

Copied

27.907

Des. Shul

Feb 4/85

-1845-

Book "G"

BOOK 1845

FIELD NOTES

OF THE SURVEY OF THE

*Subdivision lines and
Auxiliary Base line
of
T. 24 S. R. 18 E.*

-1845-

1845

Of the *5th* *of* *Salt* *River* Meridian,

AS SURVEYED BY

Philip Contzen, United States Deputy Surveyor,

Under his Contract No. *115*, dated *March 15th*, *1904*

Survey commenced *September 24th*, *1904*

Survey completed *October 4th*, *1904*

NAMES AND DUTIES OF ASSISTANTS.

H. W. Luggins,	chairman
Mariano Adorame,	chairman
Juquin Bonillas,	wardman
Manuel Salazar,	wardman
Chas. M. Pogue,	ax man
Tom Jones,	ax man
Arthur Pogue,	flag man

BOOK 1845

INDEX DIAGRAM.

Township 24 S., Range 18 E.

6	5	24	4	20	8	6	2	11	1
S.R.D.L.Z GRANT.	24	23	19	15	11				
7	8	22	9	18	10	14	11	10	12
27	27	22	18	14	9				
18	17	21	16	13	15	14	9	13	
2	2	AUX. BASELINE				4	5		
25	21	16	12	8					
19	20	21	22	23	24				
		MEXICO							
30	29	28	27	26	25				
31	32	33	34	35	36				

Meanders Page.....

4
BOOK 1845

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

the subdivision lines and auxiliary base line T. 24 S. R. 18 E

H. W. Huggins, Chairman.
Mariano Adrame, Chairman.

Subscribed and sworn to before me this 14th
day of September, 1904



H. G. Power
NOTARY PUBLIC,
YUMA COUNTY, ARIZONA
MY COMMISSION EXPIRES
April 27th 1908

WE, Juaguin Bonillas and Manuel Salazar
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

the subdivision lines and auxiliary baseline T. 24 S. R. 18 E

Juaguin Bonillas, Moundman.
Manuel Salazar, Moundman.

Subscribed and sworn to before me this 14th
day of September, 1904



H. G. Power
NOTARY PUBLIC,
YUMA COUNTY, ARIZONA
MY COMMISSION EXPIRES
April 27th 1908

WE, Chas. M. Pogue and Tom Jones
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

the subdivision lines and auxiliary baseline T. 24 S. R. 18 E

Chas. M. Pogue, Axman.
Tom Jones, Axman.

Subscribed and sworn to before me this 14th
day of September, 1904



H. G. Power
NOTARY PUBLIC,
YUMA COUNTY, ARIZONA
MY COMMISSION EXPIRES
April 27th 1908

I, Arthur Pogue, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

the subdivision lines and auxiliary baseline T. 24 S. R. 18 E

Arthur Pogue, Flagman.

Subscribed and sworn to before me this 14th
day of September, 1904



H. G. Power
NOTARY PUBLIC,
YUMA COUNTY, ARIZONA
MY COMMISSION EXPIRES
April 27th 1908

Chains

Preliminary to commencing the survey of the exterior and subdivision of this township, in compliance with my instructions, I proceeded to establish an auxiliary base line. I begin at the cor. of secs. 13, 18, 19 and 24, on the N. bay of the Sp., which is a stone, marked and witnessed as described by the surveyor general.

Survey commenced September 24, 1904, and executed with a Young and Sons light mountain transit, No. 5607, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona, June 10, 1904.

I examined the adjustments of the transit, and corrected the level and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceeded as follows:

At the above cor., latitude, $31^{\circ}20'$ N., longitude $110^{\circ}34'$ W. I set off $31^{\circ}20'$ N., on the lat. arc; ~~$0^{\circ}33'25''$ S~~ on the decl. arc; and, at $4^{\text{h}}00^{\text{m}}$ p.m., l.m.t., determined with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

At $7^{\text{h}}15^{\text{m}}$ p.m., l.m.t., by my watch, which is correct, I observed Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

September 24, 1904.

September 25: At 6:50 a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}25'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set September 24, on which the meridian falls 0.4 ins. east of the mark determined by the star.

At $7^{\text{h}}35^{\text{m}}$ a.m., l.m.t., I set off $31^{\circ}20'$ N., on the lat. arc; $0^{\circ}48'$ S on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set

6 chains

5 chs. N. of my station; this mark falls 0.3 ins. west of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about 0'25" east and 0'16" west of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 4^h 50^m a.m. is N. 12° 31' N.; the angle thus determined gives the mag. decl. 12° 31' E.

Placer 3 mi

E. bat. sres. 18 and 19.

Over mountainous land, descending.

23.00 Enter Parker's draw, course S. W.

30.00 Dry wash, 30 chs. wide, course S. S. W.

38.30 Cross draw, ascend.

39.78 Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ s. of cor. marked $\frac{1}{4}$ on N. face; from which an oak, 8 ins. diam., bears N. 21 $\frac{1}{2}$ ° E. 84 chs. dist., marked $\frac{1}{4}$ s. ~~13~~ B. B.

An oak, 14 ins. diam., bears S. 26° E., 165 chs. dist., marked $\frac{1}{4}$ s. 19 B. B.; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

40.78 Set a limestone, 18x12x12 ins., 12 ins. in the ground, for cor. of sres. 17, 18, 19 and 20, marked with 5 notches on E. and 3 notches on S. edge; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

Land, mountainous and level.

Soil, gravelly loam; and wood and 3rd rats.

Similar, a few oaks.

Mountainous land, 64.48 chs.

E. bat. sres. 17 and 20.

Over mountainous land, ascending.

5.30 Bridge, bears N. and S.; descend

12.00 Stand, former over level land.

40.00 Set a sandstone, 18x8x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ s. of

cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

51.80 Hill corner, bears N. N. and S. E.

Chain
57.66
80.00
ft

Line fence, bears N. 85° E. and S. 85° W.
Set a sandstone, 18x8x7 ins., 1 1/2 ins. in the ground, for
cor. of sres. 16, 17, 20 and 21, marked with 4 notches on E,
and 3 notches on S. edge and raise a mound of stone, 2 ft. base,
1 1/2 ft. high, N. of cor.
Land, level and rolling and mountainous.
Soil, gravelly loam, 2nd and 3rd rates.
Timber, a few ash.
Mountainous land, 12.00 chs.
September 25: At this cor. I set off 0.54' off on the dial.
and at 12^h 6^m l. m. t. observed the sun in the meridian,
the resulting lat. is 31° 20' N

7.90
38.60
40.00
ft

E. cor. sres. 16 and 21.
Over rolling land.
Dry wash, 40 lbs. wide, course S. S. W.
Set a sandstone, 18x8x7 ins., 1 1/2 ins. in the ground, for 1/4
cor. cor. marked 1/4 on N. face, from which
An oak, 12 ins. diam., bears N. 68 1/2° W., 30 lbs. dist., marked
1/4 S 16 B S; no other trees in timber limit, and raise a mound
of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.
Slope, extending S 1/2 W. descends; entire heavy oak timber, bears N. and S.
Trail, course S. E.

48.60
74.20
80.00
ft

Set a sandstone, 20x12x10 ins., 1 1/2 ins. in the ground, for cor.
of sres. 15, 16, 21 and 22, marked with 3 notches on E. and S.
edges, from which
An oak, 8 ins. diam., bears N. 68 3/4° E., 175 lbs. dist., marked
S 24 S R 18 E S 15 B S.
An oak, 5 ins. diam., bears S. 25 1/4° E., 255 lbs. dist., marked
S 24 S R 18 E S 22 B S.
An oak, 10 ins. diam., bears S. 24 1/2° W., 89 lbs. dist., marked
S 24 S R 18 E S 21 B S.
An oak, 24 ins. diam., bears N. 65 3/4° W., 65 lbs. dist., marked
S 24 S R 18 E S 16 B S; and raise a mound of stone, 2 ft. base,
1 1/2 ft. high N. of cor.
Land, mountainous, rolling and level.
Soil, gravelly loam, 2nd and 3rd rates.
Timber, oak.
Mountainous or heavily timbered land, 41.40 chs.

E. cor. sres. 15 and 22.

6 chains Over level land, through oak timber.

15.00 Ascend.

3.00 Spurr, extending S.E. Turned over rolling land.

4.33 Wire fence, bears N. 70° W. and S. 70° E.

7.40 Dry wash, 25 lbs. wide, course S. W.

40.00 Set a sandstone, 18x8x8 ins. 12 ins. in the ground, for
 1/4 sec. cor. marked 4 pegs. From which
 An oak, 8 ins. diam., bears N. 21 1/4° E., 310 lbs. dist. marked
 1/4 S 15 B S.

An oak, 8 ins. diam., bears S. 36° W., 199 lbs. dist., marked
 1/4 S 22 B S.; and raised a mound of stone, 2 ft. base, 1 1/2 ft.
 high, N. of cor. 5' from this cor. Malouys house. bears S. 2 1/2° W.
 17 lbs. dist.

52.00 Enter Swillo draw course S. W.

56.60 Road, bears N.E. and S. W.

60.00 Enter dry wash, course S. W.

65.00 Cross wash, course W.

68.00 Cross draw, and ascend.

80.00 Set a sandstone, 18x8x8 ins., 12 ins. in the ground, for cor.
 of cres. 14, 15, 22 and 23, marked with 2 notches on E. and 3
 notches on S. edge; from which
 An oak, 4 ins. diam., bears N. 59° E., 102 lbs. dist., marked
 S 24 S R 18 E S 14 B S.

An oak, 4 ins. diam., bears S. 70° E., 144 lbs. dist., marked
 S 24 S R 18 E S 23 B S.

An oak, 4 ins. diam., bears S. 41 1/4° W., 39 lbs. dist., marked
 S 24 S R 18 E S 22 B S.

An oak, 8 ins. diam., bears N. 17 1/4° W., 239 lbs. dist., marked
 S 24 S R 18 E S 15 B S.; and raised a mound of stone, 2 ft. base,
 1 1/2 ft high, W. of cor.

Ground, rolling and level.
 Soil, gravelly loam; 2nd and 3rd rate.
 Timber, oak.

September 25, 1904.

September 26: At 7¹¹ a.m. l.m.t., I set off 31° 20' and
 the lat. arc: ~~12 1/2~~ on the circ. arc; and determined
 true meridian with the solar at the cor. of cres. 14, 15, 22
 and 23.
 I found I run
 E. lat. arcs. 14 and 23.
 Over rolling land,

Chains
 4.00 Wire fence, bars N. W. and S. E.
 8.00 Enter double drain, bars N. W. and S. E.
 8.60 Dry wash, 80 lbs. wide, course N. W.
 9.44 Wire fence, bars N. W. and S. E.
 11.40 Wire fence, bars N. W. and S. W.
 13.00 Dry wash, 60 lbs. wide, course S. W.
 13.50 Pick, bars 1 ch. 7.
 16.00 Board, bars 2 chs. 1.
 18.00 Base, bars 2 chs. 1.
 23.20 Wire fence, bars N. and S.
 23.50 ~~Base~~ Base, bars 6 chs. 1.
 25.00 Barn, bars 6 chs. 1.
 40.00 Set a sandstone, 18x8x5 ins., 12 ins. in the ground, for
 1/4 sec. cor. marked 4 on N. face, from which
 An oak, 12 ins. diam., bars N. 5 3/4° E., 164 lbs. dist., marked
 1/4 S 14 13 S.
 An oak, 12 ins. diam., bars S 36 3/4° E., 247 lbs. dist., marked
 1/4 S 23 13 S.; and raise a mound of stone, 2 ft. base, 1 1/2
 ft. high, N. of cor.
 68.88 Wire fence, bars N. N. W. and S. S. E., have done.
 74.00 Wire fence, bars N. W. and S. W.
 80.00 Set a sandstone, 18x10x10 ins., 12 ins. in the ground, for
 1/4 sec. of sres. 13, 14, 23 and 24, marked with 3 notches on S.
 and 1 notch on S. edge; and raise a mound of stone, 2 ft.
 base, 1 1/2 ft. high, N. of cor.
 Round, hard and rolling.
 Soil, gravelly; 3rd rate.
 Timber, scattering oak.

E. bet. sres. 13 and 24.
 Over rolling land.
 22.00 Dry wash, 30 lbs. wide, course S. S. W.
 36.60 Wire fence, bars N. W. and S. S. E.
 40.00 Set a sandstone, 18x8x5 ins., 12 ins. in the ground, for 1/4
 1/4 sec. cor. marked 4 on N. face, from which
 An oak, 6 ins. diam., bars N. 16 3/4° E., 158 lbs. dist., marked
 1/4 S 13 13 S.; no other trees in this limit, and raise a mound
 of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.
 80.00 Set a granite stone, 18x10x8 ins., 12 ins. in the ground, for
 1/4 sec. of sres. 13, 18, 19 and 24, marked with 3 notches on N. and
 S. edges and raise a mound of stone, 2 ft. base, 1 1/2 ft.

Grind

N. of W.
Lund, rolling and haul.
S. of W. - rolling (iron); 2-3 and 3rd rate.
Timber, scattering oak.

September 26, 1904.

Philip Couzger
U.S. Deputy Surveyor.

Chain

Survey commenced September 29, 1904, and extended with a Young and Sons light mountain transit, No. 5607, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona, June 10, 1904.

I examined the adjustments of the transit, and corrected the level and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceeded as follows:

At the eve of Dec. 13, 14, 23 and 24, on the auxiliary base line, as heretofore described, latitude $31^{\circ} 20' N.$, longitude $110^{\circ} 29' N.$; set off $31^{\circ} 20' N.$, on the lat. arc; ~~230.2~~ ~~229.4~~ on the decl. arc; and, at $5^h 40^m$ p.m., l.m.t., determined with the solar apparatus and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the ev.

At $6^h 57^m$ p.m., l.m.t., by my watch, which is correct, I observed Polaris at Eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

September, 29, 1904.

September 30: At $7^h 07^m$ a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ} 25''$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set September 29, on which the meridian falls 0.3 ins. East of the mark determined by the solar.

At $4^h 25^m$ a.m., l.m.t., I set off $31^{\circ} 20' N.$ on the lat. arc; ~~230.2~~ ~~229.4~~ on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 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 $0' 16''$ east, and west of the meridian established by the Polaris ob-

Chains

ornations; therefore, I conclude that the adjustments of the instrument are satisfactory.
The magnetic bearing of the true meridian at 7^h 30^m a.m., is N. 12° 31' W.; the angle thus determined gives the mag. decl. 12° 31' E.

Plomer Iron

S. 0° 01' E, bet. sres. 23 and 24.

Over mountainous land, descending.

14.00 Dry wash, 10 lbs. wide, course S. W.; ascend.

19.40 Spur, 100 ft. above wash, extending S. W.; descend.

22.40 Dry wash, 10 lbs. wide, course S. W.; ascend.

37.00 Spur, 150 ft. above wash, extending S. W.; descend.

~~34.48~~
~~38.78~~
65R Intersect international bay line bet. the United States and Mexico at a point from which the 107 monument of the boundary is 89° 50' W, 59.45 chs. dist. and Mon. No. 106 bears 89° 50' E. ~~85.48 chs. dist.~~
Set a sandstone, 18 x 8 x 8 ins., 12 ins. in the ground, for closing ev. of sres. 23 and 24, marked C C on N.; 24 on E., 23 on W. and Mex on S. face; and raised a mound of stone, 2 ft. base, 2 ft. high, N. of ev.

Land, mountainous.

Soil, gravelly; 3rd rate.

No timber.

Mountainous land ~~38.78~~ ^{34.48} chs.

N. 0° 01' W, bet. sres. 13 and 14.

Over mountainous land, ascending through scattering oak timber.

3.00 Wild fence, bars E. and W.

7.00 Bridge, bars E. and W.; descend.

15.30 Dry wash, 20 lbs. wide, course N. W.; ascend.

17.00 Spur, extending W.; descend.

18.00 Enter draw, course S. W.

37.00 Leave draw; ascend.

41.00 Set a sandstone, 18 x 8 x 8 ins., 12 ins. in the ground, for 1/4 sec.

65R ev. marked 1/4 on N. face; from which an oak, 5 ins. diam, bears S. 29 1/2° E, 215 lbs. dist., marked 1/4 S. 13 B S.

An oak, 5 ins. diam, bears S. 9 1/2° W, 186 lbs. dist., marked 1/4 S. 14 B S.

51.00 Bridge, bars W. and S. W.; descend.

59.00 Foot, bars E. and W.; thence over level land.

Chain
 75.00 A line from, bears N. and S. W.
 76.40 Road, bears N. and S. W.
 80.00 Set a granite stone, 18 x 8 x 8 ins., 12 ins. in the ground, for cor-
 of secs. 11, 12, 13 and 14, marked with 1 notch on E. and 4
 notches on S. edge. From which
 An oak, 18 ins. diam., bears S. 12 1/2° E., 220 lbs. dist. marked
 S 24 E T 18 E S 12, 3 S.
 An oak, 18 ins. diam., bears N. 35° W., 231 lbs. dist., marked
 S 24 E T 18 E S 17, 13 S. no other trees within limit and raised
 a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor.
 Land, mountainous and level.
 Soil, gravelly loam and stony; 2nd, 3rd. and 4th rates.
 Timber, scattering oak.
 Mountainous land, 10.00 lbs.

E. on a random line bet. secs. 12 and 13.
 70.00 Set tank 1/4 sec. cor.
 80.00 Intersect E. edge of Sec. 10 the W. of cor. of secs. 7, 12, 13 and
 18. no hints of or described.
 Plum & pine
 S. 89° 56' W., on a random line bet. secs. 12 and 13.
 Very level land, in draw.
 9.00 Dry wash, 30 lbs. wide, cross S. W.
 10.15 Main fence, bears N. and S. W.
 16.00 Corral, bear 5 lbs S.
 18.00 ~~Montgomery~~ Road, bears 10 lbs S.
 18.50 Draw/Draw; ascend.
 20.00 Ridge, bears N. W. and S. E.; ascend.
 25.50 Dry wash, 30 lbs. wide, cross S. W.; ascend.
 34.50 Road, bears N. W. and S. E.;
 36.95 Main fence, bears N. W. and S. E.
 38.00 Spur, extending S. E.; ascend.
 40.00 Set a sandstone, 18 x 10 x 8 ins., 12 ins. in the ground, for 1/4
 sec. cor. marked 1/4 on N. face. from which
 An oak, 24 ins. diam., bears S. 47 1/2° E., 32 lbs. dist., marked
 1/4 S 13 S.
 An oak, 18 ins. diam., bears N. 29 1/2° W., 220 lbs. dist., marked
 1/4 S. 12 S S. and raised a mound of stone, 2 ft. base, 1 1/2 ft.
 high, N. of cor.
 41.60 Draw, 60 lbs. wide, cross S. E.; ascend.
 47.00 Ridge, 100 ft. above draw, bears N. E. and S. W.; ascend.

Subdivision of S 24 S, R 18 E.

6 chains
53.30 Gulch, 20 lbs. wide, course S. W.
74.20 Wire fence, bears N. and S. W.
75.50 Road, bears N. and S. W.
80.04 The cor. of secs. 11, 12, 13 and 14
land, level and mountainous.
Soil, gravelly loam, 2nd and 3rd rate.
Timber, scattering oak.
Mountainous land, 38.40 chs.
September 30: At this cor. I set off ~~200~~ on the decl.
rod, and at 12^h 4^m l. m. t., observed the sun on the meridian
the resulting lat. is 31° 21' or within 1' of the proper
lat.

N. 0° 01' N., bet. secs. 11 and 12
Over level land.
.20 Road, bears N. and S. W.
6.00 Ascend.
9.00 Bridge, bears N. and S. W.; descend.
17.50 Dry wash, 15 lbs. wide, course S. W. ascend.
26.50 Spring, extending S. W.; descend.
28.30 Enter draw, course S. W.
29.00 Dry wash, 40 lbs. wide, course S. W.
39.00 Level draw, thence over rolling land.
41.00 Set a sandstone, 18 x 8 x 8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.
cor. marked $\frac{1}{4}$ on N. face, from which
An oak, 8 ins. diam., bears S. 69 $\frac{1}{2}$ ° N., 235 lbs. dist., marked
 $\frac{1}{4}$ S 11 15 S; no other tree within limit, and raise a mound of
stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
65.00 Gulch, 20 lbs. wide, course S. E.
69.50 Gulch, 50 lbs. wide, course S. E.; ascend.
81.00 Set on a granite stone, in place, 18 x 10 ins., 4 ins. above
ground, on which
Set a cross (x) at the exact cor. point for cor. of secs. 1, 2, 11
and 12, marked with 1 notch on E. and 5 notches on S. side
of cross, from which
An oak, 6 ins. diam., bears N. 67 $\frac{3}{4}$ ° E., 128 lbs. dist., marked
S 24 S R 18 E S 1 B S.
An oak, 6 ins. diam., bears S. 59 $\frac{1}{4}$ ° E., 116 lbs. dist., marked
S 24 S R 18 E S 12 B S.
An oak, 6 ins. diam., bears S. 40 $\frac{1}{4}$ ° N., 108 lbs. dist., marked
S 24 S R 18 E S 11 B S.

Chain

✓ An oak, 6 ins. diam., bears N. 38° W., 66 lbs. dist. marked
 S 24 S R 18 E S 2 B S; and raise a mound of stone, 2 ft. base,
 1 1/2 ft. high, N. of ev.
 Land, bare and mountainous.
 Soil, gravelly loam, 2nd and 3rd rate.
 Scattered, scattering oak.
 Mountainous land, 29.80 chs!

N. 89° 56' E, on a random line bet. sres. 1 and 12.

40.00 Set trap 1/4 sec. ev.

80.00 Intersect E. bay. of Sp. 5 lbs. S. of ev. of sres. 1, 6, 7 and 12
 as hereinafter described.

Shines & run

S. 89° 54' W., on a true line bet. sres. 1 and 12.

Over mountainous land, ascending through scattering oak timber.

11.20 Dry wash, 20 lbs. wide, course S. W., ascend.

25.00 Bridge, 200 ft. across draw, bears N. and S. W.; ascend.

37.00 Descend steeply.

40.00 Set a sandstone, 18 x 10 x 8 ins., 12 ins. in the ground, for 1/4

sec. ev. marked 1/4 on N. face; from which

✓ An oak, 8 ins. diam., bears S. 48° E., 51 lbs. dist., marked
 1/4 S 12 B S.

An oak, 8 ins. diam., bears N. 54° W., 27 lbs. dist., marked
 1/4 S 12 B S; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high,
 N. of ev.

42.60 Draw, 150 ft. below ridge, course S. W.

44.00 Dry wash, 50 lbs. wide, course S. W.

49.30 Below draw, timber over rolling land.

80.00 The ev. of sres. 1, 2, 11 and 12.

Land, mountainous rolling and level.

Soil, gravelly loam, 2nd and 3rd rate.

Scattered, oak.

Mountainous land, 42.60 chs!

N. 0° 01' W., on a random line bet. sres. 1 and 2.

40.00 Set trap 1/4 sec. ev.

80.00 Intersect N. bay. of Sp. 12 lbs. E. of ev. of sres. 1, 2, 35 and
 36, as hereinafter described.

Shines & run S. 0° 06' E., on a true line bet. sres. 1 and 2.

Over mountainous land, ascending through scattering oak timber.

1.50 Bridge, bears N. W. and S. E.; ascend.

6^h 19.00 Enter drain, course S. W.
 39.90 Old road, bars N. and S. W.
 40.00 Set a sandstone, 18x7x6 ins., 12 ins. in the ground, for 1/4 sec.
 ev. marked 4 on N. face, from which
 An oak, 12 ins. diam., bars S. 88 1/4° E, 356 lbs. dist., marked
 S 2 B S. non-timber, and raise a mound of stone, 2 ft.
 base, 1 1/2 ft. high, N. of ev.
 49.00 Gulch, 20 lbs. wide, course S. E.; ascend.
 55.00 Spur, extending S. E.; descend.
 59.40 Gulch, 20 lbs. wide, course S. E.; ascend.
 62.00 Spur, extending S. E.; descend.
 68.90 Gulch, 20 lbs. wide, course S. E.; ascend.
 73.00 Spur, extending S. E.; descend.
 80.00 The ev. of sres. 1, 2, 11 and 12.
 Land, mountainous and hilly.
 Soil, gravelly loam; 2nd and 3rd rate.
 Timber, scattering oak.
 Mountainous land, 50.00 elev.

September 30, 1904.

October 1: At 7^h 40^m a.m. l.m.t., & set off 31° 21' N on the last
 arc; ~~30° 8 1/2' S~~ on the circ. arc; and determine a meridian
 with the solar at the ev. of sres. 14, 15, 22 and 23, on the
 existing base line.

Pluvial 3 in

S 0° 01' E, bet. sres. 22 and 23.

Over mountainous land, ascending through scattering oak timber.

5.00 Spur, bars E. and N. descend.
 7.80 Hair fines, bars E. and N.
 11.90 Gulch, 20 lbs. wide, course N.
 12.90 Gulch, 20 lbs. wide, course N. ascend
 21.00 Ridge, 200 ft. above sres. bars E. and N. descend.
 32.70 Gulch, 20 lbs. wide, course N.
 34.30 Intersect international boundary bet. the United States
 and Mexico at a point from which monument 107 of the
 boundary bars S. 59° 50' E, 2052 lbs. dist. and mon. no. 108 bars
 N 89° 50' W 5518 lbs. dist.
 Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for closing
 ev. of sres. 22 and 23 marked 66 on N. 23 on E. 22 on
 W. and M & X on S. face, from which
 An oak, 24 ins. diam., bars N. 48° E, 22 lbs. dist., marked
 S 24 S R 18 E S 23 B S.

Chains

An oak, 20 ins. diam., bears N. 50° E N., 76 lbs. dist., marked S 24 S R 18 E S 22 B S, and raised a mound of stone, 2 ft. base, 1 1/2 high, N. of cor.
 Land, mountainous.
 Soil, gravelly; 2nd and 3rd rods.
 Timber, oak.
 Mountainous land, 34.30 lbs.

N. 0° 01' N., lat. sec's 14 and 15.
 Over mountainous land, ascending through oak timber.

5.70 Enter iron, course N.

5.80 Dry wash, 20 lbs. iron, course S.

10.50 Dry wash, 120 lbs. iron, course S. 7.

11.70 Board, bears N. 10° and S. 7.

12.00 Gravel drain; ascend

26.00 Spruce, extending S. E.; ascend.

28.50 Gulch, 20 lbs. iron, course S. 20; ascend.

40.00 Set a sandstone, 18 x 10 x 10 ins., 12 ins. in the ground, for 4 sec.

OK cor. marked 1/4 on N. line, from which

An oak, 6 ins. diam., bears S. 11 1/2° E, 335 lbs. dist., marked 1/4 S 17 B S.

An oak 6 ins. diam., bears S. 21° N., 158 lbs. dist., marked 1/4 S 15 B S; and raised a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.

41.20 Board, bears N. N. and S. E.

44.00 Bridge, bears N. N. and S. E.

46.00 Drain, 50 lbs. iron, course S. E.; ascend.

58.00 Bridge, bears N. N. and S. E.; ascend.

64.90 Gulch, 10 lbs. iron, course S. N.; ascend.

75.00 Spruce, extending S. N.; ascend.

80.00 Set a sandstone, 18 x 10 x 5 ins., 15 ins. in the ground, for cor. of sec's 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E. edge; from which

An oak, 14 ins. diam., bears N. 44 1/2° E, 45 lbs. dist., marked S 24 S R 18 E S 17 B S.

An oak, 20 ins. diam., bears S. 87 1/4° E, 90 lbs. dist., marked S 24 S R 18 E S 14 B S.

An oak, 6 ins. diam., bears S. 27 1/4° N., 181 lbs. dist., marked S 24 S R 18 E S 15 B S.

An oak, 10 ins. diam., bears N. 9 3/4° E, 30 lbs. dist., marked S 24 S R 18 E S 10 B S; and raised a mound of stone, 2 ft.

Chain

base, 1 1/2 ft. high, W. of cor.
 Land, mountainous and level.
 Soil, gravelly; 2nd and 3rd rate.
 Timber, oak;
 Mountainous land, 73.70 chs.

E. on a random line bet. sres. 11 and 14.

411.00 Set temp. 1/4 sec. cor.

80.00 Intersect N. and S. line; dist. S. of cor. of sres. 11, 12, 13 and 14.
 Thence S. run.

S. 89° 57' W., on a true line bet. sres. 11 and 14.

Over level land, through scattering oak timber.

.50 Road, cross N. and S. N.

15.00 Ascend

23.00 Draw, 250 ft. below sres. cor, course S. N.

24.70 Road, cross N. N. and S. E.

25.70 Dry wash, 70 chs. wide, course S. S. N.

31.00 Level draw, ascend.

35.00 Spring, 100 ft. above road, extending S. E.; ascend.

38.00 Gulch, 10 chs. wide, course S. E.

40.00 Set a sandstone, 18 x 10 x 8 ins., 12 ins. in the ground, for 1/4

sec. cor. marked 1/4 on N. face, from which

An oak, 6 ins. diam., bears N. 20° E., 82 chs. dist., marked 1/4 S 11 B S.

An oak, 12 ins. diam., bears S. 35° E., 3 chs. dist., marked 1/4 S 14 B S.; and raise a mound of sand, 2 ft. base, 1 1/2 ft. high, W. of cor.

44.70 Gulch, 60 chs. wide, course S. E.; ascend.

64.00 Ridge, cross N. and S. N.; ascend.

80.00 The cor. of sres. 10, 11, 14 and 15.

Land, mountainous and level.

Soil, gravelly; 2nd and 3rd rate.

Timber, scattering oak.

Mountainous land, 57.00 chs.

October: At first cor. I set off 3° 14' S on the arc and at 12^h 6^m l. m. t., observed the sun on the meridian, the resulting lat. is 31° 21' N

N. 6° 01' W., bet sres. 10 and 11.

Over mountainous land, descending through scattering oak timber.

3.00 Spring, 1 ch wide, course S. N.; ascend.

6 hrs
 17.00 Cross, bars N. and S. W.
 19.00 Bridge, bars N. and S. W.; ascend
 22.00 Old road, bars N. and S. W.
 24.00 Enter draw, course S. W.
 27.70 Dry wash, course S. W.
 37.40 Draw draw; ascend.
 40.00 Set a sandstone, 18x10x7 ins., 12 ins. in the ground, for
 1/4 sec. cor. marked 7 on N. face, from which
 An oak, 8 ins. diam., bears S. 83 1/2° E, 137 lbs. dist., marked
 7 S 11 B S; no other trees within limit, and raise a mound
 of stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.
 48.00 Bridge, 100 ft. above draw, bars N. and S. W.; ascend.
 52.80 Enter draw, course S. W.
 53.00 Dry wash, 20 lbs. wide, course S. W.
 57.80 Draw draw; ascend.
 71.00 Spur, extending S. W.; descend.
 73.60 Dry wash, 20 lbs. wide, course S. W.; ascend.
 80.00 Set a sandstone, 18x10x7 ins., 12 ins. in the ground, for
 1/4 sec. cor. 2, 3, 10 and 11, marked with 5 notches on S. and 2
 notches on E. face; from which
 An oak, 12 ins. diam., bears N. 31 1/2° E, 140 lbs. dist., marked
 S 24 S 16 18 E S 2 B S.
 An oak, 6 ins. diam., bears S. 34° E, 46 lbs. dist., marked
 S 24 S 16 18 E S 11 B S; no other trees within limit, and raise
 a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.
 Land, mountainous and bare.
 Soil, gravelly loam, sand, and gravel.
 Timber, scattering oak.
 Mountainous land, 71.50 hrs.

N. 89° 57' E, on a random line bet. sec. 2 and 11.
 40.00 Set temp. 1/4 sec. cor.
 30.00 Proport. N. and S. line 5 lbs. S. of cor. of sec. 1, 2, 11 and 12
 1/4 sec. cor.
 S. 89° 55' N., on a true line bet. sec. 2 and 11.
 Over mountainous land, ascending.
 3.50 Spur, extending S. W.; descend.
 3.00 Gulch, 20 lbs. wide, course S. E. ascend.
 21.00 Spur, extending S. W.; descend.
 34.00 Draw, 1 ch. wide, course S. W.; ascend.
 40.01 Set a sandstone, 18x10x7 ins., 12 ins. in the ground, for 1/4 sec.

marked $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of ev.
 45.00 Ridge, cross N. and S. W.; ascend.
 51.00 Draw, 1 ch. wide, course S. W.; ascend.
 62.00 Ridge, 100 ft. above wash, cross N. and S. W.; ascend.
 70.00 Enter draw, course S. W.
 70.40 Dry wash, 30 lbs. wide, course S. W.
 75.00 Leave draw; ascend.
 80.00 The ev. of sres. 2, 3, 10 and 11.
 Land, mountainous and bare.
 Soil, gravelly loam; 2nd and 3rd rate.
 Timber scattering oak.
 Mountainous land, 75.00 chs.

2.00 $N. 0^{\circ} 0'$ in a random line bet. sres. 2 and 3.
 30.00 Set a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of ev. of sres. 2, 3, 10 and 11, as wanted as described. Show 3 in
 Over mountainous land, ascending through scattering oak timber. (S. 0° 5' E, on a line in bet. sres. 2 and 3.)
 6.00 Dry wash, 20 lbs. wide, course S. W.
 12.50 Dry wash, 50 lbs. wide, course N. 30° W., begin steep ascent.
 20.50 Ridge, 200 ft. above wash, cross E. and W.; ascend.
 25.00 Summit, cross E. and W.; ascend.
 30.00 Ridge, 100 ft. above W. of ascent; cross N. and S. W.; ascend.
 37.80 Draw, 1 ch. wide, course S. W.; ascend.
 40.00 Set a sandstone, 18 x 10 x 3 ins., 12 ins. in the ground, for $\frac{1}{4}$ sres. ev.
 marked $\frac{1}{4}$ on N. face; from which
 An oak, 6 ins. diam., cross N. 13 $\frac{3}{4}$ ° E, 50 lbs. dist., marked $\frac{1}{4}$ S 2° 13' E.
 An oak, 20 ins. diam., cross N. 65° W., 90 lbs. dist., marked $\frac{1}{4}$ S 3° 13' E; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of ev.
 70.00 Ridge, cross N. and S. W.; ascend.
 80.00 The ev. of sres. 2, 3, 10 and 11.
 Land, mountainous.
 Soil, gravelly; 2nd and 3rd rate.
 Timber scattering oak.
 Mountainous land, 80.00 chs.

October 1, 1914.

October 2: At 7 $\frac{45}{60}$ a.m., l.m.t., I set off $31^{\circ} 20'$ on the lat. arc, $3^{\circ} 32' 18''$ on the merid. arc, and determine a meridian with the solar at the ev. of sres. 15, 16, 21 and 22, on the auxiliary base line.

Strains:
 Flamer Spring
 1002. E. bet. sres. 21 and 22.
 Over level land.
 3.20 Dry wash, 20 lbs. wide, course S. W.; ascend.
 4.75 Bridge, bars N.W. and S. W. across.
 5.50 Dry wash, 15 lbs. wide, course S. W.; ascend.
 34.25 Enter 2nd international bay. Over level to Tundra strata
 and Mexico at a point from which measured 103 of the
 bay. bars S. 89° 45' E., 22 x 2 lbs. dist.
 Set a granite stone, 18 x 8 x 8 ins., 12 ins. in the ground, for
 closing wt. of sres. 21 and 22, marked 6 on E., 22 on S., 21
 on N., and 22 & 21 on S. side and raise a mound of stone, 2 ft.
 base, 1 1/2 ft. high, N. of ev.
 Ground mountainous and level.
 Soil, gravelly; 2nd and 3rd rate.
 Timber, scattering oak.
 Mountainous land, 31.05 lbs!

71.02' W
 bet. sres. 15 and 16.
 Over level land.
 92 River former bars S. and N.
 8.00 Leave draw; ascend.
 20.00 Spur extending S. E.; descend.
 21.90 Gulch, 10 lbs. wide, course S. E.; ascend.
 26.00 Spur, extending S. W.; descend.
 34.20 Dry wash, 20 lbs. wide, course S. W.; ascend.
 40.00 Set a sandstone, 18 x 8 x 8 ins., 12 ins. in the ground, for
 1/4 sres. ev. marked 6 on N. side and raise a mound of
 stone, 2 ft. base, 1 1/2 ft. high, N. of ev.
 43.00 Spur, extending S. W.; descend.
 50.50 Gulch 10 lbs. wide, course S. N.; ascend.
 55.00 Spur, extending S. W.; descend.
 62.00 Enter draw, course S. N.
 63.70 Dry wash, 20 lbs. wide, course S. N.
 64.65 Road, bars N.W. and S. W.
 67.70 Dry wash, 20 lbs. wide, course S. N.
 68.50 Leave draw; ascend.
 70.50 Spur, extending S. W.; descend.
 73.35 Dry wash, 30 lbs. wide, course S. N.; ascend.
 80.00 Set a sandstone, 18 x 10 x 6 ins., 12 ins. in the ground, for
 ev. of sres. 9, 10, 15 and 16, marked with 4 notches on S. and

Chains

and 3 notches on E. edge; and raise a mound of stone, 2 ft base, 1 1/2 ft. high, N. of ev.
Land, mountainous and level.
Soil, gravelly; 2nd and 3rd rates.
Timber, scattering oak.
Mountainous land, 73.50 chs.

E. on a random line bet. sres. 10 and 15.

40.00 Set traps 1/4 sres. ev.

49.96 Enter sec. 7. and S. line 12 chs. S. of ev. of sres. 10, 11, 14 and 15.

Shovel 3' run

S. 57° 55' N., on a true line bet. sres. 10 and 15.

Over mountainous land, ascending.

14.00 Borings, brass. N. and S. 1/2; ascend.

21.50 Drive, 1 ch. wood, across S. N.; ascend.

33.00 Shovel, extending S. N.; ascend.

39.98 Set a sandstone, 18 x 8 x 5 ins., 12 ins. in the ground, for 1/4 sres. ev. marked 1/4 on N. face; from which

run oak, 6 ins. diam., bears N. 88 1/4° N., 108 lbs. dist., marked 1/4 S 10 1/2 S; no other true within limit, and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of ev.

43.20 Wire fence, brass N. N. and S. E.

52.00 Borrower, brass 2 chs. S.

54.50 Wire fence, brass N. N. and S. N.

55.50 Brass, brass N. N. and S. N.

65.00 Enter brass, across S. N.

65.10 Dry wash, 40 lbs. wood, across S. N.

66.30 Same wash, 40 lbs. wood, across N. N.

73.00 Same wash, 40 lbs. wood, across S. N.

79.96 The ev. of sres. 9, 10, 15 and 16.

Land, mountainous and level.

Soil, gravelly; 2nd and 3rd rates.

Timber, scattering oak.

Mountainous land, 65.00 chs.

October 2: At this ev. I set off ~~3° 37' S~~ ^{3° 37' E} on the decl. arc and at 12^h 2^m l. m. t., observe the sun on the meridian; the resulting lat. is 31° 21' or within 1' of the proper lat.

N. 0° 00' N., bet. sres. 9 and 10.

Over mountainous land, ascending.

73.00 Ridge, bears N.E. and S.W.; begins to descend.
 80.00 1/2 hr. cor. of secs. 3, 4, 9 and 10.
 Land, mountainous.
 Soil, rocky; 2nd rate.
 Timber, scattering oak.
 Mountainous land, 80.00 chs.

81.00 N. 0° 03' W. on a random line bet. secs. 3 and 4.
 81.00 1/2 hr. cor. of secs. 3, 4, 9 and 10.
 80.04 Antiquary N. bay of Sp. 12 chs. W. of cor. of secs. 3, 4, 9 and 10.
 as part of cor. described.
 1/2 hr. cor. run
 S. 0° 03' W. on a true line bet. secs. 3 and 4.
 Over mountainous land, ascending.

12.00 Spur, extending S. E.; descend.
 13.00 Enter Parkers draw, crosses S. W.
 14.00 Old rock foundation on hill, bears 10 chs. E.
 15.50 Ridge, bears S. 70° W., and N. 70° E.
 20.00 Dry wash, 2 chs. wide, course S. 80° W.
 21.00 1/2 hr. cor. ascend.
 33.00 Ridge, 200 ft. above draw, bears E. and W.; school house, bears
 N. about 24 chs. dist.; descend.

40.04 Set a sandstone, 15 x 7 x 3 ins., 12 ins. in the ground, for 1/4
 cor. marked 1/4 on N. face; from 71 links
 in oak, 5 ins. diam., bears S. 57 1/2° E. 12 1/4 chs. dist., marked
 1/4 S 3 B.

41.04 An oak, 10 ins. diam., bears N. 89 1/4° W. 155 chs. dist., marked
 1/4 S 4 B; and raise a mound of stone, 2 ft. base, 1 1/2 ft.
 high, N. of cor.

42.50 Dry wash, 15 chs. wide, course S. 85° W.; ascend.
 48.00 Ridge, 150 ft. above draw, bears E. and W.; descend.
 59.50 Draw, 60 chs. wide, course S. W.; ascend.
 64.00 Ridge, bears N.W. and S.W.; ascend.
 72.80 Dry wash, 10 chs. wide, course S. W.; ascend.
 81.04 1/2 hr. cor. of secs. 3, 4, 9 and 10.
 Land, mountainous and level.
 Soil, gravelly; 2nd and 3rd rate.
 Timber, scattering oak.
 Mountainous land, 72.00 chs.

October 2, 1904.

Chair

October 3. At 7:25^{am} l.m.t., set off 31° 20' on the lat. arc, ~~30° 55' S.~~ on the elev. arc, and determine a meridian with the solar at the ev. of sres. 16, 17, 20 and 21, on the auxiliary base line.

Shores S and S. 0° 02' E, bet. sres. 20 and 21.

Over level land.

2.70 Dry wash, on the west corner S. N.; ascend.

34.00 Enter set international bay line bet. the United States and Mexico at a point from which monument No. 109 of the bdy. bears N. 89° 45' W. 71.21 chs. dist. and mon. No. 108 bears S 89° 45' E 104.82 chs. dist.

Set a sandstone, 18 x 8 x 8 ins., 12 ins. in the ground, for closing ev. of sres. 20 and 21, marked 6 on N. 21 on E, 20 on W. and 71 62 on S. face, and raise a mound of stone 2 ft. base, 1 1/2 ft. high, N. of ev.

Sound, mountainous and level.

Soil, gravelly; good and 3rd rate.

Timber, a few oak.

Mountainous land, 27.30 chs.

71.0° 02' N, bet. sres. 16 and 17.

Over mountainous land, ascending.

3.60 Wire fence, across S. and N.

15.45 Road, across N. and S. N.

30.30 Ridge, across E and W.; descend.

40.00 Set a sandstone, 20 x 7 x 5 ins., 15 ins. in the ground, for ev. cor. marked 4 on W. face, from which

An oak 24 ins. diam. bears N. 44 1/2° E. 25 chs. dist., marked 4 S 16 13 S.

An oak, 20 ins. diam., bears S. 74 1/2° W. 21 chs. dist., marked 4 S 17 13 S; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of ev.

43.00 Enter draw, across S. N.

47.30 Dry wash, 30 chs. wide, across S. N.

51.70 Over draw; ascend.

75.00 Ridge, 300 ft. above draw, across W. and S. N.; descend.

80.00 Set a sandstone, 18 x 8 x 5 ins., 12 ins. in the ground, for ev. of sres. 8, 9, 16 and 17, marked with 4 note lines on E. and S. sides, from which

An oak, 8 ins. diam., bears S. 10 3/4° E, 113 chs. dist., marked S 24 S 16 18 E S 16 13 S.

Chains
An oak, 12 ins. diam, S-w. S. 27° W, 114 lbs. dist, marked
P 24 S R 18 E S 17 13 S. 710 natural trees within limit, and
raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.
Land, mountainous and level.
Soil, gravelly; 2nd and 3rd rate.
Timber, scattering oak.
Mountainous land, 71.30 chs.

40.00 E. on a random line bet. secs. 9 and 16.
Set timber 1/4 sec. cor.
80.00 Intersect N. and S. line 10 lbs. N. of cor. of secs. 9, 10, 15 and 16.
Placed S. line
N. 89° 56' W, on a true line bet. secs. 9 and 16.
Over level land.

11.00 Draw down, ascend.
19.00 Bridge, 200 ft. across draw, cross N.W. and S.W. descend.
38.00 Draw, 1 ch. wide, turned over gently rolling land.
70.00 Set a sandstone, 18x10x10 ins. 1 1/2 ins. in the ground, for
1/4 sec. cor. marked 1/4 on N. face; from which
an oak, 7 ins. diam, cross S. 6 3/4° W, 300 lbs. dist., marked
1/4 S 18 13 S.

An oak, 10 ins. diam, cross N. 44 1/2° W, 80 lbs. dist, marked
1/4 S 9 13 S, and raise a mound of stone, 2 ft. base, 1 1/2 ft.
high, N. of cor.

43.80 Dry wash, 20 lbs. wide, course S. S. W.
58.50 Ascend.

59.60 Spur, extending S.E., descend.
61.10 Draw, 1 ch. wide, course S.E., ascend.
76.00 Spur, extending S.E.; descend.
80.00 1/4 sec. cor. of secs. 8, 9, 16 and 17.

Land, mountainous, gently rolling and level.
Soil, gravelly; 2nd and 3rd rate.
Timber, scattering oak.
Mountainous land, 40.50 chs.

October 3: At first cor. S set ~~line~~ by the arch. app.
and at 12 41 m l.m. t. showed the sun on the
meridian; the resulting lat. is 31° 21' N

6.00 N. 0° 02' N. bet. secs. 8 and 9.
Over mountainous land ascending.
Bridge, cross N.W. and S.W.; descend.

25.50 Dry wash 20 lbs. wide, course S. E. ascend.
 26.50 Bridge, 200 ft. above wash, bars N. and S. W. descend.
 36.00 Better draw, course S.
 39.40 Dry wash 30 lbs. wide, course N., ascend.
 40.00 Set a sandstone, 20 x 8 x 8 ins., 15 ins. in the ground, for
 are. cor. - marked $\frac{1}{4}$ on N. face, and raised a mound of stone
 2 ft. base, 1 1/2 ft. high, N. of cor. from which
 An oak, 12 ins. diam., bears S. 44° E., 54 lbs. dist., marked
 $\frac{1}{4}$ S 9° 13 S.
 An oak, 12 ins. diam., bears S. 67 1/4° W 24 lbs. dist., marked
 $\frac{1}{4}$ S 8° 13 S., and raised a mound of stone, 2 ft. base, 1 1/2 ft.
 high, N. of cor.
 59.75 Bridge, 200 ft. above wash, bars N. and S. W. descend.
 67.70 Draw, 30 lbs. wide, course S. W. ascend.
 68.20 Bridge, bars N. and S. W. descend.
 69.00 Draw, 60 lbs. wide, course S. W. ascend.
 72.40 Spur, extending S. W. descend.
 80.00 Set a sandstone, 18 x 10 x 5 ins., 12 ins. in the ground, for cor.
 of secs. 4, 5, 8 and 9, marked with 4 notches on 4 and 5
 notches on S edge, from which
 An oak, 12 ins. diam., bears N. 54 1/2° E., 88 lbs. dist., marked
 S 24 S R 18 E S 4 B S.
 An oak, 6 ins. diam., bears S. 79 3/4° E., 179 lbs. dist., marked
 S 24 S R 18 E S 9 B S.
 An oak, 5 ins. diam., bears S. 63° N., 132 lbs. dist., marked
 S 24 S R 18 E S 8 B S.
 An oak, 18 ins. diam., bears N. 8 1/4° W., 191 lbs. dist., marked
 S 24 S R 18 E S 5 B S.
 Land, mountainous.
 Soil, gravelly, 2nd and 3rd rate.
 Timber scattering oak.
 Mountainous land, 80.00 chs.

• S. 89° 56' E, on a random line bet. secs. 4 and 9.
 40.00 Set trap. $\frac{1}{4}$ sec. cor.
 79.90 Antisect N. and S. line ^{10 pks. S of the} cor. of secs. 3, 4, 9 and 10.
 Shores of run
 N. on a true line bet. secs. 4 and 9.
 Over rolling land.
 17.30 Dry wash, 20 lbs. wide, course S. W.
 34.00 Bench, 15 lbs. wide, course S. E. ascend

6 chains
39.95 Set a sandstone, 18 x 8 x 6 ins., 1/2 ins. in the ground, for
1/4 sec. cor. marked 1/4 on N. face; from which
An oak, 7 ins. diam., bears N. 75° E., 69 lbs. dist., marked
1/4 S 4 B S.
An oak, 6 ins. diam., bears S. 65° E., 181 lbs. dist., marked
1/4 S 9 B S.; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high,
N. of cor.
55.00 Bridge, bears N. W. and S. E.; descend.
71.20 Branch, 10 fms. wide, course N. W.; ascend.
73.50 Spur, extending N. W.; descend.
79.90 1/2 hr. cor. of secs. 4, 5, 8 and 9.
Land, mountainous.
Soil, gravelly; and mud and 3rd water.
Timber, scattering oak.
Mountainous land, 79.90 chs.

N. on a town line bet. secs. 5 and 8.
Over mountainous land, descending.
6.50 Entry Parker's draw, course S. W.
7.00 Road, bears N. N. E. and S. S. W.
7.70 Dry wash, 1 ch. wide, course S. W.
8.30 Road, bears N. W. and S. W.
24.00 Ground down to river over rolling land, ascending.
40.00 Set a sandstone, 18 x 12 x 6 ins., 1/2 ins. in the ground, for 1/4
3rd sec. cor. marked 1/4 on N. face, and raise a mound of stone
2 ft. base, 1 1/2 ft. high, N. of cor.
69.82 Well faced, bears N. toward S.
Peters set E. bay. of the San Rafael del Grijalva land
grant at a point from which the 7 mile cor. of the bay
bears S. 5.00 chs. dist.
Set a sandstone, 18 x 5 x 5 ins., 1/2 ins. in the ground, for
closing cor. of secs. 5 and 8, marked 66 on E., 5 on N., 8
on S. and S. B. S. L. 2 on N. face; and raise a mound of
stone, 2 ft. base, 1 1/2 ft. high, E. of cor.
Land, rolling, level and mountainous.
Soil, gravelly loam; and mud and 3rd water.
Timber, scattering oak.
Mountainous land, 6.50 chs.

40.00 N. 0° 02' W., on a random line bet. secs. 4 and 5.
Set temp. 1/4 sec. cor.

Chains
80.00

- Intersect N. bdy. of Sp. at cor. of secs. 4, 5, 32 and 33, as herefor described.
- Placed 3 mm
S. 0°03' E., on a true line bet. secs. 4 and 5.
Over mountainous land, descending.
- 5.40 Gulch, 10 lbs. wide, course S. E. descend.
- 12.00 Spur, extending S. E. descend.
- 28.00 Enter draw, course S. E.
- 31.80 Dry wash, 20 lbs. wide, course S. E. descend.
- 39.00 Set a granite stone, 18x8x8 ins., 12 ins. in the ground, for witness
cor. $\frac{1}{4}$ sec. cor. marked W $6\frac{1}{4}$ on N. face, from which
An oak, 6 ins. diam, bears S. 82° E., 48 lbs. dist., marked
W $6\frac{1}{4}$ S 4 B.S.
- An oak, 20 ins. diam, bears N. 75° W., 98 lbs. dist., marked
W $6\frac{1}{4}$ S 5 B.S. and raised a mound of stone, 2 ft. base, 1 1/2
ft. high, N. of cor.
- 41.00 Falls in dry wash, 60 lbs. wide, course S. W.
- 41.00 Leave draw, ascend.
- 46.50 Leave Parker's ranch, bears 12 chs. E.
- 46.68 Wire fence, bears N. and S. W.
- 47.00 Ridge, 150 ft. above wash, bears N. and S. W., descend.
- 61.00 Enter Parker's draw, course S. W.
- 61.00 Wire fence, bears N. W. and S. E.
- 62.38 Road, bears N. and S. W.
- 65.50 Dry wash, 2 chs. wide, course S. W.
- 78.60 Leave draw, ascend.
- 79.00 Ridge, bears N. and S. W., descend.
- 81.00 S. 1/2 cor. of secs. 4, 5, 8 and 9.
Land, mountainous and level.
Soil, gravelly; 3rd rate.
Timber, scattering oak.
Mountainous land, 49.40 chs.

October 3, 1914.

October 4: At 4^h 30^m A.M., by m.t., I set off 31° 20' on the
lat. arc, ~~4° 18'~~ on the elev. arc, and determined a
meridian with the solar at the cor. of secs. 17, 18, 19 and 20
on the unshifting base line.

Placed 3 mm
S. 0°03' E., bet. secs. 19 and 20.
Over gently rolling land.

33.64 Bordered international bdy. line bet. the United States

- claims
 and Mexico at a point from which monument 109 of the
 City bears S. 09° 00' E., 8.76 chs. dist.
 Set a granite stone 18 x 10 x 8 ins., 12 ins. in the ground, for
 closing cor. of secs. 19 and 20, marked L. C. on N., 20 on
 E., 19 on W. and Mex on S. face, and raise a mound of
 stone, 2 ft. base, 1 1/2 ft. high, N. of cor.
 Land, gently rolling.
 Soil, gravelly 3rd rick.
 Timber, scattering oak.
- N. 0° 13' W., bet. secs. 17 and 16.
 Over mountainous land, descending
- 8.00 Head of gulch, course N. W. ascend.
 16.00 Ridge, bears N. W. and S. E. descend.
 20.00 Gulch 12 lbs. wide, course N. W.; enter draw, course N. W.
 22.00 Wire fence, bears E. and W.
 25.55 Dry wash, 20 lbs. wide, course S. W.
 26.50 Road bears E. and W.
 28.60 Road draw, ascend.
 40.00 Set a sandstone, 18 x 10 x 8 ins., 12 ins. in the ground
 for 1/4 sec. cor., marked 1/4 on W. face,
 and raise a mound of stone, 2 ft. base,
 1 1/2 ft. W of cor.
- 50.00 Top of ridge, bears N. E. and S. W.
 59.30 Road, bears N. E. and S. W., descend
 62.60 Gulch, 20 lbs. wide, course N. W., ascend
 67.00 Ridge, bears N. E. and S. W.
 71.40 Gulch, 20 lbs. ^{wide}, course S. W.
 77.40 Wash, 20 lbs. wide, course S. W. and enter
 Parker's Draw, course S. W.
 78.95 Road to Parker's ranch, bears N. E. and S. W.
 80.00 Set a granite stone 18 x 10 x 8 ins., 12 ins.
 in the ground, for cor. of secs. 7, 8, 17 and 18
 marked with 4 notches on S. and 5 notches
 on E. edges, from which
 An oak, 30 ins. diam., bears S 19 1/4° E., 204
 lbs. dist., marked T. 24 S. R. 18 E. S. 17 B. T.
 A junco 12 ins., diam., bears N 52° W 368 lbs.
 dist., marked T. 24 S. R. 18 E. S. 17 B. T.
 No other trees within limits, and raise
 a mound of stone 2 ft. base, 1 1/2 ft high

drains	<p>W. of cor. Land mountainous Soil, gravelly, 3rd rate Timber, scattering oak Mountainous land 80 chs.</p>
<p>40.00 80.00 3.00 9.00 19.00 20.00 23.00 28.50 31.90 40.00 44.00 58.00 65.00 76.00 78.75 80.00</p>	<p>East, on a random line bet. secs. 8 and 17 set temp. 1/4 sec. cor. Intersect N. and S. line at cor. of secs 8, 9, 16 and 17 Thence I run W. on a true line bet. secs. 8 and 17 Over mountainous land, ascending Draw, 100 lbs. wide, course S.W., ascend Spur, 200 ft. high bears S.E.; descend Draw, 100 lbs. wide, course S.W., ascend Top of N. slope of ridge; descend Enter draw, course N.W. Leave draw, course N.W. Wash, 30 lbs. wide, course S.E. Set a sandstone 18x8x5 ins, 12 ins. in the ground for 1/4 sec. cor., marked 1/4 on N. face, and raise a mound of stone, 2 ft. base, 1 1/2 ft high W of cor. Ridge, bears N.E. and S.W.; descend Draw, 50 lbs. wide, course S.W. Ridge, bears N.E. and S.W.; descend Enter Parker's Draw, course S.W. Road to Parker's ranch, bears N.E. and S.W. The cor. of secs 7, 8, 17 and 18 Land mountainous Soil, gravelly, 2nd and 3rd rate Timber, scattering oak Mountainous land 76 chs. October 4: At this corner I set ^{40 23 18} 72 40 00 on the decl. arc and at 12^h 3^m l.m.t., observe the sun on the meridian, the resulting lat is 31° 21' N.</p>
40.00	<p>West, on a random line, bet secs 7 & 18 Set temp. 1/4 sec. cor.</p>

chains

79.70

Intersect 3rd Guide Meridian East
at cor. of secs. 7-12-13 and 18, which is
marked and witnessed, as described by the Surv. Genl.
thence run

East on a true line bet. secs 7th/18
Over level and mountainous land; ascending
Ridge, bears N. and S

20.00

Descend

38.75

Draw, 40 lks. wide, course S. E

39.70

Set a sandstone 18 x 8 x 8 ins., 12 ins.
in the ground for $\frac{1}{4}$ sec. cor., marked
 $\frac{1}{4}$ on N. face and raise a mound
of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high
N. of cor.

42.50

Gulch 20 lks. wide, course S. E.

71.00

Enter Parker's draw, course S. W

76.00

Enter wash, course S. W

78.70

Leave wash

79.70

The cor. of secs. 7-8-17-18
Land level and mountainous
Soil, gravelly, 3rd rate
No timber
Mountainous land 71.00 chs.

7.90

N 0° 3' W, bet. secs. 7 and 8

Over level land

Intersect S. W. bdy of the San Rafael
de la Zanja land grant, at a point
from which the 8th mile cor. of the
bdy. bears N. 3 chs.

Set a sandstone 18 x 10 x 6 ins., set
12 ins. in the ground for closing
cor. of secs. 7 and 8, marked
C. C on S, 7 on W, 8 on E. and
S. R. D. & J. on N. face, and raise
a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft
high, S. of cor.

Land level
Soil, gravelly, 2nd rate
No timber.

October 4. 1904

General Description

This township is rolling and mountainous. The soil is gravelly loam and stony 2nd and 3rd rate.

There is considerable oak timber along the main draws. There are some settlers in secs. 4-13 and 14 who have made valuable improvements.

Philip Couzger
U. S. Deputy Surveyor

For red ink corrections see deputy's letter of
Jan'y. 26, 1905-

LIST OF NAMES.

A list of the names of the individuals employed by *Philip Couzgen*, United States Deputy Surveyor, to assist in running, measuring, and

marking the lines and corners described in the foregoing field notes of the survey of *the subdivision lines and auxiliary baseline T. 24 S. R. 18 E* showing the respective capacities in which they acted:

- H. W. Huggins* ✓, Chainman.
- Mariano Adrame* ✓, Chainman.
- Joaquin Bonillas* ✓, Moundman.
- Manuel Salazar* ✓, Moundman.
- Chas. M. Pogue*, Axman.
- Tom Jones* ✓, Axman.
- Arthur Pogue* ✓, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted *Philip Couzgen*, United States Deputy Surveyor, in surveying all

those parts or portions of the *subdivision lines and auxiliary baseline T. 24 S. R. 18 E*

of the *Gila* of *Sett River* meridian, *Territory* of *Arizona*, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for *Arizona*

- H. W. Huggins* ✓, Chainman.
- Mariano Adrame* ✓, Chainman.
- Joaquin Bonillas* ✓, Moundman.
- Manuel Salazar* ✓, Moundman.
- Chas. M. Pogue* ✓, Axman.
- Tom Jones* ✓, Axman.
- Arthur Pogue* ✓, Flagman.

Subscribed and sworn to before me this *17th* day of *December*, 190*4*



H. G. Power
NOTARY PUBLIC,
YUMA COUNTY, ARIZONA.
MY COMMISSION EXPIRES

April 27th 1908

35
BOOK 1845

I, Philip Centzen United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls United States Surveyor General for Arizona, bearing date of the 15th day of March, 1904, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivision lines and auxiliary base line T. 24 S. R. 18 E.

Salina of the Gila River meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Philip Centzen
United States Deputy Surveyor.

Subscribed by said Philip Centzen and sworn to before me }
this 17th day of December, 1904



Clinton D. Hoover,
Clerk U.S. District Court,
First District of Arizona.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, A.T., March 31st, 1905

The foregoing field notes of the survey of the subdivisional lines and auxiliary base line of T. 24 S. R. 18 E. of the Gila and Salt River Base and Meridian, Territory of Arizona.

executed by Philip Centzen U.S. Deputy Surveyor under his contract No. 115, dated March 15th, 1904, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
United States Surveyor General.

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

United States Surveyor General.