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BOOK 2977

Book "A."

(Exteriors)

FIELD NOTES

OF THE RETRACEMENT OF

Part of the West bdy. of Township 1 North, Range 1 West

AND RESURVEY OF THE FOLLOWING:

Parts of the West & South bdrs. of Township 11 N., R. 18 E.,

East bdy. Parts of the S. & W. bdrs. of Township 10 North, Range 19 East,

North boundary of Township 10 North, Range 20 E.,

South bdy. of Township 10 North, Range 21 East,

Parts of the West and North bdys. of Township 9 North, Range 22 East, and

Part of the East bdy. of Township 9 North, Range 25 East,

Of the Gila and Salt River Base and *Meridian,*

In the State of Arizona.

EXECUTED BY

Sidney E. Blout,

In the capacity of U. S. Surveyor, under instructions dated Dec. 16, *1914, issued by the United States Surveyor General to govern surveys included in Group No.* 40, *which were approved by the Commissioner of the General Land Office,* January 27, *1915.*

Retracements and Re-*Surveys commenced* March 8, *1915.*

Retracements and Re-*Surveys completed* August 24, *1915.*

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Executed under Assignment Instructions dated Feb. 27, 1915.

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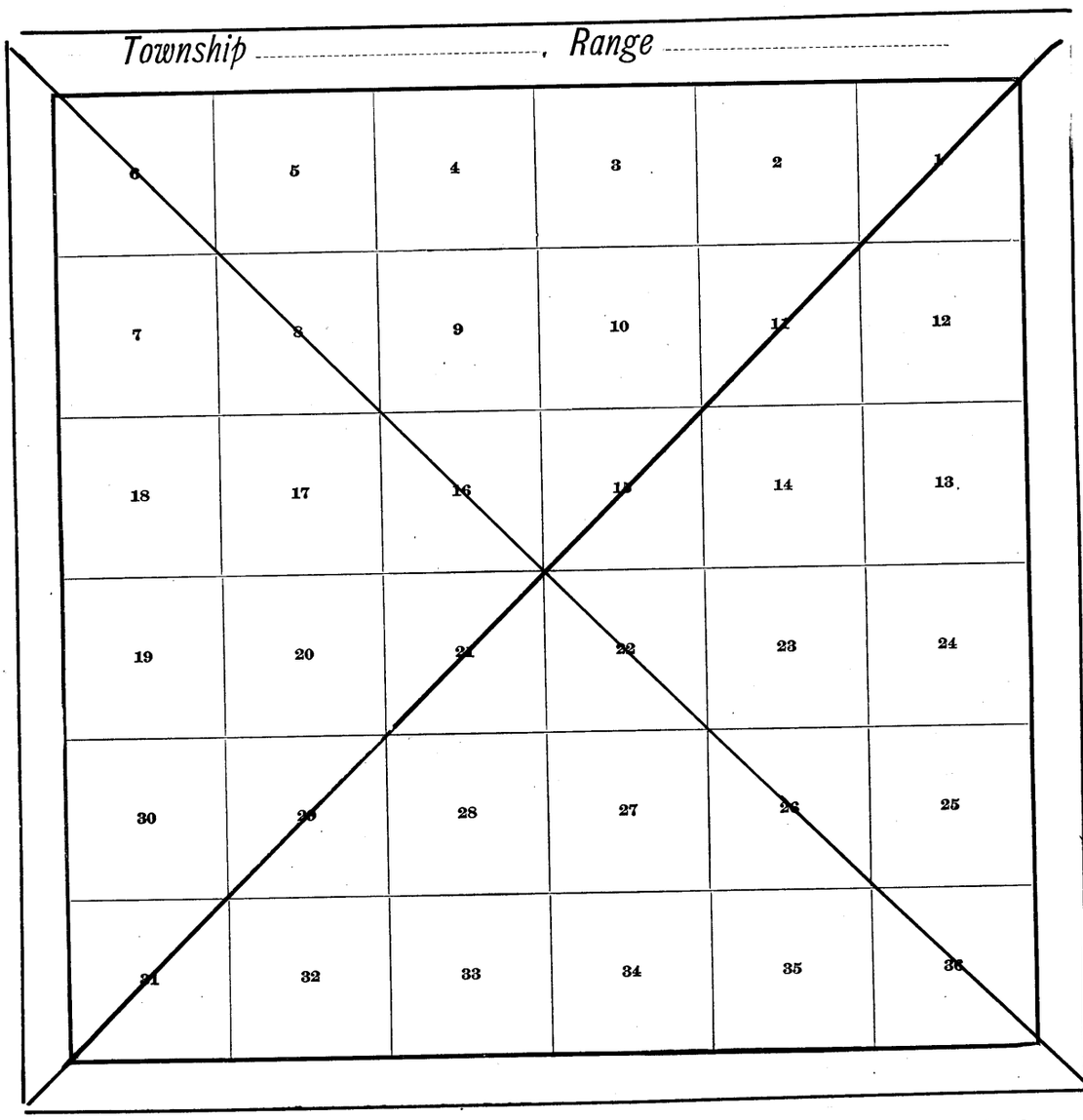
Book "A"

See Special Index

~~INDEX DIAGRAM.~~



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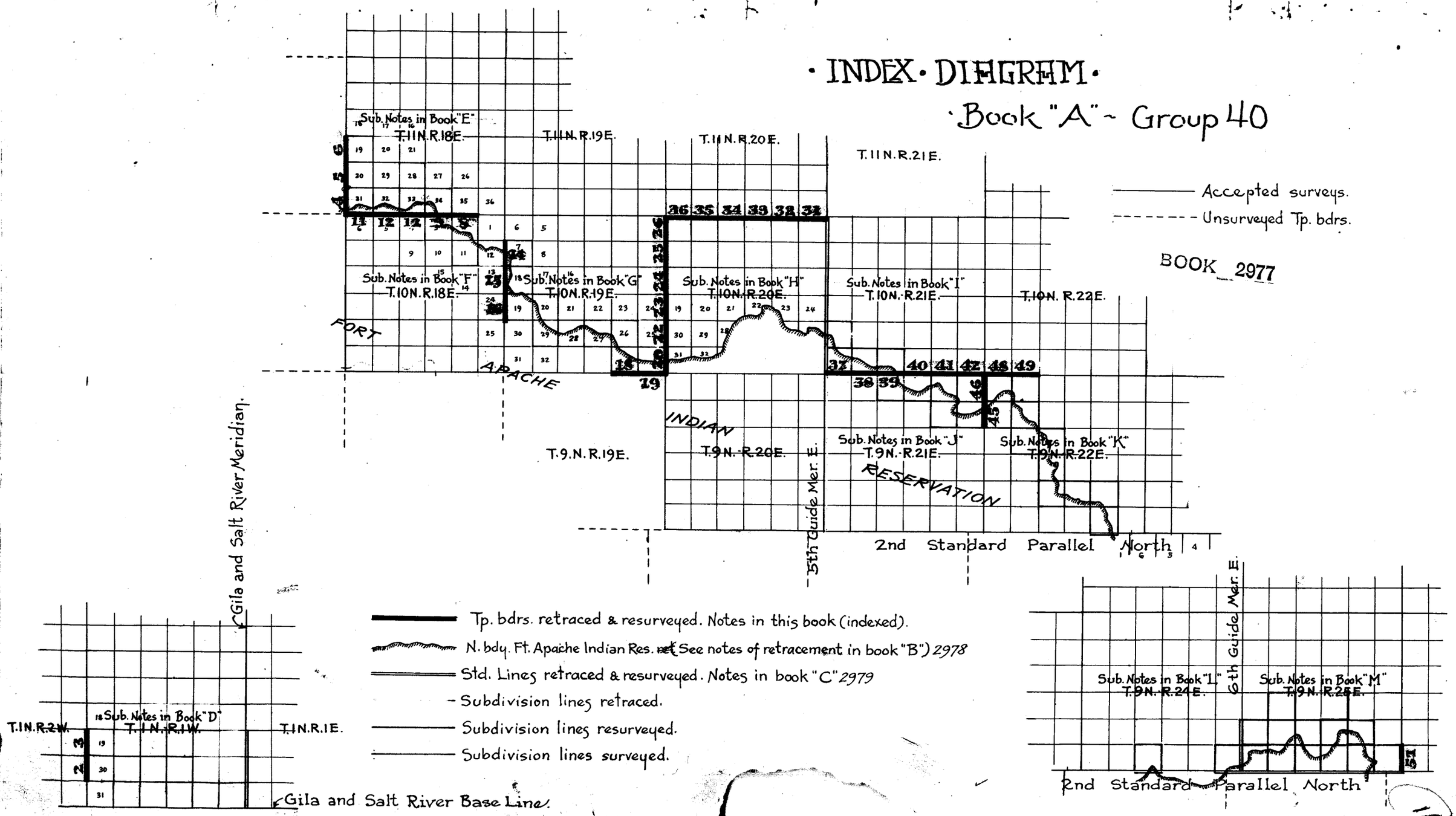
· Book "A" ~ Group 40



Chains.

Retracements and resurveys described in the following field notes, commenced March 8, 1915, and executed with a Young and Sons' light mountain transit No.10 with solar attachment. The horizontal limb is provided with two double verniers, placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the meridian on the roof of the Federal Building in Phoenix, Arizona, found correct and was approved by the Assistant Supervisor of Surveys for Arizona and California March 5, 1915.

I examine the adjustments of the transit, and correct all instrumental 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 established by observations on Polaris, I proceed as follows:

At my camp, which is located near the cor. of secs. 28, 29, 32 and 33, T.1 N., R.1 W.; latitude, 33°23½'N.; longiture, 112°22½W., I set off 33° 23½'N. on the latitude arc; 4°55'S. on the decl. arc, and at 5h.25m.p.m., l.m.t., determine a meridian with the solar, and mark a point thereof by a tack driven in a stake set in the ground 5 chs. N. of my instrument.

At 8h.21.3m. p.m. by my watch, which I have already set to read the correct local mean time, I observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark the direction thus determined by a tally pin driven in a stake set in the ground, about 5 chs. N. of my instrument.

March 8, 1915.

March 9, 1915. At 7h. a.m., l.m.t., I lay off the azimuth of Polaris, 1°22' to the east, and mark the meridian thus determined by a tack driven in the stake set last evening on which the meridian falls 01' E. of the point determined by the solar.

At 7h. 10m. a.m., l.m.t., I set off 33 23½'N. on the lat. arc; 4°43'S. on the decl. arc, and determine a meridian with the solar, and mark a point thereof by a small nail driven in the stake already set about 5 chs. N. of my instrument; this point falls about 01'E. of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for meridians respectively about 01' west and 01' east of the meridian established by the Polaris observation; therefore, I conclude that the instrument is in satisfactory adjustment.

The magnetic bearing of the meridian at 7h.15m. a.m., l.m.t., is N.13°45'W.; the angle thus determined gives the magnetic declination 13°45'E.

A 5 chain steel tape and clinometer are employed to determine all distances described in the following field notes of Retracements and Resurveys of township exteriors executed under instructions for Group No.40, Arizona.

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2. Retracement of part of West bdy. of Township 1 N.,R.1 W.

Chains

March 9,1915.

At the cor. of secs.19 and 30 on the W.bdy.of T.1 N.,R.1 W., reestablished in May, 1907 in the resurvey of the line by John F. Hesse,U.S.D.S., which is a granite boulder 6x6x10 ins.above ground, firmly set, marked and witnessed as described by the surveyor general; latitude, 33° 24½'N.; longitude, 112°24½'W.

At 8h. 10m. a.m.,l.m.t., I set off 33°24½'N.on the lat.arc; 4°43½'S.on the decl.arc,and determine a meridian with the solar.

Thence,

S 0°04'E., on a random line, on W bdy.of sec.30.

Over level sandy land in the Gila river bottom,through scattering mesquite timber and dense salt and greasewood brush undergrowth, 6 ft.high,

10.00 Dry wash, 15 lks.wide, 3 ft.deep,course west.

12.20 Old road from the intake of the Buckeye canal to Liberty, Arizona, brs.N. 50°W. and S.50°E.

32.30 The White Tanks Canal, unfinished, 40 ft. wide, 5 ft.deep, course N.80°W.

38.88 Fall 2 lks.west of the reestablished ¼ sec.cor. of sec.25, T.1 N.,R.2 W., which is a river boulder 4x4x6 ins.above ground, firmly set, marked and witnessed as described by the surveyor general.

39.90 Fall 2 lks.W.of the reestablished ¼ sec.cor. of sec.30, which is a granite stone 6x5x6 ins. above ground,firmly set, marked and witnessed as described by the surveyor general.

True course and dist. of N.half of W.bdy. of sec.30 is therefore S.,0°6'E., 39.90 chs.

March 9, 1915.

March 12, 1915. At 1h. 40m. p.m.,l.m.t., I set off 33° 24' N. on the lat.arc; 3°27½'S. on the decl.arc, and determine a meridian with the solar at the above described ¼ sec.cor.

Thence,

S 0° 04' E. on a random line on S.half of W.bdy.of sec.30.

.90 North bank of the Buckeye canal, 6 ft, deep, course west.

1.10 South bank of the Buckeye Canal.

5.74 Road from Phoenix to Buckeye, Arizona, brs.E. and W.

6.20 Cor. of wire fence, bears S. and W.

19.10 Fall ½ lk. west of point formerly occupied by the witness cor.to reestablished cor. of secs.30 and 31,T.1 N.,R. 1 W., and to reestablish cor.of secs.25 and 36 of T.1 N., R.2 W., which witness corner cannot be found after diligent search. I locate this point from the two bearing trees remaining, which are marked, as described by the surveyor general.

At this point, I reestablish, the witness cor. as follows:

Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for reestablished witness cor.to cor.of secs.25 and 36, T.1 N., R.2 W., and cor.of secs.30 and 31, T.1 N. R. 1 W., marked on brass cap,

W C T 1 N in N⅓,
S 30, S 31,R 1 W in E.,
1915 in S., and
S 25, S 36 R 2 W in W.half; from which,

The original bearing trees bear as follows:

A cottonwood 18 ins. in diam., brs.S.80½°W.,128 lks.dist., marked W C T 1 N R 2 W S 36 B T.

A cottonwood,12 ins.in diam.,brs.E.62°W.,507 lks.dist., marked T 1 N R 2 W S 25 B T.

Continue line and measurement.

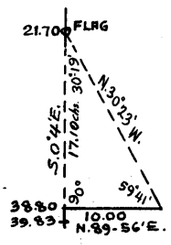
41.70 Intersect right bank of the Gila river, 4 ft.high,brs.N. 50°E. and S.50°W.; water in river too deep to wade.

Chaining measurement across river being impracticable,I triangulate as follows:

Leave flag at this point.

Proceed to point on random line on south shore of river, where I measure a base N.39°56'E., 10.00 chs.

Chains.



From E.end of base flag brs.N.30°23'W., Included angles are 59°41',90°00' and 30° 19', the sum of which is 180°00'.
Dist. on random line from flag to triangulation point at W.end of base is obtained by
Tang. 59°41'x base or 1.71015 x 10.00=17.10 chs., which added to 21.70 chs.=

38.80 Triangulation point on south shore of river, Thence over dry sandy river bed, continuing measurement by chaining.

39.83 (Length of S.½ of W.bdy. sec.30 as given in field notes of the resurvey of the line in May, 1907.)

True point for reestablishment of cor.of secs. 30 and 31, falls in river bed, where it would be unsafe to set cor.; therefore, leave the cor. point witnessed by the reestablished witness cor. hereinbefore described, which brs.N.0°3'W.,20.73 chs. dist. from cor.point.

Set temp.cor. of secs. 30 and 31 at cor.point to be used in connection with the resurvey of the subdivision line bet. said secs.

March 12,1915.

March 13, 1915. At 7h. 10m. a.m.,l.m.t., I set off 33°24½' N. on the lat.arc; 3°09'S. on the decl.arc, and determine a meridian with the solar at the reestablished cor.of secs. 19 and 30, hereinbefore described.

Thence,

N.0°39'W., on a random line, on W.bdy.of sec.19.

Over level, sandy land in the Gila river bottom, through scattering mesquite timber and greasewood and salt sage brush undergrowth, 4 to 6 ft.high.

1.09 Intersect the reestablished cor.of secs. 24 and 25,T.1 N., R.2 W., which is a river boulder 6x6x10 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.

2.80 Road from Phoenix, to Liberty, Arizona, brs.N. 80°E. and S 80°W.

3.90 Center of Arizona Eastern Railroad track brs. N.81°45'E. and S.81°45'W.

4.36 Telegraph line brs.N.81°45'E. and S.81° 45'W. Leave level bottom land, brs.E and W.; ascend gradually over rolling land.

39.77 Fall 7 lks.west of the reestablished ¼ sec. cor.of secs. 19, which is a granite stone 6x4x4 ins. above ground, marked and witnessed as described by the surveyor general.

True course and dist. of S.½ of W.bdy. of sec.19 is therefore S.0° 33'E., 39.77 chs.

From above described ¼ sec.cor.,

N.0°39'W., on a random line, on N.½ of W.bdy. of sec.19.

1.42 Intersect the reestablished ¼ sec.cor. of sec.24,T.1 N., R.2 W., which is a granite stone 6x6x5 ins. above ground, marked and witnessed as described by the surveyor general.

40.09 Fall 46 lks.W. of the reestablished cor.of secs.18 and 19, which is a granite stone 4x4x6 ins. above ground, marked and witnessed as described by the surveyor general.

True course and dist. of N.½ of W.bdy. of sec.19 is therefore south, 40.09 chs.

March 13, 1915.

RESURVEY S.HALF WEST BDY.TOWNSHIP 11 NORTH,RANGE 18 EAST. RETRACEMENT.

May 4, 1915. At 8h. 26.8m. a.m.,l.m.t., I set off 34° 18'N. on the lat.arc; 15°47'N. on the decl.arc,and determine a meridian with the solar at the reestablished true point for cor.of secs. 19,24,25 and 30, on W.bdy.

Chains.

RETRACEMENT-continued.

of Tp., described in Book "E."

Thence,

South, on a random line, bet. secs.25 and 30.

40.12 Fall 3 lks.E. of the old ¼ sec.cor., which is a sandstone 10x10x8 ins., loosely set in a mound of stone,marks almost obliterated, witnessed by one of the original bearing trees, described in the field notes furnished my by the surveyor general.

True course and dist. of N.½ of line, bet. secs.25 and 30, is therefore N.0°3'E.,40.12 chs.

From above described ¼ sec.cor.,

South, on a random line on S half of line, bet. secs.25 and 30.

40.09 Fall 4 lks.W. of the old cor. of secs. 25,30,31 and 36, which is a sandstone 12x5x3 ins. above ground,loosely set, marked with 5 notches on N. and 1 notch on S. edges, witnessed by three bearing trees.

True course and dist. of S.½ of line, bet. secs. 25 and 30 is therefore N.0° 3'W., 40.09 chs.

South, on a random line, bet. secs.31 and 36.

40.00 I make a diligent search for the old ¼ sec.cor., which I am unable to find, therefore set temp. ¼ sec.cor.,and continue line and measurement.

79.92 Fall 40 lks.W.of the cor.of Ts. 10 and 11 N.,Rs.17 and 18 E., which I reestablished May 3, 1915,as hereinafter described.

True course and dist. of line bet.secs.31 and 36 is therefore N.0°17'W., 79.92 chs.

May 4, 1915.

RESURVEY.

May 13,1915. At 9h. 26.3m., a.m.,l.m.t., I set off 34° 16½'N. on the lat.arc; 18°14½'N. on the decl.arc; and determine a meridian with the solar at the reestablished cor.of Ts.10 and 11 N., Rs.17 and 18 E., hereinafter described.

Thence, as per resultmof retracement,

N.0° 17'W., on a true line, bet. secs. 31 and 36.

Ascend SE.slope of rim of the "Mogollon Mesa" over stony mountainous land, through heavy pine and juniper timber.

13.00 Top of rim brs.N.80°W. and S.80°E., 70 ft. above Tp.cor.

13.12 Wire fence along north bdy. of the Fort Apache Indian Reservation brs.N.80° W. and S.80°E.

13.40 Intersect N. bdy.of the Ft. Apache Indian Reservation, 51 lks.N. 84° 26'W. of Angle Point No.767, which is a pine 14 ins. in diam., marked and witnessed as described by the surveyor general. At the point of intersection, set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for reestablished closing cor.of Ts.11 N.,Rs. 17 and 18 E., marked on brass cap,

C C N of center,
T 11 N in N., and
FAIR, 1915 in S half;
R 17 E in NW.,
S 31 in NE.,
R 18 E in SE.and
S 36 in SW.qector.

From this point, the unaccepted closing cor.of Ts.11 N., Rs.17 and 18 E., set by Deputy Charles E.Perkins,under contract No.40 brs.N.84°26'W., 9.47 chs. dist. I destroy all trace of this closing cor., and the marks on the bearing trees to same.

Descend NE slope, 99 ft.

Chains.

27.50 Dry ravine, 20 lks.wide, course N.40°W.; ascend 36 ft.
33.30 Top of spur, brs.N.60°W. and S.60°E.; descend 68 ft.
39.96 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for reestablished ¼ sec.cor., marked on brass cap,

¼ S 36 in W.,
S 31 in E., and
1915 in S.half; from which,

A pine, 14 ins. in diam., brs.S.45°45'E. 92 lks.dist.,marked ¼ S 31 B T.
A pine, 18 ins. in diam., brs. S.17°45'W.,77 lks.dist., marked ¼ S 36 B T.

From this point, the unaccepted ¼ sec.cor. of secs.31 and 36, set by Deputy Charles E. Perkins, under contract No.40, brs.N.63°15'W., 10.70 chs. dist. I destroy all trace of this ¼ sec.cor., and the marks on the bearing trees to same.
Continue descent over NE. slope, 42 ft.
43.70 Dry bed of creek,20 lks.wide, course west; ascend S.slope 8 ft.
45.45 Top of ascent on point of spur, brs.N.20°E. and S.20°W.
Descend over NW.slope, 11 ft.
47.15 Dry ravine, 8 lks.wide, course S.20°W.; ascend 34 ft.
62.00 Top of spur, brs.N.30°W. and S.30°E.; descend 120 ft.
69.15 Dry ravine, 5 lks.wide, course N.30°W.; ascend 6 ft.
72.00 Top of spur, brs.N.70°W. and S.70°E.; descend 60 ft.
79.92 Intersect the old cor.of secs. 25,30,31 and 36,hereinbefore described. I destroy the old cor., and reestablish it in the same place, as follows:
Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for cor.of secs. 25,30,31 and 36, marked on brass cap,

T 11 N in N., and
1915 in S half;
R 17 E, S 25 in NW.,
R 18 E, S 30 in NE.,
S 31 in SE., and
S 36 in SW, quadrant; from which

Original bearing tree, a pine, 18 ins. in diam., brs.N.63½°E., 62 lks.dist., marked T 11 N R 18 E S 30 B T.
A pine, 14 ins. in diam., brs.S.38½°E., 92 lks dist.,which I mark,T 11 N R 18 E S 31 B T.
A pine,14 ins. in diam., brs.S.14°W.,110 lks. dist., which I mark T 11 N R 17 E S 36 B T.
Original bearing tree, a pine, 12 ins. in diam, brs.N.67½°W., 68 lks.dist., marked T 11 N., R 17 E.S 25 B T.
Original bearing tree, a pine 10 ins. in diam., brs.N.9¼°W., 48 lks.dist., marked T 11 N., R 18 E, S 30 B T. I change the markings on this tree to read: T 11 N R 17 E S 25 B T.

From this point, the unaccepted cor.of secs.25,30,31 and 36, set by Deputy Charles E.Perkins, under contract No.40, brs.N.62°W.,11.23 chs.dist. I destroy all trace of this cor., and the marks on the bearing trees to the same.
Land,mountainous, spurs with steep slopes,covered with loose stone.
Soil,poor, stony clay loam 3rd rate.
Timber,oak, juniper and pine.
Good growth bunch grass.

N.0°03'W., on a true line, on S half,of line, bet. secs. 25 and 30.
Over rolling, sandy and stony land, slopes to the northwest, through heavy oak and pine timber.
20.80 Dry bed of creek, 40 lks.wide, course N.20°W.; ascend

Chains.

along SW.slope of ridge, 8 ft.

25.00 Top of ridge, brs.N.70°W. and S.70°E.; descend 12 ft.

26.50 Dry ravine, 15 lks.wide, course N.70°W.;thence over rolling land, with very little change in elevation.

40.09 Intersect the old ¼ sec.cor., hereinbefore described, which I destroy, and reestablish in the same place as follows:

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

¼ S 25 in W.,
S 30 in E., and
1915 in S.rim; from which,

Original bearing tree, a pine 14 ins. in diam., brs.N.88½°E., 20 lks.dist., marked ¼ S B T.

A pine, 12 ins. in diam., brs.N.81¼°W., 35 lks. dist.,which I mark ¼ S 25 B T.

Thence
N.0° 03' E., on a true line, on N.½, bet. secs. 25 and 30.

Over rolling land.

40.12 Intersect the reestablished point for cor.of secs.19,24, 25 and 30, described in Book "E," which point I now reestablish the cor.as follows:

Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for cor.of secs. 19,24,25 and 30, marked on brass cap,

T 11 N in N., and
1915 in S.half;
R 17 E, S 24 in NW.,
R 18 E, S 19 in NE.,
S 30 in SE., and
S 25 in SW.quadrant; from which

A pine, 16 ins. in diam., brs.N.38½°E., 135 lks. dist., which I mark T 11 N R 18 E S 19 B T.

Original bearing tree, a pine 28 ins. in diam., brs.S.76°E., 57 lks.dist., marked T 11 N.,R. 18 E S 30 B T.

A pine, 12 ins. in diam., brs.S.77¼°W., 162 lks. dist., which I mark T 11 N R 17 E S 25 B T.

A pine, 12 ins. in diam., brs.N.62½°W.,121 lks. dist., which I mark T 11 N R 17 E S 24 B T.

Land, rolling, slopes to the north.

Soil, medium rich, fine sandy loam, about 12 ins. deep on clay and gravelly subsoil.

Timber, oak and pine.

Good growth bunch grass.

Clouds obscure the sun at noon today,rendering an observation for latitude impossible.

May 13, 1915.

April 26, 1915. At 1h. 13m. p.m.,l.m.t., I set off 34° 18'N., on the lat.arc; 13°22' N. on the decl.arc;and determine a meridian with the solar at the reestablished true point for cor.of secs. 19,24,25 and 30, described in Book "E."

Thence,
North, on a random line, bet. secs.19 and 24.

40.01 Fall 9 lks.E.of the old ¼ sec.cor., which is an oak tree, 8 ins. in diam., marked ¼ S on W. side; from which

Original bearing tree, an oak,10 ins. in diam., brs.N.38°E., 22 lks.dist., marked ¼ S B T.

A pine, 24 ins. in diam., brs.N.85¼°W.,140 lks. dist., which I mark ¼ S 24 B T.

True course and dist.of S.½ of line, bet. secs.19 and 24 is therefore S.0°8'E., 40.01 chs.

From above described ¼ sec.cor.,
North, on a random line, on N.½,bet.secs.19 and 24.

40.28 Fall 58 lks.E. of the old cor.of secs. 13,18,19 and 24, which is a pine stake 3 ins. in diam., 12 ins. long, greatly decayed, marks almost obliterated with distinct remains of old pits and mound of earth, described

Chains.

in the original field notes furnished me by the surveyor general.

True course and dist.of N.½ of line, bet.secs.19 and 24 is therefore S.0°50'E., 40.28 chs.

I destroy all trace of the above described old cor.,and reestablish it in the same place as follows:

Set an iron post 3 ft.long, 3 ins. in diam.m 24 ins. in the ground for cor.of secs.13,18, 19 and 24, marked on brass cap,

T 11 N in N., and
1915 inS.half;
R 17 E S 13 in NW.,
R 18 E S 18 in NE.,
S 19 in SE., and
S 24 in SW.quadrant; from which

A pine 24 ins. in diam., brs.N.65° 45'E., 112 lks.dist., marked T 11 N R 18 E S 18 B T.

A pine 36 ins. in diam., brs.S.63°E., 70 lks. dist., marked T 11 N R 18 E S 19 B T.

A pine 32 ins. in diam., brs.S.53½°W., 222 lks. dist., marked T 11 N R 17 E S 24 B T.

An oak, 32 ins. in diam., brs.N.89½°W.,170 lks. dist.,,marked T 11 N R 17 E S 13 B T.

April 26, 1915.

May 14, 1915. At 3h. 26.3m. p.m., l.m.t., I set off 34° 19'N., on the lat.arc; 18°33'N.,on the decl.arc, and determine a meridian with the solar at the reestablished cor.of secs.13,18,19 and 24, described above.

Thence,

S 0°50'E., on a true line,on N.½, bet. secs.19 and 24.

Descend S.slope, 8 ft. over rolling sandy land, through scattering pine timber.

3.00 Dry bed of creek, 20 lks.wide, banks 5 ft.high, course N. 50°E.; ascend N.slope of spur, over stony, mountainous land.

8.38 Road from Phoenix,Park to Pinedale, Arizona, brs.N.60°E., and S.60°W.

23.28 Top of spur, 90 ft. above road, brs.N.20° E. and S.10°W.; thence along E.slope of mountain.

40.28 Intersect the old ¼ sec.cor. hereinbefore described.

Thence,

S 0°08'E., on a true line, on S.½, bet. secs.19 and 24.

Continue along E.slope of mountain.

4.72 Begin descent over SE.slope 70 ft.

30.62 Foot of descent in dry sand wash, 20 lks.wide, course N. 40°E.

Leave mountainous land, brs. NE. and SW.; enter rolling aandy land.

40.01 Intersect the reestablished cor.of secs.19,24,25 and 30, hereinbefore described.

Land, rolling and mountainous.

Soil, sandy and stony clay loam, 2nd and 3rd rate.

Timber,oak,juniper and pine.

Mountainous land,67.90 chs.

Good growth bunch grass.

May 14, 1915.

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8. Resurvey of part of South bdy. of Township 11 North, Range 18E.

Chains.

May 15, 1915.
I examine the adjustments of the transit, and finding them to be correct, I know from recent tests of the solar apparatus, made by comparing the results of solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris, that the instrument is in satisfactory adjustment. For last complete test of instrument, see Book "E"
At 7h. 26m. a.m., l.m.t., I set off 34°16½'N. on the lat. arc; 18°43'N. on the decl.arc, and determine a meridian with the solar at the old cor.of secs.2,3,34 and 35 on S.bdy.of T.11 N., R.18 E., which is a granite stone 14x10x6 ins. above ground, firmly set, marked with 2 notches on E. and 4 notches on W.edges, from which
Original bearing tree, an oak, 10 ins. in diam., brs.N.4°45'E., 28 lks.dist., marked T 11 N, R 18 E S 35 B T.
A pine, 26 ins. in diam., brs.S.75°E., 161 lks. dist.which I markT 10 N R 18 E S 2 B T.
Original bearing tree, a pine, 18 ins. in diam., brs.S.15½°W., 25 lks.dist., marked T 10 N R 18 E S 3 B T.
A pine, 30 ins. in diam., brs.N.41°45'W.,136 lks. dist.,which,I markd T 11 N R 18 E S 34 B T.
At this cor., the latitude is 34° 16½' N.; longitude 110° 25' W.
Thence,
N.89°51'E., on a random line, bet. secs.2 and 35.
40.04 Fall 30 lks.N. of the old ¼ sec.cor., which is a sandstone 12x10x5 ins., loosely set in a mound of stone, marked ¼ on N.face, witnessed by the two original bearing trees described in the field notes furnished me by the surveyor general.
True course and dist. of W.½ of line, bet.secs.2 and 35 is therefore N.89° 43'W., 40.04 chs.
From ¼ sec.cor. described above,
N.89°51'E., on a random line on E.half, bet. secs.2 and 35.
40.00 Fall 13 lks. N.of the old cor. of secs. 1,2,35 and 36, which is a sandstone 12x8x4 ins. above ground, firmly set, marked with 1 notch on E. and 5 notches on W. edges, from which,
A pine, 10 ins. in diam., brs.N. 44° E., 143 lks.dist., marked T 11 N R 18 E S 36 B T.
Original bearing tree, a pine 24 ins. in diam., brs.S 42°45'E., 101 lks.dist., marked T 10 N R 18 E S 1 B T.
A pine, 36 ins. in diam., brs.S 4½°W., 67 lks. dist., marked T 10 N R 18 E S 2 B T.
A pine, 18 ins. in diam., brs.N.81½°W., 84 lks. dist., marked T 11 N R 18 E S 35 B T.
True course and dist. of E.½ of line, bet. secs.2 and 35 is therefore N.89° 58'W., 40.00 chs.
From old cor.of secs. 1,2,35 and 36, described above,
N.89°58'W., on a true line, E.½, bet. secs.2 and 35.
Descend W.slope of spur, 37 ft.over stony, mountainous land, through heavy pine and oak timber.
7.20 Dry ravine, 15 lks.wide, course N. ascend 46 ft.
15.00 Top of spur, brs.N.10°E. and S.10°W.; descend 6 ft.
22.00 Dry ravine, 30 lks.wide, course north, ascend 104 ft.
40.00 Intersect the old ¼ sec.cor. hereinbefore described, which I destroy, and reestablish this cor. as follows:
Reset the same stone in its original position, 8 ins. in the ground for ¼ sec.cor., marked ¼ S on N.face; from which
Original bearing tree, pine 8 ins. in diam., brs. N.72¼°W., 19 lks.dist., marked ¼ S 35 B T.
Original bearing tree, a pine 10 ins. in diam., brs.S.57½°W., 18 lks. dist., marked ¼ S 2 B T.
This cor.is situated on top of spur, brs.N.and S.
Thence N.89° 43' W., on true line, on W.half of line, bet.

Chains.

secs.2 and 35.
Over mountainous land; descend 25 ft.
16.04 Dry ravine, 15 lks.wide, course N.30°E.; ascend 59 ft.
27.00 Top of ascent on bench S.side of Cottonwood Creek;descend about 15 ft.
40.04 Intersect the old cor.of secs.2,3,34 and 35, hereinbefore described.
Land, mountainous, drains to the northeast.
Soil, poor, stony clay loam, 4 to 6 ins. deep, on stone and clay subsoil.
Timber, pine and oak.

May 15, 1915.

April 27,1915.
At 1h.27.7m.p.m.,l.m.t.I set off 34°16½'N.on lat.arc;13° 42'N. on the decl. arc; , and determine a meridian with the solar at the old cor.of secs. 2,3,34 and 35.
Thence I run,
S.89°51'W., on a random line, bet. secs.3 and 34.
40.00 Fall 23 lks.S. of the old ¼ sec.cor., which is a sandstone 10x6x6 ins., loosely set,marks almost obliterated, witnessed by one of the original bearing trees described in the field notes furnished me by the surveyor general.
True course and dist. of E.½ of line, bet. secs.3 and 34 is therefore N.89° 49' W., 40.00 chs.
From old ¼ sec.cor., described above,
S.89°51'W., on a random line, on W.½, bet. secs.3 and 34.
39.58 Fall 19 lks.S. of the old cor.of secs. 3,4,33 and 34,which is a sandstone 12x6x6 ins. above ground firmly set, marked with 3 notches on E. and W.edges, from which
Original bearing tree, a pine 24 ins. in diam., brs.S. 31°W., 66 lks.dist., marked T 10 N R 18 E S 4 B T.
Original bearing tree, a pine, 12 ins. in diam., dead, brs.N.13½°W., 45 lks.dist., marked T 11 N., R 18 E S 33 B T.
A pine, 16 ins. in diam., brs.N.81°45'E., 60 lks.dist., marked T 11 N R 18 E S 34 B T.
A pine, 18 ins. in diam., brs.S.67½°E.,108 lks.dist., marked T 10 N R 18 E S 3 B T.
A pine. 24 ins. in diam., brs.N.17½°W., 160 lks. dist., marked T 11 N R 18 E S 33 B T.
True course and dist. of W.½ of line, bet. secs.3 and 34 is therefore N.89° 52'W., 39.58 chs.

April 27, 1915.

May 7, 1915. At 2h. 26½m., p.m., l.m.t., I set off 34° 16½ N.on the lat. arc; 16°42½'N.on the decl.arc, and determine a meridian with the solar at the old cor. of secs. 2,3, 34 and 35.
Thence,
N.89°49'W., on a true line, on E.½, bet. secs.3 and 34.
Descend NW.slope, 3 ft., over mountainous land,through heavy pine timber.
1.30 Dry ravine, 10 lks.wide, course N.10°E.; ascend 91 ft.
10.90 Top of spur,brs.N.30°E. and S.30°W.; descend 45 ft.
19.65 Dry ravine, 15 lks.wide, course N. 20°E.; ascend 121 ft.
40.00 Intersect the old ¼ sec.cor., hereinbefore described, which I destroy, and reestablish in the same place as follows:
Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap,
¼ S 3 on N., and
S 34 1915 in S. half; from which
A pine, 10 ins. in diam., brs.N.12½°E., 56 lks.dist., marked ¼ S 34 B T.
A pine, 12 ins. in diam., brs.S.5°W., 53 lks. dist., marked ¼ S 3 B T.
Original bearing tree, a pine, 12 ins. in diam. (dead) brs.S.22°W., 92 lks.dist., marked ¼ S B T.
Thence N.89° 52'W., on true line, on W.half,bet.secs.

10. Resurvey of part of the S.bdy.of Township 11 N.,R.18 E.

Chains.	
	3 and 34.
	Ascending over mountainous land.
5.00	Top of the"Mogollon Rim" brs.N.40°W., and S.40°E.;descend,
6.70	Wire fence along N. bdy. of the Fort Apache Indian Reservation, brs.N.10°W. and S.10°E.
6.80	Intersect the N. bdy.of the Fort Apache Indian Reservation 1.00 ch. N.39° 23'W. of Angle Point No.721,which is a pine 12 ins. in diam., marked as described by the surveyor general. At the point of intersection,
	Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground, for reestablished closing cor. of Ts.10 and 11 N., R.18 E., marked on brass cap,
	C C E of center,
	T 11 N in N.,
	T 10 N, FAIR,1915 in S., and
	R 18 E in W.half;
	S 34 in NE., and
	S 3 in SW. sector.
	From this point, the unaccepted closing cor.of Ts.10 and 11 N.,R.18 E. set by Deputy Charles E.Perkins under Contract No.40, bears east 17 lks.dist.; I destroy all trace of this closing cor., and the marks on the bearing trees to same.
6.86	Telephone line from Forest ranger station at Bear Spring to Fort Apache on White river, brs.N.and S.
16.40	Dry ravine, 10 lks.wide, course S.10° W.; ascend 10 ft.
19.80	Top of spurs, brs.N.20°E. and S.20°W.; descend 105 ft.
31.45	Dry ravine, 10 lks.wide, in bottom of canyon, course south; ascend 11 ft.
38.60	Top of spur, brs.NE. and SW., descend 10 ft.
39.58	Intersect the old cor.of secs. 3,4,33 and 34,hereinbefore described.
	Land, mountains, rough; spurs with steep slopes,covered with loose stone.
	Soil, poor, stony clay loam, 3rd rate.
	Timber, oak, juniper and pine.
	May 7, 1915.

May 3, 1915: At 7h.57m.a.m.,l.m.t.,I set off 34°16½'N., on the lat.arc; 15°29'N. on the decl.arc, and determine a meridian with the solar at the old cor.of secs.3,4, 33 and 34, hereinbefore described.

Thence

S.89° 51'W., on a random line, bet. secs. 4 and 33.

40.00 No trace of old ¼ sec.cor. can be found.
Set temp.¼ sec.cor., and continue line and measurement.

80.00 No trace of old cor. of secs.4,5,32 and 33 can be found.
Set temp. cor.of said secs. and continue line and measurement, bet. secs.5 and 32.

120.00 No trace of old ¼ sec.cor.can be found.
Set temp.¼ sec.cor., and continue line and measurement.

160.00 No trace of old cor.of secs.5, 6, 31 and 32 can be found.
Set temp. cor.of said secs., and continue line and measurements, bet. secs.6 and 31.

200.00 No trace of old ¼ sec.cor., can be found.
Set temp.¼ sec.cor.,and continue line and measurement.

241.26 Fall 5.59 chs.N. of the remains of the old cor.of Ts.10 and 11 N., Rs.17 and 18 E., which is an oak post, greatly decayed, with marks almost obliterated, lying on mound of stone, witnessed by one of the original bearing trees described in the field notes furnished me by the surveyor general.

True course and dist. of line S.of secs. 31,32 and 33 is therefore, N.88°31'E., 241.34 chs.

The above described Tp. cor.being nearly obliterated, and insufficiently witnessed, reestablish it as follows:

At a point in the center of the old mound of stone where the post was found, set an iron post 3 ft.long,3 ins. in diam., 24 ins. in the ground, for cor.of Tps.10 and 11 N., Rs.17 and 18 E., marked on brass cap,

Chains.

T 11 N in N,
R 18 E in E.,
T 10 N, 1915 in S., and
R 17 E in W.half;
S 36 in NW.,
S 31 in NE.,
S 6 in SE., and
S 1 in SW. quadrant; from which
A pine, 24 ins. in diam., brs.N.28½°E., 123 lks. dist., marked T 11 N, R 18 E S 31 B T.
A pine, 36 ins. in diam., brs.S.43½°E.,103 lks. dist., marked T 10 N R 18 E S 6 B T.
Original bearing tree, a spruce, 18 ins. in diam., brs.S.49½°W., 220 lks.dist., marked T 10 N R 17 E S 1 B T.
A pine, 34 ins. in diam., brs.N.41½°W., 28 lks. dist., marked T 11 N R 17 E S 36 B T.

From this point, the unaccepted cor.of Ts.10 and 11 N., Rs.17 and 18 E., set by Deputy Charles E.Perkins,under Contract No.40, brs.N.54°18'W., 11.68 chs.dist. I destroy this cor.,and the marks on the bearing trees to same.

May 3, 1915.

May 10, 1915. At 8h. 56.4m. a.m.,l.m.t., I set off 34° 16½'N. on the lat.arc; 17°28'N. on the decl.arc, and determine a meridian with the solar at the reestablished cor.of Ts.10 and 11 N., Rs.17 and 18 E.,hereinbefore described.

Thence, as per results of retracement,
N.88°31'E.,on a true line, bet. secs.6 and 31.

Ascend NW.slope of spur,over mountainous land,104 ft., through scattering oak, juniper, and cedar,and heavy pine timber and undergrowth.

8.00 Top of spur, brs.N.50°E. and S.50°W.; descend SE.slope, 97 ft.

15.35 Dry ravine, 6 lks.wide, course south; ascend 35 ft.

21.30 Top of spur, brs.N.20°E. and S.20°W.; descend 177 ft.

33.60 Center of dry ravine, 15 lks.wide at foot of descent in canyon, course S.30°W.; ascend 130 ft.

41.19 (Proportional dist.) Set an iron post 3 ft.long, 1 in. in diam,, 26 ins. in the ground for reestablished ¼ sec. cor., marked on brass cap,
¼ S 31 in N., and
S 6 1915 in S.half; from which
A pine, 6 ins.in diam., brs.N.5°W., 94 lks.dist., marked ¼ S 31 B T.
A pine, 14 ins. in diam., brs.S.4°W.,99 lks. dist., marked ¼ S 6 B T.

54.91 Top of spur, brs. N.20°W. and S.20°E.; descend 111 ft.

63.71 Dry ravine, 10 lks.wide, in bottom of canyon, course S.; ascend W slope, 73 ft.

69.86 Top of spur, brs.N.and S.; descend E.slope, 91 ft.

75.11 Dry ravine, 10 lks.wide at foot of descent in canyon; course S.; ascend 71 ft.

81.22 (Proportional dist.) Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 5,6, 31 and 32,marked on brass cap,
T 11 N inN.,
T 10 N, 1915 in S., and
R 18 E in W.half;
S 31 in NW.,
S 32 in NE.,
S 5 in SE., and
S 6 in SW. quadrant; from which,
A pine, 18 ins. in diam., brs.N.84°45'E., 87 lks.dist., marked T 11 N R 18 E S 32 B T.
A pine, 16 ins. in diam., brs.S.26½° E., 51 lks.dist., marked T 10 N R 18 E S 5 B T.
A pine, 8 ins. in diam., brs.S.50½°W., 43 lks. dist., marked T 10 N R 18 E S 6 B T.
A pine 12 ins. in diam.,brs.N.45°W.,81 lks.dist.,

12. Resurvey of part of the S.bdy.of Township 11 N. R 18 E

Chains.

marked T 11 N R18 E S 31 B T.
Land, mountainous; spurs steep, rocky, washed on slopes.
Soil, poor, dry, stony clay loam, 3rd rate.
Timber, oak, juniper, cedar and pine.

N.88°31'E., on a true line, bet. secs. 5 and 32.
Ascend W.slope of spur, 35 ft., over stony, mountainous land, through oak, juniper, cedar and pine timber and brush.

8.00 Top of spur, brs.N.60°W. and S.60°E.; descend 172 ft.

21.30 Dry ravine, at foot of descent in canyon, 15 lks.wide, course S.30°E. ascend 48 ft.

30.40 Top of spur, brs.N.50°W., and S.50°E.; descend 179 ft.

40.03 (Proportional dist.) Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for reestablished ¼ sec. cor., marked on brass cap,
¼ S 32 in N., and
S 5, 1915 in S.half; from which,
A pine, 6 ins. in diam., brs.N.33°45'W., 90 lks. dist., marked ¼ S 32 B T.
A pine, 10 ins. in diam., brs.S.2½°E., 44 lks. dist., marked ¼ S 5 B T.

41.62 Dry ravine at foot of descent in canyon, 15 lks.wide, course S.20°E.; ascend SW.slope 63 ft.

57.40 Top of spur, brs.N.30°W. and south; descend 117 ft.

63.25 Dry ravine, at foot of descent in canyon, 15 lks.wide, course S. 40°E.; ascend SW.slope 101 ft.

74.20 Top of spur, brs.N. and S.60°E.; descend NE.slope,105 ft.

79.85 Dry ravine, at foot of descent in canyon, 6 lks.wide, course S.70°E.; ascend SW.slope, 55 ft.

80.06 (Proportional dist.) Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in the ground for reestablished cor. of secs. 4,5,32 and 33, marked on brass cap,
T 11 N in N.,
T 10 N, 1915 in S., and
R 18 E in W.half;
S 32 in NW.,
S 33 in NE.,
S 4 in SE., and
S 5 in SW.quadrant; ffom which
A pine, 22 ins. in diam., brs.N.50½°E.,133 lks. lks.dist., marked T 11 N R 18 E S 33 B T.
A pine, 18 ins. in diam., brs.S.55¼°E., 110 lks. dist., marked T 10 N R 18 E S 4 B T.
A pine, 30 ins. indiam., brs. S.39½°W.,68 lks. dist., marked T 10 N R 18 E S 5 B T.
A pine, 10 ins. in diam., brs.N.26½°W., 10 lks. dist., marked T 11 N R 18 E S 32 B T,

At this cor., I set off 17° 29½'N.on the decl.arc,and at noon, apparent time May 10, 1915, observe the sun on the meridian, and obtain a reading of 34°17'N.on the lat.arc, which is a,little higher than the latitude ohtained on former days.
Land, mountainous, spurs steep, rocky washed on slopes.
Soil, poor, dry stony clay loam, 3 to 8 ins.deep,on dry stony clay subsoil.
Timber, oak,juniper, cedar and pine.

N.88° 31'E., on a true line, betl secs. 4 and 33.
Ascend W slope, of spur, 33 ft., over stony, mountainous land, through heavy pine, juniper, and oak timber and brush.

20.00 Top of spur, brs.N.and S.; descend 93 ft.

27.00 Dry ravine, 6 lks.wide, course south; ascend 56 ft.

30.00 Top of spur, brs.N.10°E. and S.10°W.; descend 40 ft.

33.40 Dry ravine, 5 lks.wide, at foot of descent in canyon, course S.10°W.; ascend 39 ft.

37.90 Top of spur, brs.N.40°W. and S.40°E.1 descend 125 ft.

Chains.	
40.03	(Proportional dist.)Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for reestablished ¼ sec.cor., marked on brass cap, ¼ S 33 in N.,and S 4 1915 in S.half; from which An oak,6 ins. in diam., brs.N.1½°W.,55 lks.dist., marked ¼ S 33 B T. A pine, 8 ins. in diam., brs.S.26½°E., 59 lks. dist., marked ¼ S 4 B T.
44.87	Dry ravine, 6 lks.wide, at foot of descent in canyon, course S.40°E.; ascend spur 23 ft.
49.00	Top of spur, brs.N~ and S.; descend 83 ft.
54.35	Dry ravine, 20 lks.wide, in canyon, course south; ascend 82 ft.
65.00	Top of spur, brs.N.15°E. and S.15°W.; descend 129 ft.
77.00	Dry ravine, at foot of descent in canyon, 15 lks.wide, course south; ascend 65 ft.
80.06	Intersect the old cor. of secs.3,4,33 and 34,hereinbefore described.
	Land, mountainous; spurs with steep slopes, covered with loose boulders.
	Soil, poor dry, stony clay loam, 3rd rate.
	Timber, oak, juniper, cedar and pine.
	Good growth grass.
	May 10, 1915.

14. Resurvey of part of the E. bdy. of Township 10 N.,R.18 E.

Chains.

I examine the adjustments of the transit,and find them to be correct, and know from recent tests of the solar apparatus, by comparing its indications, resulting from solar observations, made during a.m. and p.m. hours with a meridian established by observations on Polaris, that the instrument is in satisfactory adjustment.

For last complete test of instrument, see "Book "G".

I begin at the old cor.of secs.7,12,13, and 18 on W.bdy. of Tp., described in Book "G."

This cor.being in a dilapidated condition, I reestablish it as follows: I destroy the old cor., and reset the same stone in its original position 10 ins. in the ground for cor.of secs.7,12,13 and 18, marked with 2 notches on N. and 4 notches on S.edges; from which

A pine, 10 ins. in diam., brs.N.42½°E., 120 lks.dist., marked T 10 N R 19 E S 7 B T.

Original bearing tree, a juniper 20 ins. in diam., brs.S.48¾°E., 97 lks.dist., marked T 10 N, R 19 E S 18 B T.

Original bearing tree, a juniper, 16 ins. in diam., brs.S.39¼°W., 48 lks.dist., marked T 10 N R 18 E S 13 B T.

Original bearing tree, a juniper, 20 ins. in diam., brs.N.32°W., 82 lks.dist., marked T 10 N R 18 E S 12 B T.

At 3h. 56½m., p.m., l.m.t., I set off 34° 14¾'N.on the lat.arc; 19°54'N., on the decl.arc, and determine a meridian with the solar at this cor.

Thence,

North, on a random line, bet. secs.7 and 12.

39.95 Fall 36 lks.W. of the old ¼ sec.cor., which is a soft sand stone 8x6x2 ins., loosely set ina mound of stone, marks almost obliterated, witnessed by two original bearing trees described by the surveyor general.

True course and dist. of S.½ of line, bet. secs. 7 and 12 is therefore S. 0°31' W., 39.95 chs.

From old ¼ sec.cor. described above,

North, on a random line, on N.½ bet. secs. 7 and 12.

40.20 Fall 7 lks.W.of the old cor.of secs.1,6,7.and 12,described in Book "G."

This cor.being in a dilapidated condition and insufficiently witnessed, I reestablish it as follows:

I destroy all trace of the old cor., and in the same place set an iron post 3 ft.long, 3 ins. in diam.,24 ins. in the ground for cor.of secs.1,6,7 and 12,marked on brass cap,

T 10 N in N., and
1915 in S.half;
R 18 E, S 1 in NW.,
R 19 E, S 6 in NE.,
S 7 in SE., and
S 12 in SW.quadrant; from which

A pine,10 ins. in diam., brs.N.44°E., 122 lks. dist.,,marked T 10 N R 19 E S 6 B T.

Original bearing tree, a pine, 16 ins. in diam., brs.S.58°E., 84 lks.dist., marked T 10 N R 19 E, S 7 B T.

A pine, 14 ins. in diam., brs.S.19½°W.,74 lks. dist., marked T 10 N R 18 E S 12 B T.

A pine,16 ins.in diam., brs.N.21½°W.,67 lks. dist., marked T 10 N R 18 E S 1 B T.

True course and dist. of N.½ of line, bet. secs.7 and 12 is therefore S.0° 6'W., 40.20 chs.

May 20, 1915.

May 22, 1915. At 7h. 56½'m.a.m., I set off 34° 15½'N. on the lat.arc; 20°16'N.on the decl.arc, and determine a meridian with the solar at above described cor.

Thence

S.0°06'W., on a true line, on N.½, bet. secs.7 and 12.

Ascend NW slope, 102 ft.,over mountainous land,through heavy pine timber and juniper brush.

Chains.

10.20 Top of spur brs.N.10°E.; descend 36 ft.

27.20 Dry ravine, 6 lks.wide, course N.20°E.;ascend 81 ft.

33.40 Wire fence along N. bdy.of the Fort Apache Indian Reservation brs.N.70°W.and S.70°E.at top of ascent on the "Mogollon Rim"brs.N.70°W.and S 70°E.;descend 131 ft.

33.65 Intersect the N.bdy.of the Fort Apache Indian Reservation 1.90 chs. N. 59°40'W.of Angle point No.685,which is a sandstone 12x8x8 ins., marked and witnessed as described by the surveyor general.

At the point of intersection, set an iron post 3 ft.long, 3 ins.in diam.,24 ins.in the ground,for reestablished closing cor.of Ts.10 N.,Rs.18and 19 E., marked on brass cap,

C C N of center,
T 10 N in N., and
FAIR, 1915 in S half;
R 18 E in NW.,
R 19 E S 7 in NE., and
S 12 in SW.sector.

From this cor., the unaccepted closing cor. of Ts.10 N., Rs.18 and 19 E., brs.N.59°40'W., 9 lks.dist. I destroy all trace of this closing cor., and the marks on the bearing trees to same.

40.20 Intersect the old ¼ sec.cor. hereinbefore described,which I destroy and reestablish in original position,as follows:

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

¼ S 12 in W.,
S 7 in E., and
1915 in S.half; from which,original bearing trees:

An oak,6 ins.in diam.,brs.S.67°E.,48 lks.dist., marked ¼ S 7 B T.
An oak, 8 ins. in diam., brs.S.61½°W.,43 lks. dist., marked ¼ S 12 B T.

Thence,
S.0°31'W., on a true line, bet. secs.7 and 12.

11.95 Dry ravine, 8 lks.wide, course S.50°W.; ascend 34 ft.

15.95 Top of spur,brs.N.50°E. and S.40°W.; descend 20 ft.

31.30 Dry ravine, 10 lks.wide, course S.20°W.ascend 23 ft.

37.25 Top of spur,brs.N.30°E. and S.30°W.;dascend 23 ft.

39.95 Intersect the reestablished cor. of secs.7,12,13 and 18, hereinbefore described.

Land, mountainous, spurs steep,covered with oak and manzanita brush.

Soil, dry, stony clay loam, about 8 ins. deep on dry clay subsoil.

Timber,oak, juniper and pine.

May 22, 1915.

May 24, 1915. At 6h. 26.6m. a.m.,l.m.t., I set off 34° 14¾'N. on the lat.arc; 20°40'N. on the decl.arc, and determine a meridian with the solar at the reestablished cor.of secs. 7,12,13 and 18,hereinbefore described.

Thence,
South, on a random line, bet. secs.13 and 18.

39.95 Fall 34 lks.E. of the old ¼ sec.cor., which is an oak post 3 ins. in diam., 26 ins. above ground, greatly decayed, marks almost obliterated, withessed by the two original bearing trees described by the surveyor general.

True course and dist. of N.½ of line, bet. secs.13 and 18 is therefore N.0°29'E.,39.95 chs.

From old ¼ sec.cor., described above,
South, on a random line on S.half; bet. secs.13 and 18.

40.27 Fall 30 lks.E. of the old cor.of secs.13,18,19 and 24, which is a sandstone 12x10x6 ins., above ground,firmly set,marked and witnessed as described by the surveyor general.

True course and dist.of S.½ of line,bet.secs.13 and 18,

Chains.

is therefore N.0°26'E.,40.27 chs.
Thence,
N.0°26'E.,on a true line,on S.½,bet.secs.13 and 18.
Descend NW.slope, 34 ft.,over mountainous land,through heavy pine and juniper timber.
8.00 Dry ravine, 6 lks.wide, course west; ascend S.slope of spur, 135 ft.
25.27 Top of spur, brs. N.20°E.and S.20°W.;descend 63 ft.
40.27 Intersect the old ¼ sec.cor.,hereinbefore described,which I destroy, and reestablish in the same place as follows:
Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for ¼ sec.cor., marked on brass cap,
¼ S 13 in W.,
S 18 in E., and
1915 in S.half; from which,original trees:
A pine, 10 ins. in diam., brs.N.74½°E., 14 lks. dist., marked ¼ S 18 B T.
A pine,12 ins. in diam., brs.N.64½°W.,40 lks. dist., marked ¼ S 13 B T.
Thence,
N.0°29'E., on a true line, on N.½, bet. secs.13 and 18.
14.40 Dry ravine, 10 lks.wide, course S.70°W.;ascend 133 ft.
24.98 Top of spur, brs.N.20°E. and S.20°W.;descend 123 ft.
39.95 Intersect the reestablished cor.of secs.7,12,13 and 18, hereinbefore described.
Land, mountainous, drains to the southwest.
Soil,poor,dry, stony clay loam, 3rd rate.
Timber,oak, juniper and pine.

May 24, 1915.

May 27,1915. At 10h.56.9m.a.m.,l.m.t.,I set off 34°14¾'N., on the lat.arc;21°13'N.on the decl.arc,and determine a meridian with the solar at the old cor.of secs.13,18, 19 and 24, hereinbefore described.
Thence,
South,on a random line, bet. secs.19 and 24.
39.78 Fall 8 lks.E.of the old ¼ sec.cor., which is a sandstone 16x12x8 ins., loosely set in a mound of stone, marked ¼ on W.face, and witnessed by two original bearing trees:
True course and dist.of N.½ of line,bet.secs.19 and 24 is therefore N.0°7'E.,39.78 chs.
From old ¼ sec.cor.described above,
South,on a random line on S.½,bet.secs.19 and 24.
40.17 Fall 10 lks.E.of the old cor.of secs.19,24,25 and 30,which is a sandstone 60x48x24 ins.in place,marked and witnessed as described by the surveyor general.
True course and dist.of S.½ of line bet.secs.19 and 24 is therefore N.0°9'E.,40.17 chs. Thence
N.0°9'E.on a true line,on S.½ bet.secs.19 and 24.
Ascend along W.slope of spur,110 ft.
39.70 Top of ascent on W.slope of spur;descend over NW.slope,21ft.
40.17 Intersect the old ¼ sec.cor.,hereinbefore described,which I destroy and reestablish in same place as follows:
Reset the same stone,12 ins.in the ground for ¼ sec.cor., marked ¼ S on W.face, from which original bearing trees:
A pine,30 ins.in diam.,brs.S.29°E.,27 lks.dist., marked ¼ S 19 B T., and
An oak,12 ins.in diam.,brs.S.50°W.,12 lks.dist., marked ¼ S 24 B T.
At this cor.at noon, apparent time,May 27,1915,I set off 21°13½'N.on the decl.arc,observe the sun on the meridian,and obtain a reading of 34°13½'N.on the lat.arc.
Thence,
N.0°07'E.,on a true line,on N.½,bet.secs.19 and 24.
0.40 Dry ravine,10 lks.wide,course S.70°W.;ascend 73 ft.
11.40 Top of spur, brs.N.10°E.and S.10°W.;descend 79 ft.
19.60 Dry ravine,15 lks.wide,course S.20°W.;ascend 72 ft.
39.78 Intersect the old cor.of secs.13,18,19,and 24,hereinbefore described.

Resurvey of part of the E.bdy.of Township 10 North,Range 18 E. 17

Chains.

Land, mountainous, spurs steep, rocky, covered with oak and juniper brush.
Soil, dry, stony clay loam, 3 to 8 ins. deep on stony clay subsoil.
Timber, oak, juniper and pine.

May 27, 1915.

18. Resurvey of part of South bdy. of Township 10 North, Range 19 E.

Chains.

June 4, 1915, I examine the adjustments of the transit and find them to be correct, and know from recent tests of the solar apparatus made by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian established by observations on Polaris that the instrument is in satisfactory adjustment.

I begin at the reestablished cor. of secs. 1,2,35 and 36, described in Book "G." Latitude, 34°11'N.; longitude, 110°17'W.

At 1h.43m. p.m., l.m.t., I set off° 34°11'N. on the lat. arc; 22°23½'N. on the decl. arc, and determine a meridian with the solar at this cor.

Thence,

West, on a random line, bet. secs.2 and 35

39.78 Fall 3 lks.N. of the old ¼ sec.cor., which is a sandstone 16x12x10 ins., loosely set, marked ¼ S on N.face, and witnessed by the two bearing trees described by the surveyor general.

True course and dist. of E.half of line, bet. secs. 2 and 35 is therefore N.89°57'E., 39.78 chs.

From old ¼ sec.cor. described above,

West, on a random line on W.half, bet. secs.2 and 35.

40.40 Intersect the old cor. of secs.2,3,34 and 35, which is a sandstone 14x12x6 ins. above ground, firmly set, marked with 2 notches on E. and 4 notches on W.edges; from which,

Original bearing tree, an oak brs.N.31½°E., 42 lks.dist., marked T 10 N R 19 E S 35 B T.

A pine, 26 ins. in diam., brs.S.19°E., 97 lks. dist., marked T 9 N R 19 E S 2 B T.

Original bearing tree, 12 ins. in diam., brs.S. 54°W., 40 lks.dist., marked T 9 N R 19 E S 3 B T.

Original bearing tree, a pine, 20 ins. in diam., brs.N.65°W., 45 lks.dist., marked T 10 N R 19 E S 34 B T.

True course and dist. of W.½ of line, bet. secs.2 and 35 is therefore east, 40.40 chs.

Thence,

East, on a true line, on W.½, bet. secs.2 and 35.

Ascend SW.slope of spur, 304 ft., over stony mountainous land, through pine, oak and juniper timber.

20.90 Top of spur, brs.N.20°W. and S.20°E.; descend 216 ft.

37.45 Dry ravine, 20 lks.wide, course SE.; ascend 228 ft.

38.80 Road from Pinedale to Cibicu, Arizona, brs.N.10°E. and S. 10°W.

40.40 Intersect the old ¼ sec.cor. hereinbefore described, which I reestablish as follows: Reset the same stone in original postion, 12 ins. in the ground for ¼ sec.cor., marked ¼ S on N.face, from which

Original bearing tree, a pine, 26 ins. in diam., brs.N.72°E., 35 lks.dist., marked ¼ S 2 B T.

Original bearing tree, a pine 24 ins. in diam., (dead) brs.S.37°E., 41 lks.dist., marked ¼ S B T.

No other trees suitable for bearing trees available; raise a mound of stone 2 ft. base, 1½ ft. high, N.of cor.

Pits impracticable.

Thence,

N.89°57'E., on a true line, on E.½, bet. secs.2 and 35.

7.78 Top of spur, brs.N.20°E. and S.20°W.; descend 56 ft.

27.48 Dry ravine, 10 lks.wide, course S.40°W.; ascend 182 ft.

39.78 Intersect the reestablished cor. of secs.1,2,35 and 36, described in Book "G."

Land, mountainous, spurs steep, covered with stone and oak, and juniper brush.

Soil, poor dry, clay loam, 3rd rate.

Timber, oak, juniper and pine.

June 4, 1915.

Resurvey of part of the South bdy of Township 10 N., R.19 E: 19

Chains.

June 6, 1915. At 2h. 43.3m. p,m., l.m.t., I set off 34° 11'N. on the lat.arc; 22°37'N. on the decl.arc; and determine a meridian with the solar at the reestablished cor. of Ts.9 and 10 N., Rs.19 and 20 E.,hereinafter described.

Thence

West, on a random line, bet. secs.1 and 36.

40.38 Fall 8 lks.N.of the old ¼ sec.cor., which is a sandstone 12x10x6 ins. above ground, loosely set, marked ¼ on N.face, witnessed by one of the original bearing trees described by the surveyor general.

True course and dist.of E.½ of line, bet. secs.1 and 36 is therefore N.89°53'E., 40.38 chs.

From old ¼ sec.cor. described above,

West, on a random line on W.½, bet. secs.1 and 36.

40.25 Fall 1 lk.S. of the reestablished cor.of secs.1,2,35 and 36, described in Book "G."

True course and dist. of W.½ of line, bet.secs.1 and 36 is therefore S.89° 59'E., 40.25 chs.

Thence

S.89° 59' E., on a true line on W.½, bet. secs.1 and 36.

Ascend W. slope of spur 60 ft., over stony mountainous land, through pine, juniper and oak timber and brush.

16.25 Top of spur, brs.N.and S.; descend 162 ft.

39.05 Dry ravine, 10 lks.wide, course S.20°E.; ascend 87 ft.

40.25 Intersect the old ¼ sec.cor. hereinbefore described, which I reestablish in original position, as follows:

Reset the same stone 8 ins. in the ground for ¼ sec.cor., marked ¼ S on N.face, from which,

A juniper,12 ins. in diam. brs.N.29°E., 86 lks. dist., marked ¼ S 36 B T.

Original bearing tree, an oak, 12 ins. in diam., brs.S.33¾°W., 26 lks.dist., marked ¼ S 1 BT.

Thence

N.89°53'E. on a true line on E.½, bet. secs.1 and 36.

6.38 Top of spur, brs.N.20°W. and S.20°E.; descend 24 ft.

11.73 Dry ravine, 10 lks. wide, course S. 20° E.; ascend 61 ft.

19.38 Top of spur brs.N. and S.; descend 84 ft.

28.78 Dry ravine, 15 lks.wide in bottom of canyon, course S.10° W.; ascend 143 ft.

37.38 Top of spur, brs. N.10°E. and S.10°W.; descend 17 ft.

40.38 Intersect the reestablished cor. of Ts. 9 and 10 N.,Rs.19 and 20 E.,hereinafter described.

Land, rough mountains, drains to the south; spurs steep, rocky, covered with oak and juniper brush.

Soil, poor dry stony clay loam, 3rd rate.

Timber, oak, juniper and pine.

June 6, 1915.

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20. Resurvey of the East bdy.of Township 10 N.,R.19 E.

Chains. June 6,1915.

I examine the adjustments of the transit, and finding them to be correct, I know from recent tests of the solar apparatus, made by comparing its indications,resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris that the instrument is in satisfactory adjustment.

For last complete test of the instrument, see Book "G."

Preliminary to commencing the survey of the subdivision lines of T.10 N.,R.20 E., I retrace the north,east and west boundaries in order to determine the proper method to pursue in the execution of the subdivisional survey, and find from this retracement that each of these lines is defective in alinement and measurement in excess of the allowable limits prescribed in the Manual,and hence are subject to rectification; their alinement, however,cannot be changed owing to the fact that subdivision lines have either been initiated from or closed upon these boundaries in the townships on the north, east and west, which have already been surveyed; therefore I rectify the north and east boundaries in accordance with section 257 of the Manual, and retrace and resurvey the west boundary, reestablishing the defective and obliterated old corners in their original positions, so changed as to refer to secs. and ¼ secs. in T.10 N.,R.19 E., as described in the following notes, wherein the line is resurveyed as the east bdy.of said Tp.

I begin at the old cor.of secs.25,30,31 and 36, which is a sandstone 8x8x12 ins., loosely set in a mound of stone , marked with 5 notches on N. and 1 notch on S. edges, witnessed as described by the surveyor general; latitude 34°12'12"N.; longitude, 110°16'04"W.

The magnetic bearing of the true meridian at 10 a.m. is N.13°40'W.; the angle thus determined gives the mag. decl. 13°40'E.

At 1h.28m. p.m., l.m.t., I set off 34°12'N. on the lat. arc; 22°37'N. on the decl.arc, and determine a meridian with the solar at the above described cor.

Thence,

S.0°05'W., on a random line on E.bdy.of sec.36.

40.16 Fall 26 lks.E. of the remains of the old ¼ sec.cor.,which is the decayed end of an oak post about 8 ins.long in center of remains of earth mound from which the original bearing trees,

A pine, 16 ins. in diam., brs.S.78½°E.,37 lks. dist., marked ¼ S B T.

A dead pine, 14 ins. in diam., brs.S.29½°W.,27 lks.dist., marked ¼ S B T.

True course and dist. of N.½ of E.bdy.of sec.36 is therefore N.0°27'E., 40.16 chs.

From old ¼ sec.cor. described above,

S.0° 05'W., on a random line on S.½ of E.bdy.of sec.36.

40.18 Fall 20 lks.E.of the old cor.of Tps.9 and 10 N.,Rs.19 and 20 E., which is a sandstone 10x10x3 ins.,loosely set in a mound of stone, marked with 6 grooves on N.,E., S. and W. faces, from which two of the original bearing trees;

A pine, 12 ins. in diam., brs. N.24°E.,48 lks. dist., marked T 10 N R 20 E S 31 B T.

A dead oak 8 ins. in diam., broken off 4 ft. above the ground, brs.S.89° W.,86 lks.dist., marked T 9 N R 19 E S 1 BT.

No trace can be found of the pine, described as the SE. bearing tree.

The above described cor. being in a dilapidated condition and insufficiently witnessed, I reestablish in the same place as follows:

Chains.

Reset the same stone, 10 ins. in the ground for cor. of Ts.9 and 10 N., Rs.19 and 20 E., from which,
Original bearing tree, a pine 12 ins. in diam., brs.N.24°E., 48 lks.dist., marked T 10 N R 20 E S 31 B T.
A juniper, 8 ins. in diam., brs.S.27½°E., 85 lks.dist., marked T 9 N R 20 E S 6 B T.
A pine, 20 ins. in diam., brs. S.32½°W., 130 lks.dist.,marked T 9 N R 19 E S 1 B T.
A pine, 16 ins. in diam., brs.N.9¼°W., 52 lks. dist., marked T 10 N R 19 E S 36 B T.
I destroy the marks on the dead oak in sec.1.
True course and dist. of S.½ of E. bdy. of sec.36 resulting from above noted falling is therefore N.0°22'E.,40.18 chs.
At apparent noon,June 6,1915, I set off 22°36½'N.,on the decl.arc, observe the sun on the meridian, and obtain a lat. reading of 34° 11'N., at the above described cor.
Thence,
N.0°22'E., on a true line, on S.½ of E.bdy.of sec.36.
Ascend SE.slope, 40 ft, over mountainous land, through scattering oak and juniper and heavy pine timber.

5.20 Top of ascent on the Mogollon Rim, brs.N.85°E. and S.85°W.; descend gradually over rolling N.slope.

23.66 Intersect the N.bdy.of the Fort Apache Indian Reservation, 13.59 chs.N.85°30'E. of Angle point No.605, which is a pine, 24 ins. in diam., marked as described by the surveyor general. At point of intersection,
Set an iron post 3 ft.long, 3 ins. in diam, 24 ins. in the ground for reestablished closing cor.of Ts.10 N., Rs.19 and 20 E., marked on brass cap,
C C N of center,
T 10 N in N., and
F A I R, 1915 in S.half;
R 19 E in NW.,
S 31 in NE.,
R 20 E in SE., and
S 36 in SW.sector.
From this corner, the unaccepted closing cor. set by Deputy Charles E.Perkins, under contract No.40,brs. S 59°45'E., 14 lks.dist., which cor.I destroy, and the marks on the bearing tree to same.

23.67 Wire fence brs.N.85½°E. and S.85½°W.

40.18 Intersect the old ¼ sec.cor. hereinbefore described,which I destroy, and reestablish in same place as follows:
Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for ¼ sec.cor. of sec.36,T.10 N.,R.19 E. only, marked on brass cap,
¼ S 36 in W., and
1915 in S.half; from which
An oak, 8 ins. in diam., brs.S.38½°W., 68 lks. dist., marked ¼ S 36 B T.
A juniper, 30 ins. in diam., brs.N.64°W.,9 lks. dist., marked ¼ S 36 B T.
I destroy the marks on the old bearing trees at this cor.
Thence
N.0°27'E., on a true line, on N.½ of E.bdy.of sec.36.

5.18 Intersect the unaccepted ¼ sec.cor.,set by Deputy Charles E. Perkins, which I destroy.

6.21 Foot of gradual descent in dry ravine, 50 ft. below top of rim, course N.40°E.; ascend steep SE.slope of spur, 80 ft.

20.02 Top of spur, brs.NE. and SW.; descend gradually along top of spur.

40.16 Intersect the old cor.of secs.25,30,31 and 36,hereinbefore dewcribed; this cor.being in a dilapidated condition, I reestablish in same place, as follows:
Reset the same stone, 12 ins. in the ground for cor.of secs. 25,and 36, T.10 N., R.19 E.only, from which,
A pine, 8 ins. in diam., brs.N.49½°W., 26 lks. dist., marked T 10 N R 19 E S 25 B T.

Chains.

A pine, 8 ins. in diam., brs.S.39½°W., 29 lks. dist., marked T 9 N R 19 E S 36 B T.

Land, rolling, mountainous.

Soil, poor, stony clay loam about 8 ins. deep on dry stony clay subsoil.

Timber, oak, juniper and pine.

June 6, 1915.

June 7, 1915. At 1h. 58m.p.m.,l.m.t., I set off 34°12'N. on the lat.arc; 22°43'N. on the decl.arc, and determine a meridian with the solar at the reestablished cor. of secs. 25 and 36, hereinbefore described.

Thence

N.0°5'E., on a random line, on E. bdy.of sec. 25.

40.20 Fall 2 lks.W.of the old ¼ sec.cor., which is a sandstone 12x6x6 ins., loosely set in a mound of stone, marked ¼ on W. face, witnessed by original bearing tree NW. of cor. The NE. bearing tree missing.

True course and dist. of S.½ of E.bdy.of sec.25 is therefore N.0°7'E.,40.20 chs.

N.0°5''E. on a random line on N.½ of E.bdy.of sec.25.

40.03 Fall 9 lks.E. of the old cor.of secs.19,24,25 and 30,which is a sandstone 6x6x4 ins. above ground, loosely set, marked with 4 notches on N. and 2 notches on S.edges witnessed by two of the original bearing trees NE.and NW.of cor. The SW.bearing tree is missing.

True course and dist. of N.½ of E.bdy.of sec.25,is therefore N.0°3'W., 40.03 chs.

June 7, 1915.

June 29, 1915. I return to the reestablished cor.of secs. 25 and 36, where, at 8h.2m. a.m.,l.m.t., I set off 34° 12'N. on the lat.arc; 23°17'N. on the decl.arc; and determine a meridian with the solar.

Thence,

N.0° 07'E., on a true line, on S.½ of E.bdy.of sec.25.

Descend NW slope of spur, over mountainous land, through scattering oak and juniper, and heavy pine timber.

.82 Intersect the unaccepted closing cor. of secs.30 and 31,T. 10 N.,R.20 E., set by Deputy Charles E.Perkins,which I destroy.

13.65 Dry ravine 20 lks.wide, at foot of descent, 40 ft.below cor., course N.20°E.; ascend SE.slope of spur 25 ft.

30.20 Top of spur, brs.N.10°E. and S.10°W.; descend NW.slope, 50 ft.

40.20 Intersect the old ¼ sec.cor., hereinbefore described,which I destroy,and reestablish in the same place as follows:

I reset the same stone 8 ins. in the ground for ¼ sec.cor. of sec.25,T.10 N.,R.19 E.only, from which

Original bearing tree, a pine 20 ins. in diam., brs.N.68½°W., 25 lks. dist., marked ¼ S 25 B T.

A pine, 14 ins. in diam., brs.S.60°W., 48 lks. dist., which I mark ¼ S 25 B T.

Thence

N.0° 03' W., on a true line on N.½ of E.bdy. of sec.25.

20.25 Road from Cibicu to Pinedale, Arizona, brs.E.and W.

23.80 Center of dry bed of the Mortison Wash 30 lks.wide,course east; ascend S.slope of spur, 150 ft.

35.80 Top of spur, brs.N.20°E., and S.20°W.; descend NW.slope,

39.31 Intersect the closing cor. of secs.19 and 30,T.10 N.,R.20 E., described in Book "H."

40.03 Intersect the old cor.of secs.19,24,25 and 30,hereinbefore described, which I destroy and reestablish in the same place as follows:

Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for cor.of secs. 24 and 25, T.10 N.,R.19 E. only, marked on brass cap,

T 10 N in N.,
R 20 E S 19 S 30 in E.; and
1915 in S.half;

Chains.

R 19 E S 24 in NW., and
S 25 in SW. quadrant; from which,
Original bearing tree, a pine 10 ins. in diam., brs.N.62¼°W., 27 lks.dist., marked T 10 N R 19 E S 24 B T.
A pine, 10 ins. in diam., brs.S 32°15'W., 26 lks.dist., which I mark T 10 N R 19 E S 25 B T.
I obliterate marking on the original NE. bearing tree.
Land, mountainous, drains to the NE. N.slope of spurs steep, covered with loose stone.
Soil, poor stony clay loam on dry stony clay subsoil.
Timber, oak, juniper and pine.

June 29, 1915.

June 8,.1915. At 6h, 29m. a.m.,l.m.t., I set off 34°13' N.on the lat.arc; 22°48½'N. on the decl.arc. and determine a meridian with the solar at the old cor. of secs. 19,24, 25 and 30, hereinbefore described.
Thence,
N.0° 05'E., on a random line on E.bdy.of sec.24.

40.00 No trace of the original ¼ sec.cor. can be found after diligent search; therefore, continue line and measurement.

80.20 Fall 5 lks.W. of the original cor.of secs.13,18,19 and 24, which is a sandstone 12x10x6 ins. loosely set in a mound of stone, marks almost obliterated, witnessed as described by the surveyor general.

True course and dist. of E.bdy. of sec.24 is therefore N. 0°7'E., 80.20 chs.

June 8, 1915.

June 29,1915. From reestablished cor.of secs.24 and 25, hereinbefore described,
N.0°07'E., on a true line, on E.bdy.of sec.24.
Descend NW. slope of spur, over stony, mountainous land, through scattering oak and juniper and heavy pine timber.

.70 Intersect the unaccepted closing cor.of secs.19 and 30, T.10 N., R.20 E., set by Deputy Charles E.Perkins. I destroy all evidence of this cor.

10.20 Dry ravine, 130 ft. below cor., 6 lks.wide, course N.50° W.; ascend SE. slope, 100 ft.

14.00 Top of spur, brs.N.50°W. and S.50° E.; descend NE.slope, 100 ft.

23.70 Foot of descent; leave timber, brs.NE. and SW.; enter flat brs.NE. and SW.

28.35 Road from Cibicu to Pinedale,Arizona, brs.N.30°E. and S.30° W.

33.65 Center of water canyon, cross stream clear water,20 lks. wide , 4 ins. deep on gravel bottom, course N.30°E.

34.40 North bank of creek, 15 ft. high; thence over nearly level bottom land.

40.10 Set a granite stone, 12x10x4 ins., 8 ins. in the ground for reestablished ¼ sec.cor. of sec. 24 only, marked ¼ S 24 on W.face; dig pits 18x18x12 ins. N.and S.of stone 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ft. high,W.of cor.

41.00 Leave flat, brs.N.60°E. and S.60°W.; ascend SW. slope of spur,110 ft.

49.00 Enter oak, pine and juniper timber, brs. NW and SE.

78.00 Top of spur, brs.N.40°E. and S.40°W.; descend 88 ft.

79.38 Intersect the closing cor.of secs.18 and 19,T.10 N.,R.20 E., described in Book "H."

80.20 Intersect the old cor.of secs.13,18,19 and 24,hereinbefore described, which I destroy, and reestablish in the same place as follows:
Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in

Chains.

the ground for cor.of secs.13 and 24, T.10 N.,R.19 E. only, marked on brass cap,
T 10 N on N.,
R 20 E S 18 S 19 in E., and
1915 in S.half;
R 19 E S 13 in NW., and
S 24 in SW. quadrant; from which the Original bearing trees bear as follows:
A pine, 14 ins. in diam.,brs.N.33°45'E. 65 lks. dist.,marked T10NR20ES18 BT.
A pine,12 ins.in diam.,brs.S.40°45'E.,49 lks. dist.,marked T 10NR20ES19 BT, which marking I change to read "T10NR20ES18 BT."
A pine,12 ins.in diam.,brs.S.13°15'W., 68 lks. dist.,marked T 10NR19ES24 B T.
A pine,16 ins.in diam.,brs.N.39°30'W.,41 lks. dist.,marked T 10NR19ES13 BT.

I add an additional bearing tree, as follows:
A pine, 14 ins. in diam., brs.S.56°W.,90 lks. dist.,which I mark T10NR19ES24 BT.

Land, rolling and mountainous, drains to the east and northeast.

Soil of the mountainous portion of this mile poor stony clay loam on dry clay subsoil. The soil of the bottom land along Water Canyon is a stiff black adobe clay loam, underlaid with a stony clay subsoil.

Timber, oak, juniper and pine.

Mountainous land, 62.90 chs.

June 29,1915.

June 8, 1915.

From the old cor.of secs. 13,18,19 and 24,hereinbefore described,

N.0° 05'E., on a random line, on E.bdy.of sec.13.

39.90 Fall 12 lks.W.of the original ¼ sec.cor., which is a sandstone 12x10x8 ins., above ground, loosely set,marked ¼ on W.face. Original bearing tree NE.of cor. The SW.bearing tree is missing.

True course and dist. of S.½ of E.bdy.of sec.13 is therefore N. 0°15'E., 39.90 chs.

From old ¼ sec.cor., described above,

N.0°5'E. on a random line on N.½ of E.bdy.of sec.13.

40.16 Fall 15 lks.W. of the original cor.of secs.7,12,13 and 18. which is a sandstone 10x8x2 ins., above ground, loosely set, marks almost obliterated, witnessed by original bearing trees NE.,SE. and NW.of cor. The SW.bearing tree is missing.

True course and dist.of N.½ of E bdy.of sec.13 is therefore N.0° 18'E., 40.16 chs.

June 8,1915.

June 29, 1915.

From the reestablished cor.of secs. 13 and 24,hereinbefore described,

N.0°15'E., on a true line, on S.½ of E bdy.of sec.13.

Descend NW. slope of spur, 5 ft., over stony mountainous land, through scattering oak and juniper and heavy pine timber.

7.70 Dry ravine, 6 lks.wide, course N.50°E.; ascend spur 5 ft.

12.00 Top of spur, brs.NE. and SW.; descend NW.slope, 86 ft.

20.50 Dry ravine, 8 lks.wide, course N.10°W.; ascend 8 ft.

21.50 Point of spur brs.NW. and SE.; descend NE.slope,10 ft.

22.70 Same ravine, 10 lks.wide, course N.10°E.;ascend spur 48 ft.

25.75 Top of spur, brs.NE. and SW.; descend 50 ft.

39.90 Intersect the old ¼ sec.cor. hereinbefore described,which I destroy, and reestablish in the same place as follows:

Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in

Chains.

the ground for ¼ sec.cor. of sec.13, only, marked on brass cap,
¼ S 13 in W., and
1915 in S.half; from which,
Original bearing tree, an oak, 6 ins. in diam., bears N.41½°E., 55 lks.dist., marked ¼ S B T.
A pine, 10 ins. in diam., brs.N.41°W., 33 lks. dist., which I mark ¼ S 13 B T.

Thence
N.0° 18' E., on a true line on N.half of E.bdy.of sec.13.

0.05 Foot of descent in Lon's Canyon, cross sand wash, 20 lks. wide, banks 5 ft. high, course S. 80° E.; ascend steep S.slope, 240 ft.

39.20 Intersect the closing cor. of secs. 7 and 18, T.10 N., R. 20 E., described in Book "H."

40.16 Intersect the old cor. of secs.7,12,13 and 18, hereinbefore described, which I destroy, and reestablish in the same place, as follows:
Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins.in the ground for cor. of secs.12 and 13, T.10 N., R.19 E., only, marked on brass cap,
T 10 N in N.,
R 20 E S 7 S 18 in E., and
1915 in S.half;
R 19 E S 12 in NW.,
S 13 in SW. quadrant; from which original bearing trees, bear as follows:
An oak, 8 ins. in diam., brs.N.59½°E., 26 lks. dist., marked T 10 N R 20 E S B T.
An oak, 10 ins. in diam., brs.S.75½°E., 90 lks. dist., marked T 10 N R 20 E B T.
A pine, 24 ins. in diam., brs. N.73°W., 44 lks. dist., marked T 10 N R 19 E S 12 B T.
Replace the missing SW.bearing tree by a new bearing tree,
A pine, 16 ins. in diam., brs.S.73°W., 97 lks. dist., which I mark T 10 N R 19 E S 13 B T.
From this cor. the unaccepted closing cor.of secs.7 and 18 T.10 N/, R.20 E., set by Deputy Charles E.Perkins, under contract No.40, bears S. 10°E. 80 lks.dist.,
I destroy all trace of this cor., and the marks on the bearing trees to same.
Land, mountainous, drains to the east and northeast.
Soil, poor stony clay loam about 12 ins. deep on dry stony, clay subsoil.
Timber, oak, juniper and pine.
At the above described cor., I set off 23°16½'N.on the decl.arc, and at apparent noon June 29,1915, observe the sun on the meridian and obtain a reading of 34°15' N.on the lat.arc.

June 8, 1915.
From the old cor.of secs. 7,12,13 and 18, hereinbefore described,
N.0° 5'E., on a random line on E.bdy.of sec.12.

40.24 Fall 4 lks.E. of the old ¼ sec.cor., which is a sandstone 6x6x10 ins. above ground, loosely set, marked ¼ on W. face, witnessed by both of the original bearing trees, NE and SW.of cor.
True course and dist.of S.½ of E.bdy.of sec.12 is therefore N.0°2'E., 40.24 chs.
From old ¼ sec.cor. described above,
N.0° 5'E., on a random line on N.½ of E.bdy.of sec.12.

39.68 Intersect the old cor.of secs.1,6,7 and 12, which is a sandstone 12x6x6 ins. above ground, loosely set, marks almost obliterated, witnessed by all of the original bearing trees, NE., SE. and SW.and NW. of cor.
True course and dist. of N.½ of E.bdy.of sec.12 is therefore N.0°5'E.,39.68 chs.
At this cor., I set off 22°48½'N. on the decl.arc; and at noon, apparent time observe the sun on the meridian, the resulting lat.being 34°16'N. June 8,1915.

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BOOK 2977

26. Resurvey of East bdy. of T. 10 North, Range 19 East.

Chains.

June 29, 1915.
From the reestablished cor. of secs.12 and 13, hereinbefore described,
N.0°02'E., on a true line, on S.½ of E.bdy.of sec.12.
Ascend S slope of spur, over stony, mountainous land, through scattering oak and juniper, and heavy pine timber.

5.00 Top of stony ridge, 85 ft. above cor., brs.N.60° W., and S.60°E.; descend NE. slope, 129 ft.

21.30 Dry ravine, 8 lks.wide, course N.70°E.; ascend SE.slope of spur 60 ft.

26.00 Top of spur, brs.N.50°E. and S.50°W.; descend 150 ft.

38.80 Dry ravine, 6 lks.wide, course N.60°E.; ascend spur, 28 ft.

40.24 Intersect the old ¼ sec.cor. hereinbefore described, which I destroy and reestablish in the same place as follows:
Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the ground for ¼ sec.cor., of sec.12, marked on brass cap,
¼ S 12 in W., and
1915 in S.half; from which the original bearing trees,
A pine, 20 ins. in diam., brs.N.68½°E., 78 lks. dist., marked ¼ S B T.
A pine, 6 ins. in diam., brs.S.44°W., 69 lks. dist., marked ¼ S 12 B T.
Thence
N.0°5'E., on a true line, on W.half of E bdy.of sec.12.

2.01 Top of spur, brs.N.30°E. and S.30°W.; descend NW. slope 85 ft.

12.91 Dry ravine, 20 lks.wide, course N.70°E.; ascend SE.slope of spur, 145 ft.

35.01 Top of spur, brs.N.20°E. and S.20°W.; descend NW.slope of spur, 200 ft.

39.03 Intersect the closing cor.of secs.6 and 7, T.10 N., R.20 E., established by me, as described in Book "H."

39.68 Intersect the old cor.of secs.1,6,7 and 12, hereinbefore described, which I destroy, and reestablish in the same place, as follows:
Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in the ground for cor.of secs. 1 and 12, T.10 N., R.19 E. only, marked on brass cap,
T 10 N in N.,
R 20 E, S 6, S 7 in E., and
1915 in S.half;
R 19 E, S 1 in NW., and
S 12 in SW. quadrant; from which the original bearing trees,
A pine, 16 ins. in diam., brs.N.23°E., 110 lks. dist., marked T 10 N R 20 E B T.
A pine, 14 ins. in diam., brs.S.42½°E., 100 lks. dist., marked T 10 N R 20 E B T.
A pine 22 ins. in diam., brs.S.59°W., 24 lks. dist., marked T 10 N R 19 E S 12 BT.
A pine, 12 ins. in diam., brs.N. 49° W., 74 lks. dist., marked T 10 N R 19 E S 1 B T.
Land, rough mountains, broken over N.half mile.
Soil, poor, dry stony clay loam, about 6 ins. deep on dry stony clay subsoil.
Timber, oak, juniper and pine.

June 29, 1915.

June 8, 1915.
From the original cor.of secs.1,6,7 and 12, hereinbefore described,
N.0°05'E., on a random line on E.bdy.of sec.1.

39.62 Fall 6 lks.E.of the original ¼ sec.cor., which is a sandstone 12x10x6 ins., above ground, loosely set, marked ¼ on W.face, witnessed by both of the original bearing trees, SE. and SW. of cor.

29.60 [illegible] trees, 20 ins.

Chains.

True course and dist.of S.½ of E.bdy.of sec.1 is therefore North, 39.62 chs.
From old ¼ sec.cor., described above,
N.0° 05'E., on a random line on N.½ of E.bdy.of sec.1.

39.54 Fall 12 lks.E.of the old cor. of Ts.10 and 11 N.,Rs.19 and 20 E., which is a sandstone 12x10x6 ins. above ground, loosely set, marked with 6 notches on N.,E.,S. and W. edges, witnessed by all the original bearing trees,NE., SE.,SW. and NW.of cor.
True course and dist.of N.½ of E.bdy.of sec.1 is therefore N.0° 5'W., 39.54 chs.

June 8, 1915.

June 29,1915.
From the reestablished cor.of secs.1 and 12,hereinbefore described,
North,on a true line on S.½ of E.bdy. of sec.1.
Descend NW. slope of spur, over stony, mountainous land, through scattering oak and juniper and heavy pine timber and oak brush undergrowth, 6 ft.high.

20.60 Foot of steep descent in dry ravine, 6 lks.wide,190 ft. below sec.cor., course N.40°W.; ascend spur, 72 ft.

24.70 Top of spur, brs.N.40°W. and S.40°E.; descend NE.slope, 118 ft.

39.62 Intersect the old ¼ sec.cor.,hereinbefore described,which I destroy, and reestablish in the same place as follows:
Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for ¼ sec.cor. of sec.1, marked on brass cap,¼ S 1 in W., and 1915 in S.half; from which the original bearing trees,

A juniper, 12 ins. in diam.,brs.S.68½°E.,72 lks. dist., marked ¼ S B T., and
An oak stump,10 ins. in diam.,3 ft.high, brs. S.36½°W.,27 lks.dist.,marked ¼ S B T.

I destroy the marks on the old bearing trees and mark new bearing trees as follows:

A pine, 6 ins. in diam., brs.N.23½°W.,32 lks. dist., which I mark ¼ S 1 B T., and
An oak,6 ins. in diam., brs.S.29½°W.,40 lks. dist., which I mark ¼ S 1 B T.

Thence,
N.0° 05'W., on a true line, on N.½ of E.bdy.of sec.1.

23.25 Dry ravine, 6 lks.wide, course N. 60°W.; ascend SW.slope of spur, 24 ft.

25.50 Top of spur, brs.E and W.; descend N.slope, 106 ft.

39.54 Intersect the old cor.of Ts.10 and 11 N.,Rs.19 and 20 E., hereinbefore described, which I reestablish in its original position, as follows:
Reset the same stone,12 ins. in the ground for cor.of Ts. 10 and 11 N.,Rs.19 and 20 E., from which the original bearing trees,

An oak, 6 ins. in diam.,brs.N.48½°E., 37 lks. dist., marked T 11 N R 20 E S 31 B T.
A pine, 10 ins. in diam., brs.S.50°E., 47 lks. dist., marked T 10 N R 20 E S 6 B T.
An oak, 12 ins. in diam., brs.S 55½°W., 42 lks. dist., marked T 10 N R 20 E S 1 B T.
A pine, 22 ins. in diam., brs.N.59½°W.,180 lks. dist., marked T 11 N R 19 E S 36 B T.

Land, mountainous; spurs steep, washed on slopes rocky.
Soil, poor, stony clay loam, 4 to 6 ins. deep,on stony, clay subsoil.
Timber, oak,juniper and pine.

June 29, 1915.

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28. Retracement of N.bdy.of Township 10 North,Range 20 East.

Chains.	
	June 8,1915.
	I examine the adjustments of the transit, and find them to be correct, and from recent tests of the solar apparatus made by comparing its indications resulting from solar observations, made during a.m. and p.m. hours with a meridian established by observations on Polaris, I know that the instrument is in satisfactory adjustment.
	I begin at the reestablished cor.of Ts.10 and 11 N.,Rs.19 and 20 E., hereinbefore described; latitude, 34°16½'N.; longitude,110°16'04"W., where at 1h.29m.,p.m.,l.m.t., I set off 34°16½'N.on the lat.arc; 22°49'N.on the decl. arc; and determine a meridian with the solar.
	Thence,
	S.89° 56' E., on a random line, bet. secs.6 and 31.
37.25	Fall 11 lks.N.of the old ¼ sec.cor., which is a sandstone 6x6x6 ins. above ground, marked ¼ on N.face, witnessed by original bearing trees SE.of cor. Original NE. bearing tree is missing.
	True course and dist. of W.½,bet.secs.6 and 31 is therefore N.89°46'W., 37.25 chs.
	From above described old ¼ sec.cor.,
	S.89°56'E., on a random line on E.½, bet.secs.6 and 31.
39.90	Fall 7 lks.N.of the old cor.of secs.5,6,31 and 32,which is an oak post 4 ins.sq., 24 ins. above ground,loosely set, marked as described by the surveyor general, and witnessed by original bearing trees NW. and SE.of cor.
	The original SW. bearing tree cannot be found.
	True course and dist.of E.½,bet.secs.6 and 31 is therefore N.89°50'W.,39.90 chs.

	From the old cor.of secs.5,6,31 and 32,described above, S.89°56'E., on a random line,bet.secs.5 and 32.
40.16	Fall 3 lks.S.of the old ¼ sec.cor., which is a sandstone 10x10x6 ins. above ground, loosely set, marked ¼ on N. face, witnessed by both of the original bearing trees NE* and SE.of cor.
	True course and dist. of W.½ bet. secs. 5 and 32 is therefore N.89° 58'W., 40.16 chs.
	From above described old ¼ sec.cor.,
	S.89°56'E., on a random line, on E.½, bet. secs.5 and 32.
40.15	Fall 1 lk. N.of the old cor.of secs.4,5,32 and 33,which is a sandstone 10x6x6 ins., above ground,firmly set, marked and witnessed as described by the surveyor general.
	True course and dist.of E.½, bet.secs.5 and 32 is therefore N.89° 55'W, 40.15 chs.
	June 8, 1915.

	June 9, 1915. At 1h.14m.p.m.,l.m.t.,I set off 34°16½'N. on the lat.arc; 22°54'N.on the decl.arc, and determine a meridian with the solar at the old cor.of seds.4,5, 32 and 33,described above.
	Thence,
	S.89°56'E., on a random line, bet. secs.4 and 33.
40.12	Fall 5 lks.N.of the old ¼ sec.cor.,which is a sandstone 12x12x10 ins. above ground,loosely set,marks almost obliterated, witnessed as described by the surveyor general.
	True course and dist.of W.½, bet.secs.4 and 33 is therefore N.89°52'W.,40.12 chs.
	From above described old ¼ sec.cor.,
	S.89°56'E.on a random line,on E.½,bet.secs.4 and 33.
40.18	Fall 21 lks.N.of old cor.of secs.3,4,33 and 34,which is a sandstone 12x12x2 ins.loosely set in a mound of stone, marked with 3 notches on E.& W.edges,witnessed by original bearing tree NW* and SW.of cor.
	The NE. bearing tree is missing.

Chains.

True course and dist. of E.½ bet. secs. 4 and 33 is therefore N.89° 38'W., 40.18 chs.

From the old cor.of secs. 3,4,33 and 34, described above, S 89°56'E., on a random line, bet. secs.3 and 34.

40.00 No trace of the old ¼ sec.cor. can be found after diligent search;therefore continue line and measurement.

80.18 Fall 16 lks.N. of the old cor.of secs.2,3,34 and 35,which is a sandstone 14x10x2 ins., loosely set in a mound of stone, marked with 2 notches on E.and 4 notches on W. edges, witnessed as described by the surveyor general.

True course and dist. of line bet. secs.3 and 34 is therefore N.89° 49'W., 80.18 chs.

June 9, 1915.

June 10,1915. At 8h.00m., a.m.,l.m.t., I set off 34°16½' N.on the lat.arc; 22°58½'N. on the decl. arc, and determine a meridian with the solar at the old cor.of secs. 2,3,34 and 35, described above.

Thence

S.89°56'E., on a random line, bet. secs.2 and 35.

40.00 Fall 19 lks.N.of the old ¼ sec.cor., which is a sandstone 10x10x6 ins.above ground, loosely set, marked ¼ on N.face, witnessed as described by the surveyor general.

True course and dist.of W.½ bet. secs.2 and 35 is therefore N.89° 39'W., 40.00 chs.

From above described old ¼ sec.cor.,

S.89° 56'E.on a random line on E.½, bet. secs.2 and 35.

39.22 Fall 53 lks.N of the old cor.of secs.1, 2,35 and 36, which is an oak post 4 ins.sq., 24 ins. above ground, loosely set, marked T 11 N.,S 31 on NE.,and R 20 E,S 36 on NW.faces, with 1 notch on E. and 5 notches on W.edges, witnessed as described by the surveyor general.

True course and dist. of E.½ bet. secs.2 and 35 is therefore N.89°10'W.,39.22 chs.

From the old cor.of secs. 1,2,35 and 36, described above, S 89°56'E., on a random line, bet. secs.1 and 36.

39.70 Fall 21 lks.N. of the old ¼ sec.cor., which is a sandstone 12x10x5 ins. above ground, loosely set, marks almost obliterated, witnessed by original bearing tree SW. of cor. The NE. bearing tree is missing.

True course and dist. of W.½ bet. secs.1 and 36 is therefore N.89°37'W., 39.70 chs.

From above described old ¼ sec.cor.,

S 89°56'E., on a random line on E.half, bet. secs.1 and 36.

39.53 Fall 18 lks.N of the old cor.of Ts. 10 and 11 N.,Rs.20 and 21 E., which is a cedar post 4 ins.sq., 24 ins. long, loosely set in a mound of stone, marked and witnessed as described by the surveyor general.

True course and dist.of E.half bet. secs.1 and 36 is therefore N.89°40'W., 39.53 chs.

This corner being in a dilapidated condition, I destroy and reestablish it as follows:

Set an iron post 3 ft.long, 3 ins. in diam., 26 ins. in the ground for cor.of Ts.10 and 11 N., Rs.20 and 21 E., marked on brass cap,

T 11 N in N.,
R 21 E in E.,
T 10 N, 1915 in S., and
R 20 E in W.half;
S 31 in NE.,
S 6 in SE.,
S 1 in SW., and
S 36 in NW quadrant; from which the original

30. Retracement of the North bdy. of Township 10 N., R. 20 E.

Chains.

bearing trees,
A pinon 19 ins. in diam., brs. N. 79½° E., 20 lks. dist., marked T 11 N R 21 E S 31 B T.
A cedar, 12 ins. in diam., brs. S. 28½° W., 50 lks. dist., marked T 10 N R 20 E S 1 B T.
A pine, 8 ins. in diam., brs. N. 11° W., 31 lks. dist., marked T 11 N R 20 E S 36 B T, which tree being dead, I obliterate the markings on same.

Add new bearing trees as follows:
A cedar, 8 ins. in diam., brs. S. 26½° E., 56 lks. dist., which I mark T 10 N R 21 E S 6 B T.
A cedar, 12 ins. in diam., brs. N. 29½° W., 36 lks. dist., which I mark T 11 N R 20 E S 36 B T.

At this cor. I set off 22° 59' N. on the decl. arc, and at apparent noon, June 10, 1915, observe the sun on the meridian, the resulting latitude being 34° 17' N., which is a little higher than that obtained on other days.

June 10, 1915.

Chains	
	June 12, 1915. At 7h. 45m. a.m.,l.m.t., I set off 34° 16½'N. on the lat.arc; 23°07½'N. on the decl.arc,and determine a meridian with the solar at the reestablished cor. of Ts.10 and 11 N., Rs. 20 and 21 E.,hereinbefore described.
	Thence resurvey the N.bdy. of T.10 N.,R.20 E.,on courses established by the preceding retracement, but measureing dists. between the sec.cors. referring to secs. in T.10 N., R.20 E.,reestablishing certain ¼ sec.and sec. cors. referring to secs. in said Tp., and changing markingsand accessories of certain of the old sec.and ¼ sec. cors. to make them refer to secs. and ¼ secs. in T.11 N.,R.20 E., all as described in the following notes:
	N.89° 40'W., on a true line, on N.bdy.of sec.1.
	Descend SW. slope of ridge,over stony,hilly land,through scattering cedar and pinon pine timber, along N.side of wire fence.
18.58	Dry ravine, 5 lks.wide, 20 ft. below Tp. cor., course S. 30°E.; ascend SE.slope, 126 ft.
	To reestablish the ¼ sec.cor.of sec.1 at a point due north of the ¼ sec.cor. of secs.1 and 36 on S. bdy. of T.10 N.,R.20 E. I compute the total departure of the E. bdy.of the Tp. (5th. Guide Meridian East) as given in Book "C" and obtain a westing of 1.35 chs. Therefore, the proper point on N.bdy.of Tp. for the reestablishment of the ¼ sec.cor. of sec.1, is obtained by 40.00 chs.- 1.35 chs.= 38.65 chs. Therefore, at
38.65	Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for ¼ sec.cor., sec.1, marked on brass cap, ¼ S 1 1915 in S.half; from which A pine, 14 ins. in diam., brs.S.47½°E., 74 lks. dist., marked ¼ S 1 B T. A cedar,12 ins. in diam., brs.S.20½°W., 96 lks. dist., marked ¼ S 1 BT.
39.53	Intersect the old ¼ sec.cor. hereinbefore described,which I destroy, and reestablish in the same place as ¼ sec. cor.to sec. 36,T.11 N.,R.20 E.only, as follows:
	Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, marked on brass cap, ¼ S 36 in N., and 1915 in S.half; from which original bearing tree, A cedar, 10 ins. in diam., brs.S. 61°W.,25 lks. dist., marked ¼ S B T.
	Being unable to find the original NE.bearing tree, on a cedar 14 ins. in diam., bearing N.13½°E., 36 lks.dist., I mark ¼ S 36 B T.
	Thence continuing measurement
	N.89° 37'W., on a true line on N.bdy.of sec.1.
50.23	Top of ridge, brs.N.30°W. and S.30°E.; descend 15 ft.
59.28	Dry ravine, 6 lks.wide, course S.20°E.; ascend gradually.
78.65	(40 chs.W. of ¼ sec.cor.of sec.1) Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished cor.of secs. 1 and 2, marked on brass cap, T 11 N, S 35, S 36 in N., T 10 N, 1915 in S., and R 20 E in W.half; S 1 in SE., and S 2 in SW.quadrant; from which, An oak, 6 ins. in diam., brs.S 88¼°E.,167 lks. dist., marked T 10 N R 20 E S 1 B T. A juniper 30 ins. in diam., brs.S.14½°W.,84 lks. dist., marked T 10 N R 20 E S 2 B T.
	Land hilly, SE.drainage.
	Soil, poor, dry stony clay loam 4 to 6 ins.deep,on stony clay subsoil.
	Timber, juniper, cedar and pinon pine.

32. Resurvey of the North bdy. of Township 10 North, Range 20 E.

Chains.

From reestablished cor. of secs. 1 and 2, described above, N.89°37'W., on a true line, on N. bdy. of sec. 2.

Over rolling, stony, hilly land, slopes to the SE., along wire fence, brs. E. and W., through scattering oak, juniper and pinon pine timber.

.58 (39.70 chs. N.89° 37'W. of ¼ sec. cor. of sec. 36) Intersect the old cor. of secs. 1, 2, 35 and 36, hereinbefore described, which I destroy, and reestablish in its original position for cor. of secs. 35 and 36, T. 11 N., R. 20 E. only as follows:

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, marked on brass cap,

T 11 N in N.,
T 10 N, S 1 S 2, 1915 in S., and
R 20 E in W. half;
S 35 in NW., and
S 36 in NE. quadrant; from which,

A juniper, 10 ins. in diam., brs. N.18½°E., 19 lks. dist., marked T 11 N R 20 E S 36 B T.

A cedar, 12 ins. in diam., brs. S.29½°W., 38 lks. dist., marked T 10 N R 20 E S B T.

A juniper, 10 ins. in diam., brs. N.37°W., 54 lks. dist., marked T 11 N R 20 E S 35 B T.

Thence continuing measurement,
N.89°10'W., on a true line, on N. bdy. of sec. 2.

Leave hilly land, brs. NW. and SE., enter mountainous land; ascend NE. slope, 215 ft.

27.30 Top of spur, brs. N.20° E. and S.20°E.; descend NW. slope 50 ft.

36.05 Head of dry ravine, 8 lks. wide, course N.20°E.; ascend NE. slope.

39.80 (39.22 chs. N.89°10'W. of the cor. of secs. 35 and 36, intersect the old ¼ sec. cor. hereinbefore described. As this dist. is within the allowable limits of error, I destroy all trace of the original cor., and reestablish it in the same place, to refer to ¼ secs. in secs. 2 and 35, as follows:

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, marked on brass cap,

¼ S 35 in N., and
S 2 1915 in S. half; from which the original bearing trees:

A pine, 10 ins. in diam., brs. N.21°E., 54 lks. dist., marked ¼ S 35 B T.

A juniper, 20 ins. in diam., brs. S.2½°W., 58 lks. dist., marked ¼ S 2 B T.

Thence continuing measurement of N. bdy. of sec. 2,
N.89°39'W., on a true line, on W. ½, bet. secs. 2 and 35.

46.80 Top of spur, 140 ft. above the ¼ sec. cor. brs. NE. and SW.; descend NW slope, 120 ft.

57.00 Foot of descent, steep. Leave mountainous land, brs. NW. and SE. Enter rolling stony land.

79.80 (40.00 chs. N.89° 39'W. of ¼ sec. cor. of secs. 2 and 35) Intersect the old cor. of secs. 2, 3, 34 and 35, hereinbefore described, which I destroy, and reestablish in the same place as follows:

Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 2, 3, 34 and 35, marked on brass cap,

T 11 N in N.,
T 10 N, 1915 in S., and
R 20 E in W. half;
S 34 in NW.,
S 35 in NE.,
S 2 in SE., and
S 3 in SW. quadrant; from which the original bearing trees:

A pine, 24 ins. in diam., brs. N.4½°E., 66 lks. dist., marked T 11 N R 20 E S 35 B T.

A pine, 6 ins. in diam., brs. S.72½°E., 86 lks. dist., marked T 10 N R 20 E S 2 B T.

An oak, 14 ins. in diam., brs. S.8°W., 107 lks.

Chains

dist., marked T 10 N R 20 E S 3 B T.
A pine, 20 ins. in diam., brs.N 80½°W., 138 lks. dist., marked T 11 N R 20 E S 34 B T.
Land, rolling, hilly and mountainous.
Soil, mostly a dry stony clay loam 4 to 6 ins.deep,on clay and stony subsoil.
Timber, oak, juniper, cedar and pine.
Mountainous land, 56.42 chs.

N.89°49'W., on a true line, bet. secs.3 and 34.
Ascend gradually SE.slope, over hilly stony land, through scattering oak and heavy pine timber.

12.89 Road from Pinedale to Linden, Arizona, bears N.40°W. and S.40°E.

14.54 Top of hill brs.NE. and SW., 17 ft. above sec.cor.;descend NW.slope, 53 ft.

20.34 Wire fence brs.N.70°W. and S.70°E.

24.29 Dry ravine, 5 lks.wide, course S.40°W.; ascend 23 ft.

24.34 Wire fence brs.N.80°E. and S.80°W.

33.04 Top of hill, brs.N.and S.; descend W.slope, 30 ft.

39.60 East edge of reservoir 125 lks.wide, 5 ft.deep,in bottom of ravine.

40.09 The point for the reestablishment of the ¼ sec.cor. falls in reservoir; therefore, at

39.25 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for witness cor.to the reestablished ¼ sec. cor. of secs.3 and 34, marked on brass cap,
WC ¼ in W.,& 1915 in S.half;S 3 in NE.& S 34 in SE. quadrant;from which,
A pine,24 ins.diam.,brs.N.37°E.103 lks.dist.mkd.WC¼S34BT.
A pine,14ins.diam.,brs.S.56½°E.128 lks.dist.mkd.WC¼S3BT.

41.38 Road from Pinedale to Lars Peterson's rach brs.N.20°W.& S.20°E.

43.93 Dry ravine,30 ft.below wit.cor.to ¼ sec.cor.,course N.20° W.;ascend over E.slope.

44.88 Road from Pinedale to Linden,Arizona,brs.N.50°E.&S.50°W.

45.28 Road from Pinedale to Peterson's ranch,brs.N.and S.

56.58 Log fence brs.N.60°W. and S.60°E.

74.13 Wire fence brs.N.70°E. and S.70°W.

76.73 Road from Pinedale to Linden,Arizona, brs.N. 50°E. and S.50° W.

80.18 Intersect the old cor.of secs. 3,4,33 and 34,hereinbefore described, which I destroy, and reestablish in the same place, as follows:
Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in the ground for cor.of secs.3,4,33 and 34, marked on brass cap,
T 11 N in N.,
T 10 N, 1915 in S., and
R 20 E in W.half;
S 33 in NW.,
S 34 in NE.,
S 3 in SE., and
S 4 in SW. quadrant; from which original bearing trees:
A pine, 10 ins. in diam., brs.N.60½°W.,72 lks. dist.,marked T 11 N R 20 E S 33 B T.
This tree being dead, I obliterate the marking.
A pine,10 ins. in diam., brs. S.10½°W., 19 lks. dist., marked T 10 N R 20 E S B T.
Establish new bearing trees as follows:
A pine, 8 ins. in diam.,brs.N.37½°E.,51 lks. dist.,, which I mark T 11 N R 20 E S 34 B T.
A cedar, 5 ins. in diam., brs.S.47½°E., 67 lks. dist., which I mark T 10 N R 20 E S 3 B T.
A cedar, 12 ins. in diam., brs.N.56°W.,60 lks. dist., which I mark T 11 N R 20 E S 33 B T.
At this cor.,I set off 23°08'N.on the decl.arc, and at apparent noon, June 12,1915, observe the sun on the meridian, the resulting latitude being 34°16'+
Land, hilly.

Chains.

Soil, stony and sandy about 6 ins. deep underlaid with ledges of lime and sandstone.
Timber, oak, cedar, juniper and pine.

N.89° 38' W., on a true line, on E. ½ bet. secs. 4 and 33.
Ascend SE. slope of hill, over stony land, through juniper, cedar and pine timber.

10.18 Top of ascent 20 ft. above cor. on S. slope of hill, brs. N. and S.; descend over SW. slope, 80 ft.

40.18 Intersect the old ¼ sec. cor. hereinbefore described, which I destroy, and reestablish in the same place as follows:
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap,
¼ S 33 in N., and
S 4 1915 in S. half; from which, original bearing trees
A pine, 20 ins. in diam., brs. N. 17½° E., 212 lks. dist., marked ¼ S 33 B T.
A pine, 24 ins. in diam., brs. S. 13° W., 132 lks. dist., marked ¼ S 4 B T.
From this cor. M. Peterson's house brs. S. 52° 30' W.
A store brs. S. 53° 38' W.
The chimney on Cheney's house brs. S. 39° 50' W.
The chimney of M. A. Peterson's house brs. S. 4° 00' E.
Thence
N. 89° 52' W., on a true line on W. half, bet. secs. 4 and 33.

3.42 Road to Showlow, Arizona, brs. N. 10° W. and S. 10° E.

6.12 Another branch road to Showlow, Arizona, brs. N. 10° W., and S. 10° E.

7.72 Right bank of the Mortison wash, 5 ft. high, brs. N. 40° W. & S. 40° E.; thence over dry bed of wash.

11.42 Left bank of wash 4 ft high, brs. N. 40° W. and S. 40° E.; thence over rolling sandy bottom land.

13.82 Wire fence brs. N. 20° W. and S. 20° E. Enter plowed field brs. N. 20° W. and S. 20° E.

36.37 Wire fence brs. N. 30° E. and S. 30° W.; leave cultivated land, brs. N. 30° E. and S. 30° W.

39.66 Wire fence brs. N. and S.; thence in lane.

40.12 Intersect the old cor. of secs. 4, 5, 32 and 33, hereinbefore described, which I destroy, and reestablish in the same place as follows:
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 4, 5, 32 and 33, marked on brass cap,
T 11 N in N.,
T 10 N, 1915 in S., and
R 20 E in W. half;
S 32 in NW.,
S 33 in NE.,
S 4 in SE., and
S 5 in SW. quadrant; from which original bearing trees:
A pine, 20 ins. in diam., brs. N. 32½° E., 86 lks. dist., marked T 11 N R 20 E S 33 B T.
A pine, 10 ins. in diam., brs. S. 10° E., 137 lks. dist., marked T 10 N R 20 E S 4 B T.
A pine, 12 ins. in diam., brs. S. 33¼° W., 170 lks. dist., marked T 10 N R 20 E S 5 B T.
A pine, 20 ins. in diam., brs. N. 49° W., 260 lks. dist., marked T 11 N R 20 E S 32 B T.
M. A. Peterson's house brs. S. 72° 02' E.,
A store brs. S., 65° 55' E.
The chimney on Cheney's house brs. S. 60¼° E.
The chimney of M. A. Peterson's house brs. S. 74° 23' E.
Land, rolling & hilly, drains to the north and northwest.
Soil of the east 50 chs. poor, dry, stony clay loam, 4 ins. deep, underlaid with beds of limestone. Soil of the west 30 chs. medium rich, fine dry sandy loam on dry sand and clay subsoil.

Chains.	
	Timber, juniper, cedar and pine timber. June 12, 1915.
	June 18, 1915: At 7h. 45m. a.m.,l.m.t., I set off 34°16½' N. on the lat.arc; 23°25'N. on the decl.arc, and determine a meridian with the solar at the reestablished cor. of secs.4,5,32 and 33, described above.
	Thence,
	N.89°55'W., on a true line, on N.bdy. of sec.5.
	Ascend E. slope over rolling stony land, through scattering pine timber.
.46	Wire fence brs.N. and S.
6.13	Top of hill, 10 ft. above cor., brs.N.and S.; descend over W.slope.
12.63	Road to Pinedale, Arizona, brs.N.70°W. and S.70°E.
23.43	Dry ravine, 20 lks.wide, 10 ft. deep, course N.30°E.;ascend gradually.
32.03	Telephone line from Forest Ranger station to Pinedale,brs. N.20°W. and S.20°E.
36.73	Road from sawmill in T10 N.,R.20 E., to Pinedale,brs. N. and S.
39.71	Old road brs.N.and S., leads to Pinedale, Arizona.
40.00	Set an iron post 3 ft,long, 1 in. in diam., 26 ins. in the ground for reestablished ¼ sec.cor., of sec.5,T.10 N.,R.20 E., marked on brass cap, ¼ S 5 1915 in S.half; from which, A pine, 28 ins. in diam., brs.S.60½°E.,104 lks. dist., marked ¼ S 5 B T. A pine, 11 ins. in diam., brs.S.37½°W., 52 lks. dist., marked ¼ S 5 B T.
40.15	Intersect the old ¼ sec.cor. hereinbefore described,which I destroy, and reestablish in the same place as ¼ sec. cor.of sec.32, T.11 N.,R.21 E. only, as follows: Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the ground, marked on brass cap, ¼ S 32 in N., and 1915 in S.half;from which original bearing trees: A pine, 14 ins. in diam., brs.N.21½°E., 18 lks. dist., marked ¼ S 32 B T. A pine, 12 ins. in diam., brs.S.79½°E., 17 lks. dist., marked ¼ S B T. This tree being dead and no other trees suitable for bearing trees within limits, I raise a mound of stone 2 ft.base, 1½ ft. high, N.of cor. Pits impracticable.
	Thence continue measurement,
	N.89°58'W., on a true line, on N.bdy. of sec.5.
41.38	Gate in wire fence, brs.N.and S.
46.93	Top of ascent on low hill, brs,NE. and SW.; descend 95 ft.
50.18	Dry ravine, 20 lks.wide, course north; ascend W.slope,80 ft.
58.00	A barn belonging to J.Hunt on line.
74.48	Dry ravine, 15 lks.wide, 8 ft.deep, course N.20°E.
79.80	Wire fence brs.N.and S.
80.00	Set an iron post, 3 ft.long, 3 ins. in diam., 24 ins. in the ground, for reestablished cor.of secs. 5 and 6, T.10 N.,R.20 E.only, marked on brass cap, T 11 N S 31,S 32 in N., T 10 N, 1915 in S., and R 20 E in W.half; S 5 in SE., amd S 6 in SW.quadrant; from which A cedar 20 ins. in diam., brs.S.31°E., 106 lks.dist., marked T 10 N R 20 E S 5 B T. A cedar, 12 ins. in diam., brs.S.54½°W.,30 lks.dist., marked T 10 N R 20 E S 6 B T.
	This cor.is in center of lane, brs.N.and S.
	Land, rolling and hilly,slopes to the N.and NE.
	Soil, sandy loam, about 8 ins. deep, underlaid with clay and sandstone.
	Timber, juniper, cedar and pine.

36. Resurvey of the North bdy. of T. 10 N., R. 20 East.

Chains.

From reestablished cor. of secs. 5 and 6, T. 10 N., R. 20 E., described above,
N. 89°58' W., on a true line, on N. bdy. of sec. 6.
Over rolling sandy and stony land, through scattering cedar, juniper and pine timber and juniper brush undergrowth.

.30 (40.15 chs. N. 89°58' W. of ¼ sec. cor. of sec. 32) Intersect the old cor. of secs. 5, 6, 31 and 32, hereinbefore described, which I destroy, and reestablish in the same place as cor. of secs. 31 and 32, T. 11 N., R. 20 E. only, as follows:
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, marked on brass cap,
T 11 N in N.,
T 10 N S 5 S 6, 1915 in S.,
R 20 E in W. half;
S 31 in NW., and
S 32 in NE. quadrant, from which original bearing trees,
A cedar, 12 ins. in diam., brs. N. 43¼° E., 133 lks. dist., marked T 11 N R 20 E S 32 B T.
A cedar, 14 ins. in diam., brs. S. 65½° E., 17 lks. dist. marked T 10 N R 20 E S B T.
An oak, 8 ins. in diam., brs. S. 57° W., 153 lks. dist. marked T 10 N R 20 E S B T.
A cedar, 12 ins. in diam., brs. N. 40¼° W., 41 lks. dist., marked T 11 N R 20 E S 31 B T.
Thence continuing measurement,
N. 89°50' W., on a true line, on N. bdy. of sec. 6.

4.20 Top of ridge, 70 ft. above last cor. brs. N. 20° E. and S. 20° W.; descend 25 ft.
12.45 Dry sand wash, 10 lks. wide, course N. 20° E.; ascend 26 ft.
17.20 Top of ridge brs. N. and S.; descend 15 ft.
23.95 Dry sand wash, 15 lks. wide, 6 ft. deep, course north; ascend 50 ft.
34.20 Top of ridge, brs. N. and S.; descend 50 ft.
39.95 Dry ravine, 20 lks. wide, course north; ascend 40 ft.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the the ground for reestablished ¼ sec. cor. of sec. 6, T. 10 N., R. 20 E., marked on brass cap,
¼ S 6 1915 in S. half; from which
A pine, 28 ins. in diam., brs. S. 39¼° E., 60 lks. dist., marked ¼ S 6 B T.
A pine, 10 ins. in diam., brs. S. 8¼° E., 41 lks. dist., marked ¼ S 6 B T.

40.20 (39.90 chs. N. 89°50' W. of cor. of secs. 31 & 32) Intersect the old ¼ sec. cor. hereinbefore described. I destroy and reestablish in same place, as ¼ sec. cor. of sec. 31, T. 11 N., R. 20 E. only, as follows:
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, marked on brass cap,
¼ S 31 in N., and
1915 in S. half;; from which
Original bearing tree, an oak, 10 ins. in diam., brs. S. 65½° E., 45 lks. dist., marked ¼ S B T.
Establish new bearing tree, as follows:
An oak, 16 ins. in diam., brs. N. 67° E., 67 lks. dist., which I mark ¼ S 31 B T.
No other trees suitable for bearing trees within limits north of line. Raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.
Pits impracticable.
Thence continuing measurement,
N. 89°46' W., on a true line, on N. bdy. of sec. 6.

49.45 Wire fence brs. N. and S.
59.45 Top of ridge, brs. N. and S.; descend over NW. slope, 40 ft.
77.45 (37.25 chs. N. 89°46' W. of ¼ sec. cor. of sec. 31?) Intersect the reestablished cor. of Ts. 10 and 11 N., Rs. 19 and 20 E., hereinbefore described.
Land, hilly, drains to the north and northeast.
Soil, poor, dry sandy and stony loam, 3 to 6 ins. deep on dry stony clay subsoil.
Timber, juniper, oak, cedar and pine.

June 18, 1915.

Chains,

July 6,1915.

I examine the adjustments of the transit,and find them to be correct,and know from recent tests of the solar apparatus by comparing its indication resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris that the instrument is in satisfactory adjustment.

For last complete test of instrument, see Book "I,"

I begin at the old cor.of Ts.9 and 10 N.,Rs.20 and 21 E., on 5th Guide Meridian East, described in Book "C."Lat. 34°11'N.; longitude,110°09'47"W.

The magnetic bearing of the true meridian at 7h.00m. a.m., is N.14° 15'W., which gives the mag. decl.14°15'E.,

July 6,1915: At 7h. 04m. a. m.,l.m.t., I set off 34°11' N.on the lat.arc; 22°47½'N. on the decl.arc,and determine a meridian with the solar at this cor.

Thence

East, on a random line, bet. secs.6 and 31.

38.25 Fall 213 lks.S.of the old ¼ sec.cor., which is a sandstone 14x14x12 ins. loosely set, marked and witnessed as described by the Surveyor General.

True course and dist. of W.½ of line bet.secs.6 and 31 is therefore S.86° 49'W., 38.31 chs.

From old ¼ sec.cor., described above,

East, on a random line, on E.half, bet. secs.6 and 31.

40.52 Fall 78 lks.N.of the old cor.of secs. 5,6,31 and 32,which is a sandstone 14x12x8 ins. loosely set, marked and witnessed as described by the surveyor general.

True course and dist.of E.half bet.secs.6 and 31 is therefore N.88°54'W., 40.53 chs.

This cor.being in a dilapidated condition, I reestablish it in same place as follows:

Reset the same stone, 10 ins. in the ground for cor.of secs.5,6,31 and 32, marked with 5 notches on E. and 1 notch on W.edges, from which the original bearing trees,

A pine 24 ins. in diam., brs. N.53°E., 132 lks. dist., marked T 10 N R 21 E S 32 B T.

An oak, 10 ins. in diam., brs.S.33¼°E.,36 lks. dist., marked T 9 N R 21 E S 5 B T.

A dead oak,12 ins. in diam.,brs.S.72¼°W.20 lks. dist.,marked T 9 N R 21 E S 6 B T.

A dead oak,12 ins.in diam.,brs.N.59½°W.,24 lks. dist.,marked T9 N R 21 E S 31 B T.

A pine, 12 ins. in diam.,brs.S.60°W., 100 lks. dist., marked T 9 N R 21 E S 6 B T.

A pine, 16 ins. in diam., brs.N.55°W.,100 lks. dist., marked T 10 N R 21 E S 31 B T.

I destroy the marks on the two dead trees.

Thence

N.88°54'W., on a true line, on E.½,bet.secs.6 and 31.

Descend NW.slope of spur, 35 ft. over stony, mountainous land,through heavy pine and oak timber and oak brush undergrowth, 6 ft.high.

8.90 Dry ravine, 15 lks.wide, course S.50°W.; ascend SE. slope of spur, 17 ft.

14.50 Top of spur, brs. N.and S.; descend W.slope, 14 ft.

18.80 Dry ravine, 14 lks.wide, course S.10°E.; ascend 171 ft.

40.53 Intersect the old ¼ sec.cor. hereinbefore described. This cor.being in a dilapidated condition, I reestablish it in same position, as follows:

Reset the same stone, 12 ins. in the ground for ¼ sec.cor., of secs.6 and 31, marked ¼S on N.face; from which

An oak, 16 ins. in diam.,brs.N.52¾°E.,33 lks. dist., marked ¼ S 31 B T.

An oak,12 ins. in diam.,brs.S.59¼°W., 34 lks. dist., marked ¼ S 6 B T.

Thence

S.86°49'W. on a true line,on W.½ bet.secs.6 and 31.

Over mountainous land; ascend.

20.00 Top of spur, brs.N.and S.; descend W. slope, 26 ft.

27.22 Dry ravine, 5 lks.wide, course SW. Ascend SE.slope,45 ft.

Chains.	
38.31	Intersect the old cor.of Ts.9 and 10 N., Rs.20 and 21 E., described in Book "C."
	Land, mountainous, spurs steep, washed on slopes rocky.
	Soil, poor dry stony clay loam on clay and stone subsoil.
	Timber, oak and pine.

	From reestablished cor.of secs.5,6,31 and 32,
	East, on a random line, bet. secs.5 and 32.
39.42	Fall 55 lks.S.of the old ¼ sec.cor., which is a sandstone 14x12x8 ins., loosely set, marked and witnessed as described by the surveyor general.
	True course and dist.of W.½ bet. secs.5 and 32 is therefore S.89°12'W., 39.42 chs.
	From old ¼ sec.cor. described above,
	East, on a random line, E.½ bet. secs.5 and 32.
39.96	Fall 28 lks.N.of the old cor.of secs.4,5,32 and 33,which is a sandstone 18x14x10 ins. loosely set, marked as described by the surveyor general. No trace can be found of the pine described as a bearing tree.
	True course and dist.of E.½,bet.secs.5 and 32 is therefore N.89°36'W., 39.96 chs.
	I reestablish this cor. in same place as follows:
	Reset the same stone, 12 ins. in the ground for cor.of secs. 4,5,32 and 33, marked with 4 notches on E., and 2 notches on W.edges, from which
	A cedar,12 ins. in diam.,brs.N.81¼°E.,65 lks. dist., marked T 10 N R 21 E S 33 B T.
	A juniper, 10 ins. in diam., brs.S.70½°E.,72 lks.dist., marked T 9 N R 21 E S 4 B T,
	A cedar, 12 ins. in diam., brs.S.22°W.,92 lks. dist., marked T 9 N R 21 E S 5 B T.
	A juniper,12 ins. in diam., brs.N.49¼°W., 60 lks. dist., marked T 10 N R 21 E S 32 B T.
	Thence,
	N.89° 36' W.,on a true line on E.½, bet. secs.5 and 32.
	Ascend SE.slope, of spur, over stony, mountainous land, through oak,juniper and pine timber and dense manzanita and oak brush undergrowth.
5.00	Top of spur, 33 ft. above cor. brs.N.and S.;descend 11 ft.
15.60	Head of ravine, 5 lks.wide, course S.20°W., ascend SE. slope, 90 ft.
32.00	Top of spur, brs.north and S.20°W.; descend 58 ft.
39.96	Intersect the old ¼ sec.cor. hereinbefore described. This cor.being in a dilapidated condition, I reestablish it insame place, as follows:
	Reset the same stone,10 ins, in the ground for ¼ sec.cor., marked ¼ S on N.face, from which the original bearing trees:
	An oak, 10 ins. in diam., brs.N.33½°W., 25 lks. dist., marked ¼ S 32 B T., and
	A pine, 20 ins. in diam., brs.S.30¼°W., 32 lks. dist., marked ¼ S 5 B T.
	At this cor., I set off 22°45½'N. on the decl.arc, and at apparent noon July 6, 1915,observe the sun on the meridian and obtain a reading of 34°11'N. on the lat.arc.
	Thence,
	S.89°12'W., on a true line on W.½, bet.secs.5 and 32.
	Over mountainous land; descend.
1.74	Dry ravine, 5 lks.wide, course N.20°W.; ascend NE.slope, 13 ft.
7.00	Top of spur, 94 ft. above ravine, brs.N.30°W. and S.30°E.; descend 94 ft.
24.34	Dry ravine, 8 lks.wide, course N.30°W.; ascend NE.slope, 14 ft.
27.99	Top of spur, brs.N.20°W., and S.20°E.; descend NW.slope, 84 ft.
35.59	Ledge of rock, 8 ft.high,brs.N.40°W. and S.40°E.
39.42	Intersect the reestablished cor.of secs.5,6,31 and 32, hereinbefore described.

Chains.

Land, mountainous, slopes to the south; spurs, steep rocky, covered with dense manzanita brush.
Soil, poor, dry, stony clay loam, about 8 ins.deep,on dry stony clay subsoil.
Timber,oak, juniper and pine.

From reestablished cor.of secs.4,5,32 and 33,
East, on a random line, bet. secs.4 and 33.

40.22 Fall 3 lks.S.of the original ¼ sec.cor., which is a pine tree, 24 ins. in diam., marked and witnessed, as described by the surveyor general.
True course and dist.of W.½,bet.secs.4 and 33 is therefore S.89° 57'W., 40.22 chs.
From old ¼ sec.cor., described above,
East on a random line on E.½, bet. secs.4 and 33.

40.22 Fall 24 lks.S. of the original cor.of secs.3,4,33 and 34, which is a red granite stone 12x12x8 ins., loosely set in a mound of stone, marked and witnessed as described bybthe surveyor general.
True course and dist. of E.½, bet. secs.4 and 33 is therefore S.89°40'W., 40.22 chs.
This corner being in a dilapidated condition, I destroy and reestablish it in the same place as follows:
Reset the same stone, 8 ins. in the ground for cor.of secs. 3,4, 33 and 34, marked with 3 notches on E.and W.edges, from which the original bearing trees,

A pine, 10 ins. in diam., brs.N.44½°E.,138 lks. dist., marked T 10 N R 21 E S 34 B T.
An oak, 8 ins. in diam., brs.S.55½°E.,56 lks. dist., marked T 9 N R 21 E S 3 B T.
A pine, 12 ins. in diam., brs.S.19¾°W., 44 lks. dist., marked T 9 N R 21 E S 4 B T.
A pine,14 ins.in diam.,brs.N.41¼°W., 44 lks. dist., marked T 10 N R 21 E S 33 B T.

Thence
S.89°40'W., on a true line, on E½ bet.secs.4 and 33.
Over rolling, stony land, on top of the Mogollon Rim slopes to the northeast, through heavy cedaf and pine timber.

19.00 Top of the Mogollon Rim brs.N.15°W. and S.15°E.;descend gradually.

19.32 Wire fence along N.bdy. of the Fort Apache Indian Reservation, brs.N.15°W. and S.15°E.

19.55 Intersect the N.bdy.of the Fort Apache Indian Resrrvation 2.65 chs.S.15°55'E. of the Angle Point No.479. At the point of intersection
Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground, for reestablished closing cor.of Ts.9 and 10 N.,R.21 E.,marked on brass cap,

C C E of center,
T 10 N in N.,
T 9 N, 1915 in S., and
R 21 E F A I R in W.half;
S 33 in NE., and
S 4 in SW.sector.

From this cor. the unaccpted closing cor.of Ts.9 and 10 N.,R.21 E. set by Deputy Charles E.Perkins,under Contract No.40 brs.N.15°55'W.,15 lks.dist.,I destroy all trace of this closing cor., and the marks on the bearing trees to same.

20.00 Begin steep descent,over SW.slope.
25.67 Foot of descent in dry ravine, 5 lks.wide, 50 ft. below closing cor., course N.70°W.; ascend point of spur.
28.62 Top of ascent on point of spur 20 ft. above ravine,brs.N. 60°W. and S.60°E.; descend 52 ft.
30.62 Dry ravine, 6 lks. wide, course S.30°W., ascend 16 ft.
40.22 Intersect the old ¼ sec.cor.,hereinbefore described,from which the original bearing trees:

An oak, 8 ins. in diam., brs.N.18°W.,57 lks. dist., marked ¼ S 33 B T.

40. Resurvey of South bdy.of Township 10 North,Range 21 East.

Chains.

A pine, 12 ins. in diam., brs.S.7°W., 71 lks. dist.,,marked ¼ S 4 B T.

From this point, the unaccepted ¼ sec.cor., reestablished by Deputy Charles E.Perkins, under Contract No.40,brs. N.8 lks.dist. I destroy all trace of this cor.,and the marks on the bearing trees to same.

Thence

S.89°57'W., on a true line, on W.½, bet. secs.4 and 33.

Over mountainous land; ascend.

7.78 Top of ascent on the Mogollon rim brs.NE. and SW.;thence over rolling,stony land, along top of rim.

8.69 Intersect the N.bdy.of the Fort Apache Indian Reservation 2.24 chs. S.82° 50'W. of Angle point No.483. At the point of intersection,

Set an iron post, 3 ft.lomg, 3 ins. in diam., 24 ins. in the ground for reestablished closing cor.of Ts.9 and 10 N.,R. 21 E., marked on brass cap,

C C W of center,
T 10 N in N.,
T 9 N F A I R,1915 inS., and
R 21 E in W.half; S 33 in NE., and
S 4 in SW. sector.

From this cor. the unaccepted closing cor.of Ts.9 and 10 N., R.21 E. set by Deputy Charles E.Perkins, under contract No.40 brs.S.82° 50'W., 232 lks.dist.; I destroy all trace of this closing cor., and the marks on the bearing trees to same.

13.23 Intersect N. bdy.of the Fort Apache Indian Reservation, 46 lks.N. 57°18'W., of the 66 mile cor. At the point of intersection, set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for reestablished closing cor. of Ts.9 and 10 N.,,R.21 E., marked on brass cap,

C C E of center,
T 10 N in N.,
T 9 N F A I R,1915 in S., and
R 21Ein W.half;
S 33 in NW., and
S 4 in SE. sector.

From this cor., the unaccepted closing cor. of Ts.9 and 10 N., R.21 E. set by Deputy Charles E.Perkins,under Contract No.40 brs.S.57°18'E., 36 lks.dist. I destroy all trace of this closing cor., and the marks on the bearing trees to same.

14.78 Begin steep rocky descent over W.slope, through dense oak and manzanita brush undergrowth.

35.93 Foot of descent in dry ravine, 5 lks.wide, 186 ft.below top of rim, course S.20°W.; ascend SE.slope, 42 ft.

40.22 Intersect the reestablished cor. of secs.4, 5,32 and 33, hereinbefore described.

Land, rolling mountainous.

Soil, dry, stony clay loam, about 8 ins. deep on dry stony, clay subsoil.

Timber, oak, juniper and pine.

July 6, 1915.

July 8,1915. At 8h. 19m. a.m.,l.m.t.,I set off 34°11'N. on the lat.arc; 22°34½'N. on the decl.arc; and determine a meridian with the solar at the reestablished cor. of secs. 3,4,33 and 34, hereinbefore described.

Thence,

East,on a random line, bet. secs.3 and 34.

40.20 Fall 36 lks.S. of the original ¼ sec.cor., which is a granite stone 12x10x7 ins. above ground, loosely set, marked and witnessed as described by the surveyor general.

True course and dist.of W.½ bet.secs.3 and 34 is therefore S.89°12'W., 40.20 chs.

Chains.

From old ¼ sec.cor., described, above,
East, on a random line on E.half, bet. secs.3 and 34.

39.76 Fall 32 lks.S.of the original cor.of secs.2,3, 34 and 35, which is a red granite stone 12x10x10 ins. above ground, loosely set, marked and witnessed as described by the surveyor general.

True course and dist.of E.½, bet. secs.3 and 34 is therefore S.89°32'W., 39.76 chs.

This cor. being in a state of dilapidation, I reestablish it as follows:

Reset the same stone 8 ins. in the ground for cor.of secs. 2,3,34 and 35, marked with 2 notches on E.and 4 notches on W.edges, from which the original bearing trees:

A pine, 14 ins. in diam., brs.N.42°E.,52 lks. dist., marked T 10 N R 21 E S 35 B T.

A pihe, 16 ins. in diam.,brs.S.55¼°E., 87 lks. dist., marked T 9 N R 21 E S 2 B T.

A pine, 14 ins. in diam., brs.S.60½°W.,39 lks. dist., marked T 9 N R 21 E S 3 B T.

No trace of the pine described as a northwest bearing tree can be found.

A pine, 8 ins. in diam., brs.N.36½°W.,118 lks. dist., marked T 10 N R 21 E S 34 B T.

Thence,
S.89°32'W., on a true line on E.½, bet. secs. 3 and 34.
Descend NW.slope, 10 ft., over stony mountainous land, through heavy pine timber.

7.90 Dry ravine, 30 lks.wide, course N.20°W.; ascend steep NE. slope, 261 ft.

39.76 Intersect the old ¼ sec.cor.; hereinbefore described.This cor.being in a dilapidated condition, I reestablish it in same place as follows:

Reset the same stone, 8 ins. in the ground for ¼ sec.cor. marked ¼ S on N.face, from which the old bearing trees:

A pine, 20 ins. in diam., brs.N.9¼°E.,58 lks. dist., marked ¼ S 3 B T.

A pine, 10 ins. in diam., brs.S.81½°W.,95 lks. dist., marked ¼ S 34 B T.

Thence
S.89°12'W., on a true line on W.½,bet.secs.3 and 34.
Over mountainous land, continuing ascent of steep NE. slope.

40.20 Intersect the reestablished cor.of secs.3,4,33 and 34, hereinbefore described.

Land, mountainous, spurs steep, washed on slopes,rocky.
Soil, poor dry stony clay loam, 8 ins. deep on dry stony clay subsoil.
Timber, oak,juniper and pine.

July 8, 1915.

July 10, 1915: At 7h. 05m. a.m.,l.m.t., I set off 34° 11'N. on the lat.arc; 22°21½'N. on the decl.arc;and determine a meridian with the solar at the cor.of secs. 2,3,34 and 35.

Thence,
East, on a random line, bet. secs.2 and 35.

40.42 Fall 25 lks.S.of the original ¼ sec.cor.,which is a sandstone 12x15x6 ins.,loosely set, marks almost obliterated, witnessed as described by the surveyor general.

True course and dist. of W.half bet. secs. 2 and 35 is therefore S.89° 39'W.,40.42 chs.

From old ¼ sec.cor., described above,
East,on a random line on E.½,bet.secs.2 and 35.

40.24 Fall 4 lks.N.of the original cor.of secs.1,2,35 and 36, which is a granite stone 12x6x12 ins. loosely set, marked and witnessed as described by the surveyor general.

True course and dist. of E.½ bet. secs. 2 and 35 is therefore N.89°57'W., 40.24 chs.

42. Resurvey of the S.bdy. of Township 10 North, Range 21 East.

Chains.

This cor. being in a dilapidated condition, I reestablish it in the same place, as follows:
Reset the same stone 8 ins. in the ground for cor. of secs. 1,2,35 and 36, marked with 5 notches on W. and 1 notch on E. edges, from which the original bearing trees:
A pine, 24 ins. in diam., brs. N. 18½° E., 79 lks. dist., marked T 10 N R 21 E S 36 B T.
An oak, 10 ins. in diam., brs. S. 43½° E., 38 lks. dist., marked T 9 N R 21 E S 1 B T.
A pine, 16 ins. in diam., brs. S. 22½° W., 46 lks. dist., marked T 9 N R 21 E S 2 B T.
A pine 15 ins. in diam., brs. N. 76° W., 124 lks. dist., marked T 10 N R 21 E S 35 B T.
Thence
N. 89° 57' W., on a true line on E. ½, bet. secs. 2 and 35.
Ascend gradually SE. slope, 40 ft., over stony, mountainous land, through heavy pine timber.

40.24 Intersect the old ¼ sec. cor. hereinbefore described. This cor. being in a dilapidated condition, I destroy and reestablish it in the same place as follows:
Set an iron post, 3 ft. long. 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap,
¼ S 35 in N., and
S 2, 1915 in S. half; from which the original bearing trees:
A pine 10 ins. in diam., brs. N. 5½° E., 30 lks. dist., marked ¼ S 35 B T.
A pine, 12 ins. in diam., brs. S. 21½° W., 65 lks. dist., marked ¼ S 2 B T.
Thence,
S. 89° 39' W., on a true line, on W. half, bet. secs. 2 and 35.
Over mountainous land; ascend.

5.42 Top of spur, brs. N. 20° E. and S. 20° W.; descend over NW. slope, 50 ft.

40.42 Intersect the reestablished cor. of secs. 2,3,34 and 35, hereinbefore described.
Land, mountainous.
Soil, stony, clay loam, 4 to 6 ins. deep, on dry clay and stone subsoil.
Timber, oak, juniper and pine.

From reestablished cor. of secs. 1,2,35 and 36.
East, on a random line, bet. secs. 1 and 36.

40.22 Fall 2 lks. S. of the original ¼ sec. cor., which is a sandstone 12x12x6 ins. above ground, loosely set, marks almost obliterated, witnessed as described by the surveyor general.
True course and dist. of W. ½ bet. secs. 1 and 36 is therefore S. 89° 58' W., 40.22 chs.
From old ¼ sec. cor., described above,
East, on a random line on E. half, bet. secs. 1 and 36.

40.10 Fall 28 lks. S. of the old cor. of Ts. 9 and 10 N., Rs. 21 and 22 E., which is a sandstone 22x10x8 ins. above ground, loosely set, marks almost obliterated, witnessed as described by the surveyor general.
True course and dist. of E. ½ bet. secs. 1 and 36 is therefore S. 89° 36' W., 40.10 chs. This cor. being in a dilapidated condition, I destroy and reestablih it in same place as follows:
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Ts. 9 and 10 N., Rs. 21 and 22 E., marked on brass cap,
T 10 N in N.,
R 22 E in E.,
T 9 N, 1915 in S., and
R 21 E in W. half;
S 36 in NW.,
S 31 in NE.,
S 6 in SE., and
S 1 in SW. quadrant; from which the original

Chains.	
	bearing trees:—
	A pine, 10 ins. in diam., brs. N. 56¼ °E., 27 lks. dist., marked T 10 N R 22 E S 31 B T.
	A pine, 14 ins. in diam., brs. S. 35 °E., 131 lks. dist., marked T 9 N R 22 E S 6 B T.
	A pine, 16 ins. in diam., brs. S. 21 °W., 148 lks. dist., marked T 9 N R 21 E S 1 B T.
	A pine, 12 ins, in diam., brs. N. 21 °W., 96 lks. dist., marked T 10 N R 21 E S 36 B T.
	A dead oak, 12 ins. in diam., brs. N. 55½ °W., 42 lks. dist., marked T 10 N R 21 E S 36 B T. I destroy the marks on this tree.
	At this cor., I set off 22° 19'N. on the decl. arc, and at noon, apparent time July 10, 1915, observe the sun on the meridian, and obtain a reading of 34° 11'N. on the lat. arc.
	Thence,
	S. 89°36'W., on true line, on E. half, bet. secs. 1 and 36. Page 1
	Descend stony SW. slope, over rolling, mountainous land, through scattering pine and cedar timber.
39.90	Dry ravine, 15 lks. wide, course N. 20 °W., 45 ft. below Tp. cor.; ascend 5 ft.
40.10	Intersect the old ¼ sec. cor. hereinbefore described. This cor. being in a dilapidated condition, I destroy and reestablish it in the same place as follows:
	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap, ¼ S 36 in N., and S 1 1915 in S. half; from which the original bearing trees:
	A pine, 10 ins. in diam., brs. N. 4¾ °E., 100 lks. dist., marked ¼ S 36 B T.
	A dead pine 22 ins. in diam., brs. S. 51 °W., 11 lks. dist., marked ¼ S B T.
	A pine, 14 ins. in diam., brs. S. 23½ °E., 152 lks. dist., marked ¼ S 1 B T.
	From this cor. Y.P. Hansen's house brs. S. 0¾ °W., about 5 chs. dist.
	Thence
	S. 89°58'W., on a true line, on W. ½ bet. secs. 1 and 36.
	Over mountainous land; ascend.
5.22	Top of spur, 10 ft. above ¼ sec. cor., brs. NW. and SE.; descend 60 ft.
6.92	Old road from Hansen's ranch to Pinedale, Arizona, brs. N. 40°W. and S. 40°E.
14.67	Wire fence brs. N. 80°W. and S. 80°E. Leave timber, brs. NW. and SE. Enter cultivated land, brs. south about 30 chs.
16.72	Dry ravine, 20 lks. wide, course north; ascend E. slope, 80 ft.
17.15	A point from which Hansen's well brs. south about 7 chs.
18.62	Wire fence brs. N. 70°E. and S. 70°W. Leave cultivated land brs. N. 70°E. and S. 70°W. 10 chs. Enter scattering pine and cedar timber.
40.22	Intersect the reestablished cor. of secs. 1, 2, 35 and 36, hereinbefore described.
	Land, mountainous, slopes to the north.
	Soil, medium rich coarse sandy and adobe clay loam 4 to 12 ins. deep on dry sandy and stony clay subsoil.
	Timber, oak, juniper and pine. July 10, 1915.

44. Resurvey of part of W. bdy. of Township 9 North, Range 22 E.

Chains.

July 10, 1915. Resurvey of parts of the W. and N. bdrs. of T. 9 N., R. 22 E., as described in the following notes, executed with a Young and Sons' solar compass No. 6802, with telescope 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.

I examine the adjustments of the compass, and correct the level and collimation errors; then, in order to test the solar apparatus by comparing its indications, resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris, I proceed as follows: July 10, 1915.

At my camp, which is located near the center of sec. 1, T. 9 N., R. 21 E.; latitude, 34°11'N.; longitude, 110°04'W., at 3h. 5m. p.m., l.m.t., I set off 34°11'N. on the lat. arc; 22°18½'N. on the decl. arc, and determine a meridian with the solar, and mark a point thereof by a nail driven in a stake set in the ground about 5 chs. N. of my instrument.

At 9h. 25m. p.m., l.m.t., by my watch, which is correct local mean time, I observe Polaris in accordance with the Manual, and mark the direction thus determined by a small nail driven in a stake set in the ground, about 5 chs. N. of my instrument.

Time of observation July 10, 1915,	9h. 25m. p.m.
Time of U.C. Polaris July 11, 1915, for meridian of Greenwich, civil date & mean time,	4h. 15. 5m. a.m.
Correction to local meridian (subtract)	1. 2
Hour angle Polaris at observation	6 49.3
Azimuth of Polaris at observation	1°20'E.

July 10, 1915.

July 11, 1915. At 7h. a.m., I lay off the azimuth of Polaris 1°20' to the west, and mark the meridian thus determined by a tally pin driven in the stake set last evening on which the meridian falls 0½' west of the point determined by the solar.

At 8h. 5m. a.m., l.m.t., I set off 34°11'N. on the lat. arc; 22°13'N. on the decl. arc, and determine a meridian with the solar, and mark a point thereof by a nail driven in the stake already set about 5 chs. N. of my instrument; this point falls 01' west of the meridian established by the Polaris observation.

At noon, apparent time, July 11, I set off 22° 11½'N. on the decl. arc, and observe the sun on the meridian, and obtain a reading of 34°11' plus on the lat. arc.

The solar apparatus by p.m. and a.m. observations defines positions for meridians respectively about 0½'E and 01' W. of the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the solar are satisfactory.

July 11, 1915.

July 12, 1915: I begin at the reestablished cor. of Ts. 9 and 10 N., Rs. 21 and 22 E., hereinbefore described; latitude, 34° 11'20" N.; longitude, 110°03'30"W.

At this cor., I set off 34°11½'N. on the lat. arc; 22°05'N., on the decl. arc; and at 7h. 20m. a.m., l.m.t., determine with the solar a meridian.

Thence

South, on a random line, bet. secs. 1 and 6.

40.86 Fall 4 lks. W. of the old ¼ sec. cor., which is a soft sandstone 12x10x5 ins. above ground, loosely set, marks

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almost obliterated, witnessed as described by the Surveyor General.
True course and dist. of N.½ bet.secs.1 and 6 is therefore N.0° 3'W., 40.86 chs.
From old ¼ sec.cor., described above,
South, on a random line on S.½ bet.secs.1 and 6.
40.12 Fall 1 lk. west of the old cor.of secs. 1,6,7 and 12, which is a sandstone 12x10x6 ins. loosely set,marks almost obliterated, witnessed as described by the surveyor general.
True course and dist.of S.½ bet.secs.1 and 6 is therefore N.0°1'W., 40.12 chs.
This cor.being in a state of dilapidation, I destroy and reestablish in same place as follows:
Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for cor.of secs. 1,6,7 and 12, marked on brass cap,

T 9 N in N., and
1915 in S.half;
R 21 E S 1 in NW.,
R 22 E S 6 in NE.,
S 7 in SE., and
S 12 in SW. quadrant; from which the original bearing trees:

A pine, 12 ins. in diam., brs.N.16½°E., 31 lks. dist., marked T 9 N R 22 E S 6 B T.
A juniper, 24 ins. in diam., brs.S.62¼°E.,122 lks.dist., marked T 9 N R 22 E S 7 B T.
A pine, 12 ins. in diam., brs.S.41°W., 32 lks. dist., marked T 9 N R 21 E S 12 B T.
A pine, 16 ins. in diam., brs.N.85°W.,35 lks. dist., marked T 9 N R21 E S 1 B T.

Thence,
N.0°01'W., on a true line, on S.½,bet. secs.1 and 6.
Descend NW.slope, over stony,mountainous land,through heavy pine, oak and juniper timber and brush, 94 ft.
15.82 Head of dry ravine, 5 lks.wide, course N.60°W.; ascend 26 ft.
35.12 Top of spur, brs.N.20°W. and S.20°E.; descend 212 ft.
40.12 Intersect the old ¼ sec.cor.hereinbefore described,which I destroy, and reestablish in the same place as follows:
Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for ¼ sec.cor., marked on brass cap,

¼
S 1 in W.,
S 6 in E. and
1915 in S. half; from which the old bearing trees:

A pine,12 ins. in diam. brs. S.46°E.,11 lks. dist., marked ¼ S 6 B T.
A pine, 12 ins. in diam.,brs.N.48¾° W.,16,lks. dist., marked ¼ S 1 B T.

Thence
N.0°03'W., on a true line on N.½,bet.secs.1 and 6.
Over mountainous land, continuing descent from spur.
21.66 Road from Showlow, Arizona to Y.P.Hansen's ranch brs. N.70°W. and S.70°E.
32.56 Dry ravine, 15 lks.wide. 15 ft.deep,course N.70°W.;ascend 36 ft.
40.86 Intersect the reestablished cor.of Ts.9 and 10 N.,Rs.21 and 22 E., hereinbefore described.
Land, mountainous, spurs steep, rocky, covered with dense brush undergrowth.
Soil, stony clay loam, 8 ins.deep on clay and stone subsoil.
Timber, oak, juniper, cedar and pine.

From reestablished cor.of secs.1,6,7 and 12,
South,on a random line, bet. secs.7 and 12.
40.20 Fall 15 lks.W. of theold ¼ sec.cor., which is a sand-

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stone 12x8x6 ins. loosely set, marked and witnessed as described by the surveyor general.
True course and dist. of N.½ bet. secs. 7 and 12 is therefore N.0°13'W., 40.20 chs.
From old ¼ sec. cor. described above,
South, on a random line on S.½ bet. secs. 7 and 12.

40.22 Intersect the old cor. of secs. 7, 12, 13 and 18, which is a sandstone 12x6x4 ins., loosely set, marks almost obliterated, witnessed as described by the surveyor general.
True course and dist. of S.½ bet. secs. 7 and 12 is therefore north, 40.22 chs.
This cor. being in a dilapidated condition, I destroy and reestablish in same place as follows:
Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, marked on brass cap,

T 9 N in N., and
1915 in S. half;
R 21 E S 12 in NW.,
R 22 E S 7 in NE.,
S 18 in SE., and
S 13 in SW. quadrant; from which

A pine, 18 ins. in diam., brs. N.26°E., 19 lks. dist., marked T 9 N R22 E S 7 BT.
A pine, 6 ins. in diam., brs. S.71°E., 45 lks. dist., marked T 9 N R 22 E S 18 B T.
A juniper, 14 ins. in diam., brs. S.69½°W., 106 lks. dist., marked T 9 N R 21 E S 13 B T.
A juniper, 8 ins. in diam., brs. N.27°W., 110 lks. dist., marked T 9 N R 21 E S 12 B T.

Thence,
North on a true line, on S.½ bet. secs. 7 and 12.
Ascend SW. slope of spur, 15 ft. over rolling stony mountainous land, through heavy pine, juniper and cedar timber.

10.20 Top of spur, brs. N. 40°W. and S.40°E.; descend NE. slope, 93 ft.

24.02 Dry ravine, 10 lks. wide, course S. 70°E.; ascend SW. slope, 59 ft. Enter dense manzanita brush undergrowth, 6 ft. high.

30.22 Top of spur, brs. N.50°W. and S.50°E.; descend 8 ft.

31.72 Dry ravine, 6 lks. wide, course S.30°E.; ascend SW. slope, 77 ft.

40.22 Intersect the old ¼ sec. cor. hereinbefore described, which I destroy and reestablish in the same place as follows:
Reset the same stone 9 ins. in the ground for ¼ sec. cor., marked ¼ S on W. face, from which the original bearing tree:

A cedar 12 ins. in diam., brs. S.56½°E., 8 lks. dist., marked ¼ S 7 B T.

Establish a new bearing tree as follows:

A cedar, 12 ins. in diam., brs. N.29¾°W., 45 lks. dist., which I mark ¼ S 12 B T.

Thence
N.0° 13' W., on a true line, on N.½ bet. secs. 7 and 12.
Over mountainous land, continuing ascent.

27.78 Top of ascent on the "Mogollon Rim" brs. N.68°E., and S.68° W.; descend over NW. slope, 184 ft.

27.90 Wire fence along N. bdy. of the Fort Apache Indian Reservation, brs. N.68°W. and S.68°E.

28.68 Intersect N. bdy. of the Fort Apache Indian Reservation 108 lks. S. 68° 40' W. of Angle Point No. 411, which is a dead juniper, 30 ins. in diam., marked and witnessed as described by the surveyor general.
At the point of intersection, set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for reestablished closing cor. of Ts. 9 N., Rs. 21 and 22 E., marked on brass cap,

C C N of center,
T 9 N in N., and
F A I R, 1915 in S half;

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R 21 E in NW.,
S 7 in NE.,
R 22 E in SE., and
S 12 in SW.sector.

At this cor. I set off 22° 03½'N.on the decl.arc,and at noon, apparent time July 12, 1915, observe the sun on the meridian,and obtain a reading of 34° 10'N. on the lat.arc.

From this cor. the unaccepted closing cor.of Ts.9 N., Rs. 21 and 22 E., set by Deputy Charles E.Perkins,under Contract No.40 brs.W. 4 lks.dist. I destroy all trace of this cor., and the marks on the bearing trees to same.

40.20 Intersect the reestablished cor.of secs.1,6,7 and 12,hereinbefore described.

Land, mountainous.

Soil, poor dry stony clay loam about 8 ins. deep on dry stony clay subsoil.

Timber, oak, cedar, juniper and pine.

July 12,1915.

48. Resurvey of part of the North bdy.of Township 9 N.,R.22 E.

Chains.

July 16,1915. At 6h. 50¾m. a.m., l. m. t., I set off 34° 11'N. on the lat.arc; 21°31'N. on the decl.arc,and determine a meridian with the solar at the reestablished cor.of Ts.9 and 10 N.,Rs.21 and 22 E., hereinbefore described.

Thence,

N.89° 53' E., on a random line, bet. secs.6 and 31.

37.09 Fall 56 lks.S. of the old ¼ sec.cor., which is a sandstone 10x8x6 ins. loosely set, marked ¼ on N.face, and witnessed by the two original bearing trees described by the surveyor general.

True course and dist.of W.½ bet. secs. 6 and 31 is therefore S.89°01'W., 37.10 chs.

From the old ¼ sec.cor. described above,

N.89°53'E.on a random line on E.½ bet. secs. 6 and 31.

40.00 Fall 59 lks.S. of the old cor.of secs. 5,6,31 and 32,which is a sandstone 12x10x10 ins. loosely set in a mound of stone, marked as described by the surveyor general, and witnessed by original bearing trees NE. and NW. of cor., and bearing trees NE,SE.& SW.of cor., marked by Deputy Perkins, under Contract No.40.

True course and dist. of E.½ bet. secs.6 and 31 is therefore S.89° 02'W., 40.01 chs.

This cor.being in a dilapidated condition, I destroy, and reestablish it in same place as follows:

Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for cor.of secs. 5,6,31 and 32, marked on brass cap,

T 10 N in N.,
T 9 N, 1915 in S., and
R 22 E in W.half;
S 31 in NW.,
S 32 in NE.,
S 5 in SE., and
S 6 in SW. quadrant; from which,

A juniper, 12 ins. in diam., brs.N.37½°E.,38 lks.dist., marked by Deputy Charles E.Perkins T 10 N R 22 E S 32 B T.

Original bearing tree a pine, 12 ins. in diam., (dead) brs.N.54¾° E., 32 lks.dist., marked T 10 N R 22 E S 32 B T.

A pine,10 ins. in diam., brs.S.89¾°E., 50 lks. dist., marked by Deputy Perkins T 9 N R 22 E S 5 B T.

A pine, 20 ins. in diam.,brs.S.8¾°W., 63 lks. dist., marked by Deputy Perkins T 9 N R 22 E S 6 B T.

Original bearing tree, a pine 10 ins. in diam., (dead) brs.N.39°W., 29 lks.dist., marked T 10 N R 22 E S 31 B T.

Establish a new bearing tree as follows:

A pine, 18 ins. in diam., brs.N.51½°W., 135 lks. ,dist., which I mark T 10 N R 22 E S 31 B T.

Thence,

S.89°02'W., on a true line, on E.½,bet.secs.6 and 31.

Ascend SE.slope, 7 ft. over mountainous land,through heavy juniper, cedar, and pine timber and brush.

2.05 Top of spur, brs.N.20°W. and S.20°E.; descend 45 ft.

12.65 Foot of descent on SW.slope at head of ravine,course SE.; ascend 12 ft.

14.60 Road from Y.P.Hansen's ranch to Showlow, Arizona,brs.N. 50°E. and S.50°W.

24.05 Top of ascent in saddle on ridge brs.N.60° E. and S.60°W. Descend NW. slope about 15 ft.

28.95 Foot of descent on NW. slope in head of dry ravine,course N.20°W.; ascend NE.slope, 68 ft.

40.01 Intersect the old ¼ sec.cor. hereinbefore described,which I destroy and reestablish in the same place as follows:

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

Chains.

¼ S 31 in N., and
S 6, 1915 in S.half; from which the original bearing trees:
A pine, 12 ins. in diam., brs.N.53½°E.,31 lks. dist., marked ¼ S 31 B T.
A pine, 8 ins. in diam., brs.S.22°E.,14 lks. dist., marked ¼ S 6 B T.

Thence,
S.89°01'W., on a true line, on W.½,bet.secs.6 and 31.
Over mountainous land, continuing ascent.

1.17 Top of spur, brs.N.20°W. and S.20°E.; descend SW.slope, 126 ft.

16.31 Dry ravine, 8 lks.wide, course S.10°W.; ascend 25 ft.

21.19 Top of spur, brs.N.10°E. and S.10°W.;descend 127 ft.

37.10 Intersect the reestablished cor.of Ts.9 and 10 N.,Rs.21 and 22 E.,hereinbefore described.

Land, mountainous, spurs steep rocky, covered with dense cedar and juniper brush.
Soil, poor, dry stony clay loam, 3rd rate.
Timber, oak, juniper, cedar and pine.
Good grass.

From reestablished cor.of secs. 5,6,31 and 32,
N.89° 53' E., on a random line, bet. secs.5 and 32.

39.88 Fall 63 lks.S.of the old ¼ sec.cor., which is a sandstone 12x6x6 ins., loosely set, marks almost obliterated,and witnessed by the charred stumps of the original bearing trees.

True course and dist.of W.½ bet.secs. 5 and 32 is therefore S.88°59'W., 39.89 chs.

From old ¼ sec.cor. described above,
N.89°53'E. on a random line on E.½, bet. secs.5 and 32.

40.10 Fall 18 lks.S. of the old cor.of secs.4,5,32 and 33,which is a sandstone 12x12x6 ins. loosely set in a mound of stone, marks almost obliterated, witnessed by original bearing tree NE.of cor. The SE.,SW. and NW. bearing trees cannot be found.

True course and dist.of E.½,bet.secs.5 and 32 is therefore S.89°38'W., 40,10 chs.

This cor.being in a dilapidated condition, I destroy and reestablish it in same place as follows:

Set an iron post 3 ft.long, 3 ins. in diam., 24 ins. in the ground for cor.of secs.4,5,32 and 33, marked on brass cap,

T 10 N in N.,
T 9 N, 1915 in S., and
R 22 E in W.half;
S 32 in NW.,
S 33 in NE.,
S 4 in SE., and
S 5 in SW.quadrant; from which

Original bearing tree, a pine 24 ins. in diam., brs.N.38°E., 35 lks.dist., marked T 10 N R 22 E S 33 B T.

Establish new bearing trees as follows:
A pine, 10 ins. in diam., brs.S.51°E., 172 lks. dist., which I mark T 9 N R 22 E S 4 B T.
An oak,10 ins. in diam., brs.S.57°W., 91 lks. dist., which I mark T 9 N R 22 E S 5 B T.
A pine, 8 ins. in diam., brs.N.43½°W.,59 lks. dist., which I mark T 10 N R 22 E S 32 B T.

Thence,
S.89°38'W., on a true line, on E.½, bet. secs.5 and 32.
Descend NW.slope over stony, mountainous land, through heavy pine and oak timber and scattering brush.

1.34 Military telegraph line from Fort Apache to Holbrook,Arizona brs.N.10°W. and S.10°E.

9.40 Foot of descent 75 ft. below cor., cross Showlow Creek,15 lks.wide,dry. course N.10°W.; ascend 15 ft.

50. Resurvey of part of the N.bdy.of Township 9 N.,R.22 E.

Chains	
13.25	Road from Holbrook to Fort Apache,Arizona, brs.N.10°W.and S.10°E.
15.60	A point from which a small brick house brs.south 2.00 chs. dist.; occupants name not known.
20.10	Top of low ridge, brs. NE.; descend 16 ft.
22.20	A point 20 lks.N.of the NW.cor.of wire fence, brs.east and south.
23.20	Ranch road brs.N.40°E. and S.40°W.
31.58	Dry ravine, 5 lks.wide, course N.10°E.; ascend 6 ft.
32.10	Point of spur, brs.NE and SW.; descend 13 ft.
35.30	Dry ravine, 15 lks.wide, course N.40°E.; ascend 13 ft.
40.10	Intersect the old ¼ sec.cor. hereinbefore described, which I destroy, and reestablish in the same place as follows:
	Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for ¼ sec.cor.,marked on brass cap, ¼ S 32 in [illegible] N., and S 5, 1915 in S.half; from which I establish new bearing trees as follows:
	A pine, 24 ins. in diam., brs.N.8°E.,128 lks. dist., which I mark ¼ S 32 B T.
	A pine, 30 ins. in diam.,brs.S.8½°W.,24 lks. dist., which I mark ¼ S 5 B T.
	Thence
	S.88°59'W., on a true line on W.½,bet.secs.5 and 32.
	Over mountainous land.
	Continue ascent over SE.slope, 85 ft.
39.89	Intersect the reestablished cor. of secs. 5,6,31 and 32, hereinbefore described.
	Land, rolling, mountainous.
	Soil, sandy and stony loam, 8 to 12 ins.deep on s tony clay loam.
	Timber, oak, juniper, cedar and pine.
	July 16, 1915.

Chains.

Resurvey of part of E.bdy. of T.9 N.,R.25 E.,described in following notes, executed with a Buff light mountain transit No.9793, with solar attachment. The horizontal limb being 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.

I examine the adjustments of the transit,and find them correct, and know from recent tests of the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian established by observations on Polaris, that the instrument is in satisfactory adjustment.

August 24,1915.

At the reestablished standard cor. of Ts.9 N.,Rs.25 and 26 E.on 2nd Standard Parallel N., described in Book "C," latitude, 34° 06'N.; longitude, 109°38'23"W.

At 2h.17.5m. p,m.,l.m.t., I set off 34°06'N. on the lat. arc; 11°16'N.on the decl.arc, and determine a meridian with the solar.

Thence,

North, on a random line, bet. secs.31 and 36.

40.67 Fall 30 lks.W. of the old ¼ sec.cor., which is a malpais stone 14x8x6 ins. above ground, loosely set,marked ¼ on W.face,and witnessed by the two original bearing trees described by the surveyor general.

True course and dist. of S.½ bet. secs.31 and 36 is therefore S.0° 25'W., 40.67 chs.

From old ¼ sec.cor. described above,

North, on a random line, on N.½, bet. secs.31 and 36.

40.90 Fall 2 lks.W.of the old cor.of secs. 25, 30,31 and 36, which is a malpais stone 14x8x6 ins. loosely set in a mound of stone, marks almost obliterated. No cor.accessories remain.

True course and dist. of N.½ bet. secs.31 and 36 is therefore S.0°2'W., 40.90 chs. This cor. being in a dilapidated condition, I destroy and reestablish in the same place as follows:

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

T 9 N in N., and
1915 in S.half;
R 25 E, S 25 in NW.,
R 26 E S 30 in NE.,
S 31 in SE., and
S 36 in SW.quadrant.

No trees within limits; raise a mound of stone 2 ft.base, 1½ ft. high,W.of cor. Pits impracticable.

Thence,

S.0°02'W., on a true line, on N.½,bet.secs.31 and 36.

Over nearly level stony land along wire fence,brs.N.and S.

12.50 Dry bed of Silver Creek,15 lks.wide, banks 3 ft.high, course N.70°E.

15.40 A point from which a deserted frame house brs.east 125 lks. dist.

20.40 Cor.of wire fence, brs.north and east.

25.47 Road from Fort Apache to Springerville,Arizona, brs.N.50° E. and S.30°W.; ascend gradually over N.slope.

30.90 Enter aspen,fir and pine timber.

40.90 Intersect the old ¼ sec.cor. hereinbefore described, which I destroy,and reestablish in the same place as follows:

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

¼ S 36 in W.,
S 31 in E., and
1915 in S.half; from which original bearing trees:

A dead pine, 38 ins. in diam., brs.S.72¼°E., 52 lks.dist., marked ¼ S B T.

Chains.

A pine, 16 ins. in diam., brs.S.14¾°W., 41 lks. dist., marked ¼ S 36 B T.

I establish a new bearing tree, as follows:
A pine,10 ins. in diam., brs.S.29½°E.,45 lks. dist., which I mark ¼ S 31 B T.

Thence,
S 0°25'W., on a true line on S.½, bet. secs.31 and 36.
Over rolling land, ascend gradually.

8.67 Top of hill brs.NW. and SE. about 30 ft. above Silver creek; descend gradually.

12.70 Foot of descent; enter flat brs.N.30°W. and S.10°E.

23.17 Road from Fort Apache to Springerville,brs.N.50°W. and S. 50°E.

25.70 Leave flat, brs.N.70°W. and S.60°E.; ascend NE. slope of low ridge.

28.65 Top of ridge, about 10 ft. above flat, brs.N.70°W. and S.70°E.; descend SW.slope, 5 ft.

30,70 Foot of descent; leave timber brs.N.40°E. and S.40°W.; enter flat brs. NE. and SW.

37.12 Road from Fort Apache to Springerville, Arizona, brs.N.10° E., and S.10°W.; leave flat brs.NE. and SW.; ascend NW. slope, 5 ft.

40.67 Intersect the reestablished standard cor. of Ts.9 N.,Rs.25 and 26 E., described in Book "C."

Land, rolling and hilly.
Soil of N. 31 chs. medium rich, dry sandy and stony loam, 6 to 12 ins. deep on stony clay subsoil. S.50.57 chs., poor stony clay loam 3 to 10 ins.deep onstone and clay subsoil,
Timber, aspen, fir and pine.

August 24, 1915.

FIELD ASSISTANTS TO SIDNEY E. BLOUT, U.S. SURVEYOR.

NAME.	CAPACITY.
T. Y. White,	Head Chainman.
G. S. Henry,	Rear Chainman.
Ben J.Kinsey,	Flagman,
G. A. McEnnis,	Moundman.
Samuel Drew,	Axman.

CERTIFICATE OF UNITED STATES SURVEYOR. 53

I, Sidney E.Blout,U.S.Surveyor,hereby certify upon honor,that in pursuance of special instructions received from the U.S.Surveyor General for Arizona for Group No.40, bearing date of the 16th day of December, 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, retraced and resurveyed all those parts or portions of the

WEST BDY.OF TOWNSHIP 1 NORTH,RANGE 1 WEST,
WEST & SOUTH BDRS.OF TOWNSHIP 11 NORTH,RANGE 18 EAST,
EAST,SOUTH & WEST BDRS.OF TOWNSHIP 10 NORTH,RANGE 19 EAST,
NORTH BDY.OF TOWNSHIP 10 NORTH,RANGE 20 EAST,
SOUTH BDY.OF TOWNSHIP 10 NORTH, RANGE 21 EAST,
WEST & NORTH BDRS.OF TOWNSHIP 9 NORTH,RANGE 22 EAST,and
EAST BDY.OF TOWNSHIP 9 NORTH,RANGE 25 EAST,

of the Gila and Salt River Base and Meridian,in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and that all the corners of said retracement and resurvey 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 Group No.40,Arizona,and in the specific manner described in the field notes, and that the foregoing are the original field notes of such retracement and resurvey.

Subscribed at Phoenix, Arizona, on January 24, 1916, by Sidney E. Blout
U. S. Surveyor.

APPROVAL.

Office of the United States Surveyor General,

Phoenix,Arizona, Sept. 19 1917.

The foregoing field notes of the retracement and resurvey of part of the W.bdy.of Township 1 North,Range 1 West; parts of the West and South bdrs.of Township 11 North,Range 18 East;East bdy.& parts of the South and West bdrs.of Township 10 North,Range 19 East, North bdy.of Township 10 North,Range 20 East,South bdy.of Township 10 North,Range 21 East; parts of the West & North Bdrs.of Township 9 North,Range 22 East,& part of the East bdy.of Township 9 North, Range 25 East,of the Gila and Salt River Base and Meridian,in the State of Arizona, executed by Sidney E.Blout,U.S.Surveyor,under his special instructions dated December 16,1914,for Group No.40,Arizona, having been critically examined, and the necessary corrections and explanation made,the said field notes,and the retracements and resurveys they describe, are hereby approved.

Frank A. Gross
U.S.Surveyor General.

~~I certify that the foregoing transcript of the field notes of the above described retracements and resurveys in Book "A," of Group No. 40, has been correctly copied from the original notes on file in this office.~~

~~U.S.Surveyor General.~~