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Book "I"

Subdivisions

BOOK 2985

# FIELD NOTES

OF RETRACEMENT AND RESURVEY

OF PART OF THE

SUBDIVISION LINES OF

TOWNSHIP 10 NORTH, RANGE 21 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 December 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., 1914.

Retracement  
and Resurvey commenced July 2., 1915.

Retracement  
and Resurvey completed July 5., 1915.

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Partial Resurvey of the Subdivision lines of T.10 N., R.21 E. 1B

Chains.

Resurvey commenced July 2, 1915, and executed with a Young and Sons' light mountain transit No. 10.

I examine the adjustments of the transit, and finding them to be correct, I 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.

A 5-chain steel tape and clinometer are the instruments employed to determine all distances measured in this resurvey.

At the reestablished cor. of secs. 19 and 30, on W. bdy. of Tp. (5th. Guide Meridian East) described in Book "C;" latitude,  $34^{\circ} 13' N.$ ; longitude,  $110^{\circ} 10' 08'' W.$  at 7h. 03m., a. m., l. m. t., I set off  $34^{\circ} 13' N.$  on the lat. arc;  $23^{\circ} 07' N.$  on the decl. arc; and determine a meridian with the solar.

Thence,

38.82 S.  $89^{\circ} 55' E.$ , on a random line, bet. secs. 19 and 30. Fall 29 lks. S. of the old  $\frac{1}{4}$  sec. cor., which is a sandstone  $12 \times 12 \times 6$  ins. above ground, loosely set, marked and witnessed as described by the surveyor general. True course and dist. of W. half bet. secs. 19 and 30 is therefore, S.  $89^{\circ} 39' W.$ , 38.82 chs.

From old  $\frac{1}{4}$  sec. cor., described above,

39.90 S.  $89^{\circ} 55' E.$  on a random line on E.  $\frac{1}{2}$ , bet. secs. 19 and 30. Fall 8 lks. S. of the original cor. of secs. 19, 20, 29 and 30, which is a sandstone  $24 \times 12 \times 10$  ins. 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. 19 and 30 is therefore S.  $89^{\circ} 58' W.$ , 39.90 chs.

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

Reset the same stone, 18 ins. in the ground for cor. of secs. 19, 20, 29 and 30, marked with 5 notches on E. and 2 notches on S. edges, from which the original bearing trees:

- A juniper, 30 ins. in diam., brs. N.  $37^{\circ} \frac{3}{4} E.$ , 44 lks. dist., marked T 10 N R 21 E S 20 B T.
- An oak, 16 ins. in diam., brs. S.  $32^{\circ} \frac{1}{2} E.$ , 80 lks. dist., marked T 10 N R 21 E S 29 B T.
- An oak, 18 ins. in diam., brs. S.  $14^{\circ} \frac{3}{4} W.$ , 58 lks. dist., marked T 10 N R 21 E S 30 B T.
- A pine, 30 ins. in diam., brs. N.  $19^{\circ} \frac{1}{4} W.$ , 70 lks. dist., marked T 10 N R 21 E S 19 B T.

Thence,

19.90 S.  $89^{\circ} 58' W.$ , on a true line on E.  $\frac{1}{2}$ , bet. secs. 19 and 30. Ascend SE. slope of spur, 50 ft., over stony, mountainous land, through heavy pine and oak timber and brush. Top of spur, brs. N.  $30^{\circ} E.$  and S.  $30^{\circ} W.$ ; descend over NW. slope, 186 ft.

39.90 Intersect the old  $\frac{1}{4}$  sec. cor., hereinbefore described, which I reestablish in same place, as follows:

Reset the same stone, 8 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  S on N. face, from which the original bearing trees:

- A pine, 24 ins. in diam., brs. N.  $8^{\circ} \frac{1}{2} E.$ , 76 lks. dist., marked  $\frac{1}{4}$  S 19 B T.
- A pine, 20 ins. in diam., brs. S.  $26^{\circ} W.$ , 10 lks. dist., marked  $\frac{1}{4}$  S 30 B T.

Thence,

5.10 S.  $89^{\circ} 39' W.$ , on a true line on W.  $\frac{1}{4}$ , bet. secs. 19 and 30. Over mountainous land, continuing descent from spur. Dry ravine, 20 lks. wide, 20 ft. deep, course N.  $70^{\circ} W.$ ; ascend.

7.60 Point of spur, 25 ft. above bottom of ravine, brs. N. and S.; descend.

10.10 Dry ravine, 20 lks. wide, course north; ascend E. slope.

34.82 Top of spur, 100 ft. above ravine, brs. N.  $20^{\circ} E.$  and S.  $20^{\circ} W.$ ; descend over W. slope.

38.82 Intersect the reestablished cor. of secs. 19 and 30, on W.

## 2. Partial Resurvey of the Subdivision lines of T.10 N., R.21 E.

Chains.

- bdy. of Tp. (5th. Guide Mer. E.) described in Book "C."  
Land, mountainous, spurs steep, covered with loose stone.  
Soil, sandy and stony clay loam, 3 to 6 ins. deep on clay  
and decomposed sand stone subsoil.  
Timber, oak, juniper and pine.
- 
- 37.05 From reestablished cor. of secs. 19, 20, 29 and 30,  
South, on a random line, bet. secs. 29 and 30.  
Fall 120 lks. W. of the old  $\frac{1}{4}$  sec. cor., which is a pine, 12  
ins. in diam., marked  $\frac{1}{4}$  S on W. face, and witnessed as  
described by the surveyor general.  
True course and dist. of N.  $\frac{1}{2}$ , bet. secs. 29 and 30 is there-  
fore N.  $1^{\circ} 51' W.$ , 37.07 chs.
- 40.42 From old  $\frac{1}{4}$  sec. cor. described above,  
South, on a random line on S.  $\frac{1}{2}$ , bet. secs. 29 and 30.  
Fall 90 lks. E. of original cor. of secs. 29, 30, 31 and 32,  
which is a sandstone 18x12x8 ins., above ground, loosely  
set, marked and witnessed as described by the surveyor  
general.  
True course and dist. of S.  $\frac{1}{2}$  bet. secs. 29 and 30, is there-  
fore N.  $1^{\circ} 17' E.$ , 40.43 chs.  
I reestablish this cor. as follows:  
Reset the same stone, 12 ins. in the ground for cor. of  
secs. 29, 30, 31 and 32, marked with 5 notches on E. and 1  
notch on S. edges, from which the original bearing trees  
A pine 16 ins. in diam., brs. N.  $21\frac{1}{2}^{\circ} E.$ , 102 lks.  
dist., marked T 10 N R 21 E S 29 B T.  
An oak, 12 ins. in diam., brs. S.  $62^{\circ} E.$ , 75 lks.  
dist., marked T 10 N R 21 E S 32 B T.  
A pine, 12 ins. in diam., brs. S.  $41^{\circ} W.$ , 74 lks.  
dist., marked T 10 N R 21 E S 31 B T.  
A pine, 26 ins. in diam., brs. N.  $53^{\circ} W.$ , 65 lks.  
dist., marked T 10 N R 21 E S 30 B T.  
At this cor., I set off  $23^{\circ} 05\frac{1}{2}' N.$  on the decl. arc, and at  
apparent noon, July 2, 1915, observe the sun on the  
meridian; the resulting latitude being  $34^{\circ} 12' N.$   
Thence  
N.  $1^{\circ} 17' E.$ , on a true line on S.  $\frac{1}{2}$ , bet. secs. 29 and 30.  
Descend NE. slope, over stony, mountainous land, through  
heavy pine timber.
- 17.42 Dry ravine, 10 lks. wide, 40 ft. below cor., course N.  $50^{\circ} E.$ ;  
ascend.
- 27.42 Top of spur, 29 ft. above ravine, brs. N.  $40^{\circ} E.$  and S.  $40^{\circ} W.$ ;  
descend.
- 36.45 Dry ravine, 17 ft. below top of spur, course N.  $70^{\circ} E.$ ; as-  
cend.
- 40.43 Intersect the old  $\frac{1}{4}$  sec. cor., hereinbefore described, from  
which the original bearing trees bear as follows:  
A pine, 16 ins. in diam., brs. N.  $88\frac{1}{2}^{\circ} E.$ , 19 lks.  
dist., marked  $\frac{1}{4}$  S 29 B T.  
A pine, 24 ins. in diam., brs. S.  $23^{\circ} W.$ , 24 lks.  
dist., marked  $\frac{1}{4}$  S 30 B T.  
From this cor. the unaccepted  $\frac{1}{4}$  sec. cor. set by Deputy  
Charles E. Perkins under contract No. 40, brs. S.  $23^{\circ} W.$ ,  
246 lks. dist.  
I destroy all traces of this cor., and the marks on the  
bearing trees to same.  
Thence,  
N.  $1^{\circ} 51' W.$ , on a true line, on N.  $\frac{1}{2}$ , bet. secs. 29 and 30.  
Over mountainous land; ascend.
- 22.04 Top of spur, 22 ft. above the  $\frac{1}{4}$  sec. cor., brs. N.  $30^{\circ} E.$  and  
S.  $30^{\circ} W.$ ; descend over NW. slope, 75 ft.
- 37.07 Intersect the cor. of secs. 19, 20, 29 and 30.  
Land, mountainous.  
Soil, sandy and stony loam, 4 to 10 ins. deep on stony  
clay subsoil.  
Timber, pine and oak.
-

Partial Resurvey of the Subdivision lines of T.10 N., R.21 E. 3.

- Chains
- N. 89° 49' W. on random line, bet. secs. 30 and 31.
  - 40.00 No trace can be found after diligent search, of the old  $\frac{1}{4}$  sec. cor.; therefore, continue line and measurement.
  - 78.76 Fall 317 lks. N. of the old cor. of secs. 25, 30, 31 and 36 on W bdy. of Tp. (5th. Guide Meridian E.), described in Book "C."  
True course and dist. of line, bet. secs. 30 and 31 is therefore N. 87° 53' E., 78.81 chs.  
Thence,  
N. 87° 53' E., on a true line, bet. secs. 30 and 31.  
Descend NE. slope of Mogollon Rim, over stony, mountainous land, through pine, oak and juniper timber and brush undergrowth.
  - 17.00 Intersect the N. bdy. of the Fort Apache Indian Reservation 4.84 chs. N. 61° 48' W. of Angle point No. 515, described in Book "B."  
At the point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for reestablished closing cor. of secs. 30 and 31, marked on brass cap,  
C C E of center,  
T 10 N R. 21 E in N., and  
FAIR, 1915 in S. half;  
S 30 in NW., and  
S 31 in SE. sector.
  - From this cor. the unaccepted closing cor. of secs. 30 and 31 set by Deputy Charles E. Perkins, under Cont. No. 40, brs. N. 61° 48' W., 6.18 chs. dist.  
I destroy all traces of this closing cor., and the marks on the bearing trees to the same.
  - 17.60 Wire fence along N. bdy. of Indian Reservation, brs. NW. and SE.
  - 38.94 (Proportional dist.) Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished  $\frac{1}{4}$  sec. cor., marked on brass cap,  
 $\frac{1}{4}$  S 30 in N., and  
S 31, 1915 in S half; from which  
A pine, 20 ins. in diam., brs. N. 4 $\frac{1}{2}$ ° W., 73 lks. dist., marked  $\frac{1}{4}$  S 30 B T.  
A pine, 18 ins. in diam., brs. S 53 $\frac{3}{4}$ ° W., 107 lks. dist., marked  $\frac{1}{4}$  S 31 B T.
  - From this cor., the unaccepted  $\frac{1}{4}$  sec. cor., set by Deputy Charles E. Perkins brs. N. 0° 15' W., 176 lks. dist.  
I destroy all trace of this cor., and the marks on the bearing trees to same.
  - 57.76 Dry ravine, 15 lks. wide, 366 ft. below top of Rim, course N. 10° E.; ascend NW. slope of spur.
  - 68.75 Top of spur, 20 ft. above ravine, brs. N. 20° E. and S. 20° W.; descend E. slope, 5 ft.
  - 78.81 Intersect the reestablished cor. of secs. 29, 30, 31 and 32, hereinbefore described.  
Land, mountainous, drains to the NE.  
Soil, stony and sandy loam, 8 ins. deep on clay and sand stone subsoil.  
Timber, oak, juniper and pine.

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  - 40.46 South, on a random line, bet. secs. 31 and 32.  
Fall 8 lks. E. of the remains of the old  $\frac{1}{4}$  sec. cor., which is an oak post greatly decayed with marks almost obliterated, with trace of old mound of earth.  
True course and dist. of N.  $\frac{1}{2}$ , bet. secs. 31 and 32 is therefore N. 0° 7' E., 40.46 chs.  
From old  $\frac{1}{4}$  sec. cor. described above,  
S. on a random line on S  $\frac{1}{2}$ , bet. secs. 31 and 32.
  - 40.93 Fall 15 lks. E. of the original cor. of secs. 5, 6, 31 and 32 on S. bdy. of Tp., later reestablished by me as described in Book "A."  
True course and dist. of S.  $\frac{1}{2}$  bet. secs. 31 and 32 is therefore N. 0° 13' E., 40.93 chs.

## 4. Partial Resurvey of the Subdivision lines of T.10 N.R.21 E.

Chains.

- Thence,  
N.0°13'E., on a true line on S.½, bet. secs.31 and 32.  
Descend N slope of spur, 15 ft., over mountainous land,  
through heavy pine and oak timber and brush undergrowth  
4 ft.high.
- 3.13 Dry ravine, 5 lks.wide, course west; ascend S. slope of  
spur, 68 ft.
- 18.93 Top of spur, brs. S.20° W.; descend.
- 32.73 Dry ravine, 20 ft. below top of spur, course S. 20°W.;as-  
cend.
- 40.93 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., marked on brass cap,  
¼ S 31 in W.,  
S 32 in E., and  
1915 in S.half; from which  
A pine, 20 ins. in diam., brs.N.46½°E., 32 lks.  
dist., marked ¼ S 32 B T.  
A pine, 14 ins. in diam., brs.S.86½°W., 35 lks.  
dist., marked ¼ S 31 B T.
- Thence,  
N.0°07'E., on a true line, on N.½, bet. secs.31 and 32.  
Over mountainous land; ascend.
- 4.97 Top of ascent on the Mogollon Rim, 10 ft. above the ¼ sec.  
cor. brs.N.58°W. and S.58°E.; descend gradually over  
NE. slope.
- 4.99 Wire fence along N. bdy. of the Fort Apache Indian Reser-  
vation, brs.NW. and SE.
- 5.66 Intersect the N. bdy. of the Fort Apache Indian Reserva-  
tion 5.45 chs.N.57° 47' W. of the 67½ mile cor. described  
in Book "B." At the point of intersection,  
Set an iron post 3 ft.long, 2 ins. in diam., 26 ins. in  
the ground for reestablished closing cor. of secs.31  
and 32, marked on brass cap,  
C. C N of center,  
T 10 N R 21 E in N., and  
FAIR, 1915 in S.half;  
S 31 in NW., and  
S 32 in SE. sector.
- From this cor., the unaccepted closing cor. of secs.31 and  
32, set by Deputy Charles E. Perkins brs.S.57°47'E., 63  
lks.dist.
- I destroy all traces of this closing cor., and the marks  
on the bearing trees to same.
- 40.46 Intersect the reestablished cor. of secs.29, 30, 31 and 32,  
hereinbefore described.  
Land, mountainous, spurs with steep slopes.  
Soil, poor dry stony clay loam about 8 ins. deep on stony  
clay subsoil.  
Timber, oak, juniper and pine.
- July 2, 1915.
- 
- July 3, 1915. At 8h. 0m. a.m., l.m.t., I set off 34°12'  
N. on the lat.arc; 23°02'N. on the decl.arc, and de-  
termine a meridian with the solar at the reestablished  
cor. of secs. 29, 30, 31 and 32.
- Thence,  
S.89°44'E. on a random line, bet. secs.29 and 32.
- 40.14 Fall 7 lks. S. of the old ¼ sec.cor., which is a sandstone  
10x8x4 ins., loosely set, marked and witnessed as de-  
scribed by the surveyor general.  
True course and dist. of W.½ bet. secs. 29 and 32 is there-  
fore N.89°50'W., 40.14 chs.
- From old ¼ sec.cor. described above,  
S.89°44'E. on a true line on E.½ bet. secs. 29 and 32.
- 40.32 Fall 5 lks.S. of the old cor. of secs. 28, 29, 32 and 33,  
which is a sandstone 12x10x8 ins., above ground, firmly  
set, marked and witnessed as described by the surveyor  
general.  
True course and dist. of E.½, bet. secs.29 and 32 is there-  
fore N.89° 48'W., 40.32 chs.

## Partial Resurvey of the Subdivision lines of T. 10 N., R. 21 E. 5.

Chains

- Thence,  
N.  $89^{\circ} 48' W.$ , on a true line on E. half, bet. secs. 29 and 32.  
Descend NW. slope, over rolling, mountainous land, through scattering oak and heavy pine timber.
- 4.52 Dry ravine, 20 lks. wide, 10 ft. below cor., course north; ascend.
- 6.42 Dry ravine, 15 lks. wide, 10 ft. deep, course north; ascend 11 ft.
- 9.32 Top of spur, 30 ft. above ravine, brs. N. and S.; descend over W. slope.
- 16.72 Dry ravine, 5 lks. wide, course north; ascend E. slope of spur.
- 31.32 Top of spur, 25 ft. above ravine, brs. N. and S.; descend W. slope.
- 40.32 Intersect the old  $\frac{1}{4}$  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  $\frac{1}{4}$  sec. cor., marked on brass cap,  
     $\frac{1}{4}$  S 29 in N., and  
    S 32 1915 in S. half; from which the original bearing trees:  
    A pine, 26 ins. in diam., brs. N.  $41\frac{1}{2}^{\circ} E.$ , 90 lks. dist., marked  $\frac{1}{4}$  S 29 B T.  
    An oak, 8 ins. in diam., brs. S.  $79\frac{1}{2}^{\circ} W.$ , 85 lks. dist., marked  $\frac{1}{4}$  S 32 B T.
- Thence,  
N.  $89^{\circ} 50' W.$ , on a true line, on W. half; bet. secs. 29 and 32.  
Over mountainous land; descend.
- 15.89 Dry ravine, 15 lks. wide, 77 ft. below top of spur, course N.  $10^{\circ} E.$  A spring brs. N. about 10 chs. dist.; ascend.
- 27.14 Top of spur, 30 ft. above ravine, brs. N. and S.; descend W. slope, 15 ft.
- 36.84 Dry ravine, 10 lks. wide, course north; ascend.
- 40.14 Intersect the reestablished cor. of secs. 29, 30, 31 and 32, hereinbefore described.  
Land, mountainous, drains to the north.  
Soil, stony clay loam, about 8 ins. deep on stony clay subsoil.  
Timber, oak, juniper and pine.
- 
- 40.00 From old cor. of secs. 28, 29, 32 and 33,  
South, on a random line, bet. secs. 32 and 33.  
I make a diligent search for the old  $\frac{1}{4}$  sec. cor., which I am unable to find; therefore, continue line and measurement.
- 80.86 Fall 130 lks. E. of the old cor. of secs. 4, 5, 32 and 33 on S. bdy. of Tp., later reestablished by me, as described in Book "A."  
True course and dist. of line, bet. secs. 32 and 33 is therefore N.  $0^{\circ} 55' E.$ , 80.87 chs.
- Thence  
N.  $0^{\circ} 55' E.$ , on a true line, bet. secs. 32 and 33.  
Ascend steep SE. slope, over stony, mountainous land, through oak, juniper and pine timber and dense manzanita brush undergrowth, 6 ft. high.
- 5.68 Intersect the N. bdy. of the Fort Apache Indian Reservation 3, 34 chs. S.  $80^{\circ} 23' W.$ , of Angle Point No. 488, described in Book "B." At the point of intersection, Set an iron post 3 ft. long, 2 ins. in diam., 26 ins. in the ground for reestablished closing cor. of secs. 32 and 33, marked on brass cap,  
    C C N of center,  
    T 10 N R 21 E in N., and  
    F A I R 1915 in S. half;  
    S 32 in NW, and  
    S 33 in SE. sector.
- From this cor., the unaccepted closing cor. of secs. 32 and 33, set By Deputy Charles E. Perkins, under Contract

## 6. Partial Resurvey of the Subdivision lines of T 10 N. R. 21 E.

Chains

- No. 40, brs. S.  $80^{\circ}23'W.$ , 154 lks. dist.  
I destroy all trace of this closing cor., and the marks on the bearing trees to same.
- 6.00 Top of ascent on the Mogollon Rim 75 ft. above the sec. cor. brs. NE. and SW.; descend over NW. slope, 230 ft.
- 6.67 Wire fence along N. bdy. of the Indian Reservation, brs. NE. and SW.
- 40.43 $\frac{1}{2}$  Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for reestablished  $\frac{1}{4}$  sec. cor., marked on brass cap,  
 $\frac{1}{4}$  S 32 in W.,  
 S 33 in E., and  
 1915 in S. half; from which,  
 A pine, 14 ins. in diam., brs. S.  $88\frac{1}{2}^{\circ}E.$ , 101 lks. dist., marked  $\frac{1}{4}$  S 33 B T.  
 A pine, 6 ins. in diam., brs. N.  $66\frac{1}{2}^{\circ}W.$ , 50 lks. dist., marked  $\frac{1}{4}$  S 32 B T.  
 From this cor., the unaccepted  $\frac{1}{4}$  sec. cor. set by Deputy Charles E. Perkins, under contract No. 40 brs. N.  $78\frac{1}{2}^{\circ}E.$ , 88 lks. dist.  
 I destroy all trace of this cor., and the marks on the bearing trees to same.
- 72.46 Dry ravine, 20 lks. wide, course N.  $20^{\circ}W.$ ; ascend.
- 75.86 Top of spur, 12 ft. above ravine, brs. NE. and SW.; descend.
- 80.87 Intersect the old cor. of secs. 28, 29, 32 and 33, hereinbefore described.  
 At this cor., I set off  $23^{\circ}01' N.$  on the decl. arc; and at apparent noon July 3, 1915, observe the sun on the meridian, the resulting latitude being  $34^{\circ}12' N.$   
 Land, mountainous.  
 Soil, stony, 3rd rate.  
 Timber, pine, oak and juniper.
- 
- 40.05 N.  $89^{\circ}53'E.$ , on a random line, bet. secs. 28 and 33.  
 Fall 48 lks. N. of the old  $\frac{1}{4}$  sec. cor., which is a sandstone  $12 \times 8 \times 5$  ins. above ground, loosely set, marked and witnessed as described by the surveyor General.  
 True course and dist. of W.  $\frac{1}{2}$  bet. secs. 28 and 33 is therefore N.  $89^{\circ}26'W.$ , 40.05 chs.  
 From old  $\frac{1}{4}$  sec. cor., above described,
- 39.72 N.  $89^{\circ}53'E.$ , on a random line, on E.  $\frac{1}{2}$ , bet. secs. 28 and 33.  
 Fall, 12 lks. S of the old cor. of secs. 27, 28, 33 and 34, which is a sandstone  $14 \times 14 \times 6$  ins., loosely set, marks almost obliterated, and witnessed by one of the original bearing trees.  
 True course and dist. of E.  $\frac{1}{2}$  bet. secs. 28 and 33 is therefore S.  $89^{\circ}43'W.$ , 39.72 chs.  
 This cor. being in a state of dilapidation and insufficiently witnessed, I destroy and reestablish it in the same place, as follows:  
 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked on brass cap,  
 T 10 N R 21 E in N.,  
 1915 in S. half;  
 S 28 in NW.,  
 S 27 in NE.,  
 S 34 in SE., and  
 S 33 in SW. quadrant; from which the original bearing tree,  
 A pine 20 ins. in diam., brs. S.  $9\frac{1}{4}^{\circ}W.$ , 49 lks. dist., marked T 10 N R 21 E S 33 B T.  
 Establish new bearing trees as follows:  
 A pine, 12 ins. in diam., brs. N.  $39\frac{1}{2}^{\circ}E.$ , 70 lks. dist., marked T 10 N R 21 E S 27 B T.  
 A juniper, 10 ins. in diam., brs. S.  $27\frac{1}{2}^{\circ}E.$ , 74 lks. dist., marked T 10 N R 21 E S 34 B T.  
 A pine, 16 ins. in diam., brs. N.  $54\frac{1}{2}^{\circ}W.$ , 82 lks. dist., marked T 10 N R 21 E S 28 B T.

Partial Resurvey of the Subdivision lines of T. 10 N., R. 21 E. 7

Chains.

Thence,  
 S.89° 43' W., on a true line on E.  $\frac{1}{2}$ , bet. secs. 28 and 33.  
 Descend NW. slope, over stony, mountainous land, through  
 heavy pine and oak timber and oak brush undergrowth.

6.15 Dry ravine, 10 lks. wide, 26 ft. below cor., course N.10°  
 E.; ascend SE. slope of spur, 64 ft.

20.00 Top of spur, brs. N.10°W. and S.10°E.; descend SW. slope,  
 56 ft.

26.55 Dry ravine, 10 lks. wide, course N.10°W.; ascend W. slope,  
 52 ft.

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

32.80 Dry ravine, 15 lks. wide, course N.30°E.; ascend SE. slope  
 111 ft.

39.72 Intersect the old  $\frac{1}{4}$  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  $\frac{1}{4}$  sec. cor., marked on brass cap,  
 $\frac{1}{4}$  S 28 in N, and  
 $\frac{1}{4}$  S 33, 1915 in S; half; from which original  
 bearing trees,  
 A pine, 10 ins. in diam., brs. N.8°W., 105 lks.  
 dist., marked  $\frac{1}{4}$  S 28 B T.  
 An oak, 12 ins. in diam., brs. S.32°W., 75 lks.  
 dist., marked  $\frac{1}{4}$  S 33 B T.

Thence,  
 N.89°26'W., on a true line on W.  $\frac{1}{2}$ , bet. secs. 28 and 33.  
 Over mountainous land; ascend.

10.70 Top of spur, brs. N.10°W. and S.10°E.; descend 42 ft.

40.05 Intersect the old cor. of secs. 28, 29, 32 and 33, hereinbe-  
 fore described.  
 Land, mountainous; spurs steep, washed on slopes rocky.  
 Soil, poor, dry stony clay loam about 8 ins. deep on dry  
 clay and sandstone subsoil.  
 Timber, pine, oak and juniper.

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Before proceeding further with the resurveys in this town-  
 ship, I examine the adjustments of the transit, and  
 correct slight errors of the levels and line of colli-  
 mation; then in order to test the solar apparatus by  
 comparing its indications, resulting from solar observa-  
 tions 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 center of sec, 29,  
 T. 10 N., R. 21 E.; latitude, 34° 12 $\frac{1}{2}$ ' N.; longitude, 110°  
 08 $\frac{1}{2}$ ' W. at 10h. 19m. p.m., l.m.t., by my watch, which  
 is correct local mean time, I observe Polaris in ac-  
 cordance with instructions in the Manual, and mark the  
 direction thus determined by a tack driven in a stake  
 set firmly in the ground about 5 chs. N. of my instru-  
 ment.

Time of obs., July 3, 1915, 10h. 19m. p.m.

U.S. Polaris, July 4, 1915, for meridian of	h	m	sec.
Greenwich, civil date and mean time	6	44	18
Reduction to local, meridian (subtract)			1m. 12 sec.
U.C. Polaris July 4, 1915, local meridian	6h.	43m.	06 sec.

Hour angle of Polaris at obs. 8h. 23.1m.  
 Azimuth of Polaris at obs. 1° 07' E.  
 July 3, 1915.

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July 4, 1915. At 7h. a.m., I lay off the azimuth of Po-  
 laris 1°07' to the west, and mark the meridian thus de-  
 termined by a tack driven in a stake set in the ground  
 about 5 chs. N. of my instrument.

At 8h. 04m. a.m., l.m.t., I set off 34° 12 $\frac{1}{2}$ ' N. on the lat. arc;  
 22° 57 $\frac{1}{2}$ ' N. on the decl. arc, and determine a meridian with

8. Partial Resurvey of the Subdivision lines of T.10 N., R.21 E.  
Chains.

the solar, and mark a point thereof by a tack driven in the stake already set about 5 chs. N. of my instrument. This point falls 0.5 ins. E. of the point determined by the Polaris observation.

At noon, apparent time, I set off  $22^{\circ}56'N.$  on the decl. arc; and observe the sun on the meridian, the resulting latitude being  $34^{\circ}13'N.$ , which is a little higher than that obtained on former days.

At 4h.4m. p.m., l.m.t., I set off  $22^{\circ}56' N.$  on the decl. arc, and determine a meridian with the solar, and mark a point thereof by a tack driven in the stake already set 5 chs. N. of my instrument, This point falls 0.2 ins. W. of the meridian established by the Polaris observation.

The solar apparatus by a.m. and p.m. observations defines positions for meridians respectively about  $0'26'' E.$  and  $10'' W.$  of the meridian established by the Polaris observation; therefore, I conclude that the instrument is in satisfactory adjustment.

July 4, 1915.

July 5, 1915. At 7h. 19m. a.m., l.m.t., I set off  $34^{\circ}12'$  on the lat. arc;  $22^{\circ}53'N.$  on the decl. arc, and determine a meridian with the solar at the reestablished cor. of secs. 27, 28, 33 and 34.

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

40.18 Fall 6 lks. E. of the old  $\frac{1}{4}$  sec. cor., which is a sandstone  $6 \times 6 \times 6$  ins., loosely set in a mound of stone, marked and witnessed as described by the surveyor general. True course and dist. of  $N. \frac{1}{2}$  bet. secs. 33 and 34 is therefore  $N. 0^{\circ}5'E.$ , 40.18 chs.

From old  $\frac{1}{4}$  sec. cor. described above,

40.38 South, on a random line on  $S. \frac{1}{2}$ , bet. secs. 33 and 34. Fall 72 lks. E. of the old cor. of secs. 3, 4, 33 and 34 on S. bdy. of Tp., later reestablished by me as described in Book "A."

True course and dist. of  $S. \frac{1}{2}$ , bet. secs. 33 and 34 is therefore  $N. 1^{\circ}1'E.$ , 40.39 chs.

Thence,  $N. 1^{\circ}1'E.$ , on a true line on  $S. \frac{1}{2}$ , bet. secs. 33 and 34

34. Over rolling, stony, mountainous land, slopes to the SE., through scattering juniper, cedar and oak, and heavy pine timber.

19.00 Top of spur, 112 ft. above the sec. cor., brs. NE. and SW.; descend steep NW. slope.

31.90 Dry ravine, 112 ft. below top of spur 10 lks. wide, course  $N. 40^{\circ}E.$ ; ascend over SE. slope, 39 ft.

40.39 Intersect the old  $\frac{1}{4}$  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  $\frac{1}{4}$  sec. cor., marked on brass cap,

$\frac{1}{4}$  S 33 in W.,  
S 34 in E., and

1915 in S. half; from which the old bearing

trees,

A pine, 14 ins. in diam., brs.  $N. 81\frac{1}{2}^{\circ}E.$ , 66 lks. dist., marked  $\frac{1}{4}$  S 34 B T.

A pine, 16 ins. in diam., brs.  $N. 66\frac{3}{4}^{\circ}W.$ , 13 lks. dist., marked  $\frac{1}{4}$  S 33 B T.

Thence,

$N. 0^{\circ}5'E.$ , on a true line on  $N. \frac{1}{2}$ , bet. secs. 33 and 34.

Over mountainous land; ascend.

8.07 Top of spur, 40 ft. above ravine, brs. NE. and SW.; descend NW. slope, 117 ft.

40.18 Intersect the reestablished cor. of secs. 27, 28, 33 and 34, hereinbefore described.

Land, mountainous, spurs steep, washed on slopes rocky.

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

Timber, oak, juniper and pine.

July 5, 1915.

Partial Resurvey of the Subdivision lines of T.10 N., R.21 E. 9

GENERAL DESCRIPTION.

That part of this township, resurveyed by me, comprises only those sections traversed by the north boundary of the Fort Apache Indian Reservation which follows the rim of the Mogollon Mesa.

All of the land in these sections is mountainous, and the soil can nearly all be classed as 3rd rate, is covered with a heavy growth of bunch grass, which affords excellent pasture for stock during the summer and fall months. South of the mesa rim, the land breaks off abruptly into deep canyons separated by high rocky spurs, which have a southerly trend towards White river, into which the drainage south of the rim empties. North of the rim of the mesa the slope of the land is more gradual towards the Little Colorado river, which drains all of the country on this side of the divide.

All of the resurveyed sections are heavily timbered with cedar, juniper and pine, many of the trees being quite large. There were no springs found during the progress of the survey in any of the sections, and no settlers residing on the land.

Boundaries of Resurveyed portion of T.10 N., R.21 E.  
Latitudes, departures, and closing errors.

Line designated.	Course.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South bdy.	S.89°40'W.	40.22		.24		40.22
	S.89°57'W.	40.22		.03		40.22
	N.89°36'W.	39.96	.28			39.96
	S.89°12'W.	39.42		.55		39.42
	N.88°54'W.	40.53	.78			40.52
	S.86°49'W.	38.31		2.13		38.25
West bdy. (5th. Guide Mer. East)	N. 0°3'W.	39.92	39.92			.04
	N. 0°1'E.	40.00	40.00		.01	
	N.0°7'W.	40.26	40.26			.08
	N.0°14'W.	40.12	40.12			.16
Subdivisional bdy.	N.89°39'E.	38.82		.24	38.82	
	N.89°58'E.	39.90		.02	39.90	
	S.1°51'E.	37.07		37.05	1.20	
	S.1°17'W.	40.43		40.42		.90
	S.89°50'E.	40.14		.12	40.14	
	S.89°48'E.	40.32		.14	40.32	
	S.89°26'E.	40.05		.40	40.05	
	N.89°43'E.	39.72	.20		39.72	
	S.0°5'W.	40.18		40.18		.06
S.1°1'W.	40.39		40.38		.72	
<b>Convergency</b>					.05	
Totals			161.82	161.64	240.21	240.55
			161.64			240.21
Error in latitude, --			.18			
Error in departure, --						0.34

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BOOK 2985

12/0

For ~~FINAL OATH~~ CERTIFICATE OF UNITED STATES SURVEYOR.  
See Book "D" of Group 40.

I, \_\_\_\_\_, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for \_\_\_\_\_ bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 191\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_ of the \_\_\_\_\_ Meridian, in the State of \_\_\_\_\_, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 191\_\_\_\_



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 \_\_\_\_\_

Subdivision Lines of \_\_\_\_\_

Township 10 North, Range 21 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 40, \_\_\_\_\_, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and resurveys they describe, are hereby approved.

*Francis A. Smith*  
U. S. Surveyor General.

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