac{1}{4}$ S 26 B T.
43.00	Top of divide bet. Six Mile and Manti Canyons, 95 ft. above $\frac{1}{4}$ sec. cor., brs. E. and W.
	Leave timber and undergrowth.
	Thence gradually descend over rolling land on top of divide.
60.20	Enter wild currant bushes and scattering spruce timber, bears NE. and SW.
77.64	Small spring branch, 1 lk. wide, course N.60°W.
80.00	265 ft. below top of divide.
	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, with brass cap marked
	T 18 S R 3 E S 23 | S 24 S 26 | S 25 1914
	from which
	A spruce, 20 ins. in dia., bears N.$15\frac{1}{4}$°E.,
	63 lks. dist. marked T 18 S R 3 E S 24 B T.
	A spruce, 8 ins. in dia., bears S.$53\frac{3}{4}$°W.,
	163 lks. dist. marked T 18 S R 3 E S 26 B T.
	A spruce, 22 ins. in dia., bears N.$46\frac{1}{2}$°W.,
	51 lks. dist. marked T 18 S R 3 E S 23 B T.
	No tree within limits in sec. 25, raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
	Land mountainous, draining N. and S. into Six Mile Canyon on S. 43 chs. and N. into Manti Canyon on N. 37 chs. S. 43 chs. very rough slope of mountain; N. 37 chs. rolling mountain top.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Soil, gravelly, rocky and rich decayed vegetation on black loam and gravel subsoil, 2nd rate.
	Timber, scattering patches of aspen, spruce, balsam fir and pine.
	Undergrowth, dense service, choke cherry, oak, chaparral and currant bushes.
	Considerable grass, good for grazing purposes.
	Aug. 12, 1914.
	Aug. 13: At 8h 05m a.m., l.m.t., I set off 39°14' on the lat. arc, 14°50'N. on the decl. arc, and determine a meridian with the solar for the cor. of secs. 23, 24, 25 and 26.
	Thence I run
	N.89°56'E. on random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec. cor.
79.81	Intersect E. bdy. of Tp. 31 lks. N. of the cor. of secs. 19, 24, 25 and 30, heretofore described.
	Thence I run
	N.89°50'W. on a true line bet. secs. 24 and 25.
	Over rough mountainous land through dense forest of aspen, spruce, balsam fir and pine and undergrowth of chaparral, choke cherry and service brush.
	Desc. abruptly over NW. slope.
13.00	Base of steep descent, 325 ft. below sec. cor., brs. NE. and SW. Descend more gradually.
22.20	Stream 2 lks. wide, 1 in. deep, good water, course NW.
	Enter dense willow undergrowth, brs. N. and S.
22.70	Stream, 1½ lks. wide, 1 in. deep, good water, course NW.
27.80	Stream, 1 lk. wide, 1 in. deep, good water, course N.
28.45	Stream, 1 lk. wide, 1 in. deep, good water, course N.
29.80	Leave dense willow undergrowth, brs. N. and S.
39.90½	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. bet. secs. 24 and 25, with brass cap marked

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	S 24 1/4 S 25 1914
	from which
	An aspen, 12 ins. dia., bears N.23°E., 28 lks. dist. marked 1/4 S. 23 B.T.
	An aspen, 14 ins. in dia., bears S.30°E., 13 lks. dist. marked 1/4 S 25 B.T.
	Not on line at noon; observation for lat. impossible.
42.80	Ravine, drains N. Gradually ascend.
43.90	Spur projects N. Gradually descend nearly N. slope.
55.60	Leave timber and undergrowth, ascend abruptly over huge boulders.
60.00	Leave boulders and enter dense spruce and balsam fir timber on edge of bench, bears NW. and SE.
	Thence over bench.
68.00	Leave bench and timber, brs. NE. and SW.
	Descend over broken ledges.
74.00	Bottom of gulch at head, drains N. Ascend over ledges.
77.78	Top of ledges and point, falls N. Descend.
79.81	50 ft. below point, the cor. of secs. 23, 24, 25 and 26.
	Land rough broken mountainous, with general N. exposure and lying near divide of mountain.
	Soil, generally a rich black loam on deep, moist black loam subsoil, 1st rate. On W. 24.16 chs. considerable amount of rocky soil is found.
	Timber, aspen, balsam fir, spruce and pine.
	Undergrowth, dense chaparral, choke cherry, willow and service brush.
	Considerable grass, good for grazing purposes.
	Aug. 13, 1914.

Aug. 28: At 8h 31m a.m., l.m.t., I set off 39°14' on the lat. arc, 9°53' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26. Thence I run

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	N.0°01'W. bet. secs. 23 and 24.
	Over rough mountainous land covered with dense spruce, balsam fir and pine timber and undergrowth of chaparral.
	Gradually descend over N. slope towards Manti Canyon.
3.95	Bluff, bears SE. and W. Descend abruptly over ledges.
	Leave dense spruce, balsam fir and pine timber.
7.20	Bottom of ravine and stream, 2 lks. wide, 1 in. deep, good water, 125 ft. below sec. cor., course NE.
8.00	Enter aspen timber, bears NE. and SW.
	Thence over broken ledges facing E.
18.10	Small ledge, bears NE. and SW. Descend abruptly.
20.05	Stream, 1 lk. wide, 1 in. deep, course NE.
	Leave dense timber.
26.05	Point on rocky bluff, bears NE. and SW. Leave timber.
	Desc. abruptly over loose slide rock and ledges.
37.00	Enter high and dense willow undergrowth, bears NW. and SE.
40.00	On edge of aspen timber 760 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. bet. secs. 23 and 24 with brass cap marked S 23 | $\frac{1}{4}$ | S 24 1914 from which An aspen, 5 ins. in dia., bears N. 75½°E., 42 lks. dist. marked $\frac{1}{4}$ S 24 B T. An aspen, 5 ins. in dia., bears N. 7°20'W., 63 lks. dist., marked $\frac{1}{4}$ S 23 B T.
55.00	Leave willow undergrowth, bears NW. and SE.
	Aug. 28: At this station I set off 9°50'N. on the decl. arc, and at 12h 01m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°14'.
62.58	Stream, 1 lk. wide, 1 in. deep, course N.25°W.
69.50	Old road, bears NW. and SE.
	Thence on W. slope of low spur.
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,

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	with brass cap marked T 18 S R 3 E / S 14 | S 13 / S 23 | S 24 1914 from which An aspen, 8 ins in dia., bears N.53¾°E., 12 lks. dist., marked T 18 S R 3 E S 13 B T. An aspen, 3½ ins. in dia., bears S.38½°E., 6 lks. dist., marked T 18 S R 3 E S 24 B T. An aspen, 4 ins. in dia., bears S.42°W., 19 lks. dist., marked T 18 S R 3 E S 23 B T. An aspen, 3 ins. in dia., bears N.64½°W., 10 lks. dist., marked T 18 S R 3 E S 14 B T.
	Land, rough, broken mountains, with N. exposure.
	Soil, rocky of limestone formation and rich black loam on gravelly and rocky subsoil, 4th rate.
	Timber, aspen, balsam fir, spruce and pine.
	Undergrowth, willow and chaparral.
	S.89°50'E. on a random line bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
	Cease work.
	Aug. 28, 1914.
	Aug. 29: At 8h 01m a.m., l.m.t., I set off 39°15' on the lat. arc, 9°32'N. on the decl. arc, and determine a meridian with the solar at the temp. ¼ sec. cor.
	Thence I continue.
	S.89°50'E. on a random line bet. secs. 13 and 24.
79.75	Intersect E. bdy. of tp. 1 lk. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence I run
	N.89°49'W. on a true line bet. secs. 13 and 24.
	Over mountainous land through dense aspen and scattering spruce timber and undergrowth of chaparral, choke cherry and some willow brush.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Gradually ascend over NE. slope.
2.65	Wagon road, Manti, Utah to saw mill and summit of mountain, bears NW. and SE.
15.45	Enter pond, bears N. and S.
16.05	Pond, bears S. 25 lks. and N. 2.00 chs.
16.55	Leave pond, bears N. and S.
17.05	Wood road, bears NW. and SE.
19.25	Stream, 1 lk. wide, 1 in. deep, course N.20°E. Gradually ascend.
19.45	Wood road, bears N.20°E. and S.30°W.
22.80	A small pond, stagnant water, bears S.60 lks. from line.
24.50	Leave dense aspen timber, enter dense sagebrush and scattering spruce and pine timber.
29.95	Leave dense sage and spruce and pine timber, enter aspen timber.
33.75	Spur, or rolling bench, bears N. and S.
35.45	Leave timber and undergrowth, brs. N. and S. Enter dry bed of large pond.
37.15	Pond extends N. 1 ch. and S. 3 chs.
39.87½	Point for ¼ sec. cor. falls in pond; cor. not set.
40.50	Leave pond, bears NE. and SW. Begin ascent over E. slope.
40.75	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for W.C. to ¼ sec. cor. of secs. 13 and 24, with brass cap marked T 18 S R 3 E S 13 | WC ¼ S 24 1914 from which An aspen, 14 ins. in dia., bears S. 78°W., 80 lks. dist. marked W C ¼ S 24 B T. An aspen, 6 ins. in dia., bears N.6½°W., 91 lks. dist., marked W C ¼ S 13 B T.
41.00	Enter aspen thicket, bears NE. and SW.
44.90	Leave aspen thicket, brs. N. and S. Enter sagebrush and scattering oak and service.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
51.00	Top of ridge, 100 ft. above ¼ sec. cor., brs. N. and S. Desc. W. slope.
51.25	Enter aspen timber and scattering maple, oak and choke cherry, brs. N. and S.
59.25	Leave maple, brs. N. and S.
66.40	Leave aspen, brs. N. and S. Enter dense sagebrush.
70.25	Leave sagebrush, enter dense aspen, brs. N. and S.
72.25	Bottom of ravine and stream, 6 lks. wide, 4 ins. deep, good water, 280 ft. below ridge, course N.20°W. Ascend.
77.80	Spur, 60 ft. above stream, projects N. Descend W. slope.
79.75	55 ft. below spur, the cor. of secs. 13, 14, 23 and 24. Land, mountainous, with general N. drainage. Soil, rich decayed vegetation, gravelly and black loam on deep, rich, moist black loam subsoil, 1st rate. Timber, aspen and scattering patches of spruce, balsam fir and pine. Undergrowth, chaparral, sage, oak, choke cherry, maple and willow. Considerable grass good for grazing purposes. Aug. 29: At this sec. cor. I set off 9°28' N. on the decl. arc, and at 12h 01m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°15'.

N.0°01'W. bet. secs. 13 and 14.

Over mountainous land along N. and W. slopes of spur, gradually descending through dense young aspen timber, scattering spruce and pine and undergrowth of chaparral, oak, choke cherry and rose brush.

23.50	Stream, 10 lks. wide, 4 ins. deep, good water, course NW. Leave young aspen timber, enter large aspen timber.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ cor. for secs. 13 and 14, with brass cap marked

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	S. 14 | S. 13
	1914
	from which
	A pine, 12 ins. dia., bears S.20°E.,
	62 lks. dist., marked ¼ S 13 B.T.
	A pine, 14 ins. dia., bears west,
	46 lks. dist., marked ¼ S 14 B.T.
	Aug. 28, 1914.
	Sept. 8: At 7h 58m a.m., l.m.t., I set off 39°15' on the lat. arc, 5°53' N. on the decl. arc, and determine a meridian with the solar at the ¼ cor. bet. secs. 13 and 14.
	Thence I run
	N. 0°01' W. bet. secs. 13 and 14.
46.75	Enter dense pine, spruce, aspen and second growth spruce, bears E. and W.
49.50	Leave pine, spruce and aspen timber, enter scattering oak and dense sagebrush, brs. NW. and SE.
54.25	Leave oak brush, enter scattering pine, spruce and aspen timber, brs. NW. and SE.
	Desc. over N. slope.
56.70	Enter dense young aspen timber, brs. E. and W.
60.00	Leave dense aspen.
61.10	Enter young spruce timber, brs. E. and W.
63.00	Leave spruce, enter dense aspen, brs. E. and W.
68.75	Base of steep descent, 250 ft. below ¼ sec. cor., brs. E. and W.
	Leave aspen timber, thence across flat through dense willow undergrowth.
69.60	Leave willow, enter oak and sagebrush undergrowth, brs. E. and W.
	Stream 3 lks. wide, 2 ins. deep, good water, course W.
74.40	Wagon road from Manti, Utah to saw mill and summit of mountain, brs. NE. and SW.
	Enter dense oak brush.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
77.32	Descend abruptly into canyon.
79.30	Bottom of canyon and Manti Creek, 50 lks. wide, 8 ins. deep, Good water, 90 ft. below road, course W. Creek flows in large wash, 1.50 chs. wide.
80.00	Point for cor. of secs. 11, 12, 13 and 14 falls in bed of wash. No cor. set at this point. Land, mountainous, with general N. exposure. Soil, gravelly, decayed vegetation and rich black loam 1 ft. deep, moist black loam subsoil, 1st rate. Timber, aspen, spruce, pine and balsam fir. Undergrowth, willow, sage, oak, service, choke cherry and rose brush. Considerable grass, good for grazing purposes.

From point for cor. of secs. 11, 12, 13, and 14, S.89°49'E. on random line bet. secs. 12 and 13.

40.00	Set temp. ¼ sec cor.
79.82	Intersect E. bdy. of tp. 9 lks. S. of the cor. of secs. 7, 12, 13 and 18, heretofore described. Thence I run N.89°53'W. on true line bet. secs. 12 and 13. Gradually descend over mountainous land facing NW., through dense aspen, spruce, balsam fir and pine timber and undergrowth of chaparral, high service, choke cherry and willow brush.
3.00	Stream, 4 lks. wide, 1 in. deep, good water, course NW.
13.60	Bottom of canyon and S. Fork Manti Creek, 20 lks. wide, 5 ins. deep, good water, 130 ft. below sec. cor., course N. Ascend over NE. slope through dense spruce timber.
16.90	Top of ascent and flat spur or bench, 50 ft. above creek, brs. N. and S. Leave dense timber.
18.00	Wagon road, Manti, Utah to saw mill and summit of mountain, brs. NW. and SE. Enter exceptionally high and dense willow undergrowth and scattering aspen timber, brs. N. and S.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
28.00	Leave dense willow undergrowth, brs. N. and S.
39.91	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. for secs. 12 and 13, with brass cap marked $\frac{S\ 12}{\frac{1}{4}}$ S 13 1914 from which An aspen, 6 ins. dia., bears N.3½°E., 23 lks. dist. marked $\frac{1}{4}$ S 12 B T. An aspen, 7 ins. dia., bears S.47¼°W., 67 lks. dist., marked $\frac{1}{4}$ S 13 B T. Thence through scattering oak brush and aspen timber.
41.90	Enter dense oak, brs. NE. and SW.
50.00	Leave oak brush, enter dense aspen timber with high undergrowth of willow.
60.00	Leave willow undergrowth and aspen timber, brs. N. and S. Enter flat.
60.50	Stream, 1 lk. wide, 1 in. deep, course NW.
61.90	Road, Manti, Utah to saw mill and summit of mountain, brs. NE. and SW.
63.05	Leave flat, enter dense aspen timber and undergrowth of oak and service brush. Descend NW. slope into Manti Creek.
65.30	Leave dense aspen, thence through scattering aspen and spruce timber.
76.50	Manti Creek, 50 lks. wide, 6 ins. deep, course S.85°W. Thence follow in creek channel.
79.82	The true cor. point for secs. 11, 12, 13 and 14. Land, mountainous draining N. into Manti Creek. Soil, decayed vegetation and rich black loam on deep, moist black loam subsoil, 1st rate. Timber, aspen, spruce, balsam fir and pine. Undergrowth, willow, sage, oak, service and choke cherry. Good grass for grazing purposes. Sept. 8: At this cor. point I set off 5°49' on the decl. arc, and at 11h 58m a.m., l.m.t., observe the sun on

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	the meridian, the resulting lat. is 39°16'.
	From the true cor. point for secs. 11, 12, 13 and 14, I run
	N.0°01'W. bet. secs. 11 and 12.
	Over rocky channel of Manti Creek.
.75	Leave channel, bears E. and W.
	Ascend S. slope.
1.07	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for W.C. to secs. 11, 12, 13 and 14, with brass cap marked T 18 S | R 3 E S 11 | S 12 WC S 14 | S 13 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
	Ascend abruptly through dense undergrowth of oak, service and buck brush and scattering scrub cedar timber.
8.50	Spur, 170 ft. above creek, projects SW.
	Leave scrub timber, Gradually descend.
15.30	Enter high dense maple brush, brs. NE. and SW.
16.30	Ravine, 50 ft. below spur, course SW. Gradually ascend.
16.70	Leave maple, brs. NE. and SW. Ascend abruptly.
37.90	Leave high oak brush, enter more scattering and low brush.
40.00	430 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. on the ground for ¼ sec. cor. for secs. 11 and 12, 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.
	Continue ascent.
48.60	Begin ascent along top of E. slope of spur.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
53.25	Cross spur, projects S.10°W. Thence along W. slope.
	Enter dense oak and buck brush.
63.30	Top of bench, 250 ft. above ¼ sec. cor., bears E. and W.
	Leave dense oak brush, gradually descend across bench.
68.00	Leave oak, enter dense maple brush, brs. E. and W.
70.00	Leave maple, enter choke cherry undergrowth and aspen timber, brs. E. and W.
75.10	Ravine, 40 ft. below bench, course W.
75.50	Leave aspen timber and undergrowth.
	Asc. over series of small limestone ledges.
76.80	Leave ledges.
79.00	Enter scattering spruce and pine timber, brs. E. and W.
80.00	150 ft. above ravine.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 1, 2, 11 and 12, with brass cap marked

T 18 S R 3 E

S 2 | S 1

S 11 | S 12

1914

from which

A spruce, 8 ins. in dia., bears N.37°E.,

47 lks. dist., marked T 18 S R 3 E S 1 B T.

A spruce, 10 ins. in dia., bears S.39½°E.,

29 lks. dist., marked T 18 S R 3 E S 12 B T.

A spruce, 17 ins. dia., bears S.12¾°W.,

57 lks. dist., marked T 18 S T 3 E S 11 B T.

A spruce, 18 ins. in dia., bears N.47¼°W.,

47½ lks. dist., marked T 18 S R 3 E S 2 B T.

Land, mountainous with S. exposure.

Soil, gravelly and black loam on gravelly, rocky and sandy clay subsoil, 3rd rate.

Timber, scattering patches of aspen, spruce, pine and scrub cedar andpinon timber.

Undergrowth, oak, service, buck and maple.

Some grass, good for grazing purposes.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains

S.89°53'E. on random line bet. secs. 1 and 12.

40.00 Set temp. ¼ sec. cor.

Cease work.

Sept. 8, 1914.-

Sept. 9: At 7h 28m a.m., l.m.t., I set off 39°16' on the lat. arc, 5°31'N. on the decl. arc, and determine a meridian with the solar at the temp ¼ sec. cor.

Thence I continue

S.89°53'E. on a random line bet. secs. 1 and 12.

79.74 Intersect E. bdy. of tp. at the cor. of secs. 1, 6, 7, and 12, heretofore described.

Thence I run

N.89°53'W. on a true line bet. secs. 1 and 12.

Over mountainous land draining N. into Willow Creek, through dense aspen timber and undergrowth of choke cherry.

Gradually descend W. slope.

1.00 Leave aspen timber, brs. N. and S.

8.20 Enter scattering aspen timber, leave choke cherry undergrowth, brs. N. and S.

11.75 Enter dense aspen thicket, brs. NW. and SE.

16.65 Leave aspen thicket, brs. N. and S. Enter sagebrush.

23.34 Ravine, 100 ft. below sec. cor., drs. N. Asc. N. slope.

28.10 Leave sagebrush, enter sagebrush,

33.75 Leave aspen thicket, enter sagebrush, brs. N. and S.

39.87 170 ft. above ravine on SE. slope.

Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 1 and 12, with brass cap marked

$$\frac{S\ 1}{\frac{1}{4}}\ \frac{}{S\ 12}\ 1914$$

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

Ascend gradually SE. slope.

42.35 Top of ridge spur, near top of divide bet. Willow Creek and Manti Canyon, 50 ft. above ¼ sec. cor., brs. NE. and

Chains.	
	and SW.
58.24	Enter aspen timber; leave sage, bears N.and S.
62.15	Leave aspen and enter dense sage, bears N.and S.
68.75	Top of ridge divide between Willow Creek and Manti Canyon, bears NW. and SE. Enter scattering spruce and pine timber. Descend abruptly SW.slope over small ledges.
73.00	Descend more gradually.
79.74	The cor.of secs.1, 2, 11, and 12, 300 ft.below ridge.
	Land, mountainous, drains N.into Willow Creek on E.68.75 chs. and S.into Manti Canyon on E.10.99 chs.
	Soil, gravelly, rocky and rich black loam on gravelly and rocky subsoil; 3d rate.
	Timber, scattering patches of aspen, spruce and pine.
	Undergrowth, sage and choke cherry. Good grass for grazing.

	N.0° 01'W.on a random line bet.secs.1 and 2,
40.00	Set temp.¼ sec.cor.
82.49	Intersect N.bdy.of Tp.48 lks.S.89° 18'W.from the cor.of secs.1, 2, 35, and 36, heretofore described.
	Dec.2, 1916: At my intersection,
	Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in the ground for closing cor.of secs.1 and 2, with brass cap mkd. T 17 S R 3 E / S 35 / S 2 | S 1 / T 18 S | R 3 E / C C / 1916
	from which
	An aspen 7 ins.dia., bears S.46° W. 98 lks.dist. marked C C T 18 S R 3 E S 2 B T
	No other trees within limits; raise a mound of stone 2 ft. base, 1½ ft.high S.of cor.
	Sept.9, 1914:
	S.0° 01'E.on a true line bet.secs.1 and 2,
	Over open mountainous land, draining N.Gradually ascend.
1.00	E.edge of aspen thicket, bears W.50 lks.

Chains.	
1.40	Enter dense choke cherry undergrowth bears NW. and SE.
11.00	Leave dense choke cherry undergrowth, bears E.and W.
15.90	W.edge of aspen thicket, bears NE. and SE.
18.00	Enter dense choke cherry, bears E.and W.
24.50	Leave dense choke cherry; enter scattering aspen timber, bears NE. and SW.
26.15	Stream in ravine, 1 lk.wide, 1 in.deep, course at bend from SE.to NE. Leave aspen timber and undergrowth.
34.50	Spur, 225 ft.above sec.cor.projects NE.Descend gradually over open land.
41.00	Sheep corral in E.edge of aspen thicket, bears W.1.50 chs.
42.49	Set an iron post, 3 ft.long, 1 in.in dia., 24 ins.in the ground, for $\frac{1}{4}$ sec.cor.with brass cap marked $S\ \frac{1}{4}\ 2 \mid S\ 1$ 1914 from which An aspen, 14 ins.dia.bears S.56° E. 5.10 chs. dist., marked $\frac{1}{4}$ S 1 B T An aspen 7 ins.dia.bears S.74°W. 1.31 chs.dist. marked $\frac{1}{4}$ S 2 B T
46.00	Ravine,35 ft.below spur, course NE. Gradually ascend.
53.00	Enter dense sagebrush, bears NE. and SW.
75.68	Top of ridge and divide between Willow Creek and Manti Canyon, 25 ft.above ravine, bears E.and W. Descend abruptly over steep S.slope,through scattering spruce and pine timber;over series of small broken limestone ledges.
82.49	265 ft.below ridge,the cor.of secs.1,2,11, and 12.

Land, rolling mountain top with N.exposure on N.75.68 chs. steep S.slope on 6.81 chs.

Soil N.75.68chs. rich black loam and gravelly on gravelly and loam subsoil, 2nd rate.S.6.81 chs.rocks and loose shale on rocky subsoil; 4th rate.

Timber,scattering aspen on N.26.15 chs.and spruce and pine on S.6.81 chs. Undergrowth, sage and choke cherry. Some grass, good for grazing purposes.

Sept.9, 1914.

Aug.14, 1914: At 7h 35m a.m.l.m.t., I set off 39° 12' on the lat.arc; 14° 32'N.on the decl.arc; and determine a meridian with the solar at the cor.of secs.2,3,

SUBDIVISION OF T. 18 S., R. 3 E.

Chains	
	34 and 35 on the S. bdy. of the tp. heretofore described.
	Thence I run
	N.0°01'W. bet. secs. 34 and 35.
	Over rough mountainous land through dense aspen timber, scattering spruce and pine and undergrowth of chaparral.
	Descend from spur over land facing and draining N. into Six Mile Canyon.
3.50	Drag road, brs. E. and W.
20.50	Ravine, 190 ft. below cor., course NW. Gradually ascend.
22.30	Spur, 30 ft. above ravine, projects NW.
	Descend abruptly over land draining NE.
24.00	Descend more gradually.
29.26	Ravine, 110 ft. below spur, course NW.
	Gradually ascend SW. slope.
32.15	Spur, 35 ft. above ravine, projects NW. Descend abruptly.
33.90	Bottom of Six Mile Canyon and Creek, 30 lks. wide, 5 ins. deep, good water, course N.80°W.
	Enter dense willow undergrowth. Gradually ascend.
37.45	Old road, brs. E. and W.
	Leave dense willow undergrowth, enter scattering oak and service brush.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. for secs. 34 and 35, with brass cap marked
	$S\ \frac{1}{4}\ 34 \mid S\ 35$
	1914
	from which
	An aspen, 6 ins. in dia., bears S 71$\frac{3}{4}$°E., 23 lks. dist., marked $\frac{1}{4}$ S 35 B T.
	An aspen, 5 ins. dia., bears N.46$\frac{1}{2}$°W., 13 lks. dist., marked $\frac{1}{4}$ S 34 B T.
	A lake containing about 3 acres with no visible outlet, bears W. about 4 chs.
48.50	Leave aspen timber, enter dense oak, service and scattering cedar timber, brs. E. and W.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains

Ascend abruptly.

60.00 Enter scattering aspen timber, brs. E. and W.

63.12 Top of steep ascent; gradually ascend.

66.00 Leave oak and service brush, enter dense aspen, spruce and pine timber; brs. E. and W.

68.60 Old canyon road, brs. NW. and SE.

Aug. 14: At this station I set off 14°28' N. on the decl. arc, and at 12h 05m p.m., 1 m.t.; observe the sun on the meridian, the resulting lat. is 39°13'.

Leave dense spruce and pine timber.

75.35 Ridge, 350 ft. above ¼ sec. cor., brs. E. and W.

Gradually descend N. slope.

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

T 18 S R 3 E
S 27 | S 26
S 34 | S 35
1914

from which

A spruce, 14 ins. dia., bears N.37¾°E.,
46 lks. dist., marked T 18 S R 3 E S 26 B T.

A spruce, 16 ins. dia., bears S.73¼°E.,
43 lks. dist., marked T 18 S R 3 E S 35 B T.

A spruce, 10 ins. dia., bears S.27¼°W.,
44 lks. dist., marked T 18 S R 3 E S 34 B T.

A spruce, 16 ins. dia., bears N.30¾°W.,
57 lks. dist., marked T 18 S R 3 E S 27 B T.

Land, mountainous with W. drainage; land sloping N. and S. into canyons.

Soil; decayed vegetation, gravelly and rich black loam on deep, moist loam subsoil, 1st rate.

Timber, aspen, spruce, balsam fir, pine and some scrub cedar.

Undergrowth, dense chaparral, oak, service and willow.

Considerable grass, good for grazing purposes.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	East on random line bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
	Ceast work.
	Aug. 14, 1914.
	Aug. 15: At 8h 04m a.m., l.m.t., I set off 39°13' on the lat. arc, 14°13' N. on the decl. arc, and determine a meridian with the solar at the temp. ¼ sec. cor.
	Thence I continue
	East on a random line bet. secs. 26 and 35.
80.08	Intersect N. and S. line at the cor. of secs. 25, 26, 35 and 36.
	Thence I run
	West on true line bet. secs. 26 and 35.
	Gradually descend over soft swampy ground, sloping gently NW.; through dense aspen, scattering spruce and pine timber and undergrowth of willow and choke cherry.
1.70	Stream, 2 lks. wide, 1 in. deep, good water, course S.
2.75	Stream, 4 lks. wide, 1 in. deep, good water, course SW.
7.05	Stream, 4 lks. wide, 1 in. deep, good water, course N.75°W.
14.35	Stream, 4 lks. wide, 2 ins. deep, good water, course NW.
15.25	Stream, 1 lks. wide, 1 in. deep, good water, course NW.
	Leave swamp and dense willow and choke cherry undergrowth, brs. N. and S. Enter scattering oak and service brush.
19.80	Descend abruptly into canyon.
20.70	Bottom of canyon, N. Fork Six Mile Creek, 15 lks. wide, 5 ins. deep, good water, 75 ft. below sec. cor., course SW. Ascend abruptly.
21.55	Top of abrupt ascent, thence over rolling bench.
23.75	Old canyon road, brs. N.25°E. and S.25°W.
24.45	Stream, 1 lk. wide, 1 in. deep, good water, course SW.
	Ascend SE. slope.
33.70	Top of point, 200 ft. above creek, falls S.
	Gradually descend SW. slope, through spruce and aspen timber and oak and service brush.
38.63	Point for ¼ sec. cor. will fall on ground subject to land

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	slides, therefore at this point I set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for W.C. to ¼ sec. cor., with brass cap marked T 18 S R 3 E WC ¼ S 26 S 35 1914 from which A spruce, 11 ins. in dia., bears N.39¾°E., 47 lks. dist., marked WC ¼ S 26 B T. A spruce, 8 ins. dia., bears S.21½°W., 17 lks. dist., marked WC S ¼ S 35 T B T.
39.00	Enter ground subject to land slide.
40.04	Point for ¼ sec. cor. falls on unsafe ground. No cor. set.
42.00	Leave ground subject to land slide, bears NE. and SW.
45.10	Ravine and stream, 1 lk. wide, 1 in. deep, course S. Ascend broken land facing SE.
53.30	Spur, 120 ft. above ravine, projects S. Gradually descend broken ground facing SW.
59.50	Leave oak and service brush, thence through spruce and pine timber.
80.08	The cor. of secs. 26, 27, 34 and 35; 300 ft. below spur. Land mountainous, E. exposure on E, 20.70 chs., general S. exposure on W. 59.38 chs. General drainage of land SW. Soil, gravelly and rich decayed vegetation and black loam on deep, moist black loam and gravel subsoil, 2nd rate. Timber, aspen, spruce, balsam fir, spruce and pine. Undergrowth, willow, oak, service, buck and chaparral. Good grass for grazing purposes. Aug. 15: At this cor. I set off 14°09'N. on the decl. arc, and at 12h 04m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°13'.

N.0°01'W. bet. secs. 26 and 27.

Over rough mountainous land, through spruce, pine, aspen

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	and balsam fir timber, and undergrowth of oak and service and chaparral. Gradually ascend.
5.00	Ascend abruptly over land facing SW.
7.00	Ascend more gradually.
14.20	Leave dense timber, enter dense undergrowth of oak and service brush. Ascend abruptly over S. slope.
24.72	Top of bench, 600 ft. above sec. cor., brs. E. and W. Gradually ascend across bench; leave dense undergrowth and enter heavier timber.
40.00	180 ft. above edge of bench. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. for secs. 26 and 27, with brass cap marked $\frac{1}{4}$ S 27 | S 26 1914 from which An aspen, 8 ins. dia., bears S.86$\frac{3}{4}$°E., 97 lks. dist., marked $\frac{1}{4}$ S 26 B T. An aspen, 6 ins. in dia., bears N.53$\frac{1}{2}$°W., 49 lks. dist., marked $\frac{1}{4}$ S 27 B T.
	Aug. 15, 1914.
	Aug. 17: At 8h 04m a.m., l.m.t., I set off 39°13' on the lat. arc, 13°35'N. on the decl. arc, and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 26 and 27. Thence I run N.0°01'W. bet. secs. 26 and 27.
42.55	Leave aspen timber and bench. Ascend abruptly over S. slope of divide.
46.00	Top of abrupt ascent, 160 ft. above $\frac{1}{4}$ cor., brs. E. and W.
	Gradually descend.
48.45	Small ravine, drains SW. Leave oak and service brush, enter dense sagebrush.
52.40	Divide bet. Manti and Six Mile Canyon, 60 ft. above ravine brs. E. and W. Thence over rolling land on top of divide.

SUBDIVISION OF T. 18 S., R. 3 E.

Chains	
65.15	Enter scattering aspen timber, leave dense sagebrush.
73.15	N. side of divide, brs. E. and W.
	Enter dense aspen, spruce and pine timber.
	Descend N. slope.
76.50	Head of spring, 2 lks. in dia., flows stream of good water, 1 lk. wide, 1 in. deep, course N.
80.00	115 ft. below top of divide.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 22, 23, 26 and 27, with brass cap marked

T 18 S R 3 E

S 22	S 23
S 27	S 26

1914

from which

An aspen, 8 ins. in dia., bears N.39°E., 34 lks. dist., marked T 18 S R 3 E S 23 B T.

An aspen, 12 ins. in dia., bears S.37¼°E., 38 lks. dist., marked T 18 S R 3 E S 26 B T.

An aspen, 16 ins. in dia., bears S.66¾°W., 32 lks. dist., marked T 18 S R 3 E S 27 B T.

An aspen, 10 ins. in dia., bears N.43°W., 44 lks. dist., marked T 18 S R 3 E S 22 B T.

Land, mountainous with N. and S. exposures from divide of mountain.

Soil, gravelly and rich, decayed vegetation and gravelly deep, moist, subsoil of gravel and black loam, 1st rate.

Timber, aspen, spruce, balsam fir and pine.

Undergrowth, chaparral, oak, service and sagebrush.

Good grass for grazing purposes.

East on a random line bet. secs. 23 and 26.

40.00	Set temp. ¼ sec. cor.

Aug. 17: From this ¼ sec. cor. I set off 13°32' on the decl. arc, and at 12h 04m p.m., l.m.t., observe the

SUBDIVISION OF T. 18 S., R. 3 E.

Chains	
	sun on the meridian, the resulting lat. is 39°14'.
80.12	Intersect N. and S. line at the cor. of secs. 23, 24, 25 and 26.
	Thence I run
	West on a true line bet. secs. 23 and 26.
	Over rolling mountain top draining N. into Manti Canyon, through spruce timber and scattering short undergrowth of chaparral.
	Gradually descend land facing W.
1.30	Leave timber and nearly all undergrowth, brs. N. and S.
	Thence over open rolling land on divide.
3.80	Small ravine and stream, 1 lk. wide, 1 in. deep, course N.
14.72	Leave open country, enter scattering aspen, pine and spruce, timber, brs. N. and S.
21.12	Enter dense timber.
27.27	Ravine, drs. NW. Ascend abruptly.
28.87	Ledge, 20 ft. high, brs. NW. and SE.
31.57	Spur, 45 ft. above ravine, projects NW.
	Gradually descend land facing nearly N.
38.85	Ravine, drains N. Gradually ascend.
40.06	Set an iron post, 3. ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. for secs. 23 and 26, with brass cap marked
	$\frac{S\ 23}{S\ 26}$ 1914
	from which
	A spruce, 20 ins. in dia., bears S. 8$\frac{1}{4}$° W., 24 lks. dist., marked $\frac{1}{4}$ S. 26 B. T.
	A spruce, 10 ins. dia., bears N. 4$\frac{1}{2}$° W., 109 lks. dist., marked $\frac{1}{4}$ S. 23 B. T.
40.50	Leave timber and high undergrowth, brs. NW. and SE.
	Ascend abruptly into divide.
47.40	Top of main divide, Manti and Six Mile Canyon, 105 ft. above $\frac{1}{4}$ sec. cor., brs. NW. and SE.
	Thence across rolling top of divide, through short sagebrush.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains

70.92 Leave divide, brs. NE. and SE. Descend W. slope.

78.02 Enter dense aspen, pine and spruce timber, brs. N. and S.

79.17 Bottom of ravine and stream, 1 lk. wide, 1 in. deep, course N. Thence over land facing N.

80.12 The cor. of secs. 22, 32, 26 and 27.

Land, rolling mountains, on N. edge of divide of mountain.

Soil, gravelly, decayed vegetation and black loam mixed with shale rock on deep, hard, moist black loam and gravel subsoil, 2nd rate.

Timber, aspen, pine and spruce.

Undergrowth, chaparral and sagebrush.

Good grass for grazing purposes.

Aug. 17, 1914.

Sept. 10: At 7h 57m a.m., l.m.t., I set off 39°14' on the lat. arc, 5°08' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.

Thence I run N. 0°01' W. bet. secs. 22 and 23.

Over rolling mountain top, brs. N., through aspen, pine and spruce timber and undergrowth of chaparral and sage. Gradually descend.

2.30 Ravine and stream, 2 lks. wide, 1 in. deep, good water, course NW. Gradually ascend over nearly W. slope.

5.00 Leave timber, brs. E. and W. Enter dense sagebrush.

19.30 Enter scattering aspen timber, brs. NW. and SE.

23.80 Point of mountain, falls NW. Leave aspen timber, enter spruce and pine timber.

Descend abruptly N. slope.

40.00 On steep N. slope. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. of secs. 22 and 23, with brass cap marked

S ¼ 22 | S 23

1914

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	from which.
	A spruce, 8 ins. in dia., bears S.38¾°E.,
	6 lks. dist., marked ¼ S 23 B T.
	A spruce, 8 ins. in dia., bears N.50°W.,
	24 lks. dist., marked ¼ S 22 B T.
	Corner 430 ft. below point of mountain.
	Continue steep descent.
47.50	Enter dense second growth of spruce, brs. E. and W.
51.50	Leave pine and spruce, enter dense aspen thicket, brs. E. and W.
53.50	Base of steep descent, 300 ft. below ¼ sec. cor., brs. NW. and SE.
	Gradually descend over rolling bench land.
56.65	Stream, 2 lks. wide, 1 in. deep, course NW.
60.10	Leave dense aspen, brs. NE. and SW.
71.40	Leave aspen, enter pine and spruce timber, brs. E. and W.
80.00	400 ft. below ¼ sec. cor.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 14, 15, 22 and 23, with brass cap marked
	T 18 S R 3 E S 15 | S 14 S 22 | S 23 1914
	from which
	A spruce, 13 ins. in dia., bears N.36°E.,
	62 lks. dist., marked T 18 S R 3 E S 14 B T.
	A spruce, 7 ins. in dia., bears S.28¼°E.,
	31 lks. dist., marked T 18 S R 3 E S 23 B T.
	A spruce, 9 ins. in dia., bears S.11°W.,
	26 lks. dist., marked T 18 S R 3 E S 22 B T.
	A spruce, 9 ins. in dia., bears N.38½°W.,
	36 lks. dist., marked T 18 S R 3 E S 15 B T.
	Land, mountainous, general N. exposure.
	Soil, gravelly, rich black loam and decayed vegetation on deep, moist black loam subsoil, 1st rate.
	Timber, aspen, pine and spruce of good quality.

Chains	
	Undergrowth, chaparral and sagebrush.
	Considerable grass, good for grazing purposes.
	East, on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.
	Sept. 10: At this point I set off 5°04'N. on the decl. arc, and at 11h 57m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°15'.
80.14	Intersect N. and S. line 17 lks. S. of cor. of secs. 13, 14, 23 and 24.
	Thence I run
	S.89°53'W. on a true line bet. secs. 14 and 23.
	Over rolling mountainous land, drs. N. into Manti Creek, gradually descending through dense young aspen timber and undergrowth of chaparral and scattering service brush.
1.90	Old road, bears NW. and SE.
9.30	Stream, 1 lk. wide, 1 in. deep, course NW.
	Gradually ascend.
14.00	Leave dense aspen, brs. N. and S.
18.50	Enter dense aspen timber, brs. NW. and SE.
21.80	Leave aspen, enter scattering young spruce timber, brs. NW. and SE.
28.90	Spur, 220 ft. above ravine, projects NW.
	Gradually descend.
31.65	Enter dense aspen timber, brs. N. and S.
35.00	Leave aspen, brs. N. and S. Enter sagebrush flat.
38.50	Leave sage flat, enter scattering aspen timber, brs. N. and S.
40.07	90 ft. below spur.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. of secs. 14 and 23, with brass cap marked

S 14

¼

S 23

1914

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	from which
	An aspen, 5 ins. in dia., bears S.41°15'E.,
	47 lks. dist., marked ¼ S 23 B.T.
	An aspen, 6 ins. in dia., bears N.38°30'W.,
	93 lks. dist., marked ¼ S 14 B.T.
40.50	Enter dense aspen, brs. N. and S.
45.00	Leave aspen, enter small open flat, brs. N. and S.
48.20	Enter dense aspen timber, brs. NW. and SE.
50.60	Leave aspen timber, enter scattering oak brush, brs. NW. and SE.
53.30	Leave oak brush, enter dense aspen timber, brs. NW. and SE.
54.50	Leave aspen timber, enter dense sage, brs. NW. and SE.
57.40	Enter dense aspen timber, brs. NW. and SE.
64.20	Enter dense willow undergrowth, brs. NW. and SE.
65.00	Leave willow undergrowth, enter scattering young spruce.
73.00	Enter dense pine and spruce timber, brs. N. and S.
74.00	Leave aspen timber, brs. N. and S.
80.14	The cor. of secs. 14, 15, 22 and 23.
	Land rolling mountainous bench land, N. exposure.
	Soil, gravelly and rich black loam on deep, moist black loam subsoil, 1st rate.
	Timber, aspen, pine and spruce.
	Undergrowth, chaparral and sagebrush.
	Good grass for grazing purposes.
	Sept. 10, 1914.

Sept. 11: At 7h 57m a.m., l.m.t., I set off 39°15' on the lat. arc, 4°45'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 14, 15, 22 and 23.

Thence I run

N.0°01'W. bet. secs. 14 and 15.

Over rolling mountainous land through dense pine and spruce timber and undergrowth of chaparral.

Chains	
	Gradually descend over land facing and draining N. into Manti Canyon.
3.30	Leave dense pine and spruce timber, enter dense aspen timber and scattering service brush.
9.00	Old drag road, brs. NW. and SE.
13.70	Old drag road, brs. NW. and SE.
16.00	Leave dense aspen timber, brs. NW. and SE.
16.65	Enter dense willow undergrowth, brs. NW. and SE.
17.50	Leave willow undergrowth, brs. NW. and SE.
17.90	Enter dense aspen timber, brs. NW. and SE.
20.80	Leave aspen timber, enter dense oak brush, brs. NW. and SE.
32.15	Leave aspen timber, enter oak brush, brs. E. and W.
33.15	Leave aspen timber, enter oak brush, brs. E. and W.
35.00	Leave oak brush, enter aspen timber, brs. E. and W.
37.90	Leave aspen timber, enter dense oak brush, brs. E. and W.
	Descend over land facing NE.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 14 and 15, with brass cap marked, S. $\frac{1}{4}$ 15 | S 14 | 1914 and raise a mound of stone, 3 ft. base, 1½ ft. high W. of cor. No suitable trees within limits.
45.10	Leave oak brush, enter high dense willow brush, brs. NW. and SE.
45.70	Leave willow, enter scattering aspen timber and maple rose brush.
49.00	Enter scattering oak brush, brs. E. and W.
52.50	Enter small flat, brs. E. and W.
	Leave timber and undergrowth.
55.50	Leave flat, enter aspen timber and willow and oak brush, brs. NW. and SE.
61.00	Enter exceptionally high and dense willow undergrowth, brs. NW. and SE.
61.25	Stream, 1 lk. wide, 1 in. deep, course NW.
63.65	Leave willow undergrowth, brs. E. and W.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
65.35	Leave aspen timber, enter dense oak brush, brs. E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 10, 11, 14 and 15, with brass cap marked T 18 S R 3 E S 10 | S 11 S 15 | S 14 1914 and raise a mound of stone, 3 ft. base, 1½ ft. high W. of cor.
	Land, mountainous, with N. exposure.
	Soil, rich black and sandy loam mixed with gravel on deep, moist black loam subsoil, 1st rate.
	Timber, scattering patches of aspen, pine and spruce.
	Undergrowth, chaparral, oak, willow and service brush.
	Some maple. Good grass for grazing purposes.
	Sept. 11: Not on line at noon, observation for lat. impossible.
	N.89°53'E. on a random line bet. secs. 11 and 14.
40.00	Set temp. ¼ sec. cor.
80.10	Intersect N. and S. line 2 lks. S. of the cor. point for secs. 11, 12, 13 and 14.
	Thence I run S.89°52'W. on a true line bet. secs. 11 and 14.
	Over rocky channel of Manti Creek in bottom of canyon.
1.90	Manti Creek, 50 lks. wide, 8 ins. deep, course N.80°W.
	Thence follow along creek.
5.10	Leave creek bottom, begin ascent over N. slope.
	Enter scattering cottonwood timber and service brush.
11.10	Leave service brush and cottonwood timber, enter aspen, young spruce and pine timber.
12.15	Stream, 4 lks. wide, 2 ins. deep, course N.
14.60	Enter aspen thicket with willow and rose brush, brs. N. and S.
	Leave scattering spruce and pine timber.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
16.10	Leave aspen timber and dense willow and rose brush. Ascend more abruptly through dense oak, service and maple brush.
22.25	Road, Manti, Utah to saw mill and summit of mountain, brs. NW. and SE. Undergrowth becomes shorter. Thence along top of N. side of ridge.
34.20	W. point of ridge. Descend W. slope.
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. dn the ground for $\frac{1}{4}$ sec. cor. for secs. 11 and 14; with brass cap marked S 11 $\frac{1}{4}$ S 14 1914 and raise a mound of stone, 3 ft. base, 1½ ft. high N. of cor. Thence across rolling bench.
41.35	Canyon road, brs. NE. and SW.
48.50	Same road, N.75°W. and S.60°E.
50.00	Same road, brs. NE. and SW.
51.70	Junction of roads, N., S. and SE. Gradually descend very dense oak and service.
63.25	Enter very dense willow and rose bushes, N. and S. Leave oak.
64.40	Creek, 5 lks. wide, 3 ins. deep, course N. Manti Creek flows N. about 50 lks.
66.45	Leave dense willow and rose bushes, bear N. and S.
68.60	Stream, 3 lks. wide, 1 in. deep, course N. Enter dense oak. Ascend 30 ft. to
70.00	Thence over land facing N.
73.65	Stream, 1 lk. wide, 1 in. deep, course N. Leave high oak.
75.00	Low spur, projects NW. Gradually descend.
80.10	The cor. of secs. 10, 11, 14 and 15. Land, rolling mountains, on S. side of Manti Creek.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Soil, gravelly, rocky and sandy on gravelly and moist sandy subsoil, 3rd rate.
	Timber, some aspen, pine and spruce and cottonwood.
	Undergrowth, dense oak, service, willow, wild rose, chaparral.
	Some good grass for grazing purposes.
	Sept. 11, 1914.
	Sept. 12: At 7h 56m a.m., l.m.t., I set off 39°16' on the lat. arc, 4°22'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.
	Thence I run
	N.0°01'W. bet. secs. 10 and 11.
	Over mountainous land, through dense undergrowth of oak, and chaparral. Gradually descend land facing NW.
1.80	Bottom of small ravine and stream, 1 lk. wide, ½ in. deep, course W. Ascend.
4.30	Spur, 30 ft. above ravine, projects W.
	Descend abruptly into Manti Canyon.
7.40	Bottom of Manti Canyon and Creek, 50 lks. wide, 8 ins. deep, in narrow gorge, 90 ft. below spur, course SW.
	Ascend abruptly.
9.87	Main canyon road, brs. E. and W.
	Leave dense oak, enter scattering oak and service brush and some cedar and pinon timber. Ascend more gradually.
15.00	Point, 125 ft. above creek, falls SW.
	Thence gradually descend land facing nearly W.
27.70	Ravine, 30 ft. below point, course SW.
	Ascend abruptly S. slope.
40.00	250 ft. above ravine on S. slope.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. for secs. 10 and 11, with brass cap marked

S 10 | S 11
¼
1914

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	and raise a mound of stone 3 ft. base, 1½ ft. high W. of cor.
	Continue steep ascent.
49.70	Spur, 250 ft. above ¼ cor., projects SW.
	Gradually descend NW. slope.
50.00	Enter dense oak brush, brs. E. and W.
63.90	Bottom of ravine and stream, 1 lk. wide, 1 in. deep, 60 ft. below spur, course W.
	Leave timber and undergrowth, asc. abruptly over rocky S. slope.
66.00	Bench, 60 ft. above ravine, brs. E. and W. Enter oak, service and sagebrush.
	Gradually ascend across bench.
69.19	Enter scattering maple, brs. NE. and SW.
70.30	Enter exceptionally dense undergrowth, brs. E. and W.
74.60	Leave exceptionally dense undergrowth, enter scattering pine and cottonwood timber. Descend.
75.40	Bottom of ravine, 35 ft. deep, and stream 3 lks. wide, 1 in. deep, course SW.
	Ascend abruptly steep S. slope.
76.70	Leave timber and enter very dense oak and service brush.
78.60	Leave dense oak and service brush, enter dense buck brush.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 2, 3, 10 and 11, with brass cap marked T 18 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, N. exposure on S. 7.40 chs. and S. exposure on N. 72.60 chs.
	Soil, gravelly and rocky with sandy and yellow clay soil on gravelly and sandy clay subsoil, 3rd rate.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Timber, scrub cedar and pinon with some spruce and pine.
	Undergrowth, dense oak, service, sage, buck and maple.
	Some grass, good for grazing purposes.
	Sept. 12: 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 39°16'.
	N.89°52'E. on random line bet. secs. 2 and 11.
40.00	Set temp. ¼ sec. cor.
79.95	Intersect N. and S. line, 2 lks. S. of cor. of secs. 1, 2, 11 and 12.
	Thence I run
	S.89°51'W. on a true line bet. secs. 2 and 11.
	Descend abruptly over rocky land facing SW., through pine and spruce timber and undergrowth of chaparral.
4.00	Leave pine and spruce timber, thence through scattering aspen.
11.10	Ravine, 100 ft. below sec. cor., course S.
	Leave timber thence asc. over S. slope of mountain over loose shale rock and dense undergrowth of oak and service brush.
37.85	Base of limestone ledge, 125 ft. high, brs. NE. and SW.
38.00	Top of ledges, brs. NE. and SW.
	Gradually descend over W. slope of scattering service brush.
39.97½	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the ¼ sec. cor. of secs. 2 and 11, with brass cap marked
	$\frac{S\ 2}{\frac{1}{4}}$ / $\frac{S\ 11}{1914}$
	and dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.
45.50	Enter dense service brush with scattering oak and maple.
51.40	Leave dense service brush, enter dense oak and maple.
68.45	Enter exceptionally dense undergrowth.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
72.75	Leave dense undergrowth, enter scattering pine and spruce
74.15	Stream in ravine, 3 lks. wide, 2 ins. deep, 280 ft. below ¼ sec. cor., course SW.
	Leave timber, enter dense buck and scattering oak brush, brs. NE. and SW.
	Gradually ascend S. slope of mountain.
79.95	35 ft. above ravine. The cor. of secs. 2, 3, 10 and 11.
	Land, mountainous, with general S. exposure.
	Soil, loose shale rock on E. 40 chs. and rich black loam mixed with gravel on W. 39.95 chs.
	Subsoil, generally a sandy clay, rather moist and packed hard.
	Timber, scattering patches of pine, spruce and aspen.
	Undergrowth, dense oak, service, buck, maple and chaparra
	E. 40 chs. too steep for any purpose.
	W. 39.95 chs. good for grazing purposes.
	Sept. 12, 1914.

	Sept. 19: For solar observation see line bet. secs. 3 and 34, N. bdy. of this survey.
	Knowing that closing cors. will be necessary upon the N. bdy: of this tp., I run
	N.0°01'W. on a true line bet. secs. 2 and 3.
	Asc. abruptly over steep rocky S. slope of mountain, through dense undergrowth, buck, service, oak and chaparral.
10.00	Leave dense undergrowth, brs. E. and W.
	Thence up broken shale ledges.
14.30	Base of ledge, brs. E. and W.
15.50	Top of ledges, 120 ft. high, brs. E. and W.
17.20	Top of steep ascent, brs. E. and W. Gradually ascend.
20.60	Top of ridge and divide, Manti and Willow Creek, 900 ft. above sec. cor., brs. E. and W.
	Gradually descend N. slope over dense sage and scattering service and oak brush.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
27.00	Ledge, 30 ft. high, brs. N.70°W. and S.70°E.
	Thence over land sloping W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. to secs. 2 and 3, with brass cap marked S 3 | S 2 ¼ 1914 from which A spruce, 20 ins. dia., bears N.39¾°E., 33 lks. dist., marked ¼ S 2 B T. A spruce, 6 ins. dia., bears S.66°W., 32 lks. dist., marked ¼ S 3 B T.
	Thence through small patch pine and spruce timber, brs. NE. and SW.
41.90	Leave timber, brs. E. and W.
57.84	Thence over rocky W. slope, through sage, oak and buck brush.
81.32	Intersect N. bdy. of tp. 1.12 chs. S.89°24'W. of cor. of secs. 34 and 35 heretofore described. At intersection Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in a mound of stone and earth, 4 ft. base, 2 ft. high, for C.C. to secs. 2 and 3, with brass cap marked T 17 S S 34 | S 35 cc R.3 E. S 3 | S 2 T 18 S 1914 and raise a mound of stone, 2 ft. base, 1½ ft. high S. of cor.
	NOTE: On account of underlying rock I am unable to set post in the ground.
	Land, very rough mountains, S. 20.60 chs. having steep S. slope into Manti Canyon.
	Soil, loose shale rock on rocky subsoil, 4th rate. N. 60.72 chs. rolling mountain top, general N. exposure. Soil, gravelly, rocky and some sandy loam on gravelly and rocky subsoil, 3rd rate.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Timber, a few spruce and pine.
	Undergrowth, oak, service, sage and buck brush.
	Sept. 19, 1914.
	Aug. 18: At 8h 04m a.m., l.m.t., I set off 39°12' on the lat. arc, 13°16'N. on the decl. arc, and determine a meridian at the cor. of secs. 3, 4, 33 and 34 on S. bdy. of Tp., heretofore described.
	Thence I run
	N.0°02'W. bet. secs. 33 and 34.
	Gradually ascend over rolling mountainous land, through dense sagebrush and scattering oak.
3.00	Ridge, brs. NW. and SE.
	Enter pine and spruce timber, brs. NW. and SE.
	Begin descent over rocky N. slope.
4.75	Ledge, 30 ft. high, brs. NE. and SE.
5.00	Base ledge, continue steep descent.
8.85	Enter scattering aspen timber, leave dense spruce and pine.
10.00	Leave scattering aspen timber, enter dense oak brush, brs. E. and W.
13.00	Leave oak brush, enter aspen timber and willow undergrowth brs. E. and W.
15.30	Leave dense aspen timber, brs. E. and W.
16.50	Descend more gradually.
18.55	Base of descent and stream, 4 lks. wide, 2 ins. deep, good water, 430 ft. below ridge, course NW.
	Leave dense willow undergrowth, brs. E. and W.
	Grad. desc. over rolling bench land.
18.95	Old drag road, brs. NW. and SE.
26.75	S. bank of pond with no visible outlet, brs. E. and W.
	Enter pine and spruce timber with aspen.
27.36	Pond extends 3 chs. E. and 3 chs. W.
28.00	N. bank of pond, brs. E. and W.
33.00	Stream, 5 lks. wide, 4 ins. deep, course W.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
37.20	Old road, brs. E. and W. Leave dense timber, enter dense service, oak, sage and chaparral brush.
39.90	Leave dense service brush, enter more oak brush.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. of secs. 33 and 34, with brass cap marked S 33 | S 34 ¼ 1914 from which A spruce, 6 ins. dia., bears S.20¾°E., 31 lks. dist., marked ¼ S 34 B.T. A spruce, 5 ins. dia., bears S.41¾°W., 45 lks. dist., marked ¼ S 33 B.T.
49.90	Descend abruptly into Six Mile Canyon.
53.90	Bottom of Six Mile Canyon and Creek, 15 lks. wide, 12 ins. deep, good water, 110 ft. below ¼ sec. cor., course W. Leave timber, ascend SW. slope through dense undergrowth.
58.95	Canyon road, brs. NW. and SE.
60.10	Spur, 120 ft. above creek, projects W. Gradually descend.
62.75	Ravine and stream, 4 lks. wide, 2 ins. deep, course SW. Enter scattering mohogany, ascend abruptly S. slope.
75.00	Leave mahogany, enter dense oak, brs. E. and W.
75.95	Top bench, 175 ft. above ravine, brs. E. and W. Gradually ascend across bench.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 27, 28, 33 and 34, with brass cap marked T 18 S R 3 E S 28 | S 27 S 33 | S 34 1914 and raise a mound of stone, 3 ft. base, 1½ ft. high W. of cor.
	Land, mountainous with N. and S. exposures into Six Mile Creek.
	Soil, generally a rich black loam and decayed vegetation

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	mixed with gravel on deep, moist, black loam and gravel subsoil, 2nd rate.
	Timber, scattering patches, aspen, pine and spruce.
	Undergrowth, oak, service, sage, willow buck, chaparral and mohogany.
	Considerable grass, good for grazing purposes.
	Aug. 18: At this sec. cor., I set off 13°12'N. on the decl. arc, and at 12h 04m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°13'.
	East on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect N. and S. line 2 lks. S. of cor. of secs. 26, 27, 34 and 35.
	Thence I run
	S.89°59'W. on a true line bet. secs. 27 and 34.
	Over mountainous land through dense pine, spruce and scattering aspen timber and undergrowth of chaparral:
8.50	Leave dense timber, enter service brush, brs. N. and S:
15.25	Enter scattering oak brush, brs. N. and S.
17.10	Pond, about 3 chs. long and 2 chs. wide, brs. S. about 2 chs.
19.10	Outlet of pond, course NW.
	Enter dense aspen timber, brs. NW. and SE.
22.15	Small stream, course NW.
	Enter dense willow undergrowth, brs. N. and S.
23.90	Stream, 1½ lks. wide, 1 in. deep, course SW.
25.00	Leave dense willow undergrowth, enter scattering red cedar timber, brs. N. and S. Ascend.
34.50	Leave dense aspen timber, brs. NE. and SW.
	Thence over broken land facing S.
39.99	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. to secs. 27 and 34, with brass cap marked

S 27
¼
S 34
1914

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	from which
	A pine, 20 ins. dia., bears N.48¾°E.,
	65 lks. dist., marked ¼ S 27 B T.
	A Red Cedar, 10 ins. dia., bears S.41°W.,
	100 lks. dist., marked ¼ S 34 B T.
44.80	Spur, 20 ft. above ¼ sec. cor., projects SW.
	Leave oak, enter scattering aspen timber, brs. N. and S.
	Gradually descend land facing SW.
51.10	Stream, 3 lks. wide, 2 ins. deep, course SW.
	Thence over land facing S.
58.80	Stream 1 lk. wide, 1 in. deep, course S.
	Leave aspen, enter oak and service brush.
	Ascend abruptly over SE. slope.
63.40	Enter bench, 75 ft. above stream, brs. NE. and S.85°W.
	Enter dense oak, thence along S. rim of bench.
70.00	Leave dense oak, thence through dense service brush and scattering oak.
79.98	The cor. of secs. 27, 28, 33 and 34.
	Land rolling mountains, draining SW. into Six Mile Canyon.
	Soil, decayed vegetation, gravelly and rich black loam on gravelly and black loam subsoil, 2nd rate.
	Timber, aspen, pine, spruce and red cedar.
	Undergrowth, dense oak, service, willow, sage and buck brush. Good grass for grazing purposes.
	Aug. 18, 1914.

Aug. 19: At 7h 34m a.m., l.m.t., I set off 39°13' on the lat. arc, 12°57'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34.

Thence I run

N.0°02'W. bet. secs. 27 and 28.

Gradually ascend over rolling mountainous bench land, through undergrowth of sage, oak, service, buck and chaparral.

SUBDIVISION OF T. 18 S. R. 23 E.

Chains	
16.00	W. edge of aspen thicket, brs. NE. and E.
21.80	Enter dense aspen timber, leave oak and sage brush, brs. E. and W.
25.10	Leave all timber and undergrowth, thence across open flat.
33.50	Leave flat, brs. E. and W., enter dense oak and sagebrush Gradually ascend S. slope.
40.00	320 ft. above sec. cor. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. bet. secs. 27 and 28, with brass cap marked S 28 | S 27 $\frac{1}{4}$ 1914 from which An oak, 5 ins. dia., bears S. 61½° E., 132 lks. dist., marked $\frac{1}{4}$ S 27 B T. An oak, 3 ins. dia., bears S. 33° W., 71 lks. dist., marked $\frac{1}{4}$ S 28 B T.
42.10	Leave bench land, bears E. and W. Enter dense undergrowth of service and buck brush, asc. abruptly over S. slope.
57.85	Top of steep ascent and edge of rocky bench, 510 ft. above $\frac{1}{4}$ sec. cor., brs. E. and W. Leave dense oak and service brush, thence across bench through scattering aspen, pine and spruce timber.
64.90	Leave bench and aspen timber, brs. E. and W.
	Thence up steep slope over loose slide rock and boulders.
66.00	Leave boulders.
72.80	Leave pine and spruce timber and oak, service and buck brush, enter dense choke cherry and sagebrush, brs. E. and W.
73.85	Top of steep ascent, gradually ascend.
74.00	Top of ridge and divide, bet. Manti and Six Mile Canyon, 250 ft. above bench, brs. E. and W. Gradually descend over N. slope.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
80.00	25 ft. below divide. Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 21, 22, 27 and 28, with brass cap marked T 18 S R 3 E S 21 | S 22 S 28 | S 27 1914 from which An aspen, 6 ins. dia., bears N.22°W., 125 lks. dist., marked T 18 S R 3 E S 21 B T. No other bearing trees available, dig four pits 18x18x 12 ins., and raise a mound of earth, 3 ft. base, 1½ ft. high W. of cor. Land mountainous, consisting of a series of benches with steep slopes on S. 74 chs., drains S. into Six Mile Canyon; N. 6 chs. rolling mountain top with N. exposure. Soil of benches and mountain top gravelly, sandy and black loam on deep, moist black loam subsoil, 1st rate. Soil of slopes bet. benches gravelly, loose shale rock and rocky on hard clay and shale subsoil, 4th rate. Timber, scattering aspen, pine and spruce. Undergrowth, oak, service, sage, buck and chaparral. Good grass for grazing purposes.
	N.89°59'E. on random line bet. secs. 22 and 27.
40.00	Set temp. ¼ sec. cor.
	Aug. 19: At this station I set off 12°53'N. on the decl. arc, and at 12h 04m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°14'.
80.08	Intersect N. and S. line 20 lks. N. of the cor. of secs. 22, 23, 26 and 27.
	Thence I run N.89°52'W. on a true line bet. secs. 22 and 27. Gradually ascend over rolling mountainous land facing N., through dense aspen and scattering pine and spruce

SUBDIVISION OF T. 18 S., R. 3 E.

Chains	
	timber and undergrowth of chaparral.
6.25	Leave timber and undergrowth, brs. NW. and SE.
	Asc. precipitous NE. slope of divide over boulders and ledges.
20.30	Top of ridge and divide, Manti and Six Mile Canyon, 230 ft. above sec. cor.; brs. NW. and SE.
	Gradually descend along top of divide.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. bet. secs. 22 and 27, with brass cap marked $\frac{S\ 22}{\frac{1}{4}}$ / $\frac{S\ 27}{1914}$ and raise a mound of stone, 3 ft. base, 1½ ft. high N. of cor.
	Cor. stands in bottom of swale in divide.
	Gradually ascend.
51.30	Enter pine, aspen and spruce timber, brs. NE. and SW.
61.60	Top of ascent on ridge of divide bet. Manti and Six Mile Canyon, brs. NE. and SW. 160 ft. above $\frac{1}{4}$ sec. cor.
	Gradually descend along gentle N. slope.
66.75	Leave timber, brs. N. and S., thence through dense undergrowth of sage and choke cherry.
80.08	75 ft. below top of ascent.
	The cor. of secs. 21, 22, 27 and 28.
	Land rolling and rough mountains, following along N. side of divide of mountain.
	Soil, gravelly, rocky and rich black loam on gravelly and sandy subsoil, 3rd rate.
	Timber, some aspen, pine and spruce.
	Undergrowth, sage, choke cherry and chaparral.
	N.0°02'W. bet. secs. 21 and 22.
	Gradually descend over rolling N. slope of divide of mount through dense sage and choke cherry undergrowth.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
5.28	Leave choke cherry, brs. E. and W.
10.50	Enter dense aspen, brs. NE. and SW.
15.90	Leave dense aspen, thence through scattering young aspen.
19.85	Enter scattering pine and spruce timber, brs. E. and W.
21.40	Cease work.

Aug. 19, 1914.

Sept. 14: At 7h 56m a.m., l.m.t., I set off 39°14' on the lat. arc, 3°36'N. on the decl. arc, and determine a meridian with the solar at the point 21.40 chs. N. of cor. of secs. 21, 22, 27 and 28.

Thence I continue N.0°02'W. bet. secs. 21 and 22.

34.40	Top of limestone ledge, 100 ft. high, brs. NW. and SE.
35.00	Base of ledge, brs. NW. and SE. Thence over rough, rocky base, land sloping nearly W., across boulders.
40.00	180 ft. below ledge on steep W. slope amongst boulders. Set an iron post, 3 ft. long, 2 ins. in dia., 12 ins. in the ground and 12 ins. in mound of stone for ¼ sec. cor. bet. secs. 21 and 22, with brass cap marked

S 21 | S 22
¼
1914

from which

A spruce, 5 ins. dia., bears N.14°E.,
106 lks. dist., marked ¼ S 22 B T.
A white pine, 5 ins. dia., bears N.7½°W.,
188 lks. dist., marked ¼ S 21 B T.

NOTE: On account of underlying rock, I am unable to set post more than 12 ins. in the ground.

51.85	Leave rocky land, descend abruptly over steep land facing N. Enter chaparral undergrowth and heavier aspen pine and spruce.
61.80	Base of steep descent, brs. NE. and SW. Thence over bench.
62.95	Stream, 1 lk. wide, 1 in. deep, course NE.
64.80	Enter dense aspen timber, brs. E. and W.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
73.45	Leave dense aspen, enter dense pine and spruce timber.
78.70	Leave dense timber, brs. NE. and SW.
80.00	On E. slope of bench, 800 ft. below ¼ sec. cor. Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 15, 16, 21 and 22 with brass cap marked

T 18 S R 3 E
S 16 | S 15
S 21 | S 22
1914

from which

A spruce, 7 ins. dia., bears N.44¼°E.,
32 lks. dist., marked T 18 S R 3 E S 15 B T.
A spruce, 10 ins. dia., bears S.34°E.,
109 lks. dist., marked T 18 S R 3 E S 22 B T.
A spruce, 9 ins. dia., bears S.69¼°W.,
74 lks. dist., marked T 18 S R 3 E S 21 B T.
A spruce, 10 ins. dia., bears N.17°W.,
20 lks. dist., marked T 18 S R 3 E S 16 B T.

Land, mountainous with general N. exposure from divide bet. Manti and Six Mile Canyon.

Soil, generally a rich black loam mixed with gravel on deep, moist, black loam subsoil, 4th rate. Parts of mile the soil is very rocky.

Timber, aspen, pine and spruce.

Undergrowth, sage, choke cherry and chaparral.

	S.89°52'E. on a random line bet. secs. 15 and 22.
40.00	Set temp. ¼ sec. cor.
	Sept. 14: At this station I set off 3°32'N. on the decl. arc, and at 11h 56m l.m.t., observe the sun on the meridian, the resulting lat. is 39°15'.
80.00	Intersect N. and S. line 14 lks. S. of cor. of secs. 14, 15, 22 and 23.
	Thence I run
	N.89°58'W. on a true line bet. secs. 15 and 22.

SUBDIVISION OF T. 18 S., R. 3 E.

Chains	
	Gradually ascend over rolling land draining N., through pine and spruce timber and undergrowth of chaparral and service brush.
1.00	Enter willow undergrowth, brs. NW. and SE.
5.00	Enter scattering aspen timber, brs. NW. and SE.
9.70	Stream, 3 lks. wide, 1 in. deep, course N.
12.70	Top of ascent, 70 ft. above sec. cor.; gradually descend.
20.82	Old road, brs. NW. and SE.
29.00	Old road, brs. N.20°E. and S.20°W.
30.50	Leave dense timber.
34.85	Thence ascend over small rocky point, leave willow and service.
36.75	Spur, 60 ft. above stream, projects NW. Gradually descend across sagebrush flat.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground and 18 ins. in mound of stone and earth, 4 ft. base, 1½ ft. high, for ¼ sec. cor. to secs. 15 and 22, with brass cap marked S 15 ¼ S 22 1914 from which A pine, 18 ins. dia., bears S.48°W., 18 lks. dist., marked ¼ S 22 B T. A forked pine, 20 ins. dia., bears N.47½°E., 75 lks. dist., marked ¼ S 15 B T. NOTE: On account of underlying rock, I am unable to set post more than 6 ins. in the ground.
54.00	Leave sage flat, enter dense timber, brs. N. and S.
64.75	Enter aspen timber, leave dense pine and spruce.
65.25	Stream, 2 lks. wide, 1 in. deep, course N. Ascend 40 ft.
66.00	Leave aspen, enter pine and spruce timber, bears N. and S.
67.90	Top of ascent, bears NW. and SE. Gradually descend.
68.90	Stream, 3 lks. wide, 1 in. deep, course N. Gradually ascend through scattering timber.

SUBDIVISION OF T. 18 S., R. 3 E.

Chains	
74.20	Enter dense timber, brs. N. and S.
80.00	60 ft. above stream; the cor. of secs. 15, 16, 21 and 22.
	Land rolling mountains, with N. exposure.
	Soil, decayed vegetation and rich black loam mixed with gravel on deep, moist black loam subsoil, 1st rate.
	Timber, aspen, pine and spruce of good quality.
	Undergrowth, chaparral, sage and willow and scattering service.
	Good grass for grazing purposes.
	Sept. 14, 1914.

Sept. 17: At 7h 25m a.m., l.m.t., I set off 39°15' on the lat. arc, 2°28' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.

Knowing that a closing cor. will be necessary at the cor. of secs. 9, 10, 15 and 16, I run N.0°02'W. on a true line bet. secs. 15 and 16.

Gradually descend over mountainous land draining N., through pine, spruce, aspen and maple timber and undergrowth of sage, chaparral and oak brush.

22.60	Enter more scattering timber, brs. E. and W.
32.70	Leave pine and spruce timber, brs. E. and W.
34.00	Old road, brs. NE. and SW. Leave timber.
35.10	Enter dense oak brush, brs. NE. and SW.
40.00	On E. slope of spur in dense oak brush, 400 ft. below sec. cor.

Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. with brass cap marked

S 16 | S 15
$\frac{1}{4}$
1914

from which

An oak, 4 ins. dia., bears N.38$\frac{1}{4}$°E., 18 lks. dist., marked $\frac{1}{4}$ S 15 B T.

An oak, 4 ins. dia., bears S.35°W., 13 lks. dist., marked $\frac{1}{4}$ S 16 B T.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
45.00	Spur, projects NE.
46.00	Descend abruptly over land facing N.
50.00	Base of steep descent, thence over small bench.
53.50	Leave oak brush, enter dense buck brush, brs. E. and W.
57.90	Descend abruptly over N. slope.
59.00	Leave buck brush, enter dense oak and maple, brs. E. and W.
75.50	Base of steep descent, enter E. edge of small open flat, brs. E. and W.
78.25	Leave flat, enter dense buck, service and oak brush; descend abruptly.
80.00	Set temp. point for C. C. to secs. 15 and 16.

Sept. 17, 1914.

Sept. 30: I return to temp. point for C. C. to secs. 15 and 16 and run S. 96 lks. to

79.04 Intersect S. bdy. of sec. 9, 77 lks. S. 88°59' W. of SE. cor. sec. 9, heretofore described. At intersection Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C. C. of secs. 15 and 16, with brass cap marked

T 18 S. R. 3 E.
S 9
S 10
CC
S 16
S 15
1914

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

Land, mountainous with a general N. exposure.
Soil, gravelly, decayed vegetation and rich black loam on deep, moist black loam and gravel subsoil, 2nd rate.
Timber, aspen, pine and spruce.
Undergrowth, oak, service sage, buck and chaparral.

Sept. 30, 1914.

Sept. 15: At 7h 25m a.m., l.m.t., I set off 39°16' on the lat. arc, 3°14' N. on the decl. arc, and determined a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Knowing from previous retracements in this tp. that the line bet. secs. 10 and 15 will not intersect cor. of secs. 9, 10, 15 and 16 within limits, I run N.89°58'W. on a true line bet. secs. 10 and 15. Over mountainous land, gradually descending along N. bank of Manti Creek, through dense undergrowth of oak, service, buck and chaparral.
5.40	Leave dense oak brush, enter scattering aspen timber, brs. N. and S.
15.90	Bottom of Manti Canyon and Creek, 50 lks. wide, 8 ins. deep, good water, 200 ft. below sec. cor., course S.65°W.
	Thence along N. side of creek.
21.60	Same creek, course N.70°W.
	Leave canyon bottom and timber, ascend NE. slope, through dense undergrowth.
40.00	250 ft. above creek. Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. of secs. 10 and 15, with brass cap marked S 10 $\frac{1}{4}$ S 15 1914 and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
40.50	Spur, 10 ft. above $\frac{1}{4}$ cor., projects N. Descend.
42.50	Enter dense oak, brs. N. and S.
45.50	Ravine, 60 ft. below spur, course NW. Ascend.
47.80	Spur, 40 ft. above ravine, projects NW. Leave dense oak. Descend.
49.70	Ravine and stream, 2 lks. wide, 1 in. deep, course N.20°W. Enter scattering maple and cottonwood timber, bears N. and S. Gradually ascend broken land facing N.
51.00	Old road, brs. NW. and SE.
57.50	Leave cottonwood timber, enter dense willow undergrowth, brs. NW. and SE.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
58.25	Leave dense willow undergrowth, thence through dense oak brush, brs. NW. and SE.
58.80	Small stream, 1 lk. wide, 1 in. deep, course N.
61.25	Stream, 2 lks. wide, 1 in. deep, course N.10°E.
62.50	Leave dense oak and maple brush, thence through dense buck, service and scattering oak.
74.00	Spur, 70 ft. above stream, projects N. Descend.
80.00	No trace of cor. of secs. 9, 10, 15 and 16 can be found.
80.40	Set temp. point No. 1 for cor. of secs. 9, 10, 15 and 16.
	Sept. 15, 1914.
	Sept. 30: From temp. point No. 1 for cor. of secs. 9, 10, 15 and 16, I run
	S.89°58'E. 1.37 chs. to
79.03	Intersect N. and S. line 95 lks. N.0°55'W. of SE. cor. sec 9. At intersection
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. of secs. 10 and 15, with brass cap marked

T 18 S R 3 E
S 10
S 9 CC
S 15
S 16
1914

	and raise a mound of stone, 2 ft. base, 1½ ft. high E. of cor.
	Land, mountainous with general N. exposure on S. side near bottom of Manti Canyon.
	Soil, gravelly, rocky and some rich black loam on rocky and loam subsoil, 3rd rate.
	Timber, some aspen and cottonwood.
	Undergrowth, dense oak, service, buck, maple, willow and chaparral.
	Good grass for grazing purposes.
	Sept. 30, 1914.

Sept. 21: At 8h 53m a.m., l.m.t., I set off 39°16' on

Chains	
	the lat. arc, 0°53' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 2, 3, 10 and 11.
	Thence I run
	N.89°58'W. on a random line bet. secs. 3 and 10.
40.00	Set temp. ¼ sec. cor.
41.70	Sept. 21: At this station I set off 0°50'N. on the decl arc, and at 11h. 53m. a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°16'.
80.00	No trace of cor. of secs. 3, 4, 9 and 10 can be found. Set temp. point.
	Sept. 21, 1914.
	Sept. 30: From temp. cor. of secs. 3, 4, 9 and 10, I run
	S.89°58'E. 1.89 chs. to
78.11	Fall 17 lks. N.0°23'E. to cor. of secs. 3, 4, 9 and 10 heretofore described.
	Thence I run
	N. 89°55'E. on a true line bet. secs. 3 and 10.
	Over rough broken mountains, through pinon, cedar and mohogany timber and undergrowth of chaparral.
	Gradually descend over broken limestone ledges, bearing N.70°E. and S.70°W.
12.75	Leave ledges, brs. NE. and SW.
	Desc. abruptly over SE. slope, through scattering timber and dense undergrowth.
26.90	Bottom of ravine, 275 ft. below sec. cor., course S.20°W.
	Asc. abruptly W. slope.
36.40	Spur, 260 ft. above ravine, projects S.
	Leave timber, brs. N. and S.
	Gradually desc. along S. slope, through very dense brush.
38.11	Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground and 6 ins. in mound of stone and earth for ¼ sec. cor. bet. secs. 3 and 10, with brass cap marked

S ¼ 3
S 10
1914

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
42.80	Ravine, 40 ft. below spur, course S. Gradually ascend SW. slope.
57.26	Ridge of spur, 125 ft. above ravine, brs. NE. and SW. Leave dense undergrowth, gradually ascend over SE. slope.
63.10	Enter dense buck, service and oak brush, brs. N. and S.
78.11	210 ft. below ridge; the cor. of secs. 2, 3, 10 and 11. Land, rough broken mountains, facing S. near top of divide bet. Manti and willow Creek.
	Soil, loose shale rock of limestone formation and hard dry clay on shale and rock subsoil, 4th rate.
	Timber, scrub cedar, pinon and mahogany on W. 36.40 chs.
	Undergrowth, dense buck, oak, service, sage and chaparral.
	Sept. 30, 1914.

Aug. 24: At 7h 02m a.m., l.m.t., I set off 39°13'N. on the lat. arc, 11°18'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34.

Having retraced the line bet. secs. 32 and 33, and knowing that the line bet. secs. 28 and 33 will not intersect cor. of secs. 28, 29, 32 and 33 within limits, I survey line bet. secs. 28 and 33 as follows:

	West on a true line bet. secs. 28 and 33.
	Gradually descending over rolling bench land through exceptionally dense undergrowth of oak, service, sage and buck brush.
4.20	Leave dense undergrowth, brs. N. and S.
10.10	Enter dense undergrowth; desc. more abruptly.
11.65	Desc. abruptly from bench, brs. NW. and SE.
16.54	Bottom of ravine, 240 ft. below sec. cor., course S. N. 20 lks. from line is a spring, 3 lks. in dia., flows stream 3 lks. wide, 1 in. deep, course S. S. 15 lks. from line is a spring 3 lks. in dia., flows stream of good water, 3 lks. wide, 2 ins. deep, course S.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Thence over land sloping nearly S., through very dense brus
25.50	Leave dense undergrowth, brs. N. and S.
27.40	Enter scattering willow and alder undergrowth, brs. N. and S.
29.75	Stream, 2 lks. wide, 2 ins. deep, course S. 80° W.
35.00	Same stream, course at bend, from SE. and SW.
	Leave willow and alder undergrowth, brs. NE. and SW.
	Gradually ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. to secs. 28 and 33, with brass cap marked S 28 $\frac{1}{4}$ S 33 1914 raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
40.50	Leave oak brush, brs. NE. and SW.
56.30	Spur, 50 ft. above $\frac{1}{4}$ sec. cor., projects S.
	Gradually descend over nearly S. slope.
65.05	Enter scattering patches of oak brush, brs. N. and S.
70.50	Enter scattering buck brush and scrub cedar timber.
81.46	Intersect N. and S. line 72 lks. N. of the NE. cor. of sec. 32. At intersection
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for NW. cor. of sec. 33 with brass cap marked T 18 S R 3 E S 29 | S 28 S 32 | S 33 1914 from which A cedar, 8 ins. dia., bears S. 71° 45' E., 84 lks. dist., marked T 18 S R 3 E S 33 B T.
	Land mountainous, with general S. exposure.
	Soil, gravelly and rocky mixed with hard, dry blue clay on gravelly and clay subsoil, 3rd rate.
	Timber, scrub cedar and pinon.
	Undergrowth oak, service, sage, buck, willow, alder and chaparral.
	Some grass, good for grazing purposes.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Aug. 24: At this cor. I set off 11°13'N. on the decl. arc, and at 12h 02m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°13'.
	Having retraced lines bet. secs. 32 and 33, 29 and 32 and bet. secs. 30 and 31 and finding them to be in most cases out of limits, I therefore run a sectional correction line west bet. secs. 21 and 28, 20 and 29 and 19 and 30 to properly close my new surveys against the old work.
	Aug. 22: At 8h 03m a.m., l.m.t., I set off 39°14' on the lat. arc, 11°57'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.
	Thence I run
	West on sectional correction line bet. secs. 21 and 28.
	Gradually descend along N. slope near top of divide bet. Manti and Six Mile Canyons, through dense undergrowth of sagebrush and scattering choke cherry.
13.00	Leave choke cherry, enter dense aspen timber, brs. N. and S.
15.50	Enter scattering pine and spruce timber, brs. N. and S.
23.10	Leave dense aspen timber, brs. N. and S.
24.70	Descend abruptly over NW. slope from divide. Enter dense timber.
28.50	Enter dense aspen timber and base of steep descend. Gradually desc. into rocky ravine.
33.50	Bottom of ravine, 275 ft. below sec. cor., course N. Gradually ascend.
36.50	Rock point on divide, 50 ft. above ravine, falls NE. Thence along rough rocky N. slope near top of divide.
40.00	Point for $\frac{1}{4}$ sec. cor. on ledge; cor. cannot be set.
40.20	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for W.C. to $\frac{1}{4}$ sec. cor. of secs. 21 and 28, with brass cap marked

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	T 18 S R 3 E S.21 WC¼ S 28 1914 from which
	A spruce, 5 ins. dia., bears S.42°W., 13 lks. dist., marked WC¼ S 28 B T.
	A spruce, 13 ins. dia., bears N.45°W., 12 lks. dist., marked WC¼ S 21 B T.
41.20	Cross divide bet. Manti and Six Mile Canyon, brs. NW. and S.85°E. Thence on S. slope draining into Six Mile Creek.
49.60	Cross same divide, brs. NE. and SW. Thence over land draining N. into Manti Creek. Gradually descend.
51.40	Leave timber, thence through dense sagebrush, brs. N. and S.
66.90	Leave sage, enter dense pine and spruce timber, brs. N. and S.
77.35	Leave timber, enter sagebrush, brs. N. and S.
78.50	Bottom of ravine, 300 ft. below divide, course N. Gradually ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 20, 21, 28 and 29, with brass cap marked

T 18 S R 3 E

S 20	S 21
S 29	S 28

1914

from which

A spruce, 8 ins. dia., bears N.22½°E., 221 lks. dist., marked T 18 S R 3 E S 21 B.T.

A spruce, 9 ins. dia., bears S. 61½°E., 275 lks. dist., marked T 18 S R 3 E S 28 B.T.

A spruce, 8 ins. dia., bears S.61¾°W., 111 lks. dist., marked T 18 S R 3 E S 29 B T.

An aspen, 7 ins. dia., bears N.65¾°W., 133 lks. dist., marked T 18 S R 3 E S 20 B T.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains

Land, rolling mountains following along N. and S. slopes of divide bet. Manti and Six Mile Canyon.

Soil, light, shallow loam mixed with gravel and rocks on deep, moist, black loam and gravel subsoil, 3rd rate.

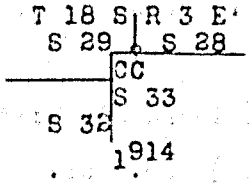
Timber, pine, spruce and aspen; good quality.

Undergrowth, sage, choke cherry and chaparral.

Knowing that the line bet. secs. 28 and 29 will not close within limits on the N.bdrs.of secs. 32 and 33, I run S.0°03'E. on random line bet.secs. 28 and 29 for dist.only.

80.26 Intersect E. and W. line, 1.40 chs. E. of NW. cor. of sec. 33. At intersection

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for CC to secs. 28 and 29, with brass cap marked



from which

An oak, 5 ins. dia.,bears N.65½°E.,
85 lks. dist.,marked T 18 S R 3 E S 28 B T.

A cedar, 8 ins. dia.,bears N.37°W.,
64 lks. dist.,marked T 18 S R 3 E S 29 B T.

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

Gradually ascend through scattering cedar and pinon pine.

7.31 Top of ascent, bears SW

Enter dense oak, bears

10.61 Ravine, 50 ft. below top of ascent, course SW.

Leave dense oak brush, gradually ascending.

26.41 Enter dense undergrowth of oak, bears E. and W.

28.86 Leave dense oak, brs. E. and W., enter dense service brush.

36.01 Begin abrupt ascent, through exceptionally dense service brush, W. exposure.

38.78 Top of ascent, bench brs. E. and W.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
39.76	Enter dense undergrowth; leave timber.
	Aug. 24: For solar observation see line bet. secs. 28 and 33.
	Aug. 22, 1914.
40.13	420 ft. above divide.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. of secs. 28 and 29, with brass cap marked
	S 29 | S 28
	$\frac{1}{4}$
	1914
	from which
	A pinon, 7 ins. dia., bears S.14°E.,
	73 lks. dist., marked $\frac{1}{4}$ S 28 B T.
	An oak, 4 ins. dia., bears N.80°W.,
	11 lks. dist., marked $\frac{1}{4}$ S 29 B T.
	Gradually ascend along bench.
46.26	Leave bench, brs. E. and W. Ascend abruptly through exceptionally dense sage, service and choke cherry to divide.
73.72	Divide, Manti and Six Mile Canyon, brs. E. and W., 680 ft. above $\frac{1}{4}$ sec. cor.
76.06	Leave dense sage, service and choke cherry, enter aspen thicket.
78.96	Leave aspen thicket, brs. NW. and SE.
80.26	The cor. of secs. 28, 29, 32 and 33.
	Land mountainous with N. exposure and draining N. into Manti Creek on N. 6.54 chs. and S. exposure and drains S. into Six Mile Creek on S. 73.72 chs.
	Soil, gravelly, rocky and some rich loam on gravelly and rocky subsoil, 4th rate. Some loose shale and blue clay soil on steep slopes.
	Timber, some aspen and pine, but generally scrub cedar and pinon.
	Undergrowth, dense oak, service, buck and sagebrush.
	Aug. 24, 1914.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Aug. 22: For solar observation see line bet. secs. 21 and 28.
	From the cor. of secs. 20, 21, 28 and 29, I run N.0°03'W. bet. secs. 20 and 21.
	Gradually descend over rolling mountainous land, draining N., through dense undergrowth of sagebrush and scattering aspen and pine timber.
8.50	Ravine, 50 ft. below sec. cor., course NW.
	Thence over land facing W.
22.00	Enter dense choke cherry, brs. NW. and SE.
28.00	Leave choke cherry.
32.50	Begin steep descent over land facing NW.
40.00	360 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor. to secs. 20 and 21, with brass cap marked
	S 20 | S 21 ¼ 1914
	from which
	A pine, 8 ins. dia., bears N.88¼°E., 41 lks. dist., marked ¼ S 21 B T.
	A pine, 6 ins. dia.; bears S.33¼°W., 44½ lks. dist., marked ¼ S 20 B T.
	Aug. 22: at this cor. I set off 11°54'N. on the decl. arc, and at 12h 03m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°14'.
	Aug. 28, 1914.
	Sept. 28: At 7h 51m a.m., l.m.t., I set off 39°14' on the lat. arc, 1°50'S. on the decl. arc, and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 20 and 21.
	Thence I continue
	N.0°03'W. bet. secs. 20 and 21.
	Continue gradual descent.
45.10	Ravine, 55 ft. below ¼ sec. cor., course NW.
	Enter oak brush, brs. E. and W. Gradually ascend.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
47.45	Spur, 20 ft. above ravine, projects NW.
	Gradually descend nearly N. slope.
67.00	Leave all timber, enter scattering maple, brs. E. and W.
80.00	360 ft. below spur.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 16, 17, 20 and 21 with brass cap marked

T 18 S R 3 E

S 12	S 16
S 20	S 21

1914

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

Land mountainous with general N. exposure.

Soil, gravelly and rich black loam on deep, moist, gravel and black loam subsoil, 2nd rate.

Timber, pine, spruce and aspen.

Undergrowth, oak, sage, service, buck and maple.

Considerable grass, good for grazing purposes.

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

40.00 Set temp. ¼ sec. cor.

79.98 Intersect N. and S. line 5 lks. S. of cor. of secs. 15, 16, 21 and 22.

Thence I run

S.89°58'W. on a true line bet. secs. 16 and 21.

Over mountainous land covered with dense undergrowth of sage, oak and chaparral and scattering pine and spruce timber.

Ascend E. slope.

1.25 Leave timber, brs. N. and S.

5.70 Enter pine and spruce timber, brs. N. and S.

7.80 Top of spur, 70 ft. above sec. cor., projects N.

Leave timber, gradually descend W. slope of dense sage.

11.75 Leave sagebrush, enter dense aspen timber, brs. N. and S.

14.86 Enter swamp and dense willow undergrowth, brs. NE. and SW.

SUBDIVISION OF T.18 S., R.3 E.

Chains.	
15.40	Stream, 4 lks. wide, 1 in. deep, course N. Small pond 105 ft. below spur, bears N. about 2.00 chs.
16.25	Leave swamp and willow undergrowth, bears NE. and SW. Ascend abruptly over E. slope.
17.70	Leave aspen timber; enter pine and spruce, bears N. and S.
23.05	Ridge, 210 ft. above swamp, bears N. and S. Descend gradually over NW. slope through scattering timber and undergrowth of oak, sage and service brush.
39.99	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked S 16 $\frac{1}{4}$ S 21 1914 from which A spruce, 5 ins. dia., bears N. $3\frac{3}{4}$° E. 21 lks. dist., marked $\frac{1}{4}$ S 16 B T A spruce, 10 ins. dia., bears S. $45\frac{1}{2}$° E. 17 lks. dist., marked $\frac{1}{4}$ S 21 B T Corner stands on E. edge of dense patch of spruce and pine timber, 280 ft. below ridge.
41.70	Leave dense timber, bearing NW. and SE. Thence over rolling N. slope of mountain.
56.15	Ravine, 160 ft. below $\frac{1}{4}$ sec. cor., course N. Gradually asc.
58.05	Top of rock and ascent, 15 ft. above ravine, leave timber and enter dense undergrowth, bears N. and S. Gradually descend.
73.80	Ravine, 120 ft. below rock, course NW. Enter dense maple undergrowth and aspen timber, bears N. and S. Ascend.
74.40	Leave aspen timber, bears NW. and SE.
75.70	Spur, 20 ft. above ravine, projects N. Gradually descend.
78.43	Small swamp, 25 lks. wide, 1 ch. long, bears S. 20 lks.
79.98	The cor. of secs. 16, 17, 20, and 21.
	Land, mountainous, draining N.
	Soil, gravelly, decayed vegetation and rich black loam, on deep, moist, black loam and gravel subsoil; 2d rate.
	Timber, pine, spruce and aspen.

SUBDIVISION OF T.18 S., R.3 E.

Chains.	
	Undergrowth, dense oak, service, sage, buck and maple. Considerable grass, good for grazing purposes. Sept. 28: The sky is overcast at noon, observations for lat. are impossible.
	Knowing that the line bet. secs. 16 and 17 will not intersect cor. of secs. 8, 9, 16, and 17 within limits, I run N. 0° 03' W. on a true line bet. secs. 16 and 17, Over rolling mountainous land with general N. exposure; through undergrowth of oak, maple, service and sage-brush. Gradually descend.
10.10	Enter dense undergrowth, bears E. and W.
16.50	Leave dense undergrowth; thence along W. slope of low spur.
37.86	Nov. 29, 1916: Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. E. bdy. sec. 17, with brass cap marked $\frac{1}{4}$ S 17 | 1916 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
40.00	Sept. 28, 1914: 360 ft. below sec. cor. Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap marked | S $\frac{1}{4}$ 16 1914 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high E. of cor.
60.00	Begin precipitous descent over land facing N. into Manti Canyon.
61.40	Sandstone ledge, 30 ft. high, bears E. and W.
71.00	Base of steep descent; descend more gradually along E. slope near bottom of ravine,
77.86	450 ft. below $\frac{1}{4}$ sec. cor. Intersect E. and W. line 2.19 chs. S. 89° W. of point for cor. of secs. 8 and 9. At intersection Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for closing cor. secs. 16 and 17 with brass cap

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	marked T 18 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 S. of cor.
	I destroy all marks on cor. of secs. 8, 9, 16 and 17 referring to secs. 16 and 17.
	Land rolling mountains, gentle N. exposure S. 60 chs., steep N. slope of mountain on N. 17.86 chs.
	Soil, gravelly, decayed vegetation, rocky and some rich black loam on gravelly and moist black loam subsoil, 3rd rate. No timber.
	Undergrowth, dense oak, service, maple, sage and buck brush.
	Some grass, good for grazing purposes.
	No timber.
	Sept. 28, 1914.
	Aug. 22: For solar observation see line bet. secs. 21 and 28.
	From the cor. of secs. 20, 21, 28 and 29, I run
	West on sectional correction line bet. secs. 20 and 29.
	Over mountainous land draining N., through dense undergrowth of sagebrush. Gradually ascend N. slope of divide bet. Manti and Six Mile Canyon.
1.50	Enter dense aspen, pine and spruce timber, brs. N. and S. Continue through scattering undergrowth, service and chaparral.
6.00	Leave aspen timber, brs. N. and S.
13.95	Spur, 160 ft. above sec. cor., projects NW.
	Leave timber and enter dense sage and service brush. Gradually descend over W. slope.
37.50	Ravine, 275 ft. below spur, course NW.
	Enter dense pine and spruce timber.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Gradually ascend NE. slope.
40.00	35 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. to secs. 20 and 29, with brass cap marked
	$\frac{S\ 20}{\frac{1}{4}}$ / S 29 / 1914
	from which
	A spruce, 12 ins. dia., bears south, 67 lks. dist., marked $\frac{1}{4}$ S 29 B T.
	A spruce, 13 ins. dia., bears N.23°W., 53 lks. dist., marked $\frac{1}{4}$ S 20 B T.
	Aug. 22, 1914.
	Aug. 25: At 8h 02m a.m., l.m.t., I set off 39°14' on the lat. arc, 10°56'N. on the decl. arc, and determine a meridian with the solar at the $\frac{1}{4}$ cor. bet. secs. 20 and 29.
	Thence I continue
	West bet. secs. 20 and 29.
	Continue ascent, through dense timber.
47.50	Spur, 50 ft. above $\frac{1}{4}$ sec. cor., projects N.
	Leave timber, gradually descend over NW. slope of divide through dense undergrowth of sage and scattering service and buck brush.
80.00	250 ft. below spur.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 19, 20, 29 and 30, with brass cap marked
	T 18 S R 3 E S 19 | S 20 S 30 | S 29 1914
	and dig pits 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of stone 3 ft. base, 1½ ft. high W. of cor.
	Land, mountainous with general N. exposure from divide bet. Manti and Six Mile Canyon.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Soil, gravelly, rocky and rich black loam on black loam and gravelly subsoil, 2nd rate.
	Timber, scattering patches of pine, spruce and aspen.
	Undergrowth, dense sage, service, buck, oak and chaparral.
	Considerable bunch grass, good for grazing.
	Knowing that a closing cor. for secs. 29 and 30 will be necessary at the cor. of secs. 29, 30, 31 and 32, I run S.0°03'E. on a true line bet. secs. 29 and 30.
	Gradually ascend over mountainous land sloping NW. through dense undergrowth of sage and scattering service, oak and buck brush.
12.50	Enter scattering mahogany, pinon and cedar timber, brs. E. and W.
13.10	Divide, Manti Canyon and Six Mile Canyon, 130 ft. above sec. cor., brs. E. and W. Leave sagebrush.
	Desc. abruptly SW. slope of divide, over loose shale rock and through pinon and cedar timber.
32.05	Spur, projects SW. Desc. abruptly over rocky S. slope.
40.00	On steep S. slope of spur, 600 ft. below divide.
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. to secs. 29 and 30, with brass cap marked S 30 | S 29 $\frac{1}{4}$ 1914
	from which
	A pinon, 18 ins. dia., bears S. 18$\frac{3}{4}$°E., 26 lks. dist., marked $\frac{1}{4}$ S 29 B T.
	A pinon, 6 ins. dia., bears N. 87$\frac{1}{4}$°W., 57 lks. dist., marked $\frac{1}{4}$ S 30 B T.
44.00	Ravine, 125 ft. below $\frac{1}{4}$ cor., course SW. Asc. abruptly.
53.20	Spur, 60 ft. above ravine, projects SW. Desc. abruptly.
57.30	Ravine, 120 ft. below spur, course SW. Gradually asc.
68.15	Spur, 100 ft. above ravine, projects SW. Gradually desc.
79.20	Canyon road, brs. E. and W.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
79.70	Bottom of Six Mile Canyon and creek, 30 lks. wide, 10 ins. deep, 175 ft. below spur, course W. Ascend.
81.54	20 ft. above creek. Intersect E. and W. line, 1.03 chs. N.89°49'E. of cor. of secs. 31 and 32 heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for CC. to secs. 29 and 30, with brass cap marked

T 18 S | R 3 E

S 30 | S 29

CC

S 31 | S 32

1914

from which

A pine, 10 ins. dia., bears N.14¾°E., 99 lks. dist., marked CC T 18 S R 3 E S 29 B T.

A yellow pine, 10 ins. dia., bears N.45½°W., 68 lks. dist., marked CC T 18 S R 3 E S 30 B T.

Land mountainous, draining NW. on N. 13.10 chs., S. on next 66.60 chs. and N. on S. 1.84 chs. S.68.44 chs.

Steep rocky slopes of Six Mile Canyon.

Soil, gravelly, rocky and loose shale rock on rocky sub-soil, 4th rate, with exception of N. 13.10 chs. where considerable rich loam and gravel soil is found.

Timber, scrub cedar, pinon and mahogany.

Some yellow pine is found in bottom of canyon.

Undergrowth, sage, service, oak and buck brush.

Aug. 25, 1914.

Aug. 26: For solar observation see line bet. secs. 25 and 30, W. bdy. of this tp., page 2 of this book.

Aug. 26: I was not on line at noon, therefore observations for lat. were impossible.

Knowing that closing cors. are necessary upon the W. bdy. of the tp., I begin at the cor. of secs. 19, 20, 29 and 30, and run

West on a true sec. correctional line bet. secs. 19 and 30.

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	Gradually descend over rolling mountainous land facing and draining NW., through dense undergrowth of sage and scattering service brush.
14.00	Enter scattering oak brush, brs. N. and S.
	Leave dense sage.
33.50	Enter exceptionally dense oak and maple, brs. N. and S.
37.00	Leave dense oak and maple, thence through scattering oak and buck brush.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for the $\frac{1}{4}$ sec. cor. of secs. 19 and 30, with brass cap marked S 19 $\frac{1}{4}$ S 30 1914 dig pits 18x18x12 ins. E. and W. of post 3 ft. dist. and raise a mound of earth 3 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
51.00	Cross top of spur, 350 ft. below sec. cor., projects NW.
	Leave dense undergrowth, thence descend over SW. slope through cedar and pinon timber and over loose shale rock.
78.50	Ravine, 600 ft. below spur, course NW.
	Ascend NE. slope. Enter dense undergrowth.
80.00	Set temp. point for CC of secs. 19 and 30.
	Aug. 26, 1914.
	Sept. 25: From temp. point CC of secs. 19 and 30, I run E. .05 chs. to
79.95	Intersect N. and S. line .90 chs. N.0°10'E. of cor. of secs. 24 and 25, T. 18 S.R. 2 E. heretofore described.
	At intersection Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. to secs. 19 and 30, with brass cap marked T 18 S R 2 E | R 3 E S 24 CC | S 19 S 25 | S 30 1914

SUBDIVISION OF T. 18 S. R. 3 E.

Chains	
	from which
	A pine, 7 ins. dia., bears N.73½°E.,
	144 lks. dist., marked CC T 18 S R 3
	E S 19 B T.
	A pine, 4 ins. dia., bears S.54°E.,
	145 lks. dist., marked CC T 18 S R 3
	E S 30 B T.
	Land mountainous with NW. exposure on E. 51 chs. and SW. exposure on W. 28.95 chs. General drainage to the W.
	Soil, gravelly, loose shale rock and light, warm black loam on gravelly and sandy loam subsoil, 3rd rate.
	Timber, scrub cedar and pinon.
	Undergrowth, sage, oak,-buck, service and maple.
	Aug. 26, 1914.
	Aug. 25: For solar observation see W. ½ mile bet. secs. 20 and 29.
	From the cor. of secs. 19, 20, 29 and 30, I run N.0°03'W. on a random line bet. secs. 19 and 20.
40.00	Set temp. ¼ sec. cor.
	Aug. 25: At this station I set off 10°52'N. on the decl. arc, and at 12h 02m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°14'.
	Sept. 29: For solar observation see line bet. secs. 17 and 20.
	From temp. ¼ sec. cor., I continue N.0°03'W. on a random line bet. secs. 19 and 20.
74.10	Intersect E. and W. line 25 lks. W. of the cor. of secs. 18 and 19, heretofore described. Thence I run S.0°09'W. on a true line bet. secs. 19 and 20.
	Over mountainous land draining NW., through dense undergrowth of oak brush. Gradually descend.
.50	Small ravine, drains NW. Ascend abruptly 50 ft. to
5.00	Low spur, projects NW. Gradually descend SE. slope.
11.60	Ravine, 40 ft. below spur, course W. Asc. S. slope of mountain.

Chains.

21.60 Enter dense oak, service and choke cherry brush, bearing E. and W.

27.35 Leave dense high undergrowth, bearing E. and W.

34.10 650 ft. above sec. cor.

Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for $\frac{1}{4}$ sec. cor. to secs. 19 and 20, with brass cap marked

$$S\ \tfrac{1}{4}\ 19 \mid S\ 20$$
$$1914$$

and raise a mound of stone 3 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Continue steep ascent.

41.00 Top of steep ascent and edge of rolling mountain ridge, 200 ft. above $\frac{1}{4}$ cor., bears E. and W.

Leave dense undergrowth; thence over rolling mountain top.

54.30 Leave mountain top; enter dense buck and sage brush, bearing E. and W. Descend over S. slope.

64.50 Ravine, 60 ft. below ridge, course SW. Leave dense buck brush; thence gradually ascend NW. slope through dense sage.

74.10 50 ft. above ravine; the cor. of secs. 19, 20, 29, and 30.

Land, mountainous with N. drainage on N. 54.30 chs., and W. drainage on S. 19.80 chs.

Soil, gravelly and rocky with some black loam, on gravel subsoil; 3d rate.

No timber.

Undergrowth, dense oak, service, sage, choke cherry, and buck brush.

Considerable grass, good for grazing purposes.

Sept. 29, 1914.

Sept. 29: At 7h 51m a.m. l.m.t., I set off 39° 15' on the lat. arc; 2° 13' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16, 17, 20, and 21.

Chains.	
	West on random line bet. secs. 17 and 20,
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.60	Intersect N. and S. line 6.07 chs. N. 0° 46' E. of the cor. of secs. 18 and 19, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 17 and 20, with brass cap marked

T 18 S R 3 E
S 18 | S 17
CC
S 20
S 19
1914

	and raise a mound of stone 2 ft. base, 1½ ft. high E. of cor.
	East on true line bet. secs. 17 and 20,
	Ascending gradually over west slope.
5.60	Ridge bears NW. and SE.
7.00	Enter spruce and pine timber, scattering, bearing NW. and SE. Descend over NE. slope.
21.60	Foot of descent.
24.00	Ravine 155 ft. below ridge, course NW. Leave scattering spruce and pine timber; thence through scattering cedar and pinon pine, bearing N. and S. Ascending abruptly.
39.80	Set an iron post 3 ft. long, 1 in. in dia. 24 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

$\frac{S_{\frac{1}{4}}\ 17}{S\ 20}$
1914

	and raise a mound of stone 3 ft. base, 1½ ft. high N. of cor.; 450 ft. above ravine.
	Leave scattering pinon pine and cedar. Ascend abruptly over W. slope of bench land bearing N. and S.; through undergrowth of oak, service, buck, sage and maple.
41.10	Top of abrupt ascent. Ascend gradually.
61.50	Spur, projects N. Descend gradually.
67.60	Ravine 50 ft. below spur, course NW. Ascend gradually over rolling bench land, draining N.
79.60	The cor. of secs. 16, 17, 20, and 21.

SUBDIVISION OF T.18 S., R. 3 E.

Land, rolling bench on E.3.50 chs., and rough, mountainous land on remaining part of mile; general drainage to the N.

Soil, gravelly and rocky, with some black loam and decayed vegetation on gravelly and rocky subsoil; 4th rate.

Timber, scrub cedar, pinon, and some spruce and pine.

Undergrowth, dense oak, sage, service, buck and maple.

Some grass, good for grazing purposes.

Sept.29: Sky overcast at noon; observation for lat. impossible.

Sept.29, 1914.

BOUNDARIES OF T.18 S., R.3 E.

Latitudes, Departures, and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes, N.	Latitudes, S.	Departures, E.	Departures, W.
		chs.	chs.	chs.	chs.	chs.
South Boundary	West	321.27	.....	.....	.....	321.27
W.bdy.sec.33	N. 0°32'E.	39.44	39.44	.....	.37	.....
W.bdy.sec.33	N. 0°41'W.	39.95	39.95	.....	.....	.48
S.bdy.sec.29	S.89°35'W.	39.73	.....	29	.....	39.73
S.bdy.sec.29	S.89°49'W.	39.95	.....	13	.....	39.95
N.bdy.sec.31	S.89°27'W.	43.08	.....	.41	.....	43.08
N.bdy.sec.31	S.87°56'W.	37.38	.....	1.35	.....	37.36
W.bdy.sec.30	North	39.93	39.93	.....	.....	.....
W.bdy.sec.30	N. 2°14'E.	42.23	42.21	.....	1.65	.....
W.bdy.sec.19	N. 0°10'E.	74.45	74.45	.....	.22	.....
N.bdy.sec.19	S.89°30'E.	40.06	.....	.35	40.06	.....
N.bdy.sec.19	N.88°53'E.	39.94	.78	.....	39.93	.....
E.bdy.sec.18	N. 0°46'E.	82.25	82.25	.....	1.10	.....
W.bdy.sec.8	N. 0°46'E.	82.25	82.25	.....	1.10	.....
N.bdy.sec.8	N.89°34'E.	80.06	.60	.....	80.06	.....
N.bdy.sec.9	N.89°29'E.	78.62	,71	.....	78.62	.....
W.bdy.sec.3	N. 0°23'E.	80.75	80.75	.....	.54	.....
N.bdy.sec.3	N.89°41'E.	39.25	.22	.....	39.25	.....
N.bdy.sec.3	N.89°24'E.	39.18	.42	.....	39.18	.....
N.bdy.sec.2, W½	N.88°43'E.	39.57	.88	.....	39.56	.....
E½ sec.2 and N.bdy.sec.1	N.89°18'E.	118.77	1.42	.....	118.77	.....
East Boundary	South	483.64	.....	483.64	.....	.....
Convergency					.47	
	Totals		486.26	486.17	480.88	481.87
	Errors in lat.and dep.		486.17			480.88
			.09			.99

SUBDIVISION OF T. 18 S. R. 3 E.

GENERAL DESCRIPTION

This township is rough and mountainous and is situated on the W. slope of one of the main spurs of the Wasatch Mountains, the elevation being about 8000 ft. above sea. The soil is generally a rich black loam and decayed vegetation mixed with gravel, very moist and packed hard, this being due to the great amount of rainfall to which this portion of the country is subject. On the steep slopes of the canyons a considerable amound of loose shale rock of limestone formation and light blue clay soil is found.

The township is well watered by Manti and Six Mile Creeks which flow in deep canyons through the township in a westerly direction to San Pete Valley and there used for irrigation. In the NE. part Willow Creek flows in a NW. direction. Separating these streams are high ridges bearing in an easterly and westerly direction. In the E. part and especially on the N. slopes of the ridges considerable aspen, spruce, pine and balsam fir timber is found. This timber is of good quality. The aspen timber predominates and may be found on most any part of the township, the larger timber being found only on the N. slopes of ridges and on the two east ranges of secs. In the western part considerable scrub cedar and pinon timber is found. With the timber dense undergrowth of chaparral, choke cherry, willow, maple, rose brush and other shrubs are found and where the land is not timbered dense oak, service, sage and buck brush usually grows in large quantities and in parts is very high and dense. The land produces an abundant growth of rich grasses, excellent for grazing purposes.

The Manti City power plant is situated in the SW¼ of sec. 8 and supplies Manti City, which is situated in sec. 12, T. 18 S. R. 2 E., with electricity.

A small saw mill is operating in sec. 12, the timber used at this mill being brought from T. 18 S. R. 4 E. Not seen from line.

There are no settlers in the township.

I find no indications of mineral in the township.

Aside from the value of the timber, this township is important chiefly for the grazing of sheep and cattle during the summer months.

Howard W. Miller

U.S.Surveyor.

4—680

BOOK A-431

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, and Robert E. Clark, U.S. Surveyor and U.S. Transitmen Howard W. Miller & Thos. C. Rathbone, ~~U.S. Surveyor~~, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of survey of N., E., S. & W. bdrs. and subdivision of T. 18 S., R. 4 E.; Resurvey W. bdy. and survey N. and E. bdrs. and subdivision of T. 17 S., R. 4 E.: Retracement and resurvey N. and W. bdrs. and subdivision and survey of W. bdy. and subdivision of T. 16 S., R. 4 E.; Retracement and resurvey N. and S. bdrs. and subdivision and survey of subdivision of T. 16 S., R. 3 E. Survey of the S. bdy. of T. 18 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.	
Louis Dorius	July 26, 1913	August 14, 1913	ax man flagman.
Lucafe Peterson	July 25, 1913	September 13, 1913	cornerman.
Rellix Dorius.	August 3, 1913	September 23, 1913	ax man flagman
	September 16, 1913	October 4, 1913	cornerman
Evan Jensen	July 25, 1913	October 24, 1913	ax man
Leslie A. Jensen	July 24, 1913	October 29, 1913	cornerman
Wesley Baker	July 22, 1913	December 3, 1913	Chainman
Kimball Peterson	October 2, 1913	November 22, 1913	cornerman ax man
Theo Jensen	October 30, 1913	November 22, 1913	cornerman ax man
Lucas Jensen	July 24, 1913	September 30, 1913	chainman
Anthon Anderson	October 30, 1913	December 7, 1913	ax man cornerman
Ernest Braithwaite	October 29, 1913	December 7, 1913	ax man
Ryland M. Riley.	July 24, 1913	December 1, 1913	Chainman
Gordon Bourne	October 25, 1913	December 7, 1913	chainman
Carl Ray	July 24, 1913	December 1, 1913	chainman

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

6—2764

~~U. S. Surveyor.~~

Continuation of certificate of assistants on sheet No. 2

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuanc
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 Surveyin
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 i
the foregoing field notes 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 _____ and in the specific manner described in the field notes, and tha
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.

_____
U. S. Surveyor General.

4—680

Sheet No. 2

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.	
Earl Peterson	July 25, 1913	December 1, 1913	cooperman & axman
Edward Nelson	July 25, 1913	December 1, 1913	ax man & chainman
Less Parkison	November 10, 1913	December 2, 1913	ax man.

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.

~~We, Howard W. Miller & Thos. C. Rathbone~~ S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 31 day of July, 1913, 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 N. & W. bdrs. and subdivision of T. 18 S., R. 4 E.; Resurvey W. bdy. and survey and E. bdrs. and subdivision of T. 17 S., R. 4 E.; Retracement and re-survey N. and W. bdrs. and subdivision and survey of W. bdy. and subdivision T. 16 S., R. 3 E.; Retracement and re-survey N. and S. bdrs. and subdivision survey of subdivision of T. 16 S., R. 3 E. Survey S. bdy. T. 18 S., R. 3 E. of the Salt Lake Base and Meridian, in the State of Utah, which are represented by 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 Utah 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,

_____, 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.

_____

U. S. Surveyor General.

4—680

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Howard W. Miller, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of retracement and resurvey N., S. and W. bdrs. and subdivision and survey subdivision of T.15 S.,R.1E.; Retracement and resurvey N. and W. bdrs. and subdivision and survey subdivision of T.18 S.,R.3 E : Retracement and re-survey N., S. and E. bdrs. and survey of subdivision and metes and bounds survey T. 15 S.,R. 2 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.	
Arthur Ross	June 8, 1914	June 15, 1914	Cornerman
Putnam Riley	May 11, 1914	July 14 1914	Chainman
Gyeayle Peterson	July 7, 1914	Sept 30, 1914	Cornerman
Russell Williams	May 11, 1914	Oct 10, 1914	Cornerman Chainman
Clay Quinn	October 14 1914	November 21, 1914	axman
Edward Jones	May 12, 1914	November 11, 1914	axman. Chainman
Edward Nelson	May 7, 1914	November 11, 1914	Chainman
William Fredrickson	May 11, 1914	November 11, 1914	Flagman Cornerman
Theodore Christensen	Oct 14, 1914	November 11, 1914	axman

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

Howard W. Miller
U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, Howard T. 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 31 day of July 1913 and 28 day of September, 1914, 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 retracement and re-survey N.S. and W. bdrs. and subdivision and survey of subdivision T.15 S.,R.1 E.; Retracement and re-survey N.and W. bdrs. and subdivision and survey subdivision of T.18 S.,R.3 E.; Retracement and re-survey S. and E. bdrs. and survey of subdivision and metes and bounds survey T.15 S.,R 2 E, of the Salt Lake Base and Meridian, in the State of Utah, which are represented on 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 Utah 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,

....., 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.

.....

U. S. Surveyor General.

4—680

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.

4—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, Howard W. Miller, 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 19 day of July, 1913, 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 E. and S.bd retracement and resurvey W.and N.bdrs.,retracement,resurvey and survey subdivision T.18 S.R.3 E.;survey of S.E.and N.bdrs.and subdivision T.1 R.4 E.;survey of E.bdy.and subdivision and resurvey of W.bdy.T.17 S.R. retracement,resurvey,and survey of subdivision,andretracement and resu of W.bdy.T.16 S.R.4 E.;retracement and resurvey of Third Standard Para South,through Rs.1 and 4 E.;retracement,resurvey and survey of subdiv retracement and resurvey N.bdy.T.15 S.,R.1 E. of the Salt Lake Base and Meridian, in the State of Utah, which are represented i in books A.B.C.D.G.& H. the foregoing field notes 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.

Howard W. Miller
U. S. Surveyor.

Subscribed by said Howard W. Miller, and sworn to before me this 23rd day of October, 1915

SEAL

Franklin Whitehouse
Clerk Third Judicial District Court
Tooele County, Utah

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, October 28, 1915

The foregoing field notes of the ~~xxxxxxx~~ the resurvey and retracement of west and north boundaries, retracement, resurvey and survey of the subdivisional lines of Township No. 18 South, Range No. 3 East of the Salt Lake Base and Meridian, Utah

executed by Howard W. Miller,

under his special instructions dated July 19, 1913, 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. C. 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.

6—2761

U. S. Surveyor General.

BOOK A-431

4—680

FIELD ASSISTANTS.

NAMES.	CAPACITY.
Edward Nelson	Chainman.

0—2704

BOOK A-431

CERTIFICATE OF UNITED STATES SURVEYOR.

I, Howard W. Miller, U. S. Surveyor, hereby certify upon honor that, in pursu
of special instructions received from the U. S. Surveyor General for Utah
bearing date of the 19 day of July, 1913, I have well, faithfully, and t
in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Inst
tions, and the laws of the United States, surveyed all those parts or portions of subdivision of
Township No. 18 South, Range No. 3 East

of the Salt Lake
Base and Meridian, in the State of Utah, which are represented
the foregoing field notes as having been executed by me, and under my direction; and that all the corner
said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instr
tions, 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
such survey.

Howard W. Miller
U. S. Surve

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 22, 191

The foregoing field notes of the survey of the subdivisional lines of Township
No. 18 South, Range No. 3 East of the Salt Lake Base and Meridian, Ut

executed by Howard W. Miller
under his special instructions dated July 19, 1913, having be
critically examined, and the necessary corrections and explanations made, the said field notes, and the surve
they describe, are hereby approved.

U. S. Surveyor Genera

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 Genera

6—2764

Filed October 2, 1916.

4—070

U.S.G.

BOOK A-431

I.

FIELD NOTES

RESURVEY
OF THE SURVEY OF THE

SOUTH BOUNDARY OF T. 24 S., R. 23 E.,

EAST " "

SUBDIVISIONS "

AND THE SURVEY OF THE SUBDIVISIONS

AND CHANGES OF

T. 24 S., R. 23 E.,

Of the SALT LAKE [illegible] *Meridian,*

In the State of Utah

EXECUTED BY

DONALD R. GRAHAM

Transitman

In the capacity of U. S. Surveyor, under instructions dated May 6, 1914, *issued by the United States Surveyor General to govern surveys included in Group No.* 31, *which were approved by the Commissioner of the General Land Office,* May 29, 1914. Assignment instructions issued June 5, 1915 by the assistant supervisor of surveys for the District of Utah.

Survey commenced June 20, 1915, 191

Survey completed July 26, 1916, 191

6—151

Examinations Classified

A Plat C.B.H. Notes E.M.H. C.B.H.

B Computations C.B.H.

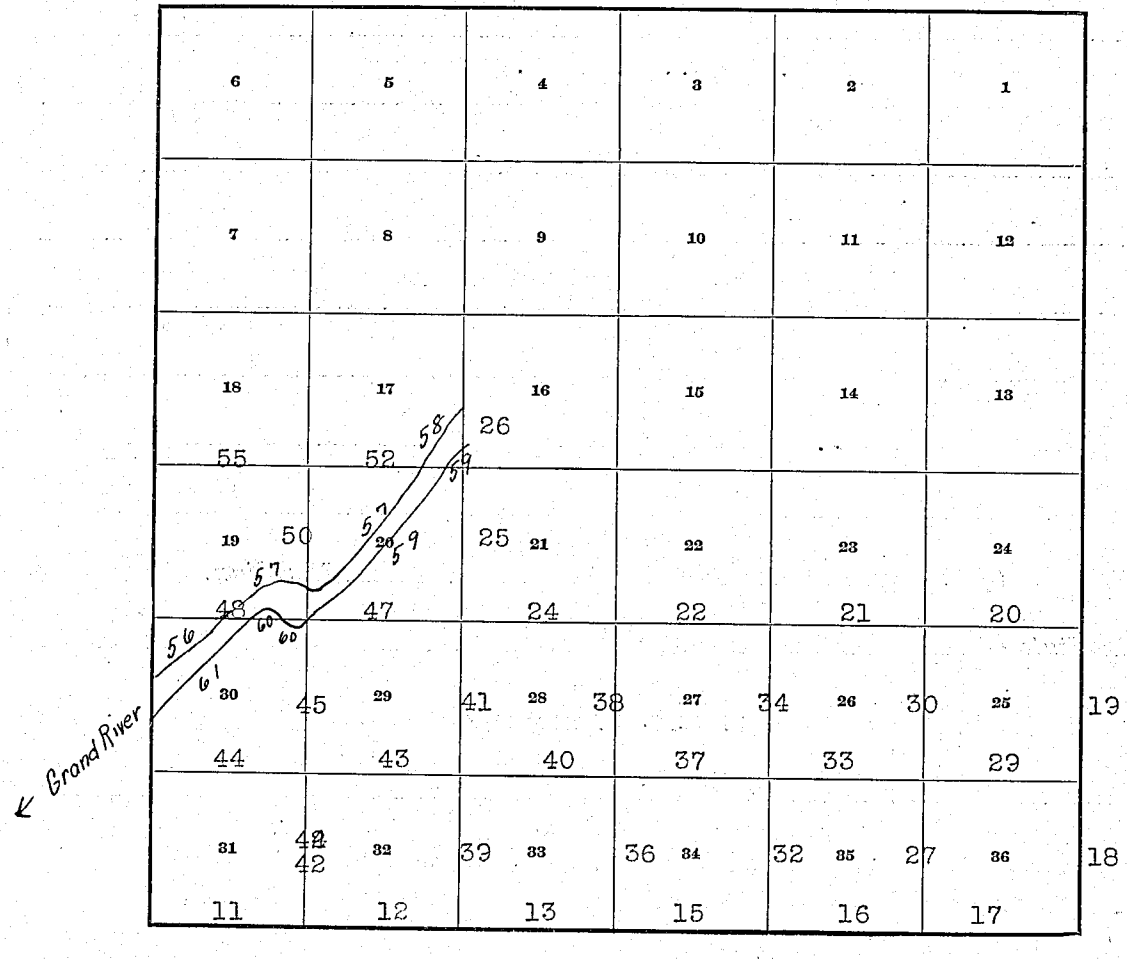
Comparing

C Plat V.I.F. Notes K.F.B.

BOOK A-431

INDEX DIAGRAM.

Township 24 South, *Range* 23 East.



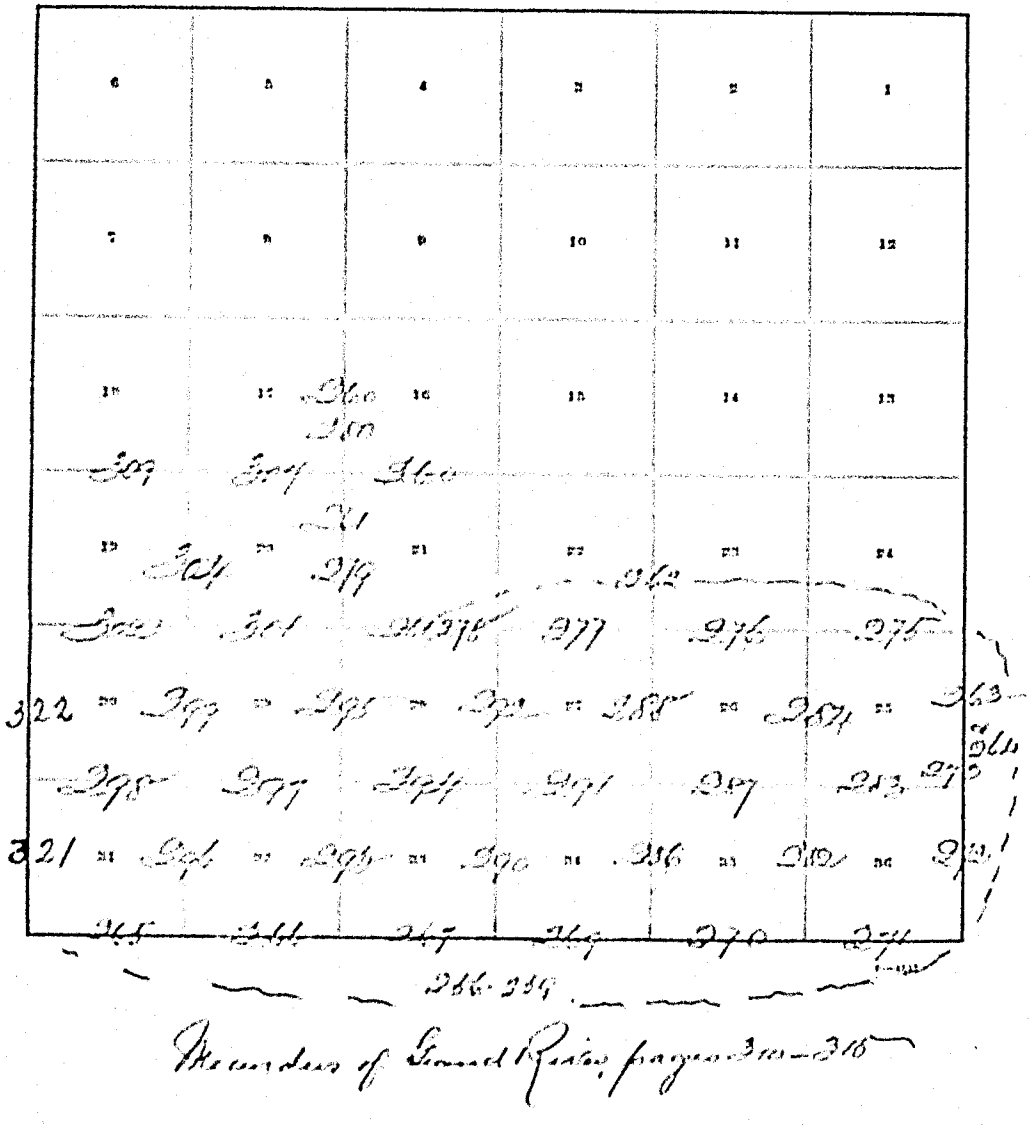
6-151

BOOK A-431

4—670 b

INDEX DIAGRAM.

Township 31 South, Range 23 East



Retracement of the South Boundary of T. 24 S., R. 23 E.

Chains

Survey commenced June 20, 1915, and executed with a Buff and Buff transit No. 9305, equipped with a Smith 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 approved for use on this survey by the Asst. Supervisor of Surveys for Utah, in Assignment Instructions bearing date of June 8, 1915.

A five-chain steel tape, and clinometer for determining slope angles were used in measuring all distances, and the reduced horizontal dist. only appear in these notes. The tape was frequently tested by comparing it with a standard one-chain steel tape kept for this purpose only.

I examine the adjustments of the transit, find them correct, then to test the solar apparatus by comparing its indications, resulting from solar observations, made during the a. m. and p. m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At my camp, which is situated in the SW.¼ sec. 30, T. 24 S., R. 23 E., in approximate latitude 38°42' N., longitude 109° 27½' W., I observe Polaris at 7h 45.4 m p. m., l. m. t., by my watch which carries correct l. m. t. recently determined by telephone from Cisco, Utah from Western Union Time; and read the angle to the sharply defined face of a cliff about 6 miles dist, which is 73°51'E.

L. m. t. of obs. June 20.....	7h 45.4m pm.
U.C.Polaris June 20, At.Gr.....	7h 39.0m am.
Correction for longitude.....	1.2m
U.C.Polaris June 20 at Sta.....	7h 37.8m a.m.
	19h 45.4m
	7h 37.8m
Hour Angle of Polaris at observation.	12h 07.6m
Subtract from.....	23h 56.1m
Time argument.....	11h 48.5m
Azimuth of Polaris at observation....	0° 04'E.
Add	73° 51'
True bearing of face of cliff....	N.73° 55'E.

June 20, 1915

Retracement of the South Boundary of T. 24 S., R. 23 E.

Chains

June 27: At 8h 00m a. m., app. t., I set off 38°42' on the lat. arc; 23°22½' N. on the decl. arc, and determine a meridian with the solar, and note that the face of the cliff 6 miles dist. bears N. 73°51' E.

June 27: At app. noon, I set off 23°22' N. on the decl. arc, and observe the sun in the meridian; the resulting lat. is 38°42'.

June 27: At 5h 00m p. m., app. t., I set off 38°42' on the lat. arc; 23°22' N. on the decl. arc; the face of the cliff bears 73°24' E. of the meridian thus determined.

The solar apparatus, by am. and pm. observations, defines positions for meridians which practically coincide with the meridian established by the Polaris observation, and I therefore conclude that the adjustments of the instrument are satisfactory.

June 27, 1915.

June 21: I am assured from recent tests last week on a meridian established by Polaris observation at Thompsons Utah, that my instrument is now in satisfactory adjustment, and the test on June 27 justifies this assumption also.

At 7h 30m a. m., app. t., I set off 38°41' on the lat. arc; 23°28' N. on the decl. arc, and determine a meridian with the solar at the old cor. of Ts. 24 and 25 S., Rs. 22 and 23 E., which is an iron post, 3 ins. dia., firmly set 12 ins. above the ground, with brass cap mkd.

T 24 S
R 22 E | R 23 E
S 36	S 31
S 1	S 6
T 25 S

1912

not witnessed.

Thence I run

Retracement of the South Boundary of T.24 S., R. 23 E.

Chains

East, retracing the line bet. secs. 6 and 31. At 39.44 chs. I am unable to find any trace of the old ¼ sec.cor., set temp. ¼ sec. cor., thence continue my line east, finding no old cors., and setting points for temp. sec. cors. and ¼ sec. cors. at intervals of 40.00 chs. At 79.82 chs. from the Tp. cor. I am prevented from extending my line farther east by a nearly vertical cliff about 700 ft. high. I am unable to get a signal on top of this cliff to carry my transit line across; and it is necessary to run a traverse around the north end of the cliff to extend survey, no straight offsets being possible. Therefore, at 79.82 chs. I set a temp. point, and traverse around the base of the cliff as follows:

N. 41° W.,	1.34	chs.
N. 3½° W.,	1.80	"
N. 1½° W.,	9.03	"
N. 25½° W.,	1.42	"
N. 8° W.,	14.35	"
N. 4½° W.,	3.50	"
N. 3° W.,	9.17	" Cease work for the day at this point.

June 21, 1915.

June 22: At the above point, I set off 38°41' on the lat. arc; 23°28' N. on the decl. arc, and at 8h 00m. a. m., app. t., determine a meridian with the solar. Thence I continue my traverse around the base of impassible cliff.

N. 61½° E.,	5.83	chs.
N. 6½° E.,	28.50	"
N. 24° E.,	3.10	"
N. 80° E.,	4.37	"
N. 83½° E.,	2.97	"
S. 63½° E.,	2.94	"
S. 44° E.,	2.33	"
S. 29½° E.,	4.99	"
S. 29½° E.,	3.25	"
S. 23° E.,	9.65	"
S. 26° E.,	11.96	"
S. 10½° E.	6.04	"
S. 14½° E.,	10.98	"
S. 9° E.,	12.41	"
S. 35° E.,	2.59	"
S. 39° E.,	18.59	"
S. 85½° W.,	8.52	" Thence S. 5 lks. and E. 4 lks., to a point on S. bdy. of Tp.119.44 chs E. of the Tp. cor., where I set a point for the temp. ¼ sec. cor. of secs. 5 and 32.

Chains

No trace of the old $\frac{1}{4}$ sec. cor. can be found*

June 22rd.: It is impracticable to be on a meridian at apparent noon; lat. obs. therefore omitted.

June 22, 1915.

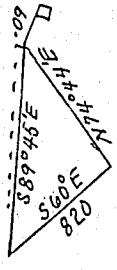
June 23: At 8h 30m a. m., app. t., I set off 38°41' on the lat. arc; 23°27' N. on the decl.arc, and determine a meridian with the solar at the temp. $\frac{1}{4}$ sec. cor. on S. bdy. sec. 31.

Thence I continue my line east, finding no old cors.

At 199.44 chs., June 23, I set off 23°27' N. on the decl. arc, and at app. noon, obs. the sun on the meridian; the resulting lat. is 38°41'.

June 23, 1915.

June 29: There being impassable ledges ahead, the top of which I cannot see from this point, I return west 2.90 chs. to the 196.54 ch. point, where at 8h 30m a.m. app. t., I set off 38°41' on the lat. arc; 23°17½' N. on the decl. arc, and determine with the solar a meridian. I set a flag on top of cliffs, which bears from here S. 89°45' E.; (I am unable to set a flag due E. on account of natural obstacles) thence measure a base S. 60°E., 8.20 chs., to a point from which the flag on cliffs bears N. 74°44' E. From the flag, the S. end of the base line bears S. 74°44' W. The dist. is therefore, (to the offset point):



$$\frac{\text{base} \times \sin 134°44'}{\sin 15°31'} = \frac{8.20 \times 0.71039}{0.26752} = 21.77 \text{ chs.},$$

which added to 196.54 makes 218.31 chs. to flag on top of cliff. I offset 0.09 lks. N. to true line, thence continue east.

June 29: I am unable to be on a meridian at apparent noon, the lat. obs. is therefore omitted. Cease work at the 319.44 ch. point.

June 29, 1915.

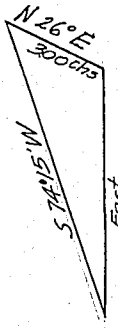
July 1: At 8h 00m a. m., app. t., I set off 38°41' on the lat. arc; 23°11' N. on the decl. arc, and determine a meridian with the solar at the 319.44 ch. point.

Retracement of the South Boundary of T.24 S., R.23 E.

Chains. Thence I continue my line east, still finding no old cors.

July 1: At the 400.00 chs.point I set off 23° 10'N.on the decl.arc; and at apparent noon observe the sun on the meridian; the resulting lat.is 38° 41'

At 404.37 chs.is the edge of a canyon, across which I cannot chain. To determine the dist.across I proceed as follows: Set a flag on line on east side, leave a flag at my transit point (which is also later used for another triangulation); thence proceed to flag across canyon, where I lay off a base N.26° E. 3.00 chs.dist. to a point from which the flag left on the west side of canyon bears S.74° 15'W. The dist.is therefore:



$$\frac{\text{base} \times \sin 48° 15'}{\sin. 15° 45'} = \frac{3.00 \times 0.74606}{0.27144} = 8.25 \text{ chs.}$$

which added to 404.37 chs., makes 412.62 chs. I continue my line east, and at

476.42 Set temp.cor.of Tps.24 and 25 S., Rs.23 and 24 E. on a favorable high point, and make diligent search at 479.44 chs. (record dist.), covering a radius of 15 chs. but am unable to find any trace of the old Tp.cor.

July 1, 1915.

Retracement of Subdivision of T.24 S., R.23 E.

June 25, 1915: At the cor.of secs.15,16,21, and 22,which is a sandstone 6 x 4 x 8 ins.above ground, firmly set, and marked and witnessed as described by the surveyor general, I set off 23° 25'N.on the decl.arc; and at apparent noon, obaerve the sun on the meridian; the resulting lat.is 38° 43½'.

At 2h 00m p.m.apparent time, I set off 38° 43½' on the lat.arc; 23° 25'N.on the decl.arc, and determine a meridian with the solar.

Thence I run

Retracement of Subdivisions of T. 24 S., R. 23 E.

Chains.	
	West, retracing bet. secs. 16 and 21,
40.00	I am unable to find the old ¼ sec. cor..
80.00	Set point for temp. cor. of secs. 16, 17, 20, and 21. I am u
	to find the old sec. cor. at this time; but later I fin
	it at a point 179 lks. E., and 75 lks. N. of my temporary
	point. Old cor. described pages 25-6 of these notes.
	June 25, 1915.

July 22: For solar observation this day see line bet. sec
17 and 20.

From the old cor. of secs. 16, 17, 20, and 21

North, retracing bet. secs. 16 and 17,

25.00 Set temp. meander cor. on left bank of Grand River.

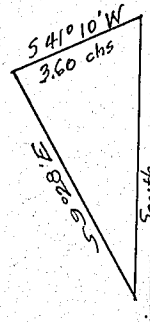
After diligent search I am unable to find any trace of the old meander cor.

I set up the instrument on the right bank of Grand River at a point north of the temp. meander cor. of fracl. secs. 16 and 17 on the left bank; thence I lay off a base S. 41° 10' W. 3.60 chs. dist., to a point from which a flag 1.30 chs. S. of the temp. meander cor. on the left bank bears S. 9° 28' E. The dist. is therefore

$$\frac{\text{base} \times \sin 129° 22'}{\sin 9°28'}$$

log sin 129° 22'	= 9.888237
log 360	= 0.556303
colog sin 9°28'	= 0.783903
log base	= 1.228443

base = 16.92 chs., which added to 23.70 chs., makes 40.62 chs.



42.80 Set temp. meander cor. for fracl. secs. 16 and 17 on right bank of Grand River. After diligent search I am unable to find any trace of the old meander cor.

80.08 Fall 3 lks. E. of the old cor. of secs. 8, 9, 16, and 17, which is a sandstone 6 x 11 x 10 ins., above ground, firmly set and marked and witnessed as described by the sur-

Retracement of Subdivisions of T. 24 S., R. 23 E.

Chains.	
	veyor general.
	The true course of this mile is therefore N.0° 01'W. and the dist. 80.08 chs.
	June 26, 1915: At 7h 30m a.m. apparent time, I set off 38° 43½' on the lat. arc; 23° 24½'N. on the decl. arc; and determine a meridian with the solar at the temp. cor. of secs. 16, 17, 20, and 21. Thence I run
	South, retracing bet. secs. 20 and 21,
40.00	After diligent search I am unable to find any trace of the old ¼ sec. cor., Set temp. ¼ sec. cor.
80.00	After diligent search I am unable to find any trace of the old cor. of secs. 20, 21, 28, and 29. Set temp. point for the cor.
	From the temp. point for cor. of secs. 20, 21, 28, and 29 I run
	East, retracing bet. secs. 21 and 28,
40.00	After diligent search I am unable to find any trace of the old ¼ sec. cor. Set temp. ¼ sec. cor.
66.86	The E. face of cliff over which I am unable to chain. To determine dist. to bottom, I proceed as follows: Leave a flag at my transit point, set a flag on line east, proceed to flag, from which I lay off a base north 4.00 chs. dist., to a point from which the flag on top of cliffs bears S.63° 19'W. The distance is therefore: base x tan 63° 19' = 4.00 x 1.98972 = 7.96 chs., which added to 66.86 makes
74.82	To triangulation point at bottom of cliffs.
80.00	Set temp. point for the cor. of secs. 21, 22, 27, and 28. Later I find the old cor. of secs. 21, 22, 27, and 28 at a point 37 lks. S. and 191 lks. E. of my temp. point. (Corner described page 23 of these notes.)

Retracement of Subdivisions of T.24 S., R.23 E.

Chains.

June 26: It is impossible to be on a meridian at noon; the observation for lat. is therefore omitted.

Note: It will be necessary for the following retracement to be written as they were actually run from the temp. points, and not from the old cors., on account of subsequent triangulations depending on these lines.

From the temp. cor. of secs. 21, 22, 27, and 28 (which I late find to be 37 lks. N. and 191 lks. W. of the old cor. of se 21, 22, 27, and 28) I run

East, retracing along S. bdrs. of Secs. 22, 23, and 24, finding no old cors.; setting temp. points for $\frac{1}{4}$ sec. and se cors. at intervals of 40.00 chs.

Cease work for the day at the 80.00 ch. point, where I set temp. cor. secs. 22, 23, 26, and 27.

June 26. 1915.

June 28: At 8h 00m a.m. apparent time, I set off 38° 42½' on the lat. arc; 23° 20'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 continue my line east, finding no old cors.

June 28: At the 160.00 chs. point, I set off 23° 19'N. on the decl. arc, and at apparent noon observe the sun on the meridian; the resulting lat. is 38° 42½'.

At 240.00 chs. I am unable to find any trace of the old cor. of secs. 19, 24, 25, and 30, after careful search. At

240.85 I set temp. point for cor. of secs. 19, 24, 25, and 30.

June 28, 1915.

Retracement of the East Bdy. of T.24 S.R.23 E.

July 2: At 8h 30m a.m. apparent time I set off 38°42½' on the lat. arc; 23° 07'N. on the decl. arc; and determine a meridian with the solar at the temp. cor. of secs. 19,

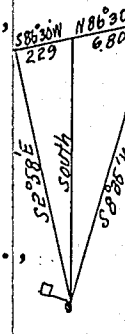
Retracement of the East Bdy. of T. 24 S., R. 23 E.

Chains

24, 25 and 30, on the E. bdy. of Tp.

Thence I run, South, retracing bet. secs. 25 and 30.

At 4.88 chs. I am unable to chain farther on account of a series of impassable cliffs. To determine dist. to top of cliffs, I proceed as follows: From my transit point, I set a flag on line south, on top of cliffs, then lay off a compound base, N. 86°30' E., 6.80 chs. dist., to a point from which the flag on cliff bears S. 8°35' W.; and S. 86°30' W., 2.29 chs., to a point from which the flag on cliffs bears S. 2°58' E. It is impossible to lay off a longer base. Fromtthe flag on top of cliffs, the E. end of the base bears N. 8°35' E., and the W. end of the base line bears N. 2°58' W. I compute the dist. from the W. end of the base line to my flag as follows:



$$\frac{\text{base} \times \sin 77^\circ 55'}{\sin 11^\circ 33'} = \frac{9.09 \times 0.97784}{0.20022} = 44.39 \text{ chs.},$$

and the required dist. is therefore

$$\frac{44.39 \times \sin 90^\circ 32'}{\sin 86^\circ 30'} = \frac{44.39 \times 0.99995}{0.99813} =$$

44.47 chs., which added to 4.88 makes 49.35 chs. to flag on top of cliffs.

July 2: It is impracticable to be on a meridian at app. noon toobserve the sun for lat.

July 2, 1915.

July 3: At 10h 00m a. m., app. t., I set off 38°42' on the lat. arc; 23°02' N. on the decl. arc, and determine a meridian with the solar at the 49.35 ch. point. Thence I continue my line south, finding no old cors.

July 3: At the 80.00 ch. point, I set off 23°01' N. on the decl. arc, and at app. noon, observe the sun on the meridian; therresulting lat. is 38°42'.

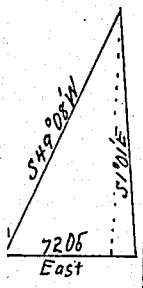
At 96.96 chs. the line takes over a series of impassable cliffs extending to the SE. cor. of Tp., and I am un-

Retracement of the East Boundary of T. 24 S., R. 23 E

Chains

able to chain the intervening distance. To determine the dist. to the temp. cor. of Ts. 24 and 25 S., Rs. 23 and 24 E., which is visible, I proceed as follows:

The triangulation signal set on the south bdy. of Tp. at 404.37 chs. E. of the cor. of Ts. 24 and 25 S., Rs. 22 and 23 E., bears S. 49°08' W., and the temp. cor. of Ts. 24 and 25 S., Rs. 23 and 24 E. bears S. 1°01' E. The included angle is 50°09'. The dist. from my transit point to the temp. SE. cor. of Tp. is therefore:



$$\frac{\text{base} \times \sin 40°52'}{\sin 50°09'} = \frac{72.05 \times 0.65430}{0.76772} = 61.40 \text{ chs., and}$$

as $\sin 1°01' \times 61.40 = 0.01774 \times 61.40 = 1.09$ chs., and

as $\cos 1°01' \times 61.40 = 0.99984 \times 61.40 = 61.39$ chs.,

the rectangular tie is as follows: 96.96 added to 61.39 makes 158.35 Fall 1.09 chs. W. of the temp. cor. of Ts. 24 and 25 S., Rs. 23 and 24 E.

July 3, 1915.

On account of the extreme roughness and impassability of the country east and south of the point for the cor. of Ts. 24 and 25 S., Rs. 23 and 24 E., any attempt to retrace these boundaries in the effort to restore the missing cor. of Ts. 24 and 25 S., Rs. 23 and 24 E. in accordance with the method prescribed in the Pamphlet on Restoration of Lost and Obliterated Corners, by using nearest corners found to the south, east and north would be hopeless and futile. The same Deputy Surveyor who surveyed the south and east bdrs. of T. 24 S., R. 23 E., is reported to have surveyed the north and west bdrs. of T. 25 S., R. 24 E., during the same season. The land along these latter bdrs. is even more rough and inaccessible than the lines I have retraced, and as I found no trace of corners along the boundaries in question, nor any instance of topography agreeing with the

Retracement of the East Bdy. of T. 24 S., R. 23 E.

Chains

topography returned in old notes, it is reasonable to conclude that no old corners on the bdrs. south and east of the Tp. cor. in question will be found, at least within six miles. Furthermore, the extreme roughness and inaccessibility of the country would make necessary wide detours and long, extended traverses if any such corner should by the greatest chance be found, I therefore conclude that a restoration, based on lines I have now retraced, between the old cor. of Ts. 24 and 25 S., Rs. 22 and 23 E., and the old cor. of secs. 21, 22, 27 and 28, embracing the south bdy., the south two miles of the east bdy., and the south bdrs. of secs. 22, 23 and 24, will be the most practicable under the circumstances. This restoration will be based on the differences of the lat. and dep. between the two old cors. noted, arising from a traverse on record courses and distances, and the actual traverse, the data for which has already been obtained. I thus find that the traverse based on record courses and distances places the true point for the cor. of secs. 21, 22, 27 and 28 (starting from the old cor. of Ts. 24 and 25 S., Rs. 22 and 23 E., and running E. on S. bdy., N. 2 mi. on E. bdy. and W. on S. bdrs. of secs. 24, 23 and 22), at 2.02 chs. N. and 3.05 chs. E. of the actual location of the old cor. This differance in lat. and dep. will be proportionately distributed throughout the 11 miles to the course and length of each mile. I note incidentally that this method does not throw any mile out of limits for course or dist.

The south and west bdrs. of sec. 21 will be restored in the same manner, using the old cor. of secs. 21, 22, 27 and 28, and the old cor. of secs. 16, 17, 20 and 21.

Note; The solar attachment not used in following resurveys)

Resurvey of the South Boundary of T. 24 S., R. 23 E.

July 20: From the cor. of Ts. 24 and 25 S., Rs. 22 and

Resurvey of the South Boundary of T. 24 S., R. 23 E.

Chains

and 23 E.,

S. 89°52' E., on true line, bet. secs. 6 and 31.

Over rough mountainous land, asc. broken SW. slope.

12.40 Spur, sloping SE. from flat topped butte, 170 ft. above the Tp. cor. Desc. over broken NE. slope.

37.45 Dry wash, 450 ft. below spur, drains N.

39.31 Proportionate measurement.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for restored ¼ sec. cor., with brass cap mkd.

¼ S 35

S 6
1915

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

41.10 Road, from Castleton to Cisco, bears N. and S.

44.00 Wash, 40 lks. wide, 5 ft. deep, drains N. Thence asc. very broken W. slope, covered with large boulders and fine red clay dirt.

79.17 Proportionate measurement.

On broken W. slope, 725 ft. above wash.

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for restored cor. of secs. 5, 6, 31 and 32, with brass cap mkd.

T 24 S R 23 E

S 31	S 32
S 6	S 5

T 25 S R 23 E

1915

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

Land, rough broken mountainous, sandstone formation.

Soil, red sand and red clay dirt, on sandstone subsoil, 4th. rate.

No timber nor undergrowth.

S. 89°52' E., on true line, bet. secs. 5 and 32.

Over rocky and steep slope facing W.

Resurvey of the South Boundary of T. 24 S., R. 23 E.

Chains	
0.65	Base of cliff, the W. face of impassable mesa, 700 ft. high.
39.00	Base of cliff facing E. on E. side of mesa, 700 ft. below top.
39.86½	Proportionate measurement.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for restored ¼ sec. cor., with brass cap mkd.
	¼ S 32 / S 5 / 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Thence desc. over broken E. slope.
57.46	Ravine, 140 ft. below ¼ sec. cor., drains N., thence over very rough and broken bad lands.
79.73	Proportionate measurement.
	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for restored cor. of secs. 4, 5, 32 and 33, with brass cap mkd.
	T 24 S R 23 E S 32 | S 33 S 5 | S 4 T 25 S R 23 E 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, very rough and broken, sandstone formation, general N. drainage.
	Soil, red sand and red dirt, on sandstone subsoil, 4th. rate.
	No timber.
	S. 89°52' E., on true line, bet. secs. 4 and 33.
	Over very rough and broken sandstone bad lands.

Resurvey of the South Boundary of T. 24 S., R. 23 E.

Chains

3.50 Dry wash, 80 lks. wide, 10 ft. deep, drains NW., continue over broken land.

16.50 Dry wash, 1 ch. wide, 40 ft. deep, drains NW., continue over broken land, and asc. gradually.

39.86 Proportionate measurement.

On broken SW. slope, 240 ft. above wash.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for restored ¼ sec. cor., with brass cap mkd.

$$\frac{\frac{1}{4}\ S\ 33}{S\ 4}$$
1915

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

Thence asc. over steep broken W. slope.

76.85 Top of steep narrow sandstone ridge, bears NW. and SE., 915 ft. above the ¼ sec. cor. Desc. over steep E. slope

78.26 The wdr. of secs. 3, 4, 33 and 34 will fall on rocky ledge, where it would be impossible to perpetuate the cor.

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for witness cor. to the cor. of secs. 3, 4, 33 and 34, with brass cap mkd.

W C
T 24 S R 23 E
S 33 | S 34
———o———
S 4 | S 3
T 25 S R 23 E
1915

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

79.72 The true point for the cor of secs. 3, 4, 33 and 34, on ledges. Cor. not set.

Land, rough and broken mountainous, sandstone formation.

Soil, mostly sandstone, crumbled and stony, 4th. rate.

Very scattered cactus, shadscale and no timber.

July 20, 1915.

Resurvey of the South Boundary of T. 24 S., R. 23 E.

Chains

July 14: From the true point for the restored cor. of secs. 3, 4, 33 and 34,

S. 89°52' E., on true line, bet. secs. 3 and 34.

Over rough mountainous land, desc. over steep E. slope, through very scattered shadscale and greasewood undergrowth. Slide rock sandstone formation.

24.30 Ravine, 805 ft. below cor. point, drains N., thence asc. over steep and broken W. slope.

28.25 Small ridge, 150 ft. above ravine, bears N. and S. Desc. over broken E. slope.

39.86½ Proportionate measurement.

On broken E. slope, 285 ft. below ridge.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for restored ¼ sec. cor., with brass cap mkd:

¼ S 34
S 3
1915

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

45.40 Road, from Castleton to Cisco, Utah, general bearing NW. and SE.

76.20 Wash, 1 ch. wide, 40 ft. deep, drains N. 60° W.

78.80 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for witness cor. to the cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

W C
T 24 S R 23 E
S 34 | S 35
S 3 | S 2
T 25 S R 23 E
1915

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

79.73 Proportionate measurement.

The point for restored cor. of secs. 2, 3, 34 and 35 falls on sandstone ledge rock, where it would be impossible to perpetuate the cor. Point is 50 ft. above the W.C. Cor. not set.

Land, mountainous, generally broken E. slopes, sandstone formation.

Resurvey of the South Boundary of T. 24 S., R. 23 E.

Chains	
	Soil, coarse red sand and shale, rocky, 4th. rate.
	Scattered shadscale and greasewood undergrowth.
	No timber.
	From the true point for the cor. of secs. 2, 3, 34and 35, S. 89°52' E., on true line, bet. secs. 2 and 35.
	Over very rough and broken sandstone ridges, bad lands, asc. over broken west slope, through scattered shadscale and greasewood.
18.90	Ridge, sandstone, 100 ft. above the cor. point, bears N. and S. Desc. over broken bad lands, E. slope.
25.10	Gulch, 50 ft. below ridge, drains N. Asc.
28.00	Sandstone ridge, 50 ft. above gulch, bears N. and S. Desc. over broken E. slope.
39.86½	Proportionate measurement.
	On broken E. slope, 100 ft. below ridge.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for restored ¼ sec. cor., with brass cap mkd.
	¼ S 35 S 2 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
43.75	Large ravine, 40 ft. below ¼ sec. cor., drains NW., asc. over very broken SW. slope.
69.70	Sandstone ridge, 290 ft. above ravine, bears N. and S. Desc. over broken E. slope.
76.65	Deep gulch, 150 ft. below ridge, drains N. Asc.
79.75	Proportionate measurement.
	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the mound of stone, 5 ft. base, on solid rock, for restored cor. of secs. 1, 2, 35 and 36, with brass cap mkd.

T 24 S | R 23 E
S 35 | S 36
S 2 | S 1
T 25 S R 23 E
1915

Resurvey of the South Boundary of T. 24 S., R. 23 E.

Chains	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, broken bad lands, rocky sandstone formation.
	Soil, mostly rocky and crumbled sandstone, 4th. rate.
	Undergrowth, scattered shadscale and greasewood,
	A few lone cedars along the line.
	S. 89° 52' E., on true line, bet. secs. 1 and 36.
	Over rough broken mountainous land, nearly solid sandstone, asc. broken W. slope.
6.35	W. edge of Rock Creek Canyon, bears N. and S., about 300 ft. deep,
11.15	Rock Creek, 10 lks. wide, 4 ins. deep, clear cold water, course N.
14.60	E. edge of Rock Cr. canyon, about 300 ft. above bottom, nearly perpendicular rock walls. Asc.
18.90	Top of asc., 70 ft. above edge of canyon, slopes N., desc.
28.25	Gulch, 70 ft. below top of asc., drains S. Asc. over broken W. slope.
39.86	Proportionate measurement.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the mound of stone, 5 ft. base, on solid rock, for restored ¼ sec. cor., with brass cap mkd.
	¼ S 36 / S 1 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
79.72	Proportionate measurement.
	On broken mountainous land, 275 ft. above the ¼ sec. cor.
	Set an iron post, 3 ft. long, 3 ins. dia., on solid rock, 24 ins. in a mound of stone, 5 ft. base, for restored cor of Ts. 24 and 25 S., Rs. 23 and 24 E., with brass cap mkd.

Resurvey of the South Boundary of T. 24 S., R. 23 E.

Chains	
	T 24 S R 23 E | R 24 E S 36 | S 31 S 1 | S 6 R 23 E | R 24 E T 25 S 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Land, very rough and broken sandstone ridges.
	Soil, coarse red sand, crumbled sandstone, and sandstone outcroppings, 4th. rate.
	Very scattered shadscale and greasewood undergrowth.
	A few lone small cedars along the line.
	July 14, 1915.

Resurvey of the East Boundary of T. 24 S., R. 23 E.

	July 13: From the true point for the cor. of Ts. 24 and 25 S., Rs. 23 and 24 E.,
	N. 0°12' W., on true resurvey line, bet. secs. 31 and 36.
	Over extremely rough mountainous land, bare sandstone ledges,
1.10	Head of rocky wash, 35 ft. below cor. point, drains W.
	Thence asc. over impassable sandstone cliffs and ledges to top of high mesa.
39.91	It is impossible to set the ¼ sec. cor. at the true proportioned point.
62.48	Top of cliffs and ledges, bearing E. and W., the south rim of high mesa, 1,600 ft. above the Tp. cor.
	Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone 5 ft. base, for witness point to ¼ sec. cor., with brass cap mkd. W | E S 36¼ | S 31 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of

Resurvey of the East Boundary of T. 24 S., R. 23 E.

Chains

cor.

Thence across top of high mesa, over rocky land, and enter cedar and piñon timber, bears E. and W.

79.82 Proportionate measurement.

Set an iron post, 3 ft. long, 3 ins. dia., on solid rock, 24 ins. in a mound of stone, 5 ft. base, for restored cor. of secs. 25, 30, 31 and 36, with brass cap mkd.

T 24 S
R 23 E | R 24 E
S 25 | S 30
S 36 | S 31

1915

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

No suitable bearing trees within limits.

Land, 17 chs. level high mesa, the remainder rocky sandstone cliffs and ledges, impassable.

Soil, mostly sandstone outcroppings, with a little red sand and crumbled sandstone, 4th. rate.

Scrubby cedar and piñon timber on the mesa, and scattered shadscale and greasewood undergrowth.

N. 0°12' W., on true line, bet. secs. 25 and 30.

Over level high mesa, through scrubby cedar and piñon timber and scattered shadscale and greasewood undergrowth.

23.73 The north rim of mesa, bears E. and W. It will be impossible to set tthe ½ sec. cor. at true point.

Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 24 ins. in a mound of stone, 5 ft. base, for witness cor. to ½ sec. cor., with brass cap mkd.

|
W C
S 25¼ | S 30

1915

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

Resurvey of the East Boundary of T. 24 S., R. 23 E.

Chains	
	No suitable bearing trees within limits.
	Thence leave scrubby cedar and piñon timber and undergrowth and desc. over N. rim of mesa, over series of impassable cliffs.
39.91	It is impossible to set the ¼ sec. cor. at this point, on account of impassable cliffs.
61.15	Deep gulch, 1,625 ft. below mesa, drains W. Thence asc. over rocky and broken S. slope.
74.30	Rocky ridge of butte, bears E. and W., 700 ft. above gulch, thence desc. over steep and broken N. slope.
79.81	The restored point for the cor. of secs. 19, 24, 25 and 30, falls on rocky ledge, where it would be impracticable to set the cor.
80.31	Set an iron post, 3 ft. long, 3 ins. dia., on solid rock, 24 ins. in a mound of stone, 5 ft. base, for witness cor. to the cor. of secs. 19, 24, 25 and 30, with brass cap mkd.

W C
T 24 S
R 23E | R 24 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, south 30 chs., level high mesa, the remainder rocky, steep cliffs and ledges.

Soil, mostly rock outcroppings and loose sandrock, some red sand, 4th. rate.

Timber, scrubby cedar and piñon on mesa, with some scattered shadscale and greasewood undergrowth.

July 13, 1915.

Resurvey of Subdivisions of T. 24 S., R. 23 E.

July 12: From the true point for the restored cor. of secs. 19, 24 25 and 30, on E.bdy.of Tp.

Resurvey of Subdivisions of T. 24 S., R. 23 E.

Chains

S. 89°52' W., on true resurvey line, bet. secs. 24 and 25.
Over rough mountainous land, sandstone outcroppings, no vegetation, desc. over very steep and broken NW. slope.

32.76 Foot of steep desc., 577 ft. below cor. point, bears NE. and SW., thence desc. gradually over broken bench, NW. slope.

40.13½ On NW. slope, 100 ft. below foot of steep desc.
Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for restored ¼ sec.cor. sec. 24; brass cap mkd.

¼ S 24

1915

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

73.55 Desc. over NW. slope over steep side of wash.

80.27 Proportionate measurement.
On steep NW. slope, 160 ft. below the ¼ sec. cor.
Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for the restored cor. of secs. 23 and 24 only, with brass cap mkd.

T 24 S | R 23 E
S 23 | S 24

1915

Raise a mound of stone, 2 ft. base, 1½ ft high, N. of cor.
Land, rough and mountainous, the E. 30 chs. being very rough and broken by sandstone cliffs.
Soil, coarse red sand, sand rock and sandstone outcroppings. 4th. rate.
Very scattered shadscale and greasewood undergrowth on the W. 50 chs.

From the cor. of secs. 23 and 24,

Resurvey of Subdivisions of T. 24 S., R. 23 E.

Chains	
	S. 89°52' W., on true line, along S. bdy. sec. 23.
	Over rough and broken bench land, through greasewood and shadscale undergrowth, and numerous boulders.
5.25	Desc. over broken NW. slope.
13.50	Wash, 100 ft. below point of desc., drains N. 60° W.
	Asc. from wash.
22.50	Top of asc., bears N. and S.,,25 ft. above wash, thence desc. over broken NW. slope.
40.13½	Proportionate measurement.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for restored ¼ sec. cor. sec. 23; brass cap mkd.

¼ S 23

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor
Cor. stands on NW. slope, 150 ft. below top of asc.

49.00	Foot of steep desc., 50 ft. below the ¼ sec. cor., thence over rolling greasewood flat, bears NE. and SW.
71.45	Leave flat, bears N. and S., abd asc. over rocky E. slope.
80.27	Proportionate measurement.
	Top of lone butte, 250 ft. above the flat.
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for restored cor. of secs. 22 and 23, with brass cap mkd.

T 24 S | R 23 E
S 22 | S 23

1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, N of cor.
Land, rolling and rocky bench, general NW. drainage.
Soil, coarse red sand, very rocky, 4th. rate.
Scattered shadscale and some sagebrush undergrowth.

From the cor. of secs. 22 and 23,

Resurvey of Subdivisions of T. 24 S., R. 23 E.

Chains	
	S. 89°52° W., on true line, along S. bdy. set. 22.
	Over rocky bench land, desc. from butte over W. slope.
32.06	Dry bed of Rock Creek, 255 ft. below cor., drains N.
	Thence over rolling valley land.
32.35	Road, joins road to Castleton, bears N. and S.
32.75	Wire fence, bears N and S. Enter Thomas Larson's field.
37.75	Log fence, corral, bears N. and S. Also, barn bears S., 1 ch. dist., and Thos. Larson's house bears S., 8 chs. dist. Thence enter alfalfa field, bears N. and S.
40.13½	Proportionate measurement.
	Irrigation ditch, 10 lks. wide, 2 ft. deep, drains SE.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for restored ¼ sec. cor. sec. 22; brass cap mkd.
	¼ S 22
	1915
	No accessories possible on account of obstructing ditch.
67.10	Wire fence, bears NW. and SE., leave cultivated land, and enter rolling greasewood flat.
76.45	Road, from Cisco to Casleton; bears NW. and SE.
80.27	The old cor. of secs. 21, 22, 27 and 28, which is a sandstone, 12 x 14 x 3 ins. above ground, firmly set, and mkd. and witnessed as described by the surveyor general.
	I destroy all mks. of the old cor. that pertain to secs. 27 and 28, and re-establish the cor. at the same point as follows:
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for re-established cor. of secs. 21 and 22, with brass cap mkd.
	T 24 S | R 23 E S 21 | S 22
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of the cor.

Chains	
	The post is set beside the old stone.
	Land, rolling valley, part under cultivation.
	Soil, coarse red sandy loam mixed with gravel, and stony in part, 2nd. rate.
	Scattered greasewood, shadscale and some sagebrush undergrowth.
	July 12, 1915.

	July 8; From the old cor. of secs. 21, 22, 27 and 28, (later re-established as the cor. of secs. 21 and 22 only)
	N. 89°36' W., on true resurvey line, along S. bdy. sec. 21.
	Over rolling bench land, asc. through greasewood and shadscale undergrowth.
7.10	Base of sandstone cliff, bears N. and S. Asc. to top.
15.00	Top of cliff, and sharp ridge, bears N. and S., 270 ft. above base, Desc. over broken SW. slope.
34.45	Ravine, 355 ft. below top, drains NW. Asc. over SE. slope
40.03	Proportionate measurement.
	On. SE. slope, 100 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for restored ¼ sec cor.sec.21; brass cap mkd.
	¼ S 21

	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
48.00	Sandstone ridge, 80 ft. above the ¼ sec. cor., bears NE. and SW. Desc over NW. slope.
52.00	Gulch, 125 ft. below ridge, drains NE.; Asc.
68.00	Sandstone ridge, 110 ft. above gulch, bears NE. and SW.; desc. gradually over NW. slope.
80.06	Proportionate measurement.
	Set an iron post, 3 ft. long, 2 ins. dia., on solid rock,

Resurvey of Subdivisions of T. 24 S ., R. 23 E.

Chains

24 ins. in a mound of stone, 5 ft. base, for restored SW. cor. of sec. 21 only, with brass cap mkd.

T 24 S R 23 E
S 21
1915

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

Land, broken sandstone ridges and ledges.

Soil, mostly sandrock, very little loose soil, 4th. rate.

Undergrowth, very scattered shadscale and greasewood undergrowth.

No timber.

From the restored cor. of sec. 21,

N. 0°03' W., on true resurvey line, along W. bdy. sec. 21. Over broken sandstone ridges and ledges, desc. over rough NW. slope, through scattered shadscale and greaseowood undergrowth.

13.42 Telephone line, from Castleton to Cisco, bears NE. and SW.

40.28 Proportionate measurement.

On NW. slope, 300 ft. below sec. cor.

Set an iron post, 3 ft. long 1 in. dia., 24 ins. in a mound of stone, 5 ft. base, on solid rock, for restored ¼ sec. cor., with brass cap mkd.

¼ S 21
1915

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

46.00 Road, from Castleton to Cisco, bearsNE. and SW., in bottom of gulch, 45 ft. below ¼ sec. cor., drains SW. Asc. over broken SW. slope.

58.55 Top of knoll, 210 ft. above the road. Desc. over NW. slope.

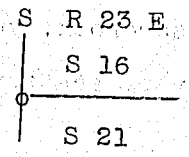
80.56 The old cor. of secs. 16, 17, 20 and 21, which is a sand-

Resurvey of the Subdivision of T. 24 S., R. 23 E.

Chains

stone, 6 x 8 x 6 ins. above ground, mkd. as described by the surveyor general, but not witnessed, firmly set in ground. I destroy all mks. of the cor. that pertain to secs. 17 and 20, and re-establish cor. at same point as follows:

Set an iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground, for re-established cor. of secs. 16 and 21 only, with brass cap mkd.



1915

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

Land, broken sandstone ridges and ledges.

Soil, mostly sandstone outcroppings, very little loose soil, 4th. rate.

Undergrwth, scattered shadscale and greasewood,

No timber.

July 22: From the cor. of secs. 16 and 21,

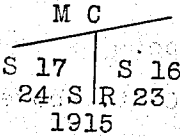
N. 0°01' W., on true resurvey line, on W. bdy. sec. 16.

Over rolling bench land, desc. through scattered shadscale and sagebrush undergrowth.

25.02 Proportionate measurement.

The left bank of Grand River.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for restored meander cor. of fracl. secs. 16 and 17, with brass cap mkd.



1915

Chains

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

42.84 Proportionate measurement.

The right bank of Grand River.

Set an iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground, for restored meander cor. of fracl. secs. 16 and 17, with brass cap mkd.

T 24 S. R 23 E.
S 17 | S 16
M | C
1915

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

Thence asc. over gentle SE. slope, over river bottom land,

80.08 The old cor. of secs. 8, 9, 16, and 17. I re-establish the cor. at the same point as follows:

Set a iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground, for re-established cor. of secs. 8, 9, 16 and 17, with brass cap mkd.

T 24 S R 23 E
S 8 | S 9
S 17 | S 16
1915

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

Land, rolling bench and river bottom.

Soil, sandy and rocky loam, 2nd. rate.

Scattered shadscale and sagebrush undergrowth.

A few scattered cottonwoods along the river banks.

July 22, 1915.

SUBDIVISIONS OF T. 24 S., R. 23 E.

July 6: At 8h 10m a. m., app. t., I set off 38°41' on the lat. arc; 32°47' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 2, 35

Chains	
	and 36 on the S. bdy. of Tp.
	Thence I run
	N. 0°13' W., bet. secs. 35 and 36.
	Over rough mountainous land, broken sandstone ridges, desc over steep N. slope.
7.60	Rock Creek, 10 lks. wide, 4 ins. deep, clear, cold water, course N. 15° W., 160 ft. below the sec. cor. Asc. over rocky SW. slope.
40.00	On SW. slope, 225 ft. above the creek.
	Set an iron post 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for ¼ sec. cor., with brass cap mkd.
	S 35¼ | S 36
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft high, W. of cor.
45.10	Gulch, 1 ch. wide, 50 ft. deep, drains NW., continue asc. over broken SW. slope.
77.70	Top of red sandstone ridge, 125 ft. above the ¼ sec. cor., bears NE. and SW. Desc. over steep N. slope.
80.00	On steep N. slope, 85 ft. below ridge.
	Set an iron post, 3 ft. long, 2 ins. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for the cor. of secs. 25, 26, 35 and 36, with brass cap mkd.
	T 24 S R 23 E S 26 | S 25 S 35 | S 36 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	July 6; At this cor., I set off 22°46' ✓ N. on the decl. arc, and at app. noon, observe the sun on the meridian; the resulting lat. is 38°42' ✓
	Land, very rough and broken sandstone ridges and ledges, N. and SW. slopes.
	Soil, mostly bare sandstone, very little loose soil, 4th. rate.

Subdivision of T. 24 S., R. 23 E.

Chains

Scattered greasewood and shadscale undergrowth.
No timber.

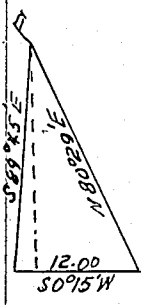
On account of the extreme roughness of the country, it becomes more practicable to reverse the regular order on the following line:

July 7: For solar observation, see line bet. secs. 34 and 35.

From the true point for the cor. of secs. 25, 30, 31 and 36, on the E. bdy. of Tp., I run

West, on random line, bet. secs. 25 and 36.

10.07 The west rim of high mesa, over which it is impossible to chain. Set a flag for triangulation, commanding the whole country to the west. It is impracticable to secure a suitable base at this point, therefore I proceed to the cor. of secs. 25, 26, 35 and 36, from which the flag on high rim bears S. 89°45' E. Thence I lay off a base, S. 0°15' W., 12 chs. dist., (a longer base being impracticable) to a point from which the flag on rim bears N. 80°29' E. The dist. is therefore



base x tan 80°14' = 12.00 x 5.80953 = 69.71 chs., on a course of S. 89°45' E., and the flag is therefore 69.71 chs. E. and 30 lks. S. from the sec. cor. The vertical angle bet. the two points is 22½°.

69.71 chs. added to 10.07 chs. makes

79.78 Intersect. N. and S. line 30 lks. S. of the cor. of secs. 25, 26, 35 and 36.

Thence,

S. 89°47' E., on true line, bet. secs. 25 and 36.

Over very broken mountainous land, and offset around a sandstone wall as follows:

South, 2.37 chs., then, on offset line,

S. 89°47' E., 11.09 chs., then

North, 2.37 chs. to true line, on which at

26.06 On W. slope, 165 ft. above the sec. cor.,

Chains	
	Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for witness cor. to ¼ sec. cor., with brass cap mkd.
	W C ¼ S 25 ——— S 36 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	From here eastward the line takes over a series of impassable cliffs and ledges, ending in a perpendicular cliff 800 ft. high on W. face of rim of mesa.
39.89	The point for ¼ sec. cor., falls on inaccessible land.
69.70	The top of the west rim of high mesa, bears N. and S., 1905 ft. above the cor. of secs. 25, 26, 35 and 36.
	Thence over high level mesa, and enter scrubby cedar and piñon timber, bears N. and S.
79.78	The true point for the cor. of secs. 25, 30, 31 and 36, on E. bdy. of Tp.
	Land, extremely rough and broken mountainous, one cliff being 800 ft. high, sandstone formation.
	Soil, none.
	Some cedar and piñon timber on top of mesa.
	July 7, 1915.
	———
	July 6: From the cor. of secs. 25, 26, 35 and 36, I run
	N. 0°13' W., bet. secs. 25 and 26, on random line.
	Over broken sandstone ridges, asc. over SW. slope.
5.48	To base of an impassable red sandstone wall, about 200 ft. high, and perpendicular, bearing NW. and SE. It is necessary to traverse around the west end of this wall, as follows:

Subdivision of T. 24 S., R. 23 E.

Chains	
	West, 1.40 chs., N. 42°45' W., 4.30 chs., N. 31° E., 5.66 chs., East, 1.37 chs., to my random line.
40.00	Set temp. ¼ sec. cor.
79.41	Intersect S. bdy. sec. 24 at 40.1lks. N. 89°52' E. of the true point for the restored cor. of secs. 23 and 24.
	At intersection, I
	Set an iron post, 3 ft. long, 2 ins. dia., on solid rock, 26 ins. in a mound of stone 5 ft. base, for closing cor. of secs. 25 and 26, with brass cap mkd.

T 24 S R 23 E

C C

S 26 | S 25

1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Thence,
	S. 0°13' E., on true line, bet. secs. 25 and 26.
	Over broken bench land, sandstone formation, desc. over W. slope, through scattered greasewood and shadscale undergrowth.
28.00	Broad ravine, 130 ft. below cor., drains W. Continue along broken W. slope.
39.41	On W. slope, 100 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec.cor.sec.26; brass cap mkd.

S 26½ |

1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor.sec.25; brass cap mkd.

| ¼ S 25

1915

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

Subdivision of T. 24 S., R. 23 E.

Chains	
50.00	Gulch,2 chs. wide, 80 ft. deep, drains W.
59.00	Gulch, 1.50 chs. wide, 70 ft. deep, drains W. Continue over west slope.
65.90	To base of a perpendicular sandstone cliff , bearing NE. and SW., facing NW, 200 ft. high.
73.95	Base of same cliff, facing SW., bearing NW. and SE. Thence desc. over SW. slope.
79.41	The cor. of secs. 25, 26, 35 and 36, 65 ft. below the ¼ sec. cor.
	Land, broken bench and sandstone ridges, general W. slope.
	Soil, generally very rocky, with a little coarse red sand, 4th. rate.
	Undergrowth, scattered shadscale and greasewood.
	No timber.
	July 6, 1915.

July 7: At 7h 30m a. m., app. t., I set off 38°41' ✓ on the lat. arc; 22°41½' N. on the decl. arc, and determine a meridian with the solar at the true point for the restored cor. of secs. 2, 3, 34 and 35, on the S. bdy. of Tp.

Thence I run

N. 0°13' W., bet. secs. 34 and 35.

Over very broken land, sandstone formation, desc. over rough NW. slope through scattered shadscale and greasewood undergrowth.

14.45	Dry creek bed, 30 ft. below sec. cor., drains NE.
21.75	Same creek bed, drains NW.
40.00	On W. edge of broad ravine, 40 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stones, 5 ft. base, for ¼ sec. cor., with brass cap mkd.

S 34 ¼ | S 35

Subdivision of T. 24 S., R. 23 E.

Chains	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
40.30	Broad ravine, drains NW., continue desc. along broken NW. slope.
56.20	Rock Creek, 10 lks. wide, 4 ins. deep, course NW., good water, 65 ft. below the ¼ sec. cor. Asc. steep SW. slope.
61.10	Small ridge, 30 ft. above creek, bears E. and W. Desc. NW. slope.
66.05	Rock Creek, course NE., 50 ft. below ridge. Asc. SE. slope.
69.25	Small ridge, 30 ft. above the creek, bears E. and W. Desc. again into Rock Creek.
72.60	Rock Creek, 35 ft. below ridge, course NW. Asc. SW. slope.
80.00	On SW. slope, 35 ft. above the creek.
	Set an iron post, 3 ft. long, 2 ins. dia., on solid rock 26 ins. in a mound of stone, 5 ft., base, for cor. of secs. 26, 27, 34 and 35, with brass cap mkd.

T 24 S | R 23 E
S 27	S 26
S 34	S 35

1915

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

Land, very rough and broken sandstone ridges.

Soil, mostly sandstone and shale rock, with a very little coarse red sand.

Undergrowth, scattered shadscale and greasewood.

A few lone cedars along the mile, and a few cottonwoods along the creek.

From the cor. of secs. 26, 27, 34 and 35, I run S. 89°52' E., on random line, bet. secs. 26 and 35.

40.00	Set temp. ¼ sec. cor.
79.80	Intersect N. and S. line, 12 lks. S. of the cor. of secs. 25, 26, 35 and 36,

Subdivision of T. 24 S., R. 23 E.

Chains	
	Thence,
	N. 89°57' W., on true line, bet. secs. 26 and 35.
	Over rough broken mountainous land, sandstone formation, desc. through scattered shadscale and greasewood undergrowth.
14.60	Gulch, 50 ft. below sec. cor., drains NW., Asc. NE. slope
16.80	Top of steep asc., bears NW. and SE., thence over flat top of nearly level ridge.
39.90	On west side of top of ridge, 40 ft. above gulch.
	Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, an for ¼ sec. cor. with brass cap mkd.
	¼ S 26
	S 35
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
50.00	Gulch, 100 ft. below ¼ sec. cor., drains NW., asc. NE. slope.
53.00	Ridge, 75 ft. above gulch, bears NW. and SE., thence desc. over west slope.
74.40	Ravine, 140 ft. below ridge, drains NW., asc. NE. slope.
79.80	The cor of secs. 26, 27, 34 and 35, 30 ft. above the ravine.
	Land, rough and broken bad lands, sandstone formation.
	Soil, bare sandstone, red sand and shale rock.
	Undergrowth, scattered shadscale and greasewood.
	No timber.
	From the cor. of secs. 26, 27, 34 and 35,
	I run
	N. 0°13' W., bet. secs. 26 and 27, on true line.
	Over broken sandstone ridges, desc. rough NE. slope, through very scattered cedar timber, and shadscale and greasewood Undergrowth.

Subdivision of T. 24 S., R. 23 E.

Chains	
6.45	Broad ravine, 50 ft. below the cor., drains NW. Asc. SW. slope.
26.25	Ridge, 55 ft. above ravine, bears E. and W. Desc. over gentle N. slope.
31.25	Broad draw, 25 ft. below ridge, drains W., Asc.
37.25	Small ridge, 10 ft. above draw, bears E. and W. Desc. gradually.
40.00	On gentle N. slope, 25 ft. below ridge. Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground. for ¼ sec. cor., with brass cap mkd.

S 27½ | S 26

1915

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

42.80	Enter greasewood flat, bears E. and W.
52.00	Leave flat, bears E. and W. Small wash, 25 ft. below ¼ sec. cor., drains N., asc. steep S. slope of lone butte.
72.34	Intersect S. bdy. sec. 27 at 1.02 chs. E. 62°52' E. of the true point for the restored cor. of secs. 22 and 23, 205 ft. above the wash.

At intersection, I

Set an iron post, 3 ft. long, 2 ins. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for closing cor of secs. 26 and 27, with brass cap mkd.

T 24 S R 23 E

C | C

S 26 | S 26

1915

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

Land, part rough and broken, and part rolling flat,

Soil, generally red sand, coarse and rocky, 4th. rate.

Undergrowth, scattered shadscale and greasewood.

A few scattered cedars along the line.

July 7, 1915.

Subdivision of T. 24 S., R. 23 E.

Chains

Ch . July 9,: At 8h 05m a. m., app. t., I set off 38°41' on the lat. arc; 22°28' N. on the decl. arc, and determine a meridian with the solar at the true point for the cor of secs. 3, 4, 33 and 34, on the S. bdy. of Tp.

Thence I run

N. 0°14' W., bet. secs. 33 and 34.

Over rough mountainous land, desc. over stony E. slope,

40.00 On stony E. slope, 300 ft. abelow the sec. cor.

Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for ¼ sec. cor. with brass cap mkd.

S 33½ | S 34

1915

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

57.65 Enter very rough and broken bad lands, bears E. and W.

80.00 On broken NE. slope, 550 ft. below the ¼ sec. cor.

Set an iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground. for cor. of secs. 27, 28, 33 and 34, with brass cap mkd.

T 24 S R 23 E

S 28 | S 27

S 33 | S 34

1915

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

Land, very rough and broken mountainous, sandstone formation.

Soil, fine shale rock, stony, coarse, 4th. rate.

No timber or vegetation.

July 9: At the cor. of secs. 27, 28, 33 and 34, I set off 22°26½' N. on the decl. arc, and at app. noon, observe the sun on the meridian; the resulting lat. is 38°42'.

Subdivision of T. 24 S., R 23 E.

Chains	
	From the cor. of secs. 27, 28, 33 and 34, I run
	S. 89°52' E., on random line, bet. secs. 27 and 34.
40.00	Set temp. ¼ sec. cor.
79.86	Intersect N. and S. line, 5 lks. N. of the cor. of secs. 26, 27, 34 and 35.
	Thence,
	N. 89°50' W., on true line, bet. secs. 27 and 34.
	Over rough mountainous land, broken sandstone ridges, desc. over W. slope through scattered shadscale and greasewood undergrowth.
6.65	Rock Creek, 10 lks. wide, 4 ins. deep, course N. 15° E., good clear water, 35 ft. below sec. cor. Asc. broken E. slope.
33.85	Ridge, 120 ft. above the creek, bears NE. and SW., desc. rough NW. slope.
39.93	On NW. slope, 20 ft. below the ridge.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.
	¼S 27
	S 34
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
44.90	Road, from Castleton to Cisco, bears N. and S.
79.86	The cor. of secs. 27, 28, 33 and 34, 165 ft. above the ¼ sec. cor.
	Land, rough and broken sandstone ridges, E. and W. slopes.
	Soil, coarse red sand, and fine shale rock, and sandstone outcroppings, 4th. rate.
	Undergrowth, scattered shadscale and greasewood.
	A few scattered scrubby cedars along the line.
	From the cor. of secs. 27, 28, 33 and 34,

Subdivision of T. 24 S., R. 23 E.

Chains	
	I run
	N. 0°14' W., on true line, bet. secs 27 and 28.
	Over rolling land, sandstone formation, desc.
40.00	On slight N. slope, 145 ft. below the sec. cor.
	Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for ¼ sec. cor with brass cap mkd.
	S 28½ | S 27 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
49.50	Bottom of long N. slope, 40 ft. below the ¼ sec. cor.
	Asc. over SW. slope.
59.45	Low flat ridge, 40 ft. above the ¼ sec. cor, bears NW. and SE.; desc.
78.77	Intersect S. bdy. sec. 21 at 166 chs. N. 89°52' E. of the old cor. of secs. 21, 22, 27 and 28, which is later changed to refer to secs. 21 and 22 only. At intersection, I
	Set an iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground, for closing cor. of secs. 27 and 28, with brass cap mkd.
	T 24 S R 23 E C°C S 28 | S 27 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.
	Cor. stands on NE. slope,, 122 ft. below ridge.
	Land, generally rolling N. slope.
	Soil, very rocky and gravelly sand, 4th. rate.
	Undergrowth, scattered shadscale and greasewood.u
	No timber.

July 9, 1915.

Subdivision of T. 24 S., R. 23 E.

Chains	
	July 10: At 9h 00m a. m., app. t., I set off 38°41' on the lat. arc; 22°20' N. on the decl. arc, and determine a meridian with the solar at the true point for the cor. of secs. 4, 5, 32 and 33, on S. bdy. of Tp.
	Thence I run
	N. 0°15' W., bet. secs. 32 and 33.
	Over very broken and rough bad lands, sandstone formation, through scattered shadscale and greasewood undergrowth, desc.
6.85	Dry wash, 15 ft. below the sec. cor., drains NW., asc. over broken SW. slope.
19.95	Top of small shale table rock, 65 ft. above wash; desc.
37.25	Same wash, 85 ft. below table rock, drains NE.
39.85	Same wash, drains NW.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

S 32¼ | S 33

1915

	Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
	Thence asc. rocky and broken SW. slope.
52.35	Ridge, 200 ft. above the ¼ sec. cor., bears E. and W.; desc. over NE. slope.
56.85	Gulch, dry, 65 ft. below ridge, drains NW.; asc. SW. slope.
80.00	On SW. slope, 390 ft. above gulch.
	Set an iron post, 3 ft. long, 2 ins. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for cor. of secs. 28, 29, 32 and 33, with brass cap mkd.

T 24 S R 23 E

S 29 | S 28

S 32 | S 33

1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rough and broken bad lands, sandstone formation.

Subdivision of T. 24 S., R. 23 E.

Chains	
	Soil, coarse red sand and fine shale rock, 4th. rate.
	Undergrowth, scattered shadscale and greasewood.
	No timber.
	From the cor. of secs. 28, 29, 32 and 33, I run
	S. 89°52' E., on random line, bet secs. 28 and 33.
24.43	Base of cliff, 600 ft. high. I traverse around S. end as follows:
	S. 53° E., 3.33 chs., S. 59° E., 2.50 chs., N. 3° W., 1.20 chs., N. 36¼°W., 2.60 chs., to random line.
36.60	Set temp. point for W.C. ¼ sec. cor.
40.00	Point falls on rocky ledge.
73.60	Fall 14 lks. N. of the cor. of secs. 27, 28, 33 and 34.
	Thence,
	N. 89°46' W., on true line, bet. secs. 28 and 33.
	Over very rough and broken mountainous land, asc. over rocky NE. slope. No vegetation.
39.80	Point for ½ sec. cor. falls on rocky ledge, where it would be impossible to perpetuate the cor.
43.00	On broken NE. slope, 505 ft. above the sec. cor.
	Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for witness cor. to ¼ sec. cor., with brass cap mkd.
	W C. ¼ S 28
	S 33 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
51.37	Base of a nearly vertical cliff 600 ft. high, bears NW. and SE., facing NE. The base is 340 ft. above the W.C. ¼ sec. cor.
55.17	Base of the W. face of cliff, bears NW. and SE. Thence desc. over very rocky and broken SW. slope.

Subdivision of T. 24 S., R. 23 E.

Chains

72.60 The cor. of secs. 28, 29, 32 and 33, 675 ft. below brow of cliff.

Land, very rough and mountainous, broken NE. and SW. slopes, sandstone formation.

Soil, only shale rock and sandstone, with large boulders, 4th. rate.

No timber nor undergrowth.

From the cor. of secs. 28 29, 32 and 33,

I run

N. 0°15' W., bet. secs. 28 and 29, on true line.

Over rough broken mountainous land, asc. over slide rock on rough SW. slope.

27.75 Ridge, 415 ft. above sec. cor., bears E. and W., desc. over NW. slope.

40.00 On NW. slope. 180 ft. below ridge.

Set an iron post, 3 ft. long, 1 in. dia., 6n solid rock 26 ins. in a mound of stone, 5 ft. base, for ¼ sec. cor., with brass cap mkd.

S 29¼ | S 28

1915

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

78.84 On NW. slope. 545 ft. below ¼ sec. cor.

Intersect S. bdy. sec. 21, at 2.05 chs. S. 82°36' E. of the restored SW. cor. sec. 21.

At intersection, I

Set an iron post, 3 ft. long, 2 ins. dia., on solid rock. 26 ins. in a mound of stone, 5 ft. base, for closing cor. of secs. 28 and 29, with brass cap mkd.

T 24 S R 23 E

C
S 29 | S 28

1915

Subdivision of T. 24 S., R. 23 E.

Chains	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor
	Land, very rough and broken mountainous, steep NW. and SW. slopes.
	Soil, slide rock, and skale rock, sandstone formation, 4th rate.
	No timber and very little undergrowth, a few scattered shadscales.
	July 10: It is impracticable to be on a meridian at noon, and no obs. for lat. was taken.
	July 10, 1915.

	July 15: At 1h 30m p. m., app. t., I set off 38°41' on the lat. arc; 21°37' N. on the decl. arc, and determine a mr meridian with the solar at the true point for restored cor. of secs. 5, 6, 31 and 32, on the S. bdy. of Tp.
	Thence I run
	N. 0°15' W., bet. secs. 31 and 32
	Over rough mountainous land, along SW, slope of high cliff, at the base.
40.00	Point for ¼ sec. cor. falls on steep rocky ledge, and cannot be set.
42.28	Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for witness cor. to ¼ sec. cor., with brass cap mkd.
	W | C S 31¼ ° S 32 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Cor. stands on W. slope, 55 ft. below the sec. cor.
	Thence desc. over broken NW. slope.
80.00	On broken NW. slope, 330 ft. below the W.C. ¼ sec. cor.
	Set an iron post, 3 ft. long, 2 ins. dia., on solid rock,

Subdivision of T. 24 S., R. 23 E.

Chains	
	26 ins. in a mound of stone, 5 ft. base, for cor. of secs. 29, 30, 31 and 32, with brass cap mkd.
	T 24 S R 23 E S 30 | S 29 S 31 | S 32 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Land, rough and rocky mountainous, at base of west face of cliffs 700 ft. high.
	Soil, only sandstone outcroppings and shale rock, worthless.
	No timber nor vegetation.
	July 15: Not on a meridian at apparent noon, no obs. for lat. taken.
	July 15, 1915:

	July 16: At 8h 30m a. m., app. t., I set off 38°42' on the lat. arc, 21°29½' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32.
	Thence I run
	S. 89°52' E., on random line, bet. secs. 29 and 32.
40.00	Set temp. ¼ sec. cor.
79.93	Intersect N. and S. line 20 lks. N. of the cor. of secs. 28, 29, 32 and 33.
	Thence,
	N. 89°43' W., on true line, bet. secs. 29 and 32.
	Over rough mountainous land, desc. over broken SW. slope, through very scattered shadscale and greasewood undergrowth.
29.00	Dry creek bed, 490 ft. below sec. cor., drains N. 15° W., thence asc. over broken NE. slope.
39.96½	On stony NE. slope, 95 ft. above creek bed.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap mkd.

Subdivision of T. 24 S., R. 23 E.

Chains	
	¼ S.29
	S 32
	1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of co
66.00	Ridge, bears NW. and SE., 497 ft. above the ¼ sec. cor.
	Desc. over NW. slope.
79.93	The cor. of secs. 29, 30, 31 and 32, 135 ft. below ridge.
	Land, rough mountainous, broken E. and W. slopes.
	Soil, fine shale rock and sandstone, worthless.
	Scattered shadscale and greasewood undergrowth.
	No timber.
	July 16: At the cor. of secs. 29, 30, 31 and 32, I set of 21°28' N on the decl. arc, and at app. noon, observe the sun on the meridian; the resulting lat. is 38°42'.
	From the cor. of secs. 29, 30, 31 and 32,
	I run
	N. 89°52' W., on random line, bet. secs. 30 and 31.
40.00	Set temp. ¼ sec. cor.
79.30	Intersect W. bdy. of Tp. 23 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	Thence,
	S. 89°42' E., on true line, bet. secs. 30 and 31.
	Over rough and broken bad lands, sandstone formation, asc. over W. slope, through very scattered shadscale and greasewood undergrowth.
19.10	Small ridge, 55 ft. above cor., bears NE. and SW.; desc. E. slope.
26.00	Dry gulch, 80 ft. below ridge, drains N., continue through broken bad lands.
26.66	Road, from Castleton to Cisco, bears N. 15° W. and S. 15° E.
39.30	On broken W. slope, 10 ft. above gulch.

Subdivision of T. 24 S., R. 23 E.

Chains

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

¼ S 30

S 31
1915

Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of corr.

72.30 The cor. of secs. 29, 30, 31 and 32. 725 ft. above the ¼ sec. cor.

Land, ½ mile broken bad lands, remainder steep SW. slope of high mesa, sandstone formation.

Soil, coarse red sand and fine shale, 4th. rate.

Scattered shadscale and greasewood undergrowth.

No timber.

July 16, 1915.

July 17: At 8h 00m a. m., app. t., I set off 38°42' on the lat. arc; 31°20½' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32.

Thence I run

N. 0°15' W., bet. secs. 29 and 30.

Over rough mountainous land, desc. over broken NW slope, through scattered shadscale and greasewood undergrowth.

14.00 Enter broken bad lands, bear E. and W., red soil.

40.00 On broken land, 470 ft. below the sec. cor.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ½ sec. cor., with brass cap mkd.

S 30½ | S 29

1915

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.

Subdivision of T. 24 S., R. 23 E.

Chains	
51.60	Dry creek bed, 35 ft. below the ¼ sec. cor., drains NW., leave red soil and bad lands; enterlevel bottom land, bears NW. and SE.
60.30	Leave level bottom land, bears NW. and SE., and asc. SW. slope.
62.90	Small ridge, 45 ft. above the creek bed, bears NW. and SE. Desc. over NE. slope to river bottom land.
69.95	Road, from Castleton to Cisco, Utah, bears NE. and SW., Enter nearly level bottom land along Grand River, bears NE. and SW. 80 ft. below ridge.
71.45	Telephone line, from Castleton to Cisco, bears NE and SW.
77.23	Fence, bears N. 37° W. and S. 37° E., thence in F.G.Stearn field.
78.13	Enter heavy willow brush, bears NE. and SW.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground, for cor. of secs. 19, 20, 29 and 30, and also for meander cor., with brass cap mkd.

M.C
T 24 S R 23 E
S 19 | S 20
S 30 | S 29
1915

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.

Corner falls 15 lks. S. of the left bank of Grand River.

July 17: At this cor., I set off 21° 18' N. on the decl. arc, and at app. noon, observe the sun on the meridian; the resulting lat. is 38°42½'.

Land, S. 70 chs. mountainous and bad lands, N. 10 chs. nearly level river bottom.

Soil on the river bottom is a light sandy loam, dry, 1st. rate, soil on the remainder is a red clay and coarse red sand, 4th. rate.

Undergrowth, heavy willows along the river; scattered shadscale and greasewood on the remainder.

Subdivision of T. 24 S., R. 23 E.

Chains

No timber.

From the cor. of secs. 19, 20, 29 and 30,

I run

East, on true line. bet. secs. 20 and 29.

Over level river bottom, through heavy willows and bull-brush undergrowth.

4.80 Leave heavy brush, bears NE. and SW., and enter sagebrush flat, and asc. gentle NW. slope.

25.00 Wire fence and telephone line, Cisco to Castleton, Utah, bearsN. 53° E. and S. 53° W.

25.40 Road, from Cisco to Castleton, Utah, bears NE. and SW., leave sagebrush flat, bears NE. and SW., and enter broken sandstone hills, and shadscale undergrowth.

40.00 On broken land, 200 ft. above the sec. cor.

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

¼ S 20

S 29
1915

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

47.45 Dry ravine, 10 ft. below the ¼ sec. cor., drains N.; asc. over very broken SW. slope.

77.85 On SW. slope, 257 ft. above ravine.

Intersect W. bdy. sec. 21 at 1.33 chs. N. 0°03' W. of SW. cor. of sec. 21. At intersection, I

Set an iron post, 3 ft. long, 2 ins. dia., on solid rock, 26 ins. in a mound of stone, 5 ft. base, for closing cor. ofsecs. 20 and 29, with brass cap mkd.

T 24 S R 23 E
S 20
C
C
S 29
1915

Chains

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

Land, 25 chs. level river bottom and gently sloping bench the remainder, broken sandstone ridges.

Soil, on river bottom and bench land, light sandy loam on clay subsoil, 1st. rate.; remainder, coarse red sand and red clay, 4th. rate.

Undergrowth, willows, bullbrush and sagebrush on the rive bottom and bench land; scattered shadscale and greasewo on the remainder.

No timber .

From the cor. of secs. 19, 20, 29 and 30,

I run

N. 89°42' W., on random line, bet. secs. 19 and 30.

0 Left bank of Grand River, 10 lks from sec. cor.; therefore sec. cor. was also made meander cor.

I offset around bend in river as follows:

South, 2.00 chs., thence
9.00 N. 89°42' W, 9.00 chs., on offset line, then
North, 2.00 chs. to random line, the left bank of Grand River. Set temp. meander cor. Thence continue N. 89°42' W., on random line.

22.20 Left bank of Grand River. Set temp. meander cor., and flag for triangulation.

July 17, 1915.

July 19: For solar observations, see W. bdy. sec. 30.

From the cor. of secs. 19, 24, 25 and 30, I run

S. 89°42' E., on random line, bet. secs. 19 and 30.

(Note: It is not feasible to run this random in the regular order)

39.00 Set temp. ¼ sec. cor.

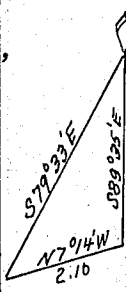
45.38 The right bank of Grand River. Set temp. meander cor. The flag set on temp. meander cor. on left bank of river bears S. 89°35' E. Then, from my transit point, I lay off a base, N. 7°14' W., 2.10 chs. dist., to a

Subdivision of T. 24 S., R. 23 E.

Chains

point from which the flag on left bank bears S. 79°33'E., The dist. bet. the two points is therefore

$$\frac{\text{base x sin } 72°19'}{\sin 10°02'} = \frac{2.10 \times 0.95275}{0.17422} = 11.50 \text{ chs. on}$$



a course of S. 89°35' E., and

22.20 plus 11.50 plus 45.38 makes

79.08 Intersect N. and S. line 2 lks. N. of the cor. of secs. 19, 20, 29 and 30.

Thence,

N. 89°41' W., on true line, bet. secs. 19 and 30.

Desc. at once over left bank of Grand River, bears N. 60° E. and S. 60° W. for 5 chs., thence NW.

9.00 The left bank of Grand River, bears NW. and SE.

Set an iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground, for meander cor. of fracl. secs. 19 and 30, on left bank of river, with brass cap mkd.

T 24 S
S 19 — MC
S 30
R 23 E
1915

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

Thence across level bottom land, through shadscale and greasewood undergrowth.

22.20 The left Bank of Grand River, bears NE. and SW.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for meander cor. of fracl. secs. 19 and 30, on left bank of river, with brass cap mkd.

T 24 S
S 19
MC
S 30
R 23 E
1915

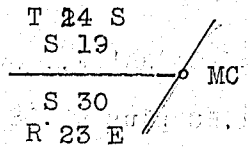
Raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.

33.70 The right bank of Grand River, bears NE. and SW.

Subdivision of T. 24 S., R. 23 E.

Chains

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for meander cor. of fracl. secs. 19 and 30, on right bank of river, with brass cap mkd.



1915

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

Thence asc. over gentle E. slope, through shadscale and greasewood undergrowth.

40.00 On gentle E. slope, 30 ft. above the meander cor.

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

¼ S 19

S 30
1915

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

Thence asc. over very broken SE. slope, bears NE. and SW.

74.20 Spur, 695 ft. above the ¼ sec. cor., projects S.; thence desc. over broken SW. slope.

79.08 The cor. of secs. 19, 24, 25 and 30, 90 ft. below ridge.

Land, west of river, rough mountainous, broken slopes, coarse red sand and red clay soil, 4th. rate, little undergrowth and no timber. Land, east of river, level river bottom, white sandy soil, rocky, 3rd. rate; undergrowth, shadscale and greasewood.

July 19, 1915.

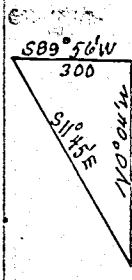
N. 0° 04'W. between secs. 19 and 20.

July 21: At 8h 30m a. m., app. t., I set off 38°43' on the lat. arc; 20°37½' N. on the decl. arc, and determine a meridian with the solar at a point on the right

Subdivision of T. 24 S., R. 23 E.

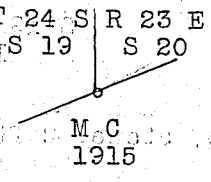
Chains

bank of Grand River which is N. 0°04' W. of the M. C. and the cor. of secs. 19, 20, 29 and 30. From this point I lay off a base, S. 89°56' W., 3.00 chs., to a point from which the cor. of secs. 19, 20, 29 and 30 bears S. 11°45' E. The dist. is therefore



base x tan 78°19' = 3.00 x 4.83590 = 14.50 chs.

14.50 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for meander cor. of fracl. secs. 19 and 20, with brass cap mkd.



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

The right bank of river bears NE. and SW.

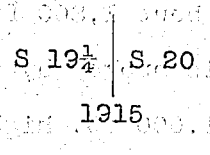
Thence I run

N. 0°04' W., bet. secs. 19 and 20, continuing measurement from section corner,

Asc. over rolling SE. slope, through scattered shadscale, greasewood and sagebrush.

40.00 On top of small shale rock butte, 167 ft. above the river,

Set an iron post, 3 ft. long, 1 in. dia., on solid rock, 26 ins. in a mound of stone, 3 ft. base, for ¼ sec. cor., with brass cap mkd.



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

Desc. over NE. slope, and enter broken sandstone hills, bear NW. and SE.

50.00 Gulch, 75 ft. below ¼ sec. cor., drains SE. Asc. SW. slope, broken by many sandstone cliffs.

54.20 Rocky spur, 220 ft. above gulch, projects E.; desc.

62.10 Gulch, 80 ft. below spur, drains SE., asc. SW. slope.

Chains

70.65 Saddle in ridge, 110 ft. above gulch, bears E. and W., desc. NE. slope into small valley.

80.00 In small valley, about 7 chs. wide, bearing NW. and SE., 120 ft. below saddle.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 17, 18, 19 and 20, with brass cap mkd.

T 24 S | R 23 E
S 18 | S 17

S 19 | S 20
1915

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

July 21: I am unable to be on a meridian at app. noon, and obs. for lat. is omitted.

Land, broken sandstone ridges, NE. and SW. slopes, on all but the N. 3 chs., which takes over a small valley.

Soil, generally red sand and shale rock and sandstone rock, 4th. rate

Undergrowth, scattered shadscale greasewood and sagebrush.

No timber.

About 5 chs. N. of this cor. occurs the base of a sandstone cliff about 1,800 ft. high, and on farther north the country is broken by sandstone cliffs and ledges from 100 to 1,000 ft. high, non-agricultural, inaccessable and unsurveyable. I therefore discontinue the survey at this point.

July 22: At 9h 00m a. m., app. t., I set off 38°43½' on the lat. arc; 20°25½' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.

Subdivision of T. 24 S., R. 23 E.

Chains	
	Thence I run
	East, on true line, bet. secs. 17 and 20.
	Over gentle NE. slope on S. side of small valley, desc. through syattered shadscale and greasewood undergrowth.
7.00	Dry creek bed, 30 ft. below the sec. cor., drains S. 70°E.,
14.35	Small ridge, 35 ft. above the creek bed, bears NW. and SE. Desc. gradually over NE. slope.
40.00	On NE. slope, 160 ft. below ridge,
	Set an iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground, for ¼ sec cor., with brass cap mkd.

¼ S 17

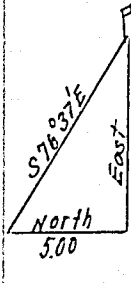
S 20
1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Note. No one inch. post was available for this cor.
50.83	Set point for triangulation.
52.10	The right Bank of Grand River, bears NE. and SW., 25 ft. below ¼ sec. cor.
	Set an iron post, 3 ft. long, 2 ins. dia., for meander cor. of fracl. secs. 17 and 20, 26 ins. in the ground, with brass cap mkd.

T 24 S
S 17 — M C
S 20
R 23 E

1915

	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	I return to the point set at 50.83 chs., from which I set a point on line east on the left bank of river, then lay off a base, north, 5.00 chs. dist., to a point from which the flag on the left bank of river bears S. 76°37' E. The dist. is therefore



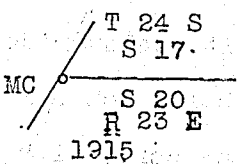
Subdivision of T. 24 S., R. 23 E.

Chains

base x tan 76°37' = 5.00 x 4.20298 = 21.01 chs., which added to 50.83 makes

71.84 To left bank of Grand River, bears NE. and SW.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for meander cor. of fracl. secs. 17 and 20, on left bank of river, with brass cap mkd.



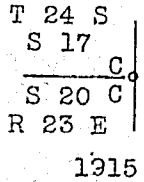
Dig pit., 36 x 36 x 12 ins. E. of post, 8 ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, E. of cor.

Thence continue East, asc. over gentle E. slope, through scattered shadscale and greasewood undergrowth, and some scattered sagebrush along the river.

77.84 Intersect the W. bdy. sec. 16 at 54 lks. N. 0°01' W. of the cor. of secs. 16 and 21,

At intersection, I

Set an iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground, for closing cor. of secs. 17 and 20, with brass cap mkd.



Dig pits, 24 x 18 x 12 ins., crosswise on each line, N. and S., 3 ft. dist. and W. of post, 7 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. High, W. of cor.

Land, 40 chs. rough broken and mountainous, remainder fairly level bench land,

Soil, sandy loam, 1 st. and 2nd. rate except on the rough areas, which is rocky and 4th. rate.

Undergrowth, scattered shadscale and greasewood, with some

Subdivision of T. 24 S., R. 23 E.

Chains	
	sagebrush and bull brush along the river.
	A few scattered cottonwoods along the river bank s.
	From the cor. of secs. 17, 18, 19 and 20,
	I run
	West, on true line, bet. secs. 18 and 19, it being apparent from here that I will not be able to extend the line a mile.
	Over mountainous land, asc. over broken NE. slope.
40.00	On NE. slope from high ridge, 470 ft. above the sec. cor.
	Set an iron post, 3 ft. long, 1 in. dia., 20 ins. in the ground to solid rock and 6 ins. in a mound of stone, 3 ft. base, for ¼ sec. cor., with brass cap mkd.
	¼ S 18 S 19 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	End of survey.
	Land, rough and broken mountainous, NE. slope from high ridge.
	Soil, red shale and clay, very rocky, 4th. rate.
	Very sparse shadscale and greasewood undergrowth.
	July 22, 1915.
	The ½ sec. cor. bet. secs. 18 and 19 falls at the base of sandstone cliffs facing east, bearing generally NE. and SW., These cliffs extend on westward, and range in height from 100 to 1,000 ft. The land is inaccessible, non-agricultural, and unsurveyable. I therefore discontinue the survey at this point.

Meanders of the Right Bank of Grand River, Up stream.

I commence at the meander cor. of fracl. secs. 25 and 30, on W. bdy. of Tp., on right bank, heretofore described.

At this cor., July 23, I set off 38°42' on the lat. arc; 20°14½' N. on the decl. arc, and determine a meridian with the solar at 8h 00m a. m., app. t.

Thence I run with meanders in sec. 30.

Over very rocky land, through scattered cottonwood timber, and dense bullbrush and willow undergrowth.

N. 40° E. 6.20 chs.
S. 74½° E., 9.50 "
N. 60° E. 5.90 "
N. 24½° E. 9.40 " Land becomes more level.
N. 32½° E. 13.30 "
N. 24¾° E. 3.22 "
N. 13¼° E. 6.94 "
N. 37° E. 5.70 "
N. 60¼° E. 4.45 "
N. 17½° E. 9.80 "
N. 53¾° E. 3.38 " To meander cor. of fracl. secs. 19 and 30.

Land, rocky on SW. part, and nearly level on NE. part.

Soil, red sand and clay, rocky, 2nd. and 3rd. rate.

Timber, scattered cottonwoods along the bank.

Undergrowth, dense willows, and some bullbrush.

July 23: At this meander cor. I set off 20°12' N. on the decl. arc, and at app. noon, observe the sun in the meridian; the resulting lat. is 38°42½'.

Thence in sec. 19.

Over low red sandstone cliffs overhanging the river.

N. 5° W. 4.40 chs.
N. 7° W. 5.90 "
N. 15°50'E. 4.20 "
N. 70° E. 4.10 "

Meanders, T. 24 S., R. 23 E.

Chains	
	Meanders of the right bank of Grand River, up stream.
	N. 82½° E., 4.90 chs.
	S. 67½° E., 10.00 "
	N. 89½° E. 2.00 "
	S. 53° E. 6.90 " At 50 lks. on this course leave low red sandstone ledges, and enter white sand beach and scattered cottonwoods.
	East, 4.40 "
	N. 55¾ E. 2.30 "
	N. 22½° E. 4.98 " To meander cor. of fracl. secs. 19 and 20.
	Land, mostly very broken red sandstone ledges, with 12 chs. white sand beach on the E. end.
	No soil on ledges, white sand, 2nd. rate, on the beach.
	Cotton wood timber, and some willow undergrowth.
	July 23, 1915.

Thence in sec. 20.

July 24: At 8h 00m a. m., app. t., I set off 38°42½' on the lat., arc; 20°02' N. on the decl. arc, and determine a meridian with the solar at the meander cor. of fracl. secs. 19 and 20.

Thence in sec. 20.

Over rolling bottom land, through scattered cottonwood timber and willow undergrowth.

N. 20° E.	9.60 chs.	
N. 4½° W.	7.20 "	
North	12.00 "	
N. 54½° E.	14.10 "	
N. 68°20' E.	7.20 "	
N. 78°30' E.	6.67 "	
N. 86° E.	6.62 "	This course takes over the base of a red sandstone ledge, 60 ft. high, extending almost to the water's edge.
N. 82° E.	2.47 "	

Meanders, T. 24 S., R. 23 E.

Chains	
	Meanders of right bank of Grand River, up stream.
	N. 75° E. 2.70 chs.
	S. 69° E. 8.60 "
	N. 85° E. 7.10 "
	N. 39½° E. 5.28 "
	N. 11½° E. 6.80 " At 2.00 chs., wash drains SE.
	N. 10°38' W. 4.08 "
	N. 48° W. 7.10 "
	N. 6°20' W. 6.22 " To meander cor. of fracl. secs. 17 and 20.
	Land, rolling, nearly level on last few courses.
	Soil, very rocky red clay and sandstone, on the first 5 courses, fine white sand on the remainder, 2nd. and 3rd. rate.
	Timber, cottonwood, undergrowth, willows.

	Thence in sec. 17:
	Over level bottom land, through dense willow undergrowth.
	N. 15° E. 2.10 chs. At end of course leave willows, thence along base of clay bank just above high water mark.
	N. 16° E. 15.10 "
	N. 30½° E. 6.20 " At 1.00 ch. on this course, the line takes along the very straight and regular west side of a grove of young cottonwoods, to end of course.
	N. 43° E. 24.00 "
	N. 29°22'E. 3.09 " To restored meander cor. of fracl. secs. 16 and 17.
	Land, level river bottom and clay bank.
	Soil, white sand and red clay, 2nd. rate.
	Cottonwood timber and willow undergrowth along the bank.
	July 24: It is impracticable to be on a meridian at app. noon.

Meanders, T. 24 S., R. 23 E.

Meanders of left bank of Grand River, down stream.

I commence at the restored meander cor. of fracl. secs. 16 and 17,

At this cor., July 26, I set off 38°44' on the lat. arc; 19°36½' N. on the decl. arc, and at 8h 30m a. m., app. t., determine a meridian with the solar.

Thence I run with meanders in sec. 17.

Over nearly level land, through willow undergrowth.

S. 33° W. 7.60 chs.

S. 10° E. 4.50 " At 2.50 chs. leave willow undergrowth

S. 11° W. 13.80 " To meander cor. of fracl. secs. 17 and 20.

Land, nearly level.

Soil, gray clay and white sand, 2nd. rate.

Undergrowth, willows, no timber.

Thence in sec. 20.

Over level bottom land, no timber nor undergrowth.

S. 17°39' W. 20.00 chs. At 12.00 chs. enter red sandstone ledges.

S. 26°10' W. 24.00 " At 14.00 chs. E. G. Stearns' pump house bears south, 1 ch. dist. Leave sandstone ledges and enter scattered cottonwoods.

At 23.00 chs. enter cultivated f field, extends east.

S. 70° W. 6.80 "

S. 85°50' W. 15.30 " At 5.00 chs. on this course, F. G. Stearns' frame house bears S., 2.00 chs. dist. Leave cultivated land, bears NE. and SW., thence through dense willows.

N. 64° W. 8.60 "

S. 67¾° W. 5.90 "

S. 42° W. 6.90 "

S. 36½° W. 5.60 "

Meanders, T. 24 S., R 23 E.

Meanders of left bank of Grand River, down stream.

S. 11° W. 21.10 chs.

S. 28¼° W. 5.16 "

S. 70°20'W. 6.37 " To meander cor. and cor. of secs. 19, 20, 29 and 30.

Land, nearly level, bottom lands.

Soil, 1st. 3 courses, mostly red sandstone, 4th. rate, on the remainder, light sandy loam, 1st. rate.

Cottonwood timber along the bank, and willow undergrowth.

Thence in sec. 30.

Over level land, through willow undergrowth and cottonwood timber.

S. 71° W. 3.80 chs.

N. 76°30'W. 5.60 " To meander cor. of fracl. secs. 19 and 30.

Land, level, river bottom.

Soil, red sand and clay, 2nd rate.

Undergrowth, willows,; cottonwood timber along the bank.

Thence in sec. 19.

July 26: At the meander cor. of fracl. secs. 19 and 30, I set off 19°34½' on the decl. arc, and at app. noon, observe the sun in the meridian; the resulting lat. is 38°42½'.

Over level rocky land, through scattered cottonwood timber.

N. 75° W. 10.50 chs.

N. 88½° W. 2.10 "

S. 19° W. 2.84 " To meander cor. of fracl. secs. 19 and 30.

Land, levle and rocky.

Soil, rock and stone red sand loam, 3rd. rate.

Meanders, T. 24 S., R. 23 E.

Meanders of left bank of Grand River, down stream.

Cotton wood timber, scattered. No undergrowth.

Thence in sec. 30.

Over nearly level land, through willow undergrowth, and scattered cottonwood timber.

S. 10°	W.	5.80 chs.	
S. 51°	W.	3.44	"
S. 43°	W.	2.70	"
S. 34½°	W.	4.30	"
S. 25°10'	W.	14.06	" At 14.06 chs., old fence line, bears NW. and SE.
S. 35½°	W.	12.28	" At 12.00 chs., wash, 20 lks. wide, 10 ft. deep, drains N. 15° W.
S. 56°	W.	3.70	"
S. 41°	W.	11.22	"
S. 28°	W.	5.60	"
S. 64½°	W.	10.65	" At 9.00 chs., J. Kling's house, now abandoned, bears east, 2.00 chs. dist.
S. 82°	W.	8.60	"
S. 55°52'	W.	5.42	" Meander cor. of fracl. secs. 25 and 30, on W. bdy. of Tp., heretofore described.

Land, nearly level river bottom.

Soil, red clay loam, and fine white sand, 2nd. rate.

Timber, a few scattered cottonwoods along bank, and some willow brush undergrowth.

July 26, 1915.

General Description of T. 24 S., R. 23 E.

The area included in this survey is very broken mountainous land, with many sandstone cliffs from 50 to 700 ft. hi There is a narrow strip of cultivable land along the Grand River on the E. side of same, and another cultivable flat in the N.½ sec. 27; aside from this there is no other cultivable land nor grazing land on the Tp.

The soil ranges from light sandy loam, 1st. rate, to coarse red sand and fine shale rock 4th. rate. Except for the cultivable land mentioned, the remainder of the Tp. is practically all sandstone.

The area is watered by Grand River and Rock Creek, the latter does not flow on the surface continually, but intermittently sinks and rises.

Very little timber or other vegetation occurs on the area; a few scattered cedars and cottonwoods being found, and a scattered growth of greasewood and shadscale. Willow and bull brush grow along the river.

Thomas Larson is living in the N½ sec. 27, and has made extensive improvements on his place, having about 40 acres under cultivation.

F. G. Stearns is living in the E.½ sec. 20. He has about 30 acres under cultivation.

I find no evidence of any minerals.

July 26, 1915.

Donald B. Clement
U. S. Transitman.

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4—680

BOOK A-431

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Donald B. Clement, Transitman, U. S. ~~Surveyor~~, during the periods and in the capacities stated opposite our several signatures, in ~~surveying~~ resurveying all those parts or portions of the South and East Boundaries and the Subdivisions of T. 24 S., R. 23 E., and in surveying all those parts or portions of the subdivisions and meanders of T. 24 S., R. 23 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.	
Mark S. Trogdell	June 12, 1915	July 29, 1915	Head Chainman
Lynne Phelps	June 12, 1915	July 29, 1915	Rear Chainman
W. L. Washington	June 12, 1915	July 29, 1915	Flagman
Mason Whitmore	June 12, 1915	July 29, 1915	Cornerman

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

Donald B Clement

U. S. ~~Surveyor~~ Transitman.

6—2761

BOOK A-431

TRANSITMAN.

FINAL OATH OF UNITED STATES ~~SURVEYOR~~.

I, Donald B. Clement, ____, U. S. Transitman, certify on honor ~~Surveyor, do solemnly swear~~ that, in purs of special instructions received from the U. S. Surveyor General for Utah bearing date of the 6th day of May, ____, 1914, I have well, faithfully, and in my own proper person, and in strict conformity with said instructions, the Manual of Surv Instructions, and the laws of the United States, ~~surveyed~~ resurveyed all those parts or portions of the So and East Boundaries and the Subdivisions of T. 24 S., R. 23 E., ar surveyed all those parts or portions of the Subdivisions and meand of T. 24 S., R. 23 E.,

of the Salt Lake Base and ____ Meridian, in the State of Utah, which are represent the foregoing field notes as having been executed by me, and under my direction; and ~~I do fu solemnly swear~~ that all the corners of said survey have been established and perpetuated in strict ac ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Sur General for Utah and in the specific manner described in the field notes, and the foregoing are the original field notes of such survey.

Donald B. Clement

U. S. ~~Survey~~ Trans.

~~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, Jan. 29, 191

The foregoing field notes of the ~~survey of~~ resurvey of the south and east boundaries, and resurvey and survey of the subdivisions and meander Township No. 24 South, Range No. 23 East of the Salt Lake Base and Meridian, Utah,

executed by Donald B. Clement under ~~his~~ special instructions dated May 6, 191 4, having b critically examined, and the necessary corrections and explanations made, the said field notes, and t 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.

6—2761

U. S. Surveyor General.

Filed October 2, 1916.

4—679

BOOK A-431

J.

FIELD NOTES

OF THE SURVEY OF THE

WEST BOUNDARY OF T. 24 S., R. 23 E.

Of the SALT LAKE BASE AND *Meridian,*

In the State of UTAH

EXECUTED BY

DONALD B. CLEMENT

In the capacity of U. S. ~~*Surveyor*~~ Transitman, *under instructions dated* May 6, *1914, issued by the United States Surveyor General to govern surveys included in Group No.* 31, *which were approved by the Commissioner of the General Land Office,* May 29, *1914.* Assignment instructions issued June 8, 1915, by the assistant supervisor of surveys for the District of Utah.

Survey commenced June 24, 1915, ~~*191*~~

Survey completed July 13, 1915. ~~*191*~~

6—151

Examinations Classified

A Plat C.B.H. Notes E.M.H. C.B.H.

B Computations C.B.H.

Comparing

C Plat V.I.F. Notes H.F.B.

BOOK A-431

INDEX DIAGRAM.

Township 24 South, , *Range* 23 East

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

C—151

West Boundary of T. 24 S., R. 23 E.

Chains	
	Survey commenced June 24, 1915, and executed with a Buff and Buff Transit, No. 9305, equipped with a Smith solar attachment.
	For complete test, description and approval of instrument, see Book of the Retracement and Resurvey of the South and East Bdrs. and survey of Subdivision of T. 24 S., R. 23 E.
	From the recent test of the instrument on a Polaris meridian, and from the continuous good performance, I am assured that the instrument is now in satisfactory adjustment.
	Five chain steel tapes and clinometer for determining slope angles were used in measuring all distances, and the tape was frequently tested by comparison with a standard one chain steel tape kept for this purpose only.
	At 8h 00m app. t., I set off 38°41' on the lat. arc; 23°27' N. on the decl. arc, and determine a meridian with the solar at the cor. of Ts. 24 and 25 S., Rs. 22 and 23 E., heretofore described.
	Thence, I run
	North, on true line, bet. secs. 31 and 36.
	Over mountainous land, asc. SW. slope through shale and slide rock, no timber nor vegetation.
9.20	Sandstone ridge, 120 ft. above the Tp. cor., bears E. and W. Desc. over very broken NW. slope.
31.95	Dry wash, 460 ft. below ridge, drains NE.; continue through broken bad lands, asc. SE. slope.
40.00	On broken S. slope, 20 ft. above the wash.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap mkd.
	S 36½ | S 31 1915
	dig pits, 18 x 18 x 12 ins. on line N. and S. of post,

Chains

3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

Continue over broken bad lands.

74.40 Broken sand ridge, bears NE. and SW., 30 ft. below the ¼ sec. cor. Thence desc. to bottom lands.

78.04 Leave broken bad lands, bear E. and W., and enter bottom land along the Grand River, 30 ft. below the ridge. Also enter sagebrush and shadscale, bears E. and W.

80.00 On level bottom land.

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for the cor. of secs. 25, 30, 31 and 36, on W. bdy. of Tp., with brass cap mkd.

T 24 S
R 22 E | R 23 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, on S. 78 chs., very broken and mountainous, general drainage NE., on the N. 2 chs., level river bottom.

Soil, on mountainous area, shale rock and broken sandstone, very little loose soil, 4th. rate.; on the river bottom, dry, sandy loam, 2 ft. or more deep, 2nd. rate.

Undergrowth, sagebrush and shadscale on the N. end.

No timber.

From the cor. of secs. 25, 30, 31 and 36, on W. bdy. of Tp.,

I run

North, bet. secs. 25 and 30.

Over level bottom land along Grand River, through sage brush, shadscale, greasewood and bull brush undergrowth.

West Boundary of T. 24 S., R. 23 E.

Chains	
3.20	Main road, from Castleton and Moab to Cisco, bears NE. and SW.
16.80	Telephone line, from Castleton to Cisco, bears NE. and SW.
12.30	Left bank of Grand River.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for meander cor. of fracl. secs. 25 and 30, with brass cap mkd.

M. C.

S 25 | S 30
R 22 E | R 23 E
T 24 S
1915

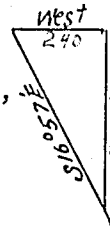
Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

June 24: At this cor., I set off 23°26' N. on the decl. arc, and at apparent noon, observe the sun on the meridian; the resulting lat. is 76°42'.

June 24, 1915.

July 13: At 8h 00m app. t., I set off 76°42' on the lat. arc; 21°00' N. on the decl.arc, and determine a meridian with the solar at the M. C. to fracl. secs. 25 and 30, on the west Bdy.of Tp.

Thence, to determine dist. across river, I set a flag on line north, on right bank of river, thence proceed to flag, from which I lay off a base, west, 2.40 chs. dist., to a point from which the Meander cor. of left bank bears S. 16°57' E. The dist. is therefore,



cot 16°57' x base, or 3.28109 x 2.40 = 7.87 chs.,

which added to 12.30 makes

27.17	To right bank of Grand River, 18 ft. high, bears NE. and SW.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for meander cor. of fracl. secs. 25 and 30, with brass cap mkd.

T 24 S
R 22 E | R 23 E
S 25 | S 30
M C

1915

West Boundary of T. 24 S., R. 23 E.

Chains	
	Raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.
	Thence I continue,
	North, bet. secs. 25 and 30.
	Over rough broken mountainous land, through scattered shadscale and greasewood undergrowth.
31.64	Wash, 15 ft. below the meander cor. on right bank, drains SE.; asc. SW. slope.
40.00	Top of butte, 165 ft. above the wash.
	Set an iron post, 3 ft. long, 1 in. dia., on solid rock and 26 ins. in a mound of stone, 5 ft. base, for ¼ sec. cor., with brass cap mkd.
	S 25¼ | S 30 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	Desc. from butte over NE. slope.
45.00	Wash, small, 65 ft. below ¼ sec. cor., drains SE.; asc. over badly broken SW. slope.
80.00	On broken SW. slope, 515 ft. above the ¼ sec. cor.
	Set an iron post, 3 ft. long, 2 ins. dia., on solid rock, and surrounded by a mound of stone, 5 ft. base, 2 ft. high, for cor. of secs. 19, 24, 25 and 30, with brass cap mkd.
	T 24 S. R 22 E | R 23 E S 24 | S 19 S 25 | S 30 1915
	Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
	(Note.- No three inch iron posts were available for this cor.)
	Land, on S.side of river, level river bottom, soil is

West Boundary of T. 24 S., R. 23 E.

Chains

sandy, dry, 2nd. rate. Undergrowth, shadscale, sagebrush, greasewood and bull-brush. No timber.

On the N. side of the river the land becomes very rough and broken mountainous, with general SE. drainage from steep rocky NE. and SW. slopes. Soil is a coarse red sand and red clay, mixed with loose rocks, sandstone formation. Undergrowth, scattered shadscale and greasewood; no timber.

Note: From the end of the above mile northward, extends a series of cliffs, bluffs and ledges, ranging in height from 50 to 700 ft., which are impassable and unsurveyable. I therefore discontinue my line at this point.

BOUNDARIES OF NEW SUBDIVISIONS IN T.24 S., R.23 E.

Table of latitudes, departures and closing errors.

Line designated	True Bearing	Distance Chs.	Latitudes N. Chs.	Latitudes S. Chs.	Departures E. Chs.	Departures W. Chs.
E.Bdy.T.24 S.,R.23 E.	N. 0°12'W.	159.63	159.63	.....	.....	00.56
S.bdy. secs.24,23,22.	S.89°52'W.	240.81	.....	0.56	.....	240.81
S. bdy. sec. 21.....	N.89°36'W.	80.06	0.56	.....	.....	80.06
W. bdy. sec. 21.....	N. 0°03'W.	80.56	80.56	.....	.....	0.06
C.C. dist.....	N. 0°01'W.	0.54	0.54	.....	.....	.....
N. bdy. sec. 20.....	West.....	77.84	.....	.....	.....	77.84
W. bdy. sec. 20.....	S. 0°14'E.	80.00	.....	80.00	0.09	.....
N. bdy. sec. 30.....	N.89°41'W.	79.08	0.44	.....	.....	79.08
W.bdy.T.24 S.,R.23 E.	South.....	160.00	.....	160.00	.....	.....
S.bdy.T.24 S.,R.23 E.	S.89°52'E.	477.80	.....	1.11	477.80	.....
Convergency.....	.....	.....	.....	.....	.....	0.21
Totals.....	.....	.....	241.73	241.67	477.89	478.62
			241.67			477.89
Error in lat.....			0.06			
Error in dep.....						0.73

July 19, 1915.

Donald B. Clement

U. S. Transitman

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Page

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BOOK A-431

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Donald B. Clement Transitman, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of the West Boundary of T. 24 S., R. 23 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.	
Mark G. Ingalls	June 12, 1915	July 29, 1915.	Head Chainman.
Lyman Phelps	June 12, 1915	July 29, 1915	Rear Chainman
W. L. Washington	June 12, 1915	July 29, 1915	Flagman
Mason Williams	June 12, 1915	July 29, 1915	Cornerman

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

Donald B. Clement

U. S. ~~Surveyor~~ Transitman.

6—2764

FINAL OATH OF UNITED STATES ~~SURVEYOR~~ TRANSITMAN.

I, Donald B. Clement, ~~Surveyor~~ Transitman, certify on honor, U. S. ~~Surveyor, do solemnly swear~~ that, in purs
of special instructions received from the U. S. Surveyor General for Utah
bearing date of the ~~June~~ 6th day of May, 1914, I have well, faithfully, and
in my own proper person, and in strict conformity with said instructions, the Manual of Surv
Instructions, and the laws of the United States, surveyed all those parts or portions of the W
Boundary of T. 24 S., R. 23 E.,
of the Salt Lake
Base and Meridian, in the State of Utah, which are represent
the foregoing field notes as having been executed by me, and under my direction; and ~~I do fu~~
~~solemnly swear~~ that all the corners of said survey have been established and perpetuated in strict ac
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surv
General for Utah and in the specific manner described in the field notes, and
the foregoing are the original field notes of such survey.

Donald B. Clement
U. S. ~~Surveyo~~ Tran

~~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, Jan. 29, 1918

The foregoing field notes of the survey of the west boundary of Township No. 2
South, Range No. 23 East of the Salt Lake Base and Meridian, Utah,
executed by Donald B. Clement
under his special instructions dated May 6, 1914, 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.

4—679

BOOK A-431

Cancelled

A.

CANCELLED

FIELD NOTES

OF THE ~~SURVEY OF THE~~

RETRACEMENT AND RESURVEY

O F

WEST, NORTH, AND EAST BOUNDARIES

AND

S U B D I V I S I O N

AND

METES AND BOUNDS SURVEY

TOWNSHIP NO. 9 NORTH, RANGE NO. 5 EAST;

AND

METES AND BOUNDS SURVEY

SECTIONS 30 AND 31 TOWNSHIP NO. 9 NORTH, RANGE NO. 6 EAST

Of the SALT LAKE BASE AND *Meridian,*

In the State of U T A H

EXECUTED BY

JOHN W. DOUGALL AND THOMAS C. RATHBONE

This survey cancelled See Hon Cons letter E dated Sept 30 1919 (# 0189)

In the capacity of U. S. Surveyor U.S. Transitman, *under instructions dated* July 8, *1914,*

issued by the United States Surveyor General to govern surveys included in by Supervisor of Surveys for District of Utah July 11, 1914, affirmed *Group No.* 33, *which were approved by the Commissioner of the General Land* telegram from the Commissioner of the General Land Office Oct. 1, 1914; *Office,* July 24, *1914;* supplemental special instructions issued Aug. 13, 1917 by U.S. Surveyor General, approved by the Commissioner of the General Land Office Aug. 28, 1917. Assignment instructions and supplemental assignment instructions issued by the assistant supervisor of surveys for District of Utah, July 8, 1914 and Oct. 26, 1917, respectively.

Survey commenced July 28, *1914.*

Survey completed October 30, *1917.*

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CANCELLED

BOOK A-431

4—679 b

INDEX DIAGRAM.

Township 9 North, Range 5 x 6 East

349 365 366

346 348 350 351 353 355 357 367 365 367

344 6 431 5 404 4 398 3 392 2 380 1 370

429 446 403 397 391 379

342 7 428 8 401 9 395 10 386 389 11 377 12 369

426 445 400 386 394 386 388 375 x 6

340 18 425 17 443 16 406 15 386 387 14 374 13 368 364

424 441 455 385 407 383 382 373 371

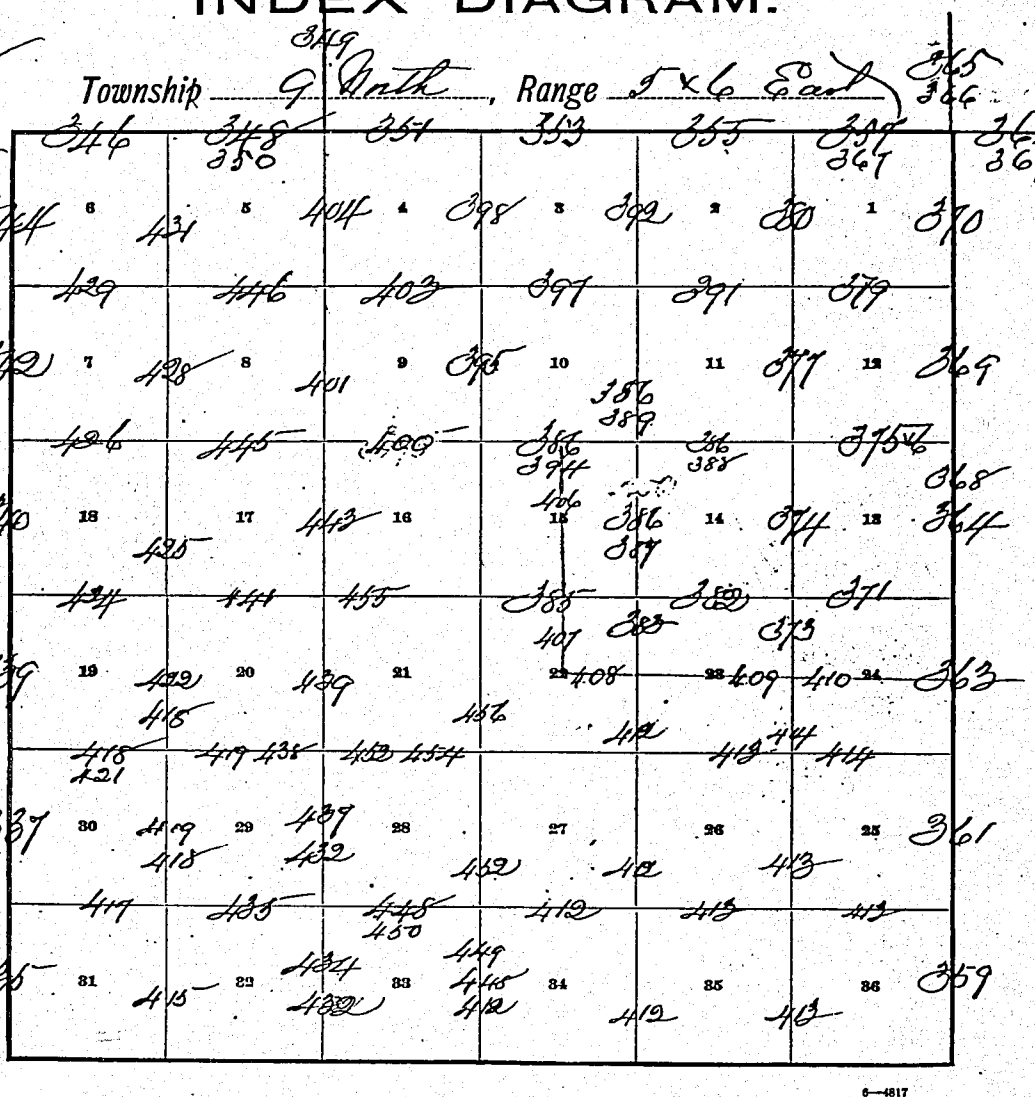
339 19 422 418 20 439 21 456 22 408 412 23 409 410 24 363

418 421 419 438 452 454 413 414 414

337 30 419 418 29 439 432 28 452 27 412 26 413 25 361

417 435 448 450 412 413 413

335 31 415 32 434 432 33 449 448 412 34 412 35 413 36 359



6—4817

The above survey of subdivision is cancelled, See Hon Comm letter Sept 13, 1919 (0189)

NAMES AND DUTIES OF ASSISTANTS.

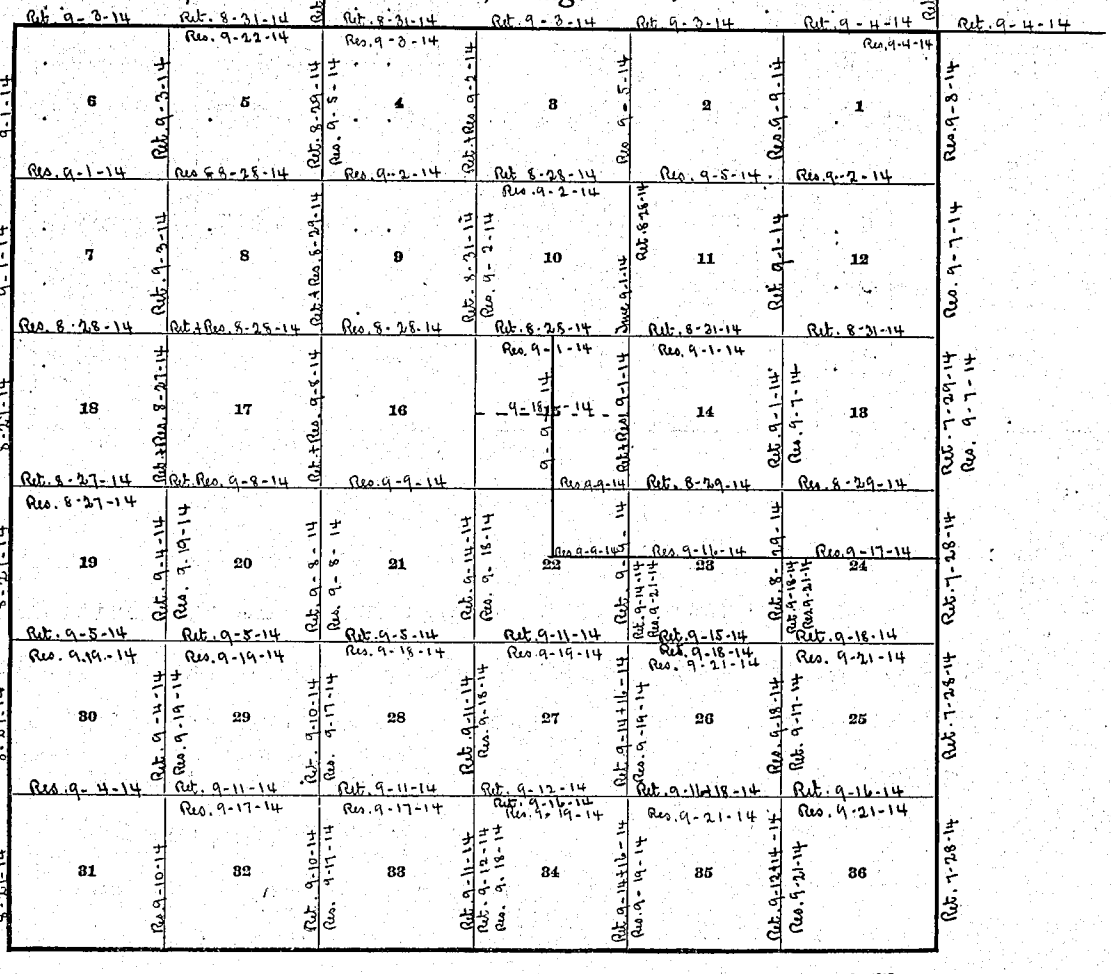
Carl Ray, ... Head Chainman.
Barnum B. Packard, ... Head Chainman.
Fred Coffman, ... Rear Chainman.
Elliot Bird, ... Rear Chainman.
Elliot Bird, ... Head Chainman.
Henry Johansen, ... Axeman.
Henry Johansen, ... Rear Chainman.
Louis Bingham, ... Axeman.
Myron M. Michael, ... Flagman.
Joseph Smith, ... Flagman.
Joseph Smith, ... Rear Chainman.
Walter Buck, ... Chainman.
Samuel McBride, ... Flagman.

4—679 b

INDEX DIAGRAM.

CANCELLED

Township 9 North, *Range* 5 East



6—4817

The lines in above diagram along which dates are colored black were surveyed by John W. Dougall, U. S. Surveyor; and lines along which dates are colored red, were surveyed by Thos. C. Rathbone, U. S. Transitman.

Tract Surveys.

ct 37, commenced Oct. 2, 1914, completed Oct. 28, 1917, Dougall & Rathbone.
ct 38, commenced Oct. 5, 1914, completed Oct. 28, 1917, Dougall & Rathbone.
ct 39, commenced Oct. 2, 1914, completed Oct. 7, 1914, Thos. C. Rathbone.
ct 40, commenced Oct. 2, 1914, completed Oct. 7, 1914, Dougall & Rathbone.
ct 41, commenced Sept. 26, 1914, completed Sept. 26, 1914, Dougall & Rathbone.
ct 42, commenced Sept. 29, 1914, completed Oct. 1, 1914, Dougall & Rathbone.
ct 43, commenced Sept. 29, 1914, completed Oct. 1, 1914, Dougall & Rathbone.
ct 44, commenced Sept. 26, 1914, completed Oct. 1, 1914, Dougall & Rathbone.
ct 45, commenced Sept. 26, 1914, completed Sept. 28, 1914, Dougall & Rathbone.
ct 46, commenced Oct. 9, 1914, completed Oct. 13, 1914, John W. Dougall.
ct 47, commenced Oct. 10, 1914, completed Oct. 13, 1914, Dougall & Rathbone.

CANCELLED

INDEX TO SEGREGATED TRACTS.

Description by Resurvey	Description by Original Survey.							
Tract Number	T.	R.	Sec.	Subdivision	Entry. Kind	Entry. Number	Status	Entry.
37	9N.	5E	5	Lot 3	S.S.	List 5	Approved.	Utah.
38	9N.	5E.	5	Lot 4	S.S.	List 5	Approved.	Utah.
39	9N.	5E.	5	NE¼SE¼	S.S.	List 7	Approved.	Utah.
40	9N.	5E.	5	SE¼SW¼	S.S.	List 5	Approved.	Utah.
42	9N.	5E.	17	NE¼NE¼	S.S.	List 7	Approved.	Utah.
43	9N	5E.	17	NE¼NW¼	S.S.	List 5	Approved.	Utah.
44	9N.	5E.	21	SE¼NE¼	S.S.	List 7.	Approved.	Utah.
45	9N.	5E.	22	SW¼NW¼	S.S.	List 7.	Approved.	Utah.
46	9N.	5E.	25	NW¼NE¼	S.S.	List 7.	Approved.	Utah.
41	9N.	5E.	16	All	School Sec.		Approved.	Utah.
47	9N.	5E.	36	All	School Sec.		Approved.	Utah.

Note:

All tract segregations shown herein represent the position and form of said tracts under the original description as referred to the original survey, located as such on the ground according to the best available evidence of their true position.

CANCELLED

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

Survey commenced August 27, 1914, and executed with a K. & E. transit No. 20575 and a Young and Sons' transit No. 8515, with Smith solar attachments. The horizontal limbs are provided each 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.

Five-chain steel tapes and clinometers were used in all measurements; and the reduced horizontal distances only appear in these field notes. The tapes were tested frequently by comparison with a standard one-chain tape kept for that purpose only.

The instruments were approved for use in this survey by the Assistant Supervisor of Surveys for the District of Utah.

The adjustments of the transits were examined and level and collimation errors corrected; then to test the solar apparati by comparing indications resulting from solar observations made during a. m. and p. m. hours, with a meridian determined by observations on Polaris, proceed as follows:

Test of instrument No. 8515, Young & Sons, used by John W. Dougall, U.S. Surveyor:

August 29, 1914: At my camp, which is situated in the center of the S½ of sec. 9, T.9 N. R.5 E.; lat. 41° 31'N. long. 111° 23'W., I set off 41° 31'N. on the lat. arc; 9° 25½'N. on the decl. arc, and at 4h 1m p. m. l. m. t., determine a meridian with the solar, and mark a point in the meridian on a stake firmly driven in the ground 10 chs. N. of my station.

At 9h 04m 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 stake driven in the ground 10.00 chs. N. of my station.

August 29, 1914.

August 30: At 7h 30m a.m., I lay off the azimuth of Polaris 1° 32' 20" to the west, and mark a point in the meridian thus determined by a tack driven in the stake set on August 29, on which the meridian falls 0.6 ins. E.of the mark determined with the solar.

At 8h 01m a.m.l.m.t., I set off 41° 31'N.on the lat.arc; 9° 11'N.on the decl.arc; and mark a point in the meridian determined with the solar, by a tack in the stake already set 10.00 chs.N.of my station; this mark falls 1.2 ins.east of the meridian established by the Polaris observation.

The solar apparatus by a.m.and p.m.observations defines positions for meridians respectively about 16" west and 31" east of the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 9h 0m a.m. is N.17° 55'W.; the angle thus determined gives the mag.decl.17° 55'E.

Test of K.& E.transit No.20575, used by Thomas C.Rathbone, U.S.Transitman:

August 29, 1914: At my camp, which is situated in the center of the S½ of sec.9, T.9 N., R.5 E., in lat.41° 31'N.; long.111° 23'W., I set off 41° 31'N.on the lat. arc; 9° 25½'N. on the decl.arc; and at 4h 01m p.m., l.m.t., determine a meridian with the solar, and mark a point in this meridian on a hub firmly driven in the ground 10.00 chs.N.of my station.

At 9h 04m p.m.by my watch, which carries 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 another hub driven in the ground 10.00 chs.N.of my station.

August 29, 1914.

TOWNSHIP 9 NORTH, RANGE 5 EAST.

August 30, 1914: At 7h 30m a.m., I lay off the azimuth of Polaris 1° 32' 20" to the west, and mark the meridian thus determined by a tack driven in the hub set August 29, on which the meridian practically coincides with the mark determined with the solar.

At 8h 01m a.m.l.m.t., I set off 41° 31' on the lat.arc; 9° 11'N.on the decl.arc, and mark a point in the meridian thus determined on the hub set August 29; this mark falls 1 in.E.of the Polaris meridian.

The solar apparatus practically coincides with the Polaris meridian in the p.m.hours, and defines a position for meridian about 26" east of Polaris meridian in the a.m.hours. 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° 55'W.; the angle thus determined gives the mag.decl.17° 55'E.

Note: Tests of instruments prior to commencement, and frequent tests made during the execution of this survey prove the instruments to have remained in satisfactory adjustment.

From the standard cor.of Tp.9 N., Ro.4 and 5 E., which is an iron post 3 ins.dia., 12 ins.above ground, firmly set, properly marked and witnessed,

North bet.secs.31 and 36,

Descending gradually along E.slope of ridge; through dense aspen timber and deer brush and elderberry undergrowth.

5.60 Head of small swale, 20 ft.below cor., drains E.

Ascend.

9.80 Small spur, 40 ft.above swale, projects E.5.00 chs.

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

Chains.	
	Descend.
15.20	Leave aspen timber, bearing E. and W.; enter exceptionally dense willows, bearing E. and W.
16.80	Hollow, 40 ft. below spur, drains E. 4.00 chs.; thence south. Ascend.
19.00	Leave willows, bearing E. and W.; enter sagebrush bearing E. and W.
22.00	Spur, 30 ft. above hollow, projects E. 4.00 chs. Leave sage and descend through aspen timber bearing NW. and SE.
24.50	Hollow, 30 ft. below spur, draining E. 5.00 chs.; thence S. Leave aspen timber, bearing NW. and SE.; enter sage bearing NW. and SE. Ascend gradually to ridge.
40.96	The old ¼ sec. cor., which is a limestone 12 x 8 x 4 ins. above ground, firmly set in mound of stone and plainly marked ¼ on W. face. Corner stands on S. slope of sage-brush ridge, 80 ft. above the hollow. I re-establish this corner as follows: Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, with the old corner buried alongside, for ¼ sec. cor., with brass cap marked ¼ S 36 | S 31 1914 Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. The true course of this ~~½ mi.~~ is North, and the distance 40.96 chs.
	From this ¼ sec. cor. I continue North bet. secs. 31 and 36, Ascending to top of ridge; through sagebrush.
7.74	Dim wood road, bearing E. and W.
9.00	Top of ridge, 30 ft. above the ¼ sec. cor., bearing E. and W. Descend.
40.94	Fall 39 lks. W. of the old cor. of secs. 25, 30, 31, and 36, which is a sandstone 20 x 16 x 10 ins. lying loose on.

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

Chains.

the ground, marked 5 notches on one edge, and 1 notch on the opposite edge; not witnessed. I re-establish the cor. at the same point as follows:

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

T 9 N
S 25 | S 30
R4E ——+—— R5E
S 36 | S 31
1914

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Corner stands in wide hollow, draining NE., 150 ft. below the ridge.

The true course of this half-mile is therefore N. 0° 34' E. and the distance 40.94 chs.

Land, generally rolling, mountainous, eastern exposure; south half-mile drains SE., and the north half-mile NE.

Soil is of a stony, sandy loam, coarse texture, on rocky subsoil.

Undergrowth, scrubby sagebrush on the north half-mile;

Timber, aspen on the south half-mile.

North between secs. 25 and 30,

Over rolling mountainous land; ascending S. slope of spur, through sagebrush.

16.50 Road, Ogden to Woodruff and Randolph, bears E. and W.

17.00 Top of spur, 50 ft. above the cor., projects E. 20.00 chs.

Descend.

30.90 Hollow, 70 ft. below spur, drains E. Road in hollow, from Ogden to Woodruff and Randolph, bears E. and W.

Ascend.

40.81 Fall 32 lks. W. of the old ¼ sec. cor., which is a sandstone 10 x 10 x 9 ins. above ground, firmly set, plainly marked ¼ on W. face, and not witnessed. Corner stands on S. slope of spur, 50 ft. above the hollow. I re-establish

CANCELLED

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

Chains.

the corner at the same point as follows:

Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, with the old corner buried alongside, for ¼ sec. cor., with brass cap marked

¼ S 25 | S 30

1914

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

The true course of this half-mile is therefore N.0° 27' E., and the distance 40.81 chs.

I continue my line from the ¼ sec. cor.

North bet. secs. 25 and 30,

Over rolling mountainous land; ascending to spur, through sage.

11.60 Spur, 30 ft. above the ¼ sec. cor., projecting E. 30.00 chs.

Descend.

31.20 Hollow, 80 ft. below spur, drains E.

Ascend.

40.65 Fall 26 lks. W. of the old cor. of secs. 19, 24, 25, and 30, which is a sandstone 14 x 6 x 8 ins. above ground, firmly set and marked and witnessed as described by the surveyor general.

Corner stands on the SE. slope of a spur, 15 ft. above hollow.

I re-establish the corner at the same point as follows:

Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, with the old corner buried alongside, for the cor. of secs. 19, 24, 25, and 30, with brass cap marked

T 9 N

S 24 | S 19

R4E ——— R5E

S 25 | S 30

1914

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

The true course of this half-mile is therefore N.0° 22' E., and the distance 40.65 chs.

Land, is generally rolling, mountainous, draining easterly with E. exposure.

Soil, is coarse, rocky, sandy loam, on rocky subsoil.

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

Chains.

Undergrowth, sagebrush.

Sparse grass on the mile; fair for grazing.

No timber.

North bet. secs. 19 and 24,

Over open rolling, mountainous land; ascending SE. slope of spur; through sagebrush.

3.50 Spur, 20 ft. above the cor., projects E. 15.00 chs.

Descend.

26.50 Swamp meadow, 1.00 ch. wide, in hollow, 60 ft. below spur, course E. Ascend.

34.40 Spur, 50 ft. above hollow, projects E. 15.00 chs.

Descend.

40.13 Fall 28 lks. W. of the old ¼ sec. cor., which is a limestone 8 x 7 x 5 ins. above ground, lying loose in small depression, with "¼" marked on one face; no accessories. I re-establish the corner at the same point as follows:

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, with old corner buried alongside, for ¼ sec. cor., with brass cap marked

¼ S 24 | S 19

1914

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

Corner stands on N. slope of spur, 30 ft. below top.

The true course of this half-mile is therefore N. 0° 24' E., and the distance 40.13 chs.

I continue my line from the ¼ sec. cor.

North bet. secs. 19 and 24,

2.87 Hollow, 10 ft. below ¼ sec. cor., drains E.

Road in hollow, bearing E. and W., from timber to road to Woodruff. Ascend.

12.30 Top of ridge, 20 ft. above hollow, bearing E. and W.

Thence over rolling sagebrush land; gradually descending.

Chains.

32.00 Dim wood road, bearing E.and W.

33.00 Small hollow, 10 ft.below ridge, drains E.

Ascend.

40.65 Fall 27 lks.W.of the old cor.of secs.13,18,19, and 24, which is a sandstone 27 x 10 x 4 ins.above ground, firmly set and marked and witnessed as described by the surveyor general. Corner stands on S.slope of spur, 20 ft.above the hollow. I re-establish the corner at the same point as follows:

Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground, with old corner buried alongside, for the cor. of secs.13,18,19, and 24, with brass cap marked

T 9 N
S 13 | S 18
R4E ——+—— R5E
S 24 | S 19
1914

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

The true course of this half-mile is therefore N.0°23' E., and the distance 40.65 chs.

Land, generally rolling, with easterly drainage and exposure.

Soil, is a sandy gravelly loam, dry, and of coarse texture, on stony subsoil.

Undergrowth, sagebrush on the mile, with good grazing grass.

No timber.

North bet.secs.13 and 18,

Over rolling land, draining E.; through sagebrush; ascending gradually over S slope of spur.

10.00 Spur, 20 ft.above the sec.cor., projects E.20.00 chs.

Descend.

22.70 Hollow, 20 ft.below spur, drains E.

Ascend.

40.64 Fall 35 lks.W.of the old ¼ sec.cor., which is a sand-

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

Chains.

stone 12 x 10 x 4 ins.above ground, firmly set, and marked and witnessed as described by the surveyor general. I re-establish the corner at the same point as follows:

Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, with old corner buried alongside, for the ¼ sec.cor., with brass cap marked

¼ S.13 | S 18
1914

Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Corner stands on S.slope of ridge, 50 ft.above the hollow. The true course of this half-mile is therefore N.0° 30'E. and the distance 40.64 chs.

I continue my line from the ¼ sec.cor.

North bet.secs.13 and 18,

Ascending gradually to ridge; through sagebrush.

22.56 Wood road, from timber to road to Woodruff, bearing E. and W.

25.06 Ridge, 60 ft.above the ¼ sec.cor., bearing N.45° W.and S.45° E.; road on ridge, connects with road just crossed and road to Woodruff, bearing with ridge.

Descend gradually.

32.00 Head of small hollow, 30 ft.below ridge, draining E.

Ascend.

40.84 Fall 34 lks.W.of the old corner of secs.7,12,13, and 18 which is a sandstone 32 x 22 x 14 ins.above ground, loosely set, and marked and witnessed as described by the surveyor general. Corner stands on S.slope of low ridge, 20 ft.above head of hollow. I re-establish the corner at the same point as follows:

Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground, with the old corner buried alongside, for re-established corner of secs.7,12,13, and 18, with brass cap marked

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

Chains.

T 9 N
S 12 | S 7
R4E ——— R5E
S 13 | S 18
1914

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

The true course of this half-mile is therefore N. 0° 29' E., and the distance 40.84 chs.

Land, rolling, with east exposure and drainage.

Soil, sandy loam, a little stony, coarse and dry, on stony subsoil.

Undergrowth sagebrush on entire mile, with some grass for grazing.

No timber.

North bet. secs. 7 and 12,

40.00 After diligent search I find no trace of the old ¼ sec. cor.; set temp. ¼ sec. cor.

81.13 Fall 1.94 chs. W. of the old cor. of secs. 1, 6, 7, and 12, which is a limestone 8 x 4 x 10 ins. above ground, loosely set in a mound of stones, and marked as described by the surveyor general. Corner stands in small clearing on top of ridge bearing NE. and SW. I re-establish the corner at the same point as follows:

Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, with old corner buried alongside, for re-established cor. of secs. 1, 6, 7, and 12, with brass cap marked

T 9 N
S 1 | S 6
R4E ——— R5E
S 12 | S 7
1914

from which

An aspen 9 ins. dia. bears N. 49° 30' E. 185 lks. dist. marked T 9 N R 5 E S 6 B T

An aspen 8 ins. dia., bears S. 14° 30' E. 110 lks. dist., marked T 9 N R 5 E S 7 B T

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

Chains.	
	An aspen 7 ins.dia.bears S.37°W.24 lks.dist. marked T 9 N R 4 E S 12 B T
	An aspen 5 ins.dia., bears N.65°W.74 lks.dist. marked T 9 N R 4 E S 1 B T
	Thence
	S.1° 22'W.on true line bet.secs.7 and 12,
	Over rolling land; descending into aspen timber, bearing NE. and SW.
2.00	Swale, 20 ft.below sec.cor., drains E.
	Ascend.
4.00	Enter sagebrush opening, bearing E.and W., on point of small spur, 20 ft.above swale, projecting NE.10.00 chs.
	Descend.
14.00	Small swale, 80 ft.below spur, drains NE.
	Ascend.
16.00	Leave sagebrush opening, bearing E.and W.
	Enter aspens bearing E.and W.
26.00	Spur, 10 ft.above swale, projects NE.10.00 chs.
	Descend.
30.00	Swale, 10 ft.below spur, drains NE.
	Leave aspen timber, bearing NE. and SW.
	Thence over rolling land, covered with sagebrush.
35.30	Road to timber, bearing NE. and SW.
40.57½	Proportionate distance,
	Set an iron post 3 ft.long, 1 in.in dia., 24 ins.in the ground, for ¼ sec.cor., with brass cap marked ¼ S 12 | S 7 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
50.35	Spur, 20 ft.above swale, projects E.15.00 chs.
	Descend.
56.50	Swale, 20 ft.below spur, drains NE.
	Ascend gradually.
78.00	Low spur, 20 ft.above swale, projects E.5.00 chs.
	Descend.

RETRACEMENT AND RESURVEY OF WEST BOUNDARY T.9 N.R.5 E.

Chains.	
81.15	The cor. of secs. 7, 12, 13, and 18, 20 ft. below spur.
	Land, rolling, with easterly drainage and exposure.
	Soil on S. half-mile dry, sandy, gravelly loam; on N. half gravelly loam, mixed with some decayed vegetation; sub-soil, rocky.
	Timber, aspen on N. half-mile; sagebrush undergrowth and grass for grazing on the remainder.

From the cor. of secs. 1, 6, 7, and 12,

North, between secs. 1 and 6,

Over spur; through sagebrush opening; descend.

4.50	Enter dense aspens and scattering pines bearing E. and W.
7.00	Gulch, 20 ft. below sec. cor., drains E.
	Ascend.
12.00	Spur, 25 ft. above gulch, projects NE. 10.00 chs.
	Descend.
17.00	Hollow, 20 ft. below spur, draining NE.
	Dim wood road in bottom of hollow, bearing NE. and SW.
	Ascend.
22.00	Spur, 25 ft. above hollow, projects E. 5.00 chs.
	Descend.
27.00	Swale, 20 ft. below spur, drains NE.
	Ascend.
35.00	Spur, 35 ft. above swale, projects NE. 10.00 chs.
	Descend.
40.37	Fall 94 lks. W. of the old ¼ sec. cor., which is a red limestone 8 x 4 x 6 ins. above ground, loosely set, marked and witnessed as described by the surveyor general. I re-establish the corner at the same point as follows:

Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, with old corner buried alongside, for ¼ sec. cor., with brass cap marked

¼ S 1 | S 6
1914

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

Chains.	
	from which
	An aspen, 5 ins. dia., bears S. 80° 30' E. 14 lks. dist., marked $\frac{1}{4}$ S 6 B T
	An aspen, 8 ins. dia., bears N. 57° 15' W. 64 lks. dist., marked $\frac{1}{4}$ S 1 B T
	Corner stands near bottom of hollow, 90 ft. below spur.
	The course of this half-mile is therefore N. 1°20' E., and the distance 40.38 chs.
	From the $\frac{1}{4}$ sec. cor. I continue
	North, between secs. 1 and 6,
.60	Deep hollow, 10 ft. below the $\frac{1}{4}$ sec. cor., drains E.
	Ascend.
2.60	Enter sagebrush opening, bearing E. and W., near top of spur.
3.50	Top of spur, 50 ft. above hollow, projects E. 5.00 chs.
	Descend.
4.50	Leave sagebrush opening; enter aspen and scattering pine timber, bearing E. and W.
15.00	Hollow, 60 ft. below spur, drains SE.
	Ascend.
16.00	Leave timber, bearing E. and W.
22.00	Enter aspen and scattering pine timber, bearing E. and W.
24.00	Spur, 50 ft. above hollow, projects E. 5.00 chs.
	Descend.
29.00	Hollow, 10 ft. below spur, drains E.
	Ascend.
31.50	Leave timber, bearing E. and W.; enter sagebrush opening; thence ascend spur of mountain; through dense short buck and service berry brush.
38.00	Top of mountain spur, 125 ft. above hollow, projecting E. 40.00 chs. Scattering mahogany and pine on top.
38.77	Fall 97 lks. E. of the old corner of Tps. 9 and 10 N., Rs. 4 and 5 E., which is a limestone 18 x 4 x 6 ins. above ground, loosely set in rock mound, and marked as described by the surveyor general. Corner stands on top

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

Chains.

of spur. I re-establish it at the same point as follows

Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, with old corner buried alongside, for cor. of Tps. 9 and 10 N., Rs. 4 and 5 E., with brass cap marked

T 10 N
S 36 | S 31
R4E ——— R5E
S 1 | S 6
T 9 N
1914

from which

A pine, 6 ins. dia., bears N.35° E. 125 lks. dist. marked T 10 N R 5 E S 31 B T

A mahogany, 8 ins. dia., bears S.26° 30'E. 79 lks. dist., marked T 9 N R 5 E S 6 B T

A mahogany, 5 ins. dia., bears S.23° 30'W. 53 lks. dist., marked T 9 N R 4 E S 1 B T

A pine, 5 ins. dia., bears N.34° 15'W. 84 lks. dist. marked T 10 N R 4 E S 36 B T

The course of this half-mile is therefore N.1° 26'W., and the distance 38.78 chs.

Land, mountainous, along the foot of the Monte Christo Mts., easterly drainage and exposure.

Soil, stony, sandy loam, on a rocky subsoil.

Occasional sagebrush openings occur on the mile.

Timber, aspen and scattering pine.

RETRACEMENT AND RESURVEY OF THE NORTH BDY. T.9 N.R.5 E.

From the re-established corner of Tps. 9 and 10 N., Rs. 4 and 5 E.

N.89° 48'E. bet. secs. 6 and 31,

27.00 After diligent search, no trace of $\frac{1}{4}$ sec. cor.

40.00 After diligent search, find no trace of the $\frac{1}{4}$ sec. cor.

Set temp. point.

80.81 Fall 1.33 chs. N. of the old cor. of secs. 5, 6, 31, and 32, which is a hard sandstone 14 x 10 x 8 ins. above ground,

RETRACEMENT AND RESURVEY OF THE NORTH BDY. T. 9 N. R. 5 E.

Chains.

loosely set in mound of stone, and marked as described by the surveyor-general. I re-establish the corner at the same point as follows:

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, with old corner buried alongside, for re-established corner of secs. 5, 6, 31, and 32, with brass cap marked

T 10 N
S 31 | S 32
R 5 E
S 6 | S 5
T 9 N
1914

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

Note: See notes of survey of Tract 38 for later markings put on this cap.

Thence

N. 89° 15' W. bet. secs. 6 and 31,

Over rolling mountainous land; along S. slope of ridge bearing E. and W.; through sagebrush.

Note:

Retracements in this township, and comparison of returned topography with actual topography on the ground, show, indisputably, that, in the original survey, the west range of sections in this township was made full one mile wide, and not 67.00 chs. (approx.) as was returned in the old notes. It being thus impossible to restore this ¼ sec. cor. on any feasible proportionment, I place it midway, and on line between the two sec. cors., at

40.40½ Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for restored ¼ sec. cor., with brass cap marked

S 31
¼
S 6
1914

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

Corner stands on S. slope of E. and W. ridge.

47.60 Enter dense aspen timber, bearing NW. and SE.

RETRACEMENT AND RESURVEY OF NORTH BDY. T. 9 N. R. 5 E.

Chains.	
63.90	Leave aspen timber, bearing N. and S.
65.00	Begin steep ascent over S. side of ridge.
71.50	Top of abrupt ascent, bearing NE. and SW.; thence ascend gradually; through service-berry brush, and scattering mahogany and pine timber.
80.81	The cor. of Tps. 9 and 10 N., Rs. 4 and 5 E.
	Land, mountainous, south exposure and drainage; west end ascends base of Monte Christo Mts.
	Soil, rocky and stony; small outcropping of sandstone on the east and limestone on the west.
	Some aspen timber in west half, scattering mahogany and pine on west end, with sagebrush and service-berry brush on remainder.

From the cor. of secs. 5, 6, 31, and 32,
N. 89° 48' E. (record) bet. secs. 5 and 32,

17.94 Fall 1.26 chs. N. of a limestone 8 x 8 x 10 ins. above ground, having the appearance of granite, firmly set, marked with 2 notches on W. edge, and 4 notches on E. edge; not witnessed. This corner agrees with the description of the corner of secs. 4, 5, 32, and 33, as set by T. C. Bailey, D. S., in 1875. From this corner a limestone 2 x 10 x 8 ins. above ground, loosely set, marked with 6 grooves on S. face, 4 notches on E., and 2 notches on W. edges, not witnessed, bears S. 37°49' E. 17.90 chs. dist. Although this stone is also marked for the cor. of secs. 4, 5, 32, and 33, it cannot be made to agree with description and topography as returned for the north boundary. (See note on line bet. secs. 3 and 34, page 25, for verification of first described corner being the true corner). I destroy the marks on the corner erroneously set; but leave stone standing in place.

40.00 After diligent search no trace can be found of the old $\frac{1}{4}$ sec. cor. Leave temporary point for $\frac{1}{4}$ sec. cor. sec. 5,

RETRACEMENT AND RESURVEY OF NORTH BDY. T. 9 N., R. 5 E.

Chains.	
	according to Martineau survey.
60.00	Leave temp. point for $\frac{1}{4}$ $\frac{1}{4}$ sec. cor. N. bdy. NE$\frac{1}{4}$ sec. 5, Martineau survey.
80.00	After diligent search no trace of any corner found.
	Leave temporary point for NE. cor. sec. 5, according to Martineau survey
	From these conditions it is evident that Deputy Surveyor Martineau, 1878, in completing the survey of the portion of the township left unsurveyed by Bailey and Burrill, D.S., overlapped the prior survey to the extent of about three-fourths of a mile. The condition of the true Second Standard Parallel North on the S. Bdy. of sec. 36, this township, is self-explanatory, in showing how this overlap was caused. (See page 37 in the notes of T. 8 N., R. 4 E., for S. bdy. sec. 36, Second Standard Parallel North through R. 5 E. Gr. No. 34.)
	The Bailey-Burrill survey, made in 1875, is the prior survey; we will therefore re-establish first all corners, and keep intact all areas created by this prior survey, and eliminate the overlap by cutting off the Martineau survey, where it conflicts with the earlier survey, setting closing corners at these points.
	Note:
	A closing corner will be necessary where the line between secs. 5 and 32 on the N. bdy. conflicts with the earlier survey, which point is the intersection of this line and the west bdy. of sec. 33, T. 10 N. R. 5 E.
	From the old corner of secs. 4, 5, 32, and 33 as set by Deputy Surveyor Bailey in 1875,
	North, bet. secs. 32 and 33 in T. 10 N., R. 5 E.,
1.26	Intersect my retracement line bet. secs. 5 and 32, 17.97 chs. N. 89° 48' E. of the cor. of secs. 5, 6, 31, and 32.
39.62	Ball 19 lks. W. of the old $\frac{1}{4}$ sec. cor., which is a sandstone 12 x 12 x 4 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.

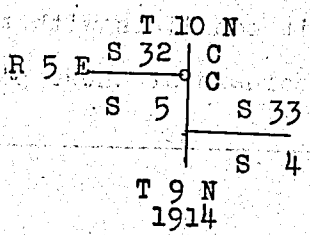
RETRACEMENT AND RESURVEY OF NORTH BDY. T.9 N.R.5 E.

Chains.

The course of this half-mile is therefore N.0° 16'E.
The position of this ¼ sec. cor. from the accepted corner of secs. 4, 5, 32, and 33 is further indication that this bdy. cor. is the true one.

I return to the cor. of secs. 5, 6, 31 and 32, thence N.89° 48'E., the record course, bet. secs. 5 and 32, Over rolling mountainous land, covered with sagebrush; along S. side of top of ridge.

17.95 Intersect the W. bdy. of sec. 33, T.10 N.R.5 E., (which is also the west bdy. of the prior survey) 1.26 chs. N.0° 16'E. of the old corner of secs. 4, 5, 32, and 33. At the intersection I Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, for closing cor. of secs. 5 and 32, with brass cap marked



Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Note:
See notes of survey of Tract 38, for change in markings on this cap.
Land, rolling, on S. side of top of ridge.
Soil, gravelly and stony; rocky sandstone subsoil.
Undergrowth, sagebrush.
No timber.

From the closing cor. of secs. 5 and 32. on the N. bdy. of Tp. S.0° 16'W. on true line on W. bdy. sec. 33, T.10 N.R.5 E. Over rolling land, on south side of top of ridge; through

RETRACEMENT AND RESURVEY OF NORTH BDY. T. 9 N., R. 5 E.

Chains.

sagebrush undergrowth.

1.26 The true old cor. of secs. 4, 5, 32, and 33, to be changed to corner of two secs. I re-establish the corner at the same point as follows:

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established cor. of secs. 4 and 33, with brass cap marked

T 10 N
S 33 | R 5 E
S 4 |
T 9 N
1914

Raise a mound of stone 2 ft. base, 1½ ft. high E. of cor.
Corner stands on S. slope of ridge, 15 ft. below top.

From the old corner of sections 4 and 33
East, between secs. 4 and 33,

40.00 After diligent search I find no trace of the old ¼ sec. cor.

78.70 Fall 7 lks. S. of the old cor. of secs. 3, 4, 33, and 34, which is a sandstone 10 x 4 x 10 ins. above ground, firmly set and marked as described by the surveyor general; but not witnessed. I re-establish the corner at the same point as follows:

Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established cor. of secs. 3, 4, 33, and 34 with brass cap marked

T 10 N
S 33 | S 34
R5E
S 4 | S 3
T 9 N
1914

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
I bury old corner alongside of post.
Thence

S. 89° 57' W. bet. secs. 4 and 33, on resurvey line,
Over mountainous land; descending gradually along S. slope

RETRACEMENT AND RESURVEY OF NORTH BDY. T. 9 N. R. 5 E.

Chains.	
	of ridge, bearing E. and W.; through sagebrush.
23.00	Commence abrupt descent, over quartzite outcrop, into Crawford Canyon.
27.00	Bottom of Crawford Canyon, 400 ft. deep, draining N. Creek in bottom of canyon, 4 lks. wide, 3 ins. deep, good water, course N. Ascend abruptly.
30.20	Enter dense scrubby aspen brush on steep side of canyon.
31.70	Top of steep ascent, 375 ft. above canyon bottom, bears N. and S. Leave dense aspen brush, bearing N. and S. Thence along top of sagebrush spur.
36.50	Enter dense aspen timber, bearing N. and S., on top of spur.
37.70	Sink hole, 40 lks. wide, 20 ft. deep, bears S. 2.00 chs. dist.
39.35	Proportionate measurement, Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, for restored $\frac{1}{4}$ sec. cor., with brass cap mkd. $\frac{S\ 33}{\frac{1}{4}\ S\ 4}$ 1914 from which An aspen, 6 ins. dia., bears S. 65° E., 18 lks. dist. marked $\frac{1}{4}$ S 4 B T An aspen, 6 ins. dia., bears N. 20° 30' W. 34 lks. dist., marked $\frac{1}{4}$ S 33 B T Corner stands on the N. point of spur projecting N. 5.00 chs. Thence along top of spur; through dense small aspen timber.
43.70	Leave aspen timber, bearing NW. and SE.; thence descend over NW. face of spur, into hollow; through sagebrush.
55.50	Big spring in bottom of deep hollow, bears north 50 lks. dist.
56.20	Bottom of deep hollow, 300 ft. below spur, drains N. 80° E. Enter aspens, bearing NE. and SW.

Chains.	
	Ascend.
60.00	Spur, 100 ft. above hollow, projects S. 3.00 chs.
	Descend.
61.20	Small hollow, 15 ft. below spur, drains S.
	Leave aspen timber bearing N. and S.
62.30	Spur, 20 ft. above hollow, projects S. 4.00 chs.
	Descend.
71.70	Hollow, 30 ft. deep, drains SE. 5.00 chs. to junction with main hollow. Road in bottom of hollow, bears NW. and SE. Ascend.
78.70	The old cor. of secs. 4, 5, 32, and 33, which was later re-established as the cor. of secs. 4 and 33 only.
	Corner stands on S slope of ridge, 25 ft. above hollow.
	Land, mountainous; rough on E. half mile, rolling on W. half; general drainage N. and E. Out crops of sandstone and quartzite.
	Soil, rocky and stony; 3d rate.
	Undergrowth, sagebrush on the mile.
	Timber, scattered clumps of dense small aspen.

From the cor. of secs. 3, 4, 33, and 34 on the N. bdy. of the, township, a quartzite rock, 10 x 6 x 6 ins. above ground firmly set, marked with 6 grooves on S., and 3 notches on E. and W. edges; not witnessed, bears S. 50° 27' E. 19.14 chs. dist. This corner cannot be made to agree with the description of the corner of secs. 3, 4, 33, and 34, and is an erroneous corner. I obliterate all marks on the stone; but leave it standing in place.

From the true corner,

East, bet. secs. 3 and 34,

Over rolling mountainous land; along S. side of top of ridge; through sagebrush.

14.76	The erroneous corner, which was marked for cor. of secs. 3, 4, 33, and 34, bears S. 12.19 chs.

Chains.	
25.16	Top of rocky ridge, 75 ft.above the corner, bears N.and S.; top covered with mahogany timber; quartzite outcroppings. Descend.
26.00	Enter dense aspen timber bearing N.and S.
27.00	Hollow, 50 ft.below ridge, drains N.
28.16	Leave aspen timber, bearing N.and S.
39.92	Fall 83 lks.N.of the old ¼ sec.cor., which is a sandstone 8 x 2 x 8 ins.above ground, loosely set, marked and witnessed as described by the surveyor general. Corner stands on SE.side of top of ridge. I re-establish the corner at the same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 12 ins.in the ground, and 14 ins.in a mound of stone, with the old corner buried alongside, for re-established ¼ sec.cor. with brass cap marked
	$\frac{S\ \frac{1}{4}\ 34}{S\ \ 3}$ 1914
	Raise a mound of stone 2 ft.base, 1½ ft,high N.of cor.
	On account of underlying rock, am unable to set post more than 12 ins.in the ground,
	The true course of this half-mile is therefore S.88°49' E., and the distance 39.93 chs.
	From the ¼ sec.cor.
	East bet.secs.3 and 34,
	Over top of ridge, bearing NE. and SW.; through sage.
1.97	Road on top of ridge, bearing NE. and SW., from Ogden to Randolph.
	Descehd over SE.slope of ridge.
15.00	Enter dense aspen timber, bearing N.and S.
20.00	Leavc aspen timber, bearing N.and S. Deep sink hole bears south 1.25 chs.dist.
25.00	Swale, 25 ft.below ridge, drains NE.
	Ascend.
39.87	Fall 23 lks.N.of the old cor.of secs.2,3,34, and 35, which is a sandstone 3 x 8 x 8 ins.above ground,firmly

Chains.

set, and marked as described by the surveyor general, but not witnessed. I re-establish the corner at the same point as follows:

Set an iron post 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for re-established corner of secs. 2, 3, 34, and 35, with brass cap marked

T 10 N
S 34 | S 35
R5E ———
S 3 | S 2
T 9 N
1914

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

I bury old corner alongside of post.

Corner stands on NW. slope of spur, 50 ft. above swale.

The true course of this half-mile is therefore S. 89° 40' E., and the distance 39.87 chs.

Land, rolling, mountainous, with north drainage and exposure; quartzite outcrop on the west end.

Soil, is a red, gravelly, clay loam; close texture, on rocky subsoil; 3d rate.

Undergrowth, sagebrush on mile.

Timber, scattering clumps of aspen.

Note:

The close agreement of the record topography with the true topography on the ground; and the uniformity of the portion of the north boundary which I have retraced, verifies the authenticity of the old corners of secs. 4, 5, 32, and 33, and 3, 4, 33, and 34, which I have re-established; and justifies the obliteration of marks on the extra corners found.

From the corner of secs. 2, 3, 34, and 35 on N. bdy.,

East, between secs. 2 and 35,

Over rolling mountainous land; ascend to spur; through sagebrush.

10.00 . Spur, 45 ft. above corner, projects NE. 20.00 chs.

RETRACEMENT AND RESURVEY OF NORTH BDY. T. 9 N., R. 5 E.

Chains.	
	Descend.
13.70	Enter grove of small dense aspen timber, bearing N. and S.
19.00	Bottom of small swale, 25 ft. below spur, drains NE.
	Ascend. Leave aspen timber, bearing N. and S.
35.00	Spur, 25 ft. above swale, projects N. 15.00 chs.
	Descend.
39.93	Fall 40 lks. N. of the old $\frac{1}{4}$ 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. Corner stands on N. side of ridge, 20 ft. below top of spur. I re-establish the corner as follows: Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, with old corner buried alongside, for re-established $\frac{1}{4}$ sec. cor., with brass cap marked $\frac{S\ \frac{1}{4}\ 35}{S\ \ 2}$ 1914 Raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor. The course of this line is therefore S. 89° 26' E., and the distance 39.93 chs.
	From the $\frac{1}{4}$ sec. cor.
	East, bet. secs. 2 and 35,
2.30	Enter dense aspen timber, bearing N. and S.
6.40	Head of hollow, 10 ft. below cor., drains N.
	Leave aspen timber, bearing N. and S.
20.00	Top of ridge, 40 ft. above hollow, bearing N. 80° E. and SW. Descend, through yellow top bearing N. and S.
22.50	Dim road, joins with road to Ogden, bearing N. 80° E. and SW.
32.00	Head of swale, 50 ft. below ridge, drains S.
	Sink hole, 15 lks. wide, 10 ft. deep, bears N. 30 lks. dist.
34.00	Small spur, 20 ft. above swale, projects S. 3.00 chs.
	Descend.
36.50	Small hollow, 20 ft. below spur, drains S.
40.00	Fall 4 lks. S. of the old cor. of secs. 1, 2, 35, and 36, which is a limestone 2 x 12 x 8 ins. above ground, firmly set,

Chains.

and marked and witnessed as described by the surveyor-general. Corner stands on NW. slope of small spur, 20 ft. above the hollow. I re-establish it at the same point as follows:

Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, with old corner buried alongside, for re-established corner of secs. 1, 2, 35, and 36, with brass cap marked

T 10 N
S 35 | S 36
R5E
S 2 | S 1
T 9 N
1914

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

The true course of this half-mile is therefore N. 89° 57' E., and the distance 40.00 chs.

Land, rolling, mountainous, along top of high ridge; north and south exposures.

Soil, rocky, gravelly, red clay mixture, on rocky subsoil; 3d rate.

Undergrowth, sagebrush, yellow top, and some grass for grazing.

Timber, scattered groves of dense small aspen.

East, between secs. 1 and 36,

Over rolling, mountainous land; ascending gradually, through sagebrush.

7.50 Spur, 10 ft. above corner, projects SW. 10.00 chs.

Descend.

10.00 Swale, 10 ft. below spur, drains S.

Ascend.

12.60 Spur, 10 ft. above swale, projects S. 2.00 chs.

Descend.

28.00 Head of swale, 20 ft. below spur, drains S. Ascend.

32.60 Spur, 20 ft. above swale, projects S. 3.00 chs.

Descend.

Chains.

36.00 Head of swale, 20 ft. below spur, drains S. Ascend.

39.79 Fall 13 lks. N. of the old ¼ sec. cor., which is a limestone 5 x 10 x 8 ins. above ground, firmly set and mkd. and witnessed as described by the surveyor-general.

Corner stands on W. side of spur, 15 ft. above swale. I re-establish it at the same point as follows:

Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, with old corner buried alongside, for ¼ sec. cor., with brass cap marked

$$\frac{S\ \frac{1}{4}\ 36}{S\quad 1}$$
1914

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

The course of this half-mile, is therefore S. 89° 49' E., and the distance 39.79 chs.

From the ¼ sec. cor.,

East, bet. secs. 1 and 36,

37.66 Fall 23 lks. N. of the temp. cor. of Tps. 9 and 10 N., Rs. 5 and 6 E. (See page 35 of these notes).

40.00 I am again unable to find the old Tp. corner.

This corner will, therefore, be restored in accordance with par. 52, pamphlet on Restoration of Lost or Obliterated Corners.

For restoration of this corner see page 36 of these notes.

For the resurvey of this half-mile see page 37 of these notes.

RETRACEMENT OF EAST BOUNDARY T. 9 N. R. 5 E.

Beginning at old standard cor. of Tp. 9 N., Rs. 5 and 6 E., which is a limestone 5 x 6 x 12 ins. loosely set in a stone mound, mkd. 6 notches on three edges; no accessories. I re-establish the corner at the same point as follows:

Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the

Chains.

ground, with the old corner buried alongside, for standard corner of Tp.9 N., Rs.5 and 6 E., with brass cap marked

T 9 N
R 5 E | R 6 E
S 36 | S 31

1914

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

Note:

This corner was subsequently changed to refer to one Tp.only, see notes of Resurvey of second standard parallel north, R .5 E., Group No.34.

From above described corner,

North between secs.31 and 36,

Over rough, mountainous land; ascending abruptly out of Woodruff Canyon to shale spur.

6.65 Intersect the north one of the two second standard parallels north, 24.12 chs.S.89°37'E. of the standard cor. of secs.35 and 36. See notes of resurvey of the second standard parallel north, R.5 E.Group No.34, for closing township corner subsequently set 0.07 chs.E.of this point.

7.20 Top of shale spur, 150 ft.above the corner, projects SW. 8.00 chs. Descend.

14.50 Head of swale, 50 ft.below spur, drains W.. Ascend.

21.00 Spur, same, 200 ft.above swale, projects S.15° E. for 10.00 chs., thence S.20° W.

Descend gradually along side of spur.

33.00 Head of small draw,40 ft.below spur, drains S.10° E.Asc.

39.20 Fall 46 lks.W.of the old ¼ sec.cor., which is a sandstone 3 x 7 x 16 ins.loosely set in mound of stones, marked ¼ on W.face; not witnessed. Corner stands on S.side of top of long spur, 250 ft.above draw. I re-establish the corner at the same point as follows:

Set an iron post 3 ft.long, 1 in.in dia., 24 ins.in the ground, with old corner buried alongside, for ¼ sec. corner, with brass cap marked

Chains.	
	¼ S 36 | S 31 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Note: This corner was afterward changed to refer to sec. 31 only, see page 145 of these notes.
	The true course of this half-mile, is, therefore N. 0°40' E., and the distance 39.20 chs.
	From this corner a small spring bears N. 55° 30' W. about 20.00 chs. dist.
	From the ¼ sec. cor.,
	North between secs. 31 and 36,
.80	Top of same spur, 260 ft. above draw, projects S. 40° W. for 5.00 chs.; thence S.
	Descend.
9.80	Head of draw, 75 ft. below spur, drains SW.
	Ascend.
15.00	Top of same spur, 150 ft. above draw, projects S. 30° E. for 10.00 chs.; thence SW.
	Descend.
27.50	Head of draw, 50 ft. below spur, drains S. 70° E.
	Ascend.
32.00	Point of spur, 150 ft. above draw, projects S. 10° E.
	Descend.
41.44	Fall 3.44 chs. E. of the cor. of secs. 25, 30, 31, and 36, which is a sandstone 7 x 9 x 11 ins. above ground, firmly set, marked with 5 notches on N., and one on S. edge; not witnessed. Corner stands on top of spur.
	I re-establish it at the same point as follows:
	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, beside the old corner, with brass cap marked
	T 9 N S 25 | S 30 R5E ——+—— R6E S 36 | S 31 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

Chains.	
	Note: This corner was afterwards changed to refer to 2 secs. only.
	The true course of this half-mile is therefore N.4° 45' W., and the distance 41.58 chs.
	Land, rough, mountainous, following up a long, steep spur; E. and W. drainage and exposure.
	Soil, rocky; shale on S. end; rocky subsoil.
	Undergrowth, sparse sagebrush.
	No timber.
	North bet. secs. 25 and 30,
	Over rough, mountainous land; ascending rapidly, over red sandstone formation, toward top of high, red, mountain, along top of small spur.
5.00	Enter scattering cedars, bearing E. and W.
5.94	Closing cor. later set at this point, see page 145.
10.00	Leave cedars, bearing E. and W.
	Ascend abruptly.
19.00	Top of high, red, sandstone ridge, 350 ft. above sec. cor. bearing N.60° E., and S.60° W. Descend.
25.00	Begin abrupt descent, bearing NE. and SW.
41.19	Fall 117 lks. E. of the old ¼ sec. cor., which is a sandstone 16 x 12 x 10 ins. above ground, firmly set, mkd. ¼ on W. face, but not witnessed. Corner stands on N. slope of ridge, 275 ft, below the top. I re-establish the corner at the same point as follows:
	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, beside the old corner, for ¼ sec. cor., with brass cap marked
	¼ S 25 | S 30
	1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Note: This corner was afterwards changed to refer to one sec. only, see page 146.

Chains.	
	The true course of this half-mile is therefore N.1° 38' W., and the distance 41.20 chs.
	From the ¼ sec. cor.,
	North bet. secs. 25 and 30,
.80	Small draw, 10 ft. below the corner, drains NW. Ascend.
4.00	Small spur, 10 ft. above draw, projects NW. 10.00 chs. Descend.
5.30	Draw, 75 ft. below spur, drains N.45° W. Ascend.
13.30	Spur, 50 ft. above draw, projects N.45° W. 15.00 chs. Descend.
22.00	Draw, 100 ftlbelow spur, drains NW. Ascend.
32.20	Spur, 50 ft. above draw, projects NW. 10.00 chs. Descend.
39.75	Fall 120 lks. E. of the old corner of secs. 19, 24, 25, and 30, which is a hard sandstone boulder 8 x 6 x 8 ins. above ground, marked as described by the surveyor-general, but not witnessed. Corner stands on SE. slope of spur, 100 ft. below the top. I re-establish the corner at this same point as follows:

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, beside the old corner, for cor. of secs. 19, 24, 25, and 30, with brass cap marked

T 9 N
S 24 | S 19
R5E ——— R6E
S 25 | S 30
1914

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

Note:

This corner was subsequently changed to refer to two secs. only, see page 146 of these notes.

The true course of this half-mile is, therefore N.1° 44' W., and the distance 39.76 chs.

Land, rough and mountainous, with SW. drainage on the N. ¾ of mile; the S. end of the mile takes over a high, red,

Chains.	
	sandstone ridge.
	Soil, generally rocky, stony, with some red clay; rock subsoil; 3d rate.
	Undergrowth, scrubby sagebrush.
	Timber, scattering cedars, and clumps of small aspens, along the line.
	North bet. secs. 19 and 24,
	Over rough mountainous land; descending into Walton Canyon; through sagebrush.
10.50	Begin abrupt descent into Walton Canyon, bearing NE. and SW.
19.00	Walton Creek Road, bears N.60° E. and S.60° W.; Ogden to Woodruff.
19.25	Walton Creek, 10 lks. wide, 3 ins. deep, course N.60° E.; good water; in bottom of Walton Canyon, 200 ft. below sec. corner.
	Ascend high ridge.
40.05	Fall 6 lks. west of the old ¼ sec. cor., which is a hard sandstone 4 x 8 x 8 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general. Corner stands on S. side of high ridge, 200 ft. above the creek. I re-establish the corner as follows:
	Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, beside the old corner, for re-established ¼ sec. cor., with brass cap marked ¼ S 24 | S 19 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	The true course of this half-mile is therefore N.0° 05' E., and the distance 40.05 chs.
	From the ¼ sec. cor.
	North, bet. secs. 19 and 24,
2.00	High ridge, 50 ft. above the ¼ sec. cor., bearing N.80°E.

Chains.	
	and S 80° W. Descend rapidly.
7.00	Enter dense scrubby aspen timber, bearing E. and W.
10.00	Leave timber, bearing E. and W. Descend abruptly into Birch Creek.
20.00	Birch Creek, 12 lks. wide, 6 ins. deep, course E.; good water; in bottom of Birch Creek Canyon, 210 ft. below ridge.
21.80	Road to Woodruff from Ogden, bearing E. and W. Ascend.
40.00	Fall 30 lks. west of the old corner of secs. 13, 18, 19, and 24, which is a hard sandstone boulder 6 x 9 x 12 ins. above ground, loosely set, marked with 3 notches on N. and S edges; not witnessed. I re-establish the corner at the same point as follows:

Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, for re-established cor. of secs. 13, 18, 19, and 24, with brass cap marked

T 9 N
S 13 | S 18
R5E ——+—— R6E
S 24 | S 19
1914

Raise a mound of stone 2½ ft. base, 2 ft. high W. of cor.

The true course of this half-mile is therefore N. 0° 26' E. and distance 40.00 chs.

Land, rough, mountainous; general drainage easterly; steep N. and S. slopes in Birch and Walton Canyons.

Soil, gravelly and stony, on rocky subsoil; 3d rate.

Undergrowth, sagebrush.

Timber, small patch of aspen on the line.

North bet. secs. 13 and 18,

40.00	After diligent search, I can find no trace of the old ¼ sec. cor. Leave temp. point.

I continue north, leaving temporary points at 40.00

RETRACEMENT OF EAST BOUNDARY T.9 N.R.5 E.

Chains.

and 80.00 chs.

245.00 Record distance. I am unable, after diligent search, to find any trace of the old corner of Tps.9 and 10 N., Rs.5 and 6 E. Set temp. point for Tps cor.

I shall restore this corner by the method of double proportionate measurement, in accordance with paragraph 52, pamphlet on Restoration Lost or Obliterated Corners.

RETRACEMENT OF PORTION OF W.BDY.OF T.10 N., R.6 E.

From temporary point for cor. of Tps.9 and 10 N., Rs.5 and 6 E.,

North, bet. secs.31 and 36 on W.bdy.T.10 N.R.6 E.

39.88 Fall 2.25 chs.W.of the old $\frac{1}{4}$ sec.cor., which is a sandstone 10 x 4 x 4 ins.above ground, firmly set, and marked with $\frac{1}{4}$ on W.face; but not witnessed. I raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high W.of cor.

RETRACEMENT OF PORTION OF S.BDY.T.10 N., R.6 E.

From the temp.point for cor.of Tps.9 and 10 N., Rs.5 and 6 E.,

East, bet.secs.6 and 31, on S.bdy.of T.10 N., R.6 E.

42.36 Fall 22 lks.N.of the old $\frac{1}{4}$ sec.cor., which is a limestone 4 x 6 x 8 ins.above ground, firmly set, marked $\frac{1}{4}$ on N. face; not witnessed. I raise a mound of stone 2 ft.base $1\frac{1}{2}$ ft.high N.of cor.

RESTORATION OF CORNER OF TPS.9 and 10 N., RS.5 and 6 E.

Determination of position of true corner with reference to my temporary corner, on the meridional proportionment.

The total distance from the corner of secs.13, 18, 19, and

RESTORATION OF CORNER OF TPS.9 AND 10 N., RS.5 AND 6 E.

Chains.

24, E.bdy.T.9 N., R.5 E. to the $\frac{1}{4}$ sec.cor., bet.secs. 31 and 36, W.bdy.T.10 N., R.6 E., is 284.88 chs. The record distance is 285.00 chs. The proportion will, therefore be

$$\frac{\text{Record}}{\text{Measured}} = \frac{285.00}{284.88} = \frac{245.00}{x} \qquad x = 244.90$$

Thus the meridional proportionment places the true cor. 10 lks.S.of my temp.cor.point.

Determination of position of true corner, with reference to my temporary corner on the latitudinal proportionment.

The measured distance from the $\frac{1}{4}$ sec.cor.bet.secs.1 and 36 to the $\frac{1}{4}$ sec.cor.bet.secs.6 and 31, is 80.02 chs. The record distance is 79.50 chs. The proportion is:

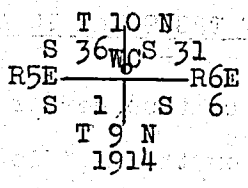
$$\frac{\text{Record}}{\text{Measured}} = \frac{79.50}{80.02} = \frac{40.00}{y} \qquad y = 40.26 \text{ chs.}$$

Thus the latitudinal proportionment places the true corner 40.26 chs. — 37.66 chs. = 2.60 chs.E.of the temporary corner point.

The true position for the corner of Tps.9 and 10 N., Rs. 5 and 6 E., is therefore 260 lks.E., and 10 lks.S.of my temp.corner point. This point falls on loose, unstable red sandstone slide, on steep S.side of ridge, making a witness corner necessary, therefore

From the true corner point I run N.0° 30'W., and at

1.85 Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground, for witness corner to restored true corner for Tps.9 and 10 N., Rs.5 and 6 E., with brass cap marked



Raise a mound of stone 3 ft.base, 3 ft.high S.of cor.

RESTORATION OF CORNER OF TPS.9 AND 10 N.,RS.5 AND 6 E.

Chains.	
	The true course of the south half of the E.bdy.of sec. 36 T.10 N., R.5 E., is therefore N.0° 30'W., and the distance 39.98 chs.
	The true course of the west half of the N.bdy.of sec.6, T.9 N., R.6 E., is therefore S.89° 50'E., and the true distance 39.76 chs.
	From the true point for cor.of Tps.9 and 10 N., Rs.5 and 6 E.,
	N.89° 32'W.bet.secs.1 and 36,on resurvey line,
	Over rough mountainous land; along steep gravelly, rocky slide, over red sandstone outcroppings, on S.slope of ridge.
10.50	Spur, projects S.10.00 ch., 70 ft.above corner point.
	Descend.
16.30	Head of swale, draining S., 50 ft.below spur.
	Sink hole bears N.1.00 ch.
	Ascend.
18.70	Rocky red sandstone point, 20 ft.high.
21.80	Swale, 20 ft.below sandstone point, drains S.
	Ascend.
23.20	Spur, 50 ft.above swale, projects S.1.00 ch.
	Descend.
26.20	Swale, 50 ft.deep, drains S.20° W.
	Ascend.
40.05	Spur, 30 ft.above swale, projects S.3.00 chs.
	Descend.
40.26	The ¼ sec.cor.bet.secs.1 and 36.
	Land, rough, mountainous, with south drainage and exposure; cut with numerous small draws, and rocky red sandstone outcroppings.
	Soil, is gravelly and rocky red clay; mostly disintegrated red sandstone and cemented conglomerate; on stone subsoil; 4th rate.

RESTORATION OF CORNER OF TPS.9 and 10 N., RS.5 and 6 E

Chains.

Undergrowth, sagebrush.

No timber.

RESURVEY OF EAST BOUNDARY T: 9 N., R:5 E.

From the corner of secs.13,18,19, and 24,

N.0° 36'E.bet.secs.13 and 18,

Over mountainous land; descending along E.slope of spur.

8.10 Head of draw, draining SE., 50 ft.below cor.

Small seep spring on line. Ascend.

25.20 Small spur, 25 ft.above head of draw, projects E.3.00 chs.

39.98½ Proportional measurement. I am again unable to find the old ¼ sec.cor.

Set an iron post 3 ft.long, 1 in.in dia., 24 ins.in the ground, for restored ¼ sec.cor., with brass cap mkd.

¼ S13 | S18

1914

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

Corner stands on S.slope of spur, 60 ft.below top.

60.00 Head of draw, draining SE., 50 ft.below the corner.

Ascend, along W.side of head of small canyon,to red ridge.

79.97 Proportional measurement. I am again unable to find the old cor.of secs.7,12, 13, and 18.

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

T 9 N

S 12 | S 7

R5E ——— R6E

S 13 | S 18

1914

Raise a mound of stone 2½ft.base, 1½ ft.high W.of cor.

I destroy the temp.cor.

Corner stands on S slope of high ridge, 300 ft.above the draw.

Chains.	
	Land, mountainous; east drainage into small canyon.
	Soil, gravelly and stony, on rock subsoil; 3d rate.
	Undergrowth, sagebrush.
	No timber.
	N.0° 36'E.bet.secs.7 and 12,
	Over mountainous land; ascending to top of ridge; through sagebrush.
4.00	Top of ridge, 75 ft.above the cor., bearing E.and W. Descend.
10.00	Head of swale, 50 ft.below ridge, drains NE. Ascend.
17.90	Road, leading from main ridge into Cut-Off Canyon, bears NE. and SW.
24.00	Top of spur, 40 ft.above swale, projects NE.15.00 chs. Descend.
39.98½	Proportional distance. I am again unable to find the ¼ sec.cor.
	Set an iron post 3 ft.long, 1 in.in dia., 24 ins.in the ground, for restored ¼ sec.cor., with brass cap mkd. ¼ S 12 | S 7 / 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Corner stands on N.side of spur, 100 ft.below top. Descend abruptly into Cut-Off Canyon; through sage.
52.60	Road, in bottom of Cut-Off Canyon, not much used, bears E. and W.; leads to top of ridge.
53.50	Creek, in bottom of Cut-Off Canyon, 3 lks.wide, 2 ins. deep, good water, course E.; 200 ft.below ¼ sec.cor. Ascend.
69.80	Top of ridge, 225 ft.above bottom of canyon, bears E. and W. Descend.
77.00	Draw, 100 ft.below top of ridge, drains S.30° E.
78.10	Road, in draw, bears E.and W., fromCut-Off road to top

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RESURVEY OF EAST BOUNDARY T.9 N.R.5 E.

Chains.

of next ridge. Ascend.

79.97. Proportional measurement. I am again unable to find any trace of the old cor. of secs. 1, 6, 7, and 12.

Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, for restored cor. of secs. 1, 6, 7, and 12, with brass cap marked

T 9 N
S 1 | S 6
R5E ——+—— R6E
S 12 | S 7
1914

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

Corner stands on S. slope of spur, 50 ft. above the draw.

Land, mountainous; general E. drainage, with N. and S. slopes.

Soil, gravelly and stony, on rocky subsoil; 3d rate.

Undergrowth, sagebrush on the mile.

No timber.

N. 0° 36' E. bet. secs. 1 and 6,

Over mountainous land; ascending to spur; through sagebrush.

9.40 Top of spur, 100 ft. above the cor., projects SE. 7.00 chs.

17.60 Enter patch of scrubby aspens, bearing E. and W.

19.00 Leave aspens bearing E. and W.

Head of draw, 50 ft. deep, course SE.

33.80 Road, near top of ridge, to Woodruff, bears N. 70° E. and S. 70° W.

39.30 Top of red ridge, 159 ft. above draw, bearing N. 80° E. and S. 80° W. Descend.

39.98½ Proportional measurement. I am again unable to find the old ¼ sec. cor.

Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, for restored ¼ sec. cor., with brass cap marked

¼ S 1 | S 6
1914

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

RESURVEY OF EAST BOUNDARY T.9 N., R.5 E.

Chains.

Corner stands near top of ridge, 10 ft. below top.

Thence descend rapidly into canyon; through sagebrush.

79.00 Spring Creek, in bottom of canyon, 400 ft. below ¼ sec. cor.; stream 3 lks. wide, 2 ins. deep, course NE. with canyon.

Thence ascend abruptly over red sandstone ledges and loose slide rock.

84.96 The true point for cor. of Tps. 9 and 10 N., Rs. 5 and 6 E. S. 0° 30' E. 1.85 chs. from W.C.

Land, mountainous, rough; general drainage easterly, with steep N. and S. slopes.

Soil, is stony and gravelly, on rock subsoil; 3d rate; outcrops of red sandstone on the N. end.

Undergrowth, sagebrush.

Timber, small clump of scrubby aspen.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Note:
The surveys executed by Bailey and Burrill, D.S., in 1875 being the prior surveys, I will, therefore restore or re-establish them first.

From the cor. of secs. 13, 18, 19, and 24, on E. bdy. of Tp., heretofore described,

West, bet. secs. 13 and 24,

32.67 Fall 5.01 chs. N. of the old ¼ sec. cor., which is a hard sandstone 15 x 10 x 4 ins. above ground, loosely set, marked with ¼ on N. face. I re-establish the corner at the same point as follows:

Set an iron post post 3 ft. long, 1 in. in dia., 24 ins. in the ground, for re-established ¼ sec. cor., with brass cap marked

S 13
¼
S 24
1914

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

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	Thence
	N.81° 17'E.on true line bet.secs.13 and 24,
	Over rough mountainous land; ascending through sagebrush.
4.00	Draw, 30 ft.below ¼ sec.cor., drains S.20° E.
	Ascend.
7.50	Spur, 60 ft.above draw, projects S.10.00 chs.
	Descend.
13.50	Draw, 60 ft.below spur, heads 30.00 chs.N.; drains S.
	Ascend.
17.50	Spur, 50 ft.above draw, projects S.5.00 chs.
	Descend.
20.00	Draw, 70 ft.below spur, drains S.
	Ascend.
24.00	Spur, 20 ft.above draw, projects S.10.00 chs.
	Descend.
25.50	Draw, 50 ft.below spur, drains S.
	Ascend.
29.00	Spur, 75 ft.above draw, projects S.20° E. 15.00 chs.
	Descend.
33.05	The cor.of secs.13, 18, 19, and 24, 100 ft.below spur.
	From the ¼ sec.cor.bet.secs.13 and 24,
	West, between secs.13 and 24,
	Over rough, mountainous land; ascending through sage-brush.
6.40	Spur, 30 ft.above ¼ sec.cor., projects S.10.00 chs.
	Descend.
15.60	Draw, 125 ft.below spur, heads 90.00 chs.N.; drains S.
	Ascend.
19.00	Main spur, 150 ft.above draw, projects S.15.00 chs.
	Descend.
24.00	Red conglomerate outcrop, bears N.9.00 chs.
30.00	Wash, 20 ft.deep, in open hollow, 100 ft.below spur, drains S. Ascend.
32.70	Wood road, bearing N.10° W. and S.10° E.
39.96	Fall 61 lks.S.of the old cor.of secs.13,14,23, and 24,

Chains.

which is a hard sandstone cobble, 18 x 10 x 8 ins. above ground, loosely set, marked as described by the surveyor general; but not witnessed. I re-establish the corner at the same point as follows:

Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, with old corner buried alongside, for re-established cor. of secs. 13, 14, 23, and 24, with brass cap marked

T 9 N R 5 E
S 14 | S 13
S 23 | S 24
1914

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

The true course of this half-mile is therefore N. 89° 08' W. and the distance 39.96 chs.

Land, rough, mountainous; drainage S. into Birch Creek; cut by N. and S. spurs and draws.

Soil, is generally red, gravelly clay, on rocky subsoil; 3d rate.

Undergrowth sagebrush on the mile.

No timber.

South, bet. secs. 23 and 24,

Over rolling mountainous land; descending gently; through sagebrush, into Birch Creek.

18.90 Enter bottom of Birch Creek Canyon, bearing E. and W.

19.30 Road, Ogden to Woodruff, bears E. and W.

21.00 Enter dense willows, bearing E. and W.

23.90 Birch Creek, 20 lks. wide, 6 ins. deep, course E.; good water; gentle current; 250 ft. below the cor.

25.00 Leave willows, bearing E. and W.

25.80 Leave bottom of canyon; ascend , bearing E. and W.

39.17 Fall 89 lks. E. of the old ¼ sec. cor., which is a limestone 15 x 10 x 5 ins. above ground, firmly set, and mkd. and

CANCELLED

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	witnessed as described by the surveyor general. I re-establish the corner at the same point as follows:
	Set an iron post 3 ft.long, 1 in. in dia., 24 ins.in the ground, with old corner buried alongside, for re-established $\frac{1}{4}$ sec.cor., with brass cap marked
	$\frac{1}{4}$ S 23 | S 24
	1914
	Raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high W.of cor.
	Corner stands on N.side of ridge, 250 ft.high.
	The true course of this half-mile is therefore S.1° 18'W. and distance 39.18 chs.
	Land, on this half-mile, mountainous, dfaining N.and S. into Birch Creek; N.and S.exposures.
	Soil, is gravelly loam; clayey in part; on rocky subsoil; 2d rate.
	Undergrowth, sagebrush, with dense willows along the creek.
	No timber.
	Note: This is the limit of the Bailey and Burrill survey.
	From the cor.of secs.13,14,23, and 24,
	North bet.secs.13 and 14,
40.00	No trace of $\frac{1}{4}$ sec.cor. Set temp.$\frac{1}{4}$ sec.cor.
78.21	Fall 127 lks.W.of corner of secs.11,12,13, and 14.
	Thence
	S.0° 55'W.on true line bet.secs.13 and 14,
	Over mountainous land; ascending from head of hollow to spur; through scattering sage.
12.00	Spur, 80 ft.above sec.cor., projects SE.10.00 chs.
	Descend.
20.00	Head of draw, course SE., 100 ft.below spur,
	Ascend.
34.20	Spur, 140 ft.above draw, projects SE.40.00 chs.
	Descend.

RESURVEY OF SUBDIVISION OF T. 9 N. R. 5 E.

Chains.	
39.11	Proportional measurement,
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 14 | S 13 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Corner is on SW. side of spur, 80 ft. below top.
	Descend.
42.20	Draw, 250 ft. below spur, drains SE.; road in draw, Birch Creek to main ridge, bears NW. and SE.
64.00	Spur, 130 ft. above draw, projects SE. 10.00 chs.
	Descend.
73.20	Wash, 110 ft. below spur 30 lks. wide, 10 ft. deep, drains SE.
	Ascend.
78.22	The cor. of secs. 13, 14, 23, and 24.
	Land, mountainous; general drainage SE.
	Soil, clay, with stony base.
	Undergrowth, scattering sagebrush. No timber.

From temporary point for cor. of secs. 7, 12, 13, and 18, on E. bdy. of Tp., which is later found to be 3 lks. N., and 84 lks. W. of where corner is finally established,

West, bet. secs. 12 and 13,

31.49	Fall 7.22 chs. N. of old ¼ sec. cor., which is a slate colored sandstone 10 x 10 x 2 ins. above ground, loosely set, plainly marked ¼ on N. face; but not witnessed.
	From this corner west
39.64	Fall 90 lks. S. of old cor. of secs. 11, 12, 13, and 14, which is a hard sandstone 10 x 8 x 6 ins. lying loose on the ground, in old depression; plainly marked as described by the surveyor general; but not witnessed. I re-establish corner at same point as follows:
	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, with old stone cor. buried alongside, for cor. of secs. 11, 12, 13, and 14, with brass cap marked

RESURVEY OF SUBDIVISION T.9 N., R.5 E.

Chains.	
	T 9 N R 5 E. S 11 | S 12 S 14 | S 13 1914 Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	From cor.of secs.11,12,13, and 14 S.88° 42'E.on true line bet.secs.12 and 13, Over rough, mountainous land; along S.slope of high red ridge; through scattering sagebrush.
.40	Head of small draw, 10 ft.below corner; drains SE.
	Ascend.
14.00	Spur, 120 ft.above draw, projects S.20° E.30.00 chs.
	Descend.
19.00	Small swale, 50 ft.below spur, drains S.30° E.
	Thence along S slope of ridge.
38.00	Head of draw, 50 ft.below spur, course S.30° W.
	Ascend.
39.65	The old ¼ sec.cor.,which I re-establish at same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, with old stone corner buried alongside, for ¼ sec.cor., with brass cap marked S 12 ¼ S 13 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
	Corner stands 30 ft.above head of draw.
	From this ¼ sec.cor.
	N.77° 28'E.on true line bet.secs.12 and 13,
	Ascending toward high spur from main ridge.
18.00	Spur, 220 ft.above ¼.sec.cor., projects S.20° W.1 mile.
	Descend.
33.12	The cor.of secs.7,12,13, and 18, 90 ft.below spur.

RESURVEY OF SUBDIVISION T.9 N., R.5 E.

Chains.

Land, mountainous, draining S.
Soil, rocky, decomposed red sandstone; 4th rate.
Undergrowth, scattering sage.
No timber.

From the corner of secs.11,12,13, and 14,
North bet.secs.11 and 12,

35.57 Fall 5.97 chs.W.of old ¼ sec.cor., which is a sandstone 10 x 8 x 8 ins.above ground, loosely set, plainly marked as described by the surveyor general; but not witnessed.

From ¼ sec.cor.
North bet.secs.11 and 12,

39.64 Fall 1.05 chs.W.of old corner of secs.1,2,11, and 12, which is a white sandstone 12 x 3 x 8 ins.above ground, firmly set and marked as described by the surveyor general; but not witnessed. I re-establish corner at same point as follows:

Set an iron post, 3 ft.long, 2 ins.dia., 24 ins.in the ground, for cor.of secs.1,2,11, and 12, with brass cap marked

T 9 N R 5 E
S 2 | S 1
S 11 | S 12
1914

from which

A cedar, 8 ins.dia., bears N.15° 45'E.49 lks. dist., marked T 9 N R 5 E S 1 B T

A cedar, 8 ins.dia., bears S.47° E. 31 lks.dist. marked T 9 N R 5 E S 12 B T

A cedar, 12 ins.dia., bears S.9° W. 60 lks.dist. marked T 9 N R 5 E S 11 B T

A cedar, 10 ins.dia., bears N.47° W. 50 lks.dist. marked T 9 N R 5 E S 2 B T

Old stone buried alongside.

Thence

CIRCLED

RESURVEY OF SUBDIVISION T.9 N.R.5 E.

Chains.	
	S.1° 31'W.bet.secs.11 and 12
	Over rough, mountainous and ledgy country; descending abruptly over sandstone ledges; through dense scrub cedar and scattering sage.
9.00	Leave cedars, bearing E.and W.Descend less abruptly.
14.40	Bottom of Cut-Off Canyon, draining E., 250 ft.below cor.
	Enter aspen timber, bearing E.and W.
	Ascend.
15.20	Leave aspen timber, bearing E.and W.
19.00	Spur, 80 ft.above canyon, projects N.80° E.20.00 chs.
	Descend.
21.50	Draw, 30 ft.below spur, drains N.80° E.
	Ascend.
30.00	Low spur, 60 ft.above draw, projects N.80° E. 10.00 chs.
	Descend.
35.00	Small draw, 60 ft.below spur, drains NE.
	Ascend.
39.65	The old ¼ sec.cor., which I re-establish at same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, old stone corner buried alongside, for ¼ sec. cor., with brass cap marked
	¼ S 11 | S 12
	1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Corner stands on N.slope of spur, 70 ft.above draw.
	Thence
	S.9° 32'W.bet.secs.11 and 12
3.00	Spur, 60 ft.above corner, projects NE.30.00 chs.
	Descend.
4.70	Enter aspen timber, bearing E.and W.
6.50	Leave aspen, bearing E.and W.
8.80	Draw, 40 ft.below spur, drains NE.
	Dim road, from Cut-Off canyon to ridge, bears NE. and SW.
	Ascend.
27.50	Same road, bearing NW. and SE.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
28.65	Main road, on top of ridge, bears E.and W., 130 ft. above draw. Descend.
29.40	Branch of main road bearing NE. and SW. Descend rapidly.
36.07	The cor.of secs.11,12,13, and 14,75 ft.below ridge. Land, mountainous;general drainage E.from N.and S.slopes. Soil,red,gravelly clay, coarse texture; subsoil cemented red clay and gravel; 4th rate. Undergrowth, scattering sagebrush. Timber, dense scrub cedar and some small aspens.
	From the cor.of secs.1,2,11, and 12, East, between secs.1 and 12,
40.00	After diligent search find no trace of $\frac{1}{4}$ sec.cor. Set temp.corner.
63.95	Fall 11.17 chs.S.of the temporary corner of secs.1,6,7, and 12, which is 6 lks.N.and 168 lks.W.of place where permanent corner was afterwards set. Thence S.80° 23'W.bet.secs.1 and 12, on true line, Over rough, mountainous land; descending into draw, draining S.80° E.; through sagebrush.
9.00	Road, bearing N.80° W. and S.80° E.; joins road on ridge to old abandoned road in Cut-Off canyon.
9.50	Draw, drains S.80° E.,30 ft.below corner. Ascend along N.side of spur, bearing E.and W.
33.28	Proportional measurement.Again I.am unable to find old $\frac{1}{4}$ sec.cor., after diligent search. Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec,cor., with brass cap marked $\frac{S\ \frac{1}{4}\ 1}{S\ 12\ 1914}$ Raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high N.of cor. Corner is 150 ft.above draw. Ascend.
53.00	Spur, 80 ft.above $\frac{1}{4}$ sec.cor., projects S.20° E. 10.00

Chains.	
	chs.; thence E. Descend.
56.50	Draw, draining S.20° E., 30 ft. below spur. Ascend.
63.00	Top of ledge spur, 110 ft. above draw, projects S.10° E. 10.00 chs. Enter scrub cedars, bearing N. and S. Descend over rough slope.
66.56	The cor. of secs. 1, 2, 11, and 12. Land, mountainous. Soil, clay, with some sandstone; underlaid with sandstone. Undergrowth, sagebrush. Timber, cedar.

	North bet. secs. 1 and 2,
40.00	Find no trace of cor. after diligent search over radius of 20.00 chs.
80.00	Find no trace of any corner which might have been erroneously set.
96.65	Fall 13.65 chs. E. of the old cor. of secs. 1, 2, 35, and 36, for description and re-estab. see pages 26 and 27. From cor. of secs. 1, 2, 11, and 12, N.8° 02'W. on true line bet. secs. 1 and 2, Ascending over rough, broken, mountainous land; through scrub cedars and scattering sagebrush.
7.00	Leave cedars, bearing E. and W. Begin more abrupt ascent.
16.00	Top of abrupt ascent, near junction of ridge and spur, projecting S.10° E., 150 ft. above corner; thence into head of hollow.
16.40	Road, joins Cut-Off canon with road on ridge, called Bishop Lee's Cut-Off, bears NW. and SE., in head of small hollow, draining SE., 10 ft. below top of ascent. Ascend.
21.00	Main ridge, bears N.80° E. and S.80° W., 50 ft. above road. Road on ridge, Woodruff to Ogden, bears N.80°E. and S.80° W. Descend.
32.50	Enter aspen bearing E. and W.
37.50	Head of hollow, 120 ft. below ridge, drains NE.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	Leave timber, bearing NE. and SW.
38.00	Low spur, 30 ft.above hollow, projects NE.20.00 chs.
	Descend.
47.00	Draw, 80 ft.below spur, drains NE.
	Ascend.
48.80	After diligent search I am again unable to find the old ¼ sec.cor.; therefore at this point, proportional distance,
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked ¼ S 2 | S 1 1914
	from which
	An aspen 6 ins.dia., bears N.27° E. 52 lks.dist. marked ¼ S 1 B T
	An aspen 4 ins.dia., bears N.20° W. 24 lks.dist. marked ¼ S 2 B T
	Corner stands on S.side of spur, 30 ft.above draw.
49.00	Enter aspen bearing E.and W.
52.00	Leave aspen bearing E.and W.
56.20	Spur, 80 ft.above corner, projects N.60° E. 20.00 chs.
	Descend.
71.90	Main hollow, probably running water in wet season, drains N.80° E., 160 ft.below spur.
	Ascend.
74.00	Point of low spur, 30 ft.above hollow, projects SE.10.00 chs.
77.10	Mouth of small draw, 30 ft.below spur, drains SE.
	Ascend abruptly.
86.00	Top of abrupt ascent, bearing E.and W., 200 ft.above draw; thence gentle ascent.
97.60	The corner of secs.1,2,35, and 36.
	Land, rough, mountainous, with general east drainage from N.and S.slopes.
	Soil, gravelly red clay loam; dry, coarse texture, on

BOOK A-431

Chains.	
	gravelly cement and sandstone subsoil; 4th rate.
	Undergrowth, sage.
	Fair grazing.
	Timber, some aspen and scrub cedar, of no commercial value.
	From corner of secs. 13, 14, 23, and 24,
	West, bet. secs. 14 and 23,
	Over rough, mountainous land; ascending to spur, through sage.
13.25	Spur, 140 ft. above sec. cor., projects S.20° E. 5.00 chs.
	Descend.
19.20	Draw, 70 ft. below spur, drains S.
	Ascend.
21.70	Spur, 80 ft. above draw, projects S.5.00 chs.
	Descend.
29.50	Draw, 70 ft. below spur, drains S.
39.40	Fall 12 lks. N. of old ¼ sec. cor., which is a limestone 20 x 10 x 3 ins. above ground, loosely set, dimly marked, but not witnessed. I re-establish the corner at the same point as follows:
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, with old stone corner buried alongside, for ¼ sec. cor., with brass cap marked
	S 14 / ¼ / S 23 / 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Corner falls on E. side of spur, bearing N. and S., 80 ft. above draw.
	The true course of this half-mile is therefore S.89°50' W., and distance 39.40 chs.
	From the ¼ sec. cor.
	West, between secs. 14 and 23
.60	Low spur, 10 ft. above ¼ sec. cor., projects S.5.00 chs.

CANCELLED

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
4.00	Small draw, 30 ft. below spur, drains S. Ascend.
10.00	Spur, 150 ft. above draw, projects S. 10.00 chs. Descend.
14.00	Dim wood road, bearing N. and S.
17.00	Draw, heads 1 mile N., 110 ft. below spur, drains S. Asc.
29.00	Spur, 160 ft. above draw, projects S. 10.00 chs. Desc.
35.10	Draw, 70 ft. below spur, drains S. Ascend.
39.03	Fall 2 lks. S. of old corner of secs. 14, 15, 22, and 23, which is a sandstone 16 x 8 x 8 ins., loosely set, marked as described by the surveyor general; but not witnessed. I re-establish it at the same point as follows:

Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 14, 15, 22, and 23, with old stone corner buried alongside; brass cap marked

T 9 N R 5 E
S 15 | S 14
S 22 | S 23
1914

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

Corner stands on E. slope of spur, bearing N. and S., 60 ft. above draw.

The true course of this half-mile is therefore N. 89°58' W., and distance 39.03 chs.

Land, mountainous; south drainage.

Soil, brown, gravelly, clay loam, on stony subsoil; 3d rate.

Undergrowth, sagebrush. Fair grazing.

No timber.

South, between secs. 22 and 23,

Over mountainous land; descending along W. side of hollow; through sage.

7.00	Red sandstone ledge, 75 ft. high, and overhanging rock, bears west 20 lks. dist.

CANCELLED

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	Descend into canyon.
8.30	Road, Ogden to Woodruff, bears E.and W.
9.30	Enter dense willows, bearing E.and W.
10.50	Birch Creek, 10 lks.wide, 6 ins.deep, gravelly bottom, swift current, good water, course E., in bottom of Birch Creek Canyon, 60 ft.below sec.cor.
11.50	Leave willows, bearing E.and W.
	Ascend over S side of canyon through opening in aspen timber.
38.00	Top of high spur, 200 ft.above creek, projects N.70° W. Spur bears SE.for 5.00 chs.; thence S.
38.96	Fall 71 lks.E.of old ¼ sec.cor., which is a sandstone 6 x 3 x 10 ins.above ground, loosely set, marked as described by the surveyor general; but not witnessed.
	I re-establish the corner at the same point as follows: Set an iron post 3 ft.long, 1 in.in dia., 16 ins.in the ground, to solid rock, with mound of stone 10 ins.high 2 ft.base, around post, with old stone corner buried alongside, for ¼ sec.cor., with brass cap marked
	¼ S 22 | S 23
	1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Corner stands on N.side of top of spur, 10 ft.below.
	The true course of this half-mile is therefore S.1° 03'W. and the distance 38.97 chs.
	Note:
	This is the limit of the Bailey and Burrill survey.
	Land, mountainous; general drainage E.from N.and S.slopes, into Birch Creek.
	Soil, gravelly red, and white clay, on stony subsoil; 4th rate.
	Undergrowth, sage, and willows along creek.
	No timber.

RESURVEY OF SUBDIVISION OF T. 9 N. R. 5 E.

Chains.	
	From the cor. of secs. 14, 15, 22, and 23,
	West, between secs. 15 and 22,
	Over mountainous land; ascending to spur; through sage.
4.81	Spur, 50 ft. above sec. cor., projects S. 10.00 chs.
12.30	Canyon, 100 ft. below spur, drains S. Sluggish stream in bottom, 2 lks. wide, 2 ins. deep, drains S. Willow undergrowth along banks. Ascend.
17.80	Enter aspens bearing N. and S.
24.00	Leave aspens bearing N. and S.
25.40	Spur, 120 ft. above canyon, projects SE. 5.00 chs.
	Descend.
26.80	Swale, 50 ft. below spur, drains S. Ascend.
34.00	Spur, 20 ft. above swale, projects S. 4.00 chs.
	Descend.
36.80	Gulch, 20 ft. below spur, drains S. Ascend.
37.85	Small spur, 20 ft. above gulch, projects S. 1.00 ch.
	Descend.
38.81	Fall 23 lks. S. of old ¼ sec. cor., which is a quartzite 8 x 4 x 8 ins. above ground, firmly set, marked and witnessed as described by the surveyor general. I re-establish it at the same point as follows:
	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 15 and 22, with brass cap mkd.

T 9 N | R 5 E
S 21 | S 15
S 22
1914

	Raise a mound of stone 2 ft. base, 1½ ft. high E. of cor.
	The true course of this line is therefore N. 89° 40' W., and distance 38.81 chs.
	Note: This is the limit of the Bailey and Burrill survey.

	From the old cor. of secs. 9, 10, 15, and 16 as set by Bailey and Burrill, D.S., which is a sandstone 12 x 4

Chains.	x 10 ins.above ground, firmly set, marked as described by the surveyor general; but not witnessed;
	East between secs.10 and 15,
39.26	Fall 24 lks.N.of old ¼ sec.cor., which is a sandstone 16 x 12 x 3 ins.above ground, loosely set, marked and witnessed as described by the surveyor general.
	From the ¼ sec.cor.
	East,
40.00	After diligent search I fail to find any trace of the old cor.of secs.10,11,14, and 15. Set temp.point.
	Note: I shall restore this corner by double proportionate method, using nearest corners to the N., S., E., and W.
	From temp.point for cor.of secs.10,11,14, and 15,
	North bet.secs.10 and 11,
35.73	Fall 6.23 chs.W.of old ¼ sec.cor., which is a sandstone 16 x 8 x 6 ins.above ground, firmly set, marked as described by the surveyor general; but not witnessed.
	From temporary point for cor.of secs.10,11,14, and 15
	East bet.secs.11 and 14,
38.84	Fall 34 lks.N.of the old ¼ sec.cor., which is a broken sandstone, original size 10 x 8 x 8 ins.above ground, loosely set, marked as described by the surveyor general; but not witnessed.
78.47	Fall 33 lks.N.of the cor.of secs.11,12,13, and 14.
	From temporary point for cor.of secs.10,11,14, and 15
	South, between secs.14 and 15.
39.17	Fall 73 lks.E.of the old ¼ sec.cor., which is a red sandstone 18 x 10 x 5 ins.above ground, firmly set, plainly

CANCELLED

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	marked $\frac{1}{4}$ on north face; not witnessed.
78.54	Fall 143 lks. E. of the cor. of secs. 14, 15, 22, and 23.
	Note: From the above information the double proportionate method of restoration places the true position for the cor. of secs. 10, 11, 14, and 15, 172 lks. S., and 58 lks. W. of my temp. point for that corner.
	From cor. of secs. 14, 15, 22, and 23,
	N. 1° 00' E. bet. secs. 14 and 15,
	Over mountainous land; ascending along draw; through sage.
8.50	Head of draw, 40 ft. above sec. cor., drains S. 10° E.
	Ascend.
15.00	Spur, 80 ft. above head of draw, projects S. 45° E. 30.00 chs. Descend.
26.00	Small swale, 50 ft. below spur, drains E.
31.50	Small spur, 15 ft. above swale, projects E. 5.00 chs.
32.00	Small outcrop, sandstone ledge, 6 ft. high bearing E. and W.
39.38	The old $\frac{1}{4}$ sec. cor., which I re-establish at same point as follows:
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, with old corner stone buried alongside, for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{1}{4}$ S 15 | S 14
	1914
	Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
	Corner stands 90 ft. below spur.
	From the $\frac{1}{4}$ sec. cor.
	N. 0° 14' E. bet. secs. 14 and 15,
6.00	Draw, 120 ft. below $\frac{1}{4}$ sec. cor., drains S. 60° E.
	Ascend abruptly.
16.00	Top of abrupt ascent, bearing NW. and SE.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
16.50	Spur, 220 ft. above draw, projects S.45° E. 20.00 chs. Descend.
36.00	Head of draw, 110 ft. below spur, drains S.45° E.
37.45	The point for restored cor. of secs. 10, 11, 14, and 15, which is 172 lks. S., and 58 lks. W. of the temp. point for said corner.
	At this point I set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 10, 11, 14, and 15, with brass cap marked

T 9 N R 5 E
S 10 | S 11
S 15 | S 14
1914

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
I destroy temp. corner.
Corner stands on S. slope of ridge, 60 ft. above draw.
Land, rough, mountainous; general drainage SE.
Soil, red, gravelly clay, dry coarse texture, on stony subsoil; 3d rate.
Undergrowth, scrub sagebrush. Fair grazing.
No timber.

N.88° 00' E. bet. secs. 11 and 14,
Over rough, mountainous land; along S. side of ridge, bearing E. and W.; through sage.

14.00	Draw, 10 ft. deep, drains S.; thence ascend.
23.00	Spur, 120 ft. above sec. cor., projects S.30.00 chs. Descend.
37.00	Hollow, 80 ft. below spur, drains S. Ascend.
39.44	The old ¼ sec. cor., 40 ft. above hollow, which I re-establish at the same point 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 marked

S 11
¼
S 14
1914

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
	Buried old corner alongside of post.
	From ¼ sec.cor.
	N.89° 59'E.bet.secs.11 and 14,
	Ascending through aage.
5.00	Spur, 80 ft.above ¼ sec.cor., projects S.10° W. 80.00 chs. Descend.
26.00	Head of draw, projects S.10° W. 160 ft. below spur.
27.30	Wood road, bears S.20° W. and N.20° E.
29.00	Spur, 70 ft.above draw, projects S.30.00 chs.; thence SE.
39.63	The cor.of secs.11,12,13, and 14, in head of hollow, 110 ft.below spur.
	Land, rough, mountainous; general drainage S.on S.slope of ridge bearing E.and W.
	Soil, red gravelly clay; dry, coarse texture, on rocky subsoil; 3d rate.
	Undergrowth, scrub sagebrush. Fair grazing.
	No timber.
	From cor.of secs.10,11,14, and 15,
	N.10° 19'E.bet.secs.10 and 11,
	Over rough, mountainous land; ascending to high ridge; through scrub sage.
12.00	Ridge, 140 ft.above sec.cor., bears E. and W.
12.34	Road, Woodruff to Ogden, bears E.and W.
	Descend.
23.80	Draw, 130 ft.below ridge, drains N.70° E.; wood road in draw, bears same. Ascend.
36.00	Small spur, 80 ft.above draw, projects N.70° E. 20.00 chs.
38.07	The old ¼ sec.cor., on N.side of spur, 20 ft.below top, which I re-establish at same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 12 ins.in the ground, to solid rock, with mound of stone 2 ft.base, 14 ins.high around post, for ¼ sec.cor., with brass

Chains.

cap marked

$\frac{1}{4}$ S 10 | S 11

1914

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

Buried old stone corner alongside of iron post.

From old $\frac{1}{4}$ sec. cor.

North bet. secs. 10 and 11,

Over rough, mountainous land; descending into Cut-Off Canyon; through sage undergrowth.

18.00 Enter aspen timber, bearing E. and W.

19.00 Cut-Off Canyon, 210 ft. below $\frac{1}{4}$ sec. cor., dry, drains N.80°

19.50 Leave aspen timber, bearing E. and W.

36.00 Enter patch of scattering aspens, bearing E. and W.

39.70 Fall 2 lks. E. of the old cor. of secs. 2, 3, 10, and 11, which is a sandstone 14 x 12 x 4 ins. above ground, firmly set, as described by the surveyor-general marked, but not witnessed. Corner stands on S slope of high ridge, 190 ft. above canon. I re-establish this corner at same point as follows:

Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, with old stone corner buried alongside, for cor. of secs. 2, 3, 10, and 11; with brass cap marked

T 9 N R 5 E

S 3 | S 2

S 10 | S 11

1914

from which

An aspen 5 ins. dia., bears S.36° 20'E. 140 lks. dist., marked T 9 N R 5 E S 11 B T

An aspen 4 ins. dia., bears S.45° W. 76 lks. dist. marked T 9 N R 5 E S 10 B T

An aspen 5 ins. dia., bears N.70° 30'W. 230 lks. dist., marked T 9 N R 5 E S 3 B T

No suitable bearing trees in sec. 2; raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.

The true course of this half-mile is therefore N.0° 02'W.

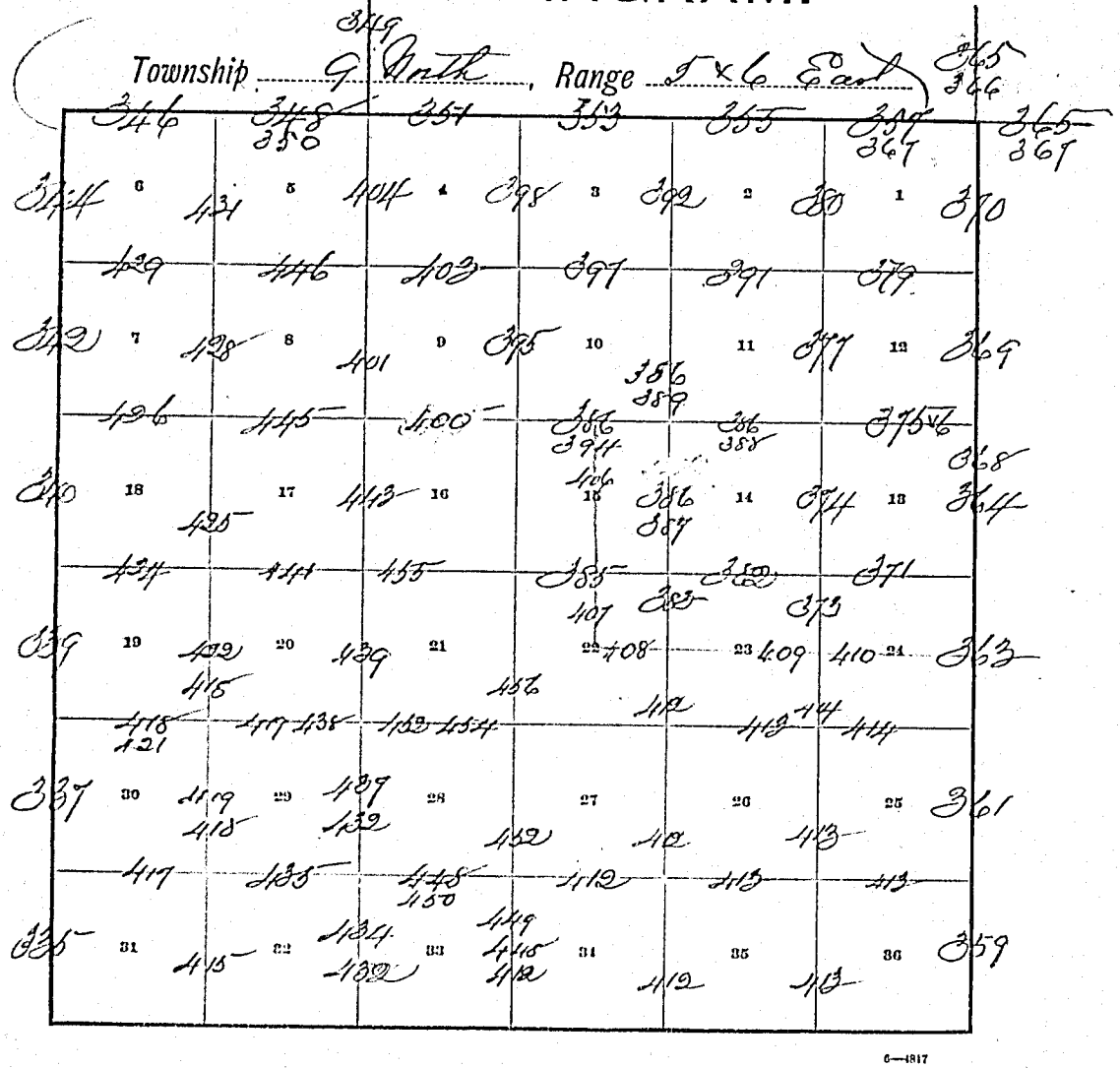
370 P

BOOK A-431

4—679 b

INDEX DIAGRAM.

Township 9 North, Range 5 x 6 East



6—4817

The above survey of subdivision is cancelled, See Hon Comm letter Sept 13, 1919 (0189)

(30 P)

Chains.	
	and distance 39.70 chs.
	Land, on mile rough, mountainous; with general drainage E.from N.and S.slopes of ridges.
	Soil, stony, gravelly clay, coarse and dry on rocky sub-soil; 3d rate.
	Undergrowth, scrub sage. Fair grazing.
	Timber, aspen in canyon, and small patch on N.end of mile.
	East bet.secs.2 and 11.
40.12	Fall 66 lks.S.of old ¼ sec.cor., which is a limestone 10 x 8 x 2 ins.lying loose in old depression, marked ¼ on one face; no accessories.
79.37	Fall 48 lks.N.of cor.of secs.1,2,11, and 12.
	From cor.of secs.2,3,10, and 11,
	N.89°03'E.bet.secs.2 and 11, on true line.
	Over mountainous land; descending along S slope of high ridge. Small patch of aspen S.of line.
5.00	Head of swale 20 ft.below sec.cor., course S. Ascend.
16.00	Spur, 20 ft.above swale, projects S.5.00 chs.
	Thence over rough, broken land.
18.50	Descend abruptly bearing N.and S. Enter dense aspens bearing N.and S.
21.00	Leave aspens bearing N.and S.
24.00	Ravine, 20 ft.deep, 140 ft.below spur, drains S. Ascend.
28.00	Spur, 100 ft.above ravine, projects S.3.00 chs.
40.13	The old ¼ sec.cor.on steep SE.slope, 150 ft.below spur. I re-establish it at same point 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 marked
	S 2 / ¼ / S 11 / 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
	Old stone corner buried alongside of post.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	From ¼ sec. cor.
	S.88° 20'E. bet. secs. 2 and 11,
	Descending rapidly through sage undergrowth.
4.00	Gulch, 50 ft. below ¼ sec. cor. course S.
	Thence over series of rocky small spurs and washes, projecting and draining S.; over sandstone slide rock.
11.00	Spur, 50 ft. above gulch, projects S. 5.00 chs.
	Descend.
12.00	Gulch, 75 ft. below spur, drains S.
	Ascend.
15.00	Spur, 75 ft. above gulch, projects S.
	Descend.
17.00	Gulch, 50 ft. below spur, drains S. Ascend.
22.00	Spur, 75 ft. above gulch, projects S. 4.00 chs.
	Descend.
25.00	Gulch, 75 ft. below spur, drains S. Ascend.
30.00	Spur, 75 ft. above gulch, projects S. 10.00 chs.
	Enter scrub cedars, bearing N. and S. Descend.
35.00	Gulch, 50 ft. below spur, course S. Ascend.
39.27	The cor. of secs. 1, 2, 11, and 12, 70 ft. above gulch.
	Land, rough, mountainous, series of rocky spurs and gulches; along S. slope of high ridge.
	Soil, rocky, stony, sandstone slide rock, on rock subsoil; 4th rate.
	Undergrowth, sage.
	Timber scrub cedars on E. end of mile.
	From cor. of secs. 2, 3, 10, and 11,
	North bet. secs. 2 and 3,
	Over rough, mountainous land; ascending to high ridge; through sage; small patch of aspen west of line.
14.10	Top of ridge, 110 ft. above sec. cor., bears E. and W. Road on top of ridge, bearing same; connects with road to Ogden. Descend.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
40.65	Fall 11 lks.E.of old ¼ sec.cor., which is a limestone 6 x 6 x 6 ins.above ground, firmly set, marked ¼ on W. face; but not witnessed. Corner stands on N.slope of ridge, 321 ft.below top. I re-establish it at the same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, with old stone corner buried alongside, for ¼ sec.cor., with brass cap marked
	¼ S 3 | S 2 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	The true course of this half-mile is therefore N.0° 09' W., and distance 40.65 chs.
	From the ¼ sec.cor.,
	North bet.secs.2 and 3,
40.00	Find no trace of any erroneously set corners similar to those found bet.secs.3 and 4, and 4 and 5.
55.95	Fall 14.50 chs.E.of cor.of secs.2,3,34, and 35, heretofore described.
	Thence
	S.14° 32'E.on true line bet.secs.2 and 3,
	Over mountainous land; ascending to ridge; through sage undergrowth.
12.00	Ridge, 100 ft.above sec.cor., bears E. and W. Road on top bears with ridge, Ogden to Woodruff.
21.00	Sink hole 20 lks.wide, 10 ft.deep, bears west of line 5.00 chs.dist.
23.00	Sink hole, 15 lks.wide, 5 ft.deep, bears west of line 6.80 chs.dist.
33.00	Head of canyon, 130 ft.below ridge, course E.
	Enter aspens bearing E.and W.
42.00	Leave aspens bearing NE. and SW.
47.00	Spur, 110 ft.above canyon, projects E.10.00 chs. Desc.
52.00	Canyon, 250 ft.below spur, course N.80° E.
	Ascend.

CANCELLED

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
57.80	The $\frac{1}{4}$ sec. cor. 80 ft. above canyon.
	Land, on mile, mountainous, steep N. and S. slopes from high ridges.
	Soil, gravelly red clay and disintegrated sandstone, dry, coarse, 3d rate.
	Undergrowth, sage. Fair grazing.
	Timber, small patches of aspen.
	From the cor. of secs. 10, 11, 14, and 15,
	N. 87° 30' W. bet. secs. 10 and 15,
	Over mountainous land; descending into head of draw; through sage undergrowth.
5.00	Head of draw, 30 ft. below sec. cor., course S. 60° E.
6.00	Enter aspens bearing N. and S.
8.00	Leave aspens bearing N. and S.
11.00	Spur, 90 ft. above draw, projects S. 10.00 chs.; thence SE. Descend.
14.50	Gulch, 80 ft. below spur, course S. 20° E. Ascend.
25.25	Main spur, 160 ft. above gulch, projects S. 10° E. 1 mile. Descend.
39.46	The old $\frac{1}{4}$ sec. cor., 150 ft. below spur, which I re-establish at same point as follows:
	Set an iron post 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked $\frac{S\ \frac{1}{4}\ 10}{S\ 15\ 1914}$
	Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.
	Old stone corner buried alongside of post.
	See page 76 for change in cap marking.
	From old $\frac{1}{4}$ sec. cor.
	N. 89° 39' W. on true line bet. secs. 10 and 15,
	Over rough mountainous land; descending into gulch; through sage undergrowth.
4.25	Gulch, 70 ft. below $\frac{1}{4}$ sec. cor., course S. 10° W.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

13.75 Enter scrub aspens, bearing N.and S.

19.75 Leave aspens, bearing N.and S.

21.00 Main spur, flat-topped, 200 ft.above gulch, projects S. 1 mile. Descend.

30.00 Head of draw, 120 ft.below spur, course S.30° W.

39.26 The old cor.of secs.9,10,15, and 16, as set by Bailey and Burrill, D.S., 30 ft.above draw, which I re-establish at same point as follows:

Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for cor.of secs.9 and 10 only, with brass cap marked

T 9 N | R 5 E
S 9 | S 10
S 16
1914

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

Old stone corner buried alongside of iron post.

Land, mountainous, along S.side of high ridge, bearing E.and W., and over spurs, projecting S.

Soil, gravelly, stony clay, on rocky subsoil; 3d rate.

Undergrowth, scrubby sage. Fair grazing.

Timber, small patches of aspen.

North bet.secs.9 and 10,

39.77 Fall 31 lks.E.of old ¼ sec.cor., which is a sandstone 8 x 6 x 5 ins.above ground, firmly set, marked ¼ on W. face; not witnessed.

78.25 Fall 4.85 chs.W.of old cor.of secs.3,4,9, and 10.

The course of the S.half-mile is therefore N.0° 27'W. and the distance 39.77 chs.; and the N.half-mile is N. 7° 38'E., and the distance 38.82 chs.

I return to the cor.of secs.9 and 10; thence

N.0° 27'W.on true line bet.secs.9 and 10,

Over mountainous land; ascending over S.slope of ridge; through sage undergrowth .

6.93 Top of ridge, bearing E.and W., 30 ft.above sec.cor.

CANCELLED

Chains.	
	Road, Ogden to Woodruff, bears E.and W.
13.82	Closing cor.for secs.9 and 10 later set at this point, see page 156 these notes.
22.50	Hollow, head of Cut-Off Canyon, 75 ft.below ridge,drains E. Stream 6 lks.wide, 5 ins.deep, sluggish water, course E.; nearly dry in fall of year. Ascend.
25.00	Spur, 50 ft.above hollow, projects E.10.00 chs. Descend.
27.30.	Hollow, 15 ft.below spur, course SE.
39.77	The old ¼ sec.cor., 90 ft.above hollow, which I re-establish at same point as follows: Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, with old stone corner buried with post, for ¼ sec.cor., with brass cap marked ¼ S 9 | S 10 1914 Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. From the ¼ sec.cor., N.7° 38'E.on true line bet.secs.9 and 10, Over mountainous land; ascending through sage undergrowth.
7.00	Spur, 50 ft.above ¼ sec.cor., projects E.10.00 chs.
14.60	Head of hollow, 25 ft.below spur, course E.
29.90	Road, Ogden to Woodruff and Randolph, bears NE. and W.
35.00	Top of ascent, bearing NE. and SW., 100 ft.above hollow; thence over flat top of ridge.
38.82	The old cor.of secs.3,4,9, and 10, on flat top of ridge, which I re-establish at same point as follows: Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in the ground, with old stone corner buried with post, for cor.of secs.3,4,9, and 10, with brass cap marked T 9 N R 5 E S 4 | S 3 S 9 | S 10 1914 Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Land, rolling, mountainous; general drainage E.from N. and S.slopes of ridges and spurs.

Chains.	
	Soil, gravelly clay, dry, coarse texture; 3d rate, on rocky subsoil.
	Undergrowth, sage.
	No. timber.
	From the cor. of secs. 2, 3, 10, and 11,
	West, bet. secs. 3 and 10,
40.08	Fall 62 lks. S. of the old ¼ sec. cor., which is a red sandstone 16 x 10 x 3 ins. above ground, loosely set, plainly marked ¼ on N. face; not witnessed.
80.53	Fall 298 lks. S. of old cor. of secs. 3, 4, 9, and 10, which is a sandstone 12 x 10 x 2 ins. above ground, firmly set, marked as described by the surveyor general, but not witnessed.
	The course of the east half-mile is therefore N.89° 07' W., and distance 40.08 chs.; and the west half-mile N.86° 40'W., and distance 40.52 chs.
	From cor. of secs. 3, 4, 9, and 10,
	S.86° 40'E. on true line bet. secs. 3 and 10,
	Over flat top of ridge; through sage undergrowth.
9.00	Junction of two roads, bearing S.50° W. to Ogden, N.50° E. to Randolph, and N.80° E. to Woodruff.
	Begin gradual descent, along S. slope of top of ridge.
40.52	The old ¼ sec. cor., 120 ft. below sec. cor., which I re-establish at same point as follows:
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, with old stone corner buried with post, for ¼ sec. cor., with brass cap marked
	$\frac{S\ \frac{1}{4}\ 3}{S\ 10}$ 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	From the ¼ sec. cor.
	S.89° 07'E. bet. secs. 3 and 10,
	Descending gradually along S. slope of ridge; through sage

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	undergrowth.
3.50	Head of draw, 30 ft.below ¼ sec.cor., course S.50° E.
	Thence ascend along S.slope of ridge.
36.00	Enter small aspens bearing N.10°W.and S.10° E.
39.20	Leave aspens bearing N.10° W. and S.45° E.
40.08	The cor.of secs.2,3,10, and 11, 70 ft.above ¼ sec.cor.
	Land, rolling, following along S.slope of top of ridge.
	Soil, coarse gravelly clay, 10 ins.deep, on stony sub-soil; 3d rate.
	Undergrowth sage. Fair grazing.
	Timber small patch of aspen on E.end of mile.
	From cor.of secs.3,4,9, and 10,
	North, on retracement line bet.secs.3 and 4,
42.66	Fall 67 lks.W.of the old ¼ sec.cor., which is a limestone 9 x 8 x 8 ins.above ground, firmly set, marked ¼ on W.face; but not witnessed.
82.66	Fall 83 lks.S.of the quartzite erroneously set for the bdy.corner, previously described, and on which marks were destroyed.
94.85	Fall 13.93 chs.E.of the true corner of secs.3,4,33, and 34, on N.bdy.of Tp.
	The course of the S.half-mile is therefore N.0° 54'E. and distance 42.67 chs.; and the N.half-mile N.15°38' W., and distance 54.19 chs.
	I return to the cor.of secs.3,4,9, and 10; thence
	N.0° 54'E.on true line bet.secs.3 and 4,
	Over flat top of ridge bearing N.80° E. and S.80° W.; through sage undergrowth.
2.00	Commence gradual descent bearing N.80° E. and S.80° W.
18.70	Swale, 50 ft.below sec.cor., course NW.
	Ascend.
22.00	Spur, 50 ft.above swale, projects W.5.00 chs.
	Descend.
26.70	Swale, 25 ft.below spur, course SW.

Chains.	
	Ascend.
33.70	Limestone outcrop, 40 ft. above swale; bears E. and W.
37.00	Ridge, 50 ft. above swale. bearing E. and W.
39.90	Road, bearing NW. and SE., connects main road on ridge with corral.
40.00	Sheep corral bears west of line 6.00 chs. Corral is in head of hollow, draining NW.
42.67	The old ¼ sec. cor., 30 ft. below ridge, which I re-establish at same point as follows:
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, with old stone corner buried alongside, for ¼ sec. cor., with brass cap marked
	¼ S 4 | S 3
	1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	From the ¼ sec. cor.
	N.15° 38'W. on true line bet. secs. 3 and 4,
	Over rolling, mountainous land; descending into swale; through sage undergrowth.
5.00	Road to corral, bears SW. and E.
9.00	Swale, 20 ft. below ¼ sec. cor., course SW.
16.00	Enter dense aspens bearing NE. and SW.
22.00	Rocky spur, 120 ft. above swale, projects W. 5.00 chs.
	Scattering mahogany timber on top of spur.
33.00	Leave aspens bearing E. and W. Descend gradually.
54.19	The cor. of secs. 3, 4, 33, and 34.
	Land, rolling mountainous, except for rocky spur in N. half; general drainage W.
	Soil, gravelly clay, dry, coarse; 3d rate; stony subsoil.
	Undergrowth, sage. Fair grazing.
	Timber, aspen and a few mahogany.

From the cor. of secs. 9, 10, 15, and 16, as set by Bailey and Burrill, D.S.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	West on retracement , on S.bdy.of sec.9,
39.88	Fall 1.00 ch.N.of the ¼ sec.cor., as set by Bailey and Burrill, D.S., which is a sandstone 16 x 8 x 3 ins. above ground, firmly set, marked ¼ on N.face; but not witnessed.
	The course of this half-mile is therefore S.88° 34'W. and the distance 39.89 chs.
	I return to the cor.of secs.9 and 10,
	Thence
	S.88° 34'W.on true line on S.bdy.sec.9,
	Over rolling land; ascending along S slope of top of ridge bearing E.and W.; through sage undergrowth.
10.00	Spur, 60 ft.above sec.cor., projects S.15.00 chs.
	Descend.
28.00	Head of hollow, 50 ft.below spur, course S. Ascend.
39.89	The old ¼ sec.cor., 50 ft.above hollow.
	Note: Knowing from nature of conflict that this corner will refer to the Bailey and Burrill section only, I re-establish it at the same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor.for sec.9, with old stone cor. buried with post; brass cap marked
	¼ S 9 / 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
	From the ¼ sec.cor.,
	West on S.bdy.of sec.9,
	Over rolling land; ascending gradually over S.side of ridge; through sage undergrowth.
17.50	Top of ridge, bearing N.80° E. and S.80° W., 50 ft.above ¼ sec.cor. Road on top of ridge, Woodruff to Ogden, bears with ridge.
	Descend gradually over N.slope.
40.00	Fall 1 lk.N.of the old cor.of secs.3,9,16, and 17, as set by Bailey and Burrill, D.S., which is a sandstone

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

15 x 9 x 5 ins.above ground,firmly set, marked as described by the surveyor general, but not witnessed.

Note:

Knowing from the nature of the conflict that this corner will be for the SW.cor.of sec.9 only, I re-establish it as follows:

Set an iron post 3 ft.long, 2 ins.dia., 24 ins.in the ground, for SW.cor.of sec.9, with brass cap marked

T 9 N | R 5 E
S 9

S 17
1914

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

Old stone corner buried with iron post.

The true course of this half-mile is therefore N.89°59'W. and distance 40.00 chs.

Land, rolling, following along sides of flat ridge.

Soil, gravelly and stony clay loam; dry; coarse texture, 10 ins.deep, on stony subsoil; 3d rate.

Undergrowth, sagebrush. No timber.

North retracing along W.bdy.sec.9,

40.06 Fall 81 lks.W.of old Bailey and Burrill ¼ sec.cor.between secs.8 and 9, which is a sandstone 12 x 10 x 3 ins. above ground, loosely set, marked as described by the surveyor general; no accessories.

80.20 Fall 184 lks.W.of old Bailey and Burrill cor.of secs.4,5, 8 and 9, which is a limestone 12 x 8 x 10 ins.above ground, firmly set, properly marked; no accessories.

I return to the SW.cor.of sec.9; thence

N.1° 09'E.on true line along W.bdy.sec.9,

Over rolling mountainous land; descending into head of hollow; through sagebrush.

3.60 Head of hollow, Cut-Off canyon,25 ft.below cor.drains N. 70° E.

9.50 Spur, 30 ft.above hollow, projects E.5.00 chs.

Descend.

Chains.
12.48 Swale, 10 ft. below spur, drains E. Ascend.

21.56 Top of ridge, 60 ft. above swale, bearing NE. and W.

Road, Ogden to Woodruff, bears with ridge.

40.07 The old ¼ sec. cor., 35 ft below ridge, which I re-establish at same point as follows:

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor. sec. 9 only, with brass cap mkd.

1914 | ¼ S 9

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

Old stone corner buried with iron post.

From the ¼ sec. cor.

N. 1° 28' E. on true line along W. bdy. sec. 9,

4.20 Swale, 10 ft. below ¼ sec. cor., course W. Ascend.

12.75 Spur, 50 ft. above swale, projects W. 10.00 chs.

40.15 The old cor. of secs. 4, 5, 8, and 9, on SW. slope of spur, 25 ft. below top.

Note:

For reasons already explained, I re-establish this corner at same point as follows:

Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, with old stone corner buried with post, for cor. of secs. 4 and 9, with brass cap marked

T 9 N | R 5 E
S 4
S 8 ——
S 9
1914

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

Land, rolling, mountainous; S. 22.00 chs. drains E. into Cut-Off canyon; N. 58.22 chs. drains W. into Crawford canyon.

Soil, generally a reddish, dry, sandy, gravelly loam, 12 ins. deep, on stony clay subsoil. Some parts might be dry-farmed.

Undergrowth, sage. Good grazing. No timber.

From cor. of secs. 3, 4, 9, and 10,

Chains.	
	West on a random line bet.secs.4 and 9,
42.96	Fall 70 lks.S.of the old ¼ sec.cor. set by Bailey and Burrill, D.S., which is a limestone 6 x 2 x 8 ins. above ground, loosely set, properly marked; but not witnessed.
82.80	Fall 84 lks.S.of cor.of secs.4 and 9. Thence S.89° 48'E.on true line bet.secs.4 and 9, Over mountainous land, draining W.; ascending to spur; through sage undergrowth.
7.80	Spur, 50 ft.above sec.cor., projects N.15.00 chs.
8.80	Enter aspen grove, bearing N.and S.
10.50	Sink hole, 20 lks.wide, 15 ft.deep, bears N.of line 90 lks.dist.
12.30	Sink hole, 20 lks.wide, 5 ft.deep, bears N.of line 30 lks. dist.
12.80	Swale, 30 ft.below spur, course N.20° W. Ascend. Leave aspens bearing N.and S.
22.50	Spur, 30 ft.above swale, projects NW. 10.00 chs.Descend.
30.00	Swale, 25 ft.below spur, course NW. Ascend.
39.80	Spur, 50 ft.above swale, projects NW.15.00 chs.
39.84	The ¼ sec.cor., on top of spur, which I re-establish at same point as follows: Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, with old stone corner buried with post, for ¼ sec.cor., with brass cap marked S ¼ 4 S. 9 1914 Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
	From the ¼ sec.cor. S.89° 04'E.on true line bet.secs.4 and 9, Over rolling, mountainous land; descending gradually from spur; through sage undergrowth.
6.46	Swale, 30 ft.below ¼ sec.cor., course NW. Sink hole, 15 lks.wide, 10 ft.deep, bears N.of line 60

Chains.	
	lks. dist. to center. Ascend to ridge.
7.00	Road, from ridge to head of Crawford Canyon, bears NW. and SE.
42.97	The cor. of secs. 3, 4, 9, and 10, 50 ft. above swale.
	Land, mountainous and rolling.
	Soil, sandy, gravelly loam, dry, coarse texture, 15 ins. deep, on stony, clay subsoil; 3d rate.
	Undergrowth, sagebrush. Good grazing.
	Timber, small patches of aspen.
	From the cor. of secs. 4 and 9, Bailey and Burrill survey, North along W. bdy. of sec. 4,
39.82	Fall 15 lks. W. of old ¼ sec. cor., as established by Bailey and Burrill, D.S., which is a limestone 8 x 8 x 4 ins. above ground, firmly set, properly marked, but not witnessed.
79.83	Fall 1.23 chs. W. of corner, erroneously set, a limestone marked for cor. of secs. 4, 5, 32, and 33, on which marks were destroyed.
93.94	Fall 9.75 chs. E. of the true cor. of secs. 4, 5, 32, and 33 as set by Bailey and Burrill, D.S., described in notes of N. bdy., page 18 these notes.
	The course of the S. half-mile is therefore N. 0° 13' E. and distance 39.82 chs.; and the N. half-mile N. 10° 22' W. and distance 55.02 chs.
	I return to the corner of secs. 4 and 9; thence
	N. 0° 13' E. on true line along W. bdy. of sec. 4,
	Over rolling mountainous land; gradually descending along NW. side of spur; through sage undergrowth.
25.00	Bottom of descent bearing N. 20° E., and S. 20° W., 200 ft. below sec. cor., Enter small flat in bottom of hollow, covered with meadow grass and willows; drains N. 20° E.; dry.
25.70	Road in flat bears NE. and W.; connects with road on ridge.
26.60	Leave flat, bearing N. 20° E., and S. 20° W.; also leave meadow grass and willows.

Chains.	
	Ascend to spur, projecting SW.
39.82	The old ¼ sec.cor., on spur, 150 ft.above hollow, which I re-establish at same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor.sec.4, with old stone corner buried with post; brass cap marked ¼ S 4 / 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high E.of cor.
	From this corner a sheep corral in head of hollow draining SE., bears west 7.00 chs.dist.
	From the ¼ sec.cor.
	N.10° 22'W.on true line along W.bdy.sec.4,
	Over mountainous land; descending from spur, into head of draw; through sage undergrowth.
10.00	Draw, course SW., 50 ft.below ¼ sec.cor.,
	Ascend.
20.50	Ridge, bearing NE. and SW., 50 ft.below draw.
30.80	Enter aspen grove, bearing NW. and SE.
33.60	Swale, 20 ft.below ridge, drains NW. On N.side of ridge.
	Descend.
34.00	Leave aspens bearing NW. and SE.
43.80	Draw, 200 ft.below ridge, drains NE.
	Road in bottom of draw, bears NE. and SW.
49.00	Spur, 75 ft.above draw, projects E.5.00 chs.
	Descend.
52.20	Gulch, 100 ft.below spur, course S.70° E.
55.02	The cor.of secs. 4 and 33.
	Land, mountainous; S.half drains E., and N.half N.and NE.
	Soil, on S.half-mile red gravelly clay on stony clay subsoil; 3d rate. Soil on N.half-mile gray, shaly, and gravelly clay, on stony clay subsoil; 3d rate.
	Undergrowth, sage. Good grazing.
	Timber, small patches of aspen.

Chains.

Note:

Deputy Surveyors, Bailey and Burrill, by discontinuing certain subdivision lines at 40.00 chs., returned fractional portions of secs.15,22,23, and 24 as surveyed. On account of the conflict with survey made by Deputy Martineau, it will be necessary to protect these old returned areas by surveying the boundaries of said areas to define the limit of the Martineau areas.

The E.half of sec.15 is returned as surveyed by Bailey and Burrill, D.S. To establish the limit of the Martineau areas in conflict, I survey a line from the Bailey and Burrill ¼ sec.cor.of secs.10 and 15 to the Bailey and Burrill ¼ sec.cor.of secs.15 and 22.

From the Bailey and Burrill ¼ sec.cor.of secs.15 and 22, North on random along W.bdy.of E.½ of sec.15,

40.00 Set temp.point.

78.12 Fall 36 lks.W.of the ¼ sec.cor.of secs.10 and 15,

I change the markings on the brass cap to read as follows:

T 9 N R 5 E
S 10
¼
S 16 | S 15
1914

Thence

S.0° 16'W.on true line along W.bdy.of E.half of sec.15,

Over rough, mountainous land; along base of ridge bearing N.and S.; descending through sage undergrowth.

23.00 Hollow, 120 ft.below corner, drains SW. Ascend.40 ft.to

28.00 Spur, projects S.40°W. 5.00 chs. Descend into canyon.

37 00 Enter E.edge of clump of aspens bearing N.20° W. and S. 20° E.

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

¼ S 15
1914

from which

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	An aspen 10 ins.dia., bears N.2° E. 10 lks.dist. marked $\frac{1}{4}$ S 15 B T
	Corner stands in bottom of canyon draining S., 20 ft. below spur.
	Descend gradually, along canyon.
40.00	Bottom of canyon, draining S.10° E.
51.00	Leave aspens bearing E.and W. Leave bottom of canyon. Ascend to spur.
60.50	Spur, 150 ft.above canyon, projects SE.10.00 chs.
65.00	Descend abruptly over N.side of spur, bearing NW. and SE.; line takes down steep wash.
78.12	The $\frac{1}{4}$ cor. of secs.15 and 22, 200 ft.below spur.
	Land, rough, mountainous; general drainage SE.into Birch Creek.
	Soil, generally stony, gravelly, red clay, on rocky sub-soil; 3d rate. Soil in canyon bottom dark gravelly loam; 2d rate.
	Undergrowth, sage. Good grazing.
	Timber, aspen.

	From the $\frac{1}{4}$ sec.cor.for secs.15 and 22,
	South on W.bdy.of area returned for sec.22, by Bailey and Burrill, D.S.
	Over rolling, mountainous land; descending along wash draining S.; through sage undergrowth.
4.70	Enter aspen timber, bearing E.and W.
5.40	Leave timber, bearing E.and W.
8.40	Road, Woodruff to Ogden bears E.and W.
11.25	Enter willows in bottom bearing E.and W.
11.45	Birch Creek, 8 lks.wide; 2 ins.deep, course E.; good water; swift current; gravelly bottom; in bottom of Birch Creek Canyon, 80 ft.below $\frac{1}{4}$ sec.cor.
11.65	Leave willows bearing E.and W.
	Thence over flat in bottom of canyon.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

13.20 Center of shearing corral on line.

16.10 Ascend; enter small aspen bearing E.and W.

18.50 Spur, 60 ft.above canyon bottom, projects N.60° E.15.00 chs. Leave small aspens bearing NE. and SW.

24.00 Enter aspens bearing E.and W.

28.50 Creek, 5 lks.wide, 3 ins.deep, course NE.; good water; in small hollow draining NE., 40 ft.below spur.

Ascend abruptly.

33.10 Leave aspens bearing E.and W.

Ascend more abruptly over steep NW.slope of spur.

40.00 Leave temp.point.

From the ¼ sec.cor.between secs.22 and 23 of the Bailey and Burrill survey,

West on true line along S bdy.of area returned by Bailey and Burrill, D.S. in sec.22,

Over rough mountainous land; descending along N.face of spur; through scrub sagebrush.

15.00 Enter aspen timber, bearing N.and S.

16.00 Bottom of ravine, 150 ft.below corner; drains NW.; through narrow opening between spurs. Creek 3 lks.wide, 2 ins.deep, good water, course NW.

18.50 Leave timber, bearing N.and S. Ascend.

23.20 Enter dense aspens bearing N.and S.

26.00 Enter exceptionally dense willows and aspens bearing N. and S. on east side of top of spur.

29.00 Top of spur, 120 ft.above ravine, projects NE. 20.00 chs.

Leave aspens and willows bearing N.and S.

Descend gradually over NW.face of spur.

38.22 Intersect my N.and S.line 80 lks.N.of my 40.00 ch.point from the north; thus making the N.and S.line 39.20 chs.

At the intersection I

Set an iron post 3 ft.long, 2 ins.in dia., 26 ins.in the

Chains.	
	ground, for SW.cor.of Bailey and Burrill fractional sec.22, with brass cap marked T 9 N | R 5 E S 22 S 21 1914
	Raise a mound of stone, 2 ft.base, 1½ ft.high NE.of cor.
	Corner stands on steep NW.side of spur, 70 ft.below top.
	Land, rough, mountainous; draining N.into Birch Creek.
	Soil, stony, gravelly, red clay; 3d rate; on stony sub-soil.
	Undergrowth, sage and willows. Good grazing.
	Timber, aspen.
	From the ¼ sec.cor.bet.secs.22 and 23, as established by Bailey and Burrill, D.S.
	East, on a random line along S.bdy.of N.½ of sec.23.
40.00	Set temp.point.
78.32	Fall 18 lks.S.of the ¼ sec.cor.between secs.23 and 24, as established by Bailey and Burrill, D.S.
	Thence S.89° 52'W.on true line,
	Over rough, mountainous land; along N.slope of top of ridge; ascending to spur; through sage.
7.92	Enter aspens bearing N.and S.
9.00	Spur, projects N.10.00 chs.; 20 ft.above ¼ sec.cor. Descend.
13.30	Hollow, 20 ft.below spur, course N.
15.82	Leave aspens bearing N.and S.
26.30	Enter aspens bearing NW. and SE.
38.80	Creek; 3 lks.wide, 2 ins.deep, course N., in hollow 30 ft.below top of ascent. Ascend.
39.16	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., on S.bdy.of sec.23, as surveyed by Bailey and Burrill, D.S.; with brass cap marked

Chains.	
	$\frac{1}{4}$ S 23 / 1914
	fromwwhich
	An aspen, 6 ins.dia., bears N.25° W. 17 lks.dist. marked $\frac{1}{4}$ S 23 B T
	Corner stands 10 ft.above creek, in dense aspen timber. Ascend abruptly.
51.00	Leave aspens bearing N.and S.
75.30	Spur, 110 ft.above creek, projects N.80° W. 15.00 chs.
78.32	The Bailey and Burrill $\frac{1}{4}$ sec.cor.of secs.22 and 23, 20 ft.below spur.
	Land, mountainous, along N.slope of ridge bearing E.and W.; drainage and exposure N.
	Soil, red, gravelly clay, dry, and coarse; 3d rate; on rocky, clay subsoil.
	Undergrowth, sage. Good grazing.
	Timber, aspen.
	From the Bailey and Burrill $\frac{1}{4}$ sec.cor.between secs.23 and 24,
	East on a random line on S.bdy.of N.$\frac{1}{2}$ of Bailey and Burrill sec.24.
40.00	Set temp.point.
73.34	Fall 371 lks.S.of the Bailey and Burrill $\frac{1}{4}$ sec.cor.bet. secs.19 and 24. Thence
	S.87° 06'W.on true line,
	Over mountainous land; ascending to top of high ridge; through sage undergrowth.
5.00	High ridge, 20 ft.above corner, bears N.60°E.and S.60°W.
17.91	Closing cor.for secs.23 and 24 later set at this point, see page 144.
24.00	Allan Hollow, 150 ft.below ridge, course NE.; stream 3 lks.wide, 3 ins.deep, good water, course NE.
24.40	Wood road bearing NE. and SW., from Strawberry Ridge to road in Birch Creek Canyon. Ascend.

RESURVEY OF SUBDIVISION OF T. 9 N. R. 5 E.

Chains.	
36.72	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., on S. bdy. of the Bailey and Burrill sec. 24, with brass cap marked ¼ S 24 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Corner stands on SE. face of spur, 120 ft. above hollow. Ascend.
43.30	Spur, 80 ft. above ¼ sec. cor., projects NE. 30.00 chs. Descend.
56.60	Small draw, 50 ft. below spur, drains N. Ascend.
58.00	Spur, 40 ft. above draw, projects N. 5.00 chs. Descend.
65.50	Draw, 50 ft. below spur, drains N.
	Enter aspen grove bearing N. 20° E. and S. 20° W.
70.00	Leave aspen grove, bearing N. and S.
71.00	Spur, 70 ft. above draw, projects N. 5.00 chs.
73.44	The ¼ sec. cor., for Bailey and Burrill secs. 23 and 24, Land, rough, mountainous; general drainage NE. from NW. and SE. slopes of ridge and hollows. Soil, red gravelly clay; 3d rate; on rocky subsoil. A strip of 2d rate loam along bottom of Allan Hollow. Undergrowth, sage. Good grazing. Timber, small aspens.

RETRACEMENT OF DEPUTY MARTINEAU'S SUBDIVISION, BASED ON THE SOUTH ONE OF THE TWO SEOND STANDARD PARALLELS NORTH.

Note:

In the investigation as to which of the two second standard parallels north is the correct one, the following subdivisional lines were retraced, initiated from the corners on the south one of the two standards.

RETRACEMENT OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	From the standard cor. of secs. 33 and 34 on the south one of the two second standard parallels north,
	North bet. secs. 33 and 34,
40.00	Careful search over radius of 8.00 chs. reveals no trace of the corner
80.00	Careful search reveals no trace of the cor. of secs. 27, 28, 33, and 34. Set temp. corner.
	East bet. secs. 27 and 34,
40.00	Careful search reveals no trace of the $\frac{1}{4}$ sec. cor.
80.00	Careful search reveals no trace of the cor. of secs. 26, 27, 34, and 35. Set temp. corner.
	From the standard cor. of secs. 34 and 35 on the S. one of the two standards,
	North bet. secs. 34 and 35,
40.00	Careful search reveals no trace of the $\frac{1}{4}$ sec. cor.
79.28	Fall 12 lks. W. of the temp. cor. for secs. 26, 27, 34, and 35. I again make diligent search, but find no trace of the sec. cor.
	From the temp. cor. of secs. 26, 27, 34, and 35,
	North bet. secs. 26 and 27,
40.00	Careful search reveals no trace of $\frac{1}{4}$ sec. cor.
80.00	Careful search reveals no trace of the cor. of secs. 22, 23, 26, and 27. Set temp. cor.
	North between secs. 22 and 23,
40.00	Careful search reveals no trace of $\frac{1}{4}$ sec. cor.
40.28	Fall 250 lks. W. of the $\frac{1}{4}$ sec. cor. of secs. 22 and 23, set by Bailey and Burrill, D.S.

RETRACEMENT OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	From the standard cor. of secs. 35 and 36 on the south one of the two standard parallels north,
	North bet. secs. 35 and 36,
40.00	After careful search over radius of 10.00 chs., I am unable to find any trace of the ¼ sec. cor.
80.00	After careful search I am unable to find any trace of the cor. of secs. 25, 26, 35, and 36. Set temp. cor.
	East bet. secs. 25 and 36,
40.00	After careful search I am unable to find any trace of ¼ sec. cor.
77.35	Fall 1.35 chs. S. 4° 45' E. of the cor. of secs. 25, 30, 31, and 36.
	From the temp. cor. of secs. 25, 26, 35, and 36,
	West bet. secs. 26 and 35,
40.00	After careful search I am unable to find any trace of the ¼ sec. cor.
79.50	Fall 1.65 chs. N. of the temporary cor. of secs. 26, 27, 34, and 35. I again make diligent search, but find no trace of sec. cor.
	From the temp. cor. of secs. 25, 26, 35, and 36,
	North bet. secs. 25 and 26,
40.00	After diligent search I am unable to find any trace of ¼ sec. cor.
80.00	After diligent search I am unable to find any trace of the cor. of secs. 23, 24, 25, and 26. Set temp. sec. cor.
	West bet. secs. 23 and 26,
40.00	After diligent search I am unable to find any trace of

RETRACEMENT OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	$\frac{1}{4}$ sec. cor.
79.60	Fall 1.60 chs. N. of temp. cor. of secs. 22, 23, 26, and 27. I again make diligent search, but find no trace of the cor. of secs. 22, 23, 26, and 27.
	From the temporary cor. of secs. 23, 24, 25, and 26, East bet. secs. 24 and 25,
40.00	After diligent search I am unable to find any trace of the $\frac{1}{4}$ sec. cor.
75.05	Fall 2.25 chs. S. 1° 43' E. of the cor. of secs. 19, 24, 25, and 30, on the E. bdy. of Tp.
	From the temporary cor. of secs. 23, 24, 25, and 26, North bet. secs. 23 and 24,
38.55	Fall 1.30 chs. W. of the $\frac{1}{4}$ sec. cor. of secs. 23 and 24, set by Bailey and Burrill, D.S.
40.00	After diligent search I find no trace of any $\frac{1}{4}$ sec. cor. set by Deputy Martineau.

Note:

From the above retracements it is plainly evident that Deputy Martineau did not initiate any subdivision from the south one of the two second standard parallels north. The topography returned in his notes is absolutely at variance with the actual topography on the ground. Not one corner was found based on the south line, although in many places the points for such corners fell in localities which were very favorable for preserving and making easily recognizable any stones set. From the close proximity of the points for the Martineau $\frac{1}{4}$ sec. corners for secs. 22 and 23, and 23 and 24, based on said south line, to the corresponding $\frac{1}{4}$ sec. cors. of Bai-

Chains. ley and Burrill, D.S., it is remarkable that Deputy Martineau did not find them; especially as they are good noticeable corners. The acceptance of the north one of the two second standard parallels north was influenced, and verified by the above facts, in conjunction with other conditions noted in detail in the notes of T.6 N., R.4 E.

RETRACEMENT AND RESURVEY OF DEPUTY MARTINEAU'S SUBDIVISION.

From the standard cor. of secs. 31 and 32, heretofore described,

North bet. secs. 31 and 32,

Over rolling land; ascending along bottom of small hollow; through aspen timber and scattering sage.

1.44 Log cabin bears W. 2.00 chs. dist. Apparently new and unfinished; unable to ascertain owner.

1.70 Leave aspens bearing NW. and SE. Leave hollow, draining from the NE. to S.; ascend through heavier sage undergrowth.

12.00 Spur, 20 ft. above hollow, projects SW. 5.00 chs.

Descend.

15.60 Swale, 10 ft. below spur, drains SW. Ascend.

35.20 Ridge, 25 ft. above swale, bears E. and W.

36.90 Road, Woodruff, via Walton Creek, bears E. and W.

40.00 Sandstone outcrop, bearing E. and W.

40.92 Fall 24 lks. W. of the old ¼ sec. cor. set by Deputy Martineau, which is a sandstone 14 x 4 x 20 ins. above ground firmly set, properly marked; small mound around stone. Corner stands on N. slope of low ridge, 10 ft. below top. I re-establish it at same point as follows:

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, with old stone corner buried with post, for ¼ sec. cor., with brass cap marked

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

¼ S 31 | S 32

1914

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

The true course of this half-mile is therefore N.0° 21' E. 40.92 chs. No change in topography on true line.

From the ¼ sec. cor.

North bet. secs. 31 and 32,

10.00 Swale, 20 ft. below corner, course E.

10.75 Road, connects with Walton Creek road, bears E. and W.

17.00 Spur, 15 ft. above swale, projects E. 5.00 chs.

Enter aspen grove bearing E. and W.

17.90 Leave aspens bearing E. and W.

Enter burnt sage bearing E. and W.

40.05 Fall 143 lks. W. of the old cor. of secs. 29, 30, 31, and 32, 60 ft. below spur, which I re-establish at same point as follows:

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

T 9 N R 5 E
S 30 | S 29
S 31 | S 32
1914

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

No change in topography on line.

The true course of this half-mile is therefore N. 2° 03' E., and the distance 40.07 chs.

Land, rolling; south half-mile drains S., and north half drains NE.

Soil, dry, sandy loam, coarse texture, 15 ins. deep; 2d rate, on stony subsoil; may be dry farmed.

Undergrowth, sage. Good grazing.

No timber.

From the cor. of secs. 25, 30, 31, and 36, on W. bdy. of Tp.

Chains.	
	heretofore described,
	East bet. secs. 30 and 31,
	Over rolling land; ascending gradually to low spur; through sage.
27.16	Small spur, 30 ft. above corner, projects N. 10.00 chs.
	From this point a spring bears N. 44° 30' E.; good water; head water of Walton Creek.
33.40	Wood road, from spring, bears N. and S.
	Small hollow, drains N.
40.60	Fall 43 lks. N. of the old $\frac{1}{4}$ sec. cor., a red quartzite 14 x 10 x 6 ins., lying in old depression, with $\frac{1}{4}$ marked on one face; no accessories. I re-establish corner at same point as follows:
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with old stone buried with post; brass cap marked
	$\frac{S\ \frac{1}{4}\ 30}{S\ 31}$ 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Corner stands on W. side of spur, 15 ft. above hollow.
	The true course of this half-mile is therefore S. 89°23' E., and the distance 40.60 chs.
	No change in topography on true line.
	From the $\frac{1}{4}$ sec. cor.
	East, bet. secs. 30 and 31,
	Ascending to spur; through sage.
.80	Spring bears N. 29° W.
3.60	Stony spur, 30 ft. above $\frac{1}{4}$ sec. cor., projects N. 5.00 chs.
	Descend.
20.80	Draw, 40 ft. below spur, course N. Ascend.
30.00	Spur, 20 ft. above draw, projects N. 10.00 chs.
	Descend.
37.20	Small draw, 30 ft. below spur, drains NE.
40.80	Fall 24 lks. S. of the old cor. of secs. 29, 30, 31, and 32, which is a sandstone 10 x 8 x 6 ins. above ground, loose-

Chains.	
	ly set in a mound of stone, properly marked, re-established at same point at later date, see page 86 these notes.
	The true course of this half-mile is therefore N.89° 39' E., and the distance 40.80 chs.
	No change in topography.
	Land, rolling; slight drainage to the north.
	Soil, dry, sandy loam, medium texture, 2d rate, on sandstone and clay subsoil. May be dry farmed.
	Undergrowth, sage. Good grazing.
	No timber.
	From the old corner of secs. 29, 30, 31, and 32,
	North bet. secs. 29 and 30,
40.00	After careful search over radius of 5.00 chs., I am unable to find any trace of the old ¼ sec. cor.
80.00	After diligent search I find no trace of the cor. of secs. 19, 20, 29, and 30. Set temp. sec. cor.
	North, bet. secs. 19 and 20,
40.00	After diligent search I am unable to find any trace of ¼ sec. cor. Set temp. ¼ sec. cor.
82.44	Fall 25 lks. E. of the old cor. of secs. 17, 18, 19, and 20, which is a limestone 10 x 8 x 6 ins. above ground, firmly set, properly marked; but not witnessed.
	From the temp. cor. of secs. 19, 20, 29, and 30,
	West bet. secs. 19 and 30,
12.06	Fall 42 lks. S. of a cross cut on a limestone ledge, on high ridge bearing N. and S.; described in the old field notes as being 13.05 chs. W. of cor.
40.00	After diligent search I am unable to find any trace of

RETRACEMENT OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	old $\frac{1}{4}$ sec. cor. Left temp. corner.
80.69	Fall 1.63 chs. S. of the cor. of secs. 19, 24, 25, and 30 on W. bdy. of Tp. heretofore described.
	Note: It is thus plainly evident that the west range of secs. is not about 13.00 chs. short of a mile, as purported. I, therefore, cannot use the record distance in restoring the $\frac{1}{4}$ sec. cor. by proportionate measurement.
	From the temporary cor. of secs. 19, 20, 29, and 30 East, between secs. 20 and 29,
41.29	Fall 82 lks. S. of the old $\frac{1}{4}$ sec. cor., which is a sandstone 8 x 6 x 6 ins. above ground, firmly set, properly marked, but not witnessed.
81.61	Fall 133 lks. S. of old cor. of secs. 20, 21, 28, and 29, which is a sandstone 16 x 12 x 4 ins. above ground, loosely set in a mound of stone, marked with 4 notches on E. face; marks on S. face obliterated.
	I shall restore the corner of secs. 19, 20, 29, and 30 by the method of double proportionment outlined in the pamphlet, Restoration of Lost or Obliterated Corners, using the sec. corners a mile north and south, the $\frac{1}{4}$ sec. cor. to the east; and the cross on the ledge to the west.
	From the connections between these points, the restored position is found to be a point 1.01 chs. E., and 1.22 chs. N. of my temporary point for cor. of secs. 19, 20, 29, and 30.
	From the cor. of secs. 29, 30, 31, and 32, N. 0° 43' E. bet. secs. 29 and 30,

Chains.	
	Over rolling land; descending gradually into small draw through sage undergrowth.
5.46	Small draw, 15 ft. below sec. cor., drains N.70° E. Ascend.
11.00	Spur, 40 ft. above draw, projects E. 10.00 chs. Descend abruptly.
14.00	Enter pine timber, bearing E. and W.
15.00	Leave timber, bearing E. and W.
16.36	Spring branch, 5 lks. wide, 3 ins. deep, course S.50° E.; good water; slow current; gravelly bottom; 80 ft. below spur. Ascend.
28.00	Top of ascent, 120 ft. above creek, bears NE. and SW. Descend gradually.
40.61½	Proportional distance. Set an iron post 3 ft. long, 1 in. in dia., 10 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 30 | S 29 1914 Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Post is set 10 ins. in the ground, to bed rock, and 16 ins. in mound of stone 2 ft. base. Corner stands on W. slope of ridge, 50 ft. below top. Ascend.
62.31	Road, leads to Strawberry Ridge and Allan Hollow, bears N.75° E. and S.75° W. Thence ascend along stony west slope.
76.70	Strawberry Ridge, 80 ft. above ¼ sec. cor., bears N.20° W. and S.20° E.
80.40	Enter pine timber, bearing NW. and SE.
81.23	The point for restored cor. of secs. 19, 20, 29, and 30, which is 122 lks. N. and 1.01 chs. E. of my temp. cor. Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for restored cor. of secs. 19, 20, 29, and 30, with brass cap marked T 9 N R 5 E S 19 | S 20 S 30 | S 29 1914

Chains.

from which

A pine 5 ins.dia., bears N.78° 30'E. 20 lks. dist., marked T 9 N R 5 E S 20 B T

A pine, 8 ins.dia., bears S.65° E. 54 lks.dist. marked T 9 N R 5 E S 29 B T

A pine, 6 ins.dia., bears S.51° W. 7 lks.dist. marked T 9 N R 5 E S 30 B T

A pine, 8 ins.dia., bears N.13° W. 54 lks.dist. marked T 9 N R 5 E S 19 B T

Corner stands on NE.slope of ridge, 70 ft.below top.

Land, mountainous; north half-mile drains SW., then E.; south half-mile drains E.into Walton Creek.

Soil, stony, gravelly clay, hard, dry, 6 ins.deep, on rocky sandstone subsoil; 3d rate.

Undergrowth, sage. Good grazing.

Timber, pine.

S.86° 30'W.bet.secs.19 and 30,

Over mountainous land; ascending to top of ridge;through pine timber.

2.80 Leave timber, bearing N.40° W. and S.40° E.; enter sage bearing same.

5.80 Strawberry Ridge, 70 ft.above cor., bears N.20° W. and S.20° E.

11.60 Enter mahogany, bearing N.and S.; thence over quartzite ledges and reefs on west end of Strawberry Ridge.

13.09 Cross on ledge , described by the surveyor general.

Thence

N.88° 59'W.bet.secs.19 and 30, with continuous measurement; over quartzite ledges bearing N.and S.; descending through mahogany timber.

18.60 Leave quartzite ledges and mahogany bearing N.and S.

Enter scattering pines and aspens bearing N.and S.

20.50 Sheep corral, on line, in head of draw draining N., 135

CANCEL

RESURVEY OF SUBDIVISION OF T. 9 N. R. 5 E.

Chains.	
	ft. below ledge.
21.50	Leave scattering pine and aspen bearing N. and S.
27.00	Spur, 80 ft. above draw, projects N. 20° W. 10.00 chs.
40.72	Proportional measurement. I again make diligent search, but fail to find any trace of old ¼ sec. cor.
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for restored ¼ sec. cor., with brass cap mkd.
	$\frac{S\ 19}{\frac{1}{4}}$
	S 30 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Note: Proportion based on assumption that record distance is one mile, the only logical proportion that can be made.
	Corner stands on E. side of draw, 180 ft. below spur.
44.50	Draw, 30 ft. below ¼ sec. cor., course N.
50.92	Road, bearing N. and S., Ogden to Woodruff.
81.73	The cor. of secs. 19, 24, 25, and 30 on W. bdy. of Tp., heretofore described; 60 ft. above draw.
	Land, east half-mile mountainous, draining W.; west half-mile rolling, draining E.; thence N. into Birch Creek.
	Soil, east half-mile rocky, gravelly clay, on bed rock; 3d rate; west half-mile sandy gravelly clay loam, 12 ins. deep, on stony clay subsoil; 2d and 3d rate.
	Undergrowth, sage. Good grazing.
	Timber, pine, aspen and mahogany.

From the corner of secs. 19, 20, 29, and 30,

N. 0° 54' W. bet. sections 19 and 20,

Over mountainous land; descending over NE. face of Strawberry Ridge; through pine timber.

2.23	Leave pine timber bearing N. 30° W. and S. 30° E.; enter aspen timber, bearing same.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
4.50	Leave aspen timber, bearing NW. and SE.
7.00	Commence abrupt descent, bearing N.30° W. and S.30° E.
	Enter pine timber bearing N.30° W. and S.30° E.
17.00	Bottom of abrupt descent, bearing E.and W.
	Leave pine timber bearing E.and W.; thence descend gradually to bottom of Birch Creek Canyon.
17.50	Spring branch, head of Birch Creek, 5 lks.wide, 5 ins. deep, good water, swift current, stony bottom, course E.in bottom of canyon, 450 ft.below ridge.
	Ascend abruptly.
20.25	Enter mahogany timber, bearing E.and W.
27.00	Spur, 500 ft.above creek, projects SE. 15.00 chs.
	Descend.
32.75	Draw, 70 ft.below spur, course SE.
40.61½	Proportional measurement. I again make diligent search but am unable to find ¼ 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 ¼ S 19 | S 20 19 | 14 from which
	A mahogany 8 ins.dia., bears S.25° E. 36 lks.dist. marked ¼ S 20 B T
	A mahogany 8 ins.dia., bears S.8° W. 20 lks.dist. marked ¼ S 19 B T
	Corner stands on SE.slope of spur, 60 ft.above draw.
42.25	Spur, 20 ft.above ¼ sec.cor., projects S.70° W. 3.00 chs.
48.25	Draw, 50 ft.below spur, course SW.for 8.00 chs.; then SE.
48.75	Leave mahogany bearing E.and W.
49.25	Ridge, 30 ft.above draw, bears N.20° E. and S.20° W.
	Descend.
72.00	Small draw, course N.80° W.
77.00	Small spur, 40 ft.above draw, projects N.70° W. 15.00 chs.
	Enter dense sage bearing E.and W.
79.00	Old road, bearing NE. and SW.
81.23	The old cor.of secs.17,18,19, and 20, which I re-establish at same point as follows:

CANCELLED

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E

Chains.

Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, with old stone corner buried with post, for cor. of secs. 17, 18, 19, and 20, with brass cap marked

T 9 N R 5 E
S. 18 | S. 17
S. 19 | S. 20
1914

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

Corner stands on N. side of spur, 40 ft. below top.

Land, generally mountainous; north half-mile drains W., south half-mile drains E. into Birch Creek.

Soil, south half-mile stony and rocky on rocky subsoil, 3d rate; north half-mile stony, sandy clay, dry, and coarse, 3d rate on stony subsoil.

Undergrowth, sage on N. half-mile. Fair grazing.

Timber, mahogany, aspen, and pine.

From the cor. of secs. 13, 18, 19, and 24, on W. bdy. of Tp., heretofore described,

East bet. secs. 18 and 19,

40.00 After diligent search am unable to find any trace of old ¼ sec. cor. Set temp. cor.

79.75 Fall-24 lks. N. of old cor. of secs. 17, 18, 19, and 20, which is a limestone 10 x 8 x 6 ins. above ground, firmly set, properly marked; but not witnessed.

From the cor. of secs. 13, 18, 19, and 24 on W. bdy. of Tp.

S. 89° 50' E. bet. secs. 18 and 19,

Over rolling land; descending gradually through sage.

16.70 Wood road, bears N. 10° E. and S. 10° W.

27.40 No trace of the old ¼ sec. cor., reported at this distance.

28.00 Wide draw, 20 ft. below sec. cor., drains SE.

39.87½ Proportionate measurement, assuming the old distance as 1 mile,

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

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

S 18 1/4
S 19
1914

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

Corner stands on spur, 40 ft.above draw, spur projects S.10.00 chs.

54.20 Spring branch, 2 lks.wide, 1 in.deep, sluggish, muddy, course S.; 40 ft.below spur.

55.00 Road, Ogden to Woodruff bears N.20° E. and S.20° W.

70.00 Spur, 50 ft.above spring branch, projects N.80° W.5.00 chs.

79.75 The old cor.of secs.17.18.19, and 20.

Land, rolling; general drainage SE.into head of Birch Creek.

Soil, sandy clay loam, stony in parts, dry, medium texture, 20 ins.deep, 2d and 3d rate, on stony subsoil, might be dry farmed.

Undergrowth, sage. Good grazing.

No timber.

North bet.secs.17 and 18,

40.47 Fall 64 lks.W.of old ¼ sec.cor., which is a sandstone 16 x 10 x 4 ins.lying loose in old depression, plainly marked ¼ on one face; no accessories.

80.91 Fall 1.46 chs.W.of the old cor.of secs.7,8,17, and 18, which is a sandstone 24 x 10 x 6 ins.above ground, loosely set, plainly and properly marked; small mound of stones around corner. I resurvey this line as follows:

From the cor.of secs.17,18,19, and 20,

N.0° 55'E.bet.secs.17 and 18,

Over rolling land; ascending gently; through sage undergrowth; along W.side of top of flat ridge.

40.48 The old ¼ sec.cor., which I re-establish at same point as follows:

Chains.

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

¼ S 18 | S 17
1914

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Old stone corner buried with iron post.
From the ¼ sec. cor.
N. 1° 10' E. bet. secs. 17 and 18,

4.00 Wood road, bears NE. and SW.

19.50 Road, Ogden to Woodruff via Birch Creek, bears NE. and SW., on top of flat ridge bearing NE. and SW.

21.80 Road, Ogden to Randolph bears N. 20° E. and S. 20° W.

40.44 The old cor. of secs. 7, 8, 17, and 18, which I re-establish at the same point as follows:

Set an iron post 3 ft. long, 2 ins. in dia., 26 ins. in the ground, with old stone corner buried with post, for cor. of secs. 7, 8, 17, and 18, with brass cap marked

T 9 N R 5 E
S 7 | S 8
S 18 | S 17
1914

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
Corner stands on N. side of flat top ridge.
Land, rolling; general drainage slightly to the west; thence S. Line follows along top of high flat ridge.
Soil, dry, sandy clay loam, medium texture, 20 ins. deep, on stony clay subsoil, 2d and 3d rate; might be dry farmed.
Undergrowth, sage. Good grazing.
No timber.

From the cor. of secs. 7, 12, 13, and 18 on W. bdy. of Tp., heretofore described,
East bet. secs. 7 and 18,
Over rolling land; descending gradually along E. slope of

CANCELLED

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	spur; through sage undergrowth.
21.80	Hollow, 50 ft.below sec.cor., drains NE.10.00 chs.; thence N.
29.80	Spur, 30 ft.above hollow, projects N.10.00 chs.
33.90	Hollow, 10 ft.below spur, course N.
	Thence ascend gradually over west slope of ridge.
40.16	Fall 26 lks.N.of the old $\frac{1}{4}$ sec.cor., which is a sandstone 9 x 8 x 4 ins.above ground, loosely set, properly marked, but not witnessed. Stands on W.slope of ridge, 40 ft.above hollow. I re-establish it at same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., with brass cap marked
	S 7 $\frac{1}{4}$ S 18 1914
	Raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high N.of cor.
	Buried old stone corner with iron post.
	The true course of this half-mile is therefore S.89° 38' E., and the distance 40.16 chs.
	No change in topography on true line.
	From the $\frac{1}{4}$ sec.cor.
	East bet.secs.7 and 18,
24.00	High ridge, 70 ft.above $\frac{1}{4}$ sec.cor., bears N.and S.
	Descend gradually.
40.18	Fall 24 lks.N.of the cor.of secs.7,8,17, and 18, 20 ft. below ridge.
	The true course of this half mile is therefore S.89° 39' E., and the distance 40.18 chs.
	No change in topography on true line.
	Land, rolling, mountainous; draining N.into Crawford Canyon.
	Soil, sandy, stony, clay loam, dry, medium texture, 12 ins.deep, on stony subsoil, 2d and 3d rate; might be dry farmed.
	Undergrowth, sage. Good grazing.

Chains.	
	No timber.
	N.1° 00'E.bet.secs.7 and 8, (This course to more nearly follow line),
	Over rolling land; descending gradually through sage, along E.side of ridge.
40.30	Intersect the old ¼ sec.cor. which is a sandstone 6 x 5 x 4 ins., partly broken, plainly marked and witnessed as described by the surveyor-general. Corner stands 60 ft.below sec.cor. I re-establish it at same point 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 marked ¼ S 7 | S 8 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Old stone corner buried with iron post.
	The true course of this half-mile is therefore N.1° 00' E., and the distance 40.30 chs.
	Continue from ¼ sec.cor.,
9.50	Smooth open draw, 75 ft.below ¼ sec.cor., drains N 45° E. Ascend.
18.20	Spur, 80 ft.above draw, projects N.45° E. 10.00 chs. Descend.
35.00	Draw, 150 ft.below spur, course N.60° E. Ascend.
37.00	Point of low spur, 30 ft.above draw, projects E.1.00 ch.
40.07	Mouth of small draw, 30 ft.below point of spur, drains E.
	Fall 8 lks.W.of old cor.of secs.5,6,7, and 8, which is a sandstone 14 x 5 x 5 ins.above ground, loosely set marked and witnessed as described by the surveyor general. I re-establish it at same point as follows:
	Set an iron post 3 ft.long, 2 ins.dia., 26 ins.in the ground, with old stone corner buried with post, for

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains

cor.of secs.5,6,7, and 8, with brass cap marked

T 9 N R 5 E
S 6 | S 5
S 7 | S 8
1914

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

The true course of this half-mile is therefore N.1° 07' E.and the distance 80.07 chs.

Land, south half-mile rolling, draining E.; north half-mile rolling, mountainous, draining NE.

Soil, south half-mile sandy, clay loam, fine texture, on rock and clay subsoil; 2d rate. North half-mile, gravelly and stony clay, on rocky subsoil, 3d rate.

Undergrowth, sage. Good grazing.

No timber.

From the cor.of secs.1, 6, 7, and 12, on W.bdy.of Tp, heretofore described.

East, between secs.6 and 7,

27.22 After diligent search I am unable to find any trace of the ¼ sec.cor. alleged to have been set at this point.

40.00 After diligent search I am unable to find any trace of any ¼ sec.cor.

67.22 The point for cor.of secs.5,6,7, and 8, according to Deputy Martineau. The corner can be seen about 13.00 chs.E.of this point; the old notes are clearly a misrepresentation of facts.

80.10 Fall 1.51 chs.N.of the old cor.of secs.5,6,7, and 8.

Thence

N.88° 55'E.on true resurvey line bet.secs.6 and 7,

Over rolling, mountainous land; ascending along draw, draining E.; through sage undergrowth.

28.00 Head of draw draining E., 60 ft.above sec.cor.

Enter grove of dense aspen and scattering pine timber, bearing E.and W.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

38.00 Leave timber, bearing E.and W.; enter sage opening bearing E.and W., on E.side of top of knoll, 40 ft.above head of draw.

40.03½ Proportional distance,

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

$$\frac{S\ \frac{1}{4}\ 6}{S\ 7\ 1914}$$

from which

An aspen 4 ins.dia.bears N.27° W. 115 lks.dist. marked ¼ S 6 B T

An aspen 6 ins.dia., bears S.67° 15'W.208 lks. dist., marked ¼ S 7 B T

Corner stands in opening on flat knoll.

41.00 Leave sagebrush opening bearing N.and S.; enter aspen timber bearing N.and S.,

Ascend.

44.00 Leave aspen bearing N.and S.

45.00 Top of knoll, 20 ft.above ¼ sec.cor.

Descend,

65.00 Draw, 25 ft.below knoll, drains SE.

Wood road in bottom of draw, bearing N.20° W. and S.20° E.

67.20 Enter aspen and pine timber, bearing N.and S.

73.00 Leave aspen and pine, bearing N.and S.; enter sagebrush opening; ascend more.abruptly along shale spur.

80.11 The cor.of secs.1,6,7, and 12, 80 ft.above draw.

Land, rolling, mountainous; general drainage S.and E.

Soil, gravelly, stony, clay; dry, coarse, 3d rate; on rocky subsoil, except in timber where some rich, black loam, 2d rate, occurs.

Undergrowth, sage.

Good grazing grass.

Timber, aspen and pine.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	From cor. of secs. 5, 6, 7, and 8,
	N.1° 00'E. bet. secs. 5 and 6, to more nearly follow old line,
	Over rolling, mountainous land; ascending from draw to small spur, through sagebrush.
3.30	Small spur, 60 ft. above sec. cor., projects SE. Descend.
11.90	Draw, open, 40 ft. below spur, course SE.
	Ascend.
29.30	Ridge, 90 ft. above draw, bears N.80° E. and S.80° W.
29.50	Dim road, to timber, bears E. and W.
30.25	Enter scrub aspens bearing E. and W.
38.50	Leave aspens bearing N.20° W. and S.20° E.
40.12	Fall 6 lks. W. of old ¼ sec. cor., which is a sandstone 10 x 9 x 4 ins. lying loose in old depression, dimly mkd. with ¼ on one face; no accessories. Stands on N. slope of ridge, 110 ft. below top. I re-establish it at same point as follows:
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, with old stone buried with post, for ¼ sec. cor. with brass cap marked
	¼ S 6 | S 5
	1914
	from which
	An aspen 5 ins. dia., bears S.80° W. 133 lks. dist. marked ¼ S 6 B T
	An aspen 5 ins. dia., bears S.16° 30'E. 325 lks. dist., marked ¼ S 5 B T
	The true course of this half-mile is therefore N.1° 05' E., and distance 40.12 chs.
	From the ¼ sec. cor.
	North bet. secs. 5 and 6,
4.00	Enter aspens bearing NE. and SW.
7.50	Leave aspens bearing NE. and SW.
17.00	Enter aspens bearing E. and W.
21.00	Hollow, 190 ft. below ¼ sec. cor., drains NE.
26.00	Leave aspens bearing E. and W.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

30.00 Spur, 150 ft. above hollow, projects E.10.00 chs.

Descend.

36.50 Small draw, drains 40° E.

39.37 Fall 7 lks. E. of the cor. of secs. 5, 6, 31, and 32, on N. bdy. of Tp., heretofore described.

The true course of this half-mile is therefore N.0° 06' W., and the distance 39.37 chs.

Land, mountainous; south 30.00 chs. draining SE.; the north 49.49 chs. draining NE. into Crawford Hollow.

Soil, gravelly, stony, clay; dry, and coarse; on rocky subsoil; 3d rate.

Undergrowth, sage. Good grazing.

Timber clumps of aspen.

From the standard cor. of secs. 32 and 33, on S. bdy. of Tp., heretofore described,

North, between secs. 32 and 33,

40.00 After diligent search I am unable to find any trace of the old ¼ sec. cor. Set temp. cor.

80.00 After diligent search I am unable to find any trace of the old cor. of secs. 28, 29, 32, and 33. Set temp. cor.

From the old cor. of secs. 20, 21, 28, and 29,

South bet. secs. 28 and 29,

40.00 After diligent search I am unable to find any trace of the old ¼ sec. cor.

80.00 I again make diligent search, but am unable to find any trace of the old cor. of secs. 28, 29, 32, and 33. Set temp. sec. cor. for this line.

From this temp. sec. cor., the temp. sec. cor. from the south bears S.55° 03' W. 3.43 chs. dist. I set a point on line and midway between these two temp. cors.

RETRACEMENT OF SUBDIVISION OF T. 9 N. R. 5 E.

Chains.	
	From the cor. of secs. 29, 30, 31, and 32,
	East bet. secs. 29 and 32,
40.00	After diligent search I am unable to find any trace of the old ¼ sec. cor.
80.16	Record distance. I again make diligent search but am unable to find any trace of the old cor. of secs. 28, 29, 32, and 33. Set temp. cor. on this line.
	From this temp. cor., the point midway between the temp. cors. from the north and south, bears N. 33° 40' E. 42 lks. dist.

Note:

As there are no corners to the east from which to restore the cor. of secs. 28, 29, 32, and 33 by method of double propertion, the restoration must be based on the nearest corners to the N., S., and W., which are each a mile (practically) distant, and therefore each must have equal weight. The correct position for the missing corner will then be the centroid of the triangle formed by the three temporary points, brought in from the N., S. and W., on record courses and distances. This point is one-third the distance from the midway point set, to the temporary cor. from the west, or 17 lks. S. 33° 40' W. from the midway point between the temporary corners from the N. and S.

The point for restored corner falls on very steep and unstable slide rock, on which it would be impossible to perpetuate the corner. I set a temp. point for the cor., and destroy the other temp. corners.

At a point 80 lks. S. 0° 56' W. from the true corner point, I Set an iron post 3 ft. long, 2 ins. in dia., 26 ins. in the ground, for witness corner to cor. of secs. 28, 29, 32, and 33, with brass cap marked

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RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	T 9 N | R 5 E S 29 | S 28 W. C S 32 | S 33 1914 Raise a mound of stone 3 ft.base, 4½ ft.high W.of cor.
	From the standard cor.of secs.32 and 33, on S.bdy.of Tp., heretofore described,
	N.0° 56'E.bet.secs.32 and 33,
	Over rough, mountainous land; descending along W.side of Spur into head of gulch; through sage undergrowth.
12.00	Gulch, 50 ft.below sec.cor., course S.40° W.
	Ascend.
24.00	Main ridge, 120 ft.above gulch, bears E.and W.
	Road on top of ridge, to Walton Creek, bears E.and W.
	Descend.
29.00	Enter aspen bearing E.and W.
33.00	Leave aspens bearing NE. and SW.
38.00	Cut-off road, bears N.5° E. and S.5° W.
39.00	Enter aspens bearing E.and W.
40.43½	Proportional distance,
	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for restored ¼ sec.cor., with brass cap marked ¼ S 32 | S 33 1914 from which
	An aspen 5 ins.dia., bears West 66 lks.dist. marked ¼ S 32 B T
	An aspen 4 ins.dia., bears N.40° 45'E. 122 lks. dist., marked ¼ S 33 B T
46.00	Road, leading to Walton Creek, bears NE. and SW. Junction with road from south is east of line 2.00 chs.dist.
	Swale, 120 ft.below ridge, drains NE.
52.75	Leave aspens bearing E.and W.
58.14	Spur, 180 ft.above swale, projects NE. 15.00 chs.
64.25	Road, leading to Walton Creek, bears S.80° W. and N.80°E.

Chains.	
68.90	Enter aspen and pine timber, bearing NW. and SE.
75.00	Begin abrupt descent bearing E.and W.into Walton Canyon, over rocky stony land.
79.20	Bottom of steep descent bearing E.and W.; thence through willows, over canyon bottom.
	Leave aspen and pine timber, bearing E.and W.
79.80	Walton Creek, 10 lks.wide, 6 ins.deep, good water, swift current, rocky bottom, course E., 200 ft.below top of descent.
80.07	The witness cor.of secs.28,29,32, and 33, on left bank in bottom of canyon, 4 ft.above creek.
80.20	Leave bottom of canyon and willows bearing E.and W.; begin very abrupt ascent over loose unstable red quartzite slide rock.
80.87	The true point for cor.of secs.28,29,32, and 33, 120 ft. above the creek. No cor.set.
	Land, rough, mountainous; south 24.00chs.drains S.into Woodruff Creek, and north 56.87 chs. drains NE. and N. into Walton Creek.
	Soil, on the tops of ridges and spurs, gravelly, sandy loam; remainder stony, rocky, on rocky subsoil; 3d and 4th rate.
	Undergrowth sage. Fair grazing.
	Timber, aspen and pine.

From the true cor.point for cor.secs.28,29,32, and 33, S.89° 50'W.bet.secs.29 and 32,

Over rough mountainous land; ascending along steep N. side of Walton Canyon; over large red quartzite slide rock, very unstable; no vegetation.

11.00	Sharp rocky spur, 100 ft.above true cor.point, projects S.2.00 chs. Descend abruptly through scrub sage.
17.00	Bottom of steep descent bearing N.20° W. and S.20° E.; thence over bottom of Walton Canyon, through willows,

Chains.

. bearing the same.

17.30 Walton Creek, 6 lks.wide, 5 to 6 ins.deep, good water, swift current, rocky bottom, course S.20° E. for 4.00 chs., then E.; 110 ft.below spur.

17.50 Leave willows bearing N.20° W. and S.20° E.

Commence abrupt ascent over rocky slope.

22.50 Enter scrubby aspen timber, bearing NW. and SE.

29.00 Top of abrupt ascent, bearing NW. and SE.; N.edge of small clump of pine timber bears 1.50 chs.S.of this point.

35.00 Top of spur, 50 ft.above top of ascent, projects N.20.00 chs. Descend gradually.

38.80 Enter aspen timber bearing N.and S.

40.15½ Proportional distance.

I again make diligent search but find no trace of old ¼ sec.cor.

Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for restored ¼ sec.cor., with brass cap mkd.

$$\frac{S\ \frac{1}{4}\ 29}{S\ 32}$$
1914

from which

An aspen 7 ins.dia., bears N.40° 45'E.22 lks.dist. marked ¼ S 29 B T

An aspen, 8 ins.dia., bears S.15° W. 20 lks.dist. marked ¼ S 32 B T

Corner stands in wide swale, 30 ft.below spur, draining N.

41.00 Ascend abruptly bearing N.and S.

46.50 Top of abrupt ascent, bearing N.and S.

Leave aspens bearing N.and S.; thence ascend gradually.

52.00 Spur, 50 ft.above ¼ sec.cor., projects N.20° E. 10.00 chs.

Thence along N.side of top of ridge, bearing E.and W.

63.30 SE.cor.of clump of aspens bearing NE. and NW.from this point. Thence descend.

80.31 The cor.of secs.29,30,31 and 32, 60 ft.below spur.

Land, mountainous; E.35.00 chs. draining E.and SE.into

Chains.	
	Walton Creek; very steep slopes. West 45.31 chs. drains W. and N., north exposure.
	Soil E.35.00 chs. stony and rocky on rock sub-soil; 4th rate. A strip of 2d rate soil around ¼ sec. cor. in timber; west of this soil is sandy, gravelly, clay loam, 2d and 3d rate, on stony subsoil.
	Undergrowth, sage. Fair grazing.
	Timber, aspen and clumps of pine near line.
	From the true point for cor. of secs. 28, 29, 32, and 33, N.1° 03'E. bet. secs. 28 and 29,
	Over rough, mountainous land; ascending abruptly over N. side of Walton Canyon, over red quartzite slide rock, large and very unstable; no vegetation.
7.00	Top of steep slide, 180 ft. above true cor. point, bears E. and W. Thence over rolling, mountainous land; ascending towards top of Strawberry Ridge; through sagebrush.
40.55½	Proportional distance. I am again unable to find ¼ sec. cor., after diligent search.
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S 29 | S 28 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Corner is 30 ft. above top of slide.
50.00	Strawberry Ridge, bearing E. and W., 50 ft. above ¼ sec. cor. Road on top of ridge, to Woodruff via Birch Cr. bears with ridge. Descend over rolling land.
73.40	Enter aspen timber, bearing E. and W.; leave sage, bears same.
77.40	Seep spring, poor water, bears W. of line 20 lks.
78.70	Bottom of draw, 140 ft. below ridge, drains N.80° E.
79.28	Spring bears E.1.80 chs., poor water; drains N.80° E.
81.11	The old cor. of secs. 20, 21, 28, and 29, 5 ft. above draw.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains. I re-establish it at same point as follows:

Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for re-established cor. of secs. 20, 21, 28, and 29, with brass cap marked

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

Old stone buried with post; from which

An aspen 6 ins. dia., bears N.24° 15'E. 19 lks. dist., marked T 9 N R 5 E S 21 B T

An aspen 6 ins. dia., bears S.44° E. 31 lks. dist. marked T 9 N R 5 E S 28 B T

An aspen 7 ins. dia., bears S.69° 45'W. 30 lks. dist. marked T 9 N R 5 E S 29 B T

An aspen 8 ins. dia., bears N.21° 30'W. 34 lks. dist., marked T 9 N R 5 E S 20 B T

Land, S.7.00 chs. very rough, mountainous and rugged; remainder mountainous. South 50.00 chs. drains S. into Walton Creek; north 31.11 chs. drains N. into Birch Cr.

Soil, sandy gravelly loam, 10 ins. deep, on rocky subsoil, 3d rate on 74.11 chs., with small area of 1st and 2d rate loam on extreme N. end, moist, fine texture. South 7.00 chs. barren rock slide.

Undergrowth, sage. Good grazing.

Timber, aspen; some of commercial value.

From the cor. of secs. 19, 20, 29, and 30,

S.39° 26'E. bet. secs. 20 and 29, on true line,

Over mountainous land; descending gradually over NE. side of top of Strawberry Ridge, into head of small draw; through pine timber.

2.00 Head of draw, 20 ft. below sec. cor., drains NE.

4.00 Leave pine timber, bearing NW. and SE.; enter aspen timber bearing same.

CARELLI

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
6.50	Leave aspen timber, bearing NW. and SE.
	Thence through sage bearing NW. and SE.
10.00	Spur, 40 ft. above draw, projects N.40° E. 10.00 chs.
12.00	Enter mahogany timber, bearing N.20° E. and S.20° W.
31.40	Gulch 250 ft. below spur, drains N.45° E.
40.28	The old ¼ sec. cor., 180 ft. above gulch, which I re-establish at same point 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 marked
	$\frac{S\ 20}{\frac{1}{4}\ \ S\ 29}$ 1914
	from which
	A mahogany 5 ins. dia., bears S.22° W. 78 lks. dist. marked ¼ S 29 B T
	A mahogany 6 ins. dia., bears N.77° 30'E. 103 lks. dist., marked ¼ S 20 B T
	Old stone corner buried with post.
	From the ¼ sec. cor.
	N.89° 16'E. on true line bet. secs. 20 and 29,
6.00	Large spur, 100 ft. above ¼ sec. cor., projects N.60° E.
	Leave mahogany timber, bearing NE. and SW.
	Descend gradually.
37.05	Enter aspen timber, good size, bearing NE. and SW.
40.32	The cor. of secs. 20, 21, 28, and 29, 120 ft. below spur.
	Land, mountainous; west 46.28 chs. draining NE.; east 34.32chs. draining SE. from large spur.
	Soil, sandy, gravelly clay, 12 ins. deep, 3d rate, on rocky subsoil.
	Undergrowth, sage. Good grazing.
	Timber, mahogany, aspen, and pine.

	From old cor. of secs. 20, 21, 28, and 29
	North bet. secs. 20 and 21,
40.00	After diligent search I am unable to find any trace of

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	old ¼ sec.cor. Left temp.cor.
80.23	Fall 1.47 chs.E.of old cor.of secs.16,17,20, and 21, which is a sandstone 2 x 14 x 16 ins., loosely set in rock mound, properly marked, which I re-establish at same point as follows:
	Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for cor.of secs.16,17,20,and 21, with old stone corner buried with post; brass cap marked
	T 9 N R 5 E S 17 | S 16 S 20 | S 21 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Thence
	S.1° 03'E.bet.secs.20 and 21,
	Over mountainous land; descending into canyon bottom; through sage.
2.00	Road, Woodruff to road on main ridge, bears S.80° E. and N.80° W.
	Enter aspen timber bearing S.80° E. and N.80° W.
5.00	Bottom of north fork of Birch Creek Canyon, dry, drains E., 25 ft.below sec.cor.
14.00	Leave aspens bearing E.and W.
15.70	Top of ridge, bearing NW. and SE., 200 ft. Thence descend abruptly into head of Birch Creek Canyon.
25.75	Descend precipitously over sheer quartzite ledges, bearing E.and W.; unstable slide rock at bottom. Leave sage bearing E.and W.
30.00	Birch Creek, 8 lks.wide, 5 ins.deep, good water, swift current, rocky bottom, course E.; fringe of willows along banks; in bottom of Birch Creek Canyon, 300 ft. below ridge. Thence ascend abruptly over S side of canyon; over steep unstable quartzite slide rock. Enter scattering pines bearing E.and W.
40.00	Leave pines bearing E.and W.; enter mahogany bearing same; also sage undergrowth.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

40.12 Point for ¼ sec.cor., falls at top of steep slide, bearing E.and W., on which it would be impossible to perpetuate a corner; therefore at

40.74 Set an iron post, 3 ft.long, 1 in.in dia., 12 ins.in crevice of solid bed rock, with mound of stone 4 ft. base, 15 ins.high around post, for witness cor.to ¼ sec.cor., with brass cap marked

¼ S 20 | S 21
W. C.
1914

from which

A mahogany 8 ins.dia., bears N.72° 15'E. 96 lks. dist., marked ¼ S 21 B T

A mahogany 10 ins.dia., bears S.61° 30'W. 40 lks. dist., marked ¼ S 20 B T

Witness cor.stands near top of steep slide, 220 ft.above creek.

Thence ascend through mahogany, along W.side of spur, projecting N.

65.75 Ridge, bearing N.80° E. and S.80° W., 100 ft.above ¼ sec. cor. Leave mahogany bearing E.and W.

70.25 Enter dense aspen timber bearing E.and W., at head of hollow, 90 ft.below ridge, drains SE.

80.24 The old cor.of secs.20,21,28, and 29, which was later re-established at same point.

Land, south half, mountainous; north half rough and rugged mountains draining SE., into Birch Creek; steep quartzite ledges.

Soil, north half-mile rocky and stony,some loam on S.5.00 chs., 2d and 3d rate; stony subsoil.

Undergrowth, sage. Fair grazing, except on slides.

Timber, aspen, pine, and mahogany.

From cor.of secs.17,18,19, and 20,

East bet.secs.17 and 20,

Chains.	
40.11	Fall 50 lks.N.of the old ¼ sec.cor., which is a limestone 14 x 10 x 4 ins.lying loose in old depression, with ¼ marked on one face; no accessories.
80.37	Fall 114 lks.N.of cor.of secs.16,17,20, and 21.
	Thence
	N.89° 05'W.bet.secs.17 and 20,
	Over mountainous land; along S.side of ridge; ascending through sage.
3.00	Small spur, projects S.1.00 ch., 10 ft.above sec.cor.
5.00	Enter aspens bearing NW. and SE.
9.00	Fork of Birch Creek Canyon, 150 ft.below spur, course S.80° E.; dry.
	Ascend gradually.
13.00	Road, Woodruff to main road on ridge, bears NW. and SE.
18.53	Leave timber, bearing N.and S.
	Ascend to ridge.
36.00	Top of ridge, 100 ft.above canyon, bears NW. and SE.
	Descend into head of hollow.
40.26	The old ¼ sec.cor., which I re-establish at same point as follows:
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with old stone corner buried with iron post, with brass cap marked
	$\frac{S\ \frac{1}{4}\ 17}{S\ 20}$ 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
	No suitable bearing trees within limits. Thence
	N.89° 17'W.bet.secs.17 and 20,
3.00	Head of hollow, 50 ft.below ridge, course S.20° E.
	Enter small aspens bearing N.and S.
3.75	Leave small aspens bearing N.and S.
15.40	Top of quartzite knoll, 150 ft.above hollow.
20.40	Enter aspens bearing N.and S.
	Head of swale, 50 ft.below knoll, drains N.
25.00	Leave aspens bearing N.and S.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
29.00	Spur, quartzite, 30 ft. above swale, projects N. 10.00 chs.
36.00	Road, bears NE. and SW., joins main road.
40.11	The cor. of secs. 17, 18, 19, and 20.
	Land, rough, mountainous. E. 70.00 chs. drains SE. into Birch Creek; west 10.37 chs. drains W.
	Soil, gravelly, stony, dry; 3d and 4th rate; on rocky subsoil.
	Undergrowth, sage.
	Fair grazing.
	Timber, aspen.
	From the cor. of secs. 16, 17, 20, and 21,
	North bet. secs. 16 and 17,
40.00	After diligent search I am unable to find any trace of the old $\frac{1}{4}$ sec. cor.
66.46	Intersect the south boundary of the Bailey and Burrill sec. 9, 10.86 chs. N. 88° 34' E. of the Bailey and Burrill $\frac{1}{4}$ sec. cor. on S. bdy. of said sec. 9.
	Note: A closing cor. on my true line will be necessary to define the boundary of the Martineau survey; therefore I leave a temp. cor. at this point.
	Thence I continue into the Bailey and Burrill sec. 9.
81.08	Fall 139 lks. W. of a sandstone 10 x 8 x 5 ins. above ground, firmly set, marked with 4 notches on S. and 4 notches on E. edge; no accessories.
	Note: Apparently, Deputy Martineau, who was to have closed this line on the true Bailey and Burrill cor. of secs. 8, 9, 16, and 17, which he could not find, erroneously set a corner of his own for this point. I destroy the marks on this stone; but leave it standing in place.
	Thence, from this stone,
	S. 0°59' W. on blank line between secs. 16 and 17, Martineau's survey, which is in conflict with the Bailey

Chains.	
	and Burrill survey.
14.62	Intersect S.bdy. of sec. 9, 12.00 chs. N.88° 34'E. of the Bailey and Burrill ¼ sec. cor., on S.bdy. of sec. 9.
	At the intersection,
	Set an iron post 3 ft. long, 2 ins. in dia., 26 ins. in the ground, for closing cor. of secs. 16 and 17, with brass cap marked
	T 9 N R 5 E C C S 17 | S 16 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high S. of cor.
	Corner stands on S slope of ridge, 75 ft. below top.
	Thence, with continuous measurement,
	S.0° 59'W. on true resurvey line bet. secs. 16 and 17,
	Over mountainous land; descending from ridge into hollow; through sage.
19.00	Hollow, 40 ft. below closing cor., course S.40° E.
	Enter dense aspens bearing NW. and SE.
22.00	Leave aspens bearing E. and W.
23.00	Spur, 20 ft. above hollow, projects SE. 10.00 chs.
	Descend.
32.50	Hollow, 50 ft. below spur, course SE.
33.50	Enter dense small aspens bearing E. and W.
38.00	Leave aspens bearing SE. and W.; thence ascend to top of ridge; through sage undergrowth.
40.54½	Proportional measurement,
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S 17 | S 16 1914
	from which
	An aspen 4 ins. dia., bears S.65° 45'E. 53 lks. dist., marked ¼ S 16 B T
	An aspen 4 ins. dia., bears N.50° 15'W. 240 lks. dist., marked ¼ S 17 B T

Chains.	
	Corner stands in opening on N.side of top of spur.
43.00	Spur, 40 ft.above hollow, projects SE.15.00 chs.
57.00	Road, Woodruff to Ogden, bears E.and W.
	Enter aspens bearing E.and W.
58.00	Fork of Birch Creek Canyon, 180 ft.below spur, drains E. Creek in bottom of canyon, 5 lks.wide, 2 ins.deep, good water, medium current, gravelly bottom, course E. Ascend.
70.00	Leave aspen timber, bearing E.and W.
72.00	Spur, 200 ft.above canyon, projects E.12.00 chs.
81.09	The cor.of secs.16,17,20 and 21.
	Land, mountainous; general drainage SE.into Birch Creek.
	Soil, gravelly and stony red clay, 12 ins.deep, on rock and clay subsoil; 3d rate.
	Undergrowth, sage. Good grazing.
	Timber, aspen.
	From the cor.of secs.7,8,17, and 18,
	East bet.secs.8 and 17,
28.34	Intersect W.bdy.of Bailey and Burrill sec.9, 15.53 chs. N.1° 09'E.of the re-established Bailey and Burrill cor.for SW.cor.sec.9. Leave temp.cor. Thence I continue into sec.9,
39.98	Fall 26 lks.N.of a sandstone 9 x 5 x 4 ins.above ground, firmly set, marked $\frac{1}{4}$ on N.face, but no accessories, erroneously set by Deputy Martineau for $\frac{1}{4}$ sec.cor.bet.secs. 8 and 17; but which falls within the Bailey and Burrill sec.9. I destroy marks on the stone, but leave it standing in place.
80.18	Fall 66 lks.N.of the stone, erroneously set by Deputy Martineau for the cor.of secs.8,9,16, and 17, described on page 113 of these notes.
	Thence, from said stone,
	N.89° 26'W.on blank line through sec.9,

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

40.20 The stone set for Martineau ¼ sec. cor. secs. 8 and 17.

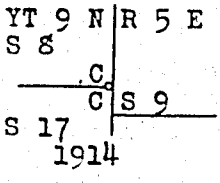
Thence,

N.89° 38'W. on blank line through sec. 9,

11.73 Intersect W. bdy. of sec. 9, 15.38 chs. N.1° 09'E. of the SW. cor. of sec. 9.

At the intersection,

Set an iron post, 3 ft. long, 2 ins. in dia., 26 ins. in the ground, for closing cor. of secs. 8 and 17, with brass cap marked.



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

Thence, from the closing cor., with continuous measurement,

N.89° 38'W. on true line bet. secs. 8 and 17,

Over rough mountainous land; ascending gradually to main ridge; through sage undergrowth.

16.00 Top of ridge, 20 ft. above closing cor., bears NE. and SW.

17.70 Main road, Ogden to Woodruff and Randolph, bears NE. and SW. Descend.

35.00 Hollow, 50 ft. below ridge, course N.

39.99 The cor. of secs. 7, 8, 17, and 18.

Land, rolling, mountainous; general drainage N.

Soil, sandy gravelly loam, 12 ins. deep; 2d rate; on stony clay subsoil; dry, medium texture.

Undergrowth, sage. Good grazing.

No timber.

From the old ¼ sec. cor. bet. secs. 5 and 8, erroneously set by Deputy Martineau, which is a limestone 10 x 8 x 6 ins. above ground, firmly set, properly marked, but not witnessed,

West bet. Martineau secs. 5 and 8; through Bailey & Burrill

Chains.	
	sec.4.
12.54	Intersect W.bdy.of Bailey & Burrill sec.4, 14.89 chs.N. 0° 13'E.of the true Bailey & Burrill cor.of secs.4,5, 8 and 9. Set temp.cor.
41.00	Fall 82 lks.S.of the old cor.of secs.5,6,7, and 8,which was subsequently re-established at same point.
	Thence
	S.88° 51'E.on true line bet.secs.5 and 8,
	Over rolling land; descending along bottom of hollow; through sage.
5.00	Junction with another hollow from the SW. Thence over flat bottom; through meadow grass and scattering willows. Leave sage undergrowth bearing NE. and SW.
20.00	Mouth of hollow, from the S., at junction. Main hollow drains NE.from this point.
23.00	Leave flat and meadow grass, bearing NE. and SW.
	Ascend to spur; through sage.
28.47	Intersect W.bdy.of sec.4, 15.14 chs.N.0° 13'E.of the cor. of secs.4 and 9. At intersection,
	Set an iron post, 3 ft.long, 2 ins.dia., 26 ins.in the ground, for closing cor.of secs.5 and 8, with brass cap marked
	T. 9 N. | R 5 E S 5 | C C | S 4 S 8 | 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Corner stands on west side of spur, 75 ft.above bottom of hollow.
	From the closing cor.,
	S.88° 51'E.on blank line into sec.4, with continuous measurement,
41.01	The Martineau ¼ sec.cor.for secs.5 and 8. I destroy all marks on the stone; but leave it standing in place.
	From this stone,
	S.89° 51'E. (record course) on blank line into sec.4,

CANCELLED

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
40.07	(Record) I am unable after diligent search to find any trace of a stone Deputy Martineau may have erroneously set for the cor. of secs. 4, 5, 8, and 9. I set a temporary stake.
	Land, (on true line) rolling, mountainous; west 23.00 chs. in bottom of hollow, draining E.; east 5.47 chs. on W. side of spurs, draining NW.
	Soil, in hollow, a tough, black and gray, sandy clay loam, 12 ins. deep; fine texture, on stony, clay subsoil; 1st. and 2d rates; only a strip of this soil along the line 1 to 2.00 chs. wide. Soil on west 5.00 chs. gravelly and rocky, on rocky subsoil; 3d rate.
	Meadow grass in hollow.
	Undergrowth, sage, on spur.
	Good grazing.
	No timber.
	From the standard cor. of secs. 33 and 34 on S. bdy. of Tp. heretofore described,
	North, between secs. 33 and 34.
40.00	After diligent search I am unable to find any trace of the old $\frac{1}{4}$ sec. cor. Leave temp. cor.
80.00	After diligent search I am unable to find any trace of the old sec. cor. Leave temp. cor. for secs. 27, 28, 33, and 34.
	From temporary cor. of secs. 27, 28, 33, and 34,
	S. 89° 53' W. on record course bet. secs. 28 and 33,
40.00	After diligent search I am unable to find any trace of the old $\frac{1}{4}$ sec. cor. Leave temp. cor.
79.08	Fall 94 lks. S. of the true point for cor. of secs. 28, 29, 32 and 33.
	Note: From this connection I conclude that the true position for the restored cor. of secs. 27, 28, 33, and 34 is

Chains.	
	at a point 47 lks.N.and 46 lks.E.of the temporary cor., assuming that half the discrepancy can be attributed to the course and half to the distance of the lines between secs.33 and 34, and 28 and 33, The remainder of the Martineau corners,which are all missing, will be restored by this method.
	From said standard cor.of secs.33 and 34,
	N.0° 20'E.bet.secs.33 and 34,
	Over mountainous land; ascending rapidly along E.side of wash, to main ridge; through sage.
29.70	Main ridge, bearing E.and W., 180 ft.above sec.cor.
	Road on top of ridge, bears E.and W. for 15.00 chs.; thence NW. Descend.
32.55	Enter aspens bearing E.and W.
40.23½	Proportionate measurement,
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for restored ¼ sec.cor., with brass cap mkd.
	¼ S 33 | S 34
	1914
	from which
	An aspen 4 ins.dia., bears N.68° W. 30 lks.dist. marked ¼ S 33 B.T
	An aspen 5 ins.dia., bears S.72° E. 22 lks.dist. marked ¼ S 34 B.T
	Corner stands on N.side of ridge, 130 ft.below top.
42.85	Leave aspens bearing E.and W.
46.00	Wood road, bearing N.20° W. and S.20° E., comes from top of ridge.
54.00	Enter scrubby aspens bearing E.and W.
62.00	Leave aspens, bearing E.and W.
	Enter willows, bearing E.and W.
63.70	Leave willows bearing E.and W.
64.00	Walton Creek, 6 lks.wide, 3 ins.deep, course S.80° E.;

Chains. good water, swift current, gravelly bottom, in bottom of Walton Canyon, 270 ft. below top of ridge; drains S. 80° E.

65.15 Road, Sugar Pine to Woodruff, bears E. and W.

68.00 Foot of steep ascent bearing E. and W.

Ascend abruptly.

77.00 Ascend more abruptly, over red sandstone ledges bearing E. and W.

80.47 The point for restored cor., 47 lks. N. and 46 lks. E. of temporary corner.

Set an iron post 3 ft. long, 2 ins. dia., 12 ins. in the ground to bed rock, and 12 ins. in a mound of stone 4 ft. base, for restored cor. of secs. 27, 28, 33, and 34, with brass cap marked

T 9 N R 5 E
S 28 | S 27
S 33 | S 34
1914

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

I destroy temporary corner.

Corner stands on steep S. side of top of spur, on red sandstone ledges, 220 ft. above creek.

Land, mountainous; south 29.70 chs. drains south into Woodruff Creek; north 50.77 chs. drains into Walton Cr.

Soil, dry gravelly clay, on rocky subsoil; the north 10.00 chs. very stony and rocky; 4th rate.

Undergrowth sage and willow. Fair grazing.

Timber, aspen.

From the true point for cor. of secs. 28, 29, 32, and 33 S. 89° 47' E. bet. secs. 28 and 33,

Over rugged mountainous land; descending along N. side of Walton Canyon, over loose large quartzite slide rock; no vegetation.

7.00 Walton Creek, 10 lks. wide, 3 ins. deep, swift current,

Chains.	
	rocky bottom, good water, course N.80° E., in bottom of Walton Canyon, 120 ft. below true corner point; fringe of willows along banks of creek. Thence commence steep ascent over S. side of canyon bearing N.80° E. and S.80° W.; through pine timber.
10.50	Steep wash, 10 ft. deep, in side of canyon, course N.
21.50	Point of spur, 100 ft. above creek, projects N.5.00 chs.
23.00	Leave pine timber, bearing N. and S.
28.60	Enter aspens bearing N. and S.
29.50	Leave aspens; enter small sagebrush opening bearing N. and S.
33.00	Leave opening; enter aspens bearing N. and S.
39.77	Proportional distance,
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	$\frac{S\ 28 \atop \frac{1}{4}}{S\ 33}$ 1914
	from which
	An aspen, 4 ins. dia., bears N.24° 15'E.25 lks. dist., marked ¼ S 28 B T
	An aspen, 4 ins. dia., bears S.15° E.13 lks. dist. marked ¼ S 33 B T
	Corner stands on land, sloping N., 80 ft. below spur.
	Ascend gently.
50.00	Leave aspens bearing N. and S.
53.00	Low spur, projects N.5.00 chs., 10 ft. above ¼ sec. cor.
53.80	Road bearing NW., and SE., old, not used.
54.20	Walton Creek, 10 lks. wide, 6 ins. deep, good water, swift current, course SE., in bottom of Walton Canyon, 20 ft. below spur.
	Fringe of willows along banks of creek.
	Ascend.
63.00	Commence abrupt ascent bearing NW. and SE., over series of large sandstone ledges.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
79.54	The point for restored corner of secs. 27, 28, 33, and 34, 47 lks. N. and 46 lks. E. of the temporary corner. Corner subsequently restored.
	Land, generally rough, mountainous; drainage N. and S. into Walton Creek.
	Soil, rocky and stony, 4th rate, on rock subsoil, except for 10.00 chs. E. and W. of the ¼ sec. cor., which is sandy, dark loam, some moist, close texture, 2d rate, on stony clay subsoil.
	Undergrowth, sagebrush and willows.
	Good grazing.
	Timber, aspen and pine.
	From the cor. of secs. 20, 21, 28, and 29,
	East (record) bet. secs. 21 and 28,
40.05½	After diligent search I am unable to find any trace of the old ¼ sec. cor. Set temp. cor.
80.11	(Record). After diligent search I am unable to find any trace of the old corner of secs. 21, 22, 27, and 28. Set temp. cor.
	From the true cor. point for cor. of secs. 27, 28, 33, and 34,
	North, bet. secs. 27 and 28,
40.00	After diligent search I am unable to find any trace of the old ¼ sec. cor.
81.58	Fall 2.04 chs. W. of the temporary corner of secs. 21, 22, 27, and 28.
	The point for restored corner is therefore 79 lks. S. and 102 lks. W. of the temporary corner.

RESURVEY OF SUBDIVISION OF T. 9 N. R. 5 E.

Chains.	
	From the cor. of secs. 27, 28, 33, and 34,
	N. 0° 43' E. bet. secs. 27 and 28,
	Over rough, mountainous land; ascending abruptly over red sandstone ledges bearing E. and W.
1.00	Top of abrupt ascent and ledges, 50 ft. above sec. cor. bears E. and W.
	Descend gradually over rolling land; through sage.
25.80	Head of draw, 50 ft. below top of ascent, drains SE.
	Ascend.
40.39½	Proportional distance,
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	¼ S 28 | S 27 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Corner is 30 ft. above draw.
49.90	Strawberry Ridge, bears N. 80° E. and S. 80° W., 50 ft. above ¼ sec. cor.
51.20	Road, Woodruff via Birch Creek, bears N. 80° E., and S. 80° W.
65.00	Enter aspen timber, bearing N. 80° E., and S. 80° W.
70.00	Draw, 180 ft. below ridge, drains N. 40° E.
75.00	Leave aspens bearing N. 50° E., and S. 50° W.
80.79	The point for restored corner of secs. 21, 22, 27, and 28, 79 lks. S., and 1.02 chs. W. of the temporary corner.
	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 21, 22, 27, and 28, with brass cap marked
	T 9 N R 5 E S 21 | S 22 S 28 | S 27 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	Corner stands on SW. slope of spur, 110 ft. above draw.
	Land, rough and rolling, mountainous. South 49.90 chs. drains S. and SE. into Walton Creek; north 30.89 chs.

Chains.

drains NE. into Birch Creek.

Soil, gravelly, stony, clay, on rocky subsoil; dry and coarse; 3d and 4th rates.

Undergrowth, sage.

Timber, aspen.

From the cor. of secs. 21, 22, 27, and 28,

N. 89° 26' W. bet. secs. 21 and 28,

Over mountainous land; ascending to spur; through sage; near S. edge of clump of scrub aspens.

9.00 Spur, 60 ft. above sec. cor., projects NE. 40.00 chs.

Descend gradually over NW. slope.

30.00 Extreme S edge of patch of aspens, bearing NW. and NE.

39.54½ Proportional distance,

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

$$\frac{S\ \frac{1}{4}\ 21}{S\ 28}$$
1914

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

Corner stands on NW. slope, 50 ft. below spur.

61.00 Small draw, 50 ft. below ¼ sec. cor., course N. 20° E.

Ascend.

67.70. Low spur, 40 ft. above draw, projects NE. 5.00 chs.

71.00 Enter aspen timber, bearing NE. and SW.

73.50 Spring branch, 2 lks. wide, 3 ins. deep, sluggish current, poor water, course NE., in small draw, 30 ft. below spur.

Ascend.

79.09 The cor. of secs. 20, 21, 28, and 29, 30 ft. above draw.

Land, rolling, mountainous; general drainage NW. and N.

Soil, sandy, gravelly clay loam, 12 ins. deep; dry and coarse, 3d. rate; rocky subsoil; on W. 7.00 chs. 2d rate, moist, sandy loam.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	Undergrowth, sage.
	Good grazing.
	Timber, aspen.
	From the cor.of secs.16,17,20, and 21,
	East (record) bet.secs.16 and 21,
40.15	After diligent search I am unable to find any trace of the $\frac{1}{4}$ sec.cor.
	Set temp.cor.
68.13	Intersect W.bdy.of Bailey and Burrill fractional sec.15, 10.82 chs.N.16° E.of the Bailey and Burrill $\frac{1}{4}$ sec.cor. bet.secs.15 and 22.
80.30	(Record) After diligent search I am unable to find any trace of the cor.of secs.15,16,21, and 22. Left temp. cor.for the Martineau cor.of said secs.
	From the true point for restored cor.of secs.21,22,27, and 28,
	North bet.secs.21 and 22,
30.90	Intersect S.bdy.of the Bailey and Burrill fractional sec. 22, 25.58 chs.W.of the Bailey and Burrill $\frac{1}{4}$ sec.cor. between secs.22 and 23.
	Thence continue into sec.22,
40.00	No trace of the Martineau $\frac{1}{4}$ sec.cor.
	Left temp.cor.
81.06	Fall 52 lks.E.of the temporary cor.of secs.15,16,21, and 22. Thus the restored point for the Martineau corner is 53 lks.S. and 26 lks.E.of the temporary cor. This point falls within the area surveyed by Bailey and Burrill.

RESURVEY OF THE SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	I set a temporary corner for true point; and destroy first temporary corner.
	From the cor.of secs.21,22,27, and 28,
	N.0° 11'W.bet.secs.21 and 22,
	Over mountainous land; ascending gradually along E.side of spur, projecting N.; through sagebrush.
2.00	Enter small scrub aspens bearing E.and W.
3.00	Wash, 10 ft.deep, on side of spur, drains E.
	Continue ascent.
4.30	Leave scrub aspen bearing E.and W.
16.07	Enter dense aspens bearing E.and W.; thence descend over NE.side of spur.
25.00	Enter dense willows and aspens bearing NW. and SE.
30.90	Intersect S.bdy.of the Bailey and Burrill fractional sec.22, 25.68 chs.W.of the Bailey and Burrill ¼ sec. cor. bet.secs.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.21 and 22,against old survey, with brass cap marked

T 9 N R 5 E
S 22
C C
S 21 | S 22
1914

from which

An aspen 8 ins.dia.bears S.15° W. 8 lks.dist. marked T 9 N R 5 E S 21 B T

An aspen 7 ins.dia., bears S.25° E. 15 lks.dist. marked T 9 N R 5 E S 22 B T

Corner stands on steep E.slope of spur, in dense willows and aspens.

Thence

N.0° 11'W.on blank line, into Bailey and Burrill survey

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

40.26½ Set a temp. cor. for ¼ sec. cor., and destroy first temporary corner.

60.40 Set temp. 11/44 sec. cor.

80.53 The point for the Martineau cor. of secs. 15, 16, 21, and 22.

Land, for the south 30.90 chs. only, mountainous, along E. slope of spur.

Soil, sandy gray-brown clay loam, moist on timbered area; 15 ins. deep; 2d. rate; rocky, clay subsoil.

Undergrowth, willows.

Good grazing.

Timber, aspen.

From the point for Martineau corner of secs. 15, 16, 21, and 22,

N. 89° 37' W. on blank line, through Bailey and Burrill sec. 15,

12.43 Intersect W. bdy. of Bailey and Burrill fractional sec. 15, 10.39 chs. N. 0° 16' E. of the ¼ cor. of secs. 15 and 22, Bailey and Burrill.

At intersection,

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

T 9 N R 5 E
S 16 | C | S 15
S 21
1914

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

Corner stands on steep S. side of spur.

Thence N. 89° 37' W. bet. secs. 16 and 21, with continuous measurement.

Over rough, mountainous land; along S. side of spur, de-

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	scending abruptly into gulch.
16.50	Gulch, 60 ft. below closing cor., course S.
	Ascend.
20.50	Spur, 20 ft. above gulch, projects S. 5.00 chs.
	Descend.
26.00	Gulch, 30 ft. below spur, course SE.
	Ascend.
35.69	Top of red sandstone spur, 75 ft. above gulch, projects S. 10.00 chs.
	The point for $\frac{1}{4}$ sec. cor. will fall in steep rocky wash, in which it would be impossible to perpetuate corner; therefore at this point,
	Set an iron post 3 ft. long, 1 in. in dia., 18 ins. in the ground, to bed rock, with mound of stone 2 ft. base, 8 ins. high around post, for witness cor. for $\frac{1}{4}$ sec. cor. with brass cap marked
	$\frac{S\ 16 \quad \frac{1}{4} \quad W}{S\ 21 \quad 1914 \quad C}$
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
40.28	Point for $\frac{1}{4}$ sec. cor., (proportional distance), no cor. set.
	Bottom of steep rocky wash, 100 ft. below spur, draining SW., 20 ft. deep.
	Thence continue descent over broken sandstone outcroppings.
47.16	Leave sandstone outcroppings, bearing NW. and SE.
	Enter aspen timber, bearing NW. and SE.
54.60	Fork of Birch Creek, 5 lks. wide, 2 ins. deep, sluggish current, poor water, course SE. for 20.00 chs.; thence E.; 150 ft. below spur.
54.70	Road, Ogden to Woodruff, bears NW. and SE.
	Ascend gradually.
58.50	Leave aspens bearing N. and S.
68.00	Spur, 50 ft. above creek, projects SE. 10.00 chs.
	Thence along base of main spur, projecting E.

CANCELLED

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
80.56	The cor. of secs. 16, 17, 20, and 21, 10 ft. below spur.
	Land, east half, rough, mountainous; west half rolling, mountainous; general drainage S. into head of Birch Creek.
	Soil, east half, rocky, stony, broken sandstone; 4th rate; west half, dry, coarse, sandy loam; 3d rate; on hard, red clay subsoil.
	Undergrowth, sagebrush.
	Fair grazing.
	Timber, aspen.

	From the standard cor. of secs. 34 and 35 on the S. bdy. of the township, heretofore described.
	North, between secs. 34 and 35,
40.00	After diligent search I am unable to find any trace of the old ¼ sec. cor.
	Set temp. cor.
80.00	After diligent search I am unable to find any trace of the old corner of secs. 26, 27, 34, and 35.
	Set temp. corner.

	From the temporary cor. of secs. 26, 27, 34, and 35,
	West, with record course, between secs. 27 and 34,
39.98	After diligent search I am unable to find any trace of the old ¼ sec. cor.
79.52	Fall 36 lks. N. of the true point for corner of secs. 27, 28, 33, and 34.
	The true point for restored cor. of secs. 26, 27, 34, and 35 will, therefore, be 22 lks. E., and 18 lks. S. of the

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	temporary corner.
	I return to the standard corner of secs.34 and 35 on S. bdy.of Tp.; thence
	N.0° 10'E.between secs.34 and 35,
	Over mountainous land; gradually ascending along top of spur, projecting S.; through scattering sage.
30.00	Descend gradually over W.side of spur.
35.00	Head of hollow, 30 ft.below spur, course S.20° W.
39.91	Proportional distance,
	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked ¼ S 34 | S 35 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Corner stands on S.slope of high red ridge, 50 ft.above head of hollow.
47.00	High, sharp, red, rocky ridge, bearing N.80° E., and S. 80° W., 150 ft.above ¼ sec.cor.
	Descend abruptly.
56.80	Enter aspens bearing NW. and SE.
62.00	Hollow, 50 ft.deep, 140 ft.below ridge, course N.25° W.
63.00	Leave aspens bearing NW. and SE.
70.08	Spur, 55 ft.above hollow, projects N.20° W. 5.00 chs.
72.60	Enter scrub aspens bearing NW. and SE.
78.00	Leave scrub aspens bearing NW. and SE.
79.00	Mouth of hollow, 60 ft.below spur, course N.15° W.
79.82	The point for restored cor.of secs.26,27,34, and 35, 22 lks.E., and 18 lks.S.of temporary corner.
	Set an iron post, 3 ft.long, 1 in.in dia., 24 ins.in the ground, for cor.of secs.26,27,34, and 35, with brass cap marked

Chains.	
	T 9 N R 5 E S 27 | S 26 S 34 | S 35 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor. Corner stands on W.side of small spur, 30 ft.above hollow.
	Land, rough, mountainous. South 47.00 chs.drains S. into Woodruff Creek; north 32.82 chs.drains NW.into Walton Creek, from high ridge, the divide between Woodruff and Walton creeks.
	Soil, stony, gravelly, red clay; dry and coarse; on rocky subsoil; 3d rate.
	Undergrowth, sage.
	Fair grazing.
	No timber.
	S.89° 52'W.bet.secs.27 and 34,
	Over mountainous land; descending into Walton Creek; through sage undergrowth.
2.30	Walton Creek, 8 lks.wide, 3 ins.deep, good water, swift current, clay and gravel bottom, course NE., 40 ft. below sec.cor. Fringe of willow undergrowth along banks.
3.50	Road to Woodruff bears NE. and SW.
	Ascend.
17.50	Spur, 80 ft.above creek, projects S.10.00 chs.
	Descend.
22.00	Draw, 50 ft.below spur, course S.
	Ascend.
32.50	Spur, 120 ft.above draw, projects S.10.00 chs.
	Descend.
39.00	Draw, 70 ft.below spur, drains S.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	Ascend.
39.87	Proportional distance,
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked
	S 27 $\frac{1}{4}$ S 34 1914
	Raise a mound of stone 2½ ft. base, 2 ft. high N. of cor.
	Corner stands on W. side of draw, 10 ft. above bottom.
45.80	Spur, 80 ft. above $\frac{1}{4}$ sec. cor., projects S. 10.00 chs.
60.00	Enter aspens bearing N. and S.
60.74	Draw, 120 ft. below spur, course S.
	Small spring branch 3 lks. wide, 3 ins. deep, course S.; good water.
68.25	Leave aspen timber, bearing N. and S.
	Ascend abruptly over rough, broken, red sandstone outcroppings.
78.50	Top of S. point of spur, 300 ft. above spring branch; thence along S. face of top of spur, red sandstone outcroppings.
79.74	The cor. of secs. 27, 28, 33, and 34.
	Land, rough, mountainous; general drainage S. into Walton Creek, from steep and rocky slopes of spurs.
	Soil, generally red, rocky clay, on rock subsoil; 3d rate.
	Undergrowth, sage.
	Fair grazing.
	Timber, aspen.

From the true point for restored cor. of secs. 21, 22, 27 and 28,

East, using record course and distance, between secs. 22 and 27.

CANCELLED

Chains.	
40.14½	After diligent search I am unable to find any trace of the old ¼ sec. cor.
	Set temp. cor.
80.29	After diligent search I am unable to find any trace of the cor. of secs. 22, 23, 26, and 27.
	Set temp. cor.
	From true point for restored corner of secs. 26, 27, 34, and 35,
	North bet. secs. 26 and 27,
40.00	After diligent search, I am unable to find any trace of ¼ sec. cor.
	Set temp. cor.
80.76	Fall 152 lks. W. of the temporary cor. of secs. 22, 23, 26, and 27.
	The position for restored corner for said secs. is, therefore, 38 lks. S., and 76 lks. W. of temporary cor.
	From the corner of secs. 26, 27, 34, and 35,
	N. 0° 33' E. between secs. 26 and 27,
	Over mountainous land; ascending to small spur; through sagebrush.
.70	Point of small spur, 10 ft. above sec. cor., projects NW. 2.00 chs.
3.50	Walton Creek, 8 lks. wide, 3 ins. deep; good water; gravelly bottom; swift current, course N. 75° E., 20 ft. below spur.
	Fringe of willows along banks.
5.60	Road to Woodruff, bears NE. and SW.
	Ascend.
11.00	Spur, 50 ft. above creek, projects SE. 5.00 chs.

Chains.	
	Descend.
13.00	Hollow, 30 ft. below spur, course S.20° E.
	Ascend.
21.00	Spur, 35 ft. above hollow, projects SE. 10.00 chs.
	Descend.
22.00	Enter dense aspens bearing NW. and SE.
26.70	Hollow, 70 ft. below spur, course SE.
	Leave aspens bearing NW. and SE.
	Ascend.
34.00	Top of ascent bearing NW. and SE.; thence over bench, bearing NW. and SE.
40.19	Proportional distance,
	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked $\frac{1}{4}$ S 27 | S 26 1914
	Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
41.80	Head of hollow, 25 ft. deep, course S.80° E.
	Leave bench bearing NW. and SE.
	Ascend.
52.00	Ascend over series of red sandstone ledges.
61.80	Strawberry Ridge, 150 ft. above $\frac{1}{4}$ sec. cor., bears N.80° E. and S.80° W.
	Leave ledges.
71.50	Enter dense aspens bearing E. and W.
	Leave sage, bearing E. and W.
80.38	Point for restored corner of secs. 22, 23, 26, and 27, 38 lks. S., and 76 lks. W. of temporary corner.
	In bottom of Allan Hollow, 175 ft. below ridge, drains N.85° E.
	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 22, 23, 26, and 27, with brass cap marked T 9 N R 5 E S 22 | S 23 S 27 | S 26 1914

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	from which
	An aspen 6 ins.dia., bears N.9° 30'E. 19 lks. dist., marked T 9 N R 5 E S 23 B T
	An aspen 6 ins.dia., bears S.43° E. 16 lks.dist. marked T 9 N R 5 E S 26 B T
	An aspen, 6 ins.dia., bears S.60° 30'W. 22 lks. dist., marked T 9 N R 5 E S 27 B T
	An aspen, 5 ins.dia., bears N.33° 30'W. 21 lks. dist., marked T 9 N R 5 E S 22 B T
	From this corner a spring bears S.86° E. 92 lks.dist., good water; drains E.
	Land, mountainous; south 61.80 chs. drains S.from Strawberry Ridge into Walton Creek; north 18.58 chs. drains N.into Allan Hollow.
	Soil, rocky, red and yellowish loam, shallow; on rocky and gravelly subsoil.
	Timber, aspen. Undergrowth, sage. Good grazing.
	From the cor.of secs.22,23,26, and 27,
	N.89° 44'W.bet.secs.22 and 27,
	Over mountainous land; ascending along Allan Hollow, which drains N.80° E.; through dense aspen timber.
2.00	Wood road, bears N.70° E., and S.70° W.
	Ascend.
10.00	Begin more abrupt ascent.
18.00	Top of abrupt ascent, bearing NE. and SW; leave aspens bearing NE. and SW.
	Ascend gradually to top of ridge.
31.60	Enter small aspens and willows, bearing NE. and SE.
35.00	Leave aspens and willows bearing N.20° W., and S.20° W.
39.76½	Proportional distance,
	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.

$\frac{S\ 22}{\frac{1}{4}}$
S 27
1914

Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
Corner stands on top of high ridge, 150 ft.above hollow, bearing NE. and SW.
A long spur projects N.from the ridge at this point.
Descend into large hollow.

71.00 Bottom of large hollow, 150 ft.below ridge, drains N.10° E.
Ascend steep E.slope of spur.

79.53 The cor.of secs.21,22,27, and 28, 150 ft.above hollow.
Land, rough, mountainous; east half drains SE.into Allan Hollow; west half drains W.; thence N.into Birch Creek.
Soil, stony, gravelly clay; 3d rate; rock and clay sub-soil; dry, hard, and coarse.

Undergrowth, sage.

Good grazing.

Timber, aspen.

From the cor.of secs.22,23,26, and 27,
N.0° 05'W.,(record course), between secs.22 and 23,
Over mountainous land; over bottom of Allan Hollow; through aspen timber; ascend.

1.20 Wood road, bears N.85° E., and S.85° W.

3.00 Leave aspen timber, bearing E.and W. Enter sage, bearing E.and W.

15.40 Ridge, 80.ft.above sec.cor., bears N.85° E., and S.85°W.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	Descend.
31.25	Intersect S.bdy. of the Bailey and Burrill fractional sec. 23, 24.57 chs. S.89° 52' W. of the Bailey and Burrill $\frac{1}{4}$ sec. cor. for secs. 23 and 24.
	At the intersection,
	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for closing cor. of Martineau's secs. 22 and 23, with brass cap marked
	T 9 N R 5 E S 23 C C S 22 | S 23 1914
	Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high S. of cor.
	Corner stands on north slope of ridge, 90 ft. below top.
	Land, rough, mountainous. South half drains S. into Allan Hollow; north half into Birch Creek.
	Soil, red, gravelly, stony, clay; dry and coarse, 3d rate; rocky subsoil.
	Undergrowth, sage.
	Fair grazing.
	Timber, aspen.
	From the standard cor. of secs. 35 and 36, on the S.bdy. of Tp., heretofore described,
	North bet. secs. 35 and 36,
40.00	After diligent search, find no trace of the $\frac{1}{4}$ sec. cor. Set temp. cor.
80.00	After diligent search, find no trace of the cor. of secs. 25, 26, 35, and 36. Set temp. cor.
	From temp. cor. of secs. 25, 26, 35, and 36,
	West, bet. secs. 26 and 35, using record course and distance.
40.10	After diligent search, find no trace of the $\frac{1}{4}$ sec. cor.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	Set temp. $\frac{1}{4}$ sec. cor.
79.94	Fall 60 lks. N. of the cor. of secs. 26, 27, 34, and 35,
	The true point for restored corner of secs. 25, 26, 35, and 36 is therefore 30 lks. S. and 13 lks. E. of the temporary corner.

From the standard cor. of secs. 35 and 36 on S. bdy. of Tp. heretofore described,

N. 0° 06' E. bet. secs. 35 and 36,

Over rough mountainous land; ascending through sage undergrowth.

5.00	Small seep spring bears E. of line 1.00 chs.
22.00	Draw, at head, 250 ft. above standard cor.; drains S. 5° E. Ascend.
29.75	Spur, 250 ft. above draw, projects S. 20° E. 20.00 chs.
30.40	Enter scrub aspens bearing E. and W.
32.30	Leave aspens bearing E. and W.
36.50	Hollow, 50 ft. below spur, course SE. Ascend.
39.85	Proportional distance,

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked

$\frac{1}{4}$ S 35 | S 36

1914

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

Corner stands on top of spur, 90 ft. above hollow, projects SE.

51.00	Draw, 80 ft. below spur, course SE.
	Ascend to high, red ridge.
79.70	Point for restored corner, 30 lks. S. and 13 lks. E. of temp. corner of secs. 25, 26, 35, and 36.

Falls in head of steep wash, draining S. 5° W., on which it would be impossible to perpetuate a corner; therefore at a point N. 0°25' E. 80 lks. dist. from true cor. point

Set an iron post 3 ft. long, 2 ins. in dia., 14 ins. in the

Chains.

ground, and 14 ins. in mound of stone 3 ft. base, for witness cor. to cor. of secs. 25, 26, 35, and 36, with brass cap marked

T 9 N R 5 E
W | C
S 26 | S 25
S 35 | S 36
1914

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

From witness cor.,

A cross (X) on ledge of sandstone, under which is cut B O S 25, bears N.84° 30'E. 1.31 chs. dist.

Land, rough mountainous, draining nearly south into Woodruff Creek.

Soil, rocky, clay mixture; coarse texture; dry; on clay, conglomerate and shale subsoil.

Undergfowth, sage. Fair grazing. Timber, aspen.

From the true point for cor. of secs. 25, 26, 35, and 36, which is S.0° 25'W. 80 lks. from W.C.

S.89° 47'W. bet. secs. 26 and 35,

Over rough, mountainous land; ascending to top of high red ridge; through sage.

5.00 Top of ridge, 40 ft. above corner point, bears NE. and SW.

18.00 Draw, 70 ft. below ridge, course N.

Enter aspens bearing N. and S.

20.00 Leave aspens bearing N. and S.

25.00 Small spur, 60 ft. above draw, projects N. 25.00 chs.

31.40 Enter aspens bearing N. and S., Small draw, drains N.

37.80 Leave aspens bearing N. and S.

39.00 Spur, 80 ft. above draw, projects N.60° W. 20.00 chs.

40.03½ Proportional distance,

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 26
¼
S 35
1914

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	No suitable bearing trees within limits.
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	Corner stands on W. side of top of spur, 10 ft. below top.
51.30	Draw, 75 ft. below ¼ sec. cor., course N. 50° W.
51.50	Enter aspens bearing NW. and SE.
55.90	Leave aspens bearing NW. and SE.
59.00	Enter aspens bearing N. and S.
61.90	Leave aspens bearing N. and S.
65.00	Spur, 120 ft. above draw, projects NW. 10.00 chs.
70.00	Hollow, 50 ft. below spur, course NW.
	Ascend.
75.00	Small spur, projects NW. 1.00 ch., 10 ft. above hollow.
80.07	The cor. of secs. 26, 27, 34, and 35.
	Land, rough, mountainous; general drainage NW. into Walton Creek.
	Soil, red, stony, gravelly clay; dry and coarse; 3d and 4th rate; rocky subsoil.
	Undergrowth, sage.
	Fair grazing.
	Timber, aspens.

From the temporary corner of secs. 22, 23, 26, and 27, which is later found to be 76 lks. E. and 38 lks. N. of the true point for restored corner,

S. 89° 54' E. on record course and distance, bet. secs. 23 and 26.

40.23 After diligent search, I am unable to find any trace of old ¼ sec. cor. Set temp. cor.

80.46 After diligent search I am unable to find any trace of the old cor. of secs. 23, 24, 25, and 26. Set temp. cor.

From true point for cor. of secs. 25, 26, 35, and 36

North bet. secs. 25 and 26,

40.00 After diligent search I am unable to find any trace of the

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.	
	old ¼ sec.cor.
79,94	Fall 1.16 chs.W.of the temp.cor.of secs.23,24,25, and 26. The position for restored corner is therefore 3 lks.N. and 58 lks.W.of the temp.corner.

From the true point for cor.of secs.25,26,35, and 36,

N.0° 25'E.bet.secs.25 and 26,

Over rough, mountainous land; ascending to top of high red ridge; through scrub sage undergrowth.

.80	The witness cor.to cor.of secs.25,26,35, and 36.
1.50	High red sandstone ridge, 20 ft.above sec.cor.point, bears NE. and SW.
5.00	Enter deer brush, bearing E.and W.
9.50	Head of draw, 100 ft.below ridge, drains N.60° W.
17.00	Leave deer brush bearing E.and W.
19.50	Spur, 55 ft.above draw, projects N.70° W.
21.60	Enter scrub aspens bearing E.and W.
25.00	Draw, 90 ft.below spur, drains N.60° W.
	Leave aspens bearing E.and W.
31.60	Spur, on level with draw, projects N.40° W.
36.00	Enter small aspens bearing NW. and SE.
39.80	Leave aspens bearing E.and W.
39.98½	Proportional distance,

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

¼ S 26 | S 25

1914

from which

An aspen 8 ins.dia., bears S.42° 30'W.21 lks.dist. marked ¼ S 26 B T

An aspen 6 ins.dia., bears S.54°E.17 lks.dist. marked ¼ S 25 B T

Corner stands on SE.slope of spur, 60 ft.below top.

51.00	Enter aspens bearing NW. and SE.
53.00	Leave aspens bearing NW. and SE.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

53.50 Draw, 150 ft. below ¼ sec. cor., drains N.40° W.

54.30 Dim wood road, bears NW. and SE.

63.20 Point of spur, 110 ft. above draw, projects N.40° W. Spur covered with light lime shale.

70.10 Road, from main ridge to Woodruff bears NE. and SW.

77.10 Walton Creek, 5 lks. wide, 4 ins. deep, good water, swift current, on rocky bottom, course N.60° E., in bottom of Walton Canyon, 160 ft. below shale spur; drains N. 60° E. Fringe of willows along banks.

79.97 The point for restored cor. of secs. 23, 24, 25, and 26, 3 lks. N. and 58 lks. W. of the temporary corner; 20 ft. above creek, on flat.

Set an iron post 3 ft. long, 2ins. in dia., 24 ins. in the ground, for cor. of secs. 23, 24, 25, and 26, with brass cap marked

T 9 N R 5 E
S 23 | S 24
S 26 | S 25
1914

Raise a mound of stone 2½ ft. base, 2 ft. high W. of cor.

Land, mountainous, rough, with general drainage NW. into Walton Creek.

Soil, stony, gravelly, red clay, on rocky subsoil; dry and coarse; 3d rate.

Undergrowth, willows, sage and deer brush.

Fair grazing.

Timber, aspen.

From the cor. of secs. 23, 24, 25, and 26,

N. 89° 55' W. bet. secs. 23 and 26,

Over mountainous land; ascending gradually from bottom of Walton Canyon; through sage.

25.00 Small wash in side of ridge, 10 ft. deep, drains S.40° E. Ascend, more rapidly.

32.00 Enter small aspen timber, bearing NE. and SW.

RESURVEY OF SUBDIVISION OF T. 9 N. R. 5 E.

Chains.	
36.00	Leave aspen timber, bearing NE. and SW.
36.94	Proportional distance,
	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked S 23 $\frac{1}{4}$ S 26 1914
	Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
44.00	Top of Strawberry Ridge, 50 ft. above $\frac{1}{4}$ sec. cor., bears N.70° E. and S.70° W.
50.75	Enter aspens, bearing N. and S.
51.00	Small wash, 20 ft. deep, drains N.
	Continue descent.
55.00	Leave aspens bearing N. and S.
62.00	Enter aspens bearing N. and S.
64.50	Leave aspens bearing N. and S.
74.00	Enter aspens bearing N.70° E. and S.70° W.
	Descend more gradually.
78.50	Spring branch, 3 lks. wide, 2 ins. deep, good water; course N.80° E., in bottom of Allan Hollow, 170 ft. below ridge.
79.88	The cor. of secs. 22, 23, 26, and 27, 10 ft. above spring branch.
	Land, mountainous; east 44.00 chs. drains SE. into Walton Creek; west 35.88 chs. drains NW. into Allan Hollow, from top of Strawberry Ridge.
	Soil, stony, gravelly, red clay; dry and coarse; on stony subsoil; 3d rate.
	Undergrowth, sage.
	Good grazing.
	Timber, aspen.

From the cor. of secs. 23, 24, 25, and 26,

N.0° 11'E., record course, bet. secs. 23 and 24,

Chains.	
	Over mountainous land; ascending from bottom of Walton Canyon to Strawberry Ridge; through sage undergrowth.
23.70	Strawberry Ridge, 170 ft.above sec.cor., bears N.60° E. and S.60° W. Descend.
34.20	Intersect S.bdy.of Bailey and Burrill fractional sec.24, 17.91 chs.S.87° 06'W.of the ¼ sec.cor., bet.secs.19 and 24.
	Set an iron post 3 ft.long, 2 ins.dia., 24 ins.in the ground, for closing cor.of Deputy Martineau's secs. 23 and 24, with brass cap marked T 9 N R 5 E S 24 C°C S 23 | S 24 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high S.of cor.
	Corner stands on N.side of Strawberry Ridge, 80 ft.below the top.
	Land, mountainous, draining N.and S.from Strawberry Ridge.
	Soil, red, gravelly, and stony clay; 3d rate; on rocky subsoil.
	Undergrowth, sage.
	Fair grazing.
	No timber.

	From the true point for cor.of secs.25,26,35, and 36, East, (record course) bet.secs.25 and 36.
	Over rough, mountainous land; ascending along S.slope of high red ridge; over rough, broken land; through scrub sagebrush.
3.50	Top of ascent, 50 ft.above sec.cor., bears N.70° E. and S. 70° W.
18.00	Enter cedars bearing N.and S.
20.77	Intersect E.bdy.of Tp.5.94 chs.N.1° 38'W.of the cor.of secs.25,30,31, and 36, heretofore described.
	At the intersection,

Chains. Set an iron post 3 ft. long, 2 ins. in dia., 12 ins. in the ground, to bed rock, and 12 ins. in a mound of stone, 2 ft. base, for closing cor. of secs. 25, and 36, with brass cap marked

T 9 N
R 5 E | R 6 E
S 25 |
C | S 30
C
S 36 | S 31
1914

From which

A cedar, 7 ins. dia., bears N.64° W. 58 lks. dist. marked T 9 N R 5 E S 25 B T

A cedar, 6 ins. dia., bears S.33° 30'W. 166 lks. dist., marked T 9 N R 5 E S 36 B T

I destroy marks on the cor. of secs. 25, 30, 31 and 36 pertaining to secs. 25 and 36; and the marks on ¼ sec. cor. bet. secs. 31 and 36, pertaining to sec. 36.

Closing corner stands on rough SE. slope of high ridge, 190 ft. below top.

Land, rough, mountainous, on SE. slope of high red sandstone ridge, draining SE. into Woodruff Creek.

Soil, stony, rocky, disintegrated sandstone and clay, on rock subsoil; 4th rate.

Undergrowth, scrub sage.

Poor grazing.

Timber, cedar.

From the cor. of secs. 23, 24, 25, and 26,

S.89° 56'E., (record course), bet. secs. 24 and 25,

Over mountainous land, in bottom of Walton Canyon; descending to creek; through sage undergrowth.

1.50 Walton Creek, 8 lks. wide, 5 ins. deep, course N.70° E.; good water; swift current; gravelly bottom; 10 ft. below sec. cor.

5.00 Road, timber to Woodruff, bears N.70° E. and S.70° W.

RESURVEY OF SUBDIVISION OF T.9 N.R.5 E.

Chains.

11.00 Leave bottom of canyon, bearing NE. and SW.

Ascend abruptly; through aspen timber, bearing NE. and SW.

12.00 Leave aspens bearing NE. and SW.

Ascend abruptly over lime shale.

17.88 Intersect E.bdy.of Tp.4.84 chs.N.0° 05'E.of the cor.of secs.19,24,25, and 30, heretofore described. 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 9 N
R 5 E | R 6 E
S 24 |
C | S 19
C |
S 25 | S 30
1914

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

I destroy the marks on the cor.of secs.19,24,25, and 30 pertaining to secs.24 and 25 and the marks on the ¼ sec.cor.of secs.25 and 30, pertaining to sec.25.

Closing cor.stands on lime shale spur, 90 ft.above creek.

Land, mountainous, draining NW.into Walton Creek.

Soil, stony, gravelly clay, lime shale on E.end; 3d rate; on rocky subsoil.

Undergrowth, sage.

Fair grazing.

Timber, aspen.

Note:

Several claims in this township were patented under the portions of the Martineau survey which are in conflict with the prior Bailey and Burrill survey. It will be necessary to segregate these claims by metes and bounds, surveying them out as tracts.

METES AND BOUNDS T.9 N., R.5 E.

Chains.

Metes and Bounds Survey of Tracts in Original Martineau Sec.5.

Lots 3 and 4; NE¼ SE¼; and SE¼ SW¼ which have been patented, are wholly or partially in conflict with the prior Bailey and Burrill survey. Their tract numbers will be 37, 38, 39, and 40, respectively.

I complete the sec.5, as follows:

From the temp. SE.cor.of the Martineau sec.5,

N.0° 15'W. (record course), on random line along E.bdy. of the Martineau sec.5.

20.00 Set temp. 11/44 point for Cor.No.4 Tr.39.

40.00 Set temp. ¼ point for Cor.No.1 Tr.39.

80.56 Fall 7 lks.E.of the temp.NE.cor.of the Martineau sec.5.

The course is therefore N.0° 18'W.

I return and proportion in the temporary tract corners on true line, as follows:

S.0° 18'E., on true line,

40.28 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.1 Tr.39, with brass cap marked

T 9 N R 5 E
S 4
1
TR 39
1914

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

60.42 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for cor. No.4 Tr.39, with brass cap marked

T 9 N R 5 E
TR 39
4
S 4
1914

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

80.56 The temporary SE.cor.of the Martineau sec.5.

From Cor.No.1 Tr.39

West on random line through center of the Martineau sec. 5.

20.00 Set temp. 11/44 point for Cor.No.2 Tr.39.

METES AND BOUNDS T. 9 N.R.5 E.

Chains.	
40.00	Set temp. cor. for center of sec. 5.
60.00	Set temp. $\frac{11}{44}$ point between the NW$\frac{1}{4}$ and SW$\frac{1}{4}$ sec. 5. Thence West continuing the random line between the NW$\frac{1}{4}$ and SW$\frac{1}{4}$ of said sec.
80.00	Fall 72 lks. S. of the $\frac{1}{4}$ sec. cor. on W. bdy. of sec. 5. The true course is therefore N. 89° 29' W. and distance 80.00 chs. From the temp. $\frac{1}{4}$ sec. cor. on N. bdy. of the Martineau section 5, South on random line through the center of Martineau section 5.
1.29	Intersect S. bdy. of T. 10 N.R.5 E. 22.03 chs. N. 89° 57' E. of the cor. of secs. 4 and 33. Set temp. point for Cor. No. 1 Tr. 37.
20.00	Set temp. $\frac{11}{44}$ cor. for Cor. No. 4 Tr. 37.
40.06	Fall 13 lks. W. of the temp. point set for center of sec.
60.00	Set temp. $\frac{11}{44}$ cor. for Cor. No. 1 Tract 40.
80.24	Fall 26 lks. W. of the Martineau stone corner set for $\frac{1}{4}$ sec. cor. between secs. 5 and 8. At the stone I Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, alongside the stone corner, for Cor. No. 4 Tr. 40 with brass cap marked T 9 N R 5 E TR 40 | 4 S 4 1914 Raise a mound of stone 2 ft. base, 1½ ft. high NW. of cor. True course of this line is S. 0° 11' E. and dist. 80.24 chs. Thence N. 0° 11' W. on true line through center of Martineau Sec. 5.
20.27	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for cor. No. 1 Tr. 40, with brass cap marked

METES AND BOUNDS T. 9 N.R.5 E.

Chains.

T 9 N R 5 E
S 4
1
TR 40
1914

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

40.54 True point for center of sec.

60.39 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.4 Tr.37, with brass cap marked

T 9 N R 5 E
TR 37 | S 4
4
1914

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

78.95 Intersect N.bdy.of T.9 N.R.5 E.at 22.03 chs.N.89°57'E.of the cor.of secs.4 and 33. At intersection

Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.1 Tr.37, with brass cap marked

T 10 N R 5 E
S 33
1
TR 37
1914

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

From the ¼ sec.cor.on W.bdy.of the Martineau sec.5, N.0° 06'W.on random line bet.secs.5 and 6,

20.00 Set temp. ¼¼ cor.for Cor.No.3 Tr.38. (Later changed to No.5).

39.37 The cor.of secs.5,6,31 and 32 on N.bdy.of Tp., heretofore described. Thence

S.0° 06'E.on true line on W.bdy.of said sec.5.

19.60½ Proportional measurement,

Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for cor.No.5 Tr.38 , with brass cap marked

T 9 N R 5 E
TR 38
5
S 6 S 5
1914

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

METES AND BOUNDS T.9 N.R.5 E.

Chains.

39.37 The ¼ cor. of secs. 5 and 6.

From the Cor. No. 5, Tr. 38

East on random line along S.bdy. of lots 3 and 4,

20.00 Set temp. 11/44 point for Cor. No. 6 Tr. 38 and Cor. No. 3 Tr. 37.

40.01 Fall 21 lks. N. of Cor. No. 4 Tr. 37.

The true course of this line is therefore S. 89° 42' E. and distance 40.01 chs.

From the adjusted 11/44 point between NW¼ and SW¼ sec. 5,

North on random line through center of NW¼.

19.87 Fall 8 lks. E. of the temp. 11/44 cor. No. 6 Tr. 38 and Cor. No. 3 Tr. 37.

39.66 Fall 7 lks. E. of the 20.00 ch. point.

The true course of this line is therefore N. 0° 06' W.

From the 20.00 ch. point I run

S. 0° 06' E. 1.26 chs. to the N. bdy. of T. 9 N. R. 5 E., which I intersect at 2.05 chs. N. 89° 57' E. of the cor. of secs. 4 and 33, where I

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for Cor. No. 1 Tr. 38 and Cor. No. 2 Tr. 37, with brass cap marked

T 10 N R 5 E
S 33
1 | 2
TR 38 | TR 37
1914

TRACT 37.

Beginning at Cor. No. 1 Tr. 37, thence

S. 89° 57' W. on N. bdy. of Tr. 37,

20.00 To Cor. No. 2 Tr. 37, which is also Cor. No. 1 Tr. 38.

Thence

S. 0° 06' E. bet. tracts 37 and 38,

11.20 Intersect W. bdy. sec. 4. 11.54 chs. S. 10° 22' E. of the cor. of secs. 4 and 33.

METES AND BOUNDS T.9 N., R.5 E.

Chains.

18.53 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for Cor. No.3 Tr. 37, and Cor. No. 6 Tr. 38, marked

T 9 N R 5 E
TR 38 | TR 37
6 | 3
S 5
1914

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

Thence S.89° 42'E. along S.bdy. of Tr. 37.

1.33 Intersect W.bdy. sec. 4, 18.99 chs. S.10° 22'E. of the cor. of secs. 4 and 33. At intersection

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for closing cor. of secs. 4 and 5 against Tr. 37, with brass cap marked

T 9 N R 5 E
TR 37
C | C
S 5 | S 4
1914

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

19.97 To Cor. No. 4, Tr. 37. Thence

N.0° 11'W. along E.bdy. of Tr. 37.

18.56 To Cor. No. 1 Tr. 37, the place of beginning.

TRACT 38

Beginning at Cor. No. 1 Tr. 38, which is also Cor. No. 2 Tr. 37. Thence

S.89° 57'W. along N.bdy. Tr. 38 and S.bdy. sec. 33.

2.05 The cor. of secs. 4 and 33, I re-mark brass cap as follows:

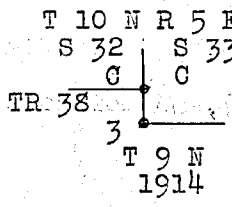
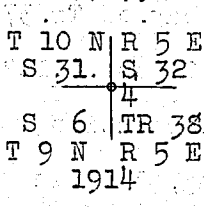
T 10 N
S 33
TR 38 | R 5 E
2 | S 4
T 9 N
1914

Shift mound of stone from W. to NE. Thence

N.0° 16'E. along E.bdy. Tr. 38 and W.bdy. of sec. 33.

1.26 The closing cor. of secs. 5 and 32, I re-mark brass cap as follows:

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	
	Shift mound of stone from W. to NW. Thence
	S.89°48'W. along N.bdy. Tr. 38 and S.bdy. sec. 32,
17.95	The cor. of secs. 5, 6, 31 and 32. I re-mark brass cap as
	follows: 
	For. Cor. No. 4 Tr. 38.
	Thence S.0° 06'E. along W.bdy. Tr. 38 and E.bdy. sec. 6.
19.60½	To cor. No. 5 Tr. 38. Thence S.89° 42'E. along S.bdy. Tr. 38.
20.04	To Cor. No. 6 Tr. 38, which is also Cor. No. 3 Tr. 37.
	Thence N.0° 06'W. bet. Tr. 37 and Tr. 38.
7.33	Intersect line bet. secs. 4 and 5, 11.54 chs. S.10° 22'E.
	of cor. of secs. 4 and 33.
18.53	Intersect N.bdy. of Tp. at the Cor. No. 1 Tr. 38, which is
	also Cor. No. 2 Tr. 37, the place of beginning.

	From Cor. No. 4 Tr. 40
	S.89°51'E. on random line along S.bdy of Martineau sec. 5.
20.00	Set. temp. $\frac{11}{44}$ point.
40.07	The temp. SE. cor. of said sec. 5. Thence
	S.89°. 51.'W. on true line along S.bdy. of said sec. 5.
20.03½	Set temp. cor. for $\frac{11}{44}$ cor. S.bdy. SE$\frac{1}{4}$ of sec. 5,
40.07	To Cor. No. 4 Tr. 40.
	From the $\frac{11}{44}$ point on S.bdy. SE$\frac{1}{4}$
	North on random line through center of SE$\frac{1}{4}$.
20.00	Set point for temp. Cor. No. 3 Tr. 39.
40.24	Fall 22 lks. E. of the temp. Cor. No. 2 Tr. 39.
	From Cor. No. 4 Tr. 39
	West on random line through center of SE$\frac{1}{4}$.
19.92	Fall 10 lks. N. of the temp. Cor. No. 3 Tr. 39.
40.08	Fall 24 lks. S. of Cor. No. 1 Tr. 40.

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	TRACT 39.
	Beginning at Cor.No.1, Tr.39; thence
	N.89° 29'W.along N.bdy.of tract.
20.00	Point for Cor.No.2 Tr.39,
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.2 Tr.39, with brass cap marked
	T 9 N R 5 E 2 S 4 | TR 39 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high SE.of cor.
	Thence
	S.0° 19'E.along W.bdy.of tract,
20.20	To point for Cor.No.3, Tract 39,
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.3, Tract 39, with brass cap marked
	T 9 N R 5 E TR 39 S 4 | 3 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high NE.of cor.
	From this cor.Cor.No.1 Tr.40 bears N.89° 39'W.20.05 chs.
	Thence, from Cor.No.3, Tr.39,
	S.89° 39'E.along S.bdy.of tract,
20.03	To Cor.No.4, Tr.39.
	Thence,
	N.0° 18'W.on true line on E.bdy.Tr.39,
20.14	To Cor.No.1, the place of beginning.
	From the old stone corner marked for the Martineau ¼ sec.cor.for secs.5 and 8,
	N.88° 51'W.on random line between the Martineau secs.5 and 8.
20.00	Set point for temporary Cor.No.3, Tract 40,
41.00	The cor.of secs.5,6,7, and 8.
	Thence,

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	S.88° 51'E.on true line bet.secs.5 and 8,
20.50	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.3, Tract 40, with brass cap marked
	T 9 N R 5 E S 5 | 3 TR 40 S 8 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high NE.of cor.
28.47	Intersect the closing cor.of secs.5 and 8, which I remark as follows:
	T 9 N R 5 E TR 40 C C S 8 | S 4 1914
41.00	The stone cor.for Cor.No.4 Tr.40.
	From the temp. 11/44 cor.between NW¼ and SW¼ sec.5,
	South, on random line through center of SW¼ sec.5,
20.00	Set temp.cor.for Cor.No.2, Tr.40.
39.80	Fall 31 lks.E.of Cor.No.3 Tr.40.
	From the cor.of secs.5,6,7, and 8,
	N.1° 05'E.on random retracement line bet.secs.5 and 6,
20.00	Set temp.11/44 cor.
40.12	The ¼ sec.cor.between secs.5 and 6,
	Thence
	S.1° 05'W.on true line bet.secs.5 and 6,
20.06	Set point for 11/44 cor.on W.bdy.of SW¼.
40.12	The cor.of secs.5,6,7, and 8.
	From Cor.No.1, Tract 40,
	West on random line through center of SW¼.
20.09	Fall 6 lks.N.of temp.cor.No.2 Tr.40,
40.48	Fall 63 lks.S.of 11/44 point on W.bdy.SW¼.

METES AND BOUNDS T.9 N.R.5 E.

Chains.

TRACT 40.

Beginning at Cor. No.1, Tract 40; from which
Cor. No.3 Tr.39 bears N.89° 39'E.20.05 chs.dist.,
Thence
N.89° 06'W.on true line along N.bdy.of tract,
12.36 Intersect W.bdy.sec.4, at 4.38 chs.S.0° 13'W.of the ¼ sec.cor.on W.bdy.of sec.4. At intersection,
Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for closing cor.of secs.4 and 5, with brass cap marked

T 9 N R 5 E
S 5 | S 4
C.C
TR 40
1914

Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
20.24 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.2 Tract 40, with brass cap marked

T 9 N R 5 E
S 5
2
TR 40
1914

Raise a mound of stone 2 ft.base, 1½ ft.high SE.of cor.
Thence,
S.0° 27'W.on true line on W.bdy.Tr.40,
20.17 To Cor.No.3 Tr.40.
Thence,
S.88° 51'E.on true line on S.bdy.Tract 40,
7.97 The closing cor.of secs.5 and 8.
20.50 To Cor.No.4 Tract 40.
Thence,
N.0° 11'W.on true line on E.bdy.of Tr.40.
20.27 To Cor.No.1, the place of beginning.

SURVEY OF SECTION 16, TRACT 41.

Section 16, surveyed by Deputy Martineau, is partially

METES AND BOUNDS T.9 N.R.5 E.

Chains.

in conflict with the prior Bailey and Burrill survey. This being a school section, and automatically reverting to the State, necessitates its being segregated by metes and bounds. The tract will be designated as Tract 41.

At the old Martineau cor. for secs. 8, 9, 16, and 17, I set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for Cor. No. 2, Tract 41, and Cor. No. 1 Tr. 42, with brass cap marked

T 9 N R 5 E
S 9
1 | 2
TR 42 | TR 41
1914

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

Thence

East on true line on N. bdy. sec. 16,

27.53 Intersect line between secs. 9 and 10, at 13.62 chs. N. 0° 27' W. of the cor. of secs. 9 and 10. At intersection

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for closing cor. of secs. 9 and 10 against Tr. 41, with brass cap marked

T 9 N | R 5 E
S 9 | S 10
C | C
TR 41
1914

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

80.00 Set temp. cor. for Cor. No. 1, Tract 41.

Note:

This corner was afterward made permanent at 79.36 chs.

At the point for restored Martineau corner of secs. 15, 16, 21, and 22,

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for Cor. No. 4, Tract 41, with brass cap mkd.

T 9 N R 5 E
TR 41 | S 15
4
1914

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	Raise a mound of stone 2 ft.base, 1½ ft.high NW.of cor.
	Thence, N.0° 14'E., record course, on true line, along E.bdy.original Martineau sec.16, or E.bdy.Tr.41,
67.21	Intersect line between secs.10 and 15 at 12.36 chs.S.87° 30'E.of the ¼ sec. cor.on S.bdy.sec.10. At intersection
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for closing cor.of secs.10 and 15 against Tr. 41, with brass cap marked

T 9 N R 5 E
S 10
TR 41 | C
C
S 15
1914

	Raise a mound of stone 2 ft.base, 1½ ft.high E.of cor.
81.75	Intersect E.and W.line 64 lks.W.of the temporary cor. No.1 Tr.41; making N.bdy.of tract 79.36 chs. At intersection,
	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.1, Tr.41, with brass cap marked

T 9 N R 5 E
S 10
1
TR 41
1914

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

BOUNDARIES TRACT 41.

	Beginning at Cor.No.1 Tr.41; thence
	West on N.bdy.of tract,
51.83	The closing cor.of secs.9 and 10,
79.36	To Cor.No.2 Tr.41, which is also Cor.No.1 Tr.42.
	Thence S.0° 59'W.between Tract 41 and sec.9.
14.67	The closing cor. Thence bet.Tract 41 and sec.17,
40.54½	The ¼ sec.cor.between secs.16 and 17. I destroy the marks pertaining to sec.16, and re-mark it Tr.41 in E.half.
81.09	To Cor.of secs.16,17,20, and 21. I destroy the marks pertaining to sec.16, and re-mark the brass cap for Cor.

CANCELLED

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	No.3 Tract 41, in NE. quadrant as follows:
	T 9 N R 5 E S 17 | TR 41 | 3 S 20 | S 21 1914
	Thence, S.89° 37'E. between Tr. 41 and sec. 21,
40.28	True point for ¼ sec. cor.
44.87	The witness cor. for ¼ sec. cor. secs. 16 and 21. I destroy the marks for sec. 16, and re-mark the brass cap TR 41 in N. half.
68.13	The closing cor. of secs. 16 and 21 against sec. 15.
	I re-mark brass cap as follows:
	T 9 N R 5 E TR 41 C | C S 21 | S 15 1914
80.56	To Cor. No. 4, Tr. 41.
	Thence N.0° 14'E. on E. bdy. Tr. 41,
67.21	The closing cor. of secs. 10 and 15, against Tract 41.
81.75	To Cor. No. 1, the place of beginning.

SURVEY OF TRACTS IN SEC. 17 (MARTINEAU).

The NE¼ NE¼, approved June 21, 1901, List 7, and the NE¼ of NW¼, approved Dec. 23, 1901, List 5, which were patented in Sec. 17, as returned by Deputy Martineau, are in conflict with the prior Bailey and Burrill survey; and it will be necessary to segregate them by metes and bounds survey. The tract numbers will be 42 and 43, respectively.

Beginning at Cor. No. 2, Tr. 41, which is also Cor. No. 1 Tr. 42; thence

N.89° 26'W. on random line along N. bdy. sec. 17, as surveyed by Deputy Martineau,

20.00	Leave temp. 11/44 cor. for Cor. No. 2 Tr. 42.
40.20	The old stone set by Deputy Martineau for ¼ sec. cor. bet. secs. 8 and 17. Thence

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	N.89° 38'W.on random line along N.bdy.said sec.17,
11.73	The closing cor.
20.00	Leave temp.$\frac{11}{44}$ cor.for Cor.No.2, Tr.43,
39.98	The cor.of secs.7,8,17, and 18.
	I return and proportion $\frac{11}{44}$ cor.points midway.
	From the stone set by Deputy Martineau for $\frac{1}{4}$ sec.cor.between secs.8 and 17.
	S.1° 00'W., (to fall nearer true course), through center of sec.17,
15.33	Fall 11.72 chs.N.89° 59'E.of the SW.cor.of sec.9. Set temp.cor.
20.00	Set temp.cor.for Cor.No.4 Tr.43.
40.00	Leave temporary cor.for center of sec.17.
81.07	Fall 19 lks.W.of the $\frac{1}{4}$ sec.cor.of secs.17 and 20,
	The true course of this line is therefore S.0° 52'W.

	From the $\frac{1}{4}$ sec.cor.bet.secs.17 and 18,
	East on random line through center of sec.17,
20.00	Leave temp.$\frac{11}{44}$ cor.between NW$\frac{1}{4}$ and SW$\frac{1}{4}$ of sec.17,
40.11	Fall 5 lks.S.of the temporary cor.for center of sec.
60.00	Leave temporary cor.for $\frac{11}{44}$ cor.between the NE$\frac{1}{4}$ and SE$\frac{1}{4}$.
80.54	Fall 93 lks.N.of the $\frac{1}{4}$ sec.cor.on E.bdy.of sec.17.
	The true course is therefore S.89° 20'E., and the center of section is 52 lks.S. and 9 lks.E.of the temporary corner. I proportion the $\frac{11}{44}$ points between center of section and their respective $\frac{1}{4}$ sec.cors.

	From the cor.of secs.7,8,17, and 18,
	S.1° 10'W.on random line bet.secs.17 and 18,
20.00	Set temp.point for $\frac{11}{44}$.
40.44	The $\frac{1}{4}$ sec.cor.bet.secs.17 and 18,
	Thence N.1° 10'E.on true line bet.secs.17 and 18,
20.22	Set point for $\frac{11}{44}$ cor.on W.bdy.NW$\frac{1}{4}$ of sec.17,

CANCELLED

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
40.44	The cor. of secs. 7, 8, 17, and 18.
	From Cor. No. 1 Tr. 42, which is also Cor. No. 2 Tr. 41,
	S. 0° 59' W. on random line on E. bdy. sec. 17,
20.00	Set temp. point for Cor. No. 4 Tr. 42.
40.54½	The ¼ sec. cor. sec. 17,
	Thence N. 0° 59' E. on true line on E. bdy. sec. 17,
20.27	Set true point for Cor. No. 4 Tr. 42.
40.54½	Cor. No. 1 Tr. 42.
	From true point for Cor. No. 4 Tr. 42,
	West on random line through center of NE¼.
20.00	Set point for temporary Cor. No. 3 Tr. 42.
40.26	Fall 37 lks. S. of true point for Cor. No. 4 Tr. 43.
	The course is therefore N. 89° 28' W.
	From true point for Cor. No. 4 Tr. 43,
	West, on random line through center of NW¼.
20.00	Set temp. cor. for Cor. No. 3 Tr. 43.
40.08	Fall 29 lks. S. of the 11/44 point on W. bdy. of NW¼.
	The true course is therefore N. 89°35' W.
	From true point for Cor. No. 2 Tr. 42,
	S. 1° 00' W. on random line through center of NE¼.
20.48	Fall 14 lks. W. of temp. Cor. No. 3 Tr. 42.
40.57	Fall 6 lks. W. of adjusted 11/44 cor. between NE¼ and SE¼.
	The true course is therefore S. 0° 55' W.
	From true point for Cor. No. 2 Tr. 43,
	S. 1° 00' W. on random line through center of NW¼.
20.37½	Fall 2 lks. E. of temporary Cor. No. 3 Tr. 43.
40.49	Intersect adjusted point for 11/44 cor. between NW¼ and SW¼.
	The course is therefore S. 1° 00' W.

METES AND BOUNDS T. 9 N.R.5 E.

Chains.

TRACT 42.

Beginning at Cor.No.1 Tr.42, which is also Cor.No.2 Tr. 41; thence

N.89° 26'W.on N.bdy.Tr.42,

20.10 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.2 Tr.42, with brass cap marked

T 9 N R 5 E
2 TR 42
S 9
1914.

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

Thence

S.0° 55'W.along W.bdy.Tr.42,

15.19 Intersect S.bdy.Sec.9, 8.10 chs.S.89° 59'W.of the Bailey and Burrill ¼ sec.cor.on S.bdy.of sec.9. At intersection,

Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for closing cor.of secs.9 and 17 against Tr.42, with brass cap marked

T 9 N R 5 E
S 9
C
C TR 42
S 17
1914

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

20.29 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.3 Tr.42, with brass cap marked

T 9 N R 5 E
TR 42
3
S 17
1914

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

Thence

S.89° 28'E.on S.bdy.Tr.42,

20.11 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.4 Tr.42, with brass cap marked

T 9 N R 5 E
TR 42
4
S 17 TR 41
1914

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

Chains.	
	Thence,
	N.0° 59'E.between Tr.41 and Tr.42.
5.60	Intersect S.bdy.sec.9, at 12.00 chs.N.88° 34'E.of the Bailey and Burrill ¼ sec.cor.on S.bdy.sec.9.
20.27	To Cor.No.1, the place of beginning.

TRACT 43.

At the old stone corner set by Deputy Martineau for ¼ sec. cor.between secs.8 and 17,

Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.1 Tr.43, with brass cap marked

T 9 N R 5 E
S 9
1
TR 43
1914

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

Thence,

N.89° 38'W.on N.bdy.Tr.43,

11.73 Intersect W.bdy.sec.9, at 15.38 chs.N.1° 09'E.of the SW. cor.of sec.9, which is at the closing cor.of secs.8 and 17. I re-mark the closing as follows:

T 9 N R 5 E
S 8 | S 9
C C
TR 43
1914

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

19.99 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.2 Tr.43, with brass cap marked

T 9 N R 5 E
S 8
2
TR 43
S 17
1914

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

Thence,

S.1°00'W.on true line on W.bdy.Tr.43,

METES AND BOUNDS T.9 N. R.5 E.

Chains.

20.23 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.3 Tr.43, with brass cap marked

T 9 N R 5 E
TR 43
3
S 17
1914

Raise a mound of stone 2 ft.base, 1½ ft.high NE.of cor.
Thence,
S.89° 35'E.on true line on S.bdy.Tr.43,

19.98 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.4 Tr.43, with brass cap marked

T 9 N R 5 E
TR 43
4
S 17
1914

Raise a mound of stone 2 ft.base, 1½ ft.high NW.of cor.
Thence,
N.0° 52'E.on true line on E.bdy.Tr.43,

4.93 Intersect S.bdy.sec.9, at 11.76 chs.N.89° 59'E. of the SW.cor.of sec.9. At intersection,
Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for closing cor.of secs.9 and 17 against Tr.43, with brass cap marked

T 9 N R 5 E
TR 43
S 9
C
C
S 17
1914

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

20.26 To Cor.No.I, Tr.43, the place of beginning.

SURVEY OF TRACT 44 IN SECTION 21.

The SE¼ NE¼, approved Dec.18, 1903, State Land List 7, which was patented in sec.21 as surveyed by Deputy Martineau, is partially in conflict with the Bailey and Burrill survey of sec.22, and will, therefore, be segregated by metes and bounds, tract number will be 44.

CANCELLED

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	From the cor. of secs. 21, 22, 27, and 28,
	Thence,
	N.0° 11'W. on random line bet. secs. 21 and 22,
30.90	The closing cor. of secs. 21 and 22,
40.26½	To point for the Martineau ¼ sec. cor., and Cor. No. 4 Tr. 44, and Cor. No. 3, Tr. 45.
60.00	Set temp. 11/44 ser. point on E. bdy. of NE¼ sec. 21.
80.53	To Cor. No. 4 Tr. 41.
	Thence
	S.0° 11'E. on true line on E. bdy. sec. 21, (Martineau),
20.13	Set point for true 11/44 point on E. bdy. said NE¼.
40.26½	The point for ¼ sec. cor. bet. secs. 21 and 22,
	Thence
	West on random line through center of sec. 21,
20.00	Set temp. 11/44 cor. for Cor. No. 3 Tr. 44.
40.00	Set temp. cor. for center of sec. 21.
79.86	Fall 11 lks. N. of the WC¼ sec. cor. of secs. 20 and 21, or 51 lks. S. of the true point for ¼ sec. cor.
	The course of this line is therefore N.89° 38'W.

	From true point for ¼ sec. cor. on N. bdy. of sec. 21,
	South, on random line, through center of sec. 21,
20.00	Set temp. point for 11/44 cor. between NE¼ and NW¼ sec. 21.
40.44	Fall 33 lks. W. of the temp. cor. for center of sec. 21.
80.37	Fall 86 lks. W. of the ¼ cor. of secs. 21 and 28.
	The true course of this line is therefore S.0° 37'E.

	From Cor. No. 4, Tr. 41,
	N.89° 37'W. on random line along N. bdy. of Martineau sec. 21.
12.43	Intersect the closing cor
20.14	Set point for 11/44 cor. on N. bdy. NE¼ sec. 21 (Martineau).
35.69	The witness cor. to ¼ sec. cor. on N. bdy. said sec. 21.

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
40.28	Intersect true point for $\frac{1}{4}$ sec. cor. The course of this line is therefore N.89° 37'W.

From the $\frac{11}{44}$ cor. on N.bdy. NE$\frac{1}{4}$ sec. 21 (Martineau),
South on random line through center of NE$\frac{1}{4}$.

20.00	Set temp. $\frac{11}{44}$ cor. for Cor. No. 2 Tr. 44.
40.25	Fall 16 lks. W. of the temp. $\frac{11}{44}$ cor. bet. NE$\frac{1}{4}$ and SE$\frac{1}{4}$.

From the $\frac{11}{44}$ cor. point on E.bdy. NE$\frac{1}{4}$,
West on random line through center of NE$\frac{1}{4}$.

20.17	Fall 17 lks. S. of the temporary Cor. No. 2 Tr. 44.
40.26	Fall 33 lks. S. of the temp. $\frac{11}{44}$ cor. between NE$\frac{1}{4}$ and NW$\frac{1}{4}$

SURVEY OF TRACT 44.

At the $\frac{11}{44}$ cor. on E.bdy. NE$\frac{1}{4}$ sec. 21,
Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for Cor. No. 1 Tr. 44 and Cor. No. 2 Tr. 45, with brass cap marked

T 9 N R 5 E
S 22
1914
TR 44 | TR 45

Raise a mound of stone 2 ft. base, 1½ ft. high SW of cor.
Thence,
N.89° 39'W. on N.bdy. Tr. 44, on true line,

12.47	Intersect W.bdy. of Bailey and Burrill fractional sec. 22, at 9.72 chs. S. of the cor. of secs. 15 and 22. At intersection,

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for closing cor. of secs. 21 and 22 against Tr. 44, with brass cap marked

METES AND BOUNDS T.9 N.R.5 E.

Chains.

T. 9 N. | R. 5 E.
S. 21 | S. 22
C & C
TR 44
1914

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

20.06 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for Cor. No. 2 Tr. 44, with brass cap marked

T. 9 N. R. 5 E.
2
S. 21 | TR 44
1914

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

S. 0° 18' E. on true line on W. bdy. Tr. 44,

20.07 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for Cor. No. 3 Tr. 44, with brass cap marked

T 9 N. | R 5 E
TR 44
3
S 21

1914

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

S. 89° 38' E. on true line on S. bdy. Tr. 44,

7.44 Intersect W. bdy. of Bailey and Burrill fractional sec. 22, at 9.40 chs. N. of the SW. cor. of Bailey and Burrill fractional sec. 22. At intersection,

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for closing cor. of secs. 21 and 22 against Tr. 44, with brass cap marked

T 9 N R 5 E
TR 44
C | C
S 21 | S 22
1914

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

19.95 True point for Martineau ¼ sec. cor. bet. secs. 21 and 22,

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for Cor. No. 4 Tr. 44, and Cor. No. 3 Tr. 45, with brass cap marked

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	T 9 N | R 5 E TR 44 | TR 45 4 | 3 S 22 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
	Thence,
	N.0° 11'W.on true line bet.Tr.44 and Tr.45,
20.13	To Cor.No.1, the place of beginning.

SURVEY OF TRACT 45 IN SECTION 22 (MARTINEAU).

The SW¼ NW¼ State Land List 7, approved Dec.18, 1903, which was patented under the survey of section 22 by Deputy Martineau, is wholly in conflict with the prior Bailey and Burrill survey of fractional sec.22, and must be segregated by metes and bounds. The tract number will be 45.

From the restored ¼ sec.cor.between secs.22 and 27,

N.0° 08'W., (the mean course between the E.and W.bdrs.) on random line through the center of the Martineau sec. 22.

40.00	Set temp.point.
60.00	Set temp.point.
80.00	Set temp.point for Martineau ¼ sec.cor.bet.secs.15 and 22.
	West on random line along N.bdy.sec.22 (Martineau),
20.00	Set temp.point.
39.62	Fall 80 lks.S.of Cor.No.4 Tr.41, which is the position for cor.of secs.15,16,21, and 22 (Martineau).
	Thence,
	East on true line along N.bdy.sec.22 (Martineau),
19.81	Set point for 11/44 cor.on N.bdy.NW¼ sec.22 (Martineau).

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
39.62	Intersect random N.and S.line 80 lks.N.of temp.point set for $\frac{1}{4}$ sec.cor. At intersection, set point for $\frac{1}{4}$ sec. cor.of secs.15 and 22 (Martineau).
	Thence,
	S.0° 08'E.on true line through center of sec.22,
20.20	Set point for $\frac{11}{44}$ cor.on E.bdy.of NW$\frac{1}{4}$ said sec.22.
40.40	Set point for true center of sec.22,
80.80	The $\frac{1}{4}$ sec.cor.between secs.22 and 27.
	From the $\frac{1}{4}$ sec.cor.point between secs.21 and 22 (Martineau) East, between NW$\frac{1}{4}$ and SW$\frac{1}{4}$ sec.22 (Martineau).
20.00	Set temp.point for Cor.No.4 Tr.45,
39.56	Fall 7 lks.N.of the point for center of sec.22,
	Thence N.89° 54'W.on true line between NW$\frac{1}{4}$ and SW$\frac{1}{4}$ said sec.22.
19.78	Set point for Cor.No.4 Tr.45,
39.56	The point for $\frac{1}{4}$ sec.cor.between secs.21 and 22.
	From the $\frac{11}{44}$ cor.point on E.bdy.NW$\frac{1}{4}$ sec.22 (Martineau), West, on random line through center of NW$\frac{1}{4}$ sec.22,
20.00	Set point for temp.Cor.No.1 Tr.45.
39.56	Fall 4 lks.S.of Cor.No.2 Tr.45,which is also Cor.No.1, Tr.44.
	The course of this line is, therefore, N.89° 57'W.
	From the $\frac{11}{44}$ cor.point on N.bdy.NW$\frac{1}{4}$ sec.22 (Martineau), South, on random line, through center of NW$\frac{1}{4}$ sec.22.
20.25	Fall 14 lks.E.of temp.Cor.No.1 Tr.45,
40.36	Fall 11 lks.W.of the point for $\frac{11}{44}$ cor.between NW$\frac{1}{4}$ and SW$\frac{1}{4}$ said sec.22.
	The course of this line is, therefore, S.0° 09'E.

METES AND BOUNDS T.9 N.R.5 E.

Chains.

TRACT 45.

The true point for Cor.No.1 Tr.45, is 19 lks.E. and 2 lks.N.of the temporary point for said corner. At true point I

Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.1 Tr.45, with brass cap marked

T 9 N R 5 E
1
TR 45
S 22
1914

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

Thence,

N.89° 57'W.on true line on N.bdy.Tr.45,

19.75 To Cor.No.2, Tr.45, which is also Cor.No.1 Tr.44.

Thence,

S.0° 11'E.on true line between Tr.44 and Tr.45.

20.13 To Cor.No.3, Tr.45, and Cor.No.4 Tr.44.

Thence,

S.89° 54'E.on true line on S.bdy.Tr.45,

19.78 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.4, Tr.45, with brass cap marked

T 9 N R 5 E
TR 45
4
S 22
1914

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

Thence,

N.0° 09'W.on true line on E.bdy.Tr.45,

20.13 To Cor.No.1, the place of beginning.

SURVEY OF TRACTS IN SECTIONS 25 AND 36 (MARTINEAU).

The NW¼ NE¼ State Land List 7, approved Dec.18,1903, was entered under Deputy Martineau's survey of sec.25, which is in conflict with the Bailey and Burrill survey of secs.19 and 30 in T.9 N.R.6 E. School section 36, as surveyed by Deputy Martineau, is partially in

BOOK A-431

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	conflict with secs.30 and 31 of T.9 N.R.6 E., as surveyed by Deputies Bailey and Burrill. The former will be surveyed as Tract 46, and the latter as Tract 47.
	From the stone, erroneously set by Deputy Martineau, for corner of Tp.9 N.Rs.5 and 6 E., which will now be point for Cor.No.4, Tr.47,
	North, on E.bdy.T.9 N.R.5 E., Deputy Martineau's survey,
40.00	No trace of any corner Deputy Martineau may have erroneously set.
80.00	No trace of any corner Deputy Martineau may have erroneously set. Set temporary point for Cor.No.1 Tr.47.
	From the cor.of secs.25,26,35, and 36,
	East, record course, between secs.25 and 36, on retracement line,
20.77	The closing cor.of secs.25 and 36,
40.22	Fall 10 lks.S.of the temp.¼ sec.cor.for secs.25 and 36,
80.20	Intersect Martineau's E.bdy.30 lks.S.of the temp.Cor.No. 1 Tr.47. At intersection,
	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.1 Tr.47, with brass cap marked

T 9 N R 6 E
1
TR 47 | S 30
1914

	Raise a mound of stone 2 ft.base, 1½ ft.high SW.of cor. Thence,
	North, on retracement line on E.bdy.sec.25, (Martineau).
40.00	No trace of any corner that Deputy Martineau may have erroneously set. Set temp.cor.
80.00	No trace of any corner that Deputy Martineau may have erroneously set. Set temp.cor.point for NE.cor.sec. 25 (Martineau).

Chains.	
	From cor. of secs. 23, 24, 25, and 26,
	S.89° 56' E. (record course) between secs. 24 and 25, (Martineau), on random retracement line,
17.88	The closing cor. of secs. 24 and 25, at intersection with the Bailey and Burrill E. bdy.
39.85	Fall 6 lks. S. of temp. ¼ sec. cor. for secs. 24 and 25 (Martineau), set for Cor. No. 2 Tr. 46.
60.00	Set point for temporary Cor. No. 1 Tr. 46.
79.80	Intersect N. and S. line 8 lks. N. of temporary NE. cor. sec. 25 (Martineau). At intersection, set point for true restored position of NE. cor. sec. 25, (Martineau).
	From ¼ sec. cor. secs. 25 and 26,
	East on random line through center of sec. 25 (Martineau).
40.00	Set temp. point for center of sec. 25, as surveyed by Deputy Martineau. Thence
	North on random line between NW¼ and NE¼ of said sec.
20.00	Set temp. point for Cor. No. 3 Tr. 46,
40.00	Set temp. point for ¼ sec. cor. secs. 24 and 25, (Martineau), and Cor. No. 2 Tr. 46.
	From temporary point for center of sec. 25,
	North on random line between NW¼ and NE¼ of said sec.
20.00	Set temp. point for Cor. No. 3 Tr. 46.
40.00	Set temp. point for ¼ sec. cor. secs. 24 and 25 (Martineau) and for Cor. No. 2 Tr. 46.
	From temporary point for center of sec. 25,
	South, on random line between SW¼ and SE¼ said sec.
40.00	Set temp. point for ¼ sec. cor. bet. secs. 25 and 36 (Martineau).
	From temporary point for center of sec. 25,
	East, continuing random line between NE¼ and SE¼ sec. 25,
20.00	Set temp. point for ¼¼ cor. between NE¼ and SE¼ said sec.
40.09	Intersect N. and S. line 13 lks. N. of temporary 40.00 ch.

BOOK A-431

CANCELLED

METES AND BOUNDS T.9 N.R.5 E.

Chains.	
	point on E.bdy. of Deputy Martineau's sec. 25, which is 4 lks. S. of true position as determined by proportion. The course of this line is therefore S. 89° 56' E., and distance 80.09 chs.
	The true center point of sec. 25 is 5 lks. S. and 3 lks. W. of the temporary point for center; and the true course of the meridional line through center of said sec. is S. 0° 08' W. I return to the $\frac{11}{44}$ cor. points and adjust them to their proportional positions. True point for Cor. No. 3, 6 lks. S., and 1 lk. E. of temporary point; and true $\frac{11}{44}$ cor. point on S. bdy. NE$\frac{1}{4}$ of sec. 7, 7 lks. S. and 3 lks. E. of temp. point.
	From the true point for $\frac{11}{44}$ cor. on N. bdy. of NE$\frac{1}{4}$ sec. 25, (Martineau), which is 15 lks. W. of the temporary point, South on random line through center of NE$\frac{1}{4}$.
20.00	Set temp. point for Cor. No. 4 Tr. 46.
39.97	Fall 4 lks. E. of true $\frac{11}{44}$ cor. point on S. bdy. said NE$\frac{1}{4}$.
	The true course of this line is therefore S. 0° 03' W.
	From the true point for Cor. No. 3 Tr. 46, East on random line through center of NE$\frac{1}{4}$ sec. 25 (Martineau),
20.06	Intersect temporary Cor. No. 3 Tr. 46,
40.05	Fall 1 lk. S. of true $\frac{11}{44}$ cor. point on E. bdy. said NE$\frac{1}{4}$.
	The true course of this line is therefore N. 89° 59' E., and true position for Cor. No. 4 Tr. 46 is 1 lk. N. and 2 lks. W. of the temporary corner.

TRACT 46.

At the true point for $\frac{11}{44}$ cor. on N. bdy. of NE$\frac{1}{4}$ Sec. 25 (Martineau)

Set an iron post, 3 ft. logg., 1 in. in dia., 26 ins. in the ground, for Cor. No. 1 Tr. 46, with brass cap marked

METES AND BOUNDS T.9 N.R.6 E.

Chains.

T 9 N R 6 E
1
TR 46 | S 19
1914

Raise a mound of stone 2 ft.base, 1½ ft.high SW.of cor.
Thence,
N.89° 56'W.on true line on N.bdy.Tr.46,

19.95 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.2 Tr.46, with brass cap marked

T 9 N R 6 E
2
S 19 | TR 46
1914

Raise a mound of stone 2 ft.base, 1½ ft.high SE.of cor.
Thence,
S.0° 08'W.on true line on W.bdy.Tr.46.

6.29 Closing Cor.of secs.19 and 30 later set at this point, see page 178.

19.99 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.3 Tr.46, with brass cap marked

T 9 | N R 6 E
TR 46
3
S 30
1914

Raise a mound of stone 2 ft.base, 1½ ft.high NE.of cor.
Thence,
N.89° 59'E.on true line along S.bdy.Tr.46,

20.04 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for Cor.No.4 Tr.46, with brass cap marked

T 9 N R 6 E
TR 46 |
4
S 30
1914

Raise a mound of stone 2 ft.base, 1½ ft.high NW.of cor.
Thence
N.0° 03'E.on true line on E.bdy.Tr.46.

12.40 Closing cor.of secs.19 and 30 later set at this point, see page 177.

19.99 To Cor.No.1 Tr.46, the place of beginning.

Chains.

TRACT 47.

From Cor. No. 1 Tr. 47,

West on true line on N.bdy. of Tr. 47,

59.43 Intersect closing cor. of secs. 25 and 36, which I re-mark for closing cor. against Tr. 47, as follows:

T 9 N
R 5 E | R 6 E
S 25 | S 30
C.C
TR 47
1914

And re-mark bearing tree Tr. 47 instead of S 36.

80.20 True point for cor. of secs. 25, 26, 35, and 36. I re-mark the witness cor. for said secs. as follows:

T 9 N R 5 E
S 26 | S 25
W.C
2
S 35 | TR 47
1914

From true point for cor.

S. 0° 06' W. on true line bet. secs. 35 and Tr. 47,

39.85 The ¼ sec. cor. between secs. 35 and 36,

I destroy the marks on brass cap pertaining to sec. 36, and mark it TR 47.

79.70 The standard cor. of secs. 35 and 36. I re-mark brass cap as follows:

T 9 N R 5 E
S 35 | TR 47
3
1914

for Cor. No. 3 Tr. 47.

Thence S. 89° 37' E. on true line on S.bdy. Tr. 47

24.19 Intersect closing cor.

I change the marks on brass cap from S 36 to TR 47; and raise a mound of stone 2 ft. base, 1½ ft. high S. of cor.

39.72 Intersect the standard ¼ sec. cor. on S.bdy. of sec. 36, set by Deputy Martineau, which is a hard sandstone 6 x 8 x 12 ins. above ground, firmly set, properly marked, but not witnessed.

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for half-mile cor., with brass cap marked

.METES.AND.BOUNDS T.9 N., R.6 E.

Chains.

TR 47
½ M
1914

Raise a mound of stone 2 ft.base, 1½ ft.high N.of cor.
I obliterate marks on old stone corner and bury it alongside of post.
Thence
N.89° 23'E.on true line on S.bdy.Tr.47,

40.68 The stone for cor.of Tp.9 N. Rs.5 and 6 E., which was a hard sandstone 6 x 8 x 12 ins.above ground, marked with 6 grooves on N., E., and W., SC on E.face, not witnessed. Marks are now obliterated and stone broken.
Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, old broken stone corner buried with post, for Cor.No.4 Tr.47 with brass cap marked

T 9 N R 6 E
TR 47
4
S 31
1914

Raise a mound of stone 2 ft.base, 1½ ft.high NW.of cor.
Thence
North on true line on E.bdy.Tr.47,

39.85 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for half-mile cor., with brass cap marked

T 9 N R 6 E
TR 47
½M
S 31
1914

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

72.59 The closing cor.of secs.30 and 31, later set at this point, see page 176.

79.70 To Cor.No.1 Tr.47, the place of beginning.

From the standard cor.of secs.31 and 32 T.9 N.R.6 E. which is a quartz stone 6 x 8 x 12 ins.loosely set in mound of stone, plainly marked with 1 groove on W., 5 grooves on E., and 6 grooves on N.faces; not witnessed.

CANCELLED

METES AND BOUNDS T.9 N.R.6 E.

Chains.	I reset stone firmly in the ground, and raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Thence
	North between secs. 31 and 32, retracing,
38.78	Fall 44 lks. W. of old ¼ sec. cor., which is a limestone 5 x 7 x 13 ins. above ground, firmly set, plainly marked ¼ on W. face, with small mound of stone W. of cor.
	The true course of this line is therefore N. 0° 39' E. and distance is 38.78 chs.
	From the ¼ sec. cor. I continue north,
39.86	Fall 87 lks. W. of the old cor. of secs. 29, 30, 31, and 32 which is a limestone 6 x 8 x 8 ins. above ground, firmly set, marked 5 grooves on E., and 1 groove on S. faces, not witnessed. I raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
	The true course of this line is therefore N. 1° 15' E. and distance 39.87 chs.
	From the cor. of secs. 30 and 31 T.9 N.R.6 E., W.bdy.
	East, retracing between secs. 30 and 31,
42.73	At proportionate point between measurements of 1914 and 1917, fall 139 lks. N. of the old ¼ sec. cor., which is a sandstone 12 x 12 x 6 ins. above ground, firmly set, properly marked, but not witnessed. I raise a mound of stone 2 ft. base, 1½ ft. high N. of cor.
	The true course of this line is therefore S. 88° 08' E. and distance is 42.76 chs. From the ¼ sec. cor. I continue East
39.30	At proportionate point between measurements of 1914 and 1917, fall 90 lks. N. of the old cor. of secs. 29, 30, 31 and 32, heretofore described.
	The true course of this line is therefore S. 88° 41' E. and distance 39.32 chs. Thence
	N. 88° 41' W. on true resurvey line bet. secs. 30 and 31,
22.69	Intersect E. bdy. of Tr. 47 at 7.11 chs. S. of cor. No. 1 Tr. 47.
	At intersection,

METES AND BOUNDS T.9 N., R.6 E.

Chains. Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for closing cor.of secs.30 and 31, against Tr. 47, with brass cap marked

T 9 N R 6 E
S 30
TR 47 | C
C
S 31
1914

Raise a mound of stone 2 ft.base, 1½ ft.high E.of cor.
Thence on blank line into Tract 47.

39.32 The old ¼ sec.cor. Thence
N.88° 08'W.on blank line bet.secs.30 and 31 into Tr.47.

42.76 The cor.of secs.30 and 31 on W.bdy.of Tp.

From the cor.of secs.29,30,31, and 32 T.9 N.R.6 E.
North, retracing bet.secs.29 and 30,

40.00 After diligent search find no trace of the ¼ sec.cor.

77.69 Fall 79 lks.W.of the old cor.of secs.19,20,29, and 30, which is a limestone 10 x 8 x 8 ins.above ground,firmly set in a mound of stone,properly marked
The true course of this line is therefore N.0° 35'E.and distance 77.69 chs.

From the cor.of secs.19 and 30 on W.bdy.T.9 N.R.6 E.
East, retracing bet.secs.19 and 30,

40.00 After diligent search find no trace of ¼ sec.cor.

85.20 Fall 5.64 chs.N.of the cor.of secs.19,20,29 and 30.Thence
N.86° 13'W.on true line bet.secs.19 and 30,

40.00 After diligent search no trace of old ¼ sec.cor.

43.55 Intersect E.bdy.of Tr.46 at 7.59 chs.S.0° 03'W.of Cor.No. 1 Tr.46. At intersection
Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for closing cor.of secs.19 and 30,against Tr. 46,with brass cap marked T 9 N R 6 E
S 19
TR 46 | C
C
S 30
1914

METES AND BOUNDS T.9 N.R.6 E.

Chains.	Raise a mound of stone 2 ft.base, 1½ ft.high E.of cor.
	Thence continue on blank line through Tr.46
63.50	Intersect W.bdy.of Tr.46 at 6.29 chs.S.0° 08'W.of Cor.No. 2 Tr.46. At intersection
	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for closing cor.of secs.19 and 30, against Tr. 46, with brass cap marked
	T 9 N R 6 E S 19 C | TR 46 C | S 30 1914
	Raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.
	Thence continue on true line bet.secs.19 and 30,
85.45	The cor.of secs.19 and 30, on W.bdy.of T.9 N.R.6 E.

	From cor.of secs.19, 20, 29, and 30,
	North, retracing bet.secs.19 and 20,
40.00	After diligent search find no trace of ¼ sec.cor.
78.48	Fall 176 lks.W.of cor.of secs.17, 18, 19, and 20, which is a sandstone 16 x 8 x 4 ins.above ground, firmly set properly marked, with stone mound W.of cor.
	The true course of this line is therefore N.1° 17'E. and distance is 78.50 chs.

	From cor.of secs.17, 18, 19, and 20,
	West, retracing bet.secs.18 and 19,
40.00	After diligent search find no trace of ¼ sec.cor.
86.45	Fall 7.34 chs.S.0° 26'W.of cor.of secs.13, 18, 19 and 24 on W.bdy.of Tp., heretofore described.
	The true course of this line is therefore N.85° 09'W.and distance 86.76 chs.

BOUNDARIES OF T.9 N.R.5 E.

Latitudes, Departures, and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes, Departures.			
			N.	S.	E.	W.
		chs.	chs.	chs.	chs.	chs.
East Boundary;						
Sec. 36	N. 0°40'E.	32.55	32.55	.....	.38	.....
" "	N. 4°45'W.	41.58	41.44	.....	.....	3.44
Sec. 25	N. 1°38'W.	41.20	41.18	.....	.....	1.17
" "	N. 1°44'W.	39.76	39.74	.....	.....	1.20
Sec. 24	N. 0°05'E.	40.05	40.05	.....	.06	.....
" "	N. 0°26'E.	40.00	40.00	.....	.30	.....
Sec. 13	N. 0°36'E.	79.97	79.97	.....	.84	.....
Sec. 12	N. 0°36'E.	79.97	79.97	.....	.84	.....
Sec. 1	N. 0°36'E.	84.96	84.96	.....	.89	.....
North Boundary:						
Sec. 1	N.89°32'W.	40.26	.33	.....	.....	40.26
" "	N.89°49'W.	39.79	.13	.....	.....	39.79
Sec. 2	S.89°57'W.	40.00	.....	.04	.....	40.00
" "	N.89°26'W.	39.93	.40	.....	.....	39.93
Sec. 3	N.89°40'W.	39.87	.23	.....	.....	39.87
" "	N.88°49'W.	39.93	.82	.....	.....	39.92
Sec. 4	S.89°57'W.	78.70	.....	.07	.....	78.70
Sec. 5	N. 0°16'E.	1.26	1.26	.....	.01	.....
" "	S.89°48'W.	17.95	.....	.06	.....	17.95
Sec. 6	N.89°15'W.	80.81	1.06	.....	.....	80.80
West Boundary:						
Sec. 6	S. 1°26'E.	38.78	.....	38.77	.97	.....
" "	S. 1°20'W.	40.38	.....	40.37	.....	.94
Sec. 7	S. 1°22'W.	81.15	.....	81.13	.....	1.94
Sec. 18	S. 0°29'W.	40.84	.....	40.84	.....	.34
" "	S. 0°30'W.	40.64	.....	40.64	.....	.35
Sec. 19	S. 0°23'W.	40.65	.....	40.65	.....	.27
" "	S. 0°24'W.	40.13	.....	40.13	.....	.28
Sec. 30	S. 0°22'W.	40.65	.....	40.65	.....	.26
" "	S. 0°27'W.	40.81	.....	40.81	.....	.32
Sec. 31	S. 0°34'W.	40.94	.....	40.94	.....	.40
" "	South	40.96	.....	40.96	.....	.....
South Boundary:						
Sec. 31	N.89°05'E.	39.78	.64	.....	39.77	.....
" "	S.89°57'E.	40.11	.....	.04	40.11	.....
Sec. 32	N.89°39'E.	40.44	.25	.....	40.44	.....
" "	East	40.35	.....	.....	40.35	.....
Sec. 33	N.89°55'E.	40.55	.06	.....	40.55	.....
" "	East	40.05	.....	.....	40.05	.....
Sec. 34	N.89°40'E.	79.82	.46	.....	79.82	.....
Sec. 35	N.89°39'E.	40.15	.25	.....	40.15	.....
" "	N.89°45'E.	40.20	.18	.....	40.20	.....
Sec. 36	S.89°37'E.	24.19	.....	.16	24.19	.....
Convergency						.57
	T o t a l s		485.93	486.26	429.92	428.70
				485.93	428.70	
Errors in lat. and dep.				.33	1.22	

CANCELLED

GENERAL DESCRIPTION T.9 N.R.5 E.

The most valuable land in the township, from an agricultural standpoint, is a strip of open rolling land along the east side of the foot of the Monte Christo Mountains, covering secs. 7, 18, 19, and 30. The soil on this area is generally a sandy, gravelly, clay loam, dry, and of medium texture, 12 to 20 ins. deep, on stony, clay subsoil; and might be dry-farmed. It is covered with a good growth of sagebrush, and a fair amount of grass for grazing purposes. The drainage from this area is to the north and east on the north half, and to the south and east on the south half; through draws which become deep and rugged canyons in the course of a mile; and separated by high, sharp ridges bearing in a general E. and W. direction. This is locally known as Woodruff Park.

The west half of sec. 6. lies at the foot of the Monte Christo Mts., the north end of Woodruff Park, and drains NE. into Crawford Canyon, which becomes very deep and rugged in sec. 4, with small stream of good water in the bottom, flowing N.

Except for the rolling strip in the western portion, the remainder of the township is cut by deep, rocky canyons, draining easterly, and separated by long, sharp, bare ridges of east and west direction, the west ends of which terminate on the E. side of Woodruff Park.

From the north to the south, the canyons are, Spring Canyon, heading in sec. 3, with small spring seep in bottom in sec. 4. Cut-Off Canyon, heading in sec. 9, south center, where there is a small spring of good water, course E. Birch Creek Canyon, north fork heading in sec. 17, south fork draining central part of Woodruff Park; good stream of water in both forks; canyon becomes deep and rugged, and, after junction of forks in N. half of sec. 21, drains easterly. Walton Creek heads in small spring in south central portion of sec. 30, drains E. through rugged narrow walls, becoming fair sized stream of good water.

GENERAL DESCRIPTION T.9 N.R.5 E.

The soil on the east five ranges of sections is, generally, too gravelly and stony, and the slopes too steep for farming; but affords good grazing.

There are numerous small patches of scrub aspens on sheltered slopes; and some mahogany and pine on the rocky portions. Dense birch willows fringe the banks of creeks.

Several fair roads traverse the township, leading from Ogden to Woodruff and Randolph, with several branch roads.

There are numerous outcroppings of sandstone, limestone and quartzite, some of the quartzite being iron-stained; but there are no surface indications of other minerals to warrant any of the land being set aside for mineral purposes.

A small cabin, not completed, has been built in the SE.cor. of sec. 31, near a small spring; owner unknown.

There are no settlers in the township.

DESCRIPTION OF TRACTS.

Tracts 37 and 38:

These tracts consist of rolling, mountainous land, draining NE. Soil, dry, coarse, gravelly, clay loam; 3d rate. Good growth of sagebrush and grass for grazing. A small clump of aspen timber. No water.

Tract 39:

Consists of mountainous land, draining W. into Crawford Canyon. Soil, dry, coarse, gravelly, clay loam; 3d rate. A good growth of sagebrush. Some pine and mahogany timber. A small stream of water in SW. corner.

Tract 40:

Consists of rolling mountainous land, draining NE. into Crawford Canyon. Soil is dry, coarse, gravelly, clay loam; 3d rate. Good growth of sage. Small patch of aspen timber. No water.

BOOK A-431

DESCRIPTION OF TRACTS T.9 N.R.5 E.

Tract 41:

Generally mountainous, with drainage SE. Soil, dry, coarse, gravelly, clay loam; 3d rate. Good growth of sage. Clumps of aspen timber. A small stream of water in the SW.cor., and another in the eastern part.

Tract 42:

Rolling mountainous land, draining E. Soil, sandy, gravelly, clay loam, on stony subsoil; 3d rate. A good growth of sage; but no timber. A small spring in the N.end of tract, the head of Cut-Off Canyon.

Tract 43:

Rolling land, draining E. Soil, sandy, gravelly clay loam on stony subsoil; 3d rate. Good growth of sage; no timber; and no water.

Tract 44:

Rolling land, draining E. Soil, sandy, gravelly loam, a little moist, with stony subsoil; 2d and 3d rates. Undergrowth, sage and willows. Timber, clumps of aspen. Birch Creek cuts through north end of tract; and a small tributary creek, good water, cuts through SE.portion. There is a shearing corral in the northern part of the tract.

Tract 45:

Rolling land, draining E. Soil, sandy, gravelly loam, a little moist, with stony subsoil; 2d and 3d rates. Undergrowth, sage and willows. Timber, clumps of aspen. Birch Creek cuts through north end of tract; good water.

Tract 46:

Consists of mountainous land. Soil red, stony, clay loam; 3d rate, on stony and rocky subsoil. A good growth of sage; and small clumps of aspen timber. No water.

Tract 47:

Consists of mountainous land. Soil is a red, stony, clay loam; 3d rate; on stony and rocky subsoil. A good growth of sage; and small clumps of aspen timber. No water.

4—680

BOOK A-431

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 .....

.....

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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.

.....

6—2761 *U. S. Surveyor.*

FINAL OATH OF UNITED STATES ~~SURVEYOR~~ TRANSITMAN.

I, Thomas C. Rathbone, Transitman, U. S. ~~Surveyor~~, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah and telegram from the Commissioner of General Land Office Oct. 1, 191 bearing date of the 8 day of July, 1914, 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 Township 9 North, Ranges 5 and 6 East

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 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.

and index diagram page 2 of same and on dates shown on said diagram

Thos. C. Rathbone
~~U. S. Surveyor.~~
U. S. Transitman.

Subscribed by said Thomas C. Rathbone and sworn to before me this 1st day of February, 191 7

SEAL

U. S. Surveyor-General for Utah.

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.

U. S. Surveyor General.

6—2761

BOOK A-431

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 .....

.....

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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.

516 Newoath for Dougall included in original of [illegible] notes of [illegible]

FINAL OATH OF UNITED STATES SURVEYOR.

CANCELLED

I, John W. Dougall, U. S. Surveyor, do solemnly swear that, in pursuanc of special and Supp'l special instructions received from the U. S. Surveyor General for 8th day of July 1914 and 13th day of A 1917, respectively; also telegram from Commissioner of the Gen. Land Off bearing date of the 1st day of October, 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 Townships 9 North, Ranges Nos. 5 and 6 East

of the Salt Lake Base and Meridian, in the State of Utah, which are represented i the foregoing field notes 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 W. Dougall
U. S. Surveyor.

Subscribed by said John W. Dougall, and sworn to before me this 19 day of July, 1918

SEAL

C. C. Thoresen
U.S. Surveyor-General
for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, July 19, 1918.

The foregoing field notes of the ~~survey of~~ retracement and resurvey of the west, north, and east boundaries and subdivision, and metes and bounds survey in Township No. 9 North, Range No. 5 East; and metes and bounds survey in sections 30 and 31 Township No. 9 North, Range No. 6 East of the Salt Lake Base and Meridian, Utah,

executed by John W. Dougall and Thomas C. Rathbone under ~~his~~ special instructions dated July 8, 1914 and supplemental special instructions dated Aug. 3, 1917, ~~191~~, 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. C. 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.

6—2761

U. S. Surveyor General.