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BOOK 2222

Book B.

Accepted by S.C.O. letter

S. dated Aug. 26-1911

JAN 24 1911

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FEB. 6 1911

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FIELD NOTES

OF THE SURVEY OF THE

Second Gadsden Meridian West

through

Townships No 21, 22, 23 and 24 North

Between ranges 8 and 9 West of the Gila
by Salt River Base Meridian

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of the Gila and Salt River Base Meridian,

Territory of Arizona

AS SURVEYED BY

W. O. Secor.

Transitman

, United States Deputy Surveyor,

Under his contract No. 7, dated August 25, 1910

Survey commenced November 11, 1910

Survey completed November 17, 1910

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BOOK 2222

NAMES AND DUTIES OF ASSISTANTS.

<u>Theodore Oldm</u>	Chairman
<u>C. J. Schwartz</u>	Chairman
<u>Carl Barandon</u>	Chairman
<u>J. H. McCall</u>	Chairman
<u>George Eby</u>	Moundman
<u>Paul Dial</u>	Axman

BOOK 2222

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BOOK 2222

PRELIMINARY OATHS OF ASSISTANTS.

We, Theodore Alden, C. J. Schwartz and Carl Barandon and J. H. McCall 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 The 2^d Grid Meridian West.

J. H. McCall, Chainman.

Carl Barandon, Chainman.

Theodore Alden, Chainman.

C. J. Schwartz, Chainman.

W. F. Jacob, Chainman.

Transitman

Subscribed and sworn to before me this 3rd

day of November, 1910



I, George Ely, and

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 Second Grid Meridian West

George Ely, Moundman.

Moundman

Subscribed and sworn to before me this 3rd

day of November, 1910



I, Paul Dial, 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

Second Grid Meridian West

Paul Dial, Axman.

Axman

Subscribed and sworn to before me this 3^d

day of November, 1910



W. F. Jacob.

Transitman

I, 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

Flagman

Subscribed and sworn to before me this

day of , 19



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Second Guide Meridian West.

Theodore Alden
 C. J. Schwartz
 Carl Barandon
 J. H. McCall
 George Eby
 Paul Dial

Chairman
 Chairman
 Chairman
 Chairman
 Chairman
 Chairman

BOOK 2222

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Second Guide Meridian West.

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<u>6th Standard Parallel N.</u>					

2^d Guide Meridian West Through Tps. 21 N. Between Rs. 8^{and} 9 W.

Survey commenced Nov. 1, 1910,^{and} executed with a Buff and Berger engineer's transit No. 672 with a Sargmuller Solar Attachment, approved by the U.S. Surveyor General ^{and} Asst. Supervisor of Surveys, the horizontal limb having two double verniers placed opposite to each other ^{and} reading to 30' of arc.

I examine the adjustments of my transit ^{and} find them to be correct, then I test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. ^{and} p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At my camp at Cook's Tank which is about 1 mile N. of standard cor. of Tps. 21 N. Rs. 8^{and} 9 W.; latitude 35° 10' N.; longitude 113° 11' W., at 4^h 00^m p.m. l.m.t. I set off 15° 18' 00" S. on the decl. arc; 35° 10' N. on the lat. arc; and determine a meridian with the solar ^{and} mark a point therein on a stake firmly set in the ground about 5 chs. S. of my station.

At 16^h 30^m, I observe Polaris at western elongation, in accordance with instructions in the Manual ^{and} mark a point in the line thus determined, on a stake driven in the ground about 5 chs. N. of my station.

Nov. 1, 1910.

Nov. 5: At 7 a.m. I lay off the azimuth of Polaris, 1° 26' to the east, ^{and} mark the meridian thus determined, by driving a tack in a stake set in the ground 5 chs. N. of my station; ^{and} reversing the telescope of my transit the line falls 0.3 inc. west of the mark determined by the solar.

At 8^h 00^m a.m. l.m.t. I set off 15° 30' 00" S. on the decl. arc; 35° 10' N. on the lat. arc; ^{and} mark a point in the meridian determined with the solar, by a point on the stake already set 5 chs. S. of my station; this point

2nd Grid Meridian West. Through Tps. 21 N. Between Rs. 8⁴/₄ & 9 W.

ball.
0.1 ft ins. west of the meridian established by the Polaris observation. I therefore conclude that the adjustments of the instrument are satisfactory.

Nov 5, 1910

- Nov 6: At 8^h 00^m a.m. l.m.t. I set off 15° 48' S. on the decl. arc; 35° 09' 30" N. on the lat. arc; and determine a meridian with the solar at the standard 1st sec. cor. of sec. 31, Tp. 21 N. R. 8 W. which is a malpais 6x8x8 ins. above ground, in open park marked S.C. 1st on N. face: Then I run S. 88° 02' W. along S. Bdly. sec. 31 to the closing cor. of Tps. 20 N. Rs. 8⁴/₄ & 9 W. which is visible, and which is a lime stone, 10x10x10 ins. above ground marked C.C. on S. with 6 notches on E. and W. edges from which a cedar 7 ins. diam. bears S. 60° 15' W. 260 lbs. dist. marked T. 20 N. R. 9 W. S. 1 B.J.
A cedar 10 ins. diam. bears N. 44° 50' W. 185 lbs. dist. marked T. 20 N. R. 8⁴/₄ & 9 W. S. 6 & 1, C.C. B.J.
Enter dense cedar and pines.
39.89 A lime stone 14x10x4 ins. above ground, with mound of stones, bears N. 91° 26' W. 62 lbs. dist., from which a branch of cedar bush 3 ins diam. bears N. 40° W. 8 lbs. dist. with marks indistinct.
I re-establish this cor. by marking bearing trees as follows:
A pine 8 ins. diam. bears N. 71° 26' W. 62 lbs. dist. marked S.C. T. 21 N. R. 9 W. S. 3 B.J.
A pine 10 ins. diam. bears N. 54° 26' E. 82 lbs. dist. marked S.C. T. 21 N. R. 8 W. S. 3 B.J.
From the standard cor. of Tps. 21 N. Rs. 8⁴/₄ & 9 W. I run N. Between secs. 31 & 36.
Through dense cedar and pines over rough, rocky land.
Descend to draw.
Bottom of draw, course W. asc.
Top of rocky point, bears N.E. ⁴/₄ S.E. Disc.
Set 1 in. iron post 26 ins. in ground for 1st sec. cor. marked ^{5.36} 1/4 on N; 5.31 on E; from which

Results of two sets of observations against

2nd Guide Meridian West, Through Tps. 21 N. R. 8^{any} W. West.

	A cedar 10 ins diam. bears N. 59° 45' E. 307 lbs. dist. marked $\frac{1}{4}$ S. 31 B. T.
	A cedar 16 ins. diam. bears N. 55° 26' W. 329 lbs. dist. marked $\frac{1}{4}$ S. 36 B. T.
46.10	Bottom of draw, convex S. W.
50.00	Begin to ascend slope.
56.00	Ascend more abruptly.
65.47	Pile of rocks on line.
73.30	Begin to descend, leave timber.
80.00	Set 3 in iron post 26 ins. in ground for cor. of secs. 25, 30, 31 ^{any} 36, marked S. 21 N. on N.; R. 9 W. S. 25 on N. W.; R. 8 W. S. 30 on N.E.; S. 36 on S.W. and S. 31 on S.E. of cor. on top of cap.; dig pits 18x18x12 ins. in each sec., 5 $\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor. Land, rough ^{and} hilly. Soil, rocky ^{and} shallow, covered with fair growth of grama grass. Dense cedar spinous 73.30 Chs.

	North between secs. 25 ^{any} 30
	Descending over rocky ground
5.00	Foot of descent - proceed over smooth grassy land.
	Drainage to S.E.
10.00	Ascend gradually over smooth land.
18.50	Ascend more abruptly over rocky ground
36.00	Enter dense cedar.
40.00	Set 1 in. iron post 26 ins. in ground for $\frac{1}{4}$ sec. cor. marked S. 25 $\frac{1}{4}$ on N. ^{any} S. 30 on N. from which A cedar 8 ins. diam. bears N. 84° 24' E. 61 lbs. dist. marked $\frac{1}{4}$ S. 30 B. T.
	A cedar 8 ins. diam. bears N. 49° 34' W. 202 lbs. dist. marked $\frac{1}{4}$ S. 25 B. T.
47.50	Top of ascent, descend gradual slope.
56.00	Cedars become scattering.
80.00	Set 3 in. iron post 24 ins. in ground for cor. of secs. 19, 24, 25 ^{any} 30, marked S. 21 N. on N.; R. 9 W. S. 24 on N. W.; R. 8 W. S. 19 on N. E.; S. 25 on S. W.; ^{any} S. 30 on S. E.; From which

2nd Guide Meridian Post, Through Tps. 21 N. Ranges 8^q & 9 West.

A cedar 18 ins. diam. bears N. $23^{\circ} 40'$ W. 170 lks. dist.
marked T. 21 N. R. 9 W. S. 24 B. S.
No other trees available.
Land rough ^{and} hilly 66.50 chs.; rolling 13.50 chs.
Dense cedars 40.00 chs. -
Soil 13.50 chs. a good quality of loam mixed with
volcanic ash. 66.50 chs. rocky ^{and} shallow.
A good growth of grama grass covers the mts.
Nov 6, 1910.

Nov 7: At 8^h 00^m a.m. l.m.t. I set of $16^{\circ} 06' S.$ on the
dul. arc; $35^{\circ} 11' N.$ on the lat. arc; ^{and} determine a
meridian with the solar at the cor. of secs. 19, 24
25 ^{and} 30. Then I run

North between secs. 19 and 24.

Over rolling land descending gradually through
scattering cedar brush.

- | | |
|-------|---|
| 14.00 | Bottom of draw, course N. Asc. |
| 20.00 | Ascend more abruptly. Enter dense cedars, malpais
boulders. |
| 40.00 | Set 1 in. iron post, 26 ins. in ground for $\frac{1}{4}$ sec. cor
marked S. 24 ^{1/4} on W., ^{and} S. 19 on E., from which
A cedar 12 ins. diam. bears S. $70^{\circ} 28'$ W. 167 lks.
dist. marked $\frac{1}{4}$ S. 24 B. S. |
| | A cedar 16 ins. diam. bears N. $13^{\circ} 36' E.$ 146 lks. dist.
marked $\frac{1}{4}$ S. 19 B. S. |
| 46.00 | Top of ascent - Disc. |
| 57.70 | Top of bluff of gulch, bears N. $75^{\circ} W.$ ^{and} S. $75^{\circ} E.$ Disc. |
| 58.50 | Bottom of gulch, 30 ft. deep, course N. $75^{\circ} W.$ Asc. |
| 59.00 | Top of bank N. side of gulch. Proceed over rolling
land, through dense cedar, good grama grass. |
| 8.00 | Set 3 in. iron post 24 ins. in ground for cor. of
secs. 13, 18, 19 ^{and} 24, marked T. 21 N. on N.; R. 9 W.
S. 13, on N. W.; R. 8 W. S. 18 on N. E.; S. 24 on S. W.; ^{and}
S. 19 on S. E.; from which |
| | A cedar 24 ins. diam. bears S. $43^{\circ} 33' E.$ 141 lks. dist.
marked T. 21 N. R. 8 W. S. 19 B. S. |
| | A cedar 36 ins. diam. bears N. $83^{\circ} 21' E.$ 115 lks. dist.
marked T. 21 N. R. 8 W. S. 18 B. S. |

2nd Grid Meridian West Through Tps. 21 N. R. 8 and 9 West.

A cedar 10 ins. diam. bears S. $33^{\circ} 38'$ W. 19 ft lks. dist.
marked T. 21 N. R. 9 W. S. 24 B.J.
A cedar 12 ins. diam. bears N. $57^{\circ} 01'$ W. 39 ft lks. dist.
marked T. 21 N. R. 9 W. S. 13 B.J.
Land rough and rocky 40.00 chs.; rolling 40.00 chs.
Soil: very rocky 40.00 chs.; a good quality of sandy
loam, 40.00 chs. covered with a good growth of
grama grass. Dense cedar and brush 60.00 chs.
N^o 7.1910.

N^o 8: At 8^h 00^m a.m. l.m.t. I set of $16^{\circ} 24' S.$ on
the decl. arc; $35^{\circ} 12' N.$ on the lat. arc; and determining
a meridian with the solar at the cor. of secs 13, 18, 19
and 24; then I run

North between secs. 13 and 18

Ascending gradually over rolling land through
dense cedars.

30.00 Ascend more abruptly. Enter mountainous land.

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

By 1st set, 40.08 chs.

By 2^d set, 39.91 chs.; the mean of which is
40.00 chs. Set 1 in. iron post 26 ins. in ground for 1/4 sec. cor.
marked S. 13 1/4 on W.; S. 18 on E. from which
A cedar 8 ins. diam. bears S. $89^{\circ} 00'$ E. 38 lks. dist.
marked 1/4 S. 18 B.J.

A piñon 8 ins. diam. bears N. $12^{\circ} 28'$ W. 29 lks. dist.
marked 1/4 S. 13 B.J.

55.00 Ascend steep side of mountain over malpais
boulders and ledges of limestone.
Ascent becomes steeper over slide rock + slate,
through scattering cedars.

80.00 Set 3 in. iron post 24 ins. in ground for cor. of
secs. 7, 12, 13 and 18 marked T. 21 N. on N.; R. 9 W. S.
12 on N.W.; R. 8 W. S. 7 on N.E.; S. 13 on S.W.; and
S. 18 on S.E.; from which

A piñon 8 ins. diam. bears S. $94^{\circ} 30'$ W. 207 lks. dist.

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2nd Grade Meridian West Through Tps. 21 N. Range 8th & 9th West.

	marked T. 21 N. R. 9 W. S. 13 B.T. A piñon 8 ins. diam. bears N. 69° 0' 8" W. 238 lks. dist.
	marked T. 21 N. R. 9 W. S. 12 B.T. A piñon 14 ins. diam. bears S. 85° 0' 0" E. 171 lks. dist.
	marked T. 21 N. R. 8 W. S. 18 B.T. A piñon 12 ins. diam. bears N. 66° 31' E. 209 lks. dist.
	marked T. 21 N. R. 8 W. S. 7 B.T. Land rolling 30.00 chs.; mountainous 50.00 chs. Dense cedar 55.00 chs. Dense brush 80.00 chs. Soil light sandy loam mixed with gravel S. 30.00 chs.; very rocky 50.00 chs.

6.25

North between secs. 7 and 12
Ascending steep slope of mountain - angle 23° -
over shale rock malpais boulders.
Top of bluff of mesa, bears N. 70° W. 94 S. 70° E.; 10.00
chs. E. of point - continue to ascend through dense
cedars

14.50

Edge of mesa N. 80° E. 94 S. 80° W. Descend abruptly
over mountainous land.

20.00

Bottom of rocky gulch, corner N.E. asc. point
of slope.

27.50

Top of point of slope: descend over malpais
and lime boulders

40.00

Set 1 in. iron post 26 ins. in ground for 1/4 sec.
cor. marked S. 12 1/4 on W.; 94 S. 7 on E., from which
A cedar 8 ins. diam. bears S. 32° 32' E. 33 lks. dist.
marked S. 7 B.T.

Piñon branch 6 ins. diam. bears N. 79° 65' W. 21 lks.
dist. marked 1/4 S. 12 B.T.

N^o 8,1910.

N^o 9: At 7^h 50^m a.m. l.m.t. I set off 16° 41' S. on the
decl. arc; 35° 13' 30" on the lat. arc.; and determine a
meridian with the solar at the 1/4 sec. cor. between
secs. 7 and 12; thence I continue.

2nd Guide Meridian W. Through Tps 21 N. Range 8 ^{any} q West.

	North between Secs. 7 ^{any} 12. Descending over rough, rocky ground through dense cedars.
80.00	Bottom of draw, corner N.E. - Set 3 in. iron post 2 1/4 ins. in ground for cor. of secs. 1. 6. 7 ^{any} 12, marked T. 21 N. on N.; R. 9 W. S. 1 on N.W.; R. 8 W. S. 6 on N.E.; S. 12 on S.W. ^{any} S. 7 on S.E.; from which a cedar 16 ins. diam. bears S. 56° 00' W., 26 lks. dist. marked T. 21 N. R. 9 W. S. 12 B.T. A cedar 16 ins. diam. bears N. 80° 00' W. 18 lks. dist. marked T. 21 N. R. 9 W. S. 1 B.T. A cedar 14 ins. diam. bears S. 48° 35' E. 24 lks. dist. marked T. 21 N. R. 8 W. S. 7 B.T. A cedar 14 ins. diam. bears N. 36° 20' E. 73 lks. dist. marked T. 21 N. R. 8 W. S. 6 B.T. Land rough ^{and} mountainous. Dense cedars 73.75 Chs. Very little soil ^{and} very rocky.
1.00	North between Secs. 1 ^{any} 6 Through dense cedar ^{and} buck brush
28.00	Ascend slope diagonally, on E. slope of ridge. Top of rocky ridge bears N. 20° E. ^{any} S. 20° W.
40.00	Descend slope diagonally on W. side of ridge Set 1 in. iron post 2 1/2 ins. in ground for 1/4 sec. Cor. marked S. 1/4 on W. ^{any} S. 6 on E. from which A piñon 9 ins. diam. bears S. 43° 30' E. 68 lks. dist. marked 1/4 S. 6 B.T. A piñon 8 ins. diam. bears S. 44° 50' W. 76 lks. dist. marked 1/4 S. 1 B.T.
73.75	Foot of mountain. Large cedars ^{any} Enter open "Juckayon" (?) Valley.
80.00	Set 3 in. iron post 2 1/4 ins. in ground for cor. of Tps. 21 ^{any} 22 N. R. 8 ^{any} 9 W. marked T. 22 N. on N. R. 9 W. S. 36 on N.W.; R. 8 W. S. 31 on N.E.; T. 21 N. on S.; S. 1, R. 9 W. on S.W.; ^{any} R. 8 W. S. 6 on S.E. dig pits 24x24x12 ins. on each line, N., E., ^{any} W. 4 ft., ^{any} S. of cor. 8 ft. dist.; ^{any} raise a mound of earth, 5 ft. base, 2 1/2 ft. high. S. of cor.

	North between Secs. 1 ^{any} 6 Through dense cedar ^{and} buck brush
1.00	Ascend slope diagonally, on E. slope of ridge. Top of rocky ridge bears N. 20° E. ^{any} S. 20° W.
28.00	Descend slope diagonally on W. side of ridge Set 1 in. iron post 2 1/2 ins. in ground for 1/4 sec. Cor. marked S. 1/4 on W. ^{any} S. 6 on E. from which A piñon 9 ins. diam. bears S. 43° 30' E. 68 lks. dist. marked 1/4 S. 6 B.T. A piñon 8 ins. diam. bears S. 44° 50' W. 76 lks. dist. marked 1/4 S. 1 B.T.
40.00	Foot of mountain. Large cedars ^{any} Enter open "Juckayon" (?) Valley.
80.00	Set 3 in. iron post 2 1/4 ins. in ground for cor. of Tps. 21 ^{any} 22 N. R. 8 ^{any} 9 W. marked T. 22 N. on N. R. 9 W. S. 36 on N.W.; R. 8 W. S. 31 on N.E.; T. 21 N. on S.; S. 1, R. 9 W. on S.W.; ^{any} R. 8 W. S. 6 on S.E. dig pits 24x24x12 ins. on each line, N., E., ^{any} W. 4 ft., ^{any} S. of cor. 8 ft. dist.; ^{any} raise a mound of earth, 5 ft. base, 2 1/2 ft. high. S. of cor.

2nd Guide Meridian West. Through Tps. 21 N. R.s. 8 and 9 West.

Land, rough ^{and} mountainous 73.75 chs.; rolling 6.25 chs.; Soil very rocky for 73.75 chs.; for 6.25 chs. a good quality of light reddish brown soil with a good growth of grama grass.

No. 9.1910

2nd Guide Meridian West through Tp. 22 N.
No. 10; At 8^h 12^m a.m. l.m.t. I set off 16° 59' S. on the decl. arc; 35° 15' N. on the lat. arc; and determine a meridian with the solar at the cor. of Tps. 21 ^{and} 22 N. R.s. 8 ^{and} 9 N. Thence I run North between secs. 31 ^{and} 36.

Over open valley, without trees or brush; but having an excellent growth of grama grass.

40.00 Set 1 in. iron post 26 ins. in ground for 1/4 sec. Cor. marked S. 36 1/4 on N.; ^{and} S. 31 on E.; dig pits 18x18x12 ins. N. ^{and} S. of post 3 ft. dist. ^{and} raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor. Set 3 in. iron post. 24 ins. in ground for cor. of secs. 25, 30, 31 ^{and} 36, marked T. 22 N. on N.; R. 9 N. S. 25 on N.W.; R. 8 N. S. 30 on N.E.; S. 36 on S.W.; ^{and} S. 31 on S.E.; dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist. ^{and} raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land rolling. No timber; Soil sandy loam mixed with gravel. Good growth of grama grass.

North between secs. 25 ^{and} 30

35.30 Road to Seligman, bears N. 65° E. ^{and} S. 65° W.
40.00 Set 1 in. iron post 26 ins. in ground for 1/4 sec. Cor. marked S. 25 1/4 on N.; ^{and} S. 30 on E.; dig pits 18x18x12 ins. N. ^{and} S. of stone 3 ft. dist. ^{and} raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor. Set 3 in. iron post 24 ins. in ground for cor. of secs. 19, 24, 25 ^{and} 30, marked T. 22 N. on N. R. 9 N. S. 24 on N.W.; R. 8 N. S. 19 on N.E.; S. 25 on S.W.; ^{and} S. 30 on S.E.; dig pits 18x18x12 ins. in each

2nd Guide Meridian West. Through Tps. 22 N. R. 8th W. West.

sec. 5^{1/2} ft. dist.; ^{and} raise a mound of earth 4 ft. base,
2 ft. high. W. of cor.

Land rolling: No timber: Soil sandy loam
mixed with gravel. Drainage to S. W.

North between Secs. 19^{and} 24.

40.00 Set 1 in. iron post 26 ins. in ground for 1/4 sec.
cor. marked S. 24^{1/4} on W.; ^{and} S. 19 on E. dig pits
18x18x12 ins. N ^{and} S. of post 3 ft. dist. ^{and} raise a
mound of earth 3^{1/2} ft. base, 1^{1/2} ft. high W. of cor.

80.00 Set 3 in. iron post 24 ins. in ground for cor. of secs.
13, 18, 19^{and} 24 marked S. 22 N. on N.; R. 9 W. S. 13 on
N. W.; S. 24 on S. W.; R. 8 W., S. 18 on N. E.; ^{and} S. 19 on S. E.
dig pits 18x18x12 ins. in each sec. 5^{1/2} ft. dist. ^{and}
raise a mound of earth 4 ft. base, 2 ft. high W. of
cor.

Land rolling, Soil sandy loam with good
gramma grass-

North between Secs. 13^{and} 18

12.20 Road to Seligman traps E. ^{and} W.

40.00 Set 1 in. iron post 26 ins. in ground for 1/4
sec. cor. marked S. 13^{1/4} on W; ^{and} S. 18 on E. dig
pits 18x18x12 ins. N ^{and} S. of post 3 ft. dist. ^{and}
raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

80.00 Set 3 inch iron post 24 ins. in ground for cor.
of secs. 7, 12, 13 ^{and} 18 marked S. 22 N. on N.; R. 9 W.
S. 12 on N. W.; R. 8 W. S. 7 on N. E.; S. 13 on S. W.; ^{and}
S. 18 on S. E.; dig pits 18x18x12 ins. in each sec. 5^{1/2}
ft. dist. ^{and} raise a mound of earth 3^{1/2} ft. base, 1^{1/2} ft.
high W. of cor.

Land rolling, Soil sandy loam mixed
with lime gravel.

2nd Guide Meridian West Through Tps. 22 N. Range 8^a & 9^b West.

	North between Secs. 7 ^a and 12 ^b .
40.00	Set 1 in. iron post 26 ins. in ground for $\frac{1}{4}$ sec. cor. marked S. 12 ^a on W.; S. 7 ^b on E.; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
80.00	Set 3 in. iron post 24 ins. in ground for cor. of secs. 1, 6, 7 ^a and 12 ^b marked T. 22 N. on N.; R. 9 W. S. 1 on N.W.; R. 8 W. S. 6 on N.E.; S. 12 on S.W. and S. 7 on S.E.; dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor. Land rolling, Soil sandy loam mixed with lime gravel.

	North Bet. Secs. 1 ^a and 6 ^b
40.00	Set 1 in. iron post 26 ins. in ground for $\frac{1}{4}$ sec. cor. marked S. 1 ^a on W. and S. 6 on E., dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.
80.00	Set 3 in. iron post 24 ins. in ground for cor. of Tps. 22 ^a & 23 N. R. 8 ^a & 9 W. marked T. 23 N. on N.; R. 9 W. S. 36 on N.W.; R. 8 W. S. 31 on N.E.; S. 1, R. 9 W. on S.W.; S. 6 R. 8 W. on S.E.; T. 22 N. on S.; dig pits 24x24x12 ins. on each line N., E. and W. 4 ft. S. of post 8 ft. dist. and raise a mound of earth, 5 ft. base, 2 $\frac{1}{2}$ ft. high S. of cor. Land rolling, soil sandy loam.

2nd Guide Meridian West through Tp. 23 N.

From the cor. of Tps. 22^a & 23 N. R. 8^a & 9 W.
From

	North between Secs. 31 ^a and 36 ^b .
40.00	Set an iron post, 3 ft. long, 1 in. in diam. 26 ins. in ground for $\frac{1}{4}$ sec. cor., marked on brass cap S. 36 ^a on W. and S. 31 on E. half; dig pits 18x18x12 ins. N. and S. of

2nd Grid Meridian West. Through Tps. 23 N. Ranges 8th & 9th West.

post 3 ft. dist. ^{and} raise a mound of earth 3¹/₂ ft.
base, 1¹/₂ ft. high W. of cor.

Nov 10. 1910.

Nov 11: At 8^h 05^m a.m. l.m.t. I set off $17^{\circ} 15'$ S. on
the decl. arc; $35^{\circ} 21'$ N. on the lat. arc; and, at the
 $\frac{1}{4}$ sec. cor. frt. secs. 31 ^{and} 36, T. 23 N. R.s. 8 ^{and} 9 W. I
determine a meridian with the solar; An
opening which I had cut through a group of
trees on mountain to the south is plainly
visible ^{and} on my line.: Thence I continue
North frt. Secs. 31 ^{and} 36

Over rolling, open valley land, the drainage
of which, from my line is to the south ^{and} west.
Set an iron post 3 ft. long, 3 ins. diam. 2 ft. ins.
in ground for cor. of secs. 25, 30, 31 ^{and} 36, marked
T. 23 N. on N.; R. 9 W., S. 25 on N.W.; R. 8 W., S. 30 on
N.E.; S. 31 on S.E.; ^{and} S. 36 on S.W. of cross in
brass cap.; dig pits 18x18x12 ins. in each sec. 5¹/₂
ft. dist. ^{and} raise a mound of earth 1 ft. base;
2 ft. high W. of cor.

Land smooth open valley containing a good
growth of grama grass.: Soil a loose sandy
loam mixed with small lime gravel to a depth
of our foot: Subsoil hard clay.

North between Secs. 25 ^{and} 30

Set an iron post, 3 ft. long, 1 in. diam. 2 6 ins.
in ground for $\frac{1}{4}$ sec. cor., marked on brass cap
S. 25 ¹/₄ W., ^{and}
S. 30 on E. half;
dig pits 18x18x12 ins. N. ^{and} S. of post 3 ft. dist.
^{and} raise a mound of earth 3¹/₂ ft. base, 1¹/₂ ft.
high W. of cor.

Set an iron post 3 ft. long, 3 in. in diam. 2 4
ins. in ground for cor. of secs. 19, 24, 25, 30, mrd.
T. 23 N. on N.;
R. 9 W.; S. 24 on N.W.;

2nd Guide Meridian W. Through Tps. 23 N. Rs. 8⁴⁴ 9 West.

	R. 8 W.; S. 19 on N.E.; S. 30 on S.E.; ^{and} S. 25 on S.W. quadrant; dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist. ^{and} raise a mound of earth 1 ft. base, 2 ft. high W. of cor. Land rolling, Soil sandy loam mixed with small gravel. Good grass on entire line.
HV.00	<p>North between secs. 19⁴⁴ 24</p> <p>Set an iron post, 3 ft. long, 1 in. in diam. 26 ins in ground, for 1/4 sec. cor., marked on brass cap S. 24^{1/4} on W. ^{and} S. 19 on E. half; dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist. ^{and} raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.</p> <p>Now 11.1910: I set off 17° 20' S. on the decl. arc; ^{and} at noon observe the sun on the meridian; the resulting lat. is 35° 23' N. which varies some- what from the true lat.</p> <p>At the moment of the meridian passage of the sun, my watch stood at 11^h 44^m 15^s; it was therefore 11^s fast.</p>
80.00	<p>Set an iron post, 3 ft. long, 3 ins. diam. 24 ins. in ground for cor. of secs. 13, 18, 19⁴⁴ 24, marked on the brass cap:</p> <p>S. 23 N.; on N.;</p> <p>R. 9 W.; S. 13, on N.W.;</p> <p>R. 8 W.; S. 18, on N. E.;</p> <p>S. 19, on S. E.; ^{and}</p> <p>S. 24 on S.W. quadrant; dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist. ^{and} raise a mound of earth 1 ft. base, 2 ft. high W. of cor.</p> <p>Land rolling, Soil sandy mixed with small gravel.: A good growth of grama grass.</p>

2nd Guide Meridian N. Through Tps. 23 N. Rcs. 8^{and} 9 West.

	North between Secs. 13 ^{Aug} 18 Set an iron post, 3 ft. long, 1 in. in diam. 26 ins. in ground for $\frac{1}{4}$ sec. cor., marked on brass cap: S. 13 $\frac{1}{4}$ on N.; and S. 18 on E. half; dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base; 1 $\frac{1}{2}$ ft. high N. of cor.
75.00	Begin to ascend out of valley; Enter rolling hills with scattering cedars.
80.00	Set an iron post 3 ft. long, 3 in. in diam. 24 ins. in ground for cor. of secs. 7, 12, 13 ^{Aug} 18 marked on brass cap: S. 23 N., on N.; R. 9 W.-S. 12, on N.W.; R. 8 W-S. 7, on N.E.; S. 18 on S.E.; and S. 13 on S.W. of quadrant.; dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist. ^{Aug} raise a mound of earth 4 ft. base; 2 ft. high N. of cor. Land rolling: Soil, a sandy loam mixed with fine gravel for 75.00 chs.; for 5.00 chs. soil is rocky and shallow. A good growth of grama grass covers the mts. Scattering cedars & brush 5.00 chs.

	North between secs. 7 ^{Aug} 12 Through scattering cedars ^{and} brush. Set an iron post, 3 ft. long, 1 in. in diam. 26 ins. in ground for $\frac{1}{4}$ sec. cor., marked on brass cap S. 12 $\frac{1}{4}$ on N., ^{Aug} S. 7 on E. half; dig pits 18x18x12 ins. N. ^{Aug} S. of post 3 ft. dist. ^{Aug} raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high N. of cor.
80.00	Set an iron post, 3 ft. long; 3 ins. diam. 24 ins.

2nd Guide Meridian West, Through Tps. 23 N. Rs. 8^{and} 9 West.

in the ground for cor. of secs. 1. 6. 7^{and} 12, marked on the brass cap.

T. 23 N. on N.;

R. 9 W.; S. 1 on N. W.;

R. 8 W.; S. 6 on N. E.;

S. 7 on S. E.; ^{and}

S. 12 on S. W. of quadrant.

dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist. ^{and}
raise a mound of earth 4 ft. base, 2 ft. high
W. of cor.

Land rolling low hills - Scattering cedar.

Soil, a brown clay or adobe mixed with lime
gravel. A good growth of grama grass covers
the mire.

Nov 11, 1910.

Nov 12: At 8^h 00^m a.m. l.m.t. I set off 17° 32'
S. on the decl. arc; 35° 2 $\frac{1}{2}$ ' N. on the lat. arc; and
determine a meridian with the solar at the cor.
of secs. 1. 6. 7^{and} 12; then I run

North between Secs. 1^{and} 6.

Ascending over rolling hilly land, through
scattering cedar ^{and} brush.

Set an iron post, 3 ft. long, 1 in. in diam. 26 ins.
in ground for 1/4 sec. cor., marked on brass
cap.

S. 1 $\frac{1}{4}$ on W.; ^{and}

S. 6 on E. half;

dig pits 18x18x12 ins. N. ^{and} S. of post 3 ft. dist.
^{and} raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high
W. of cor.

Set an iron post 3 ft. long, 3 ins. diam. 24 ins.
in ground for cor. of Tps. 23^{and} 24 N. Rs. 8^{and} 9 W.
marked on brass cap:

T. 24 N. on N.;

R. 9 W., S. 36 on N. W.;

R. 8 W. S. 31 on N. E.;

S. 6 - R. 8 W - on S. E.;

2nd Guide Meridian W. Through Tps. 2 & 3 N. Rs. 8th & 9 West.

S. 1 - R. 9 W. on S. W.; and
 S. 2 & 3 N. on S.;
 dig pits $2\frac{1}{4} \times 2\frac{1}{4} \times 12$ ins. on each line, N., E. and W.
 4 ft. apart, and S. of cor. 8 ft. dist.; and raise a mound
 of earth 5 ft. base, $2\frac{1}{2}$ ft. high S. of cor.
 Land rolling hills; Soil a dark clay
 mixed with lime gravel.; Good growth of
gramma grass covers the mile

2nd Guide Meridian W. Through Tps. 2 & 4 N. Rs. 8th & 9 W.

North between secs. 31 and 36

Ascending over rough hilly land, through
 scattering cedars

\$10.00 Set an iron post 3 ft. long, 1 in. in diam. 2 $\frac{1}{4}$
 ins. in ground for $\frac{1}{4}$ sec. cor.; marked on brass
 cap;

S. 36 1/4 on W.; and

S. 31 on E. half; from which

A cedar 18 ins. diam. bears S. $78^{\circ} 46'$ E. 96 lbs.
 dist. marked $\frac{1}{4}$ S. 31 B.T.

A cedar 6 ins. diam. bears N. $11^{\circ} 00'$ W. 263 lbs.
 dist. marked $\frac{1}{4}$ S. 36 B.T.

\$10.50 Top of rise, desc.

\$80.00 Set an iron post 3 ft. long, 3 ins. diam. 2 $\frac{1}{4}$ ins.
 in ground for cor. of secs. 25, 30, 31 and 36, marked
 on brass cap:

S. 2 & N. on N.;

R. 9 W. - S. 25 on N. W.;

R. 8 W. - S. 30 on N. E.;

S. 31 on S. E.; and

S. 36 on S. W. of quadrant.; from which

A cedar 14 ins. diam. bears N. $10^{\circ} 30'$ E. 96 lbs.
 dist. marked S. 2 & N. R. 8 W. S. 30 B.T.; dig pits
 $18 \times 18 \times 12$ ins. in secs. 25, 31 and 36 $5\frac{1}{2}$ ft. dist. and raise
 a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land broken and hilly; covered with scattering cedars.
 Soil rocky and of no value except for grazing.

2nd Guide Meridian W. Through Tps. 24 N., Rs. 8^{any} 9 West.

	North between secs. 25 ^{any} 30 descending over broken ground. Head of draw, course S.E. Asc. Top of ascent; descend through dense cedars. Set an iron post, 3 ft. long, 1 in. diam, 2 1/4 ins. in ground for 1/4 sec. cor. marked S. 25 ^{1/4} on N.; ^{any} S. 30 on E. half of brass cap.; from which a cedar 1 1/4 ins. diam. bears S. 50° 08' E. 62 lks. dist. marked 1/4 S. 30 B.T. A piñon 6 ins. diam. bears N. 82° 04' W.; 53 lks. dist. marked 1/4 S. 25 B.T. Bottom of draw, course N.W. - Asc. Top of Ascent - Set an iron post, 3 ft. long, 3 ins. diam. 2 1/4 ins. in ground for cor. of sec. 19, 24, 25 ^{any} 30, marked on brass cap; T. 24 N. on N.; R. 9 W. - S. 24 on N.W.; R. 8 W. - S. 19 on N.E.; S. 30 on S.E.; ^{any} S. 25 on S.W. of quadrant.; from which a cedar 1 1/2 ins. diam. bears N. 35° 55' E. 59 lks. dist. marked T. 24 N. R. 8 W. S. 19 B.T. A cedar branch 6 ins. diam. bears N. 38° 40' W. 27 lks. dist. marked T. 24 N. R. 9 W. S. 24 B.T. A cedar 1 1/2 ins. diam. bears S. 48° 30' E. 29 lks. dist. marked T. 24 N. R. 8 W. S. 30 B.T. A cedar 1 1/2 ins. diam. bears S. 29° 20' W. 42 lks. dist. marked T. 24 N. R. 9 W. S. 25 B.T. Land rough ^{and} hilly. Dense cedars ^{and} piñons 50.00 Chs.; Soil rocky ^{and} of no value except for grazing purposes - A good growth of grama grass covers the mts.
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Nov 12, 1910.

2nd Guide Meridian W. Through Tps. 24 N. Rcs. 8^{and} 9 West.

	NW 16: Continuous rain and showers on the 13 th . 14 th and 15 th prevented field work.: At 8 ^h 05 ^m a.m., l.m.t. I set off 18° 35' S. on the decl. arc; 35° 27' N. on the lat. arc; and determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30, Tp. 24 N. Rcs. 8 ^{and} 9 W.; thence I run North between secs. 19 and 24. Descending over rough hilly land through dense cedar and brush.
13.50	Bottom of gulch, course W., Ascend over limestone boulders.
36.00	Top of ascent of W. slope - Draw, course N., about 10.00 Chs. W. - Rose. diagonally.
40.00	Set an iron post, 3 feet long, 1 ins. in diam. 26 ins. in ground for 1/4 sec. cor., marked on brass cap: S. 24 ^{1/4} ft on W.; and S. 19 on E. half; from which A cedar 10 ins. diam. bears S. 64° 00' W. 29 lks. dist. marked 1/4 S. 24 B.T.
80.00	A cedar 8 ins. diam. bears S. 18° 10' E. 26 lks. dist. Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in ground for cor. of secs. 13, 18, 19 and 24 marked on brass cap: S. 24 N. on N.; R. 9 W. - S. 13. on N.W.; R. 8 W. - S. 18 on N.E.; S. 19 on S.E.; and S. 24 on S.W. in quadrant; from which A cedar 12 ins. diam. bears N. 44° 18' E. 47 lks. dist. marked S. 24 N. R. 8 W. S. 18 B.T. A cedar 16 ins. diam. bears N. 50° 00' W. 15 lks. dist. marked S. 24 N. R. 9 W. S. 13 B.T. A cedar 8 ins. diam. bears S. 81° 30' E. 12 lks. dist. marked S. 24 N. R. 8 W. S. 19 B.T. A cedar 7 ins. diam. bears S. 61° 38' W. 17 lks. dist. marked S. 24 N. R. 9 W. S. 24 B.T. Land rough and hilly covered with dense cedar and brush. Soil rocky and only good for grazing.

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BOOK 2222

2nd Grid Meridian W. Through Tps. 24 N. R. 8^{and} 9 West.

	North between secs. 13 ^{and} 18. Descending through dense cedar ^{and} brush. Bottom of draw, course N. 60° W. Asc. Top of ascent - Disc.
3.70	Bottom of draw, course N. 80° E. - Asc.
10.00	Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in ground for $\frac{1}{4}$ sec. cor. marked on brass cap: S. 13 ^{1/4} on N.; ^{and} S. 18 on E. half, from which
13.40	A cedar 2 $\frac{1}{2}$ ins. diam. bears S. 32° 10' W. 62 lbs. marked $\frac{1}{4}$ S. 13 B.T.
140.00	A cedar 6 ins. diam. bears S. 34° 40' E. 160 lbs. dist. marked $\frac{1}{4}$ S. 18 B.T.
141.40	Gulch, course E., asc. over rough hills.
80.00	Set an iron post 3 ft. long, 3 ins. diam. 24 ins. in ground for cor. of secs. 7, 12, 13 ^{and} 18, marked on brass cap: T. 24 N. on N.; R. 9 W. - S. 12 on N.W.; R. 8 W. - S. 7 on N.E.; S. 18 on S.E.; ^{and} S. 13 on S.W. of quadrant, from which
	A cedar 12 ins. diam. bears S. 57° 00' W. 41 lbs. dist. marked T. 24 N. R. 9 W. S. 13 B.T.
	A cedar 10 ins. diam. bears S. 28° 30' E. 15 lbs. dist. marked T. 24 N. R. 8 W. S. 18 B.T.
	A cedar 15 ins. diam. bears N. 56° 00' W. 85 lbs. dist. marked T. 24 N. R. 9 W. S. 12 B.T.
	A cedar 14 ins. diam. bears N. 67° 44' E. 79 lbs. dist. marked T. 24 N. R. 8 W. S. 7 B.T.
	Land rough ^{and} hilly ^{and} covered with dense cedar ^{and} brush.: Soil rocky ^{and} only fit for grazing pur- poses.

Nov 16, 1910.

2nd Guide Meridian W. Through Tps. 24 N. R. 8th West.

	N ^o 17; 1910: At 9 ^h 50 ^m a.m. l.m.t. I set off 18° 47' S. on the decl. arc; 35° 28' 30" on the lat. arc; and determined a meridian with the solar at the cor. of secs. 7, 12, 13 ^{and} 18; thence I run North between secs. 7 ^{and} 12. Ascending through dense cedars. A pile of stones on line.
26.29	Ravine, course N. 70° E., ascend E. slope of high hill diagonally
35.00	Top of slope. Desc. abruptly.
37.50	Bottom of gulch, course E., Asc. steep rocky slope
40.00	Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in ground for $\frac{1}{4}$ sec. cor., marked on brass cap: S. 12 $\frac{1}{4}$ on N.; and
	S. 7 on E. half, from which
	A piñon 1 $\frac{1}{2}$ ins. diam. bears N. 48° 25' W. 95 lbs. lbs. dist. marked $\frac{1}{4}$ S. 12 B.T.
	A piñon 6 ins. diam. bears N. 29° 50' E. 88 lbs. dist. marked $\frac{1}{4}$ S. 7 B.T.
41.75	Top of point of ridge, bears E. ^{and} N. Descend steep slope.
47.00	Bottom of gulch, course N.E., Ascend steep slope diagonally.
57.00	Top of ascent. Desc.
60.65	Bottom of gulch, course N. 75° E.. Ascend steep slope.
62.38	Top of point of slope. Descend steep slope.
68.90	Foot of slope.
69.08	Intersect $\frac{1}{4}$ of Santa Pacific R.R. 121 ft. S. 40° 33' E. of E. end of curve N ^o 483. - Sta. 86 $\frac{1}{4}$ + 92 - R.R. bears N. 40° 33' W. ^{and} S. 40° 33' E.. Descend through scattering cedars, good grass ^{and} soil mixed with fine gravel.
80.00	Set an iron post, 3 ft. long. 3 ins. diam. 24 ins. in ground for cor. of secs. 1, 6, 7 ^{and} 12, marked on brass cap: S. 2 $\frac{1}{2}$ N. on N.; R. 9 W. - S. 1 on N.W.; R. 8 W. - S. 6 on N.E.;

2nd Meridian W. Through Tps. 24 N. Rs. 8 and 9 West.

S. 7 on S.E.; ^{and}
 S. 12 on S.W. of quadrant; from which
 a cedar 7 ins. diam. bears S. 10° 25' W. 272 lks.
 dist. marked T. 24 N. R. 9 W. S. 12 B.T.
 A cedar 8 ins. diam. bears N. 81° 29' E. 173 lks. dist.
 marked T. 24 N. R. 8 W. S. 6 B.T.
 A cedar 7 ins. diam. bears S. 15° 23' E. 279 lks. dist.
 marked T. 24 N. R. 8 W. S. 7 B.T. No other tree available.
 Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
 Land mountainous ^{and} covered with dense cedar
^{and} piñons 69.00 Chs.; rolling 13.00 Chs.
 Soil: 69.00 Chs. rocky ^{and} of no value except for
 grazing; 13.00 Chs. soil is of good quality of sandy
 loam mixed with small gravel.
 A good growth of grama grass covers the mire.

- North between secs. 1 and 6.
 Descending gradual slope through scattering
 cedar and brush.
- 17.23 Road from Yampai to Seligman, bears E. ^{and} W.
 Foot of descent. Proceed over rolling land.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins.
 in ground for ^{1/4} sec. cor., marked on brass cap:
 S. 1 1/4 on W.; ^{and}
 S. 6 on E. half, dig pits 18x18x12 ins. N. and S.
 of post 3 ft. dist. ^{and} raise a mound of earth
 3 1/2 ft. base, 1 1/2 ft. high W. of cor.
- 73.49 Intersect 6th Standard Parallel North 19.18 Chs. W.
 of the standard cor. of sections 31 and 32
 T. 25 N. R. 8 W.
 Set an iron post 3 ft. long, 3 ins. in diam, 24 ins.
 in ground, for closing cor. of Tps. 24 N. Rs. 8 and 9
 W. marked on brass cap:
 C.C. south of center;
 T. 25 N. R. 8 W. - S. 3 in N. half;
 T. 24 N. in S. half;
 S. 6, R. 8 W. in S.E.; ^{and}

2nd Guide Meridian W. Through Tps. 21 N. Rs. 8^{sq} & 9 West.

S. I. R. 9 W., in S. W. quadrant; from which
A piñon 1^{1/2} ins. diam. bears S. 50° + 8' E. 495 lbs.
dist. marked T. 21 N. R. 8 W. S. 6 c.c. B.T.
A cedar branch 6 ins. diam. bears S. 37° 55' W. 168 lbs.
dist., marked T. 21 N. R. 9 W. S. 1 c.c. B.T.

Land rolling. Scattering cedars.

Soil: A good quality of sandy loam mixed
with gravel to a depth of one foot, below which
it is very hard clay.

Nov 17. 1910.

— General Description. —

The line through townships 21 N. Rs. 8^{sq} & 9 W. passes over a rough, broken country covered with cedars, piñons, and a good growth of grama grass.

Through Tps. 22^{sq} & 3 N the line passes through a comparatively smooth, open valley, known locally as "Tuckeyau Plain," near its centre.

The valley is about five miles wide and contains an abundant growth of grama grass, but is entirely devoid of natural water.

Tp. 21 N., again, is composed of rough hills covered with a dense growth of cedar, piñons and grama grass, ~~and~~ is chiefly valuable for the cedar wood it contains ~~and~~ grazing.

There are no settlements or ranches in the vicinity of the line, neither is there any living water.

Nov 17-1910.

W. O. Fox,
Transitman.

I hereby certify that in the survey of the Second
Grind Meridian West, through townships 21, 22, 23
and 24 North two sets of chainmen were employed
on each ^{any} mile.

W. J. Frazar,
Transitman

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by W. Q. Secor
Transitman, 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
Second Guide Meridian West,

showing the respective capacities in which they acted:

<u>Theodore Alden</u>	<u>Chainman.</u>
<u>C. J. Schwartz</u>	<u>Chainman.</u>
<u>Carl Barandon</u>	<u>Chainman</u> <u>Moundman.</u>
<u>J. H. McCall</u>	<u>Chainman</u> <u>Moundman.</u>
<u>George Eby</u>	<u>Moundman</u> <u>Seman.</u>
<u>Paul Dial</u>	<u>Axman.</u>
	<u>Flagman.</u>

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted W. Q. Secor

Transitman, United States Deputy Surveyor, in surveying all
those parts or portions of the Second Guide Meridian West, through
Tps 21, 22, 23, 24 & 24 North, between Range 8^{and} 9 West,
of the Gila and Salt River Base and Meridian,

of the
meridian, Territory 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 Arizona.

<u>C. J. Schwartz</u>	<u>Chainman.</u>
<u>Theodore Alden</u>	<u>Chainman.</u>
<u>J. H. McCall</u>	<u>Chainman</u> <u>Moundman.</u>
<u>George Eby</u>	<u>Moundman.</u>
<u>Carl Barandon</u>	<u>Chainman</u> <u>Seman.</u>
<u>Paul Dial.</u>	<u>Axman.</u>
	<u>Flagman.</u>

Subscribed and sworn to before me this 17th
day of November, 1910 }

W. Q. Secor.
Transitman



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, W. O. Secor.*Transitman*

United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from United States Surveyor General for _____, bearing date of the day of _____, 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 Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Second Guide Meridian West through townships 21, 22, 23 and 24 North between ranges 8 and 9 West of the Gila and Salt River Base and Meridian.

of the _____ meridian, in the Territory 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 Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

W. O. Secor

United States Deputy Surveyor.

*Transitman*Subscribed by said W. O. Secor, and sworn to before me,this 17th day of Jan, 1911

my com William Grant
Expires Jan 16, 1915 Notary Public

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz Mar 15, 1911

The foregoing field notes of the survey of

the Second Guide Meridian
through Tps 21, 22, 23 & 24 North Gila
and Salt River Base and Meridian Arizona

executed by W. O. Secor, W. O. Transitman
under his contract No. 7, dated August 25, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank J. Langford

United States Surveyor General

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

United States Surveyor General.