

Book B BOOK 2630

FIELD NOTES

OF THE SURVEY OF THE

Gila and Salt River Meridian

through
Sp. 9, 10, 11, 11 1/2, 12 and 12 1/2 North

of the Gila and Salt River Base Line

Of the _____ Meridian,

In the State of

Arizona

EXECUTED BY

Sidney E. Bout

In the capacity of U. S. Surveyor, under instructions dated Oct. 9, 1912, issued by the United States Surveyor General to govern surveys included in Group No. 70, which were approved by the Commissioner of the General Land Office, October 17, 1912, pursuant to authority contained in the Act of Congress dated August 23, 1912

Re Survey commenced June 3, 1913

Re Survey completed June 20, 1913

BOOK 2630

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River Meridian.

The Gila & Salt

River Meridian.

T9N.
RIW.

T9N.
RIE.

2nd Standard Parallel North

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River Meridian

The Gila & Salt

River Meridian.

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River Meridian.

The Gila & Salt

T11N T12N.
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River Meridian

The Gila & Salt

River Meridian.

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Gila & Salt River Meridian.

River Meridian.

T12½N
RIW

T12N
RIE

Resurvey of the Gila and Salt River Meridian through T 9 N. Chains. Resurvey commenced June 3, 1913., and executed with a Young and Sons light mountain transit No. 10 with a Smith 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 correct the level and collimation errors. then to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m., and p.m. hours, with a meridian established by observations on Polaris.,

I proceed as follows;

At my camp which is located one mile south of the 2 nd. Standard Parallel North in Tp. 8 N., R 1 W., latitude $34^{\circ}03\frac{1}{2}'N.$, longitude $112^{\circ}20'W.$ I set off $34^{\circ}03\frac{1}{2}'N.$ on the lat. arc, $22^{\circ}21'N.$ on the decl. arc, and at $4^h 28^m$ p.m., l.m.t. June 3 rd. determine a meridian with the solar and mark a point thereof by a tack driven in a stake set in the ground 5.00 chs. N. of my instrument.

June 3, 1913.

June 4¹⁹¹³ At $2^h 42^m$ a.m., l.m.t. by my watch, which is correct local mean time I observe Polaris at eastern elongation in accordance with instructions in the Manual, and mark the direction thus determined by a tack driven in a stake set in the ground 5.00 chs. N. of my instrument.

At $6^h 30^m$ a.m., l.m.t. I lay off the azimuth of Polaris $1^{\circ}24'$ to the west and mark the meridian thus determined by a tack driven in the stake set last evening, on which the meridian falls 0.5 ins. west of the point determined by the solar.

At $6^h 58^m$ a.m., l.m.t. I set off $34^{\circ}03\frac{1}{2}'N.$ on the lat. arc, $22^{\circ}26'N.$ 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 5.00 chs. N. of my instrument. this point falls 0.2 ins. west of the meridian established by the Polaris observation.

The solar apparatus, by p.m., and a.m. observations defines positions for meridians, respectively about $0'26''$ west and $0'11''$ east of the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.

I begin at the Standard cor. of Tps. 8 and 9 N., Rs. 1 E., and 1 W., which is a granite stone $10 \times 8 \times 4$ ins. above ground, firmly set, marked and witnessed as described by the surveyor general., latitude $34^{\circ}04'21''N.$, longitude $112^{\circ}18'24''W.$ The magnetic bearing of the meridian at this cor. at $8^h 30^m$ a.m., l.m.t. is $N. 14^{\circ}30'W.$; the angle thus determined gives the mag. decl. $14^{\circ}30'$ east.

All measurements were made with 5.00 chain steel tapes with clinometers to determine slope angles.

June 4¹⁹¹³ At $8^h 28^m$ a.m., l.m.t., I set off $34^{\circ}04\frac{1}{2}'N.$ on the lat. arc, $22^{\circ}26'N.$ on the decl. arc, and determine a meridian with the solar at the above Tp. cor.

Thence I run, resurveying the Gila & Salt River Meridian thru Tp. 9 N. North, bet. secs. 31 and 36, on true ~~line~~ ^{line}

Over steep W. slope on E. side of canyon, through dense oak brush undergrowth 5 ft. high., exceptionally difficult to survey.

- 10.00 Top of spur bears E. and W. desc. abrupt N. slope.
 - 16.60 Dry ravine 12 lks. wide course SW. asc. spur.
 - 23.50 Top of spur bears E. and W. desc. N. slope.
 - 25.20 Dry ravine 15 lks. wide course SW. asc.
 - 34.50 Top of rocky divide bears E. and W., elevation 3500 ft. desc. N. slope.
 - 39.60 Dry ravine 20 lks. wide course NW. asc.
- Difference between measurements of 40.00 chs. by two sets of chainmen is 8 lks.; position of middle point
By 1 st. set 39.96 chs.

Resurvey of the Gila and Salt River Meridian through T.9 N.

- Chains By 2nd.set 40.04 chs.; the mean of which is
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the
 ground for ^{REESTAB} ~~1/4~~ sec. cor., marked on brass cap ^{19/3} 1/4 S 36 in
 W. half and S 31 in E. half.
 Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
 Pits impracticable.
 The old 1/4 sec. cor. is not found after diligent search.
- 43.90 Top of rocky spur 100 ft. above the 1/4 sec. cor., bears NW. and
 SE. desc.
- 45.70 Dry ravine, 15 lks. wide course SW. asc.
- 51.20 Top of spur bears E. and W. desc.
- 60.90 Dry ravine in canyon 300 ft. below top of divide course
 S 60°W. asc. abruptly.
- 72.25 Top of spur bears NE. and SW. desc.
- 76.25 Dry ravine 25. lks. wide in canyon 250 ft. deep course SW.
 ascend abrupt SE. slope.
- .. Difference between measurements of 80.00 chs. by two sets
 of chainmen is 16 lks.; position of middle point
 By 1 st. set 79.92 chs.
 By 2nd.set 80.08 chs.; the mean of which is
- 80.00 Set an iron post 3 ft. long 3 ins. in diam., 24 ins. in the
 ground for ^{REESTAB} cor. of secs. 25, 30, 31, and 36., marked on brass
 cap ^{19/3} T 9 N., in N. half. R 1 W., S 25 in NW. R 1 E., S 30 in NE.
 S 31 in SE. and S 36 in SW. quadrant.
 Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
 Pits impracticable.
 Land high mountains, soil light poor stony loam on under
 lying ledges of porphyry and granite, slopes of spurs
 very steep. dense growth oak brush undergrowth, no grass
 or timber.
- Note: At this cor. I set off 22°26 1/2' N. on the decl. arc, and
 at noon observe the sun on the meridian and obtain a
 reading of 34°05' N. on the lat. arc.
 The old sec. cor. can not be found after diligent search.

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- North, bet. secs. 25 and 30, on true line,
 Ascend abrupt rocky SW. slope of spur over mountainous land
 through dense oak brush 4 to 7 ft. high., exceptionally
 difficult to survey.
- 15.30 Top of spur elevation 4500 ft., bears NE. and SW. desc.
- 24.00 Dry ravine 10 lks. wide course SW. asc.
- 26.00 Top of spur bears NE. and SW.
- 39.20 Dry ravine in bottom of canyon 500 ft. deep course S 60°W.
 ascend.
- .. Difference between measurements of 40.00 chs. by two sets
 of chainmen is 10 lks.; position of middle point
 By 1 st. set 40.05 chs.
 By 2nd.set 39.95 chs.; the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the
 ground for ^{REESTAB} 1/4 sec. cor., marked on brass cap ^{19/3} 1/4 S 25 in W.
 half and S 30 in E. half.
 Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.
 Pits impracticable.
 The old 1/4 sec. cor. can not be found after diligent search.
- 50.50 Top of spur, elevation 4450 ft. bears N 50°E., and S 50°W.
 from this point a mountain peak, elevation 4800 ft. bears
 east 20.00 chs. dist. desc. NW. slope of spur into canyon.
- 57.90 Dry ravine at foot of descent in canyon 250 ft. below top
 of spur course SW. asc.
- 63.00 Top of spur, elevation 4300 ft. bears NE. and SW. desc.
- 71.30 Dry ravine 150 ft. below top of spur course west. asc.
- 75.23 Fall 30 lks. W. of the old cor. of secs. 19, 24, 25, and 30.,
 which is a granite stone 18x12x8 ins. lying on the ground
 marked as described by the surveyor general. I destroy
 all evidence of this cor.
- 79.00 Top of spur bears NE. and SW. desc. abruptly.
 Difference between measurements of 80.00 chs. by two sets
 of chainmen is 12 lks.; position of middle point
 By 1 st. set 79.94 chs.
 By 2nd.set 80.06 chs.; the mean of which is

Resurvey of the Gila and Salt River Meridian through T. 9 N.

Chains.

- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for ¹⁹¹³ ~~REESTAR~~ cor. of secs. 19, 24, 25, and 30., marked on brass cap ¹⁹¹³ T 9 N. in N. half. R 1 W., S 24 in NW., R 1 E., S 19 in NE., S 30 in SE. and S 25 in SW. quadrant.
 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
 Pits impracticable.
 Land high rugged mountain country; spurs with light poor gravelly and stony loam, underlaid with ledges of granite and porphrey stone, light growth bunch grass on S. slopes of spurs. No timber.

June 4, 1913.

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- June 5; ¹⁹¹³ At 7^h 58^m a.m., l.m.t. I set off 34°08' N. on the lat. arc, 22°32' N. on the decl. arc, and determine a meridian with the solar at the ¹⁹¹³ ~~REESTAR~~ cor. of secs. 19, 24, 25, and 30, above described,
 Thence I run,
 North, bet. secs. 19 and 24, on true line,
 Descend steep rocky NW. slope over mountainous land, through dense oak underbrush 4 to 8 ft. high, exceptionally difficult to survey.
- 12.40 Dry ravine in bottom of canyon 250 ft. deep course west, ascend spur.
- 29.00 Top of spur, elevation 4250 ft. bears E. and W. desc.
- 34.70 Bottom of canyon 150 ft. below top of spur course SW.
- 38.00 Top of spur bears E. and W. desc.
 Difference between measurements of 40.00 chs., by two sets of chainmen is 8 lks.; position of middle point
 By 1 st. set 40.04 chs.
 By 2 nd. set 39.96 chs.; the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¹⁹¹³ ~~REESTAR~~ sec. cor., marked on brass cap ¹⁹¹³ $\frac{1}{4}$ S. 24 in W. half, and S 19 in E. half
 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
 Pits impracticable. I find no trace of old $\frac{1}{4}$ sec. cor.
- 45.00 Dry ravine 30 lks. wide in bottom of canyon 300 ft. deep course S 65° W. asc.
- 49.50 Point of spur bears NE. and SW. desc.
- 49.75 Enter dry ravine course S 10° W.
- 63.50 Leave ravine comes from N 20° W. ascend abruptly.
- 70.42 Fall 28 lks. W. of the old cor. of secs. 13, 18, 19, and 24., which is a granite stone 20x12x4 ins., marked and witnessed as described by the surveyor general. I destroy all evidence of the old cor.
- 71.10 Top of spur, elevation, 5000 ft., bears NE. and SW. desc.
- 73.50 Dry ravine 15 lks. wide course SW. asc.
 Difference between measurements of 80.00 chs. by two sets of chainmen is 12 lks.; position of middle point
 By 1 st. set 80.06 chs.
 By 2 nd. set 79.94 chs.; the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for ¹⁹¹³ ~~REESTAR~~ cor. of secs. 13, 18, 19, and 24., marked on brass cap ¹⁹¹³ T 9 N. in N. half. R 1 W., S 13 in NW., R 1 E., S 18 in NE., S 19 in SE. and S 24 in SW. quadrant.
 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
 Pits impracticable.
 Land mountainous, soil stony with some light poor sandy loam on decomposing granite ledges. slopes of spurs and ridges abrupt, covered with dense growth of oak and manzanita brush. No timber.

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- North, bet. secs. 13 and 18, on true line,
 Ascend steep rocky SW. slope of spur, over mountainous land through dense oak and manzanita brush underbrush 4 to 6 ft. high, exceptionally difficult to survey.
- 18.00 Summit of the Bradshaw Mountain range, elevation 5400 ft.,

Resurvey of the Gila and Salt River Meridian through T 9 N.

- Chains bears N. 40°W., and S. 40°E. descend NE. slope.
 Note: At this point I set off 22933 $\frac{1}{2}$ ' N. on the decl. arc, and at noon observe the sun on the meridian, and obtain a reading of 34907' N. on the lat. arc.
 Difference between measurements of 40.00 chs., by two sets of chainmen is 14 lks.; position of middle point
 By 1 st. set 40.07 chs.
 By 2 nd. set 39.93 chs.; the mean of which is
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ^{SE 7/8} sec. cor., marked on brass cap ^{23/4} S 13 in W. half and S 18 in E. half.
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Pits impracticable
 The old $\frac{1}{4}$ sec. cor. can not be found after diligent search.
 47.90 Dry ravine course NE. asc.
 48.55 Top of spur bears NE. and SW. desc.
 51.95 Foot of descent in Boulder creek 500 ft. below top of mountain, course east, Enter scattering oak timber bears E. and W., ascend S. slope.
 73.00 Top of ridge bears NW. and SE. desc.
 74.80 Dry ravine 10 lks. wide 2 ft. deep course S 30°E.
 Difference between measurements of 80.00 chs., by two sets of chainmen is 18 lks.; position of middle point
 By 1 st. set 80.09 chs.
 By 2 nd. set 79.91 chs.; the mean of which is
 80.00 The point for the cor. of secs. 7, 12, 13, and 18. falls in bottom of dry ravine where natural causes would insure the destruction of the cor.; therefore at
 79.40 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for witness cor. to the cor. of secs. 7, 12, 13, and 18, marked on brass cap ^{23/4} WC. N. of center, T 9 N., R 1 E., R 1 W., S 7., S 12 in N. half. S 18 in SE. and S 13 in SW. quadrant. from which
 A juniper, 26 ins. in diam., bears S. 24 $\frac{1}{2}$ °E., 168 lks. dist., marked WC. T 9 N., R 1 E., S 18 BT. No other trees within limits.
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Pits impracticable. No trace of old sec. cor. can be found.
 Land, high rough mountains, soil decomposing granite, with some light poor sandy loam, slopes of spurs abrupt, covered with dense growth oak and manzanita brush.
 Timber scattering oak and juniper.
 June 5, 1913.
- June ¹⁹¹³ 6^h At 7^h 59^m a.m., l.m.t., I set off 34°08' N. on the lat. arc 22939' N. on the decl. arc, and determine a meridian with the solar at the WC. to cor. of secs. 7, 12, 13, and 18. Thence I run, from true point for cor. ^{above described.}
 North, bet. secs. 7 and 12, on true line,
 Ascend steep rocky SW. slope of spur, over mountainous land, through scattering juniper and oak timber, and dense oak and manzanita brush underbrush 4 to 7 ft. high., exceptionally difficult to survey.
 9.00 Point of rocky spur 50 ft. above cor. bears NW. and SE. desc. abruptly.
 11.20 Dry ravine 6 lks. wide course SE.
 28.00 Fall 14 lks. W. of the old $\frac{1}{4}$ sec. cor., which is a granite stone 20x14x10 ins.; loosely set, marked and witnessed as described by the surveyor general. I destroy all evidence of the old cor.
 38.70 Top of spur bears NW. and SE. desc.
 Difference between measurements of 40.00 chs. by two sets of chainmen is 14 lks.; position of middle point
 By 1 st. set 40.07 chs.
 By 2 nd. set 39.93 chs.; the mean of which is
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ^{REESTAB.} sec. cor., marked on brass cap ^{23/4} S. 12 in W. half and S 7 in E. half.
 Raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 A juniper, 30 ins. in diam., bears N. 42°E., 84 lks. dist., marked $\frac{1}{4}$ S 7 BT. and
 A juniper, 12 ins. in diam., bears N. 35 $\frac{1}{2}$ °W., 132 lks. dist., marked $\frac{1}{4}$ S. 12 BT.

Resurvey of the Gila and Salt River Meridian through T 9 N.

Chains.

- 41.15 Dry ravine, 15 lks. wide, course SW., asc. abruptly.
- 54.40 Summit of rocky mountain ridge, elevation 6100 ft., bears NW. and SE. thence over E. slope descending.
- 59.80 Dry ravine, 10 lks. wide course SE. asc. spur.
- 70.50 Top of spur bears NW. and SE. desc., enter scattering pine timber bears NW. and SE.
- Difference between measurements of 80.00 chs. by two sets of chainmen is 12 lks.; position of middle point
- By 1 st. set 80.06 chs.
- By 2 nd. set 79.94 chs.; the mean of which is.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for ^{REESTAB} cor. of secs. 1, 6, 7, and 12., marked on brass cap ¹⁹¹³ T 9 N. in N. half. R 1 W. S 1 in NW., R 1 E., S 6 in NE. S 7 in SE., and S 12 in SW. quadrant. from which
- A pine 10 ins. in diam., bears N 85° E., 120 lks. dist., marked T 9 N., R 1 E., S 6 BT.
- An oak 10 ins. in diam., bears S 30½° E. 50 lks. dist., marked T 9 N., R 1 E., S 7 BT. No other trees within limits.
- Raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
- The old cor. of secs. 1, 6, 7, and 12 can not be found after diligent search.
- Land high rough mountains; soil decomposing granite stone with some light poor sandy loam in narrow bottoms along ravines, slopes of spurs abrupt, rocky, and covered with dense oak and manzanita brush 4 to 7 ft. high. Timber oak, juniper and pine.
- Note: at point on summit of spur, 14.40 chs. N. of the ¼ sec. cor. I set off 22° 40' N. on the decl. arc, and at noon on this day observe the sun on the meridian, and obtain a reading of 34° 08½' N. on the lat. arc.

June 6, 1913.

- June 7¹⁹¹³ At 7^h 59^m a.m., l.m.t., I set off 34° 09' N. on the lat. arc, 22° 45' N. on the decl. arc, and determine a meridian with the solar at the ^{REESTAB} cor. of secs. 1, 6, 7, and 12, *above described*.
- Thence I run,
- North, bet. secs. 1 and 6, on true line,
- Descend NE. slope, over stony mountainous land, through oak, pine, and juniper timber, and dense oak and manzanita brush 8 ft. high, exceptionally difficult to survey.
- 10.85 Dry ravine, 20 lks. wide course NE. ascend spur.
- 14.00 Top of spur, bears NE. and SW. desc.
- 18.25 Dry ravine, 15 lks. wide course SE. asc.
- 28.41 Fall 54 lks. W. of the old ¼ sec. cor., which is a granite stone 20x12x5 ins., marked and witnessed as described by the surveyor general. I destroy all evidence of the old cor. and markings on the bearing trees.
- 29.00 Top of spur, bears E. and W. desc.
- 36.10 Dry ravine, 10 lks. wide course SE. asc.
- 38.15 Top of spur, bears E. and W. desc.
- Difference between measurements of 40.00 chs., by two sets of chainmen is 08 lks.; position of middle point
- By 1 st. set 39.96 chs.,
- By 2 nd. set 40.04 chs.; the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 ins. in diam., 26 ins. in the ground, for ^{REESTAB} sec. cor., marked on brass cap ¹⁹¹³ ¼ S 1 in W. half and S 6 in E. half. from which
- A pine, 10 ins. in diam., bears N. 17° E., 18 lks. dist., marked ¼ S 6 BT. and
- A pine, 16 ins. in diam., bears N. 54° W., 40 lks. dist., marked ¼ S 1 BT.
- 41.00 Dry ravine, 15 lks. wide course NE. asc. spur.
- 46.50 Top of divide, elevation 6200 ft., bears E. and W., desc. N. slope.
- 51.10 Dry ravine, 10 lks. wide, course NE. asc.
- 62.70 Top of spur, bears NE. and SW. desc.
- 65.45 Dry ravine, 15 lks. wide, course NE. asc.

Resurvey of the Gila and Salt River Meridian through T.9 N.

Chains.

67.45 Fall 150 lks. W. of the old cor. of Tps. 9 and 10 N., Rs. 1 E., and 1 W., which is a granite stone 16x12x6 ins. loosely set. marked and witnessed as described by the surveyor general. I destroy the old cor. and marks on the bearing trees.

72.80 Top of spur, bears E. and W., desc.

77.50 Dry ravine, 10 lks. wide, course SE. asc.

Difference between measurements of 80.00 chs. by two sets of chainmen is 15 lks.; position of middle point

By 1 st. set 79.92 $\frac{1}{2}$ chs.

By 2 nd. set 80.07 $\frac{1}{2}$ chs.; the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for ^{REESTAB.} cor. of Tps. 9 and 10 N., Rs. 1 E., and 1 W., marked on brass cap ^(9/13) T 10 N., in N. R. 1 E., in E. T 9 N. in S. and R 1 W. 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, 14 ins. in diam., bears N. 31° E., 50 lks. dist., marked T 10 N., R 1 E. S 31 BT.

An oak, 8 ins., in diam., bears S. 7 $\frac{1}{2}$ ° E., 40 lks. dist., marked T 9 N., R 1 E., S 6 BT.

A pine, 16 ins. in diam., bears S. 13 $\frac{1}{2}$ ° W., 42 lks. dist., marked T 9 N., R 1 W. S 1 BT. and

An oak, 10 ins. in diam., bears N. 17 $\frac{1}{2}$ ° W., 52 lks. dist., marked T 10 N., R 1 W. S 36 BT.

Land mountainous E. and NE. slope; soil light poor sandy loam 6 to 10 ins. deep on stony subsoil, slopes of spurs steep, rocky, and covered with dense growth of oak and manzanita brush. Timber oak, juniper and pine.

Note: At this cor. I set off 22° 46' N. on the decl. arc, and at noon observe the sun on the meridian and obtain a reading of 34° 09 $\frac{1}{2}$ ' N. on the lat. arc.

June 7, 1913.

Resurvey of the Gila and Salt River Meridian through T 10 N.

- Chains. Resurvey, commenced June 7, 1913., and executed with a Young and Sons light mountain transit No. 10 with a Smith 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 to be correct., and from recent tests of the solar apparatus by comparing the results of observations on the sun 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 cor. of Tps. 9 and 10 N., Rs. 1 E., and 1 W., which I established this day: ^{as hereinafter described} latitude $34^{\circ}09'34''$ N., longitude $112^{\circ}18'24''$ W.
- All measurements were made with 5.00 chain steel tapes, with clinometers for determining the slope angles.; The elevations being determined with an Aneroid Barometer, which reads to 10000 ft.
- The magnetic bearing of the meridian at 1^h 30^m p.m. ^{l.m.t.} is $N 14^{\circ}50'W.$; the angle thus determined gives the Mag decl. $14^{\circ}50'E.$
- At 1^h 29^m p.m., l.m.t., I set off $34^{\circ}09\frac{1}{2}'N.$ on the lat. arc, $22^{\circ}46'N.$ on the decl. arc, and determine a meridian with the solar at the above mentioned Tp. cor.
- Thence I run, resurveying Gila and Salt River Meridian thru Tp. 10 N. North bet. secs. 31 and 36, on true line,
- Ascend SW. slope of spur over stony mountainous land, through scattering pine, oak and juniper timber, and dense oak and manzanita brush 6 ft. high, exceptionally difficult to survey.
- 10.75 Top of spur bears NW. and SE. desc.
- 13.55 Dry ravine 20 lks. wide course SE. asc. abruptly.
- 17.00 Top of spur bears NW. and SE. desc.
- 23.25 Dry ravine 20 lks. wide course NE. asc.
- 27.30 Fall 90 lks. W. of the old $\frac{1}{4}$ sec. cor., which is a granite stone $20 \times 15 \times 10$ ins. loosely set, marked and witnessed as described by the surveyor general. I destroy all evidence of the old cor. and markings on the old bearing trees.
- 30.00 Top of spur bears NE. and SW. desc.
- 36.90 Dry ravine 10 lks. wide course NE. asc.
- Difference between measurements of 40.00 chs. by two sets of chainmen is 09 lks.; position of middle point
- By 1 st. set $40.04\frac{1}{2}$ chs.
- By 2 nd. set $39.95\frac{1}{2}$ chs.; the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ^{KEESTAR} $\frac{1}{4}$ sec. cor., marked on brass cap ^{1/3:1} $\frac{1}{4}$ S 36 in. W. half, and S 31 in E. half. from which
- A pine 24 ins. in diam. bears $N 61\frac{1}{2}^{\circ}E.$ 68 lks. dist., marked $\frac{1}{4}$ S 31. BT. and
- A pine 20 ins. in diam., bears $S 19\frac{1}{2}^{\circ}W.$ 78 lks. dist., marked $\frac{1}{4}$ S 36 BTV
- 44.30 Pack trail from Crown King Arizona to Tip Top Mine., bears E. and W.
- 58.30 Top of divide between Boulder and Laird creeks.; elevation 6400 ft., bears $N 70^{\circ}W.$ and $S 70^{\circ}E.$ descend abruptly.
- 66.70 Dry ravine 20 lks. wide course NE. asc.
- 67.75 Fall 150 lks. W. of the old cor. of secs. 25, 30, 31, and 36., which is a granite rock in place $8 \times 8 \times 4$ ft. above ground, marked and witnessed as described by the surveyor general. I destroy all evidence of the cor. and markings on the old bearing trees.
- 71.00 Top of spur 60 ft. above ravine bears NE. and SW. desc. over bare granite ledges.
- Difference between measurements of 80.00 chs., by two sets of chainmen is 16 lks.; position of middle point
- By 1 st. set 80.08 chs.
- By 2 nd. set 79.92 chs.; the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for ^{KEESTAR} cor. of secs. 25, 30, 31, and 36., marked on brass cap ^{1/3:1} T 10 N. in N. half. R 1 W., S 25 in NW., R 1 E., S 30 in NE., S 31 in SE. and S 36 in SW. quadrant. from which
- A pine 10 ins. in diam. bears $N 53^{\circ}3/4'E.$ 12 lks. dist., marked

BOOK 2630

Resurvey of the Gila and Salt River Meridian through T. 10 N.

Chains.

T 10 N., R 1 E., S30 BT.

An oak 8 ins. in diam. bears S $49\frac{1}{2}^{\circ}$ E. 30 lks. dist., marked
T 10 N., R 1 E., S 31 BT.A pine 12 ins. in diam. bears S $23\frac{3}{4}^{\circ}$ W. 60 lks. dist., marked
T 10 N., R 1 W., S 36 BT., andA pine 12 ins. in diam. bears N 10° W. 160 lks. dist., marked
T 10 N., R 1 W., S 25 BT.Land mountainous, spurs with decomposed granite and light
poor sandy loam, underlaid with broken granite ledges
at depths varying from 2 to 36 ins.; N. 9 chs. barren rock
ledges. light growth pine grass. dense oak and manzanita
brush on S. 71 chs. Timber pine, oak, and juniper.

June 7, 1913.

June 8, ¹⁹¹³ At 7^h 59m a.m., l.m.t. I set off $34^{\circ}10\frac{1}{2}'$ N. on the lat.
arc, $22^{\circ}51'$ N. on the decl. arc, and determine a meridian
with the solar at the cor. of secs. 25, 30, 31, and 36, ^{above} described
Thence I run,

North, bet. secs. 25 and 30, on true line,

Descend N. slope of spur, over broken stony mountainous land,
through pine, oak, and juniper timber, and dense, oak and
manzanita brush 5 ft. high.27.08 Fall 185 lks. W. of the old $\frac{1}{4}$ sec. cor., which is a granite stone
18x10x7 ins. above ground loosely set, marked and witnessed
as described by the surveyor general. I destroy all
evidence of the old cor. and markings on the old bearing
trees.

27.75 Dry ravine, 15 lks. wide, course SW., asc. spur.

33.00 Top of spur, 40 ft. above ravine, bears NW. and SE. desc.
Difference between measurements of 40.00 chs. by two sets
of chainmen is 11 lks.; position of middle pointBy 1 st. set 40.05 $\frac{1}{8}$ chs.By 2 nd. set 39.94 $\frac{1}{8}$ chs.; the mean of which is40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground,
for ^{REESTAB.} $\frac{1}{4}$ sec. cor., marked on brass cap, ¹⁹¹³ $\frac{1}{4}$ S 25 in W. half and
S 30 in E. half. from whichA pine, 24 ins. in diam., bears N. 30° E. 74 lks. dist., marked
 $\frac{1}{4}$ S 30 BT. andA pine, 20 ins. in diam. ^{in diam. BEARS} 84° W. ^{56 lks. dist.} marked $\frac{1}{4}$ S 25 BT.41.90 Dry ravine 10 lks. wide 50 ft. below top of spur course NW.
ascend spur.

44.00 Top of spur bears NW. and SE. descend.

45.20 Dry ravine 15 lks. wide course NW. ascend.

49.40 Top of spur bears NW. and SE. descend abruptly into canyon.

52.15 Dry ravine in bottom of canyon. 100 ft. deep course NW. asc.

54.90 Top of spur bears NW. and SE. descend abruptly into canyon.

56.50 Fall 54 lks. W. of the old cor. of secs. 19, 24, 25, and 30.,
which is a granite stone 16x9x5 ins., loosely set, marked
and witnessed as described by the surveyor general.I destroy all evidence of the old cor. and markings on the
old bearing trees.69.25 Foot of descent in Laird Creek canyon, elevation 5300 ft.
cross Laird creek 20 lks. wide good stream clear water
6 ins. deep. flows N. 15° E. thence over level bottom land.79.50 Leave bottom land bears N 50° E. and S 15° W. ascend abrupt
rocky SE. slope of spur.Difference between measurements of 80.00 chs. by two sets
of chainmen is 18 lks.; position of middle point

By 1 st. set 80.09 chs.

By 2 nd. set 79.91 chs.; the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the
ground, for ^{REESTAB.} cor. of secs. 19, 24, 25, and 30., marked on brass
cap, ¹⁹¹³ T 10 N., in N. half. R 1 W., S 24 in NW., R 1 E., S 19
in NE., S 30 in SE. and S 25 in SW. quadrant., from whichA pine, 20 ins. in diam., bears N. $54\frac{3}{4}^{\circ}$ E. 72 lks. dist., marked
T 10 N., R 1 E., S 19 BT.A pine, 26 ins. in diam., bears S. $69\frac{3}{4}^{\circ}$ E. 110 lks. dist., marked
T 10 N., R 1 E., S 30 BT.An oak, 10 ins. in diam., bears S. $55\frac{1}{4}^{\circ}$ W. 50 lks. dist., marked

Resurvey of the Gila and Salt River Meridian through T 10 N.

Chains. T 10 N., R 1 W., S 25 BT. and
 A pine, 10 ins. in diam., bears N. $65\frac{1}{4}^{\circ}$ W., 90 lks. dist., marked
 T 10 N., R 1 W., S. 24. BT.
 Land high rugged mountains, soil light poor stony and gravel
 loam on stony subsoil. spurs with abrupt rocky slopes
 covered with loose stone. light growth bunch and pine grass
 the soil of the narrow bottom land along Laird creek is a
 dark sandy loam with some gravel, on gravel subsoil.
 Timber pine, oak and juniper with a few alder trees along
 Laird creek in canyon.
 Note: At this cor. T set off $22^{\circ}51'$ N. on the decl. arc, and
 at noon observe the sun on the meridian, and obtain
 a reading of $34^{\circ}11\frac{1}{2}'$ N.

 North, bet. secs. 19 and 24, on true line
 Ascend abrupt SE. slope of spur, over stony mountainous
 land, through scattering pine and oak timber, and dense
 oak and manzanita brush 4 to 7 ft. high., exceptionally
 difficult to survey.
 14.00 Top of rocky spur 200 ft. above cor. bears NE. and SW. desc.
 abrupt rocky N. slope.
 19.30 Bottom of canyon 150 ft. deep, cross dry ravine course NE. and
 ascend abruptly.
 21.40 Top of spur 100 ft. above ravine bears NW. and SE. desc.
 22.90 Dry ravine 20 lks. wide course SE. asc.
 36.00 Top of spur, elevation 5900 ft. bears NE. and SW. desc.
 Difference between measurements of 40 chs. by two sets of
 chainmen is 14 lks.; position of middle point
 By 1 st. set 39.93 chs.
 By 2 nd. set 40.07 chs.; the mean of which is
 40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the
 ground for ~~the~~ ¹⁹¹³ sec. cor., marked on brass cap $\frac{1}{4}$ 24 in W. half
 and S 19 in E. half., from which
 A pine, 18 ins. in diam., bears N. $27\frac{1}{4}^{\circ}$ E., 42 lks. dist., marked
 $\frac{1}{4}$ S. 19 BT. and
 An oak, 16 ins. in diam., bears N. 12° W., 27 lks. dist., marked
 $\frac{1}{4}$ S 24 BT.
 The old $\frac{1}{4}$ sec. cor. can not be found after diligent search.
 June 8, 1913.

 June 9, ¹⁹¹³ At 7^h 59^m a.m., l.m.t. I set off $34^{\circ}11\frac{1}{2}'$ N. on the
 lat. arc, $22^{\circ}56'$ N. on the decl. arc and determine a meridian
 with the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 19 and 24, which
 I set last evening ^{as above described}, thence I continue, north ^{ON TRUE LINE}, bet. secs.
 19 and 24, on $\frac{1}{2}$ mile.
 46.00 Dry ravine, 20 lks. wide, in bottom of canyon, course NE.,
 elevation 5500 ft. ascend spur.
 47.00 Top of spur, bears N 80° E. and S 80° W. desc.
 50.80 Dry ravine, 20 lks. wide course SE. asc. spur.
 60.00 Top of spur, elevation 5800 ft. bears NW. and SE. desc.
 67.75 Dry ravine, 15 lks wide in bottom of canyon course NE.,
 elevation 5500 ft. asc. abrupt SE. slope.
 69.00 Top of spur, 50 ft. above bottom of canyon bears NE. and SW.
 desc. into canyon
 73.00 Dry ravine, 20 lks. wide in bottom of canyon course NE.,
 elevation 5450 ft. ascend.
 Difference between measurements of 80.00 chs. by two sets of
 chainmen is 15 lks.; position of middle point
 By 1 st. set 79.92 $\frac{1}{2}$ chs.
 By 2 nd. set 80.07 $\frac{1}{2}$ chs.; the mean of which is
 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the
 ground for ^{REESTAB.} cor. of secs. 13, 18, 19, and 24., marked on brass
 cap T 10 N. in N. half R 1 W., S 13 in NW., R 1 E., S 18 in
 NE., S 19 in SE., and S 24 in SW. quadrant. from which
 An oak, 20 ins. in diam., bears N. $48\frac{3}{4}^{\circ}$ E., 32 lks. dist., marked
 T 10 N., R 1 E., S 18 BT
 An oak, 18 ins. in diam., bears S. $69\frac{1}{2}^{\circ}$ E., 14 lks., dist., marked
 T 10 N., R 1 E., S 19. BT.
 An oak, 16 ins. in diam., bears S. $37\frac{3}{4}^{\circ}$ W., 44 lks. dist., marked
 T 10 N., R 1 W., S 24 BT. and

BOOK 2630

Resurvey of the Gila and Salt River Meridian through T. 10 N.

Chains. An oak, 20 ins. in diam., bears N. $37\frac{1}{2}^{\circ}$ W., 12 lks. dist., marked T 10 N., R 1 W., S 13 BT.

Note: The old cor. of secs. 13, 18, 19, and 24 can not be found after diligent search.

Land rugged and mountainous.; soil loose porphyry and decomposed granite stone with some light sandy loam.; slopes of spurs very abrupt covered with loose boulders and dense growth of oak and manzanita brush. Timber oak and pine.

North, bet. secs. 13 and 18, on true line,

Ascend abrupt SE. slope of spur, over loose granite boulders through scattering oak and pine timber and dense oak and manzanita brush 8 ft. high.

9.00 Top of spur, 200 ft. above cor., bears NE. and SW., desc. abruptly
22.02 Fall 130 lks. E. of the old $\frac{1}{4}$ sec. cor., which is a granite stone 20x16x4 ins., lying on the ground, marked and witnessed as described by the surveyor general.; I destroy all evidence of this cor. and the old markings on the old bearing trees.

24.60 Dry ravine, 15 lks. wide, course SE., ascend abruptly.

28.60 Top of spur, elevation 5400 ft. 75 ft. above ravine bears NE. and SW. desc. precipitous N. slope over cliffs into Smith's canyon

Difference between measurements of 40.00 chs. by two sets of chainmen is 08 lks.; position of middle point

By 1st set 40.04 chs.

By 2nd set 39.96 chs.; the mean of which is

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ^{REESTAB} ~~the~~ sec. cor., marked on brass cap $\frac{1}{4}$ S 13 in W. half and S 18 in E. half. from which

An oak, 8 ins. in diam., bears S. $27\frac{1}{4}^{\circ}$ E., 26 lks. dist., marked $\frac{1}{4}$ S 18 BT. and

An oak, 10 ins. in diam., bears S. $59\frac{3}{4}^{\circ}$ W. 34 lks. dist., marked $\frac{1}{4}$ S 13 BT.

47.00 Bottom of Smith's Canyon, elevation 4600 ft. cross Smith creek 40 lks. wide, water clear, 6 ins. deep on stone bottom course east.

47.50 Leave timber bears E. and W. ascend abrupt N. slope of canyon over loose boulders.

77.50 Top of ascent on spur N. side of canyon, elevation 5600 ft., bears N. 60° W. and S 60° E., desc. abrupt N. slope.

Difference between measurements of 80.00 chs., by two sets of chainmen is 20 lks.; position of middle point

By 1st set 80.10 chs.

By 2nd set 79.90 chs.; the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for ^{REESTAB} ~~the~~ cor. of secs. 7, 12, 13, and 18., marked on brass cap $\frac{1}{4}$ T 10 N. in N. half. R 1 W. S 12 in NW., R 1 E. S 7 in NE. S 18 in SE. and S 13 in SW. quadrant.

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

Pits impracticable.

Note: The old cor. of secs. 7, 12, 13, and 18 can not be found after diligent search.

Land exceptionally mountainous.; soil light poor stony loam on decomposing granite and porphyry ledges.; slopes of spurs and walls of Smith canyon precipitous, washed. rocky. light growth bunch grass on south slopes. dense growth oak and manzanita brush. Timber oak and pines.

Note: On summit of spur, on S. side of canyon, I set off $22^{\circ}57'$ N. on the decl. arc, and at noon observe the sun on the meridian and obtain a reading of $34^{\circ}12\frac{1}{2}'$ N. on the lat. arc.

North, bet. secs. 7 and 12, on true line,

Descend NW. slope of rocky spur, over mountainous land, through dense oak and manzanita brush, undergrowth 6 ft. high, exceptionally difficult to survey.

4.20 Dry ravine, 15 lks. wide, 75 ft. below top of spur, course N. 75° E., ascend abrupt rocky SE. slope.

5.75 A point 200 lks. E. of the south entrance to tunnel on the

Resurvey of the Gila and Salt River Meridian through T 10 N.

Chains. Crown King branch of the P&E.RR.

7.00 A point 225 lks.E.of the north entrance to tunnel.

9.00 Top of spur, bears NE. and SW., descend abruptly over NW.slope.

21.00 Dry ravine, in bottom of canyon, elevation 5350 ft., course of ravine, N. 80°E. asc.

33.75 Top of spur, bears NW. and SE., elevation 5600 ft., desc.

35.80 Dry ravine, 10 lks. wide, at foot of descent, in canyon 50 ft. below top of spur, course SE., asc.

Difference between measurements of 40.00 chs. by two sets of chainmen is 16 lks.; position of middle point

By 1 st. set 39.92 chs.

By 2 nd. set 40.08 chs.; the mean of which is

40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for ^{REESTAB.} ~~1/4~~ sec. cor., marked on brass cap ¹⁹¹³ ~~1/4~~ S 12 in W. half and S 7 in E. half.

Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.

Pits impracticable.

Note: The old 1/4 sec. cor. can not be found after diligent search.

45.00 Top of spur bears NE. and SW. desc. abruptly into canyon. (elevation of spur 5400 ft.)

64.50 Dry ravine 20 lks. wide at foot of descent in canyon, 300 ft. below top of spur course N 60°E. asc. enter oak timber E, and W.

68.30 Point of spur bears NW. and SE. desc.

70.10 Dry ravine 10 lks. wide course SE. asc.

70.98 Telephone line from Mayer to Crown King Arizona bears N. 60°E. and S 60°W.

Difference between measurements of 80.00 chs. by two sets of chainmen is 20 lks.; position of middle point

By 1 st. set 79.90 chs.

By 2 nd. set 80.10 chs.; the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for ^{REESTAB.} cor. of secs. 1, 6, 7, and 12., marked on brass cap ¹⁹¹³; T 10 N. in N. half. R 1 W. S 1 in NW., R 1 E. S 6 in NE., S 7 in SE. and S 12 in SW. quadrant. from which

An oak, 14 ins. in diam, bears N. 23 1/2°E., 115 lks. dist., marked T 10 N. R 1 E., S 6 BT.

An oak, 10 ins. in diam, bears S. 20 1/2°E., 42 lks. dist. marked T 10 N., R 1 E., S 7 BT. No other trees suitable for bearing trees available.; Raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.

The old cor. of secs. 1, 6, 7, and 12. can not be found after diligent search.

Land mountainous.; soil light poor stony loam 4 to 8 ins. deep on decomposing granite subsoil. slopes of spurs abrupt rocky and covered with dense oak brush undergrowth Timber oak.

June 9, 1913.

For June 10, see

next page

June 11¹⁹¹³ At 7^h 0^m ^{1. m. t.} set off 34°14' N. on the lat. arc, 23°06' N. on the decl. arc, and determine a meridian with the solar at the ^{REESTAB.} cor. of secs. 1, 6, 7, and 12, ^{above described.}

Thence I run,

North, bet. secs. 1 and 6, on true line.

Ascend SE. slope of spur, over rough stony mountainous land through oak and juniper timber and dense oak and manzanita brush 6 ft high. exceptionally difficult to survey.

1.56 Western Union telegraph line, to Crown King Arizona, bears NE. and SW.

2.16 Center of track of Crown King branch of th P&E.RR. bears N 47°E. and S 47°W.

5.50 Point of spur bears NW. and SE. desc.

6.70 Dry ravine 15 lks. wide course SE. elevation 5350 ft. asc.

11.40 Top of spur bears NW. and SE., elevation 5500 ft. desc.

21.30 Dry ravine 18 lks. wide in bottom of canyon course SE., elevation 5350 ft. ascend abrupt S. slope of spur over large granite boulders.

38.00 Top of spur bears NW. and SE., elevation 5800 ft. descend abruptly over NE. slope

Difference between measurements of 40.00 chs. by two sets of chainmen is 15 lks.; position of middle point

By 1 st. set 40.07 1/2 chs.

BOOK 2630

Resurvey of the Gila and Salt River Meridian through T 10 N.

- Chains
- 40.00 By 2nd set 39.92 $\frac{1}{2}$ chs.; the mean of which is
Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ^{REESTAB.} $\frac{1}{4}$ sec. cor., marked on brass cap ¹⁹¹³ $\frac{1}{4}$ S 1 in W. half and S 6 in E. half. from which
A juniper, 26 ins. in diam., bears N. 39° W., 88 lks. dist., marked $\frac{1}{4}$ S. 1 BT. and
A juniper, 24 ins. in diam., bears S. 5° E., 175 lks. dist., marked $\frac{1}{4}$ S. 6 BT.
- 47.60 NOTE: The old $\frac{1}{4}$ sec. cor. could not be found after diligent search.
Dry ravine 15 lks. wide at foot of descent in canyon course NE., elevation 5500 ft. asc. abruptly.
- 51.30 Top of spur bears NW. and SE.; elevation 5500 ft. desc.
- 53.65 Dry ravine 50 ft. below top of spur course east. asc.
- 62.80 Top of spur bears E. and W. desc.
- 66.45 Dry ravine 20 lks. wide course N. 80° E. elevation 5200 ft.
- 73.00 Top of rocky spur bears east, elevation 5400 ft. desc.
- 76.65 Dry ravine at foot of descent in canyon course SE., elevation 5250 ft. asc. abruptly.
- Difference between measurements of 80.00 chs. by two sets of chainmen is 10 lks.; position of middle point
By 1st set 80.05 chs.
- 80.00 By 2nd set 79.95 chs.; the mean of which is
Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for ^{REESTAB.} cor. of Tps. 10 and 11 N., Rs. 1 E. and 1 W., marked on brass cap ¹⁹¹³ T 11 N. in N. R 1 E., in E. T 10 N. in S. and R 1 W. in W. half. S 36 in NW., S 31 in NE., S 6 in SE. and S 1 in SW. quadrant.
Raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, S. of cor.
No trees suitable for bearing trees available.; Pits impracticable.
Note: The old cor. of Tps. 10 and 11 N. can not be found after a diligent search.
Land mountainous.; soil light poor sandy and stony loam underlaid with broken granite ledges. slopes of spurs abrupt rocky and covered with dense growth of oak and manzanita brush, no grass. Timber oak and juniper.
Note: At this cor. I set off 23° 06' N. on the decl. arc and at noon observe the sun on the meridian, and obtain a reading of 34° 15' N. June 11, 1913.

Retracement of the "Bradshaw Line" through ^{portion of} Range 1 W., in Tp. 10 N.

- Chains June 10, ¹⁹¹³ At 10^{h.} 01^{am.} I set off 34° 11 $\frac{1}{2}$ ' N. on the lat. arc, 23° 01' N. on the decl. arc and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. bet. secs. 23 and 26¹⁹¹³, which is a granite stone 14x12x10 ins. set in a mound of stone, marked and witnessed as described by the surveyor general. Thence I run,
East, on a random line, bet. secs. 23 and 26, on E $\frac{1}{2}$ mile,
38.80 Fall 145 lks. S. of the old cor. of secs. 23, 24, 25, and 26, a stone ^{in mound of stone} True Course ^{is therefore} of line back to the $\frac{1}{4}$ sec. cor. S. 87° 52' W., 38.80 chs.

NOTE: At this cor. I set off 23° 01' N. on the decl. arc and at noon observe the sun on the meridian and obtain a reading of 34° 11 $\frac{1}{2}$ ' N. on the lat. arc.

- From the ^{old} cor. of secs. 23, 24, 25, and 26, just found I run, on random line, East, bet. secs. 24 and 25, and at 40.00 chs. I make a diligent search for the old $\frac{1}{4}$ sec. cor. but fail to find any trace of the same; therefore, I continue my line East, and at 80.00 chs. I make a diligent search for the ^{old} cor. of secs. 19, 24, 25, and 30, reported to have been set on the Gila and Salt River Meridian, which I also fail to find, therefore I continue my line and measurement East, and at
102.05 Intersect the Gila and Salt River Meridian 7.50 chs. N. of the ^{REESTAB.} cor. of secs. 19, 24, 25, and 30, T 10 N., Rs. 1 E. and 1 W. which I reestablished June 8, 1913, as hereinbefore described

June 10, 1913.

Resurvey of the Gila and Salt River Meridian through T. 11 N.

Chains. Resurvey commenced June 11, 1913., and executed with a Young and Sons light mountain transit No. 10 with a Smith solar attachment.; the horizontal limb is provided with two double verniers, placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

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

I begin at the ^{REESTAB.} cor. of Tps. 10 and 11 N., Rs. 1 E., and 1 W., which I established this day ^{AS HEREIN BEFORE DESCRIBED} latitude $34^{\circ}14'48''$ N., longitude $112^{\circ}18'24''$ W.

All measurements were made with 5.00 chain steel tapes with the aid of clinometers for determining the slope angles.

The relative elevations of the tops of spurs and bottoms of ravines and canyons were determined with the aid of an Aneroid Barometer, which reads to 10000 ft. elevation.

The magnetic bearing of the meridian at 2^h00^m p.m. ^{l.m.t.} is $N. 14^{\circ}35' W.$ the angle thus determined gives the mag. decl. $14^{\circ}35' E.$

At 2^h00^m p.m., l.m.t. I set off $34^{\circ}15' N.$ on the lat. arc, $23^{\circ}06' N.$ on the decl. arc and determine a meridian with the solar at the above Sp. cor.

Thence I run, resurveying Gila and Salt River Meridian thru Tp. 11 N. North, bet. secs. 31 and 36, on true line

Ascend abrupt S. slope of spur, over mountainous land, covered with large granite boulders, through scattering oak and pinion pine timber, and dense oak, manzanita, and mountain mahogany brush 6 to 8 ft. high, exceptionally difficult to survey.

- 7.00 Top of rocky spur, bears E. and W., elevation 6050 ft., descend N. slope, over granite cliffs and ledges.
- 14.00 Dry ravine, 15 lks. wide, course NE., asc. spur.
- 15.80 Top of spur, 20 ft. above ravine, bears NE. and SW., desc.
- 36.70 Dry ravine, 25 lks. wide at foot of descent, in canyon, course NE., elevation 5100 ft., asc.
- 39.75 Water pipe line, bears NE. and SW.
Difference between measurements of 40.00 chs. by two sets of chainmen is 18 lks.; position of middle point
By 1 st. set 39.91 chs.
By 2nd. set 40.09 chs.; the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ^{REESTAB.} sec. cor. marked on brass cap, ^{12/31} S 36 in W. half, and S 31 in E. half.
- Raise a mound of stone 12 ft. base, 1 1/2 ft. high, W. of cor.
No trees suitable for bearing trees available.; pits impracticable.
- Note: The old 1/4 sec. cor. can not be found after a diligent search.

June 11, 1913.

- June 12¹⁹¹³ At 9^h 30^m a.m., l.m.t., I set off $34^{\circ}15' N.$ on the lat. arc, $23^{\circ}09 1/2' N.$ on the decl. arc, and determine a meridian with the solar at the ^{REESTAB.} sec. cor. bet. secs. 31 and 36., which I established last evening ^{AS ABOVE DESCRIBED} thence I continue my line, North, bet. secs. 31 and 36, on true line, on N 1/2 mile,
- 43.00 Top of spur, bears NE. and SW., desc., leave timber bears NE. and SW.
- 47.50 Dry ravine, 10 lks. wide, course SE., asc.
- 53.30 Top of spur, bears NW. and SE., desc.
- 62.10 Dry ravine, 15 lks. wide, course NE.
- 78.50 Top of spur, bears NE. and SW., desc.
- 78.65 Telephone line to the Swastika mine, bears NW. and SE.
- 78.80 Road from Peck station on the Crown King branch of the P&E. RR. to the Swastika mine bears NW. and SE.
Difference between measurements of 80.00 chs. by two sets of chainmen is 20 lks.; position of middle point
By 1 st. set 80.10 chs.
By 2 nd. set 79.90 chs; the mean of which is
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the

BOOK 2630

Resurvey of the Gila and Salt River Meridian through T.11 N.

Chains. ground for ^{REESTAB.} cor. of secs. 25, 30, 31, and 36., marked on brass cap ¹⁹¹³ T 11 N. in N. half.; R 1 W. S 25 in NW.; R 1 E., S 30 in NE., S 31 in SE., and S 36 in SW. quadrant.

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

Pits impracticable. The old sec. cor. could not be found after diligent search.

Note: At this cor. I set off $23^{\circ}10'N.$ on the decl. arc, and at noon observe the sun on the meridian, and obtain a reading of $34^{\circ}16'N.$ on the lat. arc.

Land mountainous.; soil stony with some poor light sandy loam.; spurs with abrupt slopes covered with dense growth of oak, manzanita, and mountain mahogany brush. Timber pinion pine and oak.

North, bet. secs. 25 and 30, on true line,

Descend steep rocky N. slope of spur, over mountainous land through dense oak brush undergrowth 6 ft. high.

2.00 Dry ravine, 50 ft. below cor., course S. $70^{\circ}E.$, asc.

5.15 Pack trail, bears E. and W.

5.75 Same pack trail, bears N. $80^{\circ}E.$ and S $80^{\circ}W.$

5.80 Fall 37 lks. E. of the old $\frac{1}{4}$ sec. cor. which is a porphyry stone $12 \times 12 \times 2$ ins. above ground, marked and witnessed as described by the surveyor general.; I destroy all evidence of the old cor.

7.25 Same pack trail, bears NW. and SE.

9.00 Top of rocky spur, bears NW. and SE. desc.

9.20 A point from which the boarding house at the Swastika mine bears west about 27.00 chs.

16.80 Dry ravine course S $30^{\circ}E.$; asc.

24.00 Top of spur bears NE. and SW. desc.

25.45 Dry ravine 10 lks. wide course SW. asc. abruptly.

34.00 Summit of mountain ridge bears E. and W., elevation 5400 ft. descend N. slope.

Difference between measurements of 40.00 chs.; by two sets of chainmen is 14 lks.; position of middle point

By 1 st. set 39.93 chs.

By 2 nd. set 40.07 chs.; the mean of which is

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ^{REESTAB.} sec. cor., marked on brass cap ¹⁹¹³ S 25 in W. half and S 30 in E. half.

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

Pits impracticable.

June 12, 1913.

June 13, 1913: At 8h 30^m a.m., l.m.t. I set off $34^{\circ}16'N.$ on the lat. arc, $23^{\circ}13'N.$ on the decl. arc, and determine a meridian with the solar, at the $\frac{1}{4}$ sec. cor. bet. secs. 25 and 30., which I reestablished last evening, ^{AS ABOVE DESCRIBED} thence I continue my line, North, bet. secs. 25 and 30, on $N\frac{1}{2}$ mile,

41.00 Dry ravine, 15 lks. wide, course N. $15^{\circ}E.$, elevation 5300 ft., ascend along SE. slope.

43.40 Fall 108 lks. E. of the old cor. of secs. 19, 24, 25, and 30., which is a porphyry stone $18 \times 15 \times 12$ ins. lying on a mound of stone, marked and witnessed as described by the surveyor general.. I destroy all evidence of the old corner.

45.70 Top of spur bears NE. and SW. elevation 5400 ft. desc.

50.50 Dry ravine 20 lks. wide, in bottom of canyon course N $80^{\circ}E.$ elevation 5250 ft. ascend abruptly.

51.00 Pack trail bears E. and W.

58.20 Top of spur 150 ft. above ravine bears NW. and SE. desc.

59.30 Dry ravine 10 lks. wide 30 ft. below top of spur course SE. asc.

72.25 Top of ridge bears NE. and SW., elevation 5350 ft. desc. NW. slope.

Difference between measurements of 80.00 chs., by two sets of chainmen is 10 lks.; position of middle point

By 1 st. set 79.95 chs.

By 2 nd. set 80.05 chs.; the mean of which is

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

Resurvey of the Gila and Salt River Meridian through T 11 N.

Chains. cap¹⁹¹³ T.11 N. in N. half., R 1 W., S 24 in NW., R 1 E., S 19 in NE., S 30 in SE., and S 25 in SW. quadrant.

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

Pits impracticable.

Land high mountain spurs and ridges, with deep rocky canyons soil light poor sandy and stony loam on underlying ledges of granite and porphyry.; slopes of the spurs and ridges abrupt, covered with dense oak brush undergrowth.

No timber.

North, bet. secs. 19 and 24, on true line;

Descend NW. slope, over stony mountainous land, through dense oak, manzanita, and mountain mahogany brush 4 to 8 ft. high, exceptionally difficult to survey.

- 3.00 Dry ravine 15 lks. wide course NW. ascend SW. slope.
11.00 Point of spur bears NE. and SW. desc.
14.20 Dry ravine 20 lks. wide course west asc.
17.70 Top of spur, bears E. and W. desc.
37.70 Dry ravine, 20 lks. wide, in bottom of canyon, course N. 30° E. elevation 5000 ft. ascend point of rocky spur.
39.75 Top of ascent on point of spur bears NE. and SW. desc.
Difference between measurements of 40.00 chs. by two sets of chainmen is 68 lks.; position of middle point

By 1 st. set 40.04 chs.

By 2 nd. set 39.98 chs.; the mean of which is

- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 24 ins. in the ground, for ^{REESTAB} sec. cor., marked on brass cap¹⁹¹³ S 24 in W. half and S 19 in E. half.

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

Pits impracticable. I make a diligent search for the old $\frac{1}{4}$ sec. cor. which I fail to find.

Note: At this cor. I set off 23° 13' N. on the decl. arc and at noon observe the sun on the meridian and obtain a reading of 34° 17' N. on the lat. arc.

- 44.30 Dry ravine 20 lks. wide in bottom of canyon course NW. asc.
48.00 Top of spur bears NW. and SE. desc.
50.40 Bottom of canyon 100 ft. deep course SW. ascend abruptly.
62.50 Top of ridge bears NE. and SW. elevation 5300 ft. desc. NW. slope.

73.00 Dry ravine 18 lks. wide course SW. asc.

78.25 Top of spur bears NW. and SE. desc.

Difference between measurements of 80.00 chs. by two sets of chainmen is 12 lks.; position of middle point

By 1. st. set 80.06 chs.

By 2 nd. set 79.94 chs.; the mean of which is

- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for ^{REESTAB} cor. of secs. 13, 18, 19, and 24., marked on brass cap¹⁹¹³ T 11 N. in N. half. R 1 W., S 13 in NW., R 1 E., S 18 in NE. S 19 in SE. and S 24 in SW. quadrant.

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

Pits impracticable.

Note: The old cor. of secs. 13, 18, 19, and 24, could not be found after diligent search.

Land mountainous.; soil stony worthless. dense growth oak, manzanita, and mountain mahogany brush. No timber.

June 13, 1913.

June 14¹⁹¹³ At 7^h 00^m a.m., l.m.t. I set off 34° 17 $\frac{1}{2}$ ' N. on the lat. arc, 23° 17' N. on the decl. arc and determine a meridian with the solar at the ^{REESTAB} cor. of secs. 13, 18, 19, and 24, above described,

Thence I run,

North, bet. secs. 13 and 18, on true line,

Descend steep rocky NW. slope of spur over mountainous land through dense oak, manzanita, and mountain mahogany brush 4 to 7 ft. high.

- 2.50 Bottom of canyon 150 ft. deep course NW. ascend.
8.00 Top of spur bears NW. and SE. desc.
10.70 Dry ravine 16 lks. wide course west asc.
14.50 Top of spur bears E. and W. desc.

Resurvey of the Gila and Salt River Meridian through T.11 N.

Chains.

18.10 Dry ravine 10 lks. wide course SW

20.60 Top of spur bears E. and W. desc.

24.20 Bottom of canyon course SW. asc.

25.20 Top of spur bears NE. and SW. desc.

28.40 Dry ravine 15 lks. wide course SW. asc.

38.00 Top of spur bears NE. and SW. desc.

Difference between measurements of 40.00 chs. by two sets of chainmen is 15 lks.; position of middle point

By 1 st. set 40.07 1/2 chs.

By 2 nd. set 39.92 1/2 chs.; the mean of which is

40.00 Set an iron post 3 ft. long, 1 in. in diam, 26 ins. in the ground for ~~sec. cor.~~ ^{SEE TAB.} marked on brass cap ^{13/14} S 13 in W. half and S 18 in E. half.

Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

Pits impracticable

Note: The old ~~1/2~~ ^{secs. 13 & 18} sec. cor. can not be found after diligent search, nor any trace of old cor. of secs. 7, 12, 13 & 18.

40.90 Dry ravine 10 lks. wide course SE. asc.

43.00 Top of ridge bears NE. and SW. desc.

50.50 Dry ravine 8 lks. wide course east. asc.

52.60 Top of spur bears NE. and SW. desc.

63.20 Dry ravine in bottom of canyon 250 ft. deep course NW. asc.

68.80 Top of ridge bears NW. and SE., elevation 5000 ft. desc. steep NE. slope. Enter pine and cedar timber bears E. and W.

76.96 Fall 166 lks. E. of the old ~~1/2~~ ^{secs. 13 & 18} sec. cor. bet. secs. 7 and 12. which is a granite stone, 18x8x7 ins. lying on a small mound of stone, marked and witnessed as described by the surveyor general. I destroy all evidence of the old cor.

Difference between measurements of 80.00 chs. by two sets of chainmen is 19 lks.; position of middle point

By 1 st. set 60.09 1/2 chs.

By 2 nd. set 79.99 1/2 chs.; the mean of which is

80.00 The point for the cor. of secs. 7, 12, 13, and 18 falls in dry ravine in bottom of canyon course NW.; therefore I continue my line North asc.

80.25 Set an iron post 3 ft. long 3 in. in diam, 24 ins. in the ground for witness cor. to the cor. of secs. 7, 12, 13, and 18. marked on brass cap ^{1/4} W.C. S. of center. T 11 N. in N. half and S 13 S. 18 in S. half. R 1 W. S 12 in NW., R 1 E. S 7 in NE. quadrant. From which

A pine, 8 ins. in diam, bears N. 61° W., 76 lks. dist., marked WC. T 11 N., R 1 W. S 12 BT.

A cedar, 8 ins. in diam, bears S. 34° E., 72 lks. dist., marked WC T 11 N., R 1 E. S 18 BT.

A pine, 10 ins. in diam, bears S. 48 3/4° W., 78 lks. dist., marked WC. T 11 N., R 1 W., S 13 BT. No other trees available

Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

Pits impracticable.

Land rough mountains.; soil stony clay loam, worthless, light growth bunch grass. Timber cedar and pine.

From true pt. for cor. of secs. 7, 12, 13, and 18, I run, — North, bet. secs. 7 and 12, on true line,

Ascend abrupt rocky SW. slope of spur, over mountainous land through dense oak and mountain mahogany brush 6 ft. high.

0.25 Witness cor. to cor. of secs. 7, 12, 13 and 18, above described

9.00 Top of spur, bears NW. and SE., elevation 4900 ft. desc.

16.15 Dry ravine, in bottom of canyon, course NW., elevation 4700 ft.

24.40 Top of spur, bears NW. and SE., elevation 4850 ft. desc.

29.80 Dry ravine, in bottom of canyon, 100 ft. deep, course NW., asc.

37.60 Top of spur, bears NW. and SE., elevation 5000 ft. desc.

Difference between measurements of 40.00 chs. by two sets of chainmen is 10 lks.; position of middle point

By 1 st. set 40.05 chs.

By 2 nd. set 39.95 chs.; the mean of which is

40.00 Set an iron post 3 ft. long, 1 in. in diam, 26 ins. in the ground for ~~sec. cor.~~ ^{SEE TAB.} marked on brass cap ^{13/14} S 12 in W. half and S 7 in E. half.

Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

Note: The old cor. of secs. 1, 6, 7, and 12. could not be found

Resurvey of the Gila and Salt River Meridian through T 11 N.

Chains, after diligent search.

52.45. Dry ravine 15 lks.wide in bottom of canyon course NE., elevation 4050 ft. Bear Creek.

73.32 Fall 356 lks.E.of the old 1/4 sec.cor.bet.secs.1 and 6., which is a porphyry stone 12x10x8 ins.,loosely set,marked and witnessed as described by the surveyor general.

I destroy all evidence of the old cor.

74.00 Top of spur bears NW. and SE. desc.

Difference between measurements of 80.00 chs.by two sets of chainmen is 15 lks.;position of middle point

By 1 st.set 80.07 1/8 chs.

By 2 nd.set 79.92 1/2 chs.;the mean of which is

80.00 Set an iron post 3 ft.long,3 ins.in diam,24 ins.in the ground for REESTAB. COR.of secs.1,6,7,and 12.,marked on brass cap 1/4 T 11 N.in N.half.R 1 W.S 1 in NW.,R 1 E.S 6 in NE. S 7 in SE. and S 12 in SW.quadrant.

Raise a mound of stone 2 ft.base 1 1/2 ft.high W.of cor.

Pits impracticable.

Land broken and mountainous;soil decomposed granite and loose shale rock with some poor clay loam.light growth bunch grass.No timber.

Note:At this cor.I set off 23°16' N.on the decl.arc,and at noon observe the sun on the meridian and obtain a reading of 34°19' N.on the lat.arc.

North,bet.secs.1. and 6,on true line, Descend steep rocky N.slope,over mountainous land,through dense oak brush 5 ft.high.

3.10 Foot of descent,in dry bed of Turkey Creek,course north.

10.00 Leave creek bed,course N.70°E.,ascend SE. slope.

12.40 Top of spur,bears NE. and SW.,desc.

14.30 Dry ravine,20 lks.wide,course SE.,asc.

21.00 Top of spur,bears NW. and SE.,desc.

27.70 Old road from Mayer to Crown King,Arizona,bears N.60°E., and S 60°W.

29.85 Dry ravine,20 lks.wide,course SW,asc.

32.92 Fall 268 lks.E.of the old cor.of Tps.11 and 12 N.,Rs.1 E. and 1 W.,which is a schist stone 11x7x4 ins.loosely set in a mound of stone,marked and witnessed as described by the surveyor general. I destroy all evidence of the old cor.

34.70 Top of spur,bears E. and W.,desc.

36.40 Dry ravine,15 lks.wide,course SE.,asc.

Difference between measurements of 40.00 chs.by two sets of chainmen is 08 lks.;position of middle point

By 1 st.set 40.04 chs.

By 2 nd.set 39.96 chs.;the mean of which is

40.00 Set an iron post 3 ft.long,1 in.in diam,26 ins.in the ground for REESTAB. COR. sec.cor.,marked on brass cap 1/4 S 1 in W.half and S 6 in E. half.

Raise a mound of stone,2 ft.base,1 1/2 ft.high,W.of cor.

Pits impracticable.

43.00 Top of spur,bears NW. and SE.,desc.

47.30 Dry ravine,15 lks.wide,course SE.,asc.

72.80 Fall 316 lks.E.of the OLD 1/4 sec.cor.bet.secs. 31 and 36.,T. 12 N. which is a granite stone 14x6x6 ins.loosely set,marked 1/4 on E. face,with a mound of stone 1 ft.base,1 ft.high W.cor. I destroy all evidence of the old cor.

Difference between measurements of 80.00 chs.by two sets of chainmen is 14 lks.;position of middle point

By 1 st.set 80.07 chs.

By 2 nd.set 79.93 chs.;the mean of which is

80.00 Set an iron post 3 ft.long,3 ins.in diam,24 ins.in the ground,for cor.of REESTAB. Tps.11 and 12 N.,R.1 W.,and Tps. 11 and 11 1/2 N.,R.1 E.,marked on brass cap 1/4 T 12 N.,R 1 W. S 36 in NW.,T 11 1/2 N.,R 1 E.,S 31 in NE.,T 11 N.,R 1 E. S 6 in SE.,and T 11 N.,R 1 W.,S 1 in SW. quadrant.

Raise a mound of stone,2 ft.base,1 1/2 ft.high,S.of cor.

Pits impracticable.

Note: For change of markings on this cor. see Book "F" Group 14

NOTE: For previous position or description of this corner see 32.92 of this mile and page 6 of Book F Group 11

Resurvey of the Gila and Salt River Meridian through T.11 N.

Chains

Land mountainous.; spurs abrupt rocky with very little sandy loam. the soil is practically worthless. No timber.

June 14, 1913.



[The main body of the document contains extremely faint and illegible text, likely representing a detailed survey report or field notes. The text is too light to transcribe accurately.]

Resurvey of the Gila and Salt River Meridian
through T 11½ N.R.1 E., and T.12 N.,R 1 W.

Chains Survey commenced June 14, 1913. and executed with a Young and Sons light mountain transit No.10 with a 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. I examine the adjustments of the transit and correct the level and collimation errors.; then to test the solar apparatus by comparing the results of observations, on the sun made during a.m., and p.m. hours with a meridian established by observation on Polaris, I proceed as follows;

At my camp which is located on the N.bdry of Tp.11½ N.R.1 E. 40.00 chs.E. of the old meridian line.; latitude $34^{\circ}22'24''$ N., longitude $112^{\circ}17'54''$ W.

At 5^h 00^m p.m., l.m.t. I set off $34^{\circ}22\frac{1}{2}'$ N. on the lat. arc, $23^{\circ}18'$ N. on the decl. arc, and determine a meridian with the solar and mark a point thereof by a tack driven in a stake set in the ground 5.00 chs. N. of my instrument.

At 9^h 55^m p.m., l.m.t., by my watch, which is correct local mean time I observe Polaris in accordance with instructions in the Manual and mark the direction thus determined by a tack driven in a stake set in the ground 5.00 chs. N. of my instrument

Time Obs. Polaris June 14 1913.	9 ^h 55 ^m p.m.
U.C. Polaris June 15, meridian of Greenwich civil date and mean time.	7 ^h 55.6 ^m a.m.
To obtain time U.C. Polaris local meridian subtract 1.2 ^m as per Table 19 of "General Land Office Standard Field Tables"	1.2
U.C. Polaris local meridian.	7 ^h 54.4 ^m a.m.
Polaris east of the meridian, hour angle is the mean time interval from local mean time of observation of Polaris to local mean time of upper culmination.; therefore	
Hour angle of Polaris equals 2 ^h 05 ^m plus 7 ^h 54.4 ^m or 9 ^h 59.4 ^m	
Azimuth of Polaris at obs.	0°41'E.

June 14. 1913.

June 15¹⁹¹³ At 6^h 00^m a.m., l.m.t. I lay off the azimuth of Polaris 0°41' to the west and mark the meridian thus determined by a tack driven in the stake set last evening on which the meridian falls 0.4 ins. E. of the point determined by the solar observation.

At 7^h 00^m a.m., l.m.t., I set off $34^{\circ}22\frac{1}{2}'$ N. on the lat. arc, $23^{\circ}20'$ 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 5.00 chs. N. of my instrument.; this point falls 0.5 ins. east of the meridian established by the Polaris observation.

The solar apparatus by p.m., and a.m. observations defines positions for meridians respectively about 0'21" West and 0'26"E. of the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.

I begin at the cor. of Tps. 11 and 11½ N., R 1 E., and T 11 and 12 N., R 1 W., which I reestablished last evening as hereinbefore described latitude $34^{\circ}20'02''$ N., longitude $112^{\circ}18'24''$ W.

All measurements were made with 5.00 chain steel tapes, with the aid of clinometers for determining the slope angles. The elevations of tops of spurs and ridges and bottoms of ravines and canyons were determined with an Aneroid Barometer which reads to 10000 ft. elevation.

The magnetic bearing of the meridian at 9^h 00^m a.m., l.m.t. is N 14°45' W.; the angle thus determined gives the mag. decl. 14°45' E.

At 9^h 30^m a.m., l.m.t., I set off $34^{\circ}20'$ N. on the lat. arc, $23^{\circ}19'$ N. on the decl. arc, and determine a meridian with the solar, at the above mentioned cor.

Thence I run, resurveying G. & S. R. Meridian thru Tp. 11½ N. R. 1 E., and T. 12 N. R. 1 W. North, bet. secs. 31 and 36, on true line

Resurvey of the Gila and Salt River Meridian
through Tps 12 N., Rq 1 E. and T 12 N., Rq 1 W.

- Chains. Ascend steep SW. slope of spur over stony mountainous land through oak brush undergrowth 4 ft. high.
- 7.40 Top of spur bears NW. and SE. desc.
- 13.90 Dry ravine 10 lks. wide course NE. asc. steeply.
- 19.00 Top of spur bears NE. and SW. desc.
- 25.80 Dry ravine 20 lks. wide course NE. asc.
- 27.30 Top of spur bears NE. and SW. desc.
- 28.90 Dry ravine 30 lks. wide course NE. asc.
- 32.68 Fall 367 lks. E. of the old cor. of secs. 25, 30, 31, and 36, which is a granite stone 12x4x7 ins. above ground, firmly set, marked and witnessed as described by the surveyor general. I destroy all evidence of the old cor.
- Difference between measurements of 40.00 chs. by two sets of chainmen is 06 lks.; position of middle point
- By 1 st. set 39.97 chs.
- By 2 nd. set 40.03 chs.; the mean of which is
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ^{REESTAR} $\frac{1}{4}$ sec. cor., marked on brass cap ¹⁹¹³ $\frac{1}{4}$ S 36 in W. half and S 31 in E. half.
- Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
- Pits impracticable.
- 40.20 Top of spur bears NW. and SE. desc.
- 40.45 Dry ravine 30 lks. wide course SE. asc.
- 62.50 Top of spur bears NW. and SE. desc.
- 72.17 Fall 388 lks. E. of the old $\frac{1}{4}$ sec. cor. bet. secs. 25 and 30., which is a porphyry stone 12x4x7 ins. above ground, loosely set, marked and witnessed as described by the surveyor general. I destroy all evidence of the old cor.
- 75.25 Bottom of canyon 400 ft. deep course SE. ascend abruptly.
- Difference between measurements of 80.00 chs. by two sets of chainmen is 14 lks.; position of middle point
- By 1 st. set 79.93 chs.
- By 2 nd. set 80.07 chs.; the mean of which is
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for ^{REESTAR} cor. of secs 30 and 31 T 11 $\frac{1}{2}$ N., R 1 E., and 25 and 36, T 12 N., R 1 W. marked on brass cap ¹⁹¹³ T 12 N., R 1 W., S 25 in NW., T 11 $\frac{1}{2}$ N., R 1 E. S 30 in NE. S 31 in SE. and S 36 in SW. quadrant.
- Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.
- Pits impracticable.
- Land mountainous.; soil light poor stony loam on decomposing shales. spurs abrupt covered with loose stone., light growth bunch grass. No timber.
- Note: At the $\frac{1}{4}$ sec. cor. I set off 23°19' N. on the decl. arc, and at noon observe the sun on the meridian and obtain a reading of 34°20 $\frac{1}{2}$ ' N. on the lat. arc.

June 15, 1913.

- June 16¹⁹¹³: At 8h00^m a.m., l.m.t. I set off 34°21' N. on the lat. arc, 23°22' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 25, 30, 31, and 36 ^{above described}
- Thence I run North, bet. secs. 25 and 30, on true line, Ascend abrupt rocky SW. slope of spur, over mountainous land, through dense oak brush undergrowth 5 ft. high.
- 27.80 Summit of mountain ridge, bears N. 70°W. and S 70°E., elevation 5000 ft., desc.
- 30.74 Fall 395 lks. E. of the old cor. of secs. 19, 24, 25, and 30., which is a granite stone 40x18x4 ins. lying on the ground marked as described by the surveyor general. I destroy all evidence of the old cor.
- 35.30 Dry ravine, 8 lks. wide, course E. asc.
- 37.75 Top of spur, bears E. and W., desc. NE. slope into canyon.
- Difference between measurements of 40.00 chs. by two sets of chainmen is 10 lks.; position of middle point
- By 1 st. set 40.05 chs.
- By 2 nd. set 39.95 chs.; the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ^{REESTAR} $\frac{1}{4}$ sec. cor., marked on brass cap ¹⁹¹³ $\frac{1}{4}$ S 25 in W. half and S 30 in E. half.

Resurvey of the Gila and Salt River Meridian

through Tps. 11 $\frac{1}{2}$ and 12 N., Rq. 1 E., and T. 12 N. Rq. 1 W

- Chains. Raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high W. of cor.
Pits impracticable.
- 52.10 Dry ravine 25 lks. wide 400 ft. below top of spur course NE.
ascend spur.
- 56.80 Top of spur bears NE. and SW. desc.
- 61.30 Foot of descent in canyon, cross dry bed of Pine creek 100
lks. wide course S. 65° E., elevation 4600 ft. asc. abrupt S.
slope of spur.
- 71.80 Top of spur bears NE. and SW. desc. steep N. slope.
- 75.10 Dry ravine 8 lks. wide course SW. asc. abruptly over
loose boulders.
- Difference between measurements of 80.00 chs. by two sets
of chainmen is 15 lks.; position of middle point
By 1 st. set 80.07 $\frac{1}{2}$ chs.
By 2 nd. set 79.92 $\frac{1}{2}$ chs.; the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the
ground for cor. of secs. 19 and 30, T 11 $\frac{1}{2}$ N., R 1 E. and 24 and
25, T. 12 N., R 1 W., marked on brass cap ^{FOR REESTAB. COR. OF SECS.} T 12 N., R 1 W., S 24
in NW., T 11 $\frac{1}{2}$ N., R 1 E., S 19 in NE., S 30 in SE, and S 25 in
SW. quadrant.
- Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
Pits impracticable.
- Note: this cor. is situated on steep S. slope at foot of
cliff 50 ft. high.
- Land mountainous; spurs and ridges abrupt rocky, covered
with dense oak and mountain laurel brush; soil stony
and practically worthless for agricultural purposes.
light growth bunch grass on S. slopes of spurs. No
timber.
- Note: The old $\frac{1}{4}$ sec. cor. bet. secs. 19 and 24 could not be
found after diligent search.
-
- North, bet. secs. 19 and 24, on true line,
Ascend S. slope of spur, over cliffs 50 ft. high through
oak, laurel and manzanita brush.
- 3.40 Summit of ridge at top of cliffs bears NW. and SE., elevation
5200 ft. descend gradually over NE. slope.
- 21.10 Dry ravine 15 lks. wide course SE. asc.
- 28.70 Top of spur bears NW. and SE. desc. gradually.
- 28.96 Fall 375 lks. E. of the old cor. of secs. 13, 18, 19, and 24.;
which is a granite stone 18x14x4 ins. above ground,
loosely set marked and witnessed as described by the
surveyor general. I destroy all evidence of the old cor.
- 31.00 Dry ravine, 6 lks. wide course SE. asc.
- Difference between measurements of 40.00 chs. by two sets of
chainmen is 12 lks.; position of middle point
By 1 st. set 40.06 chs.
By 2 nd. set 39.94 chs.; the mean of which is
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the
ground, for ^{REESTAB.} $\frac{1}{4}$ sec. cor., marked on brass cap, ^{19.3.1} $\frac{1}{4}$ S 24 in W.
half and S 19 in E. half.
- Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
Pits impracticable.
- Note: At this cor. I set off 23° 22' N. on the decl. arc, and
at noon observe the sun on the meridian, and obtain
a reading of 34° 22' N. on the lat. arc.
- 45.00 Top of ridge bears NW. and SE. desc. over NW. slope.
- 52.00 Road from Mayer to Prescott Arizona bears N 70° W. and
S 70° E.
- 55.40 Dry ravine 8 lks. wide course SE. asc.
- 64.85 Top of spur bears NW. and SE. desc.
- 69.24 Fall 421 lks. E. of the old $\frac{1}{4}$ sec. cor. bet. secs. 13 and 18.
which is a granite stone 18x10x4 ins., loosely set, marked
 $\frac{1}{4}$ on E. face, No cor. accessories. I destroy all evidence of
the old cor.
- 70.20 Dry ravine 15 lks. wide course SE. asc.
- Difference between measurements of 80.00 chs. by two sets
of chainmen is 8 lks.; position of middle point
By 1 st. set 80.04 chs.

BOOK 2630

Resurvey of the Gila and Salt River Meridian

through Tps. 12 N., R. 1 E., and 1 W. and 1 W.

Chains. By 2nd. set 79.96 chs.; the mean of which is
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the
 ground for ^{REESTAB.} cor. of secs. 13 and 24, T12N., R 1 W., marked
 on brass cap, ^(3/3) T12N. in N., T11 $\frac{1}{2}$ N., R1E.S19., S31 in E. half.
 S13 in NW., and R 1 W., S24 in SW. quadrant.
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Pits impracticable.
 Land high rolling mountains.; soil dark clay and adobe loam
 on underlying shale rock, light growth bunch grass.
 No timber.

June 16, 1913.

June 17, 1913: At 2^h00^m p.m., l.m.t. I set off 34°22 $\frac{1}{2}$ ' N on
 the lat. arc, 23°24' N. on the decl. arc, and determine a
 meridian at the ^{REESTAB.} cor. of secs. 13 and 24, T. 12 N., R 1 W.,
 Thence I run, on true line, ^{above described.}
 North, on E. bdy. sec. 13, T. 12 N., R. 1 W.
 Ascend S. slope of spur over stony mountainous land,
 covered with dense oak brush undergrowth 4 to 6 ft.
 high.

4.25 Top of spur bears NW. and SE. desc.
 7.95 Dry ravine 10 lks. wide course SE. asc.
 13.05 Top of rocky spur bears NW. and SE. desc.
 21.25 Dry ravine 8 lks. wide course SE. asc.
 29.20 Fall 233 lks. E. of the old cor. of secs. 7, 12, 13, and 18., which
 is a malpais stone 12x10x10 ins., loosely set in a
 small mound of stone, marked as described by the
 surveyor general, no cor. accessories. I destroy all
 trace of the old cor.

34.85 Top of spur bears NW. and SE. desc.
 Difference between measurements of 40.00 chs. by two sets
 of chainmen is 10 lks.; position of middle point
 By 1st. set 39.95 chs.
 By 2nd. set 40.05 chs.; the mean of which is
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the
 ground for ^{REESTAB.} sec. cor. sec. 13, ^(3/3) marked on brass cap, ^(3/3) S 13
 in W. half.
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Pits impracticable.

40.10 Dry ravine 6 lks. wide course SE. asc. spur
 45.35 Top of spur bears NW. and SE. desc.
 52.35 Enter dry ravine course S 30° E. thence in ravine.
 54.26 Leave ravine, ascend SE. slope.
 69.23 Fall 181 lks. E. of the old $\frac{1}{4}$ sec. cor. bet. secs. 7 and 12.,
 which is a granite stone 16x6x12 ins. above ground, firmly
 set, marked and witnessed as described by the surveyor
 general.; I destroy all evidence of the old cor.

71.05 Old water pipe line from Crystal Spring to Mayer Arizona.
 bears NE. and SW.

79.25 Top of spur bears NW. and SE. desc.
 Difference between measurements of 80.00 chs. by two sets
 of chainmen is 14 lks.; position of middle point
 By 1st. set 79.93 chs.
 By 2nd. set 80.07 chs.; the mean of which is
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the
 ground for ^{REESTAB.} cor. of secs. 12 and 13, T12N., R1W., marked on brass cap, ^(3/3)
 T 12 N. in N., R1E.S30 S31 in E. half. S12 in NW. and R1W.
 S13 in SW. quadrant.
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
 Pits impracticable.
 Land high rolling mountains.; soil stony adobe clay loam
 on clay subsoil, worthless., dense growth of oak brush
 undergrowth. No timber.

June 17, 1913.

June 18, ¹⁹¹³ At 7h 30m a.m., l.m.t. I set off 34°23 $\frac{1}{2}$ ' N. on the
 lat. arc, 23°26' N. on the decl. arc, and determine a
 meridian with the solar at the ^{REESTAB.} cor. of secs. 12 and 13.
 T12N., R1W., above described,

Resurvey of the Gila and Salt River Meridian thru Tps. 12 N., Rgs. 1 E. and 1 W.

Chains. Thence I run, on true line North, on E. bdry. sec. 12, T. 12 N., R. 1 W. Descend NE. slope of spur over stony mountainous land, covered with dense oak brush undergrowth 6 ft. high.

1.50 Dry ravine 5 lks. wide course SE. asc.

16.10 Top of spur bears NW. and SE. desc.

19.25 Dry ravine 10 lks. wide course SE. asc.

28.85 Top of ascent on S. edge of Big Bug Mesa, bears E. and W., elevation 6100 ft., thence over rolling stony mesa land.

29.00 Enter scattering Juniper timber bears E. and W.

29.55 Fall 144 lks. E. of the old cor. of secs. 1, 6, 7, and 12, which is a malpais stone 16x12x5 ins. above ground, loosely set, marked and witnessed as described by the surveyor general. I destroy the old cor. and markings on the bearing tree.

29.70 Top of ridge bears NE. and SW. descend NW. slope into rocky canyon

39.95 Bottom of canyon 100 ft. deep course SW. ascend. Difference between measurements of 40.00 chs., by two sets of chainmen is 6 lks.; position of middle point by
By 1 st. set 40.03 chs.
By 2 nd. set 39.97 chs.; the mean of which is

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ^{REESTAB.} sec. cor. sec. 12, ^{T. 12 N., R. 1 W.} marked on brass cap ^{(9/3) 1/4} S 12 in W. half. from which
A juniper, 15 ins. in diam., bears N. 10 ^{3/4}° W., 146 lks. dist., mark'd ^{1/4} S 12 BT. and
An oak, 6 ins. in diam., bears S. 4 ^{1/2}° E., 110 lks. dist., marked ^{1/4} S BT.

52.35 Top of ridge bears N 60° E. and S 60° W. desc. NW. slope into canyon.

65.10 Dry ravine at foot of descent in rocky canyon course S 50° W. ascend SE. slope over loose malpais stone.

72.00 Top of steep ascent on N. side of canyon ascend gradually. Difference between measurements of 80.00 chs. by two sets of chainmen is 8 lks.; position of middle point
By 1 st. set 80.04 chs.
By 2 nd. set 79.96 chs.; the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for ^{REESTAB.} cor. of secs. 1 and 12, T. 12 N., R. 1 W., marked on brass cap ^{(9/3) 1/4} T. 12 N., R. 1 E. S 19. S 30 in E. half. S 1 in NW. and R. 1 W. S 12 in SW. quadrant.
Raise a mound of stone 2 ft. base 1 ^{1/2} ft. high W. of cor. No trees within limits.; Pits impracticable.
Note: The old ^{1/4} sec. cor. bet. secs. 1 and 6, could not be found after diligent search.
Land mountainous and high rolling mesa land; soil adobe clay loam, worthless, light growth bunch grass. Timber oak and juniper.
Note: At the ^{REESTAB.} ^{SEC. 12} sec. cor. I set off 23° 25' N. on the decl. arc and at noon observe the sun on the meridian, and obtain a reading of 34° 24' N. on the lat. arc.

North, on E. bdry. sec. 1, T. 12 N., R. 1 W., on true line Ascend SE. slope over rolling mountainous land, through scattering juniper timber, and dense oak brush undergrowth 4 ft. high.

30.10 Fall 378 lks. E. of the old cor. of Tps. 12 and 12 ^{1/2} N., R. 1 W. which is a malpais stone 12x6x8 ins. above ground, loosely set, marked and witnessed as described by the surveyor general. I destroy all evidence of the old cor.

33.00 North edge of mesa bears E. and W. descend abruptly over N. slope. Difference between measurements of 40.00 chs. by two sets of chainmen is 10 lks.; position of middle point
By 1 st. set 39.95 chs.
By 2 nd. set 40.05 chs.; the mean of which is

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for ^{REESTAB.} sec. cor. sec. 1, ^{T. 12 N., R. 1 W.} marked on brass cap ^{(9/3) 1/4} S 1 in W. half. No trees suitable for bearing trees available. Raise a

Note: See Book "F" Group 11 for change of markings on this corner.

BOOK 2630

Resurvey of the Gila and Salt River Meridian through Tps. 12 N. R. 1 E. and 1 W.

Chains mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.; Pits impracticable.

June 18, 1913.

June 19¹⁹¹³ At 8^h 01^m a.m.; l.m.t., I set off $34^{\circ}25'N.$ on the lat. arc, $23^{\circ}26\frac{1}{2}'N.$ on the decl. arc, and determine a meridian with the solar at the $\frac{1}{4}$ sec. cor. on E. bdry. sec. 1, ^{1/2 N. R. 1 W.} which I reestablished last evening, ^{AS ABOVE DESCRIBED} thence I continue my line, North, on E. bdry sec. 1, on $N\frac{1}{2}$ mile

54.00 Dry ravine, 8 lks. wide, course NE., asc. spur.

60.70 Top of spur bears NE. and SW. desc.

69.62 Fall 466 lks. E. of the old $\frac{1}{4}$ sec. cor. on E. bdry. sec. 36, which is a quartz stone 16x11x8 ins., lying on the ground, marked as described by the surveyor general. No cor. accessories. I destroy the old cor.

Difference between measurements of 80.00 chs. by two sets of chainmen is 14 lks.; position of middle point

By 1 st. set 79.93 chs.

By 2 nd. set 80.07 chs.; the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for ^{REESTAB.} cor. of Tps. 12 and $12\frac{1}{2}$ N., R 1 W., marked on brass cap ^{2/3} T12N., R1E., S18. S19 in E. and R1W. in W. half.; T12 $\frac{1}{2}$ N. S36 in NW., and T12N., S01 in SW. quadrant.

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

Pits impracticable. No trees available.

S. 33 chs. high rolling mesa SE. slope; soil adobe clay loam on clay subsoil; light growth bunch grass. N. 47 chs. rough broken mountains; spurs with light poor stony clay loam.; slopes of spurs washed stony. Timber juniper and oak.

June 19, 1913.

NOTE: For previous position or description of this corner see page 23 of this book and page 6 of book "F" Group 11.

Resurvey of the Gila and Salt River Meridian thru Tp. 12 N. R. 1 E. and Tp. 12 1/2 N. R. 1 W.

Chains

Resurvey commenced June 19, 1913 and executed with a Young and Sons light mountain transit No. 10 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 observation on Polaris that the instrument is in satisfactory adjustment.

I begin at the cor. of Tps. 12 and 12 1/2 N., R. 1 W. which I reestablished this day, ^{AS HEREIN BEFORE DESCRIBED} latitude 34° 25' 15" N., longitude 112° 18' 24" W.

All measurements were made with 5.00 chain steel tapes and clinometers for determining slope angles.

The magnetic bearing of the meridian at 10^h 08^m is N. 14° 45' W. the angle thus determined gives the mag. decl. 14° 45' E.

At 10^h 00^m a.m., l.m.t., I set off 34° 25' N. on the lat. arc, 23° 26' N. on the decl. arc, and determine a meridian with the solar, at the above mentioned Tp. cor.

Thence I run, resurveying G. & S. R. Meridian Thru Tp. 12 1/2 N. R. 1 W. & T. 12 N. R. 1 E.

North, on E. bdry. sec. 36. T. 12 1/2 N., R. 1 W., on true line,

Descend abrupt rocky N. slope of Big Bug Mesa over mountainous land, through scattering oak, and juniper timber and dense oak and manzanita brush 4 to 6 ft. high exceptionally difficult to survey.

- 1.10 Enter dry ravine course NR.
 1.80 Leave ravine
 10.00 Dry creek bed 50 lks. wide course NE. asc.
 12.00 Top of spur bears NE. and SW. desc.
 12.25 Old wood road bears NE. and SW.
 13.90 Foot of descent cross Grape Vine creek 50 lks. wide, no water course N 30° E. asc
 18.36 Water pipe line to Mayer Arizona bears N 80° W. and S 80° E
 29.95 Fall 484 lks. E. of the old cor. of secs. 25 and 36, ^{12 1/2 N. R. 1 W.} which is a slate stone 12x4x8 ins. lying on the ground, marked as described by the surveyor general No cor accessories. I destroy the old cor.
 Note: At this point I set off 23° 26' N. on the decl. arc, and at noon observe the sun on the meridian and obtain a reading of 34° 26' N. on the lat. arc.
 31.00 Top of spur bears N 30° W., and S. 30° E. desc. abruptly over NE. slope.; leave timber bears NW. and SE.
 34.65 Dry ravine 15 lks. wide course S. 35° E. asc.
 Difference between measurements of 40.00 chs. by two sets of chainmen is 12 lks.; position of middle point
 By 1 st. set 40.06 chs.
 By 2 nd. set 39.94 chs.; the mean of which is
 40.00 Set an iron post, 3 ft. long, 1 in. in diam. 26 ins. in the ground for ^{REESTAB.} sec. cor. sec. 36, ^{T. 12 1/2 N. R. 1 W.} marked on brass cap ¹⁹¹³ S 36 in W. half.
 Raise a mound of stone, 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable.
 61.50 Top of spur bears NE. and SW. desc.
 67.60 Dry ravine 10 lks. wide course SW. asc.
 69.80 Fall 538 lks. E. of the old ^{12 1/2 N. R. 1 W.} sec. cor. for sec. 25, T. 12 1/2 N., which is a slate stone 10x8x4 ins. loosely set in a small mound of stone, marked and witnessed as described by the surveyor general. I destroy the old cor.
 76.00 Top of ridge bears N. 15° W. and S. 15° E. desc. over NE. slope. Difference between measurements of 80.00 chs. by two sets of chainmen is 16 lks.; position of middle point.
 By 1 st. set 80.08 chs.
 By 2 nd. set 79.92 chs.; the mean of which is
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for ^{REESTAB.} cor. of secs. 25 and 36, T. 12 1/2 N., R. 1 W., marked on brass cap ¹⁹¹³ T. 12 N., R. 1 E., S 7, S 18 in E., R. 1 W. in W. half., T. 12 1/2 N. S 25 in NW., and S 36 in SW. quadrant.
 Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.

Resurvey of the Gila and Salt River Meridian thru T₁₂N, R₁E, and
T_{12 1/2}N, R₁W
Chains.

Land mountainous; spurs steep with light poor sandy and stony loam on clay subsoil.; dense growth oak and manzanita brush. Timber oak juniper and scattering walnut along Grape Vine creek.

June 19, 1913.

- June 20¹⁹¹³ At 7^h 01^m a.m., l.m.t. I set off 34°26'N. on the lat. arc 23°28'N. on the decl. arc, and determine a meridian with the solar at the ^{REESTAB.} cor. of secs. 25 and 36, ~~thence T_{12 1/2}N, R₁W, above described,~~
- North, on E. bdry. of sec. 25, on true line,
Descend rocky NE. slope of spur, over mountainous land, through dense mountain mahogany, manzanita, and oak brush 6 to 10 ft. high., exceptionally difficult to survey.
- 12.30 Dry ravine, 10 lks. wide, course NE., asc.
 - 16.00 Top of spur, bears NE. and SW., desc.
 - 26.50 Dry ravine, 15 lks. wide, course SE., asc.
 - 29.70 Fall 540 lks. E. of the evident remains of the old cor. of secs. 24 and 25, ^{T_{12 1/2}N, R₁W} which is a mound of stone in center of mound and small mound along side. I destroy all evidence of the mounds of stone.
 - 33.50 Top of spur, bears NW. and SE., desc.
 - 34.80 Dry ravine, course SE., asc.
Difference between measurements of 40.00 chs. by two sets of chainmen is 8 lks.; position of middle point
By 1 st. set 39.96 chs.
By 2 nd. set 40.04 chs.; the mean of which is
 - 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for ^{REESTAB.} sec. cor., marked on brass cap ¹⁹¹³ S 25 in W. half.
Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.
 - 43.00 Top of spur, bears NW. and SE., desc.
 - 45.00 Dry ravine, 6 lks. wide, course SE. asc.
 - 57.50 Top of spur, bears NE. and SW., descend abruptly over NE. slope Enter, scattering oak timber bears NE. and SW.
 - 69.75 Fall 592 lks. E. of the old 1/4 sec. cor. on E. bdry. sec. 24, ^{T_{12 1/2}N, R₁W} which is a granite stone, 10x6x4 ins. loosely set in a mound of stone, marked and witnessed as described by the surveyor general.; I destroy all evidence of the old cor.
 - 76.90 Dry ravine, 20 lks. wide, course NW., ascend SW. slope of spur, leave timber, bears NW. and SE.
Difference between measurements of 80.00 chs. by two sets of chainmen is 15 lks.; position of middle point
By 1 st. set 79, 92 1/2 chs.
By 2 nd. set 80.07 1/2 chs.; the mean of which is
 - 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for ^{REESTAB.} cor. of secs. 24 and 25, ^{T_{12 1/2}N, R₁W}, marked on brass cap ¹⁹¹³ T₁₂N., R₁E., S₆, S₇ in E., R₁W. in W. half. T_{12 1/2}N. S 24 in NW., and S 25 in SW. quadrant.
Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor.; Pits impracticable.
- Land mountainous.; spurs and ridges abrupt, with light poor stony loam, on underlying ledges of granite and porphyry rock., dense growth mountain mahogany, manzanita and oak brush undergrowth. Timber oak.
- Note: At this cor. I set off 23°27'N. on the decl. arc, and at noon observe the sun on the meridian and obtain a reading of 34°27'N.

- North, on E. bdry. of sec. 24, on true line,
Ascend abrupt rocky SW. slope of spur over mountainous land through dense oak brush undergrowth 5 ft. high.
- .90 Top of spur bears NW. and SE. desc.
 - 3.30 Dry ravine 8 lks. wide course west. asc.
 - 13.50 Top of spur bears NW. and SE. desc.

Resurvey of the Gila and Salt River Meridian, thru Tps. 12 N. R. 1 E. and Tps. 12 1/2 N., R. 1 W.

Chains.

- 20.00 Enter scattering oak timber, bears E. and W.
- 25.48 Wire fence, bears N. 70° E. and S. 70° W., leave timber and undergrowth, bears E. and W., enter cultivated land, bears N. 70° E. 300 lks. dist. and S. 70° W. 800 lks. dist.
- 25.50 Irrigating ditch, 5 lks. wide, 8 ins. deep, course NE.
- 28.60 Wire fence, bears N. 60° E. and S. 60° W., leave cultivated land, bears N. 60° E. 4.00 chs. dist. and S. 60° W. 8.50 chs. dist., enter oak brush undergrowth bears NE. and SW.
- 29.35 Foot of descent, in dry bed of Big Bug Creek 75 lks. wide course N. 65° E. asc.
- 29.70 Old pump station bears west 158 lks. dist.
- 31.02 Road from Poland to Mayer Arizona bears NE. and SW. Difference between measurements of 40.00 chs. by two sets of chainmen is 12 lks.; position of middle point
By 1 st. set, 40.06 chs.
By 2 nd. set 39.94 chs.; the mean of which is
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam, 26 ins. in the ground, for ^{REESTAB} sec. cor., marked on brass cap ¹⁹¹³ S 24 in W. half., Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable.
- 44.00 Top of spur bears NW. and SE. desc.
- 50.70 Dry ravine 20 lks. wide course SE. asc.
- 54.60 Center of the Poland branch of the P&E. RR. bears N. 89 1/4° E. and S 89 1/4° W.
- 55.08 Western Union Telegraph line from Prescott to Poland Arizona bears N 89 1/4° E. and S. 89 1/4° W. Difference between measurements of 57.06 chs. by two sets of chainmen is 12 lks.; position of middle point
By 1 st. set 57.12 chs.
By 2 nd. set 57.00 chs.; the mean of which is
- 57.06 Intersect the 3 rd. Standard Parallel North 481 lks. East of the standard Meridian cor., which I re-established Feb. 19, 1913 as described in Book "A" I now change the marking "T12 1/2 N R1W S13" in the S. half of the brass cap on this cor. to read "T12 1/2 N R1W S24" AT POINT OF INTERSECTION
Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for ^{REESTAB} closing cor. of Tps. 12 and 12 1/2 N., Rs. 1 E. and 1 W., marked on brass cap ¹⁹¹³ T13 N., R1E. S31 in N. half CC.S. of center. T12 N., R1E., S6 in SE. and T12 1/2 N., R1W. S24 in SW. quadrant.
I change the markings on the brass cap on Closing Cor. of Tps. 13 N. Rs. 1 E. and 1 W. ^{AS DESCRIBED IN BOOK "A"} to read T13 N., in N. half and T12 1/2 N., R1W. S24 in S half. R1W. S36 in NW. and R1E. S31 in NE. quadrant.
Land mountainous.; soil light poor stony loam, Timber oak.

for previous marking see page 8, Book A.

June 20, 1913.

GENERAL DESCRIPTION.

Townships 9, 10, 11, 11 1/2, 12, and 12 1/2 N., Ranges 1 E. and 1 W. are rough mountainous lands covered with a dense growth of oak, manzanita, and mountain mahogany brush, and some pine and juniper timber. there is very little level land any where near the line and none of value for agricultural purposes.

Sidney E. Bloat
U.S. Surveyor.

for FINAL OATH OF UNITED STATES SURVEYOR.
see Book "0" Group 20

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, July 27 _____, 191 4

The foregoing field notes of the ~~survey of~~ Resurvey of the _____
Gila and Salt River Meridian, through
Townships 9, 10, 11, 11½, 12 and 12½ North of the
Gila and Salt River Base Line, Arizona

executed by Sidney E. Blout, U.S. Surveyor
under his special instructions dated October 9 _____, 191 2, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the re surveys they describe, are hereby approved.

Frank S. Ingalls
U. S. Surveyor General.
of Arizona.

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

U. S. Surveyor General.