

Book "A"
Exteriors

BOOK 2825

FIELD NOTES

OF THE SURVEY OF THE

East Boundary - - - - - *T. 1 S., R. 9 E.*
East " - - - - - *T. 1 S., R. 15 E.*
South " - - - - - "
West " - - - - - "
North " - - - - - *T. 2 S., R. 8 E.*
East " - - - - - *T. 2 S., R. 15 E.*
East " - - - - - *T. 3 S., R. 15 E.*
Frac. East " - - - - - *T. 4 S., R. 15 E.*
Frac. East Boundary - - - - - *T. 3 N., R. 5 E.*
North Boundary - - - - - "
East " - - - - - *T. 4 N., R. 4 E.*
North " - - - - - *Frac. T. 5 N., R. 15 E.*
East " - - - - - "
West " - - - - - "

Of the *Gila & Salt River Base & Meridian,*

In the State of *Arizona*

EXECUTED BY

Sidney E. Blout,

In the capacity of U. S. Surveyor, under instructions dated *October 24*, 1913,
 issued by the United States Surveyor General to govern surveys included in
 Group No. *31*, which were approved by the Commissioner of the General Land
 Office, *November 1*, 1913, pursuant to authority contained in the Acts of
 Congress dated *June 23, 1913 & Aug. 1, 1914.*

Survey commenced *March 30*, 1914,

Survey completed *Oct. 24*, 1914,

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

See Special Index

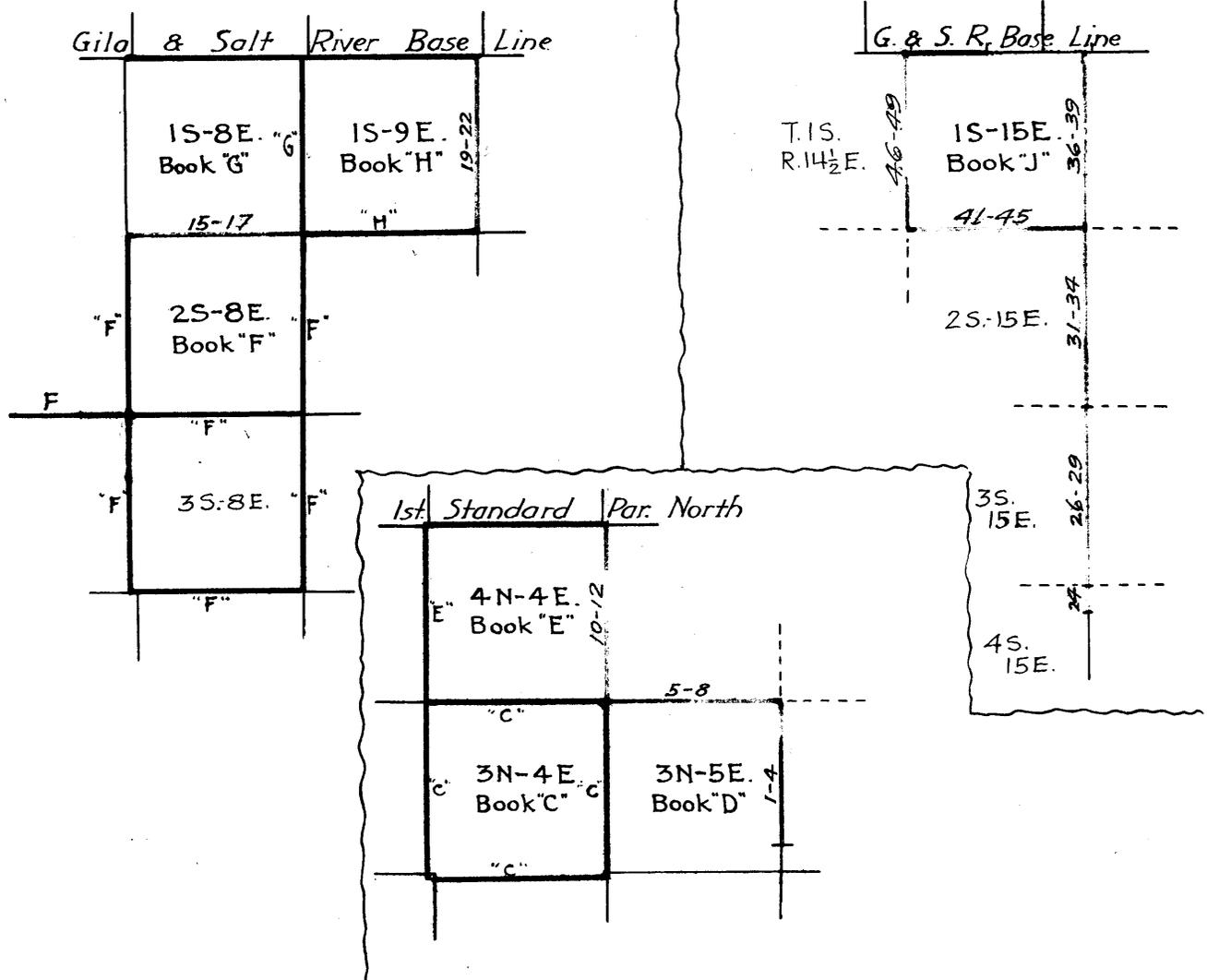
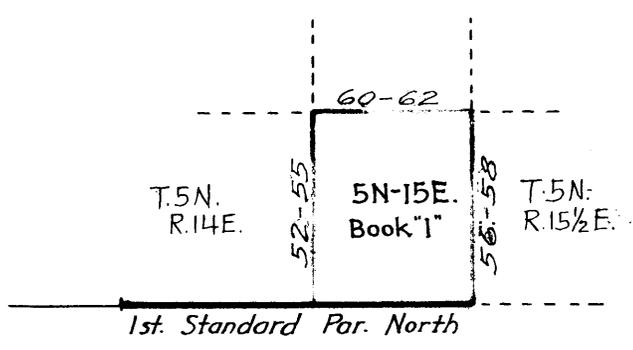
Book "A"

INDEX DIAGRAM

GROUP 31

-  Notes in this book (indexed)
-  " " Book "B"
-  " " Sub. Books
-  Previous Surveys
-  Unsurveyed lines.

BOOK 2825



T3NRSE

13

R6E

BOOK 2825

Corner reported
moved about
14 ft south

24

Esther Baxter
R 10, Box 846
3224 E. Princeton
Phoenix.

Oct 1, 1948

Moved bet. Jan and Sept
1948

1/4
S25°S30
W2

In retrace of the east
leg of sec. 24 for the purpose of
relocating the location of the corner
of sec. 24 and 25, the corner of
13 and 25 was found to be 9
ft. from the "4 sec. corner" minimum
The measured distance from 1/4 sec. 25-30
to the corner of sec. 13, 18, 19 and 20
was 120.09 ch.

7/2

Survey of Tp. Exteriors, Group 31, Arizona.

13

Chains

Survey of Exterior boundaries of Townships under instructions for Group 31, Arizona, commenced March 30, 1914, and executed by Sidney E. Blout, U. S. Surveyor, using a Young and Sons light mountain transit No. 10 with a Smith solar attachment. The horizontal limb being provided with two double verniers, placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

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

At my camp which is located at S. A. Allen's house, near the $\frac{1}{4}$ sec. cor. bet. secs. 21 and 28, T. 3 N., R. 5 E., latitude $33^{\circ} 34' 43''$ N., longitude $111^{\circ} 51' 27''$ W.; I set off $33^{\circ} 34\frac{1}{2}'$ N. on the lat arc, $3^{\circ} 46\frac{1}{2}'$ N. on the decl. arc, and at 4h. 34m. p. m., l. m. t., determine a meridian with the solar, and mark a point thereof by a nail driven in a stake set in the ground about 5.00 chs. N. of my instrument.

At 6h. 54m. p. m., l. m. t., by my watch, which is correct local mean time I observe Polaris at western elongation and mark the direction thus determined by a tally pin driven in a stake set firmly in the ground about 5.00 chs. N. of my instrument.

March 30, 1914.

March 31, 1914; At 7h. a. m., l. m. t., I lay off the azimuth of Polaris $1^{\circ} 22\frac{3}{4}'$ to the east and mark the meridian thus determined by a small nail driven in the stake set last evening on which the meridian falls $0^{\circ} 01'$ east of the mark determined by the solar.

At 7h. 15m. a. m., l. m. t., I set off $33^{\circ} 34\frac{1}{2}'$ N. on the lat. arc, $4^{\circ} 01'$ N. on the decl. arc and determine a meridian with the solar and mark a point thereof, by a nail driven in the stake already set about 5.00 chs. N. of my instrument. This point falls $0^{\circ} 00\frac{1}{2}'$ east of the meridian established by the Polaris observation.

The solar apparatus by p. m., and a. m. observations, defines positions for meridians, respectively about $01'$ west and $00\frac{1}{2}'$ east of the meridian established by the Polaris observation, therefore I conclude that the instrument is in satisfactory adjustment.

The magnetic bearing of the true meridian at 7h. 15m. a. m. is N. $14^{\circ} 37'$ W., which gives the Mag. decl. $14^{\circ} 37'$ E.

Survey of Completion of East bdy. of T. 3 N., R. 5 E.

I begin at the cor. of secs. 25, 30, 31 and 36 on the east boundary of Tp., which is an iron post 3 ins. in diam. 8 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General, latitude $33^{\circ} 33' 52''$ N., longitude $111^{\circ} 47' 45''$ W. All measurements being made with a 5.00 chain steel tape with clinometer to determine the slope angles.

At 9h. 34m. a. m., l. m. t., I set off $33^{\circ} 34'$ N. on the lat arc, $4^{\circ} 02'$ N. on the decl. arc, and determine a meridian with the solar at the above cor.

Thence I run,

2. Survey of Completion of East Bdy. of T. 3 N., R. 5 E.

Chains.	
	North bet. secs. 25 and 30. Over rolling, gravelly and stony land, slopes to the south, through palo verde, mesquite and ironwood timber and greasewood and cactus undergrowth 3 to 5 ft. high.
24.60	Dry ravine 15 lks. wide, 6 ft. deep, course SW.
35.00	Road from Camp Mc. Dowell to Phoenix, Arizona, bears NE. and SW.
35.60	Foot of malpais butte bears E. and W., ascend SE. slope covered with loose boulders.
38.50	Top of butte, descend NE. slope.
39.60	Dry sand wash 40 lks. wide, course SE., ascend gradual SW. slope.
40.00	The point for the $\frac{1}{4}$ sec. cor. falls in the edge of wash, therefore, at
41.00	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for witness cor. to the $\frac{1}{4}$ sec. cor., marked on brass cap, WC. $\frac{1}{4}$ S. of center; 1914 in S. half; S 25 in NW. and S 30 in NE. quadrant. No trees suitable for bearing trees within limits; raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
41.10	Road from Camp McDowell to Phoenix, Arizona, bears NW. and SE.
57.80	Same dry sand wash 40 lks. wide, 15 ft. deep, course SW.
58.60	Same road, Camp McDowell to Phoenix, Arizona, bears NE. and SW.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, marked on brass cap, T 3 N., in N. and 1914 in S. half; R 5 E., S. 24 in NW., R 6 E., S. 19 in NE., S. 30 in SE., and S. 25 in SW. quadrant. No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable. Land, rolling and hilly, slopes to the south. Soil, poor, stony clay loam 8 ins. deep, on dry stony clay subsoil. No grass. Timber scattering palo verde, mesquite and ironwood.
	North, bet. secs. 19 and 24. Ascend SE. slope over stony, hilly land, through scattering palo verde, mesquite and ironwood timber and greasewood and cactus undergrowth 4 ft. high.
17.25	Wood road bears NE. and SW.
34.60	Dry sand wash, 50 lks. wide, 20 ft. deep, course SW. asc.
39.50	Old wood road, bears NE. and SW.
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., S 19 in E., and 1914 in S. half. No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of Cor. Pits impracticable. Note: At this cor. at apparent noon I set off 4° 04' N. on the decl. arc, and observe the sun on the meridian, the resulting latitude is 33° 35' N.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap, T 3 N. in N., and 1914 in S. half;

Survey of the Completion of East boundary of T. 3 N., R. 5 E. 3

Chains.

R 5 E., S 13 in NW.,
R 6 E., S 18 in NE.,
S 19 in SE., and
S 24 in SW. quadrant.

No trees within limits. Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable. Land, broken and hilly, slopes to the SW. Soil, poor, stony clay loam 4 to 10 ins. deep on hard stony clay subsoil. No grass. Timber, scattering palo verde, mesquite and ironwood.

North, bet. secs. 13 and 18.

Over hilly, stony land, slopes to the SW. through scattering palo verde, mesquite and ironwood timber and greasewood brush undergrowth 4 ft. high.

- 2.20 Dry sand wash 70 lks. wide, 15 ft. deep, course SE.
- 14.00 The same sand wash 200 lks. wide, 30 ft. deep, course SW. begin ascent over S. slope of spur of the McDowell Mountains.
- 40.00 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 13 in W.,
S 18 in E., and
1914 in S. half.
- No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable.
- 49.80 Same dry sand wash 150 lks. wide, 40 ft. deep, course SE. ascend steep SW. slope.
- 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 3 N. in N., and
1914 in S. half;
R 5 E. S 12 in NW.,
R 6 E. S 7 in NE.,
S 18 in SE., and
S 13 in SW. quadrant.

No trees within limits. Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable. S. 50 chs. broken and hilly, ridges steep, covered with loose stone. Soil, poor, stony clay loam 6 ins. deep on dry, stony subsoil, light growth of bunch grass. N. 30 chs. mountainous spurs, steep, rocky soil, worthless. Timber, palo verde, mesquite and ironwood.

March 31, 1914.

April 3, 1914: At 9h. 33m. a. m., 1. m. t., I set off 33° 36 1/2' N. on the lat. arc, 5° 11' N. on the decl. arc. and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18,

Thence I run,
North, bet. secs. 7 and 12.

Descend NW. slope of spur over stony mountainous land, through scattering palo verde timber and greasewood brush undergrowth 3 ft. high.

- .90 Dry ravine 20 ft. below sec. cor. 30 lks. wide, course SW.
- Ascend abruptly over rock ledges.
- 22.60 Summit of the McDowell range of mountains, elevation 3600 ft., bears E. and W.
- Descend abruptly 250 ft. to

4. Survey of the completion of East boundary of T.3 N., R.5 E.

Chains.

- 28.00 Dry ravine 20 lks. wide, course S. 80° E., ascend abruptly 100 ft. to
- 34.50 Top of spur, bears E. and W. desc. 150 ft. to
- 38.70 Dry ravine 15 lks. wide, course east. ascend.
- 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.,
 S 7 in E., and
 1914 in S. half.
- No trees suitable for bearing trees within limits.
 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 45.30 Top of spur bears E. and W., descend abruptly 200 ft. to
- 53.20 Dry ravine 10 lks. wide, in canyon, course east, ascend.
- 60.00 Dry ravine 20 lks. wide, 15 ft. deep, course SE.
- 75.20 Dry ravine 20 lks. wide, 20 ft. deep, course SE. asc.
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, marked on brass cap,

T 3 N., in N. and
 1914 in S. half;
 R 5 E. S 1 in NW.,
 R 6 E. S. 6 in NE.,
 S 7 in SE., and
 S 12 in SW. quadrant.

No trees within limits;

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

Land, mountainous, spurs steep, washed on slopes, rocky.
 Soil, worthless stony loam 2 to 14 ins. deep on clay and stone subsoil. Good growth of bunch grass.
 Timber, scattering palo verde.

North, bet. secs. 1 and 6.

Ascend S. slope of spur over stony mountainous land, through scattering palo verde timber and greasewood brush, undergrowth 3 ft. high. Asc. 200 ft. to

- 10.55 Summit of spur, bears NW. and SE. descend steep N. slope 100 ft. to

- 18.00 Dry ravine 10 lks. wide in canyon, course east. Ascend steep rocky SE. slope.

- 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 6 in W.,
 S 1 in E., and
 1914 in S. half.

No trees within limits.

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

- 58.20 Top of spur 200 ft. above ravine, bears NE. and SW. desc. 200 ft. to

- 73.35 Dry ravine 15 lks. wide, course NE., thence ascend SE. Slope

- 80.00 Set temp. cor. of Tps. 3 and 4 N., Rs. 5 and 6 E.

Land, rough mountainous.

Soil, worthless, stony clay loam 2 to 14 ins. deep, on dry stony clay subsoil. Good growth of bunch grass on north slopes of spurs. Timber palo verde.

Note: At this point I set off 5° 13 $\frac{1}{2}$ ' N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting latitude is 33° 38 $\frac{1}{2}$ ' N.

April 3, 1914.

North Boundary of Township 3 N., Range 5 East.

5.

Chains

April 4, 1914.
 At the cor. of Tps. 3 and 4 N., Rs. 4 and 5. E., latitude 33° 38' 12" N., longitude 111° 54' 04" W., reestablished by me as described in Book "C," at 8h. 03m. a. m. 1. m. t., I set off 33° 38' N. on the lat. arc, 5° 33' N. on the decl. arc, and determine a meridian with the solar. Thence I run, East, on a random line, along the north boundary of T. 3 N. R. 5 E., and at 5 miles 76.24 chs. intersect the east boundary of the township 200 lks. south of the temp. cor. of Tps. 3 and 4 N., Rs. 5 and 6 E., set by me yesterday as hereinbefore described.
 At the point of intersection, set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of Tps. 3 and 4 N., Rs. 5 and 6 E., marked on brass cap,
 T 4 N. in N.,
 R. 6 E. in E.,
 T 3 N. 1914 in S. and
 R 5 E. in W. half;
 S 36 in NW.,
 S 31 in NE.,
 S 6 in SE., and
 S 1 in SW. quadrant.
 No trees within limits.
 Raise a mound of stone 2 ft. base, 1½ ft. high. S. of Cor. Pits impracticable.

April 4, 1914.

April 6, 1914.
 At 1h. 32½m. p. m., 1. m. t., I set off 33° 38' N. on the lat. arc, 6° 23½' N. on the decl. arc, and determine a meridian with the solar at this cor.
 Thence I run, West on a true line bet. secs. 1 and 36. Ascend NE. slope of rocky spur over mountainous land, through scattering palo verde timber, and greasewood brush undergrowth 3 ft. high. Ascend 15 ft. to
 3.10 Top of spur, bears NE. and SW. desc.
 11.50 Dry ravine, 20 lks. wide, course NE. asc. 100 ft. to
 17.20 Top of spur bears NE. and SW. descend 100 ft. to
 23.10 Dry ravine 15 lks. wide, course NE. Ascend 200 ft. to
 38.50 Top of spur bears NE. and SW. desc. NW. slope 50 ft. to ravine.
 40.00 Set an iron post, 3 ft. long, 1 ins. in diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap,
 ¼ S 36 in N., and
 S 1, 1914 in S. half.
 No trees large enough for bearing trees within limits. Raise a mound of stone 2 ft. base, 1½ ft. high N. of cor. Pits impracticable.
 43.25 Dry ravine 10 lks. wide, course NE. asc. abruptly.
 50.25 Top of spur, bears NE., thence along steep N. slope of mountain.
 65.95 Summit of the McDowell mountain range bears N. 50° W., and S. 50° E. descend steep SW. slope.
 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, marked on brass cap,
 T 4 N. in N.,
 T 3 N., 1914 in S., and
 R 5 E. in W. half;
 S 35 in NW.,
 S 36 in NE.,
 S 1 in SE., and
 S 2 in SW. quadrant.
 No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
 Land, rough mountains.
 Soil, worthless, stony clay loam, 2 to 6 ins. deep, on dry clay and stone subsoil. Good growth of bunch grass

6. North Boundary of Township 3 N., Range 5 East.

Chains.

on N. slopes of spurs.
Timber, palo verde.

-
- West, on a true line bet. secs. 2 and 35.
Descend abruptly over SW. slope, over mountainous land,
through scattering palo verde timber and greasewood,
and cactus undergrowth. Descend 75 ft. to
- 3.00 Dry ravine, course SW. ascend abruptly 200 ft. to
15.00 Top of rocky spur bears N. and S. desc. abruptly 150 ft.
to
25.00 Dry ravine, 10 lks. wide, in canyon, course south.
Ascend abruptly.
39.60 Top of rocky ridge in saddle, 20 chs. S. of high mountain.
peak, bears NE. and SW. desc.
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 35 in N., and
S 2, 1914 in S. half.
No trees large enough for bearing trees within limits.
Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of
cor. Pits impracticable.
51.50 Dry ravine 25 lks. wide, 15 ft. deep, course S. 70° W.
65.50 Dry ravine 20 lks. wide, 15 ft. deep, course S. 30° W.
asc. SE. slope.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of secs. 2, 3, 34, and 35, marked
on brass cap,

T 4 N. in N.,
T 3 N. 1914 in S., and
R 5 E. in W. half;
S 34 in NW.,
S 35 in NE.,
S 2 in SE., and
S 3 in SW. quadrant.

No trees within limits.

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

Land, rough mountains, spurs covered with loose stone.
Soil, light, worthless clay loam 2 to 8 ins. deep on stony
dry clay subsoil.

Light growth of bunch grass.

Timber scattering palo verde.

April 6, 1914.

April 7, 1914.

At 8h. 22m. a. m., 1. m. t., I set off 33° 38' N. on the
lat. arc, 6° 41 $\frac{1}{2}$ ' N. on the decl. arc, and determine
a meridian with the solar at the cor. of secs. 2, 3,
34 and 35.

Thence I run,

West on a true line bet. secs. 3 and 34.

On SE. slope of spur over mountainous land, through scat-
tering greasewood and ocotillo brush undergrowth.

- 2.20 Dry ravine 10 lks. wide, 4 ft. deep, course south. asc.
200 ft. to
13.60 Top of rocky spur, bears NE. and SW. desc. 250 ft. to
33.15 Dry ravine 20 lks. wide, course SW. asc.
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 34 in N., and
S 3, 1914 in S. half.
No trees suitable for bearing trees available.
Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of
cor. Pits impracticable.

North Boundary of Township 3 N., Range 5 East. 7.

Chains.

- 40.30 Top of rocky spur, 10 ft. above $\frac{1}{4}$ sec. cor. bears NE. and SW. Descend steeply.
- 74.55 Dry ravine 25 lks. wide, course SW. Leave mountainous land, bears NE. and SW. enter rolling stony valley land.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, marked on brass cap,

T 4 N. in N.,
 T 3 N. 1914 in S., and
 R 5 E. in W. half;
 S 33 in NW.,
 S 34 in NE.,
 S 3 in SE., and
 S 4 in SW. quadrant.

No trees within limits.
 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

E. 75 chs. mountainous,
 Soil, worthless, stony, clay loam, 2 to 8 ins. deep, on stone and clay subsoil. W. 5 chs. rolling valley, soil, stony, dry, clay loam 6 ins. deep, on stony, clay subsoil. Very light growth bunch grass.
 Timber, palo verde.

West on a true line bet. secs. 4 and 33.
 Over rolling, stony, valley land, slopes to the SW., through mesquite, palo verde and ironwood timber and greasewood brush undergrowth 4 to 6 ft. high.

- 12.95 Old wood road, bears N. and S.
- 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 33 in N., and
 S 4, 1914 in S. half; from which
 An ironwood 14 ins. in diam. bears N. $49\frac{1}{2}^{\circ}$ W. 41 lks. dist., marked $\frac{1}{4}$ S 33 BT., and
 A palo verde 6 ins. in diam. bears S. 40° E., 74 lks. dist., marked $\frac{1}{4}$ S 4 BT.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, marked on brass cap,

T 4 N., in N.,
 T 3 N., 1914 in S., and
 R 5 E. in W. half;
 S 32 in NW.,
 S 33 in NE.,
 S 4 in SE., and
 S 5 in SW. quadrant; from which

An ironwood 8 ins. in diam., bears N. 58° E. 240 lks. dist., marked T 4 N., R 5 E S 33 BT

A palo verde 14 ins. in diam., bears S. 78° W. 148 lks. dist., marked T 3 N., R 5 E S 5 BT.

No other trees suitable for bearing trees within limits
 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

Land, rolling, stony valley, slopes to the SW.,
 Soil, poor, stony, clay loam 8 ins. deep on dry, stony, clay and gravel subsoil. Light growth of bunch grass.
 Timber, scattering mesquite, palo verde and ironwood.

Note: At this cor, I set off $6^{\circ} 44\frac{1}{2}'$ N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting latitude being $33^{\circ} 38'$ N.

8. North Boundary of Township 3 North, Range 5 East.

Chains	
	West on a true line bet. secs. 5 and 32. Over rolling stony and gravelly valley land, slopes to the west, through scattering mesquite, palo verde and ironwood timber, and greasewood brush undergrowth 4 to 6 ft. high.
5.55	Dry ravine 20 lks. wide, 3 ft. deep, course SW.
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 32 in N. and S 5 1914 in S. half; from which An ironwood 12 ins. in diam., bears N. $54\frac{1}{2}^{\circ}$ W. 214 lks. dist., marked $\frac{1}{4}$ S 32 BT., and A palo verde 5 ins. in diam. bears S. $32\frac{1}{2}^{\circ}$ E. 66 lks. dist., marked $\frac{1}{4}$ S 5 BT.
45.60	Old wood road bears NE. and SW.
59.65	Dry ravine 20 lks. wide, 6 ft. deep, course SW.
70.50	Dry sand wash 40 lks. wide, 6 ft. deep, course south.
75.30	Old wood road bears NE. and south.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, marked on brass cap, T 4 N. in N., T 3 N. 1914 in S., and R 5 E. in W. half; S 31 in NW., S 32 in NE., S 5 in SE., and S 6 in SW. quadrant., from which A palo verde 8 ins. in diam. bears S. 80° W., 133 lks. dist., marked T 3 N., R 5 E. S 6 BT. No other trees within limits; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable. Land, rolling, sandy and stony valley, slopes to the west. Soil, medium rich, dry, sandy and gravelly clay loam, about 12 ins. deep on dry clay and gravel subsoil. Light growth bunch grass. Timber, scattering palo verde, mesquite and ironwood.
	West on a true line bet. secs. 6 and 31. Over nearly level, sandy, valley land, slopes to the west. Through scattering palo verde, mesquite and ironwood timber and greasewood brush and cactus undergrowth 4 to 6 ft. high.
6.70	Old wood road bears N. and S.
22.80	Dry sand wash 25 lks. wide, 3 ft. deep, course south.
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 31 in N., and S 6, 1914 in S. half. No trees suitable for bearing trees within limits. Dig pits 18 x 18 x 12 ins. E. and W. 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.
48.83	Dry sand wash 15 lks. wide, 2 ft. deep, course SW.
53.08	Dry ravine 10 lks. wide, 3 ft. deep, course south.
67.63	Dry ravine 12 lks. wide, 2 ft. deep, course SW.
76.24	Intersect the reestablished cor. of Tps. 3 and 4 N., Rs. 4 and 5 E., described in Book "C". Land, rolling, sandy, valley land, slopes to the west and southwest. Soil, medium rich, coarse, dry, sandy clay loam, about 14 ins. deep on dry gravelly, clay subsoil. Light growth bunch grass. Timber, scattering palo verde, mesquite and ironwood. April 7, 1914.

BOOK 2825

North Boundary of Township 3 North, Range 5 East... 9.

Boundaries of T. 3 N., R. 5 E.,
Latitudes, departures, and closing errors.

Line Designated	True bearing	Distance	Latitudes.		Departures.	
			N.	S.	E.	W.
South Boundary	West	480.28	Chs.	Chs.	Chs.	Chs.
	N.0°14'E.	36.76	36.76		.15	480.28
	N.0°12'E.	40.14	40.14		.14	
West Boundary	N.0°16'E.	240.00	240.00		1.12	
	N.0°29'E.	120.12	120.12		1.01	
	N.1°19'E.	40.00	39.99		.91	
North Boundary	East.	476.24			476.24	
East Boundary	South	478.00		478.00		
Convergency					.48	
Totals.			477.01	478.00	480.05	480.28
				477.01		480.05
Error in lat.				0.99		
						0.23

GENERAL DESCRIPTION.

This township is mountainous in the northern and north-eastern part, rolling in the south central, and nearly level in the south and west, with some prairie land near the southwest corner. The township is poorly watered and covered with a scattering growth of scrub, palo verde, mesquite and ironwood timber. The soil of the level and rolling portions of the township is a rich, dry, sandy clay and gravelly loam capable of producing good crops with the aid of irrigation. This portion of the township should be subdivided.

10. Survey of the East Boundary of Township 4 N., R. 4 E.

Chains.

Survey commenced April 21, 1914, and executed with a Young and Sons light mountain transit No. 10, hereinbefore described. For the last complete test of instrument see the field notes of the retracement and re-survey of the west boundary of this township in Book "E". The south and west boundaries of this township being found defective in alinement and subdivision lines tied to them in the townships on the south and west, preventing a change in said alinement, the north boundary being a Standard Parallel, I survey the east boundary setting corners, referring to sections in T. 4 N., R. 4 E., only adding the southing of the S. boundary of the Tp. (3.16 chs.) to the $S\frac{1}{2}$ of E. boundary of sec. 36, as follows:

At 7h. 29m. a. m., l. m. t., I set off $33^{\circ} 38'$ N. on the lat. arc, $11^{\circ} 43\frac{1}{2}'$ N. on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 3 and 4 N., Rs. 4 and 5 E., reestablished by me as described in Book "C".

Thence I run,

North on east boundary of sec. 36.

Over rolling valley land, slopes to the southwest, through scattering palo verde, mesquite and ironwood timber and greasewood brush undergrowth 4 to 6 ft. high.

.70 Dry sand wash 70 lks. wide, $2\frac{1}{2}$ ft. deep, course S. 20° W.
43.10 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
1914 in S. half;

No trees within limits; dig pits 18 x 18 x 12 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.

83.10 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 25 and 36, marked on brass cap,

T 4 N. in N.,

S 30, S 31, R 5 E. in E., and

1914 in S. half;

S 25 in NW. and

S 36, R 4 E. in SW. quadrant, from which

A palo verde 8 ins. in diam. bears S. $55\frac{1}{4}^{\circ}$ W.

90 lks. dist., marked T 4 N., R 4 E. S 36 BT

A palo verde 8 ins. in diam. bears N. $30\frac{1}{2}^{\circ}$ W. 154

lks. dist., marked T 4 N., R 4 E. S 25 BT.

dig pits 24 x 24 x 12 ins. NW. & SW. of post, 6 ft. dist. & raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, rolling valley, drains to the southwest.

Soil, medium rich, dry, sandy and gravelly clay loam about 14 ins. deep on dry, gravelly subsoil.

Timber, scattering mesquite, palo verde and ironwood.

North on east boundary of sec. 25.

Over nearly level, sandy and gravelly valley land, slopes to the southwest, through scattering mesquite, palo verde, and ironwood timber and greasewood brush undergrowth 4 ft. high.

5.00 Dry sand wash 10 lks. wide, 2 ft. deep, course SW.
18.50 Dry sand wash 20 lks. wide, 3 ft. deep, course S. 35° W.
39.70 Dry sand wash 25 lks. wide, 3 ft. deep, course S. 40° W
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

1914 in S. half, from which

A palo verde 10 ins. in diam. bears S. $83\frac{1}{2}^{\circ}$ W

52 lks. dist., marked $\frac{1}{4}$ S 25 BT

No other trees within limits; dig pits 18 x 18 x 12 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.

12. Survey of the East Boundary of Township 4 N., R. 4 E.

Chains.

- dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
- 55.15 Dry sand wash 15 lks. wide, $2\frac{1}{2}$ ft. deep, course S. 40° W.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 12 and 13, marked on brass cap,
- T 4 N. in N.,
S 7, S 18, R 5 E. in E., and
1914 in S. half;
S 12 in NW., and
S 13, R 4 E. in SW. quadrant.
- No trees suitable for bearing trees within limits; dig pits 24 x 24 x 12 ins. NW. and SW. of post, 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
- Land, rolling valley, drains to the southwest.
Soil, poor, stony, clay loam, about 12 ins. deep on clay and gravel subsoil. Light growth of bunch grass.
Timber, scattering palo verde, mesquite and ironwood.

- North on east boundary of sec. 12.
Over rolling, sandy and stony land, through scattering palo verde, mesquite and ironwood timber and greasewood brush undergrowth about 5 ft. high.
- 4.20 Dry sand wash, 20 lks. wide, 3 ft. deep, course S. 70° W.
- 38.00 Dry sand wash, 10 lks. wide, 2 ft. deep, course S. 50° W.
- 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
1914 in S. half.
- No trees suitable for bearing trees within limits; dig pits 18 x 18 x 12 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.
- 43.70 Dry sand wash, 10 lks. wide, $2\frac{1}{2}$ ft. deep, course SW.
- 59.85 Dry sand wash, 15 lks. wide, 3 ft. deep, course S. 40° W.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1 and 12, marked on brass cap,
- T 4 N. in N.,
S. 6, S. 7., R 5 E. in E., and
1914 in S. half;
S 1 in NW., and
S 12, R 4 E. in SW. quadrant.
- No trees suitable for bearing trees within limits; dig pits 24 x 24 x 12 ins. NW. and SW. of post, 6 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
- Land, rolling, valley, drains to the southwest.
Soil, poor, dry, gravelly and stony clay loam 12 to 30 ins. deep on dry, stony clay subsoil. Light growth of bunch grass.
Timber, scattering mesquite, ironwood, and palo verde.

- North on the east boundary of sec. 1.
Over rolling stony, valley land, through scattering palo verde, mesquite and ironwood and greasewood brush undergrowth 4 to 6 ft. high.
- 8.95 Dry sand wash, 25 lks. wide, 3 ft. deep, course S. 35° W.
- 21.85 Old wood road bears E. and W.
- 23.80 Dry sand wash, 12 lks. wide, $2\frac{1}{2}$ ft. deep, course S. 30° W.
- 30.00 Dry sand wash, 25 lks. wide, 3 ft. deep, course S. 20° W.
- 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 1 in W., and

Survey of the East Boundary of Township 4 N., R. 4 E. 13.

Chains

1914 in S. half.

No trees within limits suitable for bearing trees; dig pits 18 x 18 x 12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

74.63 Intersect the First Standard Parallel North 248 lks. east of the original standard cor. of Tps. 5 N., Rs. 4 and 5 E., which is a limestone 20 x 4 x 7 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.

At point of intersection, set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for closing cor. of Tps. 4 N., Rs. 4 and 5 E., marked on brass cap,

CC. S. of center;

T 5 N., R 4 E., R 5 E., S 31, S.36 in N. and ...

T 4 N 1914 in S. half;

R 5 E, S 6 in SE., and

R 4 E., S 1 in SW. quadrant; from which

A palo verde 16 ins. in diam., bears S.24½° E. 176 lks. dist., marked T 4 N., R 5 E., S 6 BT.

An ironwood 14 ins. in diam., bears S. 67¼° W. 120 lks. dist., marked T 4 N., R 4 E., S 1 BT.

dig pits 30 x 24 x 12 ins. crosswise on each line E. and W. 4 ft. and S. of post 8 ft. dist. and raise a mound of earth 5 ft. base, 2½ ft. high, S. of cor.

Land, rolling valley drains to the southwest.

Soil, poor, dry, stony and gravelly clay loam on gravelly and stony subsoil. Light growth of bunch grass.

Timber scattering ironwood, mesquite and palo verde.

April 21, 1914.

Boundaries of T. 4 N., R. 4 E.,
Latitudes, Departures and closing errors.

Line Designated	True bearing	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
		Chs.	Chs.	Chs.	Chs.	Chs.
South Boundary	N.89°52'W.	39.89	.09			39.89
	N.89°16'W.	40.14	.51			40.14
	West	40.02				40.02
	N.89°37'W.	366.56	2.45			366.55
West Boundary	N.0° 22'W.	160.16	160.16			1.02
	N.0° 20'W.	40.01	40.01			.23
	N.0° 18'W.	39.70	39.70			.21
	N.0° 20'W.	79.86	79.86			.46
	N.0° 21'W.	39.90	39.90			.24
	N.0° 20'W.	39.95	39.95			.23
	N.0° 13'W.	39.97	39.97			.15
North Boundary (1st. Std. Par. North)	East	4.82			4.82	
	N.89°51'E.	440.88	1.15		440.88	
	N.89°54'E.	40.02	.07		40.02	
	East	2.48			2.48	
East Boundary	South	477.73		477.73		
Convergency					.48	
Totals			477.42	477.73	489.17	489.14
				477.42	489.14	
Error in lat.					0.31	
Error in dep.					0.03	

14. Survey of the East Boundary of Township 4 N., R. 4 E.

Chains.

GENERAL DESCRIPTION.

This township is rolling in the northern and northeastern part and nearly level in the south and west, with some prairie land in the vicinity of the southwest corner. Nearly the entire township is covered with heavy growth of greasewood brush undergrowth and scattering timber; the soil over a large portion of the township is a rich sandy loam capable of producing good crops with the aid of irrigation. The township should be subdivided.

Survey of the North Boundary of Township 2 S., R. 8 E. 15.

Chains

June 3, 1914.

At lh. 58m. p.m., 1. m. t., I set off 33° 17½' N. on the lat. arc, 22° 18' N. on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 1 and 2 S., Rs. 8 and 9 E., reestablished by me as described in Book "F."

Thence I run,

West on a true line bet. secs. 1 and 36.

Over nearly level, sandy, valley land, through greasewood brush undergrowth 3 to 4 ft. high.

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 36 in N. and

S 1, 1914 in S. half; dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor.

50.70 Wood road bears NW. and SE.

80:00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, marked on brass cap,

T 1 S. in N.,

T 2 S, 1914 in S. and

R 8 E. in W. half;

S 35 in NW.,

S 36 in NE.,

S 1 in SE.,

S 2 in SW. quadrant; dig pits 18 x 18 x 12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, rolling, valley, drains to the SW.

Soil, gravelly, clay loam about 12 ins. deep on dry, clay subsoil.

West on a true line bet. secs. 2 and 35.

Over rolling, sandy, valley land, through scattering mesquite timber and greasewood brush undergrowth 4 ft. high.

3.20 Old wood road, bears NW. and SE.

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 35 in N., and

S 2, 1914 in S. half; from which

A mesquite 5 ins. in diam., bears N. 41½° E.

242 lks. dist., marked ¼ S 35 BT. and

An ironwood 14 ins. in diam. bears S. 46½° W.

150 lks. dist., marked ¼ S 2 BT.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34, and 35, marked on brass cap,

T 1 S in N.,

T 2 S., 1914 in S. and

R 8 E in W. half;

S 34 in NW.,

S 35 in NE.,

S 2 in SE., and

S 3 in SW. quadrant;

No trees within limits; dig pits 18 x 18 x 12 ins. in each sec. 5½ ft. dist., and raise a mound of earth and 4 ft. base, 2 ft. high W. of cor.

Land, rolling, valley, almost level, drains to the SW.

Soil, sandy, clay loam, with some gravel, 12 to 16 ins. deep on dry, clay subsoil. Light growth of bunch grass.

Timber, scattering mesquite.

June 3, 1914.

16. Survey of the North Boundary of Township 2 S., R. 8 E.

Chains

June 4, 1914.

At 8h. 28m. a. m., l. m. t., I set off $33^{\circ} 17\frac{1}{2}'$ N. on the lat. arc, $22^{\circ} 24'$ N. on the decl arc, and determine a meridian with the solar at the cor of secs. 2, 3, 34, and 35.

Thence I run,

West on a true line bet. secs. 3 and 34.

Over rolling, sandy and gravelly valley land, through scattering mesquite and ironwood timber and greasewood brush undergrowth.

- 5.00 Road, bears NE. and SW.
 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 34 in N., and
 S 3, 1914 in S. half; from which
 A mesquite 5 ins. in diam. bears N. $65^{\circ} E.320$ lks. dist., marked $\frac{1}{4}$ S 34 BT. and
 A mesquite 8 ins. in diam. bears S. $64\frac{1}{4}^{\circ} E.$ 238 lks. dist., marked $\frac{1}{4}$ S 3 BT.
 45.22 Road from Phoenix to Florence, Arizona, bears NW. and SE.
 63.00 Telephone line from Phoenix to Mesa, Arizona, bears N. $45\frac{1}{2}^{\circ} W.$ and S. $45\frac{1}{2}^{\circ} E.$
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, marked on brass cap,
 T 1 S. in N.,
 T 2 S., 1914 in S., and
 R 8 E. in W. half;
 S 33 in NW.,
 S 34 in NE.,
 S 3 in SE., and
 S 4 in SW. quadrant; from which
 A mesquite 6 ins. in diam. bears N. $58\frac{1}{2}^{\circ} E.10$ lks. dist., marked T 1 S., R 8 E, S 34 BT.
 A mesquite 6 ins. in diam., bears S. $45\frac{3}{4}^{\circ} E.60$ lks. dist., marked T 2 S, R 8 E, S 3 BT.
 A mesquite 6 ins. in diam. bears S. $42^{\circ} W.336$ lks. dist., marked T 2 S, R 8 E, S 4 BT. and
 A mesquite 6 ins. in diam., bears N. $40\frac{1}{2}^{\circ} W.$ 254 lks. dist., marked T 1 S, R 8 E, S 33 BT.
 Land, rolling, sandy valley, drains to the SW.
 Soil, medium, rich, fine, dry, sandy loam, 8 to 14 ins. deep on dry, clay subsoil. Light growth of bunch grass.
 Timber, scattering mesquite and ironwood.

West on a true line bet. secs. 4 and 33.

Over nearly level, sandy, valley land, through scattering mesquite timber, and greasewood brush undergrowth 4 to 6 ft. high.

- 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 33 in N., and
 S 4, 1914 in S. half.
 No trees within limits; dig pits 18 x 18 x 12 ins. E. and W. 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.
 80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 4, 5, 32, and 33, marked on brass cap,
 T 1 S. in N.,
 T 2 S, 1914 in S. and
 R 8 E in W. half;
 S 32 in NW.,
 S 33 in NE.,
 S 4 in SE., and
 S 5 in SW. quadrant.

Survey of the North Boundary of Township 2 S., R. 8 E. 17.

Chains.	<p>No trees within limits; dig pits 18 x 18 x 12 ins. in each sec., 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of Cor. Land, rolling, valley, drains to the SW., Soil, medium rich, dry, sandy, clay loam 8 to 16 ins. deep on dry clay subsoil. Timber scattering mesquite.</p>
40.00	<p>West on a true line bet. secs. 5 and 32. Over rolling, valley land, drains to the SW., through dense greasewood brush undergrowth 4 to 6 ft. high. 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 32 in N., and S 5, 1914 in S. half; dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor. 70.50 Road from the Bowen ranch to Mesa, Arizona, bears NW. and SE. 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, marked on brass cap, T 1 S. in N., T 2 S., 1914, in S., and R 8 E in W. half; S 31 in NW., S 32 in NE., S 5 in SE., and S 6 in SW. quadrant; dig pits 18 x 18 x 12 ins. in each sec., 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high W. of cor. Land, rolling, valley, drains to the west. Soil, medium, rich, fine, dry, sandy loam, 12 ins. deep, on clay subsoil. Light growth of bunch grass. No timber. Note: At this cor. I set off 22° 25' N. on the decl. arc and at apparent noon observe the sun on the meridian and obtain a reading of 33° 17½' N. on the lat. arc.</p>
40.00	<p>West on a true line bet. secs. 6 and 31. Over nearly level, sandy, valley land, through scattering mesquite timber and greasewood brush undergrowth, 4 to 7 ft. high. Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap, ¼ S 31 in N. and S 6, 1914 in S. half; No trees within limits; dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor. 92.11 Intersect E. bdy. of T. 1 S., R. 7 E., 558 lks. N. 0° 29' W. of the reestablished cor. of Tps. 1 and 2 S., Rs. 7 and 8 E., which is an iron post 3 ins. in diam., 12 ins. above ground, firmly set, marked and witnessed as described by the surveyor general. At point of intersection set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for closing cor. of Tps. 1 and 2 S., R. 8 E., marked on brass cap, CC E. of center, R 8 E in E., 1914 in S., and T 1 S, S 36, S 1, T 2 S, R 7 E. in W. half; T 1 S, S 31 in NE., and</p>

18. Survey of the North Boundary of Township 2 S., R. 8 E.

Chains.

T 2 S., S 6 in SE. quadrant.

No trees within limits; dig pits 30 x 24 x 12 ins. crosswise on each line N. and S., 4 ft. and E. of post 8 ft. dist. and raise a mound of earth 5 ft. base, 2½ ft. high, E. of cor.

Note: I change the reestablished cor. of Tps. 1 and 2 S., Rs. 7 and 8 E., from a corner common to four townships to a cor. common to Tps. 1 and 2 S., R. 7 E. only.

Land, rolling, valley, drains to the west.
Soil, dry, sandy, clay loam, 8 to 16 ins. deep on dry, clay subsoil. Light growth of bunch grass.
Timber, scattering mesquite.

June 4, 1914.

Boundaries of T. 2 S., R. 8 E.
Latitudes, departures and closing errors.

Line Designated	True bearing	Distance	Latitudes		Departures.	
			N.	S.	E.	W.
			Chs.	Chs.	Chs.	Chs.
South boundary	S. 89° 50' W.	498.36		1.45		498.36
West boundary	N. 0° 18' W.	435.88	435.88			2.28
	N. 0° 29' W.	45.51	45.51			.38
North boundary	East	492.11			492.11	
East boundary	S. 1° 35' E.	79.60		79.57	2.20	
	S. 1° 28' E.	199.95		199.88	5.12	
	S. 0° 25' E.	200.30		200.30	1.46	
Convergency					0.48	
Totals			481.39	481.20	501.37	501.02
			481.20		501.02	
Error in lat.			0.19			
Error in dep.					0.35	

GENERAL DESCRIPTION.

This township is nearly all level or rolling valley, having a very gradual slope to the west and southwest, is covered with a heavy growth of greasewood brush. The township is poorly watered and sparsely timbered. The soil over nearly the entire township is generally rich, sandy loam, capable of producing good crops of all kinds with the aid of irrigation. The township should be subdivided.

Survey of the East Boundary of Township 1 S., R. 9 E. 19.

Chains.

Survey commenced July 23, 1914, and executed with a Young and Sons light mountain transit No. 10, hereinbefore described.

I examine the adjustments of the transit and find them to be correct, and from recent tests of the solar apparatus by comparing its indications, resulting from solar observations, made during a. m., and p. m. hours, with a meridian established by observations on Polaris, I know that the instrument is in satisfactory adjustment.

I begin at the cor. of Tps. 1 and 2 S., Rs. 9 and 10 E. latitude 33° 17' 20" N., longitude 111° 22' 45" W., re-established as described in Book "H"

All measurements were made with a 5.00 chain steel tape with clinometer for determining the slope angles.

At 8h. 36m. a. m., l. m. t., I set off 33° 17½' N. on the lat. arc, 20° 11' N. on the decl. arc, and determine a meridian with the solar at the above Tp. cor.

The magnetic bearing of the meridian thus determined at 8h. 4 m. a. m., is N. 13° 54' W; the angle thus determined gives the mag. decl. 13° 54' E.

Thence I run,
 North bet. secs. 31 and 36.
 Over rolling stony land, through scattering, mesquite and palo verde timber and greasewood brush undergrowth 3 to 5 ft. high.

21.20 Dry ravine 75 lks. wide, 4 ft. deep, course S. 70° W.
 34.80 Road from Mesa to Superior bears N. 80° E. and S. 80° W.
 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 36 in W.,
 S 31 in E., and
 1914 in S. half;

No trees suitable for bearing trees within limits; dig pits 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap,
 T 1 S. in N., and
 1914 in S. half;
 R 9 E, S 25 in NW.,
 R 10 E, S 30 in NE.,
 S 31 in SE., and
 S 36 in SW. quadrant; from which
 A palo verde 5 ins. in diam. bears N. 55½° E. 190 lks. dist., marked T 1 S., R 10 E. S30BT.
 A mesquite 4 ins. in diam. bears S. 18½° E. 172 lks. dist., marked T 1 S., R 10 E., S 31 BT.
 A palo verde 6 ins. in diam. bears S. 29½° W. 140 lks. dist., marked T 1 S., R 9 E., S 36 BT. and
 A palo verde 5 ins. in diam. bears N. 71½° W. 168 lks. dist., marked T 1 S., R 9 E., S 25 BT.

Land, rolling, drains to the SW.,
 Soil, poor, stony, clay loam 6 to 12 ins. deep on dry stony, clay subsoil.
 Timber, scattering mesquite and palo verde.

North, bet. secs. 25 and 30.
 Over rolling, stony land, through scattering mesquite and palo verde timber and greasewood brush undergrowth 3 ft. high.

19.00 Dry ravine 15 lks. wide, 2 ft. deep, course S. 30° W.
 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.,
 S 30 in E., and
 1914 in S. half.

20. Survey of the East Boundary of Township 1 S., R. 9 E.

Chains

No trees within limits. Pits impracticable. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.

73.30 Dry ravine 15 lks. wide, 4 ft. deep, course S. 60° W.

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

T 1 S in N., and
1914 in S. half;
R 9 E., S 24 in NW.,
R 10 E., S 19 in NE.,
S 30 in SE., and
S 25 in SW. quadrant; from which

A mesquite 6 ins. in diam. bears N. $33\frac{3}{4}^\circ$ E. 48 lks. dist., marked T 1 S., R 10 E., S 19 BT.

A mesquite 4 ins. in diam., bears S. 48° E. 180 lks. dist., marked T 1 S., R 10 E., S 30 BT.

A mesquite 4 ins. in diam. bears S. $34^\circ 45'$ W. 72 lks. dist., marked T 1 S., R 9 E., S 25 BT and

A palo verde 6 ins. in diam. bears N. $63\frac{3}{4}^\circ$ W. 130 lks. dist., marked T 1 S., R 9 E., S 24 BT.

Land, rolling and hilly, drains to the SW.
Soil, poor, dry, stony, clay loam about 8 ins. deep on dry stony, clay subsoil. Light growth bunch grass.
Timber, scattering mesquite and palo verde.

North, bet. secs. 19 and 24.
Over rolling, sandy land, through mesquite and palo verde timber and greasewood brush 3 ft. high

18.20 Foot of malapais butte, leave rolling land, bears NW. and SE. ascend SE. slope over mountainous land, covered with malapais boulders.

19.80 Top of spur 50 ft. high, descend steep NE. slope.

24.50 Foot of steep descent, leave mountainous land bears N. 40° W. and S. 40° E., enter hilly land.

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.,
S 19 in E., and
1914 in S. half.

No trees suitable for bearing trees within limits.
Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

Note: At this cor. I set off $20^\circ 09'$ N. on the decl. arc, and at apparent noon observe the sun on the meridian, the resulting lat. being $33^\circ 20'$ N.

45.65 Dry ravine 15 lks. wide, 3 ft. deep, course S. 40° W.

72.90 Dry ravine 15 lks. wide, 4 ft. deep, course S. 60° W.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap,

T 1 S. in N., and
1914 in S. half;
R 9 E., S 13 in NW.,
R 10 E., S 18 in NE.,
S 19 in SE., and
S 24 in SW. quadrant; from which

A palo verde 6 ins. in diam. bears N. $18\frac{3}{4}^\circ$ E. 250 lks. dist., marked T 1 S., R 10 E., S 18 BT.

A palo verde 6 ins. in diam., bears S. $21\frac{1}{4}^\circ$ E. 105 lks. dist., marked T 1 S., R 10 E., S 19 BT.

A palo verde 8 ins. in diam. bears S. 32° W. 310 lks. dist., marked T 1 S., R 9 E., S 24 BT. and

A palo verde 8 ins. in diam., bears N. $25\frac{1}{4}^\circ$ W. 242 lks. dist., marked T 1 S., R 9 E., S 13 BT.

Land, rolling, hilly and mountainous.

Chains

Soil, poor, stony clay loam, 4 to 10 ins. deep on dry, clay and stone subsoil. Very little bunch grass. Timber, scattering mesquite and palo verde.

North bet. secs. 13 and 18. Over hilly, stony land, drains to the SW., through scattering palo verde timber, and greasewood brush undergrowth 3 to 5 ft. high.

- 7.80 Dry ravine 10 lks. wide, 3 ft. deep, course west.
- 19.80 Dry ravine 25 lks. wide, 6 ft. deep, course S. 45° W.
- 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., S 18 in E., and 1914 in S. half. Pits impracticable. No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor.

- 50.40 Dry ravine 10 lks. wide, 3 ft. deep, course S. 20° W.
 - 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 1 S, in N., and 1914 in S. half; R 9 E, S 12 in NW., R 10 E, S 7 in NE., S 18 in SE., and S 13 in SW. quadrant; from which A palo verde 6 ins. in diam. bears N. 42° E. 46 lks. dist., marked T 1 S, R 10 E, S 7 BT. A palo verde 5 ins. in diam. bears S. 28 $\frac{1}{2}$ ° E. 64 lks. dist., marked T 1 S., R 10 E., S 18 BT. A palo verde 4 ins. in diam. bears S. 68 $\frac{1}{2}$ ° W. 147 lks. dist., marked T 1 S, R 9 E, S 13 BT. and A palo verde 5 ins. in diam. bears N. 62 $\frac{1}{2}$ ° W. 79 lks. dist., marked T 1 S, R 9 E, S 12 BT.
- Land, low, rolling hills, drains to the SW., soil, poor dry, stony clay loam, on dry clay and shale subsoil. Very little grass. Timber, scattering palo verde and mesquite. July 23, 1914.

July 29, 1914. At lh. 36m., p. m., 1. m. t., I set off 33° 21' N. on the lat. arc. 18° 49' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence I run, North bet. secs. 7 and 12. Over stony, hilly, land, slopes to the SW. through scattering mesquite and palo verde timber and greasewood brush undergrowth 4 ft. high.

- 4.00 Dry ravine 10 lks. wide, 4 ft. deep, course S. 40° W.
- 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., S 7 in E., and 1914 in S. half; from which An ironwood 5 ins. in diam. bears N. 52° E. 88 lks. dist., marked $\frac{1}{4}$ S 7 BT., and An ironwood 4 ins. in diam. bears N. 40 $\frac{1}{2}$ ° W. 90 lks. dist., marked $\frac{1}{4}$ S 12 BT.
- 69.00 Old Indian ruins bears west 100 lks. dist.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, marked on brass cap,

22. Survey of the East Boundary of Township 1 S., R. 9 E.

Chains

T 1 S in N., and
 1914 in S. half;
 R 9 E, S 1, in NW.,
 R 10 E, S 6 in NE.,
 S 7 in SE. and
 S 12 in SW. quadrant; from which
 A palo verde 9 ins. in diam. bears N. 32°E. 203
 lks. dist., marked T 1 S., R 10 E., S 6 BT.
 A palo verde 5 ins. in diam., bears S. 45°E. 125
 lks. dist., marked T 1 S, R 10 E, S 7 BT.
 A palo verde 8 ins. in diam., bears S. 59°W. 212
 lks. dist., marked T 1 S., R 9 E, S 12 BT. and
 A mesquite 4 ins. in diam. bears N. 60°W. 156
 lks. dist., marked T 1 S., R 9 E, S 1 BT.

Land, hilly, drains to the SW.
 Soil, poor, dry, stony clay loam 6 ins. deep on clay and
 limestone subsoil. Light growth bunch grass.
 Timber scattering mesquite, palo verde and ironwood.

North bet. secs. 1 and 6.

Descend NW. Slope, over hilly, stony, land, through scat-
 tering palo verde, mesquite and ironwood timber and
 greasewood brush undergrowth 4 ft. high.

5.80 Foot of descent, leave hilly land, bears NE. and SW. enter
 level, sandy bottom land, and heavy mesquite timber.

9.70 Center of dry bed of creek 50 lks. wide, course S. 30° W.

18.80 Same creek 50 lks. wide, course S. 40° E.

32.00 Leave bottom land, bears NW. and SE., ascend SW. slope,
 over hilly land.

37.60 Trail bears N. 30° E. and S. 30° W. on top of bench land.
 E. side of creek.

39.60 Leave bench land, bears NE. and SW. enter bottom land.

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.,
 S 6 in E., and
 1914 in S. half.

No trees suitable for bearing trees within limits.
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of
 cor. Pits impracticable.

42.00 Road from Mesa, Arizona to the Creswell ranch bears N.
 40° E. and S. 40° W.

43.90 Enter dry creek bed, course S. 20° W., thence over loose
 gravel and stone

46.00 Leave creek bed, ascend SE. slope over stony hilly land.

65.40 Dry ravine 10 lks. wide, 15 ft. deep, course S. 10° W.
 ascend.

72.38 Intersect the Gila and Salt River Base line 86 lks. 61
 west of the standard cor. of Tps. 1N.E., Rs. 9 and 10 E.
 reestablished by me as described in Book "B". At point
 of intersection, set an iron post 3 ft. long, 3 ins. in
 diam. 24 ins. in the ground for closing cor. of Tps.
 1 S., Rs. 9 and 10 E., marked on brass cap,
 CC. S. of Center
 T. 1 N, R 9 E, S 36, R 10 E. S 31 in N. and
 T 1 S., 1914 in S. half;
 R 10 E., S 6 in SE., and
 R 9 E, S 1 in SW. quadrant;

No trees suitable for bearing trees within limits;
 raise a mound of stone 2 ft. base, 1 $\frac{1}{4}$ ft. high S. of
 cor. Pits impracticable.

Land rolling and hilly.
 Soil, poor, dry, stony clay loam with considerable sand
 and gravel 8 to 14 ins. deep on dry, stony clay and grav-
 el subsoil.
 Timber, scattering mesquite and palo verde.

July 29, 1914.

Survey of the East Boundary of Township 1 S., R. 9 E.

BOOK 2825
23.

Boundaries of T. 1 S., R. 9 E.
Latitude, departures and closing errors.

Line designated.	True bearing.	Distance	Latitudes		Departures.	
			N.	S.	E.	W.
South Boundary.	S. 89° 46' W.	480.24	Chs.	Chs.	Chs.	Chs.
West boundary	North	474.18	474.18			
North boundary (G. & S. R. Base Line)	East.	479.54			479.54	
East Boundary	South	472.38		472.38		
Convergency					0.48	
Totals			474.18	474.33	480.02	480.30
				<u>474.18</u>		<u>480.02</u>
Error in lat.				0.15		
	Error in dep.					0.28

GENERAL DESCRIPTION.

This township is rough and mountainous in the northern part, rolling in the interior and level in the southern and southwestern part. The township is poorly watered, the only water in the township being obtained from a well in sec. 4. The greater part of the township is covered with greasewood brush undergrowth and scattering palo verde, mesquite and ironwood timber. The soil over about one-half of the township is a sandy, clay loam, with some gravel capable of producing good crops. The township should be subdivided.

24. Completion of the East Boundary of T. 4 S., R. 15 E.

Chains

Survey commenced August 13, 1914, and executed with a Young and Sons light mountain transit No. 10, hereinbefore described.

I examine the adjustments of the transit and find them to be satisfactory; 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 on Polaris I proceed as follows:

At my camp which is located in the Dripping Springs Wash approximately 1 mile west of the cor. of Tps. 3 and 4 S., Rs. 15 and 16 E., latitude $33^{\circ} 07' N.$, longitude $110^{\circ} 46\frac{1}{2}' W.$ At 5h. 05m., p. m., l. m. t., I set off $33^{\circ} 07' N.$ on the lat. arc, $14^{\circ} 43\frac{1}{2}' N.$ on the decl. arc, and determine a meridian with the solar, and mark a point thereof by a tack driven in a stake set in the ground 5.00 chs. N. of my instrument.

At 10h. 05m. p. m., l. m. t., by my watch, which is correct local mean time, I observe Polaris at eastern elongation and mark the direction thus determined by a nail driven in a stake set in the ground 5.00 chs. N. of my instrument.

August 13, 1914.

August 14.

At 7h. a. m., l. m. t., I lay off the azimuth of Polaris $1^{\circ} 22\frac{1}{2}'$ to the west and mark the meridian thus determined by a tack driven in the stake set Aug. 13 on which the meridian falls 0.3 ins. east of the point determined by the solar.

At 7h 34m a. m., l. m. t., I set off $33^{\circ} 07' N.$ on the lat. arc, $14^{\circ} 32' N.$ on the decl. arc and determine a meridian with the solar and mark a point thereof on the stake already set 5 chs. N. of my instrument. This point falls 0.1 ins. east of the meridian established by the Polaris observation.

The solar apparatus by p. m., and a. m. observations defines positions for meridians respectively about $0^{\circ} 16''$ west and $0^{\circ} 5''$ west of the meridian determined by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7h. 30m. a. m. is $14^{\circ} 40' W.$; the angle thus determined gives the mag. decl. $14^{\circ} 40' E.$

I begin at the Original cor. of secs. 1, 6, 7 and 12, on E. bdry. of T. 4 S., R. 15 E., which is an iron post 3 ins. in diam. 12 ins. above ground firmly set, marked and witnessed as described by the Surveyor General. Latitude $33^{\circ} 06' 06'' N.$, longitude $110^{\circ} 45' W.$

At 8h. 04m. a. m., l. m. t., I set off $33^{\circ} 06' N.$ on the lat. arc, $14^{\circ} 31\frac{1}{2}' N.$ on the decl. arc, and determine a meridian with the solar at the above cor.

Thence I run,
North bet. secs. 1 and 6.
Ascend SW. slope over stony mountainous land, through mesquite, catsclaw, and palo verde timber and grease-wood brush undergrowth. Ascend 60 ft. to

35.30 Top of spur bears NE. and SW. desc.
39.20 Dry ravine 6 lks. wide, course S. $30^{\circ} W.$ asc.
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.,
S 6 in E., and
1914 in S. half.

Completion of the East Boundary of T. 4 S., R. 15 E.

Chains

- No trees suitable for bearing trees within limits; raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
- 55.00 Begin abrupt ascent on SE. slope of ridge.
- 63.00 Top of ridge, thence along top of ridge ascending.
- 72.60 Begin descent over NW. slope.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of Tps. 3 and 4 S., Rs. 15 and 16 E. marked on brass cap,
 - T 3 S. in N.,
 - R 16 E. in E.,
 - T 4 S. in S., and
 - R 15 E. in W. half;
 - S 36 in NW.,
 - S 31 in NE.,
 - S 6 in SE., and
 - S 1 in SW. quadrant.

No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, 1½ ft. high, S. of cor. Pits impracticable.
 Land, mountainous, slopes to the SW.
 Soil, stony, dry, clay loam 4 to 8 ins. deep on dry clay and limestone shale subsoil. Light growth of bunch and gramma grass.
 Timber, scattering palo verde, mesquite and catsclaw.

August 14, 1914.

GENERAL DESCRIPTION.

Townships 4 S., Ranges 15 and 16 East are generally high mountainous lands covered with a good growth of grasses of difference kinds, with some good land along the Dripping Springs Wash in Disappointment Valley.

26. Survey of the East Boundary of T. 3 S., R. 15 E.

Chains

Survey commenced August 14, 1914, and executed with a Young and Sons light mountain transit No. 10, heretofore described.

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

I begin at the cor. of Tps. 3 and 4 S., Rs. 15 and 16 E., latitude $33^{\circ} 06' 58''$ N., longitude $110^{\circ} 45'$ W. established by me as hereinbefore described.

The magnetic bearing of the true meridian at 10 a. m. is N. $14^{\circ} 45'$ W. The angle thus determined gives the mag. decl. $14^{\circ} 45'$ E.

All measurements were made with a 5.00 chain steel tape, with a clinometer for determining the slope of angles. The relative elevations of points along this line were determined with the aid of an aneroid barometer reading to 10,000 ft. elevation.

At 10h. 04m. a. m., l. m. t., I set off $33^{\circ} 07'$ N. on the lat. arc, $14^{\circ} 29\frac{1}{2}'$ N. on the decl. arc, and determine a meridian with the solar at the above mentioned Tp. cor.

Thence I run,
North bet. secs. 31 and 36.
Descend steep NW. slope of spur over stony mountainous land, through scattering palo verde, mesquite and catsclaw timber, and greasewood brush undergrowth 4 ft. high.

3.80 Dry ravine 10 lks. wide, course S. 70° W. Ascend steep SE. slope 50 ft. to

19.50 Top of spur bears NE. and SW. desc. 100 ft. to

39.00 Dry ravine 6 lks. wide, course S. 20° W. asc.

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.,
S 31 in E., and
1914 in S. half;

No trees large enough for bearing trees within limits; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

Note: At this cor. I set off $14^{\circ} 28'$ N. on the decl. arc, and at apparent noon, observe the sun on the meridian and obtain a reading of $33^{\circ} 07'$ N. on the lat. arc.

74.50 Foot of steep ascent, bears NW. and SE.

78.60 Top of ridge bears NW. and SE. Descend steep NE. slope.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap,
T 3 S. in N. and
1914 in S. half;
R 15 E, S 25 in NW.,
R 16 E, S 30 in NE.,
S 31 in SE and
S 36 in SW quadrant.

No trees suitable for bearing trees within the prescribed limits. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

Land, rough, mountains, slopes to the SW;
Soil, light, poor, dry, stony clay loam, about 6 ins. deep on clay and decomposing limestone subsoil. Light growth bunch grass.
Timber, scattering palo verde, mesquite and catsclaw.

North, bet. secs. 25 and 30.

Descend NE. slope of ridge over stony mountainous land,

Chains.

through scattering palo verde, mesquite and catsclaw timber and greasewood and cactus undergrowth 3 ft. high

.50 Foot of descent on E. slope of ridge, ascend SE. slope.

3.50 Top of ridge 30 ft. above cor. bears NE. and SW. desc. over NW. Slope.

5.30 Dry ravine 10 lks. wide, course S. 70° W. asc.

12.00 Top of spur bears NE. and SW. desc. into canyon.

15.50 Bottom of canyon 75 ft. deep, course S. 30° W. asc. abruptly.

17.40 North side of canyon, ascend along E. slope of ridge.

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.,
 S 30 in E., and
 1914 ins S. half.

No trees within limits. Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

43.00 Top of spur bears NE. and SW. desc. over NW. slope into canyon.

54.00 Bottom of canyon 100 ft. deep, cross dry ravine 75 lks. wide, course S 20 $\frac{1}{4}$ ° W. ascend.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, marked on brass cap,
 T 3 S. in N., and
 1914 in S. half;
 R 15 E.S 24 in NW,
 R 16 E, S 19 in NE.,
 S 30 in SE., and
 S 25 in SW. quadrant.

No trees within the prescribed limits; raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, rough mountains, drains to the SW., spurs with steep slopes covered with stone.

Soil, poor, dry, stony loam 2 to 5 ins. deep, on clay and limestone subsoil. Light growth bunch grass.

Timber scattering palo verde, mesquite and catsclaw.

August 14. 1914.

August 15, 1914.

At 8h. 04m. a. m., 1. m. t., I set off 33° 09' N. on the lat. arc, 14° 13' N. on the decl. arc and determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30,

Thence I run,

North bet. secs. 19 and 24.

Ascend over SE. slope of ridge over mountainous land, through scattering palo verde timber and greasewood and cactus undergrowth 4 ft. high. Ascend 50 ft. to

20.60 Top of rocky ridge, bears N. 20° E. and S 20° W. Descend 75 ft. to

34.85 Bottom of rocky ravine 50 lks. wide, course S. 20° W. Ascend steep SE. slope.

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.,
 S 19 in E., and
 1914 in S. half.

No trees within limits; raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

54.00 Top of spur bears NE. and SW. Descend 75 ft. to

59.00 Bottom of canyon, cross dry ravine 20 lks. wide, course S. 40° W.

65.00 Point of spur bears NW. and SE. Descend NE. Slope 50 ft. to

69.00 Bottom of same canyon, cross dry ravine 20 lks. wide,

28. Survey of the East Boundary of T. 3 S., R. 15 E.

Chains.

- course S. 30° E. Ascend SW. slope.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap,
 T 3 S in N., and
 1914 in S. half;
 R 15 E, S 13 in NW.,
 R 16 E, S 18 in NE.,
 S 19 in SE., and
 S 24 in SW. Quadrant.
- No trees suitable for bearing trees within the prescribed limits; raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
- Land, rough, mountainous spurs with steep slopes denuded of soil.
- Soil, of narrow bottoms along ravines poor, stony, clay loam, underlaid with limestone. Light growth bunch grass.
- Timber, scattering palo verde, mesquite and catsclaw.
- Note: At this cor. I set off 14° 10' N. on the decl. arc, and at apparent noon, observe the sun on the meridian and obtain a reading of 33° 09½' N. on the lat. arc.

- North, bet. secs. 13 and 18.
- Ascend steep rocky SW. slope of spur over mountainous land, through scattering greasewood and catsclaw brush undergrowth 2 to 5 ft. high. Ascend 30 ft. to
- 3.50 Point of spur bears NW. and SE. Descend to canyon.
- 4.20 Dry ravine 30 lks. wide, course S. 30° W. in canyon, ascend abrupt SW. slope of El Capitan mountains.
- 15.20 Rock ledge 15 ft. high, bears N. 30° E., and S. 30° W.
- 37.40 Top of limestone spur 300 ft. above sec. cor. bears N. 35° E. and S. 35° W. begin descent into canyon.
- 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 13 in W.,
 S 18 in E., and
 1914 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
- 48.50 Bottom of canyon, 200 ft. deep, cross dry ravine 30 lks. wide, course S 20° W. ascend abruptly over cliffs and ledges.
- 66.00 Summit of limestone spur, bears N. 40° E., and S. 40° W. elevation 4500 ft. descend very abruptly over NW. slope into canyon.
- 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 3 S in N. and
 1914 in S. half;
 R 15 E, S 12 in NW.,
 R 16 E, S. 7 in NE.,
 S 18 in SE., and
 S 13 in SW. quadrant.
- Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
- Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
- This cor. is situated on steep N. slope of spur 400 ft. below the top.
- Land, rough mountains, spurs steep, rocky.
- Soil, worthless. Light growth bunch grass.
- No timber. Tops of spurs with limestone cap.

August 15, 1914.

Chains.
 August 18, 1914.
 At 2h. 34m. p. m., 1. m. t., I set off 33° 10½' N. on the lat. arc, 13° 10½' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 12, 13, and 18.
 Thence I run,
 North, bet. secs. 7 and 12.
 Descend steep N. slope of spur over stony mountainous land through dense oak and catsclaw brush undergrowth 4 ft. high.
 1.00 Bottom of canyon, 450 ft. below top of spur, cross dry ravine 40 lks. wide, course S. 60° W. ascend steep rocky S. slope, 80 ft. to
 14.30 Top of rocky spur bears N. 40° E. and S. 40° W. Descend abruptly over granite ledges.
 18.50 Bottom of canyon 100 ft. deep, cross dry ravine 25 lks. wide, course S. 40° W. Ascend point of spur over barren rock ledges. Asc. 75 ft. to
 24.00 Top of spur, bears N. 40° E. and S. 40° W. descend into rocky box canyon.
 28.50 Box canyon 100 ft. deep, cross dry ravine 25 lks. wide, course S. 30° W. ascend abruptly over granite cliffs and ledges, through scattering oak and juniper timber bears NE. and SW. Asc. 100 ft. to top of spur.
 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 12 in W.,
 S 7 in E., and
 1914 in S. half; from which
 An oak 8 ins. in diam., bears N. 15½° W. 44 lks. dist., marked ¼ S 12 BT.
 An oak 14 ins. in diam. bears N. 10½° E. 105 lks. dist., marked ¼ S 7 BT.

August 18, 1914.

At this ¼ sec. cor.
 August 19, 1914, at 8h. 04m. a. m., 1. m. t., I set off 33° 11' N. on the lat. arc, 12° 57' N. on decl. arc & determine a mer. with solar. Thence I continue North
 54.75 Top of spur, bears N. 40° E., and S. 40° W. Descend abruptly.
 57.00 Bottom of canyon. 50 ft. deep, cross dry ravine 20 lks. wide, course S. 30° W. A spring of fresh water bears NE. 150 lks. dist. ascend abruptly
 78.50 Foot of perpendicular rock ledge 30 ft. high, bears N. 20° W. and S. 20° E. Ascend abruptly.
 80.00 Top of ledge. Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in a mound of stone 5 ft. base, for cor. of secs. 1, 6, 7 and 12, marked on brass cap,
 T 3 S. in N., and
 1914 in S. half;
 R 15 E, S 1 in NW.,
 R 16 E, S 6 in NE.,
 S 7 in SE., and
 S 12 in SW quadrant.
 No trees available. Raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable.
 Land, rough mountains, drains to the SW. spurs mostly barren rock ledges with scarcely any soil on the tops. Soil, on slopes of spurs poor, dry, stony loam 3 to 5 ins. deep, underlaid with granite and limestone. Light growth bunch grass.
 Timber, scattering oak and juniper.

North bet. secs. 1 and 6.
 Ascend steep SW. slope of El Capitan mountain over cliffs through scattering oak and juniper timber and undergrowth

30. Survey of the East Boundary of T. 3 S., R. 15 E.

Chains.

- 35.50 Summit of El Capitan Mountain, elevation 6600 ft. bears N. 60° W. and S. 60° E. descend precipitous N. slope, through heavy pine timber.
- 40.00 The point for the $\frac{1}{4}$ sec. cor., falls on steep N. slope on unsafe ground; therefore at
- 36.25 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for witness cor. to the $\frac{1}{4}$ sec. cor., marked on brass cap,
- WC $\frac{1}{4}$ N of center;
 1914 in S. half;
 S 6 in SE., and
 S 1 in SW. quadrant; from which
 An oak 14 ins. in diam. bears S. 24 $\frac{1}{2}$ ° E. 33
 lks. dist., marked $\frac{1}{4}$ S. 6 BT.
 A pine 14 ins. in diam., bears S. 80° W. 58
 lks. dist., marked $\frac{1}{4}$ S 1 BT.

Note: At this witness cor. I set off 12° 53' N. on the decl. arc, and at apparent noon observe the sun on the meridian and obtain a reading of 33° 12' N. on the lat. arc.

August 19, 1914.

- 76.50 Dry ravine 20 lks. wide course N. 30° E., thence along W. side of ravine.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Tps. 2 and 3 S., Rs. 15 and 16 E., marked on brass cap,
- T 2 S in N.,
 R 16 E in E.,
 T 3 S., 1914 in S., and
 R 15 E in W. half;
 S 36 in NW.,
 S 31 in NE.,
 S 6 in SE., and
 S 1 in SW. quadrant; from which
 A pine 4 ins. in diam., bears N. 47° E. 30 lks.
 dist., marked T 2 S., R 16 E., S 31 BT.
 A juniper 5 ins. in diam., bears S. 68 $\frac{1}{2}$ ° E. 26
 lks. dist., marked T 3 S., R 16 E., S. 6 BT.
 An oak 16 ins. in diam., bears S 67 $\frac{1}{2}$ ° W. 8 lks.
 dist., marked T 3 S., R 15 E., S 1 BT. and
 A cherry 6 ins. in diam., bears N. 50 $\frac{1}{4}$ ° W. 8
 lks. dist., marked T 2 S., R. 15 E., S. 36 BT
- Land, rugged mountains, spurs abrupt, rocky, with very little, poor, dry, stony soil. S 40 chs. slopes to SW. covered with good growth bunch grass.
 Timber, cherry, juniper, pine and oak.

Note: This cor. is situated at foot of abrupt descent, on N. slope of the El Capitan Mountain 900 ft. below the top.

August 19, 1914.

GENERAL DESCRIPTION.

Townships 3 S., Ranges 15 and 16 East are generally high rough mountainous lands, covered with a good growth of bunch grass with scarcely any land suitable for agricultural purposes. Both townships are poorly watered and poorly timbered.

Chains

Survey commenced August 20, 1914, and executed with a Young and Sons light mountain transit No. 10, hereinbefore described.

I examine the adjustments of the transit and find them to be correct, and from recent tests of the solar apparatus, by comparing the results of a. m., and p. m. observations on the sun, with a meridian determined by observations on Polaris, I know that the instrument is in satisfactory adjustment.

I begin at cor. of Tps. 2 and 3 S., Rs. 15 and 16 E., latitude 33° 12' 07" N. longitude 110° 45' W. established by me as hereinbefore described.

The magnetic bearing of the meridian at 8h. 00m. a.m., is N. 14° 45' W. which gives mag. decl. 14° 45' E.

All measurements were made with a 5 chain steel tape and clinometer for determining the slope angles.

The relative elevations of points along the line being determined with an aneroid barometer, reading to 10,000 ft. elevation.

At 8h 03m a. m., l. m. t., I set off 33° 12' N. on the lat arc, 12° 37' N. on the decl. arc, and determine a meridian with the solar at the above noted cor.

Thence I run,

North bet. secs. 31 and 36.

Descend NE. slope of El Capitan Mountain over stony land through scattering oak, pine and juniper timber and dense oak brush undergrowth 4 to 6 ft. high.

1.00 Enter dry ravine course N. 30° E. thence in ravine descending.

9.00 Mouth of ravine in bottom of canyon course N. 40° E. ascend, abrupt rocky SE. slope of spur. Asc. 200 ft. to

19.50 Top of spur bears N. 40° E. and S. 40' W. Descend abruptly over N. slope; leave timber bears NW and SE.

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.,
S 31 in E., and
1914 in S. half.

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

47.20 Dry ravine 20 lks. wide, course N. 60° E. asc.

51.00 Top of spur 50 ft. above ravine bears NE. and SW. desc.

79.00 Dry ravine 20 lks. wide, course east, asc.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap

T 2 S. in N. and
1914 in S. half,
R 15 E., S 25 in NW.,
R 16 E., S. 30 in NE.,
S 31 in SE., and
S 36 in SW. quadrant;

raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

Land mountainous, slopes to the NE., spurs steep, covered with loose stone;

Soil, poor, dry, stony clay loam 4 to 6 ins. deep on dry stony clay subsoil. Light growth of bunch grass.

Timber oak, pine and juniper.

North bet. secs. 25 and 30.

Ascend S. slope of spur over stony mountainous land, through oak and greasewood brush undergrowth 4 ft. high. Asc. 60 ft. to

Chains.

- 6.30 Top of spur bears E. and W. descend steep N. slope covered with dense oak and manzanita brush 6 ft. high.
- 28.50 Bottom of canyon 300 ft. deep, cross dry ravine 10 lks. wide, course S. 70° E. Ascend along E. slope of spur, leave dense undergrowth bears E. and W.
- 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.,
 S 30 in E., and
 1914 in S. half; raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
- 77.00 Top of limestone ridge 500 ft. above bottom of canyon, bears N. 60° W. and S. 60° E. Descend abrupt rocky NE. Slope, through dense oak and manzanita brush.
- 80.00 Set an iron post, 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, marked on brass cap
 T 2 S in N., and
 1914 in S. half,
 R 15 E. S 24 in NW.,
 R 16 E. S 19 in NE.,
 S 30 in SE., and
 S 25 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, drains to the NE.
 Soil, light, dry, stony clay loam with considerable disintegrated granite 6 ins. deep on decomposed granite and clay subsoil. N. 30 chs. almost barren limestone rock. Good growth of bunch grass. No timber.

Note: Clouds obscure the sun at noon today rendering an observation for latitude with the solar impossible.

August 20, 1914.

August 25, 1914.

- At 3h. 02m. p. m., l. m. t., I set off 33° 14' N. on the lat. arc, 10° 50' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30.
- Thence I run,
 North bet. secs. 19 and 24.
 Descend abrupt rocky NW. slope of ridge over mountainous land, covered with dense oak and manzanita brush.
- 5.00 Dry ravine 10 lks. wide, course N. 50° E. Ascend 50 ft. to
- 8.00 Top of spur, bears N. 40° E. and S. 40° W. Descend NW. slope 150 ft. to
- 17.00 Bottom of canyon, cross Gilson Wash 25 lks. wide, course S. 70° E. Ascend abruptly, 250 ft. to top of ridge.
- 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.,
 S 19 in W., and
 1914 in S. half; and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
- 78.50 Top of rocky ridge, bears N. 20° W. and S. 45° E. Descend steep N. slope.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap
 T 2 S in N., and
 1914 in S. half;
 R 15 E S 13 in NW.,
 R 16 E S 18 in NE.,

Survey of the East bdy. of T. 2 S., R. 15 E.

Chains

S 19 in SE. and
S 24 in SW. quadrant; and raise a mound of
stone 2 ft. base, 1½ ft. high W. of cor. Pits imprac-
ticable.

Land, mountainous, slopes to the SE., spurs with steep
slopes covered with loose shale rock.

Soil, stony, clay loam on clay and limestone subsoil.
Light growth of bunch grass. No timber.

August 25, 1914.

August 26, 1914.

At 7h. 32m. a. m., 1. m. t., I set off 33° 15' N. on the
lat. arc, 10° 36' N. on the decl arc, and determine
a meridian with the solar at the cor. of secs. 13, 18,
19 and 24.

Thence I run,
North bet. secs. 13 and 18.

Descend N. slope of ridge, over stony mountainous land,
through dense oak and manzanita brush undergrowth 4 to
6 ft. high.

14.00 Dry ravine 15 lks. wide in bottom of canyon 250 ft. below
top of ridge, course east. Asc. 75 ft. to

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

31.50 Bottom of ravine 25 lks. wide, course N. 20° E. Ascend
50 ft. to

34.00 Top of spur, course N. 35° E. Desc.

39.85 Dry ravine 10 lks. wide, course N. 10° E. Ascend.

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 13 in W.,
S 18 in E., and

1914 in S. half; and raise a mound of stone
2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.

46.70 Dry ravine 15 lks. wide, 30 ft. deep, course east. As-
cend 75 ft. to

51.00 Top of spur, bears NE. and SW. Descend 100 ft. to

63.00 Dry ravine 24 lks. wide, course S. 70° E. Ascend.

78.00 Top of rocky ridge bears E. and W. Descend.

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 2 S in N. and
1914 in S. half;
R 15 E S 12 in NW.,
R 16 E S 7 in NE.,
S 18 in SE., and

S 13 in SW. quadrant; and raise a mound of
stone 2 ft. base, 1½ ft. high W. of cor. Pits im-
practicable.

Land, mountainous, drains to the SE., spurs steep covered
with loose, shale rock.

Soil, stony, worthless; light growth bunch grass.
No timber.

North bet. secs. 7 and 12.

Descend steep, rocky N. slope of ridge over mountainous
land, through scattering oak timber and oak brush
undergrowth 3 to 5 ft. high.

10.00 Bottom of canyon 200 ft. below top of ridge, cross dry
ravine 20 lks. wide, course N. 40° E. Ascend point
of spur. Asc. 100 ft. to

26.50 Top of spur, bears NW. and SE. Desc. 75 ft. to

Chains

- 30.40 Dry ravine 15 lks. wide, course S. 50° E. Asc. 150 ft. to
 37.00 Top of spur, bears N. 80° W. and S. 80° E. Descend steeply.
- 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.,
 S 7 in E., and
 1914 in S. half; No trees within the prescribed limits. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
- 52.30 Bottom of canyon 100 ft. below $\frac{1}{4}$ sec. cor., cross dry bed of creek 50 lks. wide, course N. 30° E. Asc. 75 ft. to top of spur.
- 55.10 Pack trail, bears N. 50° E., and S. 50° W.
 60.50 Top of spur, bears E. and W. Desc. 100 ft. to
 75.80 Dry ravine 20 lks. wide in bottom of canyon, course S. 60° E. Ascend.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, marked on brass cap,

T 2 S in N., and
 1914 in S. half;
 R 15 E S 1 in NW.,
 R 16 E S 6 in NE.,
 S 7 in SE., and
 S 12 in SW. quadrant;

No trees within the prescribed limits. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous, drains to the southeast.

Soil, poor, stony, clay loam, 2 to 6 ins. deep, on ledges of stone and dry clay subsoil. Good growth bunch grass on spurs with dense growth of oak brush undergrowth.

Timber, scattering oak and juniper.

Note: At this cor. I set off $10^{\circ} 31\frac{1}{2}'$ N. on the decl. arc and at apparent noon, observe the sun on the meridian the resulting latitude being $33^{\circ} 16\frac{1}{2}'$ N.

North bet. secs. 1 and 6.

- Ascend S. slope of spur over stony, mountainous land, through scattering oak and juniper timber and dense oak brush undergrowth 4 to 6 ft. high.
- 14.50 Top of spur 100 ft. above ravine bears N. 80° W. and S 80° E. Descend NE. slope, 75 ft. to
 20.00 Bottom of dry ravine 50 lks. wide, course N. 30° E. Asc. 150 ft. to
 38.00 Top of spur, bears NW. and SE. Desc. 50 ft. to ravine.
 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.,
 S 6 in E., and
 1914 in S. half; No trees available.
 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 40.75 Dry ravine, 20 lks. wide, course S. 50° W. Asc. 75 ft. to
 48.20 Top of spur bears NE. and SW. Desc. 100 ft. to
 56.00 Bottom of dry ravine 30 lks. wide, course S. 45° E. Asc.
 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of Tps. 1 and 2 S., Rs. 15 and 16 E., marked on brass cap,
 T 1 S in N.,
 R 16 E. in E.,
 T 2 S 1914 in S., and
 R 15 E in W. half;
 S 36 in NW.,
 S 31 in NE.,
 S 6 in SE., and

Chains

S 1 in SW. quadrant; from which
 An oak 18 ins. in diam. bears N. 73° E. 78 lks.
 dist., marked T 1 S R 16 E S 31 B T.
 An oak 4 ins. in diam., bears S. 35½° E. 95 lks.
 dist., marked T 2 S R 16 E S 6 B T.
 An oak 12 ins. in diam., bears S. 8¼° W. 195 lks.
 dist., marked T 2 S R 15 E S 1 B T and
 An oak 10 ins. in diam. bears N. 67° W. 270 lks.
 dist., marked T 1 S R 15 E S 36 B T.

Land, mountainous, slopes to the SE. spurs with steep rocky slopes.

Soil, stony, worthless, south slopes of spurs covered with dense growth of oak brush undergrowth.

Timber, scattering oak and juniper.

August 26, 1914.

GENERAL DESCRIPTION.

Townships 2 S., Ranges 15 and 16 East are generally rough, mountainous lands, producing an abundant growth of bunch grass with very little land in either township suitable for agricultural purposes. The townships are poorly watered and poorly timbered with scattering pine, oak and juniper.

August 26, 1914.

Sidney E. Hunt,
 U. S. Surveyor.

Chains.

Survey commenced August 27, 1914, and executed with a Young and Sons light mountain transit No. 10, hereinbefore described.

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

The magnetic bearing of the true meridian at 8h. 30m. a. m. is N. $14^{\circ} 50'$ W. which gives the mag. decl $14^{\circ} 30'$ E.

All measurements were made with 5 chain steel tape with clinometer for determining the slope angles.

At 9h. 01m. a. m., 1. m. t., I set off $33^{\circ} 17\frac{1}{2}'$ N. on the lat. arc, $10^{\circ} 13\frac{1}{2}'$ N. on the decl arc, and determine a meridian with the solar at the cor. of Tps. 1 and 2 S. Rs. 15 and 16 E., latitude $33^{\circ} 17' 20''$ N., longitude $110^{\circ} 44' 45''$ W. established by me as hereinbefore described.

Thence I run,

North bet. secs. 31 and 36.

Ascend S. slope of ridge over stony mountainous land, through scattering juniper and oak timber and oak brush undergrowth 3 ft. high.

- 2.70 Top of ridge, elevation 4600 ft. bears N. 80° E. and S. 80° W. Descend abrupt N. slope through dense oak and manzanita brush undergrowth 4 to 6 ft. high. Desc. 400 ft. to
- 20.50 Bottom of canyon, cross dry ravine 20 lks. wide, course S. 70° E. Ascend 100 ft. to
- 28.65 Top of spur bears E. and W. cross road from Globe, Arizona to old mining camp, bears E. and W. Descend NE. slope 50 ft. to
- 33.40 Dry ravine 10 lks. wide, course N. 20° E. Leave timber, bears E. and W. Asc. 40 ft. to
- 36.00 Top of spur, bears NE. and SW. Desc. 50 ft. to
- 39.00 Dry ravine 15 lks. wide, course N. 40° E. Asc.
- 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.,
 S 31 in E., and
 1914 in S. half. No trees within limits.
 Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
- 53.40 Top of spur 60 ft. above $\frac{1}{4}$ sec. cor. bears NW. and SE. Desc.
- 62.50 Bottom of canyon 100 ft. deep, cross dry ravine 70 lks. wide, course S. 50° E. Ascend 50 ft. to top of spur.
- 63.90 Pack trail to Globe, Arizona, bears N. 70° W. and S. 70° E.
- 69.40 Top of spur bears NW. and SE. Desc.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap,
 T 1 S in N. and
 1914 in S. half;
 R 15 E S 25 in NW.,
 R 16 E S 30 in NE.,
 S 31 in SE. and
 S 36 in SW. quadrant. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
- Land, mountainous, drains to the southeast; spurs with steep rocky slopes,
 Soil, stony, clay loam, 6 to 12 ins. deep on dry, stony, clay subsoil. South slopes of spurs covered with good growth of bunch grass. North slopes with dense oak brush.
 Timber scattering juniper and oak.

Chains

North bet. secs. 25 and 30.
 Descend NE. slope of spur over stony, mountainous land, through oak brush undergrowth 3 ft. high. Desc. 50 ft. to

7.00 Bottom of dry ravine 5 lks. wide, course N. 70° E. Ascend 200 ft. to

16.50 Top of spur, bears NW. and SE. Desc. 150 ft. to

29.80 Foot of descent in dry ravine, course N. 50° E. Asc. 75 ft. to

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

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., S. 30 in E. and 1914 in S. half. Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

42.00 Bottom of dry ravine 15 lks. wide, course N. 60° E. Asc. 100 ft. to

58.60 Top of rocky spur, bears N. 50° E. and S. 50° W. Desc. 100 ft. to

66.00 Dry ravine 15 lks. wide, course N. 50° E. Asc. 75 ft. to

69.80 Top of spur, bears N. 50° E. and S. 50° W. descend.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 19., 24, 25 and 30, marked on brass cap,
 T 1 S. in N. and 1914 in S. half;
 R 15 E., S 24 in NW.,
 R 16 E S 19 in NE.,
 S 30 in SE. and S 25 in SW. quadrant; Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

Land, mountainous, drains to the east and northeast; spurs steep, rocky N. slopes, covered with oak brush and south slopes with heavy growth bunch grass.
 Soil, poor, stony, clay loam 6 to 8 ins. deep on stony clay subsoil. No timber.

Note: At this cor. I set off 10° 10 $\frac{1}{2}$ ' N. on the decl. arc and at apparent noon, observe the sun on the meridian and obtain a reading of 33° 19' N. on the lat arc.

North, bet. secs. 19 and 24.
 Descend NE. slope of spur over stony mountainous land, through dense oak, manzanita and catsclaw and cactus undergrowth. Desc. 50 ft. to

4.00 Dry ravine 20 lks. wide, course N. 20° W. Ascend SW. slope 50 ft. to

6.50 Point of spur, bears NW. and SE. Desc. 75 ft. to

13.70 Dry ravine 25 lks. wide, course N. 50° E. Ascend 50 ft. to

16.50 Top of spur, bears NE. and SW. Desc. 100 ft. to

30.00 Dry ravine 30 lks. wide, course N. 30° E. Ascend 40 ft. to

32.40 Top of spur, bears NE. and SW. Desc. 50 ft. to

37.00 Dry ravine 20 lks. wide, course east. Asc.

37.50 Pack trail to Globe, Arizona, bears N. 50° W. and S. 50° E.

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., S 19 in E., and 1914 in S. half, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

44.00 Top of spur, 30 ft. above $\frac{1}{4}$ sec. cor. bears N. 60° W. and S. 60° E. Desc. 40 ft. to

49.00 Dry ravine, course N. 30° E. Asc. 75 ft. to

Chains.

- 59.00 Top of spur, bears N. 70° E. and S. 70° W. Descend 150 ft. to
- 66.10 Bottom of canyon, cross dry ravine 15 lks. wide, course N., 30° E. Ascend 150 ft. to
- 74.00 Top of spur bears N. 50° E. and S. 50° W. Desc. NW. slope
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap
- T 1 S. in N. and
1914 in S. half;
R 15 E S 13 in NW.,
R 16 E., S. 18 in NE.,
S 19 in SE. and
S 24 in SW. quadrant:
- Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
- Land, rolling mountains, drains to the east and southeast. spurs with gradual slopes covered with loose stone.
- Soil, poor, dry, stony clay loam, 4 to 10 ins. deep on stony clay subsoil, Good growth bunch grass. No timber.

August 27, 1914.

August 28, 1914

At 8h. 31m. a. m., a. m. t., I set off 33° 20' N. on the lat. arc, 9° 52½' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24.

Thence I run,

- North bet. secs. 13 and 18. Desc. N. W. Slope 20 ft. to
- 4.20 Dry ravine 15 lks. wide, course N. 30° E. Ascend SE. slope 150 ft. to
- 15.00 Top of spur, bears N. 50° E. and S. 50° W. Desc. 40 ft. to
- 17.00 Dry ravine 15 lks. wide, course N. 50° E. Asc. 100 ft. to
- 23.00 Top of rocky spur, bears N. 60° E. and S. 60° W. Desc. 250 ft. to
- 33.90 Bottom of canyon, cross dry ravine 20 lks. wide, course East. Asc. 200 ft. to top of spur.
- 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 13 in W,
S 18 in E., and
1914 in S. half: Raise a mound of stone
2 ft. base, 1½ ft. high W. of cor.
Pits impracticable.
- 48.00 Top of spur, bears N. 70° E. and S. 70° W. Desc. abruptly.
- 55.75 Bottom of canyon, 200 ft. deep, course dry ravine 25 lks. wide, course east, asc.
- 64.00 Top of divide or watershed between the Salt and Gila Rivers, bears N. 50° E. and S. 50° W. desc. over NW. slope.
- 74.10 Pack trail bears N. 40° W. and S. 40° E.
- 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 1 S. in N. and 1914 in S. half;
R 15 E S 12 in NW.,
R 16 E S 7 in NE.,
S 18 in SE. and
S 13 in SW quadrant: Raise a mound of stone 2
ft. base, 1½ ft. high W. of cor. Pits impracticable.
- Land, mountainous,
Soil, poor, dry, stony clay loam 6 ins. deep on dry stony clay subsoil. Good growth bunch grass. No timber.

Chains.

Note: At this cor. I set off 9° 49½' N. on the decl. arc and at apparent noon observe the sun on the meridian and obtain a reading of 33° 21½' N. on the lat. arc,

North bet. secs. 7 and 12.

Descend N. slope of spur over stony mountainous land, through scattering greasewood and catsclaw brush undergrowth. Desc. 20 ft. to

- 1.40 Dry ravine 15 lks. wide, course S. 40° W. Ascend 75 ft. to
- 9.00 Top of spur bears N. 40° W. and S. 40° E. Desc.
- 19.00 Dry ravine 10 lks. wide, course N. 20° W. Asc. 100 ft. to
- 31.00 Top of spur bears N. 30° W. and S. 30° E. Desc. 75 ft. to
- 39.00 Dry ravine 15 lks. wide, course N. 40° W. Asc. 50 ft. to top of spur.
- 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 12 in W.,
 S 7 in E. and
 1914 in S. half. Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
- 49.60 Top of spur bears NW. and SE Desc. 150 ft. to
- 66.45 Dry ravine 20 lks. wide, course N. 70° W. Asc. 50 ft. to
- 73.85 Top of spur, bears N. 70° W. and S. 70° E. Desc. 50 ft. to
- 76.00 Dry ravine 20 lks. wide, course S. 20° W. Asc.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, marked on brass cap,

T 1 S in N. and
 1914 in S. half;
 R 15 E S 1 in NW.,
 R 16 E S 7 in NE.,
 S 7 in SE. and
 S 12 in SW. quadrant. Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor.
 Pits impracticable.

Land, mountainous, spurs steep, covered with loose stone. Soil, poor, dry, stony loam 4 to 10 ins. deep on stony clay subsoil. Good growth bunch grass. No timber.

August 28, 1914.

August 29, 1914.

At 10h. 01m. a. m., 1. m. t., I set off 33° 22' N. on the lat. arc, 9° 30' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 6, 7 and 12.

Thence I run, North bet. secs. 1 and 6.

Ascend SE. slope of spur over stony mountainous land, through scattering greasewood brush undergrowth. Asc. 40 ft. to

- 3.00 Top of spur, bears NE. and SW. Desc. 40 ft. to
- 9.40 Dry ravine 10 lks. wide, course S. 60° W. Asc. 75 ft. to
- 14.50 Top of spur, bears NW and SE. Desc. 200 ft. to
- 34.00 Bottom of dry ravine 25 lks. wide, course N. 30° W. Asc.
- 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 1 in W.,
 S 6 in E. and
 1914 in S. half; raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
- 42.00 Top of spur 60 ft. above ¼ sec. cor., bears E. and W. Desc.
- 45.90 Wire fence along the Arizona Eastern Ry. bears N. 80° W. and S. 80° E.
- 46.07 Telephone line from Globe to Safford, Arizona, bears N.

Chains
 80° W. and S. 80° E.
 46.60 Center of the Arizona Eastern Ry. track bears N. 80° W. and S. 80° E.
 47.00 Dry sand wash 40 lks. wide, course west. Asc.
 47.36 Wire fence along the Arizona Eastern Ry. bears N. 80° W. and S. 80° E.
 47.40 Western Union telegraph line bears N. 80° W. and S. 80° E.
 47.80 Road from Globe to Safford, Arizona, bears N. 80° W. and S. 80° E.
 60.96 Intersect the Gila and Salt River Base Line 5.19 chs. west of standard cor. of secs. 34 and 35, T. 1 N., R. 15½ E. which is a granite stone 8 x 6 x 6 ins. above ground firmly set, marked and witnessed as described by the surveyor general. At point of intersection, Set an iron post 3 ft. long, 3 ins. of iron pipe, 2 1/2 in diam., 24 ins. in the ground for chosing cor. of Ts, 1 S., Rs. 15 and 16 E., marked on brass cap,
 CC S of center
 T 1 N. R 15½ E S 34 S 35 in N. and
 T 1 S 1914 in S. half;
 R 16 E. S 6 in SE. and
 R 15 E S 1 in SW. quadrant;
 Raise a mound of stone 2 ft. base, 1½ ft. high S. of cor. Pits impracticable.
 Land, rolling mountains, spurs with gradual slopes covered with loose stone.
 Soil, gravelly and stony clay loam, 6 to 12 ins. deep on stony, clay subsoil. Good growth bunch grass.
 No timber.

Note: Clouds obscure the sun at noon today, rendering an observation for latitude with the solar impossible.
 At 3 p. m. rain prevents further work on this day.

August 29, 1914.

GENERAL DESCRIPTION.

Townships 1 S., Ranges 15 and 16 East are generally mountainous lands producing a good growth of bunch grass; and in the bottoms of the canyons in each township is some fairly good land, The townships are poorly watered and poorly timbered.

Survey of the South div. of T. 1 S., R. 15 E.

Chains.

Survey commenced September 19, 1914, and executed with a Young and Sons light mountain transit No. 10, hereinbefore described.

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

I begin at the cor. of Tps. 1 and 2 S., Rs. 15 and 16 E. latitude 33° 17' 20" N., longitude 110° 44' 45" W. established as hereinbefore described.

All measurements were made with a 5 chain steel tape, with clinometer for determining the slope angles.

At 8h. 10m. a. m., 1. m. t., I set off 33° 17½' N. on the lat. arc, 1° 40½' N. on the decl. arc, and determine a meridian with the solar at the above mentioned cor.

Thence I run,

West bet. secs. 1 and 36.

Ascend SE. slope of ridge over stony, mountainous land, through scattering oak, pine and juniper timber and oak brush undergrowth. Asc. 30 ft. to

3.50 Top of rocky ridge bears N. 80° E. and S. 80° W. descend NW. slope 300 ft. to

19.75 Dry ravine 8 lks. wide, course north. Ascend 100 ft. to

25.00 Top of spur bears N. and S. Desc. 300 ft. to canyon.

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 36 in N. and

S 1 1914 in S. half; from which An oak 8 ins. in diam. bears N. 45¼° E. 80 lks. dist., marked ¼ S 36 BT. and

An oak 14 ins. in diam. bears S. 13¾° E. 29 lks. dist. marked ¼ S 1 BT.

44.20 Bottom of canyon cross dry ravine 30 lks. wide, course N. 40° E. Asc. 50 ft. to

62.50 Top of spur bears N. 40° W. and S. 40° E. Desc. 150 ft. to

64.80 Bottom of canyon cross dry ravine 20 lks. wide, course S. 60° E. ascend very abruptly.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, marked on brass cap, T 1 S in N., T 2 S 1914 in S. and R 15 E in W. half; S 35 in NW., S 36 in NE., S 1 in SE. and

S 2 in SW. quadrant from which An oak 10 ins. in diam. bears N. 34° E. 22 lks. dist., marked T 1 S R 15 E S 36 B T.

An oak 8 ins. in diam. bears S. 12¼° E. 58 lks. dist. marked T 2 S R 15 E S 1 BT.

An oak 12 ins. in diam. bears S. 40½° W. 65 lks. Dist., marked T 2 S R 15 E S 2 BT. and

An oak 16 ins. in diam. bears N. 47° W. 50 lks. Dist., marked T 1 S R 15 E S 35 B T.

Land, rough mountains, spurs with steep slopes, washed on slopes, stony.

Soil, stony, clay loam, 4 to 12 ins. deep on stony clay subsoil.

Dense oak and manzanita brush undergrowth, with very little grass.

Timber, oak, pine and juniper.

Chains.

West bet. secs. 2 and 35.
Ascend very abrupt rocky NE. slope of spur over mountainous land, through scattering oak, pine and juniper timber and dense oak and manzanita brush undergrowth 4 to 6 ft. high exceptionally difficult to survey.
Asc. 75 ft. to

7.50 Top of spur bears NW. and SE.

Note: At this point I set off 1° 36' N. on the decl. arc and at apparent noon observe the sun on the meridian and obtain a reading of 33° 17½' N. on the lat. arc.

Thence along steep S. slope of mountain.

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 35 in N. and S 2 1914 in S. half; from which,

An oak 12 ins. in diam. bears N. 18¼° E. 58 lks. Dist., marked ¼ S 35 B T.

An oak 14 ins. in diam. bears S. 59° W. 44 lks. dist. dist., marked ¼ S 2 B T.

41.50 Top of stony mountain ridge 700 ft. above bottom of canyon bears N. 15° E. and S. 15° W. Descend very abrupt W. slope into Pinal Creek Canyon.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, marked on brass cap;

- T 1 S in N.,
- T 2 S 1914 in S. and
- R 15 E in W. half;
- S 34 in NW.,
- S 35 in NE.,
- S 2 in SE. and
- S 3 in SW quadrant; from which

An oak 10 ins. in diam. bears N. 47¼° E. 40 lks. dist., marked T 1 S R 15 E S 35 B T.

An oak 10 ins. in diam. bears S 8¼° E. 70 lks. dist., marked T 2 S. R 15 E S 2 B T.

An oak 8 ins. in diam. bears S. 68¼° W. 90 lks. dist., marked T 2 S R 15 E S 3 B T. and

An oak 10 ins. in diam. bears N. 20° W. 50 lks. Dist., marked T 1 S R 15 E S 34 B T.

Land, mountainous, spurs with abrupt rocky slopes. Soil, poor, stony, clay loam, 3 to 6 ins. deep on clay and stone subsoil. Light growth bunch and pine grass. Timber, oak, pine and juniper.

September 19, 1914.

September 22, 1914.

At 8h. 53m. a. m., 1. m. t., I set off 33° 17½' N. on the lat. arc. 0° 29½' N. on the decl. arc and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35.

Thence I run,

West bet. secs. 3 and 34.

Descend abrupt rocky NW slope of high mountain ridge into the Pinal Creek Canyon, through oak, pine and juniper timber and dense oak and manzanita brush undergrowth.

4.30 Bottom of canyon 1500 ft. below top of ridge, cross Pinal Creek (dry) 30 lks. wide, course north. Ascend abruptly 150 ft. to top of spur.

6.90 Road from Globe to Ray, Arizona, bears N. and S.

13.50 Top of rocky spur bears NE. and SW. Desc. abruptly 125 ft. to

18.00 Bottom of canyon cross dry ravine 20 lks. wide, course N. 50° E. ascend abrupt SE. slope over loose boulders.

40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in

Chains.

the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
 $\frac{1}{4}$ S 34 in N.,
S 3 1914 in S. half;

No trees suitable for bearing trees available. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor. Pits impracticable.

44.00 Top of spur 40 ft. above the $\frac{1}{4}$ sec. cor. bears NW. and SE. Descend 50 ft. to

45.00 Dry ravine 10 lks. wide in bottom of canyon course S. 60° E. Ascend very abrupt NE. slope of spur.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, marked on brass cap,

T 1 S in N.,
T 2 S 1914 in S., and
R 15 E in W. half;
S 33 in NW.,
S 34 in NE.,
S 3 in SE., and
S 4 in SW. quadrant.

No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

Land, mountainous, spurs with abrupt, rocky slopes washed of soil.

Soil, of narrow bottoms along ravines sandy loam 6 ins. deep on stony clay subsoil. Light growth of pine grass.

Timber, oak, pine and juniper.

Note: Clouds obscure the sun at noon today, rendering an observation for latitude with the solar impossible.

West bet. secs. 4 and 33.

Ascend steep NE. slope of spur over mountainous land, through oak, pine and juniper timber and dense oak and manzanita brush undergrowth.

.50 Summit of spur 2500 ft. above the Pinal Creek Canyon, bears N. 40° E. and S. 40° W. Descend very abrupt NW. slope.

28.50 Dry ravine 20 lks. wide, course N. 50° W. Asc. 50 ft. to

29.75 Top of spur, bears NW. and SE. Desc. 2500 ft. to Sixshooter Canyon

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 33 in N., and
S 4 1914 in S. half; from which

A spruce 8 ins. in diam. bears N. 1° E. 18 lks. dist. marked $\frac{1}{4}$ S 33 B T.

A oak 18 ins. in diam. bears S. 39 $\frac{1}{2}$ ° E. 5 lks. dist., marked $\frac{1}{4}$ S 4 B T.

September 22, 1914.

Note: At this $\frac{1}{4}$ sec. cor.,
September 23, 1914.

At 8h. 23m. a. m., 1. m. t., I set off 33° 17 $\frac{1}{2}$ ' N. on the lat. arc 0° 06 $\frac{1}{2}$ ' N. on the decl. arc and determine a meridian with the solar.

49.90 Cross Sixshooter Canyon. Cross Sixshooter Creek 30 lks. wide, 5 ins. deep, pure water, course N. 20° E. Ascend very abruptly over rocky SE. slope of spur.

54.50 Old road from Globe, Arizona, to old sawmill in the head of Sixshooter canyon, bears N. and S.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, marked on brass cap,

Chains.

T 1 S in N.,
T 2 S 1914 in S. and
R 15 E in W. half;
S 32 in NW.,
S 33 in NE.,
S 4 in SE. and

S 5 in SW. quadrant; from which
An oak 6 ins. in diam. bears N. $30\frac{1}{2}^\circ$ E. 30 lks.
Dist., marked T 1 S R 15 E S 33 B T.
A pine 8 ins. in diam. bears S. $17\frac{1}{2}^\circ$ E. 35 lks.
Dist., marked T 2 S R 15 E S 4 B T.
An oak 6 ins. in diam. bears S. $46\frac{1}{2}^\circ$ W. 35 lks.
Dist., marked T 2 S R 15 E S 5 B T and
An oak 6 ins. in diam. bears N. 45° W. 35 lks.
dist., marked T 1 S R 15 E S 32 B T.

Land, rough mountainous, drains to the NE., spurs with
abrupt rocky slopes with very little, poor, stony soil.
Light growth pine grass.
Timber, oak, pine and scattering juniper and spruce.

Note: Clouds obscure the sun at noon today, rendering an
observation for latitude impossible with the solar.

West bet. secs. 5 and 32.

Ascend very abrupt rocky NE. slope of spur over mountainous
land, through oak, pine and juniper timber and
dense oak brush undergrowth 4 to 6 ft. high.

- 2.70 Top of rocky spur, 2000 ft. above bottom of Sixshooter
Canyon, bears N. 30° E. and S. 30° W. Descend ab-
ruptly over NW. slope into Icehouse Canyon.
- 2.80 Telephone line from the Pinal Forest Ranger Station to
the observation tower on the summit of Pinal Mountain
bears NE. and SW.
- 15.40 Dry ravine 20 lks. wide, 200 ft. below top of spur,
course N. 40° W. Asc. 75 ft. to
- 17.00 Top of spur, bears NW. and SE. Desc. abruptly 200 ft. to
- 24.75 Dry ravine 20 lks wide, in bottom of Icehouse Canyon,
course north. Ascend 600 ft. to top of spur.
- 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 32 in N.,
S 5 1914 in S. half; from which
A pine 6 ins. in diam., bears N. 85° E. 45 lks.
Dist., marked $\frac{1}{4}$ S 32 B T and
An oak 8 ins. in diam., bears S. $0^\circ 30'$ E. 62 lks
dist. Dist., marked $\frac{1}{4}$ S 5 B T.
- 42.50 Top of spur bears NE. and SW. Desc. 100 ft. to
- 51.30 Bottom of canyon, cross dry ravine 15 lks. wide, course N
 30° W. Asc. 50 ft. to
- 52.20 Top of spur, bears NW. and SE. Desc. 150 ft. to
- 64.00 Bottom of canyon, cross dry ravine, 20 lks. wide, course
NE. Ascend.
- 68.00 Top of spur, bears NW. and SE. Desc. SW. slope.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of secs. 5, 6, 31 and 32, marked
on brass cap,

T 1 S in N.,
T 2 S 1914 in S. and
R 15 E. in W. half;
S 31 in NW.,
S 32 in NE.,
S 5 in SE. and

S 6 in SW. quadrant; from which
An oak 8 ins. in diam., bears N. $59\frac{1}{2}^\circ$ E. 44 lks.
Dist., marked T 1 S R 15 E S 32 B T.
An oak 8 ins. in diam., bears S. $56\frac{1}{2}^\circ$ E. 34 lks.
Dist., marked T 2 S R 15 E S 5 B T.
A pine 5 ins. in diam., bears S. $43\frac{1}{2}^\circ$ W. 26 lks.
dist., marked T 2 S R 15 E S 6 B T. and
An oak 12 ins. in diam., bears N. $24\frac{1}{2}^\circ$ W. 74 lks.

Chains.

marked T 1 S R 15 E S 31 B T.

Land, mountainous,
Soil, poor, dry, stony loam 4 to 12 ins. deep, on clay
and stone subsoil. Light growth pine and bunch grass.
Timber, pine, oak and juniper.

September 23, 1914.

September 24, 1914.

At 9h. 32m. a. m., l. m. t., I set off 33° 17½' N. on the
lat. arc, 0° 17' S. on the dec. arc and determine a
meridian with the solar at the cor. of secs. 5, 6, 31
and 32.

Thence I run,
West bet. secs. 6 and 31.
Descend SW. slope of spur over stony mountainous land,
through scattering oak, pine and juniper timber and
dense oak and manzanita brush 4 to 6 ft. high.

- 3.30 Dry ravine 10 lks. wide, course S. 20° E. Asc.
- 6.60 Top of spur bears NW. and SE. Desc.
- 26.40 Dry ravine 10 lks. wide, course N. 30° W. Asc.
- 28.00 Top of spur 60 ft. above ravine bears NW. and SE. Desc.
- 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 31 in N., and
S 6 1914 in S. half; from which
An oak 12 ins. in diam. bears N. 78¼° W. 27 lks.
dist., marked ¼ S 31 B T and
A pine 10 ins. in diam. bears S. 29½° E. 7 lks.
dist., marked ¼ S 6 B T.
- 57.95 Dry ravine 15 lks. wide, course N. 40° W. Asc. 60 ft. to
- 61.60 Top of spur, bears NW. and SE. Desc.
- 79.69 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of Tps. 1 and 2 S., Rs. 14½ and 15
E., marked on brass cap,
T 1 S in N.,
R 15 E in E.,
T 2 S 1914 in S. and
R 14½ E in W. half;
S 36 in NW.,
S 31 in NE.,
S 6 in SE. and
S 1 in SW. quadrant; from which
An oak 24 ins. in diam. bears N. 31½° E. 63 lks.
dist., marked T 1 S R 15 E S 31 B T.
An oak 10 ins. in diam. bears S 34° E. 40 lks.
dist., marked T 2 S R 15 E S 6 B T.
A pine 18 ins. in diam., bears S. 14½° W 72 lks
dist., marked T 2 S R 14½° E S 1 B T and
A pine 10 ins. in diam. bears N. 27¼° W. 32 lks.
dist., marked T 1 S R 14½ E S 36 B T.

Land, mountainous, drains to the NE., spurs steep rocky.
Soil, dry, sandy loam 4 to 8 ins. deep on clay and sand-
stone subsoil. Very little grass.
Timber, oak, pine and scattering juniper.

September 24, 1914.

46.

West boundary of T. 1 S., R. 15 E.

Chains.

September 25, 1914.

I set off $33^{\circ} 17\frac{1}{2}'$ N. on the lat. arc, $0^{\circ} 40'$ S. on the decl. arc, and at 8h. 22m. a. m., l. m. t., determine a meridian with the solar at the cor. of Tps. 1 and 2 S., Rs. $14\frac{1}{2}$ and 15 E., established by me as hereinbefore described.

Thence I run,

North, bet. secs. 31 and 36.

Descend N. slope of spur, over mountainous land, through oak, pine, and juniper timber and dense oak brush undergrowth. Desc. 30 ft. to

- 4.50 Dry ravine 15 lks. wide, course west. Ascend 75 ft. to
14.60 Top of spur, bears E. and W. Desc. NW. slope along top of spur.
- 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.,
S 31 in E., and
1914 in S. half; from which
A pine 6 ins. in diam. bears N. $42\frac{1}{2}^{\circ}$ W. 65 lks. dist., marked $\frac{1}{4}$ S 36 BT.
A pine 8 ins. in diam., bears S. $63\frac{1}{2}^{\circ}$ E. 120 lks dist., marked $\frac{1}{4}$ S 31 B T.
- 42.00 Bottom of canyon 1800 ft. below Tp cor. cross dry ravine 40 lks. wide, course N. 40° W. Asc. 30 ft. to
46.00 Top of spur, bears NE. and SW. Descend NW. slope.
47.25 Pack trail from Globe to Ray, Arizona, bears N. 20° E. and S. 20° W.
48.40 Foot of descent in canyon, 2000 ft. below Tp. cor., cross Russell Gulch, 40 lks. wide, course N. 20° E. Ascend steep SE. slope 100 ft. to top of spur.
49.80 Telephone line from Globe to Ray and Kelvin, Arizona, bears N. 20° E. and S. 20° W.
54.90 Top of spur bears N. 50° W. and S. 50° E. Desc. NE. slope 150 ft. to
60.00 Bottom of canyon, cross dry ravine 15 lks. wide, course S 50° E. Asc. 50 ft. to
63.50 Top of spur, bears NW. and SE. Desc. 150 ft. to
75.20 Bottom of canyon, cross dry ravine 20 lks. wide, course S 70° E. Ascend; leave timber bears NW. and SE.
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap,
T 1 S in N. and
1914 in S. half;
R $14\frac{1}{2}$ E S 25 in NW.,
R 15 E S 30 in NE.,
S 31 in SE and
S 36 in SW. quadrant; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous, drains to the NE. Spurs with abrupt slopes covered with loose stone.
Soil, poor, stony clay loam, on clay and stone subsoil. Very light growth bunch grass.
Timber scattering oak, pine and juniper.
- Note: At this cor. I set off $0^{\circ} 44'$ S. on the decl. arc, and at apparent noon, September 25, 1914, observe the sun on the meridian and obtain a reading of $33^{\circ} 18'$ N. on the lat. arc.

North, bet. secs. 25 and 30.

Ascend SW. slope of spur over stony, mountainous land, through scattering oak and pine timber and dense oak brush underbrush 4 to 6 ft. high. Asc. 60 ft. to

- 3.80 Top of spur, bears NW. and SE. Desc. 150 ft. to
12.20 Bottom of canyon, cross dry ravine, 20 lks. wide, course S. 60° E. Asc. 250 ft. to

West boundary of T. 1 S., R. 15 E.

Chains

- 35.40 Top of rocky spur, bears N. 50° W. and S. 50° E. Desc. 150 ft. to
- 39.00 Dry ravine, 15 lks. wide, course east. Asc.
- 40.00 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.,
 S 30 in E. and
 1914 in S. half; from which
 A pine 8 ins. in diam. bears N. 38 1/4° W. 20 lks. dist., marked 1/4 S 25 BT., and
 An oak 6 ins. in diam., bears S. 20 1/2° E. 27 lks. dist., marked 1/4 S 30 B T.

September 25, 1914.

Note: At this 1/4 sec. cor. September 26, 1914.

At 7h. 52m. a. m., 1. m. t., I set off 33° 18 1/2' N. on the lat. arc, 1° 03' S. on the decl. arc, and determine a meridian with the solar. Ascend 100 ft. to

- 45.45 Top of rocky spur, bears N. 60° W. and S. 60° E. Desc. 300 ft. to bottom of canyon.
- 63.50 Old log road bears N. 70° E. and S. 70° W.
- 72.00 Bottom of canyon, cross dry ravine 25 lks. wide, course N 50° E. Ascend abruptly 75 ft. to
- 76.00 Top of spur bears NE. and SW. Desc. 50 ft. to
- 77.50 Dry ravine, course S. 70° E. Ascend.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of secs. 19, 24, 25 and 30., marked on brass cap,

- T 1 S in N. and
 1914 in S. half;
 R 14 1/2 E. S 24 in NW.,
 R 15 E S 19 in NE.,
 S 30 in SE and
 S 25 in SW. quadrant.

No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable.

Land, rough mountains, drains to the NE., spurs with steep slopes, washed, stony.

Soil, poor, dry, sandy and stony clay loam 6 ins. deep on clay subsoil. Light growth of bunch grass.

Timber scattering oak, pine and juniper.

North bet. secs. 19 and 24.

Ascend steep, rocky SW. slope, over mountainous land, through scattering oak and pine timber and dense oak brush undergrowth 4 to 6 ft. high. Ascend 200 ft. to

- 10.70 Top of spur, bears NE. and SW. Desc. 150 ft. to
- 23.45 Dry ravine in bottom of canyon, course N. 60° E. Ascend 100 ft. to
- 30.85 Top of spur, bears N. 50° E. and S. 50° W. Desc. 125 ft. to
- 38.75 Dry ravine 15 lks. wide, course east. Ascend 20 ft. to
- 39.00 Point of spur, bears NE. and SW. Desc.
- 40.00 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 S.,
 S 19 in E., and
 1914 in S. half; No trees suitable for bearing trees available. Raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of cor. Pits impracticable.

- 43.20 Dry ravine 15 lks. wide, 50 ft. below 1/4 sec. cor., course N. 70° E. Ascend 250 ft. to
- 55.40 Top of rocky spur, bears E. and W. Descend abrupt N. slope 300 ft. over loose boulders and granite ledges.
- 60.50 Old log chute bears N. 70° E. and S. 70° W.
- 63.70 Bottom of rocky canyon cross dry ravine 20 lks. wide,

xw

Chains.

80.00 course N. 60° E. Ascend very abruptly.
Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap,

T 1 S in N., and
1914 in S. half;
R 14½ E S 13 in NW.,
R 15 E S 18 in NE.,
S 19 in SE., and
S 24 in SW. quadrant.

No trees within limits. Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable. Land, rough, mountains, spurs with abrupt rocky slopes; Soil, worthless, stony, clay loam, 2 to 6 ins. deep, on granite ledges. Light growth bunch grass. Timber, scattering oak, pine and juniper.

Note: Clouds obscure the sun at noon today rendering an observation for latitude with the solar impossible.

September 26, 1914.

September 28, 1914.

At 8h. 51m. a. m., 1. m. t., I set off 33° 20' N. on the lat. arc, 1° 51' S. on the decl arc, and determine a meridian with the solar at the cor. of secs. 13, 18, 19, and 24.

Thence I run,

North bet. secs. 13 and 18.

Ascend abrupt S. slope of ridge over mountainous land covered with fallen granite boulders, scattering oak and pine timber and dense oak and manzanita brush undergrowth exceptionally difficult to survey. Asc. 300 ft. to

11.60 Top of ridge bears N. 60° E. and S. 60° W. Descend abruptly NW. slope 400 ft. to

30.00 Dry ravine 20 lks. wide, course N. 40° E. Ascend over granite ledge 50 ft. to

32.00 Top of spur bears NE. and SW. Desc. 550 ft. to bottom of canyon.

40.00 The point for the ¼ sec. cor. falls on the face of a granite boulder where I am unable to establish a permanent cor. therefore I cut a cross (x) at the exact cor. point and at

40.25 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for witness cor. to the ¼ sec. cor. marked on brass cap,

WC ¼ S of center,
1914 in S. half;
S 13 in NW., and
S 18 in NE quadrant; from which

An oak 6 ins. in diam. bears N. 53° E. 9 lks. dist., marked WC ¼ S 18 B T.

An oak 5 ins. in diam. bears N. 80° W. 20 lks. dist., marked WC ¼ S 13 B T.

Note: Clouds obscure the sun at noon today, rendering an observation for latitude impossible.

73.00 Bottom of canyon, cross dry ravine 20 lks. wide, course N. 40° E. Ascend over granite boulders. Leave timber, bears NE. and SW. Asc. 150 ft. to

78.00 Top of granite spur, bears N. 70° E. and S. 70° W. Desc.

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 1 S in N.,
1914 in S. half;
R 14½ E S 12 in NW.,
R 15 E S 7 in NE.,
S 18 in SE., and
S 13 in SW. quadrant;

West Boundary of T. 1 S., R 15 E.

Chains.

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
Land, mountainous, drains to the NE., spurs steep, washed on slopes, rocky.
Soil, worthless, stony, clay loam and decomposed granite underlaid with ledges of granite and porphyry.
Timber, oak and pine

September 28, 1914.

September 29, 1914.

At 8h. 21m. a. m., 1. m. t., I set off 33° 21' N. on the lat. arc, 2° 13½' S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence I run, North, between secs. 7 and 12.

Descend abrupt N. slope of spur over granite boulders, through dense oak and manzanita brush 6 to 10 ft. high. Desc. 250 ft. to

10.20 Bottom of dry ravine, course N. 30° E. Ascend. 50 ft. to

12.30 Top of spur, bears NE and SW. Desc. 200 ft. to

29.75 Dry ravine, 20 lks. wide, course N. 70° E. Ascend S. slope of spur.

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 12 in W., S 7 in E. and

1914 in S. half; raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

44.50 Top of spur 40 ft. above ¼ sec. cor. bears NE. and SW. Descend 200 ft. to

51.80 Bottom of canyon cross dry ravine 20 lks. wide, course east. Ascend S. slope 250 ft. to

62.00 Top of bare, stony spur, bears N. 70° E. and S. 70° W. Descend. NW. slope

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, marked on brass cap,

T 1 S in N. and
1914 in S. half;
R 14½ E S 1 in NW.,
R 15 E S 6 in NE.,
S 7 in SE. and
S 12 in SW. quadrant;

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

Land, rough, mountainous, drains to the NE., spurs with steep slopes, washed on slopes, stony.

Soil, worthless, stony, clay loam on clay subsoil. N. ¼ mile good growth bunch grass.

No timber.

Note: At this cor. I set off 2° 17½' S. on the decl. arc, and at apparent noon observe the sun on the meridian and obtain a reading of 33° 21½' N. on the lat. arc,

North, bet. secs. 1 and 6.

Descend NW. slope over stony mountainous land, through catclaw and cactus undergrowth 3 ft. high. Desc. 25 ft. to

1.40 Bottom of dry ravine, 40 lks. wide, course N. 60° E. Ascend abrupt S. slope 200 ft. to

10.70 Top of spur, bears N. 55° W. and S. 55° E. Descend NW. slope 150 ft. to

15.00 Bottom of canyon, cross dry ravine 15 lks. wide, course

50. West Boundary of T. 1 S., R. 15 E.

Chains.
 21.30 S. 50° E. Ascend.
 Top of spur bears NE. and SW. descend along E. slope.
 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.
 S 6 in E., and
 1914 in S. half;
 Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

September 29, 1914.

Note: At this cor.
 October 2, 1914.

At 8h. 50m. a. m., 1. m. t., I set off 33° 22' N. on the lat. arc, 3° 24 $\frac{1}{2}$ ' S. on the decl. arc, and determine a meridian with the solar g.

61.64 Intersect the Gila and Salt River Base Line 663 lks. west of the original Standard cor. of secs. 31 and 32, T. 1 N., R. 15 E., which is a granite stone 14 x 6 x 8 ins above ground, firmly set, marked and witnessed as described by the surveyor general. At point of intersection,

Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for closing cor. of Ts. 1 S., Rs. 14 $\frac{1}{2}$ and 15 E., marked on brass cap,

CC S. of center,
 T 1 N R 15 E., S 31, S 32 in N. and
 T 1 S, 1914 in S. half;
 R 15 E S 6 in SE and
 R 14 $\frac{1}{2}$ E S 1 in SW. quadrant.

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

Land, rolling, mountains, drains to the NE., spurs steep, covered with loose stone.

Soil, stony, clay loam about 6 to 8 ins. deep on stiff clay subsoil. Good growth bunch grass.

No timber.

October 2, 1914.

Boundaries of T. 1 S., R. 15 E.
 Latitudes, departures and closing errors.

Line designated.	True bearing.	Distance	Latitude. Departures.			
			N.	S	E	W
		Chs.	Chs.	Chs.	Chs.	Chs.
South boundary	West	479.69				479.69
West boundary.	North	461.64	461.64			
North boundary (G&S, R, Base Line)	East.	6.63			6.63	
	S. 89° 53' E.	39.92		0.08	39.92	
	S. 89° 55' E.	39.85		0.06	39.85	
	N. 89° 36' E.	39.72	.28		39.72	
	S. 89° 26' E.	39.62		0.39	39.62	
	East	39.76			39.76	
	S. 89° 51' E.	38.92		0.10	38.92	
	East	160.00			160.00	
	S. 89° 59' E.	39.91		0.01	39.91	
	East	34.81			34.81	
East boundary	South	460.96		460.96		
Convergency					0.48	
Totals			461.92	461.60	479.62	479.69
			461.60			479.62
Error in lat.			0.32			
Error in dep.						0.07

GENERAL DESCRIPTION.

This township is rough and mountainous in its entirety, being traversed in a northeasterly direction by high bare spurs and deep canyons which extend from the summit of the Pinal Mountain range in the southern part of the township across the township, gradually diminishing in height and depth. These spurs near the main range become abrupt and are covered with a very dense growth of oak and manzanita brush and in the canyons and on the slopes of the spurs are thickets of young pine, oak and some spruce. About one-half of the township is covered with a good growth of bunch grass which furnishes excellent pasture for a large number of horses and cattle. The township is poorly watered; and only a small amount of good land in the bottoms of the canyons.

52. West Boundary of Fractional T. 5 N., R. 15 E.

Chains	
	Survey commenced October 18, 1914, and executed with a Young and Sons light mountain transit No. 10, hereinbefore described.
	I begin at the Standard Cor. of T. 5 N. R. 14 E. and Fractional T. 5 N., R. 15 E. Latitude $33^{\circ} 43' 27''$ N. Longitude $110^{\circ} 51' 30''$ W. established by me as described in Book "B.", and at which cor. on October 15, I established a meridian in connection with the survey of the First Standard Parallel North through R. 15 E.
	Thence I run, North, bet. secs. 31 and 36.
	Descend N. slope of spur over stony mountainous land, through mesquite and greasewood brush undergrowth and scattering cedar timber.
3.10	Dry ravine 20 lks. wide, course east. Asc. 180 ft. to
23.00	Top of spur, bears NW. and SE. Descend abruptly over cliffs and ledges into Coon Creek Canyon.
29.80	Bottom of Coon Creek Canyon, cross dry creek bed, course east. Ascend 375 ft. to spur.
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., S 31 in E. and 1914 in S. half; from which A cedar 5 ins. in diam. bears S. $35\frac{1}{2}^{\circ}$ E. 100 lks. dist., marked $\frac{1}{4}$ S 31 B T. A cedar 6 ins. in diam. bears S. $35\frac{1}{2}^{\circ}$ W. 80 lks. dist., marked $\frac{1}{4}$ S 36 B T.
69.00	Top of spur, bears NE. and SW. Desc. 15 ft. to
70.40	Dry ravine 20 lks. wide, course S. 60° W. Ascend abruptly
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked on brass cap, T 5 N in N. and 1914 in S. half; R 14 E S 25 in NW., R 15 E S 30 in NE., S 31 in SE and S 36 in SW. quadrant; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. No trees within the prescribed limits. Pits impracticable. Land, mountainous. Soil, light, dry, stony loam, 2 to 6 ins. deep, on clay and shale subsoil. Good growth bunch grass. Timber, scattering cedar and mesquite.
	<hr/>
	North bet. secs. 25 and 30.
	Ascend SE. slope of spur over mountainous land, through greasewood brush undergrowth and scattering cedar and oak timber.
15.00	Top of spur bears NE. and SW. Desc.
15.76	Dry ravine 15 lks. wide, course S. 20° W. Asc.
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., S 30 in E., and 1914 in S. half; from which A cedar 8 ins. in diam., bears N. 47° E. 82 lks. dist., marked $\frac{1}{4}$ S 30 B T. A cedar 8 ins. in diam. bears N. $11\frac{1}{2}^{\circ}$ W. 222 lks. dist., marked $\frac{1}{4}$ S 25 B T.
74.50	Top of divide bears NW. and SE. Descend NE. slope.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for Cor. of secs. 19, 24, 25 and 30, marked on brass cap, T 5 N in N. and 1914 in S. half; R 14 E S 24 in NW., R 15 E S 19 in NE.,

West Boundary of Fractional T. 5 N., R. 15 E. 53.

Chains.

S 30 in SE. and
 S 25 in SW quadrant; from which
 A cedar 28 ins. in diam. bears N. 10° E. 190
 lks. dist., marked T 5 N R 15 E S 19 B T.
 A juniper 10 ins. in diam., bears S. 15¼° E. 108
 lks. dist., marked T 5 N R 15 E S 30 B T.
 A juniper 4 ins. in diam. bears S. 84° W. 134
 lks. dist., marked T 5 N R 14 E S 25 B T.
 A juniper 10 ins. in diam. bears N. 85° W. 85.
 lks. dist., marked T 5 N R 14 E S 24 B T.
 S. 74 chs. very rough mountainous land, spurs with steep
 slopes, covered with loose rock.
 Soil, stony, worthless 2 to 6 ins. deep on ledges of por-
 phyry; good growth bunch grass. N. 6 chs. rolling
 mountains slopes to NW.
 Soil, adobe, clay loam covered with loose malapais boul-
 ders.
 Timber, cedar, juniper and oak.

North, bet. secs. 19 and 24.

Descend N. slope, over stony, mountainous land, through oak and greasewood brush undergrowth and scattering juniper, cedar and oak timber.

- 7.70 South side of canyon. Descend abruptly 300 ft. to
 - 21.00 Bottom of canyon, course east. Ascend abrupt S. slope, 250 ft. to
 - 36.70 Top of spur, bears NW. and SE. Desc. 150 ft. to ravine.
 - 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 24 in W.,
 S 19 in E. and
 1914 in S. half; from which
 An oak 18 ins. in diam. bears S. 42¼° E. 95 lks.
 Dist., marked ¼ S 19 B T. No other trees within limits. Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
 - 46.10 Dry ravine 15 lks. wide, course S. 40° E. Ascend 145 ft. to
 - 51.90 Top of spur bears E. and W. Desc. NE. slope.
 - 71.00 A point from which an old Indian ruins bears east 7.00 chs. dist.
 - 76.50 Dry ravine 20 lks. wide, course S. 40° E. Ascend abruptly 210 ft. to
 - 80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap,
 T 5 N in N. and
 1914 in S. half;
 R 14 E S 13 in NW.,
 R 15 E S 18 in NE.,
 S 19 in SE and
 S 24 in SW. quadrant; No trees within limits. Raise a mound of stone 2 ft. base, 1½ ft. high. W. of cor. Pits impracticable.
- Land, mountainous.
 Soil, light, dry, stony loam 2 to 4 ins. deep underlaid with ledges of granite stone. Good growth of bunch grass. No timber.

October 18, 1914.

October 19, 1914.

At 9h. a. m., 1. m. t., I set off 33° 46' N. on the lat. arc, 9° 49½' S. on the decl arc, and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24.

Thence I run,

54. West Boundary Fractional T. 5 N., R. 15 E.

Chains.

- North, bet. secs. 13 and 18.
Ascend S. slope of spur, over mountainous land, through scattering cedar and oak timber and greasewood brush undergrowth.
- 2.90 Top of spur, bears NW. and SE. Descend into box canyon.
20.90 Box canyon, 250 ft. deep, course S. 60° E. Ascend abruptly over steep S. slope, through dense oak and manzanita brush 4 to 6 ft. high. Ascend. 500 ft. to
39.00 Top of spur, bears NE. and SW. Descend NW. slope.
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.,
S 18 in E. and
1914 in S. half;
No trees suitable for bearing trees within limits.
Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high. W. of cor. Pits impracticable.
- 54.00 Dry ravine 20 lks. wide, course S. 30° W. Ascend.
63.00 Top of spur bears NE. and SW. Descend 125 ft. to
70.00 Dry ravine 15 lks. wide, course west. Asc. 380 ft. to
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 5 N in N. half;
1914 in S. half;
R 14 E S 12 in NW.,
R 15 E S 7 in NE.,
S 18 in SE and
S 13 in SW. quadrant; No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
Land, mountainous, spurs steep, covered with loose rock. Soil, light poor, dry, stony, clay loam.
Timber, oak, juniper and cedar.

- North bet. secs. 7 and 12.
Ascend along steep SW. slope over stony, mountainous land, covered with dense oak and manzanita brush 4 to 8 ft. high, and scattering juniper, cedar and oak timber:
- 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. and
1914 in S. half.
No trees suitable for bearing trees within limits.
Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

October 19, 1914.

Note: At this $\frac{1}{4}$ sec. cor.,
October 20, 1914.

At 8h. 30m. a. m., 1. m. t., I set off 33° 47 $\frac{1}{2}$ ' N. on the lat. arc, 10° 10 $\frac{1}{2}$ ' S. on the decl. arc, and determine a meridian with the solar.

- 53.60 Top of spur bears NE. and SW. Desc. abruptly.
69.35 Dry ravine 10 lks. wide, course west. Ascend 270 ft. to
80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12. marked on brass cap,
T 5 N. in N. and,
1914 in S. half;
R 14 E S 1 in NW.,
R 15 E S 6 in NE.,
S 7 in SE and
S 12 in SW quadrant. No trees suitable for bearing trees within limits. Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable
Land, mountainous, slopes to the SW.
Soil, stony, worthless.

Chains.

Timber, scattering oak, juniper and cedar.

North bet. secs. 1 and 6.
Ascend steep SW. slope over very rough, broken mountainous land, covered with dense oak and manzanita brush undergrowth 4 to 8 ft. high, and scattering oak, juniper and cedar timber.

17.40 High ridge bears NW. and SE. Descend abruptly over NE. slope over cliffs.

30.00 Enter yew timber bears E. and W.

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.,
S 6 in E. and
1914 in S. half; from which

A yew 12 ins. in diam. bears S. $85\frac{1}{2}^{\circ}$ E. 38 lks. dist., marked $\frac{1}{4}$ S 6 B T.

A yew 10 ins. in diam. bears S. $41\frac{3}{4}^{\circ}$ W. 5 lks. dist., marked $\frac{1}{4}$ S 1 B T.

This corner is situated on steep NE. slope of spur in dense thicket of yew timber.

45.50 Head of ravine, course NE. Asc.

50.00 Leave yew timber, bears NE and SW. on top of spur, bears N. 50° E.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of Tps. 5 and 6 N., R. 14 E. and Fractional Ts. 5 & 6 N., R. 15 E., marked on brass cap,

T 6 N in N.
R 15 E in E.,
T 5 N 1914 in S. and
R 14 E in W. half;
S 36 in NW.,
S 31 in NE.,
S 6 in SE. and
S 1 in SW. quadrant; from which

An oak 10 ins. diam. bears N. $7\frac{1}{2}^{\circ}$ E. 25 lks. dist. marked T 6 N R 15 E S 31 B T.

An oak 15 ins. in diam. bears S. $27\frac{1}{2}^{\circ}$ E. 48 lks. dist., marked T 5 N R 15 E S 6 B T.

An oak 24 ins. in diam. bears S. $43\frac{1}{2}^{\circ}$ W. 64 lks. dist., marked T 5 N R 14 E S 1 B T and

An oak 8 ins. in diam. bears N. $39\frac{1}{4}^{\circ}$ W. 30 lks. dist., marked T 6 N R 14 E S 36 B T.

Land, mountainous.

Soil, stony, worthless.

Timber, oak, juniper, cedar, yew.

October 20, 1914.

56. East Boundary of Fractional T. 5 N., R. 15 E.

Chains.

Survey commenced October 23, 1914 and executed with a Young and Sons light mountain transit No. 10, hereinbefore described.

I examine the adjustments of the transit and correct the level and collimation errors and from recent tests of the solar apparatus by comparing its indications resulting from solar observations made during a. m. and p. m. hours, with a meridian established by observations on Polaris I know that the instrument is in satisfactory adjustment. Therefore I begin at the standard cor. of Fractional Tps. 5 N., Rs. 15 and 15½ E. Latitude 33° 43' 27" N., Longitude 110° 46' 30" W. established by me as described in Book "B."

At 7h 15m. a. m., 1. m. t., I set off 33° 43½' N. on the lat. arc, 11° 10½' S. on the decl. arc and determine a meridian with the solar at the above mentioned cor.

Thence I run,

North bet. secs. 35 and 31.

Descend NW. slope of spur over stony mountainous land, through greasewood and cactus undergrowth. Desc. 50 ft. to

- 6.60 Dry ravine, course west. Ascend.
 13.60 Top of spur bears N. 80° W. Descend 80 ft. to
 18.00 Dry ravine 15 lks. wide, course N. 70° W. Ascend 160 ft. to
 24.00 Top of spur bears N. 60° W. Descend 120 ft. to
 30.40 Dry ravine 30 lks. wide, course N. 60° W. Ascend 50 ft. to
 34.60 Top of spur bears NW. and SE. Descend 45 ft. to
 35.90 Dry ravine 20 lks. wide, course S. 60° W. Ascend 80 ft. to
 38.80 Top of spur bears N. 60° E. and S. 60° W. Descend.
 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 35 in W.,
 S 31 in E., and
 1914 in S. half; and raise a mound of stone
 2 ft. base, 1½ ft. high W. of cor., Pits impracticable
 49.10 Dry sand wash 50 lks. wide, course S. 30° W. Ascend 120 ft. to
 64.20 Top of spur bears E. and W. Descend 100 ft. to
 69.90 Dry ravine 15 lks. wide, course west. Ascend 50 ft. to
 73.50 Top of spur bears N. 60° W. Descend 80 ft. to
 78.10 Dry sand wash 70 lks. wide, course N. 70° W. Ascend.
 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 26, 30, 31 and 35, marked on brass cap,
 T 5 N. in N. and;
 1914 in S. half;
 R 15 E S 26 in NW.
 R 15½ E S 30 in NE.,
 S 31 in SE and
 S 35 in SW quadrant, and raise a mound of
 stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
 Land, mountainous, spurs steep, covered with loose boulders.
 Soil, light, dry, stony loam about 6 ins. deep on clay and loose stone subsoil. Good growth bunch grass.
 No timber.

North bet. secs. 26 and 30.

Ascend S. slope over stony mountainous land, through greasewood and catsclaw brush undergrowth 3 ft. high.

- 12.80 Top of spur bears NE. and SW. Descend.
 28.65 Dry sand wash 60 lks. wide, course S. 50° W. Asc.
 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 26 in W.,
 S 30 in E., and
 1914 in S. half.

Chains

Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

43.30 Top of spur bears NE. and SW. Desc.

50.80 Dry ravine 10 lks. wide, course west. Ascend.

59.40 Top of spur bears N. 50° E. and S. 50° W. Desc.

75.00 Dry sand wash 50 lks. wide, course S. 70° W. Ascend.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 19, 23, 26 and 30, marked on brass cap,
 T 5 N in N. hand;
 1914 in S. half;
 R 15 E S 23 in NW.
 R 15½ E S 19 in NE.,
 S 30 in SE., and
 S 26 in SW. quadrant. Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

Land, mountainous, spurs with steep slopes covered with loose river boulders.

Soil, light, dry, stony loam about 8 ins. deep on stony subsoil. Good growth bunch grass.

No timber.

Note: At this cor. I set off 11° 20' S. on the decl. arc and at apparent noon observe the sun on the meridian and obtain a reading of 33° 45' N. on the lat. arc.

North bet. secs. 23 and 19.

Ascend SE. slope of spur over stony, mountainous land, through greasewood and cactus undergrowth.

10.10 Top of spur, bears N. 50° E. and S. 50° W. Desc. steep

32.70 Dry sand wash, enter mesquite and catsclaw timber, bears NE. and SW.

35.70 Leave sand wash and timber bears NE. and SW. course of sand wash S. 50° W. Ascend SE. slope of spur.

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 23 in W.,
 S 19 in E. and
 1914 in S. half; and raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

68.60 Top of spur bears NE. and SW. Desc.

75.30 Dry ravine 10 lks. wide, course S. 40° W. Ascend.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 14, 18, 19 and 23, marked on brass cap,
 T 5 N in N. hand;
 1914 in S. half;
 R 15 E S 14 in NW.,
 R 15½ E S 18 in NE.,
 S 19 in SE. and
 S 23 in SW. quadrant. Raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

Land, mountainous, slopes to the SW., spurs steep, washed on slopes, facing to the north.

Soil, dry, sandy clay loam. Good growth bunch grass.

Timber, mesquite and catsclaw.

North bet. secs. 14 and 18.

Ascend SW. slope of spur over stony mountainous land, through greasewood and cactus undergrowth 3 to 5 ft. high.

6.60 Top of spur bears NW. and SE. Descend.

24.10 Dry ravine 15 lks. wide, course S. 50° E. Asc.

32.80 Top of spur bears NW. and SE. Desc.

39.80 Dry ravine 10 lks. wide, course S. 70° W. Ascend.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in

58. East Boundary of Fractional T. 5 N., R. 15 E.

Chains. the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 14' in W.,
 S 18 in E. and
 1914 in S. half; and raise a mound of stone
 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

43.30 Top of spur bears NW. and SE. Desc.
 48.10 Dry ravine 20 lks. wide, course N. 70° W. Asc.
 57.10 Top of spur bears NW. and SE. Desc.
 80.00 The point for the cor. of secs. 7, 11, 14 and 18 falls in
 dry sand wash, course west; therefore at
 78.15 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
 the ground for witness cor. to the cor. of secs. 7, 11
 14 and 18, marked on brass cap,
 WC S of center,
 T 5 N R 15 E R 15 $\frac{1}{2}$ E S 11 S 7 in N. land;
 1914 in S. half;
 S 18 in SE. and
 S 14 in SW. quadrant. Raise a mound of
 stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits imprac-
 ticable.

Land, mountainous.
 Soil, stony, worthless. Good growth bunch grass. No
 timber.

October 23, 1914.

October 24, 1914.

At 7h. 45m. a. m., 1. m. t., I set off 33° 47' N. on the
 lat. arc, 11° 34 $\frac{1}{2}$ ' N. in the decl. arc, and determine
 a meridian with the solar at the true point for cor.
 of secs. 7, 11, 14, 18.
 Thence I run,
 North bet. secs. 11 and 7.
 Ascend steep SE. slope, over stony mountainous land,
 through greasewood and cactus undergrowth 4 ft. high.

2.50 Top of spur bears NW. and SE. Desc.
 32.48 Dry sand wash 125 lks. wide, course N. 50° W. Ascend.
 40.00 The point for the $\frac{1}{4}$ sec. cor. falls in the bottom of dry
 ravine, therefore at
 39.50 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for witness cor. to the $\frac{1}{4}$ sec. cor., marked
 on brass cap WC $\frac{1}{4}$ N. of center,
 1914 in S. half;
 S 11 in SW, and
 S 7 in SE. quadrant. Raise a mound of
 stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits im-
 practicable. Ascend.

69.00 Summit of high rocky ridge bears NE. and SW. Desc.
 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in
 the ground for cor. of secs. 2, 6, 7 and 11, marked on
 brass cap,
 T 5 N in N. land,
 1914 in S. half;
 R 15 E S 2 in NW.,
 R 15 $\frac{1}{2}$ E S 6 in NE.,
 S 7 in SE. and
 S 11 in SW. quadrant; and raise a mound of
 stone 2 ft. base, $1\frac{1}{2}$ high W. of cor. Pits imprac-
 ticable.

Land, mountainous, spurs steep covered with loose boulders.
 Soil, stony, worthless. No timber.

North bet. secs. 2 and 6.

Descend NW. slope over rolling mountainous land, through
 mesquite and catsclaw timber and brush.

12.70 Dry ravine 10 lks. wide, course S 70° W.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in

Chains.

the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 2 in W.,
S 6 in E and
1914 in S. half. No trees suitable for
bearing trees within limits. Raise a mound of stone
2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impractica-
ble.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in
the ground for cor. of Fractional Tps. 5 and 6, N., Rs.
15 and $15\frac{1}{2}$ E., marked on brass cap

T 6 N in N.,
R $15\frac{1}{2}$ E in E.,
T 5 N. 1914 in S and
R 15 E in W. half;
S 35 in NW.,
S 31 in NE.,
S 6 in SE., and
S 2 in SW. quadrant.

No trees suitable for bearing trees within limits.
Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high S. of
cor. Pits impracticable.

Land, rolling, mountains.

Soil, decomposed granite on granite bedrock. Good growth
bunch grass.

Timber, scattering mesquite and catsclaw.

October 24, 1914.

60. North Boundary of Fractional T. 5 N., R. 15 E.

Chains Survey commenced October 22, 1914 and executed with a Young and Sons light mountain transit No. 10, hereinbefore described.

I examine the adjustments of the transit and find them to be correct and know from recent tests of the solar apparatus by comparing its indications resulting from solar observations, made during a. m. and p. m., hours with a meridian determined by observation on Polaris, that the instrument is in good adjustment.

I begin at the cor. of Tps. 5 and 6 N., R. 14 E. and Fractional Ts. 5 and 6 N., R. 15 E. Latitude $33^{\circ} 48' 40''$ N. Longitude $110^{\circ} 51' 30''$ W., established by me as hereinbefore described.

At 8h. 15m. a. m., l. m. t., I set off $33^{\circ} 48\frac{1}{2}'$ N. on the lat. arc, $10^{\circ} 53'$ S. on the decl. arc, and determine a meridian with the solar at the above mentioned cor. Thence I run,

East on a random line along the N. Bdy. of Fractional T. 5 N., R. 15 E., setting temp $\frac{1}{4}$ sec. and sec. cors. at intervals of 40 chs.; and at 399.96 chs. intersect E. bdy. of Tps. 26 lks. S. of the cor. of Fractional Tps. 5 and 6 N., Rs. 15 and $15\frac{1}{2}$ E., hereinbefore described. The falling answers to a correction of $0^{\circ} 02'$ of 5 lks. N. per mile counting from the NW. cor. of Tp.

October 22 and 24 1914.

October 24, 1914.

At 2h. 30m. p. m., l. m. t., I set off $33^{\circ} 48\frac{1}{2}'$ N. on the lat. arc, $11^{\circ} 41'$ S. on the decl. arc and determine a meridian with the solar at the cor. of Fractional Tps. 5 and 6 N., Rs. 15 and $15\frac{1}{2}$ E.

Thence I run,
S. $89^{\circ} 58'$ W. bet. secs. 2 and 35, marking and blazing true line.

Over rolling stony land, through scattering catsclaw and greasewood brush undergrowth 4 ft. high.

39.96 The point for the $\frac{1}{4}$ sec. cor. falls in bottom of dry ravine, course SW., therefore at

39.70 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for witness cor. to the $\frac{1}{4}$ sec. cor., marked on brass cap

WC $\frac{1}{4}$ W. of center,

1914 in S. half;

S 35 in NE., and

S 2 in SE. quadrant, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor. Pits impracticable.

53.00 Top of spur bears NE. and SW. Descend abruptly over W. slope of spur.

67.30 Bottom of dry ravine 50 lks. wide, course south. Ascend.

74.10 Top of spur bears NE. and SW. Descend abruptly into canyon.

79.96 The point for the cor. of secs. 2, 3, 34 and 35 falls at foot of descent in canyon, therefore I continue my line and at

80.50 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for witness cor. to the cor. of secs. 2, 3, 34, and 35, marked on brass cap,

WC N. of center,

T 6 N in N., S 35 S 2 in E.,

T 5 N., 1914 in S. and

R 15 E in W. half;

S 34 in NW. and

S 3 in SW. quadrant. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.

E. 40 chs. rolling, gravelly land.

Soil, light, dry, stony loam on decomposed granite sub-soil, good growth bunch grass.

North Boundary of Fractional T. 5 N., R. 15 E. 61.

Chains	<p>W. 40 chs. mountainous, spurs and ridges with steep slopes covered with loose rock. Soil, light, poor, stony, clay and sandy loam underlaid with ledges of stone. Light growth grass. Timber, scattering mesquite and catsclaw.</p> <hr/> <p>S. 89° 58' W. bet. secs. 3 and 34, from true point for cor. of secs. 2, 3, 34 and 35. Ascend steep rocky SE. slope over mountainous land, through scattering greasewood brush.</p> <p>0.50 Witness cor. to cor. of secs. 2, 3, 34 and 35. 16.00 Top of spur bears NE. and SW. Descend abruptly. 30.90 Canyon 200 ft. deep, cross dry ravine, 40 lks. wide, course south. Ascend abruptly 100 ft. to top of spur. 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 34 in N, S 3 1914 in S. half; Raise a mound of stone 2 ft. base, 1$\frac{1}{2}$ ft. high N. of cor. Pits impracticable</p> <p>49.15 Top of spur bears NE. and SW. Desc. abruptly. 60.75 Dry ravine 15 lks. wide, course south. Ascend abruptly. 68.55 Top of spur bears NE. and SW. Descend. 79.90 Dry ravine 50 lks. wide, course S. 40° W. Asc. 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, marked on brass cap, T 6 N in N., T 5 N, 1914 in S. and R 15 E in W. half; S 33 in NW., S 34 in NE., S 3 in SE., and S 4 in SW. quadrant; from which A mesquite 8 ins. in diam. bears N. 34$\frac{1}{2}$° E. 133 lks. dist., marked T 6 N.R 15 E S 34 B T. A mesquite 6 ins. in diam. bears S. 8° E. 108 lks. dist., marked T 5 N. R 15 E S 3 B T and A mesquite 12 ins. in diam. bears N. 20$\frac{1}{4}$° W. 65 lks. dist. marked T 6 N R 5 E S 33 B T. No other trees within limits. Raise a mound of stone 2 ft. base, 1$\frac{1}{2}$ ft. high W. of cor. Pits impracticable Land, mountainous, spurs with steep slopes, covered with loose stone. Soil, light, dry, stony and sandy loam, too shallow and stony for agricultural purposes. Good growth bunch grass. Timber scattering mesquite near the last corner.</p> <hr/> <p>S. 89° 58' W. bet. secs. 4 and 33. Ascend SE. slope over stony mountainous land, through scattering greasewood and cactus undergrowth.</p> <p>5.00 Top of spur bears NE. and SW. Desc. 13.20 Dry ravine 25 lks. wide, course SW. Ascend SE. slope of spur. 23.90 Top of spur bears NE. and SW. Desc. 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 33 in N., and S 4, 1914 in S. half; Raise a mound of stone 2 ft. base, 1$\frac{1}{2}$ ft. high N. of cor. Pits impracticable.</p> <p>40.20 Dry ravine 20 lks. wide, course SW. Ascend. 47.70 Top of spur bears NE. and SW. Desc. 61.00 Dry ravine 20 lks. wide, course S. 30° W. Asc. 65.30 Top of spur bears NW. and SE. Desc. 67.70 Dry ravine 15 lks. wide, course S. 10° E. Ascend steeply</p>
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62. North Boundary of Fractional T. 5 N., R. 15 E.

Chains.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 4, 5, 32 and 33, marked on brass cap,

T 6 N in N.,
T. 5 N, 1914 in S. and
R 15 E in W. half;
S 32 in NW.,
S 33 in NE.,
S 4 in SE. and
S 5 in SW. quadrant.

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

Land, rough and mountainous.

Soil, stony, 6 ins. deep on dry clay and limestone subsoil. Good growth bunch grass. No timber.

S. $89^{\circ} 58'$ W. bet. secs. 5 and 32.

Ascend E. slope of spur over stony mountainous land, through scattering greasewood, cactus and catsclaw brush.

14.00 Top of ridge bears NE. and SW. Descend steep NW. slope.

36.50 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for witness cor. to the $\frac{1}{4}$ sec. cor., marked on brass cap,

WC $\frac{1}{4}$ W. of center,
1914 in S. half;
S 32 in NE., and

S 5 in SE quadrant; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

40.00 True point for $\frac{1}{4}$ sec. cor. falls in dry sand wash. Unsafe place to set post.

40.25 Dry sand wash 300 lks. wide, course S. 60° W. Ascend.

46.40 Point of spur bears NE. and SW. Descend into Cherry Creek bottom.

49.00 Foot of descent, leave mountainous land, bears N. and S. enter stony bottom land bears N. and S.

51.55 Center of Cherry Creek, 30 lks. wide, 6 ins. deep, course south. Ascend gradually over rolling, stony land.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, marked on brass cap,

T 6 N in N.,
T 5 N, 1914 in S. and
R 15 E in W. half;
S 31 in NW.,
S 32 in NE.,
S 5 in SE. and
S 6 in SW. quadrant.

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

E. 50 chs., mountainous, spurs steep, covered with loose boulders.

Soil, stony, worthless. Good growth grass.

W. 30 chs., rolling, slopes to the east and SE.

Soil, stony and gravelly, 4 to 6 ins. deep on gravelly subsoil.

Timber scattering desert willow and mesquite in Cherry Creek bottom south of line.

S. $89^{\circ} 58'$ W. bet. secs. 6 and 31.

Ascend gradually over rolling, stony land, through oak and mesquite and catsclaw brush.

19.50 Dry ravine 20 lks. wide, 20 ft. deep, course N. 50° E.

Ascend, leave rolling land, bears N. and S. enter rough broken mountainous land.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in

North Boundary of Fractional T. 5 N., R. 15 E.

Chains.

the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 31 in N. and S. 6
 1914 in S. half.

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

- 55.00 Enter oak and cedar timber, bears NE. and SW.
- 76.25 Top of spur bears NE. and SW. Desc. along NW. Slope.
- 80.00 Intersect the cor. of Tps. 5 and 6 N., R. 14 E. and Fractional
 Ts. 5 and 6 N., R. 15 E. hereinbefore described.
 E. 19 chs. rolling land, slopes to the SE.
 Soil, stony loam with considerable gravel and loose mal-
 apai stone on the surface. Light growth bunch grass.
 W. 61 chs. mountainous spurs steep, washed on slopes.
 Soil, stony worthless. Timber oak and cedar.

October 24, 1914.

Boundaries of Frac. T. 5 N., R. 15 E.

Latitudes, departures and closing errors.

Line designated.	True bearing	Distance	Latitudes.		Departures	
			N.	S.	E	W.
			Chs.	Chs.	Chs.	Chs.
South boundary (1st Stan. Par. N.)	West.	400.00				400.00
West boundary	North	480.00	480.00			
North boundary	N. 89° 58' E	399.96	0.26		399.96	
East boundary	South	480.00		480.00		
Convergency					0.30	
Totals			480.26	480.00	400.26	400.00
			<u>480.00</u>		<u>400.00</u>	
Error in lat.			0.26			
Error in dep.					0.26	

GENERAL DESCRIPTION.

This township is rough and mountainous, with some level
 land in valley of Cherry Creek, which flows through
 the township in a southerly direction. The township
 is watered by Cherry Creek which flows a small stream
 the greater part of the year, and by small springs
 which flow for a short time after the rainy seasons.
 Scattering oak, sycamore, pinion pine, and yew timber
 is found scattered along the Cherry Creek bottom and
 on the mountain spurs west of the creek, while mesquite
 palo verde, and ironwood groves are found in the ra-
 vines and canyons to the east of the creek. The soil
 along Cherry Creek is very rich, and the spurs east of
 the creek are covered with a good growth of bunch grass.
 The township should be surveyed.

October 24, 1914.

Sidney E. Blout
 U. S. Surveyor.

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Sidney E. Blout U.S. Surveyor during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of the east and north boundaries of T. 5 N., R. 5 E. and the east boundary of T. 4 N., R. 4 E., of the Gila and Salt River Base and Meridian, in the State of Arizona which are represented in the foregoing field notes as having been executed 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 executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
<i>E. S. Starn</i>	March 3, 1914.	May 31, 1914.	Head Chainman
<i>J. J. White</i>	June 1, 1914	Nov. 4, 1914	Head Chainman
<i>George Henry</i>	March 3, 1914.	May 31, 1914	Rear Chainman
	June 1, 1914	Nov. 4, 1914	Rear Chainman
	March 3, 1914.	May 31, 1914	Moundman
<i>H. D. Alexander</i>	June 1, 1914	June 28, 1914	Moundman
	March 3, 1914.	May 31, 1914	Axman
<i>J. S. Hixby</i>	March 3, 1914	June 16, 1914.	Flagman

Subscribed and certified to before me on the dates of the final service as shown above.

Sidney E. Blout
U. S. Surveyor.

170
65

BOOK 2825

FINAL OATH OF UNITED STATES SURVEYOR.

I, Sidney E. Blout, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona for Group 31 bearing date of the 24th day of October, 1913, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the east and north boundaries of T. 5 N., R. 5 E. and E. bdry. of T. 4 N., R. 4 E.

..... of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for Arizona for Group 31 and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Sidney E. Blout
U. S. Surveyor.

Subscribed by said Sidney E. Blout, and sworn to before me }
this 8 day of March, 1914

Frank Ingalls
Surveyor General of Arizona



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
....., 191

The foregoing field notes of the survey of

executed by
under his special instructions dated, 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....
U. S. Surveyor General.

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

.....
U. S. Surveyor General.

2825

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Sidney E. Blout, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of the North boundary of T. 2 S., R. 8 E. and the east boundary of T. 1 S., R. 9 E.

of the Gila and Salt River Base Meridian, in the State of Arizona which are represented in the foregoing field notes as having been executed 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 executed.

Table with 4 columns: NAME, PERIOD OF SERVICE (BEGUN, ENDED), and CAPACITY. Rows include J. J. White, H. W. Alexander, Henry B. Harvey, Ralph Brown, and George Henry with their respective service dates and roles.

Subscribed and certified to, before me on the dates of the final service as shown above.

Sidney E. Blout, U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, Sidney E. Blout, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona for Group 31 bearing date of the 24th day of October, 1913, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the North boundary of T 2 S., R 8 E., and the east boundary of T 1 S., R 9 E.

..... of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for Arizona for Group 31 and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Sidney E. Blout
U. S. Surveyor.

Subscribed by said Sidney E. Blout, and sworn to before me }
this 8th day of March, 1914

Frank A. Sargent
Surveyor General of Arizona.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL

....., 191

The foregoing field notes of the survey of

executed by
under his special instructions dated, 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....
U. S. Surveyor General.

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

.....
U. S. Surveyor General.

BOOK 2825 FINAL OATH OF UNITED STATES SURVEYOR.

I, Sidney E. Blout, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona for Group 31 bearing date of the 24 th. day of October, 1913, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the range line bet. ranges 15 and 16 E. through Tps. 1 2, 3, and 4 S., and the S. and W. boundaries of T 1 S. R. 15 E. of the Gila and Salt River Base and

of the Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for Arizona for Group 31 and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Sidney E. Blout
U. S. Surveyor.

Subscribed by said Sidney E. Blout, and sworn to before me }
this 8th day of March, 1914



Frank Longella
Surveyor General of Arizona.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 191

The foregoing field notes of the survey of

executed by
under his special instructions dated, 191 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....
U. S. Surveyor General.

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

.....
U. S. Surveyor General.

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability,
Sidney E. Plout, U. S. Surveyor, during the periods and in the capacities
 stated opposite our several signatures, in surveying all those parts or portions of the North, East, and
West boundaries of Frac. Township 5 North, Range 15 East

of the Gila and Salt River Base & Meridian, in the State of Arizona.

which are represented in the foregoing field notes as having been executed by him, and under his direc-
 tion; and that said survey has been, in all respects, to the best of our knowledge and belief, well and
 faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
<i>J. Y. White</i>	Mar. 3, 1914	May 31, 1914	Rear Chainman
	June 1, 1914	Nov. 4, 1914	Head Chainman
<i>George S. Henry</i>	March 3, 1914	May 31, 1914	Moundman
	June 1, 1914	Nov. 4, 1914	Rear Chainman
<i>Harry Hall</i>	September 29	Nov. 4, 1914	Flagman
<i>Julius Dixon</i>	Aug. 11 to Oct. 8	Oct. 18 to Nov. 4, 1914	Flagman
	Oct. 8, 1914	Oct. 17, 1914	Rear Chainman
<i>Benj. Kussy</i>	July 26 to Oct	8. Oct. 8 to 17	1914. Axman
	Oct. 8 1914	Oct. 17, 1914	Head Chainman

Subscribed and certified to before me on the dates of the final service as shown above.

Sidney E. Plout
 U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, Sidney E. Blout, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona for Group 31 bearing date of the 24th day of October, 1913, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the North, East, and West bdrs. of Trac. T.5 N., R.15 E. of the Gila and Salt River Base and

Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for Arizona for Group 31 and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Sidney E. Blout
U. S. Surveyor.

Subscribed by said Sidney E. Blout, and sworn to before me }
this 8th day of March, 1914



Frank A. Ingalls
Surveyor General of Arizona.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Phoenix Arizona October 21, 1915

The foregoing field notes of the survey of the North and completion of the East bdy. of Tp. 3 N., R. 5 E., the East bdy. of T. 4 N., R. 4 E., the North bdy. of Tp. 2 S., R. 8 E., the East bdy. of Tp. 1 S., R. 9 E., the completion of the East bdy. of Tp. 4 S., R. 15 E., the East bdy. of Tp. 3 S., R. 15 E., the East bdy. of Tp. 2 S., R. 15 E., the East, South and West bdrs. of Tp. 1 S., R. 15 E., and the West, East and North bdrs. of Trac. Tp. 5 N., R. 15 E. of the Gila & Salt River Base and Meridian in the State of Arizona executed by Sidney E. Blout U.S. Surveyor under his special instructions dated October 24, 1913 for Group 31, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank A. Ingalls
Surveyor General.
of Arizona.

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