

Accepted May 31, 1911

# FIELD NOTES

OF THE SURVEY OF THE

2256

2256

BOOK 2256

Second Guide Meridian West  
through Tps. 5, 6, and 7 N.

2256

2256

Of the *Grand S. R.* Meridian,

In the <sup>Terr.</sup> State of *Arizona*

EXECUTED BY

*Alfred N. Oliver*

In the capacity of U. S. <sup>Insitutor</sup> Surveyor, under instructions dated *August 25*, 1910,  
issued by the United States Surveyor General to govern surveys included in  
Group No. *4*, which were approved by the Commissioner of the General Land  
Office, *September 9*, 1910, pursuant to authority contained in the Act of  
Congress dated *June 25*, 1910 <sup>and March 4</sup>, 1911,

Survey commenced *January 4*, 1911

Survey completed *April 8*, 1911

2256

2256

1A

BOOK 2256

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BOOK 2256

INDEX DIAGRAM.

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PRELIMINARY OATHS OF ASSISTANTS.

WE, R. A. Coombs, W. D. Panzer, R. E. Lyon and J. N. Bates  
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<sup>nd</sup> Guide Meridian West through Tps. 5, 6, and 7 N.

R. A. Coombs, Chainman.  
W. D. Panzer, Chainman.

Subscribed and sworn to before me this 2<sup>nd</sup>  
day of February, 1911

R. E. Lyon  
J. N. Bates  
Alfred N. Oliver  
U.S. Transactman



WE, R. L. Bates and L. P. Bates  
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 2<sup>nd</sup> Guide Meridian West through Tps. 5, 6 and 7 N.

R. L. Bates, Moundman.  
L. P. Bates, Moundman.

Subscribed and sworn to before me this 2<sup>nd</sup>  
day of February, 1911

Alfred N. Oliver  
U.S. Transactman



WE, Ed. Brockway and L. C. Planagan  
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 the 2<sup>nd</sup> Guide Meridian West through Tps. 5, 6 and 7 N.

Ed. Brockway, Axman.  
L. C. Planagan, Axman.

Subscribed and sworn to before me this 2<sup>nd</sup>  
day of February, 1911

Alfred N. Oliver  
U.S. Transactman



I, P. Shimpfessel, 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 2<sup>nd</sup> Guide Meridian West through Tps. 5, 6 and 7 N.

P. Shimpfessel, Flagman.

Subscribed and sworn to before me this 2<sup>nd</sup>  
day of February, 1911

Alfred N. Oliver  
U.S. Transactman



## Second Guide Meridian West, through Township 5 North. 1.D

Chains.

Survey commenced February 4, 1911, and executed with a W. and L. E. Gurley solar compass, not numbered. The horizontal limb is provided with two opposite verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined and approved by the Supervising Surveyor.

I examine the adjustments of the compass and find them correct; 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 determined by observations of Polaris, I proceed as follows:

At the standard cor. of Tps. 5 N., Rgs. 8 and 9 W., latitude,  $33^{\circ}43'27''$  N.; longitude,  $113^{\circ}08'24''$  W.; I set off  $33^{\circ}43'$  N. on the latitude arc;  $16^{\circ}17\frac{1}{2}'$  S. on the decl. arc; and at 4h.00m.p.m., l.m.t., determine with the solar a meridian and mark a point thereof on a stone firmly set in the ground 5 chs. N. of the cor.

At 10h.28m.p.m., by my watch, which has correct l.m.t., I observe Polaris at western elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

February 4, 1911.

February 5: At 7:30 a.m., l.m.t., I lay off the azimuth of Polaris,  $1^{\circ}24'$  to the east, and mark the meridian thus determined, by cutting a small groove in the stone set February 4, on which the meridian coincides with the mark determined by the solar.

At 8h.00m.a.m., l.m.t., I set off  $33^{\circ}43'$  N. on the latitude arc;  $16^{\circ}05\frac{1}{2}'$  S. on the decl. arc, and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark coincides with the meridian determined by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations defines positions for meridians which coincide with the meridian established by the Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 8h.15m.a.m. is  $N.14^{\circ}30'W.$ ; the angle thus determined gives the magnetic decl.  $14^{\circ}30' E.$

I commence at the standard cor. of Tps. 5 N., Rgs. 8 and 9 W., which is a stone marked and witnessed as described by the Surveyor General.

Thence I run,

North, bet. secs. 31 and 36.

Descending through dense brush.

4.00 Wash, 15 lks. wide, course NW., and ascend along W. slope.

20.00 Ridge, and descend along NW. slope.

38.50 Cross wash 20 lks. wide, course NW.

Difference between measurements of 40.00 chs. by two sets of chainmen is 8 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  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 36 in W., and S 31 in E. half; and raise a mound of stone 2 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

(2) Second Guide Meridian West. through Township 5 North.

Chains.

40.20 Ridge, bears E. and W.  
 51.00 Ridge bears E. and W.  
 53.50 Cross wash, 10 lks. wide, course W.  
 57.00 Ridge bears E. and W.; descend.  
 79.50 Cross wash, 15 lks. wide, course SW.  
 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap,  
 T 5 N in N. half,  
 R 9 W S 25 in NW.,  
 R 8 W S 30 in NE.,  
 S 31 in SE., and  
 S 36 in SW. quadrants; and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.  
 Land, mountainous.  
 Soil, rocky; 4th rate.  
 No timber.  
 Undergrowth, greasewood, palo verde, catclaw.

North, between secs. 25 and 30.

Ascending through dense brush.

21.25 Cross wash, 15 lks. wide, course SW.  
 26.00 Ridge bears E. and W.; descend.  
 38.50 Cross wash, 10 lks. wide, course NW.; ascend.  
 Difference between measurements of 40.00 chs. by two sets of chainmen is 6 lks., position of middle point,  
 By 1st set, 40.03 chs.  
 By 2nd 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 ¼ sec. cor., marked on brass cap ¼ S 25 in W. and S 30 in E. half; from which,  
 A palo verde 5 ins. diam., bears N. 53¼° E., 126 lks. dist., marked ¼ S 30 B T.  
 A palo verde 4 ins. diam., bears S. 89½° W., 71 lks. dist., marked ¼ S 25 B T.  
 44.00 Ridge bears E. and W.; descend.  
 49.15 Cross wash, 15 lks. wide, course NE., and over rolling land.  
 74.00 Cross wash, 35 lks. wide, course NW.  
 Difference between measurements of 80.00 chs. by two sets of chainmen is 8 lks., position of middle point,  
 By 1st set, 80.04 chs.  
 By 2nd set, 79.96 chs., the mean of which is  
 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, marked on brass cap,  
 T 5 N in N. half,  
 R 9 W S 24 in NW.,  
 R 8 W S 19 in NE.,  
 S 30 in SE., and  
 S 25 in SW. quadrant; from which,  
 A palo verde 6 ins. diam., bears S. 76¼° E. 48 lks. dist., marked T 5 N R 8 W S 30 B T.  
 No other trees available. Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.  
 Land, mountainous and rolling.  
 Soil, rocky, 4th rate.  
 No timber.  
 Undergrowth, greasewood, palo verde and cacti.

North, bet. secs. 19 and 24.

Over rolling land, through dense brush.

8.25 Cross wash, 50 lks. wide, course NW.; ascend.  
 18.00 Ridge brs. NW. and SE.  
 30.00 Cross wash, 15 lks. wide, course NW.; ascend.

Chs.	
	Difference between measurements of 40.00 chs. by two sets of chainmen is 4 lks., position of middle point By 1st set, 40.02 chs. By 2nd set, 39.98 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 $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 24 in W., and S 19 in E. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of corner. Pits impracticable.
46.50	Ridge bears E. and W., descend.
58.25	Wash, 25 lks. wide, course NW., ascend.
67.45	Cross drain 5 lks. wide, course NW.
79.00	Ridge bears NW. and SE.; descend. Difference between measurements of 80.00 chs. by two sets of chainmen is 6 lks.; position of middle point By 1st set, 80.03 chs. By 2nd set, 79.97 chs., the mean of which is
80.00	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap, T 5 N in N. half, R 9 W S 13 in NW., R 8 W S 18 in NE., S 19 in SE., and S 24 in SW. quadrant; from which, A palo verde 5 ins. diam., bears N. $25^{\circ}$ W., 51 lks. dist., marked T 5 N R 9 W S 13 B T. A palo verde 4 ins. diam., bears N. $75\frac{1}{2}^{\circ}$ E., 125 lks. dist., marked T 5 N R 8 W S 18 B T. A palo verde 4 ins. diam., bears S. $62\frac{1}{2}^{\circ}$ E., 119 lks. dist., marked T 5 N R 8 W S 19 B T. A palo verde 5 ins. diam., bears S. $84\frac{3}{4}^{\circ}$ W., 50 lks. dist., marked T 5 N R 9 W S 24 B T. Land, rolling and mountainous. Soil, rocky, 4th rate. No timber. Undergrowth, greasewood, palo verde and catclaw. Feb. 5: At this cor. I set off $16^{\circ}03\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $33^{\circ}46'$ N.
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	North, between secs. 13 and 18. Descend NE. slope, through dense brush.
11.57	Cross wash, 15 lks. wide, course NW.
24.00	Ridge, brs. NW. and SE.
36.70	Cross wash, 35 lks. wide, course W.
36.80	Cross wash, 20 lks. wide, course SW. Difference between measurements of 40 chs. by two sets of chainmen is 6 lks.; position of middle point, By 1st set, 40.03 chs. By 2nd set, 39.97 chs., the mean of which is
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 13 in W. and S 18 in E. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of corner. Pits impracticable.
51.00	Ridge bears NW. and SE.
70.00	Wash 20 lks. wide, course NW.
75.50	Ridge bears NW. and SE.; descend. 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. By 2nd set, 79.95 chs., the mean of which is
80.00	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, marked

## 4. Second Guide Meridian, through Township 5 North.

Chains.

on brass cap,  
 T 5 N in N. half,  
 R 9 W S 12 in NW.,  
 R 8 W S 7 in NE.,  
 S 18 in SE., and  
 S 13 in SW., quadrants; and raise a mound of stone  
 2 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 Land, mountainous.  
 Soil, rocky, 4th rate.  
 No timber.  
 Undergrowth, greasewood, and palo verde.

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 North, between secs. 7 and 12.

Descending through dense brush.

- 2.00 Cross wash, 10 lks. wide, course NW.  
 6.50 Cross wash, 10 lks. wide, course SW.  
 19.00 Ridge, bears E. and W.  
 32.00 Cross wash, 15 lks. wide, course NW.  
 Difference between measurements of 40.00 chs. by two sets  
 of chainmen is 4 lks.; position of middle point,  
 By 1st set, 39.98 chs.,  
 By 2nd set, 40.02 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  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S  
 12 in W. and S 7 in E. half; and raise a mound of stone  
 2 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 48.00 Ridge, bears NW. and SE.  
 55.75 Cross wash, 15 lks. wide, course NW.  
 58.30 Cross wash 10 lks. wide, course W.  
 70.00 Ridge bears NW. and SE.  
 Difference between measurements of 80.00 chs. by two sets  
 of chainmen is 8 lks.; position of middle point  
 By 1st set, 79.96 chs.  
 By 2nd set, 80.04 chs., the mean of which is  
 80.00 Set an iron post 3 ft. long 3 ins. diam., 24 ins. in the  
 ground for cor. of secs. 1, 6, 7 and 12, marked on brass  
 cap,  
 T 5 N in N. half;  
 R 9 W S 1 in NW.,  
 R 8 W S 6 in NE.,  
 S 7 in SE., and  
 S 12 in SW. quadrant; and raise a mound of stone 2  
 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 Land, mountainous.  
 Soil, rocky; 4th rate.  
 No timber.  
 Undergrowth, greasewood, palo verde and cactus.

February 5, 1911.

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 February 6: At 8h.00m. a.m., 1.m.t., I set off  $33^{\circ}48'N$ .  
 on the lat. arc;  $15^{\circ}47'S$ . on the decl. arc, and deter-  
 mine a meridian with the solar at the corner of secs.  
 1, 6, 7 and 12. Thence I run,

North, bet. secs. 1 and 6.

Over rolling land, through dense brush.

Difference between measurements of 40.00 chs. by two sets  
 of chainmen is 6 lks.; position of middle point

By 1st set, 40.03 chs.

By 2nd set, 39.97 chs., the mean of which is

- 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the  
 ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 1 in  
 W. and S 6 in 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 corner.  
 64.00 Cross wash 30 lks. wide, course W.  
 69.10 Cross old road, bears NW. and SE.

Chains.

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.  
By 2nd set, 79.95 chs., the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of Tps. 5 and 6 N., Rgs. 8 and 9 W., marked on brass cap,  
T 6 N in N.,  
R 8 W in E.,  
T 5 N in S., and  
R 9 W in W. half,  
S 36 in NW.,  
S 31 in NE.,  
S 6 in SE., and  
S 1 in SW. quadrant; and raise a mound of stone 2 ft. base,  $1\frac{1}{2}$  ft. high, S. of corner. Pits impracticable.

Land, rolling.  
Soil, rocky, 4th rate.  
No timber.  
Undergrowth, greasewood and palo verde.

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Second Guide Meridian West, through Township 6 North.  
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North, between secs. 31 and 36.  
Over rolling land, through dense brush.

Difference between measurements of 40.00 chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st set, 40.01 chs.  
By 2nd set, 39.99 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  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 36 in W. and S 31 in 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 corner.

Difference between measurements of 80.00 chs. by two sets of chainmen is 6 lks.; position of middle point

By 1st set, 80.03 chs.  
By 2nd set, 79.97 chs., the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap,  
T 6 N in N. half,  
R 9 W S 25 in NW.,  
R 8 W S 30 in NE.,  
S 31 in SE., and  
S 36 in SW. 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 corner.

Land, rolling and level.  
Soil, sandy loam, mixed with gravel; 1st rate.  
No timber.  
Undergrowth, greasewood and chico.

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North, between secs. 25 and 30.  
Over level land, through dense brush.

Difference between measurements of 40.00 chs. by two sets of chainmen is 4 lks.; position of middle point

By 1st set, 40.02 chs.  
By 2nd set, 39.98 chs., the mean of which is

6. Second Guide Meridian West, through Township 6 North.

Chains

- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 25 in W., and S 30 in 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 corner.
- 42.50 Cross old road, bears NE. and SW.  
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.  
By 2nd set, 79.95 chs., the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor.of secs.19,24,25 and 30, marked on brass cap,  
T 6 N in N.half,  
R 9 W S 24 in NW.,  
R 8 W S 19 in NE.,  
S 30 in SE., and  
S 25 in SW. quadrant; dig pits 18x18x12 ins. in each sec.  $5\frac{1}{2}$  ft. dist., and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high,W.of corner. Pits impracticable.

Land, level.

Soil, rich sandy loam, dry, medium texture, 1st rate, Undergrowth, greasewood and chico.

February 6, 1911.

February 7: At 8h.00m.a.m., .l.m.t., I set off  $33^{\circ}50\frac{1}{2}'N.$  on the lat.arc;  $15^{\circ}29'S.$  on the decl.arc; and determine a meridian with the solar at the corner of secs. 19,24,25 and 30.

Thence I run,

North, between secs.19 and 24.

Over level land, through dense brush.

Difference between measurements of 40.00 chs. by two sets of chainmen is 8 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  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 24 in W. and S.19 in 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 corner.

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

By 1st set, 80.06 chs.

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

- 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for corner of secs.13,18,19 and 24, marked on brass cap,  
T 6 N in N.half;  
R 9 W S 13 in NW.,  
S 8 W S 18 in NE.,  
S 19 in SE., and  
S 24 in SW. 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 corner.

Land, level.

Soil, sandy loam, medium texture, dry, some grass; 1st rate.

No timber.

Undergrowth, greasewood and catclaw.

North, bet. secs.13 and 18.

Over level land, through dense brush.

- 35.78 Cross road, bears NW.and SE.

## Second Guide Meridian West, through Township 6 North. 7.

Chains.

Difference between measurements of 40.00 chs. by two sets of chainmen is 2 lks.; position of middle point,  
 By 1st set, 40.01 chs.  
 By 2nd set, 39.99 chs., the mean of which is

40.00 Set an iron post 3 ft. long, 1 in. indiam., 26 ins. in the ground for  $\frac{1}{4}$  sec.cor., marked on brass cap,  $\frac{1}{4}$  S 13 in W., and S 18 in E. half; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$  ft. dist., and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high, W.of cor.

58.00 Cross road, bears NW. and SE.  
 Difference between measurements of 80.00 chs. by two sets of chainmen is 6 lks.; position of middle point,  
 By 1st set, 80.03 chs.  
 By 2nd set, 79.97 chs., the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor.of secs.7,12,13 and 18, marked on brass cap,  
 T 6 N in N.half,  
 R 9 W S 12 in NW.,  
 R 8 W S 7 in NE.,  
 S 18 in SE., and  
 S 13 in SW. 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 corner.

Land, level.  
 Soil, sandy loam, dry, medium texture; 1st rate.  
 No timber.  
 Undergrowth, greasewood and catclaw.

North, bet. secs. 7 and 12.  
 Over level land, through dense brush.  
 Difference between measurements of 40.00 chs., by two sets of chainmen is 6 lks.; position of middle point  
 By 1st set, 40.03 chs.  
 By 2nd 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  $\frac{1}{4}$  sec.cor., marked on brass cap,  $\frac{1}{4}$  S 12 in W., and S 7 in 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 corner.

Difference between measurements of 80.00 chs. by two sets of chainmen is 8 lks.; position of middle point,  
 By 1st set, 80.04 chs.  
 By 2nd set, 79.96 chs., the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor of secs.1,6,7 and 12, marked on brass cap,  
 T 6 N in N.half,  
 R 9 W S 1 in NW.,  
 R 8 W S 6 in NE.,  
 S 7 in SE., and  
 S 12 in SW. quadrants; 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 corner.

Land level.  
 Soil, sandy loam, medium texture, dry, 1st rate; some grass.  
 No timber.  
 Undergrowth, greasewood, palo verde and cacti.  
 February 7: At this corner I set off  $15^{\circ}27'S$ . on the decl.arc; and observe the sun on the meridian at noon; the resulting latitude is  $33^{\circ}53'N$ .

North, between secs.1 and 6.  
 Over level land, through dense brush.

## 8. Second Guide Meridian West, through Township 6 North.

Chains.

- Difference between measurements of 40.00 chs. by two sets of chainmen is 2 lks.; position of middle point,  
By 1st set, 40.01 chs.  
By 2nd set, 39.99 chs., the mean of which is
- 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 1 in W., and S 6 in 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 corner.
- Difference between measurements of 80.00 chs. by two sets of chainmen is 4 lks.; position of middle point,  
By 1st set, 80.02 chs.,  
By 2nd set, 79.98 chs., the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for corner of Tps. 6 and 7 N., Rgs. 8 and 9 W., marked on brass cap,  
T 7 N in N.,  
R 8 W in E.,  
T 6 N in S., and  
R 9 W in W. half,  
S 36 in NW.,  
S 31 in NE.,  
S 6 in SE., and  
S 1 in SW. quadrant; dig pits 24x24x12 ins. cross-wise on each line N., E. and W. 4 ft. and S. of post, 8 ft. dist., and raise a mound of earth 5 ft. base,  $2\frac{1}{2}$  ft. high, S. of corner.
- Land, level.  
Soil, sandy loam, rich, dry, medium texture, 1st rate.  
No timber.  
Undergrowth, greasewood and catclaw.

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Second Guide Meridian West, through Township 7 N.

- North, between secs. 31 and 36.  
Over level land, through dense brush.
- 16.90 Cross road, bears E. and W.
- Difference between measurements of 40.00 chs. by two sets of chainmen is 4 lks.; position of middle point,  
By 1st set, 40.02 chs.  
By 2nd set, 39.98 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  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 36 in W. and S 31 in 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 corner.
- Difference between measurements of 80.00 chs. by two sets of chainmen is 6 lks.; position of middle point,  
By 1st set, 80.03 chs.  
By 2nd set, 79.97 chs., the mean of which is
- 80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for corner of secs. 25, 30, 31 and 36, marked on brass cap,  
T 7 N in N. half,  
R 9 W S 25 in NW.,  
R 8 W S 30 in NE.,  
S 31 in SE., and  
S 36 in SW. 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 corner.
- Land, level.  
Soil, sandy loam, rich, dry, medium texture, 1st rate.  
Some grass.  
No timber.  
Undergrowth, greasewood, palo verde and cacti.

February 7, 1911.  
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Second Guide Meridian West, through Township 7 North.

Chains.

February 8: At 8h.00m.a.m., l.m.t., I set off 33°55'N. on the latitude arc; 15°10' S. on the decl.arc, and determine a meridian with the solar at the corner of secs.25,30,31 and 36.

Thence I run, North, bet. secs.25 and 30. Over level land, through dense brush.

Difference between measurements of 40.00 chs. by two sets of chainmen is 6 lks.; position of middle point

40.00 By 1st set, 40.03 chs. By 2nd set, 39.97 chs., the mean of which is Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec.cor., marked on brass cap, 1/4 S 25 in W., and S 30 in 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 corner.

Difference between measurements of 80.00 chs. by two sets of chainmen is 8 lks.; position of middle point

80.00 By 1st set, 80.04 chs. By 2nd set, 79.96 chs., the mean of which is Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor.of secs.19,24,25 and 30, marked on brass cap, T 7 N in N.half, R 9 W S 24 in NW., R 8 W S 19 in NE., S 30 in SE., and S 25 in SW. quadrant; 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 corner.

Land,level. Soil, sandy loam, rich,dry, medium texture; 1st rate. Some grass. No timber. Undergrowth, greasewood, cacti.

North, between secs.19 and 24. Over level land, through dense brush.

Difference between measurements of 40.00 chs.by two sets of chainmen is 4 lks.; position of middle point

40.00 By 1st set 40.02 chs. By 2nd set, 39.98 chs., the mean of which is Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec.cor., marked on brass cap, 1/4 S 24 in W., and S 19 in 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 corner.

Difference between measurements of 80.00 chs. by two sets of chainmen is 6 lks.; position of middle point

80.00 By 1st set, 80.03 chs. By 2nd set, 79.97 chs., the mean of which is Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor.of secs 13,18,19 and 24, marked on brass cap, T 7 N in N.half, R 9 W S 13 in NW., R 8 W S 18 in NE., S 19 in SE., and S 24 in SW. quadrant; 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 corner.

Land,level. Soil, sandy loam, rich,dry,medium texture; 1st rate; some grass. No timber. Undergrowth, greasewood, chico and cacti.

## 10. Second Guide Meridian West, through Township 7 North.

Chains.

- North, between secs.13 and 18.  
Over level land, through dense brush.
- 31.20 Cross road, bears NE. and SW.  
Difference between measurements of 40.00 chs. by two sets of chainmen is 6 lks.; position of middle point,  
By 1st set.40.03 chs.  
By 2nd 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  $\frac{1}{4}$  sec.cor., marked on brass cap,  $\frac{1}{4}$  S 13 in W., and S 18 in 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 corner.
- 43.30 Cross Arizona and California Railroad, bears N.75°E., and S.75°W.
- 43.93 Cross under telegraph line.  
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.  
By 2nd set, 79.95 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.7,12,13 and 18, marked on brass cap,  
T 7 N in N.half,  
R 9 W S 12 in NW.,  
R 8 W S 7 in NE.,  
S 18 in SE., and  
S 13 in SW. 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 corner.
- Land,level.  
Soil, sandy loam, rich, dry, medium texture; 1st rate.  
No timber.  
Undergrowth, greasewood and catclaw.  
February 28: At this corner I set off 15° 08'S.on the decl.arc; and observe the sun on the meridian at noon; the resulting lat. is 33°57 $\frac{1}{2}$ 'N.

- North, bet. secs.7 and 12.  
Over level land, through dense brush.  
Difference between measurements of 40.00 chs. by two sets of chainmen is 8 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  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 12 in W. and S 7 in 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.
- Difference between measurements of 80.00 chs. by two sets of chainmen is 12 lks.; position of middle point  
By 1st set, 80.06 chs.  
By 2nd set, 79.94 chs., the mean of which is
- 80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor.of secs.1,6,7 and 12, marked on brass cap,  
T 7 N in N.half,  
R 9 W S 1 in NW.,  
R 8 W S 6 in NE.,  
S 7 in SE., and  
S 12 in SW. 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 corner.
- Land,level.  
Soil, sandy loam, rich, dry, medium texture; 1st rate.  
No timber.  
Undergrowth, greasewood and catclaw.

Chains.

North, bet. secs 1 and 6.

Over level land, through dense brush.

Difference between measurements of 40.00 chs. by two sets of chainmen is 2 lks., position of middle point

By 1st set 40.01 chs.

By 2nd set. 39.99 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  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 1 in W., and S 6 in 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 corner.

Difference between measurements of 80.00 chs. by two sets of chainmen is 4 lks., position of middle point,

By 1st set, 80.02 chs.

By 2nd set. 79.98 chs., the mean of which is

80.00 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of Tps. 7 and 8 N., Rgs. 8 and 9 W., marked on brass cap,

T 8 N in N.,

R 8 W in E.,

T 7 N in S., and

R 9 W in W. half;

S 36 in NW.,

S 31 in NE.,

S 6 in SE., and

S 1 in SW. quadrants; dig pits 24x24x12 ins. on each line, N., E. and W., of post 4 ft. and S. of post 8 ft. dist., and raise a mound of earth 5 ft. base,  $2\frac{1}{2}$  ft. high, S. of corner.

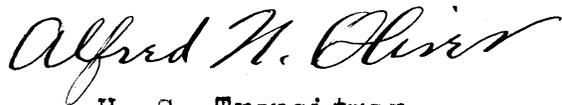
Land, level.

Soil, sandy loam, rich, dry, medium texture; 1st rate.

No timber.

Undergrowth, greasewood and catclaw.

February 8, 1911,



U. S. Transitman.

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General Description.

This line runs over rough mountains, through T. 5 N.; through Tps. 6 and 7 N., the line runs over level land, covered with dense undergrowth. The soil through T. 5 N. is rocky and worthless. Through Tps. 6 and 7 N., the soil is a rich sandy loam, capable with irrigation, of producing abundant crops. There is no timber or water along the line.

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LIST OF NAMES.

BOOK 2256

A list of the names of the individuals employed by Alfred N. Oliver

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 2<sup>nd</sup>

Guide Meridian West through Tps. 5, 6 and 7 N.

showing the respective capacities in which they acted:

R. A. Coombs W. D. Tanner, Chairman.

A. E. Lyon J. H. Bates, Chairman.

R. L. Bates, Moundman.

L. D. Bates, Moundman.

Ed. Brockway, Axman.

L. C. Planagan, Axman.

P. Shimpfessel, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Alfred N. Oliver

Transitman, United States Deputy Surveyor, in surveying all

those parts or portions of the 2<sup>nd</sup> Guide Meridian West through

Tps. 5, 6 and 7 N.

of the Gila and

Salt River 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

R. A. Coombs W. D. Tanner, Chairman.

A. E. Lyon J. H. Bates, Chairman.

R. L. Bates, Moundman.

L. D. Bates, Moundman.

Ed. Brockway, Axman.

L. C. Planagan, Axman.

P. Shimpfessel, Flagman.

Subscribed and sworn to before me this 8<sup>th</sup>

day of February, 19 11

Alfred N. Oliver  
U.S. Transitman



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BOOK 2256

FINAL OATH OF UNITED STATES ~~DEPUTY~~ SURVEYOR.

I, Alfred N. Oliver, United States <sup>Transitman</sup> Deputy Surveyor, do solemnly swear that, in pursuance of <sup>instructions</sup> ~~a contract~~ received from Frank S. Ingalls, United States Surveyor General for Arizona, bearing date of the 25th day of August, 1910, 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 2nd Guide Meridian West through Tps. 5, 6 and 7 N.

of the Gila and Salt River 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.

Alfred N. Oliver  
United States Deputy Surveyor.  
Transitman

Subscribed by said Alfred N. Oliver, and sworn to before me }  
this 2nd day of January, 1912



Frank S. Ingalls  
U.S. Surveyor General

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Frederic Aug. Gray, 1912

The foregoing field notes of the survey of the 2nd Guide Meridian West through Tps 5-6- and 7 North, Grant D. R. Meridian, Arizona.

executed by Alfred N. Oliver, A. P. Transitman under ~~his~~ contract No. 4, 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.

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.