

Recd with letter from the Secretary of the Interior dated Nov. 20, 1903 - 195-229 100  
1903

4-679.

1810

Recd sheet  
July 25/03

94 (1)

# FIELD NOTES

BOOK 1810

OF THE SURVEY OF

of a portion of the

Mount Graham Forest Reserve,

being the subdivisional lines between

Secs. 2 and 3, 10 and 11, 14 and 15, 22 and 23, 26 and 27, 34 and 35,

through T. 9 S., R. 25 E.,

and between

Secs. 2 and 3, 10 and 11, 14 and 15, 22 and 23, 26 and 27, 34 and 35,

through T. 10 S., R. 25 E.,

and

Retracement of south boundary of Secs. 30 and 36, T. 10 S., R. 25 E.

Of the Gila and Salt River Meridian,

AS SURVEYED BY

W. H. Thorn, United States Deputy Surveyor,

Under his <sup>Instructions</sup> ~~Contract No.~~, dated April 18, 1903, 189

Survey commenced May 23, 1903, 189

Survey completed May 31, 1903, 189

1810

Names and Duties of Assistants.

J. E. Price, ..... Chairman.

W. L. Foster, ..... "

John W. Warner, ..... Houndman.

W. E. Dolinger, ..... "

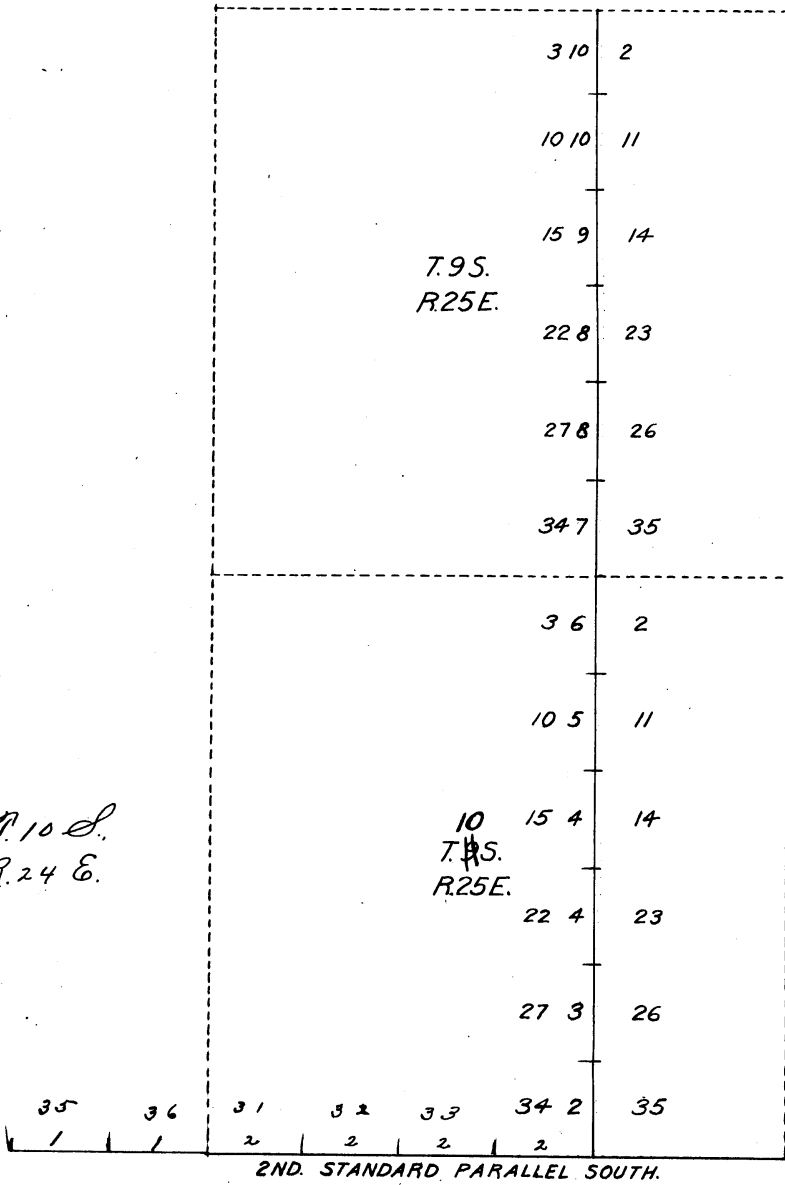
G. Y. Webb, ..... Taxman.

J. I. Spaw, ..... Flagon.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

BOOK 1810



7.10 S.  
R.24 E.

# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page \_\_\_\_\_

Preliminary Oaths of Assistants.

WE, J. T. Price, and W. L. Foster,  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of of the Mt. Graham Forest Reserve Boundary.

J. T. Price, *Chainman.*

W. L. Foster, *Chainman.*

Subscribed and sworn to before me this 22nd  
day of May, 1903, 189



W. H. Thorn,

*U. S. Surveyor.*

WE, John W. Farmer, and W. F. Bolinger,  
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of the Mt. Graham Forest Reserve Boundary.

John W. Farmer, *Moundman.*

W. F. Bolinger, *Moundman.*

Subscribed and sworn to before me this 22nd  
day of May, 1903, 189



W. H. Thorn,

*U. S. Surveyor.*

WE, I. C. V. Webb, and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of \_\_\_\_\_

I. C. V. Webb, *Axman.*

\_\_\_\_\_, *Axman.*

Subscribed and sworn to before me this 22nd  
day of May, 1903, 189



W. H. Thorn,

*U. S. Surveyor.*

I, J. L. Spaw, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the Mt. Graham Forest Reserve Boundary.

J. L. Spaw, *Flagman.*

Subscribed and sworn to before me this 22nd  
day of May, 1903, 189



W. H. Thorn,

*U. S. Surveyor.*



Mount Graham Forest Reserve Boundary.  
East Boundary T. 10 S., R. 24 E.

Chains. Survey commenced May 23, 1903, and executed with Young & Sons light mountain transit, with 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 latitude and declination arcs.

- I examine the level and collimation errors and find them in adjustment.
- I test the solar apparatus on the astronomical station established by the U. S. Geological Survey in the Court House yard in Solomonsville, Graham County, Arizona.

May 20, 1903, at the north point of the astronomical station, at 8 a. m., local mean time, I set off 32°50' N. on latitude arc and 19°49' N. on declination arc and determine a meridian with the solar. The meridian thus determined falls at the exact point for the true meridian.

At 4 p.m., local mean time, I set off 32°50' N. on latitude arc and 19°53' N. on declination arc and determine a meridian with the solar. The meridian thus determined falls at the exact point for the true meridian. The a.m. and p.m. observations fall at the exact point, therefore I conclude that the solar apparatus is in good adjustment.

May 23rd and 24th I search for the standard corner of secs. 34 and 35, T. 10 S., R. 25 E.

May 25, 1903: At the south gate of Fort Grant Military Reservation, which is near the 1/4 sec. cor. between secs. 13 and 18, west boundary of T. 10 S., R. 24 E. I did not find 1/4 sec. cor.

From this point, I run South, on a blank line between secs. 13 and 18, 19 and 24, 25 and 30, 31 and 36, about 3 1/2 miles. Find no trace of standard corner of T. 10 S., Rs. 23 and 24 E.

South Boundary T. 10 S., R. 24 E.

May 26, I run East, on a blank line, along second standard parallel south.

At about 4 1/2 miles standard 1/4 sec. cor. on south boundary of sec. 35, which is a granite rock 24 x 10 x 8 ins., in mound of stone, marked S.C. 1/4 on N. face. I enlarge mound to 4 ft. base, 1 1/2 ft. high, around corner stone.

At this 1/4 sec. cor. at 11 a.m., local mean time, I set off 32°31' N. on latitude arc and 21°01' N. on declination arc and determine a meridian with the solar.

Thence I run East on a random line along south boundary of Sec. 35.

40.50 Standard corner of secs. 35 and 36, which is a granite rock 8 x 8 x 6 ins. above ground, firmly set, witnessed and marked, bears N. 18 lks. dist.

Set over corner and continue random line East along south boundary of sec. 36. Counting anew from standard corner to secs. 35 and 36

41.00 Standard 1/4 sec. cor., bears S. 10 lks., which is a granite stone 20 x 12 x 6 ins., in mound of stone, marked S.C. 1/4 on N. face. I enlarge mound of stone to 4 ft. base, 1 1/2 ft. high, around corner.

Continue random line East (do not set over corner).

Mount Graham Forest Reserve Boundary.  
South Boundary T. 10 S., R. 25 E.

Chains.

79.50 Standard corner of T. 10 S., Rs. 24 and 25 E., which is a cedar post in mound of stone. I enlarge mound of stone to 5 ft. base, 2 ft. high, around post; Post in good state of preservation, bears N. 10 lks.  
Set over corner and continue line East, along south boundary of S. 31, T.10 S., R.25 E.

40.05 Standard  $\frac{1}{4}$  sec. cor., bears N. 2 lks., which is a granite stone 10 x 6 x 5 ins., in mound of stone, witnessed and marked.  
Set over corner and continue line east.

79.80 Standard corner of secs. 31 and 32, bears S. 10 lks., which is a granite rock 18 x 6 x 6 ins. in mound of stone, witnessed and marked.  
Continue random line East, along S. 32.

39.90 Standard  $\frac{1}{4}$  sec. cor., bears S. 3 lks. distant, which is a granite rock 18 x 50 x 5 ins., in mound of stone, witnessed and marked.  
Set over corner and continue line east.

79.85 Standard corner of secs. 32 and 33, bears N. 3 lks., which is a granite rock 8 x 10 x 6 ins. above ground, firmly set, witnessed and marked. Discontinue chaining at this corner.  
Continue random line along south boundary of Sec. 33. At about 40.00 chains standard  $\frac{1}{4}$  sec. cor., bears N. 2 lks., which is a granite rock 8 x 8 x 6 ins. above ground, firmly set, witnessed and marked.  
It being late I direct the telescope east, being satisfied with the line and corners found. I locate an object and walk towards it and find the standard corner of secs. 34 and 35, which is a granite rock 16 x 12 x 8 ins., in mound of stone, marked S. C. on N. face; 4 notches on W. and 2 notches on E. faces. I enlarge mound to 4 ft. base, 1 ft. high, around stone.  
This corner falls in thick growth of live oak brush, which made it difficult to find.  
May 26, 1903.

May 27:

At the standard corner of secs. 34 and 35, T. 10 S., R. 25 E., on second standard parallel south, at 9 a.m., local mean time, I set off  $32^{\circ}31'$  N. on latitude arc and  $21^{\circ}10'$  N. on declination arc, and determine a meridian with the solar.  
Magnetic declination  $13^{\circ}35'$  E.

Thence I run, N.  $0^{\circ}01'$  W. on a true line between secs. 34 and 35 over gradual north slope, through live oak and cats-claw brush.

.06 Set boundary post No. 1, which is an iron post 4 ft. long, 4 ins. in diam., with brass cap, set 12 ins. in the ground; and raise a mound of stone, 6 ft. base,  $2\frac{1}{2}$  ft. high, around post, marked No. 1 on south side of cap; 1903 on south side of cap; RESERVE in northwest quadrants.  
No bearing trees in limit.

3.75 Drain, course N.  $30^{\circ}$  W.  
25.25 Small drain, course N.  $10^{\circ}$  E.  
30.50 Small drain, course N. E.  
34.00 Small drain, course N. E.  
39.50 Top of low ridge, bears N. E. and S. W.

## Mount Graham Forest Reserve Boundary.

~~South Boundary~~ T. 10 S., R. 25 E.

BOOK 1810

*Sectional Map.*

Chains.	
40.00	Set a granite rock 26 x 12 x 8 ins. in mound of stone, 4 ft. base, 20 ins. high, around stone for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A cedar, 8 ins. diam., bears N. 6° E., 52 lks. dist., marked $\frac{1}{4}$ S. B. T. No other trees in limit. Raise mound of stone 4 ft. base, 2 ft. high, west of corner.
49.80	Small drain, course N. 20° E.
51.50	Drain, course N. 20° W. Ascend steep S.W. slope, over large granite boulders.
56.90	Top of large rocky ridge, bears N. 80° W. and S. 80° E.; thence over steep west slope.
57.00	At this point I set off 21°12' N. on declination arc, and at 11 <sup>h</sup> 56 <sup>m</sup> 50 <sup>s</sup> , a.m., local mean time, observe the sun on the meridian. The resulting latitude is 32°32' N., which is a little greater than the proper latitude.
69.25	Small drain, course S. W.
72.00	Change to gradual S. W. slope.
80.00	Set a granite rock 50 x 14 x 14 ins., in mound of stone, 5 ft. base, 2 $\frac{1}{2}$ ft. high, around stone for corner of secs. 26, 27, 34 and 35, marked 1 notch on south and 2 notches on east faces. Raise mound of stone, 5 ft. base, 2 ft. high, west of corner. No trees in limit. Land, rough and broken. Soil, 4th rate. Timber, a few scattering oak and cedar, live oak and cats claw brush. Granite formations.
	At the corner of secs. 26, 27, 34 and 35, at 2 p.m. local mean time, I set off 32°32' N. on latitude arc and 21°13' N. on declination arc, and determine meridian with the solar. Thence I run North 0°01' W. on a true line between secs. 26 and 27. Ascend gradual S.W. slope.
.15	Small drain, course W.
7.00	Top of rocky ridge, bears E. and W.
9.00	Granite ledge, 50 ft. high, bears E. and W. Thence over gradual N. W. slope.
13.50	Change to gradual W. slope, through Park.
22.00	Ascend rocky S. W. slope.
26.00	Top of rocky ridge, bears E. and W.
35.00	Leave Park, bears N. E. and S. W., thence over level land.
40.00	Set a granite rock 30 x 14 x 8 ins. in mound of stone, 4 ft. base, 2 ft. high, around stone for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on west face, from which A black oak tree 20 ins. in diam, bears S. 50°25' E., 239 lks. dist, marked $\frac{1}{4}$ S.B.T. A black oak 14 ins. in diam., bears S.44°50' W., 329 lks. dist., marked $\frac{1}{4}$ S.B.T.
65.00	S. E. corner of pasture, bears W. 2.00 chains. Ascend gradual S. W. slope.
80.00	Set a granite rock 24 x 14 x 8 ins., 12 ins. in the ground; raise mound of stone, 4 ft. base, 10 ins. high, around stone for corner of secs. 22, 23, 26 and 27; marked 2 notches on south and east faces. Dig pits 18 x 18 x 12 ins. in each section 5 $\frac{1}{2}$ ft. dist. Raise mound of earth and stone, 4 ft. base, 2 $\frac{1}{2}$ ft high, west of corner, from which A granite boulder, 10 ft. high, 10 ft. wide east and west, 6 ft. thick, bears N.15°30'E., 310 lks. dist., marked B.O.



Mount Graham Forest Reserve Boundary.  
~~South Boundary~~ T. 10 S., R. 25 E.  
*Sectional Mer.*

Chains.

Land, mountainous and level.  
Soil, second and fourth rate.  
Timber, a few oak and cedar, cats claw and live oak brush. Granite formation.

At the corner of secs. 22, 23, 26 and 27, at 3 p.m., local mean time, I set off 32°32' N. on latitude arc and 21°13' N. on declination arc, and determine a meridian with the solar.

Thence I run North 0°01' W. on a true line between secs. 22 and 23.

- 1.00 Ascend gradual S.W. slope through park.
- 7.00 Wagon road, bears E. and W.
- 21.75 Ascend steep S.W. slope, over large granite boulders.
- 22.50 Top of rocky ridge, bears N. 70° W. and S. 70° E., 300 ft. above sec. corner.
- 32.00 Granite ledge 100 ft. high, bears N. 70° W. and S. 70° E. Descend steep north slope.
- 39.00 A creek 3 lks. wide, 2 ins. deep, pure water, course N. E., foot 500 ft. descent.
- 40.00 Bend in same creek from S.E. to N.E. Ascend steep granite bluff 50 ft. high, bears N.E. and S.W.
- 40.75 True point for  $\frac{1}{4}$  section falls on steep slope.
- Set a granite rock 36 x 14 x 14 ins. in mound of stone, 5 ft. base, 2 $\frac{1}{2}$  ft. high, around stone, for W.C.  $\frac{1}{4}$  section corner, marked W.C. $\frac{1}{4}$  on west face, from which
  - A cedar 8 ins. in diam. bears S. 67° E., 35 lks. dist., marked  $\frac{1}{4}$  S.W.C.B.T.
  - An oak 8 ins. in diam. bears N. 34° W., 210 lks. dist., marked  $\frac{1}{4}$  S.W.C.B.T.

May 27, 1903.

May 28:

- 46.25 Small drain, course N.E.
- 48.70 Small drain, course N.E.
- 53.00 Top of rocky spur, bears E. and W.
- 55.25 Side hill drain, course east.
- 58.77 Wire fence, bears E. and W. Enter pasture.
- 74.50 Small spring bears E. 150 lks., flows N.E.
- 80.00 Set a granite rock 36 x 24 x 12 ins. in mound of stone, 5 ft. base, 2 $\frac{1}{2}$  ft. high, around stone for corner of secs. 14, 15, 22 and 23, marked with 3 notches on south and 2 notches on east faces. Raise mound of stone, 5 ft. base, 2 $\frac{1}{2}$  ft. high, west of corner.

Land, mountainous.  
Soil, 2nd and 4th rate. live  
Timber, scattering cedar and oak and cats claw brush.  
Granite formation.

At the corner of secs. 14, 15, 22 and 23, at 9 a.m. local mean time, I set off 32°34' N. on latitude arc and 21°20' Noron declination arc, and determine a meridian with the solar.

Thence I run North 0°01' W. on a true line, between secs. 14 and 15.

- .25 Small drain, course E. Ascend gradual south slope.
- 26.50 Top of ridge, bears E. and W. Descend gradual north slope.
- 40.00 Set a granite rock 24 x 18 x 10 ins. 18 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on W. face. Dig pits 18 x 18 x 12<sup>ins</sup> north and south of corner, 3 $\frac{1}{2}$  ft. dist. Raise mound of earth and stone, 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high around post.

## Mount Graham Forest Reserve Boundary.

~~South Boundary~~ T. 10 S., R. 25 E.*Sectional Mer.*

BOOK 1810

Chains.	
41.19	Wire fence bears E. and W.
41.40	Solomonsville and Fort Grant Road, bears E. and W.
41.56	Set boundary post No. 2, which is an iron post 4 ft. long, 4 ins. in diam., with brass cap, set 30 ins. in the ground. Raise mound of stone 4 ft. base, 1 ft. high, around post, marked No. 2 on south side of cap; 1903 on south side of cap; RESERVE in S. W. and N. W. quadrants, from which A sycamore, 8 ins. in diam., bears N. 7° E., 93 lks. dist., marked BDY. P.No. 2 B.T. No other trees in limit.
42.75	A dry creek, 20 lks. wide, course N. 70° E. There is running water about 20 chains east of this point. Ascend S.E. slope of mountain.
51.25	Side hill drain, course S. E.
57.00	Drain, course S. E.
65.00	Ranch house, Daudle's, bears E. about 20 chs.
71.00	Top of spur, bears E. and W.
80.00	Set a granite rock 24 x 16 x 10 ins. in mound of stone 4 ft. base, 1½ ft. high, around stone for corner of secs. 10, 11, 14 and 15, marked 4 notches on south and 2 notches on east faces, from which. An oak 20 ins. in diam., bears N. 16° W., 220 lks. dist., marked T. 10 S., R. 25 E., S. 10 B. T.. No other trees in limit. Raise mound of stone, 4 ft. base, 2 ft. high, west of corner. Land, mountainous. Soil, 4th rate. Timber, scattering sycamore along creek, a few scattering oak and cedar trees on hills, cats claw and live oak brush. Granite formation.
	North 0°01' W. on a true line between secs. 10 and 11.
1.00	Side hill drain, course S.E. Ascend steep S.E. slope over large granite boulders, cats claw and oak brush.
8.00	Top of ridge, bears E. and W. At this point I set off 21°21' N. on declination arc, and at 11 <sup>h</sup> 56 <sup>m</sup> 57 <sup>s</sup> , a.m., local mean time, observe the sun on the meridian. The resulting latitude is 32°35' N., which is the proper latitude. Thence over east slope
9.50	Side hill drain, course E.
13.50	Side hill drain, course E.
18.00	Descend steep N. E. slope.
28.75	Ravine 2.00 chs. wide, 50 ft. deep, course S. E.
38.22	Granite ledge, 30 ft. high, bears E. and W.
40.00	Set a granite rock 36 x 12 x 12 ins. in mound of stone, 5 ft. base, 2½ ft. high, around stone for ¼ section corner, marked ¼ on west face, from which, An oak 12 ins. in diam. bears N. 64° E., 46 lks. dist., marked ¼ S.B.T. An oak 7 ins. in diam. bears N. 62°30' W., 269 lks. dist., marked ¼ S.B.T.
57.00	Ascend steep S.E. slope over large granite boulders. Top of ridge bears N. 70° W. and S. 70 E. 1000 ft. above Fort Grant wagon road. Descend steep north slope, through dense growth of live oak brush.
76.40	A granite boulder, 40 lks. long, 20 lks. wide, 20 ft. high, on line.
80.00	Set a granite rock 36 x 14 x 8 ins. in mound of stone, 5 ft. base, 2½ ft. high, around stone for corner of secs. 2, 3, 10 and 11, marked with 5

Mount Graham Forest Reserve Boundary.  
~~South Boundary~~ T. 10 S., R. 25 E.  
*Sectional Mer.*

BOOK 1810

Chains.

notches on south and 2 notches on east faces, from which

An oak 20 ins. in diam. bears N. 33° 28' E., 254 lks. dist., marked T. 10 S., R. 25 E., S. 2 B. T.

An oak 12 ins. in diam. bears S. 11° E., 110 lks. dist., marked T. 10 S., R. 25 E., S. 11 B. T.

An oak 18 ins. in diam. bears S. 24° 10' W., 195 lks. dist., marked T. 10 S., R. 25 E., S. 10 B. T.

An oak 14 ins. in diam., bears N. 72° W., 155 lks. dist., marked T. 10 S., R. 25 E., S. 3 B. T.

Land, mountainous.  
Soil, 4th rate.  
Timber, scattering oak, dense growth cats claw and live oak brush.  
Large granite boulders.

North 0° 01' W. on a true line between secs. 2 and 3. Descend over N. E. slope, through scattering oak and cedar, dense growth of live oak and cats claw brush.

.90

Small drain, course N.E.

7.75

Drain, course N. E.

13.40

A creek, 15 lks. wide, water sinks in sand, course S. 70 E., foot of 900 ft. descent. Ascend steep S. W. slope over large granite boulders.

40.00

Set a granite rock 24 x 10 x 8 ins. in mound of stone, 4 ft. base, 1 1/2 ft. high, around stone for 1/4 section corner, marked 1/4 on west face, from which,

An oak 16 ins. in diam. bears N. 50° E., 95 lks. dist., marked 1/4 S.B.T.

An oak 14 ins. in diam. bears N. 17° W., 256 lks. dist., marked 1/4 S.B.T.

47.50

Top of ridge bears N. 60° W. and S. 60° E., 950 ft. above last creek.

May 28, 1903.

May 29: At this point, at 9 a.m., local mean time, I set off 32° 36' N., on latitude arc and 21° 30' N. on declination arc, and determine a meridian with the solar. Continue line over gradual north slope.

68.00

Descend steep N. E. slope, over large granite boulders.

80.00

True point for corner of secs. 2, 3, 34 and 35, north boundary of T. 10 S., R. 25 E., falls on solid granite rock. Cut cross (+) at the exact corner point; cut 4 notches east and 2 notches west of cross for corner secs. 2, 3, 34 and 35.

80.34

Set boundary post No. 3 for W. C. of secs. 2, 3, 34 and 35, which is an iron post, 4 ft. long, 4 ins. in diam., with brass cap, marked No. 3 on south side of cap; 1903 on south side of cap; RESERVE in S.W. and N.W. quadrants; set 1 ft. in the ground. Raise mound of stone, 6 ft. base, 2 1/2 ft. base, around post, also marked W.C. in N. E. quadrant on rim; T. 9 S., S. 35, in N. E. quadrant on rim; T. 10 S., S. 2, in S. E. quadrant on rim; R. 25 E., S. 3, in S.W. quadrant on rim; S. 34 in N. W. quadrant on rim; 4 notches on west and 2 notches on east edges of rim, from which,

An oak, 4 ins. in diam., bears N. 52° E., 9

Mount Graham Forest Reserve Boundary.  
~~South Boundary~~ T. 10 S., R. 25 E.

*Sectional Mer.*

Chains.

lks. dist., marked T. 9 S., R. 25 E., S. 35  
W.C.B.T.  
An oak 10 ins. diam. bears S. 21°45' E., 97  
lks. dist., marked T. 10 S., R. 25 E., S. 2  
W.C.B.T.  
An oak 4 ins. in diam. bears S. 13°20' W., 40  
lks. dist., marked T. 10 S., R. 25 E., S. 3  
W.C.B.T.  
A juniper 16 ins. in diam. bears N. 80°40' W.,  
352 lks. dist., marked T. 9 S., R. 25 E.,  
S. 34 W.C.B.T.

Land, mountainous.  
Soil, 4th rate.  
Scattering timber, oak, cedar and a few juniper.  
Dense growth of live oak, cats claw and manzanita  
brush.  
Granite formation.

*Sectional Mer.*

~~South Boundary~~ T. 9 S., R. 25 E.

At the W. C. corner of secs. 2, 3, 34 and 35, which  
is 34 lks. north of the true point south boundary  
of T. 9 S., R. 25 E., I set off 21°31' N. on de-  
clination arc and at 11<sup>h</sup>57<sup>m</sup>4<sup>s</sup>. a.m., local mean  
time, observe the sun on the meridian. The re-  
sulting latitude is 32°37' N., which is about  
20" greater than the proper latitude.

Thence I run  
North, 0°01' W. on a true line between secs. 34  
and 35. Counting from true point for corner of  
secs. 2, 3, 34 and 35, over steep N. E. slope,  
through oak timber, dense growth of live oak and  
manzanita brush.

18.00  
23.00  
25.50  
40.00

Drain, course N. 70° E. Change to east slope.  
Ravine, 2.00 chs. wide, 20 ft. deep, course E.  
Small drain, course E.  
Set a granite rock 26 x 10 x 8 ins. in mound of  
stone, 4 ft. base, 20 ins. high, around stone  
for  $\frac{1}{4}$  section corner, marked  $\frac{1}{4}$  on west face,  
from which  
An oak 10 ins. in diam. bears N. 26°40' E., 56  
lks. dist., marked  $\frac{1}{4}$  S. B. T.  
An oak 10 ins. in diam. bears N. 42°40' W.,  
107 lks. dist., marked  $\frac{1}{4}$  S. B. T.

76.50  
80.00

Ascend steep S. W. slope, over large granite boul-  
ders.  
Saddle divide bears E. and W., 800 ft. ascent.  
Thence over steep N. E. slope.  
Set a granite rock 30 x 20 x 12 ins. in mound of  
stone, 5 ft. base, 2 ft. high, around stone for  
corner of secs. 26, 27, 34 and 35, marked with  
1 notch on south and 2 notches on east faces,  
from which,  
A juniper 20 ins. in diam. bears N. 4°50' E.,  
139 lks. dist., marked T. 9 S., R. 25 E.,  
S. 26 B. T.  
No tree in limit in S. E. quadrant.  
An oak 5 ins. in diam. bears S. 38°30' W., 56  
lks. dist., marked T. 9 S., R. 25 E., S. 34  
B. T.  
An oak 10 ins. in diam. bears N. 25° W., 14  
lks. dist., marked T. 9 S., R. 25 E., S. 27  
B. T..

Raise mound of stone, 4 ft. base, 2 ft. high, west  
of corner.  
Land, mountainous.  
Soil, 4th rate.  
Timber, scattering oak, cedar and juniper; dense  
growth of live oak, manzanita and cats claw

## Chains.

brush.  
Large granite boulders.

North,  $0^{\circ}01'$  W. on a true line between secs. 26 and 27. Descend steep N. E. slope, through oak and manzanita brush, scattering timber.

1.55 Small drain, course N. E. Ascend S. E. slope.  
33.30 Ravine 5.00 chs. wide, 100 ft. deep, course E.  
40.00 True point for  $\frac{1}{4}$  corner falls on bare granite rock.  
44.97 A granite stone in place, 4 ft. high, 3 ft. square, cut cross (+) on exact corner point for W.C.  $\frac{1}{4}$  section corner, marked W.C.  $\frac{1}{4}$  west of cross, from which

A juniper 14 ins. in diam. bears N.  $1^{\circ}$  E., 235 lks. dist., marked  $\frac{1}{4}$  S.W.C.B.T.  
A juniper 14 ins. in diam. bears N.  $61^{\circ}15'$  W., 94 lks. dist., marked  $\frac{1}{4}$  S.W.C.B.T.

May 29, 1903.  
May 30: At 8 a.m., local mean time, I set off  $32^{\circ}39'$  N. on latitude arc and  $21^{\circ}40'$  N. on declination arc, and determine a meridian with the solar.

Continue line N.  $0^{\circ}01'$  W., between secs. 26 and 27, over large granite boulders.

49.65 Descend steep N. slope.  
66.00 Change to steep E. slope.  
80.00 Set a granite rock 30 x 18 x 10 ins. in mound of stone, 5 ft. base, 2 ft. high, around stone for corner of sections 22, 23, 26 and 27, marked with 2 notches on south and east faces, from which

An oak 10 ins. in diam. bears N.  $74^{\circ}15'$  E., 118 lks. dist., marked T. 9 S., R. 25 E., S. 23 B. T.  
An oak 14 ins. in diam. bears S.  $29^{\circ}30'$  E., 132 lks. dist., marked T. 9 S., R. 25 E., S. 26 B. T.  
An oak 12 ins. in diam. bears S.  $31^{\circ}50'$  W., 68 lks. dist., marked T. 9 S., R. 25 E., S. 27 B. T.  
An oak 12 ins. in diam. bears N.  $76^{\circ}30'$  W., 122 lks. dist., marked T. 9 S., R. 25 E., S. 22 B. T.

Land, mountainous.  
Soil, 4th rate.  
Timber, scattering oak, juniper and cedar, live oak, manzanita and oats claw brush.  
Large granite boulders.

At the corner of secs. 22, 23, 26 and 27, at 9 a.m., local mean time, I set off  $32^{\circ}39'$  N. on latitude arc and  $21^{\circ}40'$  N. on declination arc, and determine a meridian with the solar.

Thence I run

North  $0^{\circ}01'$  W. on a true line between secs. 22 and 23, over steep N. E. slope, over large granite boulders, through live oak and oats claw brush.

5.00 Ravine, 3:00 chs. wide, 75 ft. deep, course E.  
11.55 Top of spur bears E. and W.  
22.30 A creek 10 lks. wide, water in pools, course S.  $60^{\circ}$  E., foot of 950 ft. descent; ascend gradual S. slope.  
40.00 Set a granite rock 24 x 14 x 12 ins. in mound of stone, 4 ft. base, 18 ins. high, around stone for  $\frac{1}{4}$  section corner, marked  $\frac{1}{4}$  on west face, from which

An oak 8 ins. in diam. bears N.  $72^{\circ}50'$  E., 59 lks. dist., marked  $\frac{1}{4}$  S. B. T.

## Mount Graham Forest Reserve Boundary.

~~South Boundary~~ T. 9 S., R. 25 E.

BOOK 1810

*Sectional Map.*

## Chains.

	An oak 10 ins. in diam. bears N. 41°20' W., 105 lks. dist., marked $\frac{1}{4}$ S. B. T.
45.00	Ascend steep south slope of mountain.
52.95	At this point I set off 21°41' N. on declination arc and at 11 <sup>h</sup> 57 <sup>m</sup> 11 <sup>s</sup> , a.m., local mean time, observe the sun on the meridian. The resulting latitude is 32°39' N., which is the correct latitude.
	Change to steep S. E. slope.
77.25	Top of mountain bears E. and W., 1500 ft. above last creek.
80.00	Set a granite rock 24 x 14 x 12 ins. in mound of stone, 4 ft. base, 18 ins. high, around stone for corner of sections, 14, 15, 22 and 23, marked with 3 notches on south and 2 notches on east faces, from which
	An oak 6 ins. in diam. bears N. 78°10' E., 50 lks. dist., marked T. 9 S., R. 25 E., S. 14 B.T.
	A yellow pine, 8 ins. in diam. bears S. 44°10' E., 134 lks. dist., marked T. 9 S., R. 25 E., S. 23 B. T.
	A yellow pine 14 ins. in diam. bears S. 82°30' W., 51 lks. dist., marked T. 9 S., R. 25 E., S. 22 B. T.
	A yellow pine 8 ins. in diam. bears N. 16° W., 26 lks. dist., marked T. 9 S., R. 25 E., S. 15 B. T.
	Land, mountainous.
	Soil, 4th rate, over large granite boulders.
	Timber, scattering oak, pine and juniper, with a few yellow pine near section corner; dense growth of live oak, cats claw and manzanita brush.
	At the corner of secs. 14, 15, 22 and 23, at 2 p.m., local mean time, I set off 32°40' N. on latitude arc and 21°42' N. on declination arc, and determine a meridian with the solar.
	Thence I run
	North 0°01' W., on a true line between secs. 14 and 15, over top of mountain, over large granite boulders, through dense growth of live oak, manzanita and cats claw brush.
12.00	Side hill drain, course E.
23.50	Change to steep north slope.
40.00	Set a quartz rock 26 x 16 x 12 ins. in mound of stone, 4 ft. base, 20 ins. high, around stone for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on west face, from which
	A juniper 24 ins. in diam. bears N. 49°50' E., 108 lks dist., marked $\frac{1}{4}$ S. B. T.
	A juniper 6 ins. in diam., bears N. 7°15' W., 172 lks. dist., marked $\frac{1}{4}$ S. B. T.
55.00	White quartz lead, 100 ft. wide, bears N. and S.
64.30	Leave quartz lead, a ledge 50 ft. high, bears E. and W.
77.50	Small drain, course N.W.
80.00	Set a granite rock 24 x 12 x 10 ins. in mound of stone for corner of sections 10, 11, 14 and 15, marked with 4 notches on south and 2 notches on east faces, from which
	An oak 14 ins. in diam. bears N. 8°10' E., 160 lks. dist., marked T. 9 S., R. 25 E., S. 11 B. T.
	An oak 8 ins. in diam. bears S. 15°35' E., 69 lks. dist., marked T. 9 S., R. 25 E., S. 14 B. T.
	An oak 6 ins. in diam. bears S. 76°45' W., 150 lks. dist., marked T. 9 S., R. 25 E., S. 15 B. T.
	An oak 10 ins. in diam. bears N. 10°35' W., 88 lks. dist., marked T. 9 S., R. 25 E., S. 10 B.T.

Mount Graham Forest Reserve Boundary.

~~South Boundary~~ T. 9 S., R. 25 E.  
*Sectional Mer.*

BOOK 1810

Chains.

X

Land, mountainous.  
Soil, 4th rate.  
Timber, scattering Juniper, oak and cedar; dense growth of live oak, manzanita and cats claw brush.  
Large granite boulders.

May 30, 1903.

May 31:

At the corner of secs. 10, 11, 14 and 15, at 8 a.m. local mean time, I set off 32°41' N. on latitude arc and 21°49' N. on declination arc, and determine a meridian with the solar.

Thence I run

North 0°01' W. on a true line between secs. 10 and 11, over N. slope, through scattering timber and live oak brush.

17.50 Ravine 2.00 chs. wide, 20 ft. deep, course N.60° E., foot of 700 ft. descent, thence over gradual E. slope.

29.00 Change to steep S. E. slope.

36.50 Change to steep E. slope.

40.00 Set a granite rock 34 x 16 x 12 ins. in mound of stone, 5 ft. base, 2½ ft. high, around stone for ¼ section corner, marked ¼ on west face, from which

An oak 12 ins. in diam. bears S. 61°40' E., 91 lks. dist., marked ¼ S.B.T.

An oak 14 ins. in diam. bears S. 19°40' W., 66 lks. dist., marked ¼ S.B.T.

46.25 Side hill drain, course E.

53.40 Small drain, course E.

55.50 Drain, course E.

58.50 Drain, course E.

70.00 Ravine, 150 lks. wide, 50 ft. deep, course S. 70° E. Ascend steep S.E. slope over bare granite.

80.00 True point for corner of secs. 2, 3, 10 and 11 falls on steep bare granite.

87.23 Set a granite rock 30 x 15 x 8 ins. for W. C. to secs. 2, 3, 10 and 11, marked W. C. on N. E. face; 5 notches on south and 2 notches on east faces, set in mound of stone, 5 ft. base, 2½ ft. high around stone, from which

A cedar 16 ins. in diam. bears S. 34°10' E., 62 lks. dist., marked T. 9 S., R. 25 E., S. 11, W.C.B.T.

A cedar 8 ins. in diam. bears N. 8°35' W., 84 lks. dist., marked T. 9 S., R. 25 E., S. 3, W.C.B.T.

No other trees in limit.

Raise mound of stone, 4 ft. base, 2½ ft. high, west of corner.

Land, mountainous.

Soil, 4th rate.

Scattering oak and cedar timber; dense growth of live oak, manzanita and cats claw brush.

Large granite boulders.

From the W. C. of secs. 2, 3, 10 and 11, I run North 0°01' W. on a true line between secs. 2 and 3, over steep S. E. slope of mountain. Counting from the true point for the section corner

14.45 Top of mountain, bears N.E. and S.W., 600 ft. descent. Descend steep N. W. slope, through live oak brush.

40.00 Set a granite rock 22 x 14 x 10 ins. in mound of stone, 4 ft. base, 1½ ft. high, around stone for ¼ section corner.

No trees in limit.

Raise mound of stone, 3½ ft. base, 1½ ft. high,



Mount Graham Forest Reserve Boundary.  
~~South Boundary~~ T. 9 S., R. 25 E.  
*Sectional Mer.*

Chains.

west of corner.

45.00 Jacobson creek, 10 lks. wide, 3 ins. deep, pure water, rapid current, course N. 80° E.  
Ascend gradual S. E. slope.

60.60 Wagon road, bears N. E. and S. W.

60.80 Set boundary post No. 4, which is an iron post 4 ft. long, 4 ins. in diam., with brass cap, set 24 ins. in the ground; raise mound of stone, 5 ft. base, 1½ ft. high, around post, marked: No. 4 on south side of cap;  
1903 on south side of cap;  
RESERVE in S.W. and N.W. quadrants.  
No trees near.

At this point I set off 21°50' N. on declination arc and at 11<sup>h</sup>57<sup>m</sup>19<sup>s</sup> a.m. local mean time, observe the sun on the meridian. The resulting latitude is 32°43' N., which is the correct latitude.

68.14 Intersect south boundary of T. 8 S., R. 25 E., 5.69 chs. west of the corner of secs. 34 and 35, which is a granite boulder 3 ft. high, 6 x 3 ft., marked with cross (+) on east face of rock; 4 notches on west and 2 notches east of cross, witnessed by mound of stone, 4 ft. base, 3 ft. high, north of corner.

From the corner of secs. 34 and 35, south boundary of T. 8 S., R. 25 E., I run West on a true line, along south boundary of S. 34, over granite boulders, through prairie; Ascend east slope.

4.20 Top of round butte. Descend west slope.

5.69 At the mutual intersection of the east and west and north and south line, set a granite stone 30 x 12 x 12 ins. in mound of stone, 6 ft. base, 2 ft. high, around stone for C. C. of secs. 2 and 3, T. 9 S., R. 25 E., marked C.C. on south face, 4 notches on west and 2 notches on east faces; raise mound of stone 4 ft. base, 2 ft. high, south of corner.

Land, mountainous and rolling.  
Soil, 4th rate.  
Timber, cottonwood along creek.  
Granite formation.

May 31, 1903,

W. H. Thorn,  
U. S. Surveyor.



Final Oaths of Deputy Surveyor and his Assistants.

115

(12)

LIST OF NAMES.

BOOK 1810

A list of the names of the individuals employed by W. H. Thorn

United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivis-  
ional lines through Tps. 9 and 10 S., R. 25 E.

showing the respective capacities in which they acted:

- J. T. Price, Chainman.
- W. L. Foster, Chainman.
- John W. Farmer, Moundman.
- W. F. Bolinger, Moundman.
- C. Y. Webb, Axman.
- J. E. Spaw, Axman.
- Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted W. H. Thorn

United States Deputy Surveyor, in surveying all those parts or portions of the subdivis-  
ional lines through Tps. 9 and 10 S.,  
R. 25 E.,

of the Gila and Salt River base and meridian, of the base  
and meridian, State of Arizona, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor  
General for Director of the United States Geological Survey.

- J. T. Price, Chainman.
- W. L. Foster, Chainman.
- John W. Farmer, Moundman.
- W. F. Bolinger, Moundman.
- C. Y. Webb, Axman.
- J. E. Spaw, Axman.
- Flagman.

Subscribed and sworn to before me this 2nd  
day of June, 1903, 189



W. H. Thorn,  
U. S. Surveyor.

Final Oath of United States Deputy Surveyor.

I, W. H. Thorn, United States ~~Deputy~~ Surveyor, do solemnly swear that, in pursuance of ~~a contract~~ instructions received from the Director of the United States ~~Surveyor General for~~ Geological Survey, bearing date of the 18th day of April, 1903, 189 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the ~~United States Surveyor General for~~ <sup>Director of the</sup> Geological Survey, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivisional lines through Tps. 9 and 10 S., R. 25 E., of the Gila and Salt River base and meridian

of the base and meridian, in the State of Arizona, which are represented in the foregoing field notes as having been surveyed 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 ~~United States Surveyor General for~~ <sup>Director of the</sup> Geological Survey and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

W. H. Thorn  
United States ~~Deputy~~ Surveyor.

Subscribed by said W. H. Thorn, and sworn to before me this }  
2nd day of June, 1903, 189



Frank Dysart,  
Clerk of the District Court  
in and for Graham County,  
Arizona.

APPROVAL.

Director of the  
Office of the ~~United States Surveyor General~~ Geological Survey  
\_\_\_\_\_, 189

The foregoing field notes of the survey of the subdivisional lines through Tps. 9 and 10 S., R. 25 E.,

executed by W. H. Thorn under his ~~contract No.~~ instructions, dated April 18, 1903, 189, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Chas. Realett  
~~United States Surveyor General~~  
Director, U. S. Geological Survey.

I certify that the foregoing transcript of the field notes of the above-described surveys in Tps. 9 and 10 S., R. 25 E., has been correctly copied from the original notes on file in this office.

Chas. Realett  
~~United States Surveyor General~~  
Director, U. S. Geological Survey.