

2704

Book "K." Subdivisions BOOK 2704

FIELD NOTES

OF THE SURVEY OF THE

Subdivision Lines of

Township 4 South, Range 13 West,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

W. H. Thorn,

In the capacity of U. S. Surveyor, under instructions dated February 26, 1913, issued by the United States Surveyor General to govern surveys included in Group No. 28, which were approved by the Commissioner of the General Land Office, March 12, 1913, pursuant to authority contained in the Act of Congress dated June 23, 1913.

Survey commenced September 24, 1913.

Survey completed October 7, 1913.

(1A)

BOOK 2704

INDEX DIAGRAM.

Township 4 South, Range 13 West.

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

6-151

- Book "A"
- Book "B"
- Book "D"
- - - - Unsurveyed.

Subdivision of Township 4 South, Range 13 West.

16

Chains.

Survey commenced September 24, 1913, and executed with a Young and Sons' light mountain transit No. 8592. 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 lat. and decl. arcs.

I examine the adjustment of the transit, and correct the level and collimation errors. I also test the solar apparatus, and find it in adjustment.

At 8h.0m. a.m., l.m.t., I set off $33^{\circ} 01\frac{1}{2}'$ N. on lat. arc; and $0^{\circ} 22'$ S. on decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 2, 35 and 36 on the south bdy. of the township established by W.K. Kierulff, U.S. Transitman, as described in Book "A."

Thence I run,
N. $0^{\circ} 01'$ W., on a true line, bet. secs. 35 and 36.
Over gradual north slope, over large volcanic rock boulders.

15.00 Enter level land, brs. 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., with brass cap, marked,
 $\frac{1}{4}$ S 35 on W. half;
S 36 on E. half, and
1913 on S. half;
dig pits 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

73.40 Wash, 10 lks. wide, 2 ft. banks, course east.
80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 25, 26, 35 and 36, with brass cap, marked,
T 4 S S 26 in NW.,
R 13 W S 25 in NE.,
S 36 in SE., and
S 35 in SW. quadrants;
1913 on S. half; from which,
A palo verde, 12 ins. in diam., brs. N. $20^{\circ} 30'$ E.,
170 links dist., marked T 4 S R 13 W S 25 B T.

No other trees in limits. Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, level.
Soil, adobe, 65.00 chains.
Mountainous, 15.00 chs.
Scattering greasewood brush, 4 to 5 ft. high.

40.00 East, on a random line, bet. secs. 25 and 36.
Set temp. $\frac{1}{4}$ sec. cor.
79.91 Intersect the east bdy. of the Tp., 2 lks. north of cor. of secs. 25, 30, 31 and 36, established by W.K. Kierulff, U.S. Transitman, as described in Book "A."

Thence I run,
N. $89^{\circ} 59'$ W., on a true line, bet. secs. 25 and 36.

1.55 Wagon road brs. N. 70° W. and S. 50° E.
9.05 Wash, 150 lks. wide, 5 ft. banks, course S. 40° E.
Ascend NE. slope, over large boulders.

24.00 Top of low ridge, brs. N. and S.
Descend over NW. slope.

26.00 Foot of descent, brs. N. and S.
39.955 Set an iron post 3 ft. long, 1 in. in diam., 18 ins. in the ground, (could not set deeper for solid rock), for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 25 on N. half; and
S 36, 1913 on S. half; pits impracticable.
raise a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, around post.
Raise a mound of stone, 4 ft. base, 2 ft. high, N. of cor.

2. Subdivision of Township 4 South, Range 13 West.

Chains

48.00 Enter level land, brs.N.and S. Leave boulders.
 50.20 Wash, 20 lks.wide, course NE.
 60.35 Enter wash, 120 lks.wide, 8 ft. banks, from west to N.
 80° E.
 73.50 Leave wash, from N.80°W. to east.
 79.91 Cor.of secs.25,26,35 and 36.
 Land,level, adobe soil, 32.00 chains,2nd rate.
 Stony land. large boulders, 48.00 chs.
 Palo verde and ironwood along big wash.

Note: At the cor.of secs. 25,26,35 and 36, I set off 0°26'
 S.on the decl.arc, and at noon, observe the sun on
 the meridian; the resulting lat.is 33° 02 $\frac{1}{2}$ 'N.

Thence I run,
 N.0°01' W., on a true line, bet. secs.25 and 26.
 Over level land.

5.00 Wash, 120 lks.wide, 8 ft.banks, course S. 80°E.
 19.60 Road brs.E.and W.
 33.10 Wash, 150 lks.wide, 2 ft.banks, course SE.
 36.80 Bend in wash, from N.10°E. to S.15°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., with brass cap, marked,
 $\frac{1}{4}$ S 26 on W.half;
 S 25 on E.half; and
 1913 on S.half; from which,
 A mesquite, 16 ins. in diam., brs.S.4°30'W.,240
 lks.dist., marked $\frac{1}{4}$ S 26 B T.
 A mesquite, 18 ins. in diam., bears N.59°30'E.,
 55 lks.dist., marked $\frac{1}{4}$ S 25 B T.
 41.00 End of mountain ridge, brs.E.150 lks.
 80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground, for cor.of secs. 23,24,25 and 26, with
 brass cap, marked,
 T 4 S S 23 in NW.,
 R 13 W S 24 in NE.,
 S 25 in SE., and
 S 26 in SW. quadrants;
 1913 on S.half;
 dig pits, 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist.,
 and raise a mound of earth, 4 ft.base, 2 ft.high,W.of
 corner.
 Land,level.
 Soil, adobe, 2nd rate.
 Timber, palo verde and ironwood along washes.

S.89°59'E., on a random line, bet. secs.24 and 25.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 79.90 Intersect the east bdy.of the Tp., 4 links S.of cor.of
 secs.19,24,25 and 30, established by W.K.Kierulff,U.
 S.Transitman, as described in Book "A."
 Thence I run,
 S.89°59'W., on a true line, bet. secs.24 and 25.
 Over level land, through greasewood brush.
 16.20 Wash, 50 lks.wide, 5 ft.banks, course south.
 21.00 Wagon road brs.NW. and SE.
 25.00 North end of mountain, brs.S.about 18 chs.
 39.80 Wagon road brs.N.50°W. and S.50°E.
 39.95 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
 the ground,for $\frac{1}{4}$ sec.cor., with brass cap, marked,
 $\frac{1}{4}$ S 24 on N.half; and
 S 25, 1913 on S.half;
 dig pits 18x18x12 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,

Subdivision of Township 4 South, Range 13 West. 3.

Chains.

N. of cor.
 63.00 Wash; 10 lks. wide, course south.
 79.90 Cor. of secs. 23, 24, 25 and 26.
 Land, level.
 Soil, adobe, covered with malpais gravel.
 Timber, palo verde and ironwood along washes.
 Greasewood brush.
 September 24, 1913.

Sept. 25, 1913:
 N. 0° 01' W., on a true line, bet. secs. 23 and 24.
 Over level land, through greasewood brush.
 26.50 Wash, 20 lks. wide, 3 ft. banks, course S. 40° E.
 36.00 Wash, 12 lks. wide, 2 ft. banks, course S. 20° 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., with brass cap, marked
 $\frac{1}{4}$ S 23 on W. half;
 S 24 on E. half; and
 1913 on S. half; from which,
 A palo verde, 8 ins. in diam., brs. N. 30 $\frac{1}{2}$ ° W.,
 179 lks. dist., marked $\frac{1}{4}$ S 23 B T.
 No other trees in limits. Dig pits, 18x18x12 ins., N.
 and S. of post, 3 ft. dist., and raise a mound of earth
 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
 54.00 Wash, 15 lks. wide, 2 ft. deep, course S. 10° W.
 69.50 Road brs. NW. and SE.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 13, 14, 23 and 24, with
 brass cap, marked,
 T 4 S S 14 in NW,
 R 13 W S 13 in NE,
 S 24 in SE., and
 S 23 in SW. quadrants;
 1913 on S. half; from which,
 A palo verde, 6 ins. in diam., brs. S. 8° 45' E., 120
 lks. dist., marked T 4 S R 13 W S 24 B T.
 A palo verde, 14 ins. in diam., bears N. 72° 30' W.,
 216 lks. dist., marked T 4 S R 13 W S 14 B T.
 No other trees in limits. Dig pits 18x18x12 ins., in
 each sec. 5 $\frac{1}{2}$ ft. dist., and raise a mound of earth, 4
 ft. base, 2 ft. high, W. of cor.
 Land, nearly level.
 Soil adobe, covered with malpais gravel.
 Timber, palo verde and ironwood along washes.
 Greasewood brush along washes.

N. 89° 59' E., on a random line, bet. secs. 13 and 24.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.92 Intersect the east bdy. of the Tp., 4 links N. of cor. of
 secs. 13, 18, 19 and 24, established by W. K. Kierulff, U.S.
 Transitman, as described in Book "A."
 Thence I run,
 N. 89° 59' W., on a true line, bet. secs. 13 and 24.
 Over nearly level land, through greasewood brush.
 12.20 Wash, 40 lks. wide, 2 ft. banks, course south.
 34.40 Wash, 40 lks. wide, 2 ft. banks, course south.
 39.96 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 13 on N. half; and
 S 24, 1913 on S. half;
 dig pits, 18x18x12 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.

4. Subdivision of Township 4 South, Range 13 West.

Chains.

51.70 Wash, 40 lks.wide, 2 ft.deep,course S.10°W.
 63.90 Road brs.NW' and SE.
 77.00 Wash, 10 lks.wide. course south.
 79.92 Cor.of secs.13,14,23 and 24.
 Land, nearly level.
 Soil, adobe covered with malpais gravel.
 Timber, palo verde.

September 25, 1913.

September 29, 1913.

At 9h.0m. a.m., l.m.t., I set off $33^{\circ} 04\frac{1}{2}'$ N. on lat.arc;
 and $2^{\circ} 20'$ S. on decl.arc, and determine a meridian
 with the solar at the cor.of secs. 13,14,23 and 24.

Thence I run,

N. $0^{\circ} 01'$ W., on a true line, bet. secs.13 and 14.

Over nearly level land, through greasewood brush.

28.30 Wash, 20 lks.wide, 2 ft.deep, course S.10° W.

32.90 Wagon road brs.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., with brass cap, marked,
 $\frac{1}{4}$ S 14 on W.half;
 S 13 on E.half; and
 1913 on S.half; from which,

A palo verde, 10 ins. in diam., brs.N. 3° W.,
 69 lks.dist., marked $\frac{1}{4}$ S 14 B T.

No other tree in limit. Pits impracticable.

Raise a mound of stone, 3 ft.base, 2 ft.high, W.of cor.

56.00 Wash, 20 lks.wide, 2 ft. banks, course S.20°W.

76.80 Wash, 20 lks.wide, 2 ft. banks, course S.30° E.

80.00 Set an iron post 3 ft.long, 2 ins. in diam., 18 ins. in
 the ground, (could not set deeper for solid rock),
 for cor.of secs.11,12,13 and 14, with brass cap, marked

T 4 S S 11 in NW.,

R 13 W S 12 in NE.,

S 13 in SE., and

S 14 in SW. quadrants; 1913 on S.half; raise

md.of stone 3 ft.base, 1 $\frac{1}{2}$ ft.high, around post; from which,A palo verde, 4 ins.in diam., bears N. $34^{\circ} 30'$ E.,

44 links dist., marked T 4 S R 13 W S 12 B T.

An ironwood, 10 ins. in diam., bears S. $70^{\circ} 45'$ W.,

129 lks.dist., marked T 4 S R 13 W S 14 B T.

An ironwood, 10 ins. in diam., brs.N. 34° W., 174

lks.dist., marked T 4 S R 13 W S 11 B T.

No other tree in limits. Pits impracticable.

Raise a mound of stone, 4 ft.base, 2 ft.high, W.of cor.

Land, nearly level.

Soil, adobe covered with loose stone.

Timber, palo verde and ironwood along wash.

Greasewood brush, chollar, ocotillo and giant cactus.

S. $89^{\circ} 59'$ E., on a random line, bet. secs.12 and 13.40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.96 Intersect the east bdy.of the Tp., 12 lks.S.of cor.of secs.
 7,12,13 and 18, established by W.K.Kierulff, U.S.
 Transitman, as described in Book "A".

Thence I run,

S. $89^{\circ} 56'$ W., on a true line, bet. secs.12 and 13.

Over nearly level land, through greasewood brush.

4.60 Wash, 30 lks.wide, 3 ft. banks, course S.10°W.

39.98 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked,
 $\frac{1}{4}$ S 12 on N.half, and
 S 13, 1913 on S.half;

Subdivision of Township 4 South, Range 13 West.

5.

Chains.

dig pits 18x18x12 ins., E and W of post, 3 ft. dist., and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 47.35 Wash, 15 lks. wide, course S. 15° W.
 58.60 Wash, 30 lks. wide, 2 ft. banks, course S.
 71.60 Wash, 40 lks. wide, 2 ft. banks, course S.
 79.96 Cor. of secs. 11, 12, 13 and 14.
 Land, gently rolling.
 Soil, adobe, covered with loose stone.
 Greasewood brush, palo verde and ironwood along washes.
 Ocotillo, cholla and giant cactus.

40.00 N. 0° 01' W., on a true line, bet. secs. 11 and 12.
 Over gently rolling land, through brush.
 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 11 on W. half;
 S 12 on E. half; and
 1913 on S. half;
 dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 65.00 Wash, 12 lks. wide, 2 ft. deep, course S. 70° W.
 73.20 Ascend steep south slope, over large boulders.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in a mound of stone, 4 ft. base, 3 ft. high, for cor. of secs. 1, 2, 11 and 12 (could not set post for stone) with brass cap, marked,
 T 4 S S 2 in NW.,
 R 13 W S 1 in NE.,
 S 12 in SE. and
 S 11 in SW. quadrants;
 1913 on S. half; pits impracticable.
 Raise a mound of stone 4 ft. base, 2 ft. high, W. of cor.
 Land, gently rolling, adobe soil, 73.00 chs.
 Mountainous, 7.00 chs.
 Palo verde along wash; greasewood brush.

Note: At the cor. of secs. 1, 2, 11 and 12, I set off 2° 23' S. on decl. arc, and at noon, I observe the sun on the meridian; the resulting lat. is 33° 06' N.
 Thence I run,
 N. 89° 56' E., on a random line, bet. secs. 1 and 12.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.90 Intersect the east bdy. of the Tp., 16 lks. N. of cor. of secs. 1, 6, 7 and 12, established by W. K. Kierulff, U.S. Transitman, as described in Book "A."
 Thence I run,
 N. 89° 57' W., on a true line, bet. secs. 1 and 12.
 Over nearly level land, through brush.
 17.10 Wash, 15 lks. wide, course south.
 32.00 Wash, 25 lks. wide, 2 ft. banks, course south.
 39.95 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 1 on N. half; and
 S 12, 1913 on S. half;
 dig pits, 18x18x12 ins., E and W of post, 3 ft. dist., and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 45.50 Wash, 20 lks. wide, 2 ft. banks, course south.
 54.48 Wash, 30 lks. wide, 2 ft. banks, course S. 15° E.
 70.00 Wash, 15 lks. wide, 2 ft. banks, course S. 50° E.
 Ascend steep east slope, of mountain, over large boulders.

6. Subdivision of Township 4 South, Range 13 West.

Chains.

78.00 Top of mountain, brs. N. 80° W. and east.
 79.90 Cor. of secs. 1, 2, 11 and 12.
 Land, nearly level. Adobe soil, covered with loose stone
 70.00 chs. Mountainous, 19.90 chs.
 Palo verde and ironwood along washes.
 Greasewood brush, ocotillo, cholla and giant cactus.

From the cor. of secs. 1, 2, 11 and 12, the cor. of secs. 1, 2,
 35 and 36 on the north bdy. of the Tp. is in sight.
 Therefore, I run,
 N. 0° 03' E., on a true line, bet. secs. 1 and 2.
 Over large boulders.
 .40 Top of ridge, brs. N. 80° W. and S. 80° E.
 Descend over steep NE. slope.
 10.00 Change to steep east slope.
 27.00 Change to level land from N. 80° W. to S. 20° 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., with brass cap, marked,
 $\frac{1}{4}$ S 2 on W. half;
 S 1 on E. half; and
 1913 on S. half;
 dig pits 18x18x12 ins., N. and S. of post, 3 ft. dist.,
 and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$
 ft. high, W. of corner.
 62.45 Wash, 15 lks. wide, course S. 5° E.
 80.00 Intersect cor. of secs. 1, 2, 35 and 36, on the north bdy. of
 the township, established by W. K. Kierulff, U. S. Transit-
 man, as described in Book "A."
 Land, mountainous; no soil, 27.00 chains.
 Land, nearly level adobe soil, covered with loose stone,
 53.00 chs.
 Greasewood brush; palo verde and ironwood along washes.
 Ocotillo, cholla and giant cactus.
 September 29, 1913.

Sept. 25, 1913: At 9h. 0m., a.m., l.m.t., I set off 33° 01 $\frac{1}{2}$ ' N.
 on lat. arc; and 0° 46' S. on decl. arc, and determine a
 meridian with the solar, at the cor. of secs. 2, 3, 34
 and 35, on the south bdy. of the Tp., established by
 W. K. Kierulff, U. S. Transitman, as described in Book "A"
 Thence I run,
 N. 0° 01' W., on a true line, bet. secs. 34 and 35.
 Over north slope of mountain, over large boulders.
 12.92 Change to gradual SE. slope.
 18.42 Change to north slope.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 a mound of stone, 4 ft. base, $2\frac{1}{2}$ ft. high, for $\frac{1}{4}$ sec.
 cor., with brass cap, marked,
 $\frac{1}{4}$ S 34 on W. half;
 S 35 on E. half; and
 11913 on S. half;
 pits impracticable. Raise a mound of stone, 4 ft. base,
 $2\frac{1}{2}$ ft. high, W. of cor.
 65.00 Foot of mountain, brs. SW. and SE.
 70.00 Enter level land.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 26, 27, 34 and 35, with
 brass cap, marked,
 T 4 S S 27 in NW.,
 R 13 W S 26 in NE.,
 S 35 in SE., and
 S 34 in SW. quadrants;
 1913 on S. half;
 dig pits, 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist.,

Subdivision of Township 4 South, Range 13 West.

Chains	and raise a mound of earth & stone, 4 ft. base, 2 ft. high, W. of corner. Land, mountainous, 70.00 chains, large volcanic rock boulders. Nearly level land, 10.00 chs. Adobe soil, covered with loose rock.

40.00	East, on a random line, bet. secs. 26 and 35. Set temp. $\frac{1}{4}$ sec. cor.
80.20	Intersect cor. of secs., 25, 26, 35 and 36. Thence I run, West, on a true line, bet. secs. 26 and 35. Over level land.
40.10	Set an iron post, 3 ft. long, 1 in in diam, 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked; $\frac{1}{4}$ S. 26 on N. half, and S. 35, 1913 on S. half. dig pits, 18 x 18 x 12 ins. E. & 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 corner.
80.20	Cor. of secs. 26, 27, 34 and 35. Land, level adobe soil, 2nd rate. No gravel, timber or brush.

	N. 0° 01' W., on a true line, bet. secs. 26 and 27. Over level land.
29.20	Wash, 120 links wide, 6 ft. banks, course N. 70° E.
39.00	Wash, 10 links wide, 3 ft. banks, course 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., with brass cap marked; $\frac{1}{4}$ S. 27 on W. half; S. 26, on E. half, and 1913 on S. half; from which A palo verde, 8 ins. in diam., bears S. 5° E., 102 links dist., marked $\frac{1}{4}$ S. 26 B. T. A palo verde, 8 ins. in diam., bears S. 81° W., 39 links dist., marked $\frac{1}{4}$ S. 27 B. T.
44.40	Wagon road, bears E. & W.
46.60	Wagon road, bears E. & N. 70° W.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 22, 23, 26 & 27, with brass cap, marked: T. 4 S. S. 22 in NW. R 13 W. S. 23 in NE. S 26 in SE., and S. 27 in SW., quadrants; 1913 on S. half, dig pits, 18 x 18 x 12 ins., in each sec. 5 $\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of corner. Land, level adobe soil 2nd rate. Scattering palo verde & iron wood.

	Note: At the cor. of secs. 22, 23, 26 and 27, I set off 0° 50' S. on Decl. arc and at noon observe the sun on the meridian; the resulting latitude is 33° 03 $\frac{1}{2}$ ' N. Thence I run, East on a random line, bet. secs. 23 and 26.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.17	Intersect N. & S. line, 7 links S. of cor. of secs. 23, 24, 25 and 26. Thence I run, S. 89° 57' W., on a true line, bet. secs. 23 & 26.
18.30	Wash, 30 links wide, 3 ft. banks, course S. 20° E.
27.40	Wash, 100 links wide, 3 ft. banks, course South.
30.00	Wash, 100 links wide, 3 ft. banks, course south.
40.085	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked; $\frac{1}{4}$ S. 23 on N. half, and S 26, 1913 on S. half.

Subdivision of Township 4 South, Range 13 West.

8.

Chains	Dig pits, 18 x 18 x 12 ins. E. & W. of post, 3 ft. dist. and raise a mound of stone & earth, 3½ ft. base, 1½ ft. high, N. of corner.
53.20	Wash, 25 links wide, 4 ft. banks, course South.
80.17	Cor. of secs. 22, 23, 26 and 27. Land, level. Soil, adobe, covered with loose stone. Scattering grease wood brush. Palo verde & iron wood along washes. Giant Cactus and Ocotillo. September 25, 1913.

	Sept. 26, 1913: At 2 h. Om. P.M., L.M.T., I set off 33° 03½' N. on Lat. arc and 1° 15' S. on Decl. arc and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.
	Thence I run, N. 0° 01' W. on a true line bet. secs. 22 and 23. Over gently rolling land, through grease wood brush.
38.90	Wash, 10 links wide, course S. 40° E.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked; ¼ S. 22 on W. half, S. 23 on E. half, and 1913 on S. half, from which A palo verde, 6 ins. in diam., bears S. 10° 30' W., 58 links dist., marked ¼ S. 22 B. T. No other tree in limit. Dig pits 18 x 18 x 12 ins. N. & S. of post, 3 ft. dist. and raise a mound of earth & stone, 3½ ft. base, 1½ ft. high, W. of corner.
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 14, 15, 22 and 23, with brass cap marked: T. 4 S. S. 15 in NW. R. 13 W. S. 14 in NE. S. 23 in SE, and S. 22 in SW., quadrants, 1913 on S. half. Dig pits, 18 x 18 x 12 ins., in each sec., 5½ ft. dist. and raise a mound of earth & stone, 4 ft. base, 2 ft. high W. of corner. Land nearly level. Soil, adobe covered with loose stone. Timber, scattering palo verde and iron wood. Ocotillo and Giant Cactus.

	N. 89° 57' E., on a random line, bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. corner.
80.03	Intersect N. & S. line 2 lks. N. of cor. of secs. 13, 14, 23 and 24. Thence I run, S. 89° 58' W., on a true line, bet. secs. 14 and 23. Over nearly level land, through brush.
6.90	Road bears N. 50° W., & S. 10° E.
17.00	Wash, 32 links wide, 3 ft. banks, course SE.
28.70	Wash, 40 links wide, 3 ft. banks, course South.
30.00	Wash, 20 links wide, 2 ft. banks, course South.
36.00	Wash, 100 links wide, 4 ft. banks, course South.
40.015	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked ¼ S. 14 on N. half, and S. 23, 1913 on S. half. Dig pits, 18 x 18 x 12 ins. E. & W. of post, 3 ft. dist. and raise a mound of earth and stone 3½ ft. base, 1½ ft. high, N. of corner.
42.30	Wash, 50 links wide, 5 ft. banks, course South.
80.03	Cor. of secs. 14, 15, 22 and 23. Land, nearly level. Soil, adobe covered with malpais rock; Greasewood brush. Ocotillo, Cholla and Giant Cactus. September 26, 1913.

Subdivision of Township 4 South, Range 13 West. 9.

Chains.

Sept. 30, 1913: At 8h.0m. a.m., l.m.t., I set off $33^{\circ}04\frac{1}{2}'$ N. on lat.arc; and $2^{\circ}42'$ S. on decl.arc, and determine a meridian with the solar at the cor.of secs.14, 15, 22 and 23.

Thence I run, N. $0^{\circ}01'$ W., on a true line, bet. secs.14 and 15. Over rolling land, stony surface, through greasewood brush.

10.00 Wash, 20 lks.wide, 2 ft.banks, course S. 40° E.

30.00 Top of low ridge, brs.NW.and SE.

32.00 Wash, 10 lks.wide course 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., with brass cap, marked, $\frac{1}{4}$ S 15 on W.half; S 14 on E.half; and 1913 on S.half; dig pits, 18x18x12 ins., N.and S.of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W.of cor.

50.00 Wash, 10 lks.wide, course S. 40° E.

78.30 Wash, 20 lks.wide, course SE.

78.50 Road, brs. SE. and NW.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs.10,11,14 and 15, with brass cap, marked, T 4 S S 10 in NW., R 13 W S 11 in NE., S 14 in SE., and S 15 in SW. quadrants; 1913 on S.half; from which, A palo verde, 4 ins. in diam., bears N. $23^{\circ}30'$ E., 86 links dist., marked T 4 S R 13 W S 11 BT. A palo verde, 6 ins. indiam., brs. S. $30^{\circ}10'$ E., 198 lks.dist., marked T 4 S R 13 W S 14 B T. A palo verde, 6 ins. in diam., brs. S. $43^{\circ}15'$ W., 150 lks.dist., marked T 4 S R 13 W S 15 B T. A palo verde, 8 ins. indiam., bears N. 65° W., 203 lks.dist., marked T 4 S R 13 W S 10 B T.

Land, rolling, and stony.
Palo verde along washes.

40.00 N. $89^{\circ}58'$ E., on a random line, bet. secs.11 and 14.
Set temp. $\frac{1}{4}$ sec.cor.

80.02 Intersect N and S. line, 5 links south of the cor.of secs. 11,12,13 and 14.

Thence I run, S. $89^{\circ}56'$ W., on a true line, bet. secs.11 and 14. Over rolling land, covered with loose stone.

1.30 Wash, 20 lks.wide, 2 ft. banks, course S. 30° E.

20.00 Wash, 20 links wide, 2 ft.banks, course S. 40° E.

40.01 Set an iron post 3 ft.long, 1 in. in diam., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked $\frac{1}{4}$ S 11 on N.half; and S 14, 1913 on S.half; dig pits 18x18x12 ins., E and W.of post, 3 ft. dist., and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.high, north of cor.

41.00 Wash, 40 lks.wide, 3 ft. deep, course S. 40° E.

51.60 Wash, 30 links wide, 2 ft. banks, course SE.

53.70 Wash, 100 lks.wide, 3 ft. banks, course S. 40° E.

58.50 Wagon road brs.NW. and SE.

60.00 Wash, 50 lks.wide, 2 ft.banks, course SE.

80.02 Cor.of secs.10,11,14 and 15.
Land rolling, stony surface.
Greasewood brush. Palo verde and ironwood along washes.
Ocotillo, cholla and giant cactus.

10. Subdivision of Township 4 South, Range 13 West.

Chains.

- N.0°01' W., on a true line, bet. secs.10 and 11.
Over rolling land, stony surface, through brush.
- 13.00 Wash, 50 lks.wide, 2 ft. banks, course S.70°E.
37.30 Wash, 10 lks.wide, 2 ft. banks, course S.60°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., with brass cap, marked,
 $\frac{1}{4}$ S 10 on W.half;
S 11 on E.half; and
1913 on S.half; pits impracticable.
raise a mound of stone, 3 ft. base, 1 $\frac{1}{2}$ ft. high, W.of corner.
- 48.70 Wash, 10 lks.wide, 2 ft.banks, course S.70°E.
61.80 Wash, 10 lks.wide, 2 ft. banks, course S.70° E.
80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs. 2,3,10 and 11, with brass cap, marked,
T 4 S S 3 in NW',
R 13 W S 2 in NE',
S 11 in SE., and
S 10 in SW. quadrants;
1913 on S.half; from which,
A palo verde, 6 ins. in diam., brs.S.71°E., 54 lks.dist., marked T 4 S R 13 W S 11 B T.
A palo verde, 5 ins. in diam., brs.N.71°W., 34 lks.dist., marked T 4 S R 13 W S 3 B T.
No other trees in limit. Pits impracticable.
Raise a mound of stone 4 ft.base, 2 $\frac{1}{2}$ ft. high, W.of cor.
Land, rolling, stony surface.
Palo verde and ironwood along washes.
Greasewood brush; ocotillo, cholla and sahuara.
-
- N.89°56'E., on a random line, bet. secs.2 and 11.
40.00 Set temp. $\frac{1}{4}$ sec.cor.
80.08 Intersect N.and S. line, 7 lks.north of cor.of secs.1,2, 11 and 12.
Thence I run,
S.89°59'W., on a true line, bet. secs.2 and 11.
Over steep SW. slope, over large boulders.
- 20.00 Change to gradual SW. slope.
40.04 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in a mound of stone, 4 ft.base, 2 $\frac{1}{2}$ ft. high, for $\frac{1}{4}$ sec.cor., with brass cap, marked,
 $\frac{1}{4}$ S 2 on N.half, and
S 11, 1913 on S.half; pits impracticable.
Raise a mound of stone 4 ft.base, 2 ft.high, north of cor.
- 45.00 Foot of descent, brs. N.80°W. and S.80°E.
58.70 Wash, 40 lks.wide, 3 ft. banks, course S.30° E.
65.40 Wash, 60 links wide, 4 ft. banks, course S.30°E.
80.08 Cor.of secs.2,3,10 and 11.
Land, mountainous, 45.00 chs., covered with large boulders.
Land, rolling, 35.00 chs., covered with loose stone.
Palo verde and ironwood along washes.
Ocotillo and cholla, giant cactus.
-
- N.0° 01' W., on a random line, bet. secs.2 and 3.
40.00 Set temp. $\frac{1}{4}$ sec.cor.
80.05 Intersect the N.bdy.of the Tp., 10 lks.S. 89° 59' W., of the cor.of secs. 2,3,34 and 35, established by W.K. Kierulff, U.S.Transitman, as described in Book "A."
Thence I run,
S.0°03'W., on a true line, bet. secs. 2 and 3., in bottom.
- 12.00 Leave bottom, brs.NW. and SE.
Thence over rolling land; stony surface.
- 40.05 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked,
 $\frac{1}{4}$ S 3 on W.half;

Subdivision of Township 4 South, Range 13 West, 11.

Chains.

S 2 on E-half; and
 1913 on S-half;
 dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist.,
 and raise a mound of earth and stone, 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$
 ft. high, W. of cor.
 53.85 Wash, 30 lks. wide, 2 ft. banks, course east.
 69.90 Wash, 40 lks. wide, 2 ft. banks, course east.
 72.40 Wash, 20 lks. wide, 2 ft. banks, course east.
 80.05 Cor. of secs. 2, 3, 10 and 11.
 Land, rolling, stony surface.
 Soil, adobe.
 Greasewood brush, palo verde and ironwood.
 Giant cactus, ocotillo.

Sept. 30, 1913.

Sept. 27, 1913: At 9h. 0m. a.m., l.m.t., I set off 33°
 01 $\frac{1}{2}$ ' N. on lat. arc, and 1° 33' S. on decl. arc, and deter-
 mine a meridian with the solar at the cor. of secs. 3,
 4, 33 and 34 on the south bdy. of the Tp., established
 by W.K. Kierulff, U.S. Transitman, as described in
 Book "A."

Thence I run,
 N. 0° 02' W., on a true line, bet. secs. 33 and 34.
 Over rough and broken hills; volcanic rock boulders.
 23.20 Wash, 50 lks. wide, 5 ft. banks, course west.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 6 ins. in
 the ground (could not set deeper for solid stone), for
 $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 33 on W-half;
 S 34 on E-half; and
 1913 on S-half; pits impracticable.
 Raise a mound of stone, 3 ft. base, 2 ft. high, around post.
 Raise a mound of stone, 4 ft. base, 2 $\frac{1}{2}$ ft. high, W. of cor.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 12 ins. in
 the ground, for cor. of secs. 27, 28, 33 and 34, with
 brass cap, marked (could not set deeper for solid stone).
 T 4 S S 28 in NW.,
 R 13 W S 27 in NE.,
 S 34 in SE., and
 S 33 in SW. quadrants,
 1913 on S-half;
 raise a mound of stone 3 ft. base, 2 ft. high around
 post.
 Raise a mound of stone 4 ft. base, 2 $\frac{1}{2}$ ft. high, W. of
 corner. From corner,
 A palo verde, 8 ins. in diam., brs. N. 29° E.,
 160 lks. dist., marked T 4 S R 13 W S 27 B T.
 A palo verde, 12 ins. in diam., brs. N. 89° 50' W.,
 139 links dist., marked T 4 S R 13 W S 28 B T.
 No other trees in limit. Pits impracticable.
 Land, rough and broken hills. Volcanic boulders.
 No soil.

East, on a random line, bet. secs. 27 and 34.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.00 Intersect N. and S. line, 6 links, south of cor. of secs.
 26, 27, 34 and 35.
 Thence I run,
 S 89° 57' W., on a true line, bet. secs. 27 and 34.
 Over level land, through greasewood brush, 6 ft. high.
 12.00 Leave level land, brs. NW. and SE.
 Thence over broken north slope and volcanic rock boulders.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 27 on N-half; and
 S 34, 1913 on S-half; pits impracticable.

12. Subdivision of Township 4 South, Range 13 West.

Chains.

45.70 Raise a mound of stone, 4 ft. base, $2\frac{1}{2}$ ft. high, N. of cor.
Wash, 15 lks. wide, 2 ft. deep, course north.
Enter level land, bearing N. and S.
56.75 Leave level land, bearing NW. and SE.
Thence over north slope, over boulders.
75.00 Change to NW. slope.
80.00 Cor. of secs. 27, 28, 33 and 34.
Land, level.
Soil, adobe, 2nd rate, 23.00 chs.
Rough and broken boulders; no soil, 57.00 chs.
Greasewood brush on level land.

Note: At the cor. of secs. 27, 28, 33 and 34, I set off $1^{\circ} 37'$ S. on decl. arc, and at noon, I observe the sun on the meridian; the resulting lat. is $33^{\circ} 02\frac{1}{2}'$ N.

Thence I run,
N. $0^{\circ} 02'$ W., on a true line, bet. secs. 27 and 28.
1.50 Wash, 80 lks. wide, 6 ft. banks, course east. Palo verde and ironwood along banks.
Thence over nearly level 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., with brass cap, marked
 $\frac{1}{4}$ S 28 on W. half;
S 27 on E. half, and
1913 on S. half;
dig pits 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of corner.
43.40 Road brs. E. and W.
60.00 Wash, 40 lks. wide, shallow, course S. 30° E.
76.00 A shallow wash, 300 lks. wide, course S. 30° E.
80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 21, 22, 27 and 28, with brass cap, marked
T 4 S S 21 in NW.,
R 13 W S 22 in NE.,
S 27 in SE., and
S 28 in SW. quadrants;
1913 on S. half;
dig pits, 18x18x12 ins., in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth and stone 4 ft. base, 2 ft. high, west of corner.
Land, nearly level, adobe soil, covered with loose malpais stone.
Greasewood brush, palo verde and ironwood along washes.
Ocotillo and cholla; giant cactus.

N. $89^{\circ} 57'$ E., on a random line, bet. secs. 22 and 27.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.91 Intersect N. and S. line, at the cor. of secs. 22, 23, 26 and 27.
Thence I run,
S. $89^{\circ} 57'$ W., on a true line, bet. secs. 22 and 27.
Over gently rolling land, stony surface, through scattering greasewood brush.
33.80 Wash, 20 lks. wide, 2 ft. deep, course S. 30° E.
39.955 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 22 on N. half; and
S 27, 1913 on S. half;
dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, north of cor.

Subdivision of Township 4 South, Range 13 West, 13.

Chains.

65.00 Wash, 20 lks.wide, 2 ft. banks, course S.40° E.
 70.50 Road, brs.NW. and SE.
 79.91 Cor.of secs.21,22,27 and 28.
 Land,nearly level, adobe soil, covered with loose malpais stone.
 Scattering greasewood brush; scattering palo verde and ironwood along wash.
 Scattering giant cactus.

N.0°02' W., on a true line, bet. secs.21 and 22.
 Over nearly level land, loose stone.
 Scattering greasewood brush.

4.60 Road brs.NW. and SE.
 15.00 Wash, 150 lks.wide, shallow, course S.30°E.
 40.00 Set an iron post, 3 ft.long, lin. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked,
 $\frac{1}{4}$ S 21 on W.half,
 S 22 on E.half, and
 1913 on S.half;
 dig pits 18x18x12 ins., N.and S.of post, 3 ft. dist., and raise a mound of earth, 3 $\frac{1}{2}$ ft.base, 1 $\frac{1}{2}$ ft. high, west of corner.

48.30 Wash, 20 lks.wide, 2 ft.banks, course S.40° E.
 50.00 A knoll, brs.east about 12.00 chains.
 65.00 Wash, 10 lks.wide, shallow, course S.30°W.
 Ascend gradual SE. slope, over boulders 1 to 2 ft. in diam.
 80.00 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in the ground for cor.of secs.15,16,21 and 22, with brass cap, marked,
 T 4 S S 16 in NW.,
 R 13 W S 15 in NE.,
 S 22 in SE., and
 S 21 in SW. quadrants;
 1913 on S.half; pits impracticable.
 Raise a mound of stone, 4 ft. base, 2 ft.high, W.of cor.
 Land, nearly level.
 Adobe soil, covered with loose malpais stone, 65.00 chs.
 Boulders and solid stone, 15.00 chains.
 No soil.
 Scattering palo verde and ironwood along washes.
 Scattering greasewood brush.

40.00 N.89°57'E., on a random line, bet. secs.15 and 22.
 Set temp. $\frac{1}{4}$ sec.cor.
 80.00 Intersect N.and S. line, 10 lks.north of cor.of secs.14, 15, 22 and 23.
 Thence I run,
 N.89°59'W., on a true line, bet. secs.15 and 22.
 Over nearly level land, through scattering brush.
 30.00 A low hill brs.N. about 18.00 chs., which is about 15.00 chs. base.
 40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked,
 $\frac{1}{4}$ S 15 on N.half; and
 S 22, 1913 on S.half;
 dig pits, 18x18x12 ins., E.and W.of post, 3 ft. dist., and raise a mound of earth and stone, 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N.of cor.
 45.80 Wash, 30 lks.wide, shallow, course S.10°E.
 57.40 Wash, 15 lks.wide, shallow, course S.40°E.
 60.00 Leave level land; ascend gradual east slope,over boulders.
 80.00 Cor.of secs.15,16,21 and 22.
 Land,level.
 Soil, adobe, covered with loose malpais stone, 60.00 chs.

14. Subdivision of Township 4 South, Range 13 West.

Chains.

Bare rock and boulders, 20.00 chs.
 Scattering greasewood brush.
 Scattering giant cactus, cholla and ocotillo.
 Sept. 27, 1913.

 October 3, 1913:

N.0°02' W., on a true line, bet. secs.15 and 16.
 Ascend SE. slope, over rocks.
 10.00 Change to gradual NE. slope.
 20.00 Enter almost level land, brs.SW. and SE.
 39.40 Wash, 15 lks.wide, 2 ft.banks, course east.
 40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked,
 $\frac{1}{4}$ S 16 on W.half;
 S 15 on E.half; and
 1913 on S.half; from which,
 An ironwood, 12 ins. in diam., brs.S.52°E., 67
 lks.dist., marked $\frac{1}{4}$ S 15 B T.
 A palo verde, 14 ins. in diam., brs.S.5°W., 66
 lks.dist., marked $\frac{1}{4}$ S 16 B T.
 40.81 Wagon road brs.NE. and SW.
 46.20 Wash, 30 lks.wide, 2 ft. banks, course S.80°E.
 Ascend south slope, over boulders.
 71.00 Top of ridge, bears W and SE.
 Descend N. slope.
 75.00 Change to gradual north slope.
 80.00 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground, for cor.of secs. 9,10,15 and 16, with
 brass cap, marked,
 T 4 S S 9 in NW.,
 R 13 W S 10 in NE.,
 S 15 in SE., and
 S 16 in SW. quadrants,
 1913 in S.half; pits impracticable.
 Raise a mound of stone, 4 ft.base, 2 $\frac{1}{2}$ ft. high, W.of
 cor.
 Land, level.
 Soil, adobe, 26.00 chs., covered with loose stone.
 54.00 chs. rock boulders; no soil.
 Scattering greasewood brush on level.
 Scattering palo verde along wash.

 S.89°59'E., on a random line, bet. secs.10 and 15.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 80.00 Intersect N. and S.line, 7 links north of cor.of secs.
 10,11,14 and 15.
 Thence I run,
 N.89°56'W., on a true line, bet. secs.10 and 15.
 Over rolling land, covered with loose stone and scatter-
 ing brush.
 31.00 Wash, 20 lks.wide, 2 ft.banks, course S.20°E.
 32.80 Wash, 15 lks.wide, 2 ft.banks, course S.40°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., with brass cap, marked,
 $\frac{1}{4}$ S 10 on N.half; and
 S 15, 1913 on S.half;
 dig pits, 18x18x12 ins., E.and W.of post, 3 ft. dist.,
 and raise a mound of earth and stone, 3 $\frac{1}{2}$ ft.base, 1 $\frac{1}{2}$
 ft.high,N.of cor.
 66.00 Wash, 30 lks.wide, 3 ft. banks, course S.30° E.
 Thence along gradual NE. slope to corner.
 80.00 Cor.of secs.9,10,15 and 16.
 Land, rolling, covered with loose stone.

Subdivision of Township 4 South, Range 13 West. 15.

Chains.

Scattering greasewood brush, palo verde and ironwood timber.
Ocotillo and giant cactus.

October 3, 1913.

October 6, 1913: At 9h. Om. a.m., l.m.t., I set off $33^{\circ}05'$ N. on lat. arc; and $5^{\circ}02'$ S. on decl. arc, and determine a meridian with the solar at the cor. of secs. 9, 10, 15 and 16.

Thence I run,

N. $0^{\circ}02'$ W., on true line, bet. secs. 9 and 10.

Over rolling land, through brush.

5.00 Wash, 20 lks. wide, 2 ft. banks, course east.

12.30 Wash, 30 lks. wide, 3 ft. banks, course S. 20° E.

14.00 A dim wagon road brs. 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., with brass cap, marked,
 $\frac{1}{4}$ S 9 on W. half;
S 10 on E. half; and
1913 on S. half;

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

63.00 Wash, 15 lks. wide, course east.

68.00 Road brs. N. 10° W. and S. 10° E.

73.00 Wash, 60 lks. wide, 3 ft. banks, course S. 70° E.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 3, 4, 9 and 10, with brass cap, marked,

T 4 S S 4 in NW.,
R 13 W S 3 in NE.,
S 10 in SE., and
S 9 in SW. quadrants;
1913 on S. half;

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

Land, rolling.

Soil, adobe, covered with loose malpais stone.

Scattering greasewood brush.

Palo verde and ironwood.

Ocotillo, cholla and giant cactus.

40.00 S. $89^{\circ}56'$ E., on a random line, bet. secs. 3 and 10.

Set temp. $\frac{1}{4}$ sec. cor.

79.90 Intersect N. and S. line, 20 lks. south of cor. of secs. 2, 3, 10 and 11.

Thence I run,

S. $89^{\circ}55'$ W., on a true line, bet. secs. 3 and 10.

Over rolling land, through scattering greasewood brush.

39.95 Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground (could not set deeper for solid rock) for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 3 on N. half; and
S 10, 1913 on S. half; pits impracticable.

Raise a mound of stone, 3 ft. base, 2 ft. high, around post.

Raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.

79.90 Cor. of secs. 3, 4, 9 and 10.

Land, rolling, surface, covered with loose malpais stone, very little soil. Scattering ocotillo and cholla, and giant cactus.

Scattering greasewood brush.

16. Subdivision of Township 4 South, Range 13 West.

Chains

40.00 N.0°02'W., on a random line, bet. secs.3 and 4.
 Set temp. $\frac{1}{4}$ sec.cor.
 79.95 Intersect the N.bdy.of the Tp., 9 links N.89°59'E., of
 the corner of secs.3,4,33 and 34, established by W.K.
 Kierulff,U.S.Transitman, as described in Book "A."
 Thence I run,
 S.0°06'E., on a true line, bet. secs.3 and 4.
 Over rolling land.
 12.50 Wash, 20 links wide, 2 ft.banks, course east.
 39.95 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked,
 $\frac{1}{4}$ S 4 on W.half;
 S 3 on E.half; and
 1913 on S.half; from which,
 A palo verde, 8 ins. in diam., brs.S.27 $\frac{1}{2}$ °E., 26
 lks.dist., marked $\frac{1}{4}$ S 3 B T.
 No other tree in limit; dig pits, 18x18x12 ins., N.and
 S.of post 3 ft. dist., and raise a mound of earthand
 stone, 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W.of corner.
 46.35 Wash, 60 lks.wide, 5 ft.banks, course S.60°E.
 53.10 Shallow wash, 40 lks.wide, course S.80°E.
 79.95 Cor.of secs.3,4,9 and 10.
 Land, rolling. Surface covered with loose malpais
 stone. Very little soil.
 Scattering greasewood brush.
 Giant cactns,ocotillo and cholla.
 Oct.6, 1913.

October 1, 1913: At 8h. Om.a.m.,l.m.t., I set off 33°
 01 $\frac{1}{2}$ 'N.on lat.arc; and 3°05'S.on decl.arc, and determine
 a meridian with the solar at the cor.of secs.4,5,32
 and 33, on the south bdy.of the Tp., established by
 W.K.Kierulff, U.S.Transitman, as described in Book "A."
 Thence I run,
 N.0°02'W., on a true line, bet. secs.32 and 33.
 Over rolling land, covered with volcanic boulders.
 10.00 A draw, course east.
 36.70 Wash, 15 lks.wide, course N.30°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.,with brass cap,marked,
 $\frac{1}{4}$ S 32 on W.half;
 S 33 on E.half; and
 1913 on S.half; pits impracticable.
 Raise a mound of stone, 3 ft.base, 2 ft.high,W.of cor.
 45.00 Wash; 25 lks.wide, shallow, course NE.
 80.00 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground, for cor.of secs.28,29,32 and 33, with
 brass cap, marked,
 T 4 S S 29 in NW.,
 R 13 W S 28 in NE.,
 S 33 in SE., and
 S 32 in SW. quadrants;
 1913 on S.half; pits impracticable.
 Raise a mound of stone, 4 ft. base, 2 $\frac{1}{2}$ ft.high, W.of cor.
 Land, rolling, covered with volcanic rock boulders.
 Very little soil; ocotillo,cholla and giant.cactus.

40.00 East, on a random line, bet. secs.28 and 33.
 Set temp. $\frac{1}{4}$ sec.cor.
 80.04 Intersect cor.of secs.27, 28, 33 and 34.
 Thence I run,
 West, on a true line, bet. secs.28 and 33.
 Over nearly level land; stony surface, scattering grease-
 wood brush.
 1.80 Wash, 100 lks.wide, 6 ft. banks, course N.80° E.

Subdivision of Township 4 South, Range 13 West, 17.

Chains,

40.02 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked, $\frac{1}{4}$ S 28 on N. half; and S 33, 1913 on S. half; from which, A palo verde, 16 ins. in diam., brs. S. 74° W., 37 lks. dist., marked $\frac{1}{4}$ S 33 B T.
 No other trees in limit. Dig pits 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, north of corner.
 41.00 Wash, 100 lks. wide, 8 ft. banks, course S. 70° E.
 80.04 Cor. of secs. 28, 29, 32 and 33.
 Land, gently rolling.
 Soil, adobe soil, covered with loose malpais stone, 12 to 24 ins. in diam., too rough to drive over with a wagon.
 Scattering greasewood brush, giant cactus, ocotillo and cholla.

N. 0° 02' W., on a true line, bet. secs. 28 and 29.
 Over gently rolling land, covered with loose malpais boulders; scattering greasewood brush.

32.90 Enter wash, 60 lks. wide, 4 ft. banks, course from north to S. 80° E.

40.00 True point for $\frac{1}{4}$ sec. cor. falls in wash.

40.20 Leave wash, from N. 80° W. to south.

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

W C $\frac{1}{4}$ S 29 on W. half;
 S 28 on E. half; and
 1913 on S. half; from which,
 A palo verde, 18 ins. in diam., brs. S. 56° E., 38 lks. dist., marked $\frac{1}{4}$ S 28 B T.
 A palo verde, 8 ins. in diam., brs. N. 37° 30' W., 83 lks. dist., marked $\frac{1}{4}$ S 29 B T.

64.70 Wash, 20 lks. wide, 2 ft. deep, course S. 20° E.

65.00 Wagon road, brs. E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 20, 21, 28 and 29, with brass cap, marked

T 4 S S 20 in NW.,
 R 13 W S 21 in NE.,
 S 28 in SE., and
 S 29 in SW. quadrant,
 1913 on S. half;

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

Land, nearly level.
 Soil, adobe covered with loose malpais stone.
 Greasewood brush, palo verde and ironwood and mesquite timber, by wash.

Note: At the cor. of secs. 20, 21, 28 and 29, I set off 3° 10' S. on decl. arc, and at noon, observe the sun on the meridian; the resulting lat. is 33° 03 $\frac{1}{2}$ ' N.

Thence I run, East, on a random line, bet. secs. 21 and 28.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.06 Intersect cor. of secs. 21, 22, 27 and 28.

Thence I run, West, on a true line, bet. secs. 21 and 28.

Over gently rolling land, through greasewood brush.

11.00 A shallow wash, 20 lks. wide, course SE.

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

18. Subdivision of Township 4 South, Range 13 West.

Chains.	
	<p>the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked, $\frac{1}{4}$ S 21 on N.half; and S 28, 1913 on S.half; dig pits, 18x18x12 ins., E and W of post, 3 ft. dist., and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, north of cor.</p>
45.00	Wash, 50 lks.wide, 2 ft. banks, course S.40° E.
80.06	Cor.of secs. 20,21, 28 and 29. Land, gently rolling. Soil, adobe covered with loose malpais stone; scattering greasewood brush. Palo verde and ironwood along washes; giant cactus.

	<p>N.0°02' W., on a true line, bet. secs.20 and 21. Over gently rolling land; stony surface; scattering brush.</p>
23.00	Wash, 20 lks.wide, 2 ft. banks, course S.70°E.
34.50	Wash, 10 lks.wide, 2 ft. banks, course S.30° 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., with brass cap, marked, $\frac{1}{4}$ S 20 on W.half; S 21 on E.half; and 1913 on S.half; pits impracticable. Raise a mound of stone, 3 ft. base. 2 ft. high, west of corner.
68.00	Wash, 15 lks.wide, course S.80°E.
75.00	Ascend gradual south slope.
80.00	Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs.16,17,20 and 21, with brass cap, marked, T 4 S S 17 inNW., R 13 W S 16 in NE., S 21 in SE., and S 20 in SW. quadrants; 1913 on S.half; pits impracticable. Raise a mound of stone, 4 ft.base, $2\frac{1}{2}$ ft. high,W.of cor. Land, gently rolling, 75.00 chs. Over rock, 5.00 chs. Soil, adobe, covered with loose malpais stone. Palo verde along washes.

	<p>East, on a random line, bet. secs.16 and 21.</p>
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.18	Intersect N.and S.line, 3 links north of cor.of secs.15, 16,21, and 22. Thence I run, N.89° 59' W., on a true line, bet. secs. 16 and 21. Over hilly land, covered with loose stone.
5.00	Top of low ridge, brs.N.and S. Descend SW. slope.
26.00	Wash, 20 lks.wide, 3 ft. deep, course south.
33.00	Road, brs. NE. and SW.
38.00	Wash, 30 lks.wide, 2 ft. banks, course S.10° E.
40.09	Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked, $\frac{1}{4}$ S 16 on N.half; and S 21, 1913 on S.half; dig pits, 18x18x12 ins., E and W of post, 3 ft. dist., and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.high, N.of cor.
55.00	Wash, 20 lks.wide, 2 ft.banks, course S.30°E.
63.00	Wash, 20 lks.wide, 2 ft.banks, course S.30°E.
80.18	Cor.of secs.16,17,20 and 21. Land, hilly.

Chains.

Poor adobe soil, covered with malpais boulders.
October 1, 1913.

October 3, 1913:
N. 0° 02' W., on a true line, bet. secs. 16 and 17.
Over hilly land, covered with boulders.
Ascend SE. slope.

8.00
18.00
21.00
40.00

Descend NE. slope.
Change to east slope.
Change to gradual NW. slope.
Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground (could not set deeper for solid rock), for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 17 on W. half;
S 16 on E. half; and
1913 on S. half; pits impracticable.

Raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, around post.

Raise a mound of stone 3 ft. base, 2 ft. high, west of cor.

Thence over gradual SE. slope.

80.00

Set an iron post 3 ft. long, 2 ins. in diam., 12 ins. in the ground (could not set deeper for solid rock), for cor. of secs. 8, 9, 16 and 17, with brass cap, marked
T 4 S S 8 in NW.,
R 13 W S 9 in NE.,
S 16 in SE., and
S 17 in SW. quadrants; pits impracticable.
1913 on S. half;

Raise a mound of stone, 3 ft. base, 2 ft. high around post.

Raise a mound of stone, 4 ft. base, 2 ft. high, west of cor.

Land, rolling and hilly; very little soil surface covered with loose stone.

Giant cactus and cholla, scattering.

S. 89° 59' E., on a random line, bet. secs. 9 and 16.

40.00

Set temp. $\frac{1}{4}$ sec. cor.

80.00

Intersect N. and S. line, 3 links N. of cor. of secs. 9, 10, 15 and 16.

Thence I run,

N. 89° 58' W., on a true line, bet. secs. 9 and 16.

Over rough and broken surface, covered with malpais boulders.

40.00

Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 9 on N. half, and
S 16, 1913 on S. half; pits impracticable.

Raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.

45.00

Wash, 40 lks. wide, 3 ft. deep, course S. 10° E.

73.70

Wash, 30 lks. wide, 3 ft. banks, course south.

80.00

Cor. of secs. 8, 9, 16 and 17.

Land, hilly, rough and broken; surface covered with boulders.

No soil.

Giant cactus and cholla.

October 3, 1913.

October 6, 1913. At 9h. 0m. a.m., l.m.t., I set off 33° 05' N. on lat. arc, and 5° 03' S. on decl. arc, and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17.

20. Subdivision of Township 4 South, Range 13 West.

Chains.

- Thence I run,
N.0°02'W., on a true line, bet. secs.8 and 9.
Over rough and broken surface; ascend SE. slope.
- 10.00 Change to NE. slope.
- 20.00 A ravine, 15 lks.wide, 8 ft. deep, course SE.
Ascend steep south slope, over boulders.
- 30.00 Top of ridge, brs.NW. and SE. deep, course east.
Descend.
- 35.00 A ravine, 15 lks.wide, 8 ft.deep, course east.
Ascend south slope.
- 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
a mound of stone, 3 ft.base, 2½ ft.high, around post
(could not set in ground for solid rock), with brass
cap, marked,
¼ S 8 on W.half;
S 9 on E.half; and
1913 on S.half; pits impracticable.
- 42.00 Raise a mound of stone 4 ft.base, 2½ ft. high, W.of cor.
Top of ridge, brs. E.and W.
Descend steep north slope.
- 60.00 Change to gradual north slope.
- 80.00 Set an iron post 3 ft.long, 2 ins. in diam., 18 ins. in
the ground (could not set deeper for solid rock) for
cor.of secs.4,5,8 and 9, with brass cap, marked,
T 4 S S 5 in NW.,
R 13 W S 4 in NE.,
S 9 in SE., and
S 8 in SW. quadrants;
1913 on S.half; pits impracticable.
- Raise a mound of stone 2 ft.base, 1 ft. high around post.
Raise a mound of stone 4 ft.base, 2 ft.high, W.of cor.
Land, mountainous.
No soil.
Surface covered with loose boulders.

- 40.00 S.89°58'E., on a random line, bet. secs.4 and 9.
Set temp.¼ sec.cor.
- 80.10 Intersect N.and S. line, 14 lks.south of cor.of secs.3,
4,9 and 10.
- Thence I run,
S.89°56'W., on a true line, bet. secs.4 and 9.
Over hilly land, covered with loose boulders.
- 10.00 Wash, 30 lks.wide, 2 ft. deep, course NE.
- 21.85 Wash, 60 lks.wide, 3 ft. banks, course NE.
- 40.05 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
the ground, for ¼ sec.cor., with brass cap, marked,
¼ S 4 on N.half; and
S 9; 1913 on S.half;
dig pits 18x18x12 ins., E.and W.of post, 3 ft. dist.,
and raise a mound of earth and stone, 3½ ft. base, 1½
ft.high, north of corner.
- 42.00 Wash, 15 lks.wide, 2 ft. banks, course N.30° E.
- 46.00 Wash, 40 lks.wide, 3 ft.banks, course N.70°E.
- 64.10 Wash, 45 lks.wide, 3 ft.banks, course S.80°E.
- 80.10 Cor.of secs.4,5, 8 and 9.
Land, rough and broken, covered with loose stone; no
soil, scattering giant cactus.
A few scattering palo verde along washes.
October 6, 1913.

- October 7, 1913.
N.0°02'W. on a random line, bet. secs.4 and 5.
- 40.00 Set temp.¼ sec.cor.
- 80.04 Intersect the north bdy.of the Tp., 2 links S.89° 59'W.,

Subdivision of Township 4 South, Range 13 West. 21.

Chains.

of cor. of secs. 4, 5, 32 and 33, established by W.K. Kierulff, U.S. Transitman, as described in Book "A."
 Thence I run,
 S. 0° 01' E., on a true line, bet. secs. 4 and 5.
 Over level land, through brush and palo verde.
 14.00 Leave level land, brs. E. and W.
 Ascend north slope, over boulders.
 35.00 Top of low ridge, brs. E. and W.
 Descend gradual south slope.
 40.04 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 5 on W. half;
 S 4 on E. half; and
 1913 on S. half; pits impracticable.
 Raise a mound of stone, 4 ft. base, 2 ft. high, W. of cor.
 45.00 Wash, 50 lks. wide, 5 ft. banks, course SE.
 60.00 Wash, 50 lks. wide, 4 ft. banks, course east.
 Ascend.
 63.00 Top of low ridge, brs. E. and W.
 68.00 Wash, 50 lks. wide, 5 ft. banks, course SE.
 75.00 Wash, 100 lks. wide, 6 ft. banks, course N. 70° E.
 80.04 Cor. of secs. 4, 5, 8 and 9.
 Land, level.
 Adobe soil, covered with loose stone, 14.00 chains.
 Land, rolling, covered with loose boulders, 66.04 chs.
 Palo verde along washes.
 Scattering giant cactus.

Oct. 7, 1913.

October 2, 1913: At 9h. 0m. a.m., l.m.t., I set off 33° 01 $\frac{1}{2}$ ' N. on lat. arc; and 3° 30' S. on decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32 on the south bdy. of the Tp., established by W.K. Kierulff, U.S. Transitman, as described in Book "A."
 Thence I run,
 N. 0° 03' W., on a true line, bet. secs. 31 and 32.
 Over loose boulders.
 13.70 Wash, 40 lks. wide, 4 ft. banks, course S. 30° E.
 20.00 Ascend SE. slope.
 25.00 Top of low ridge, brs. NE. and SW.
 Thence over gradual north 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., with brass cap, marked
 $\frac{1}{4}$ S 31 on W. half;
 S 32 on E. half; and
 1913 on S. half; pits impracticable.
 Raise a mound of stone 4 ft. base, 2 ft. high, W. of cor.
 42.00 Wash, 25 lks. wide, course N. 30° E.
 71.00 Wash, 40 lks. wide, 2 ft. banks, course east.
 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 29, 30, 31 and 32, with brass cap, marked,
 T 4 S S 30 in NW.,
 R 13 W S 29 in NE.
 S 32 in SE., and
 S 31 in SW. quadrants;
 1913 on S. half; pits impracticable.
 Raise a mound of stone 4 ft. base, 2 ft. high, W. of cor.
 Land, rolling, covered with loose boulders.
 No soil.
 Scattering cholla and giant cactus.

40.00 East, on a random line, bet. secs. 29 and 32.
 79.94 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect N. and S. line, 5 links N. of cor. of secs. 28,

22. Subdivision of Township 4 South, Range 13 West.

Chains	
	29, 32 and 33.
	Thence I run,
	N.89°58'W., on a true line, bet. secs.29 and 32.
	Over gently rolling land, over boulders.
15.00	Enter wash, 100 lks.wide, from west to N.40°E.
26.80	Leave wash from SW. to east.
39.97	Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked, $\frac{1}{4}$ S 29 on N.half, and S 32, 1913 on S.half; pits impracticable.
53.00	Raise a mound of stone, 3 ft.base, 1 $\frac{1}{2}$ ft. high, N.of cor.
79.94	Wash, 40 lks.wide, 2 ft.banks, course N.40°E. Cor.of secs.29,30,31 and 32. Land, gently rolling. Soil, adobe, covered with loose boulders. Giant cactus and cholla.

40.00	West, on a random line, bet. secs.30 and 31. Set temp. $\frac{1}{4}$ sec.cor.
80.05	Intersect the west bdy.of the Tp., 5 links north of the cor.of secs. 25,30,31 and 36, established by me, as described in Book "B." Thence I run,
	N.89°58'E. on a true line, bet. secs.30 and 31.
	Over nearly level land, covered with boulders.
40.05	Set an iron post 3 ft.long, 1 in. in diam., 18 ins. in the ground (could not set deeper for solid rock) for $\frac{1}{4}$ sec.cor., with brass cap, marked, $\frac{1}{4}$ S 30 on N.half; and S 31, 1913 on S.half; pits impracticable.
	Raise a mound of stone, 3 ft.base, 1 ft.high, around post.
80.05	Raise a mound of stone 4 ft.base, 2 ft.high, N.of cor. Cor.of secs.29,30, 31 and 32. Land, nearly level, covered with loose stone; very little soil. Giant cactus and cholla.

	Note: At the cor.of secs. 29,30,31 and 32, I set off 3° 33'S. on decl. arc, and at noon, observe the sun on the meridian; the resulting latitude is 33° 02 $\frac{1}{2}$ ' N.
	Thence I run,
	N.0°03'W., on a true line, bet. secs.29 and 30.
	Over nearly level land, over malpais boulders.
35.00	Wash, 20 lks.wide, 2 ft.banks, course NE.
40.00	Set an iron post, 3 ft.long, 1 in. in diam., 18 ins. in the ground, (could not set deeper for solid rock), for $\frac{1}{4}$ sec.cor., with brass cap, marked, $\frac{1}{4}$ S 30 on W.half; S 29 on E.half; and 1913 on S.half; pits impracticable.
	Raise a mound of stone, 3 ft.base, 1 $\frac{1}{2}$ ft. high around post. Raise a mound of stone 4 ft.base, 2 ft.high, west of corner.
50.00	Wash, 30 links wide. 2 ft.banks, course S.80° E.
75.95	Road brs.E.and W.
77.30	Wash, 60 lks.wide, 4 ft.banks, course S.40° E.
80.00	Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs.19,20,29 and 30, with brass cap, marked, T 4 S S 19 in NW., R 13 W S 20 in NE., S 29 in SE., and S 30 in SW.quadrants; 1913 on S.half; from which, A mesquite, 8 ins. in diam., brs.N.87°E., 16

Subdivision of Township 4 South, Range 13 West.

23.

Chains.

lks.dist., marked T 4 S R 13 W S 20 BT.
 A mesquite, 4 ins. in diam., brs.S.44°E., 25
 lks.dist., marked T 4 S R 13 W S 29 B T.
 A mesquite, 8 ins. in diam., bears S.59°30'W.,
 68 lks.dist., marked T 4 S R 13 W S 30 BT.
 A palo verde, 8 ins. in diam., brs.N.43°W., 52
 lks.dist., marked T 4 S R 13 W S 19 B T.

Land, gently rolling.
 Soil, adobe, covered with loose stone.
 Timber, mesquite; palo verde and ironwood along the
 big washes.

40.00
79.94

S.89°58'E., on a random line, bet. secs.20 and 29.
 Set temp. $\frac{1}{4}$ sec.cor.
 Intersect N. and S. line, 14 lks.S. of the cor. of secs.20,21,
 28 and 29.

Thence I run,
 S.89°56'W., on a true line, bet. secs.20 and 29.
 Over nearly level land, covered with loose stone and scat-
 tering brush.

4.10
21.60
39.97

Wash, 10 lks.wide, 3 ft. banks, course SE.
 Wash, 60 lks.wide, 4 ft. banks, course S.30°E.
 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked
 $\frac{1}{4}$ S 20 on N.half; and
 S 29, 1913 on S.half;
 dig pits 18x18x12 ins., E and W of post 3 ft. dist.,
 and raise a mound of earth and stone, 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft.
 high, north of cor.

50.00
79.00
79.70
79.94

Shallow wash, 30 lks.wide, course S.40°E.
 Left bank of wash, 30 ft. high.
 Right bank of wash, 5 ft. high, course S.40°E.
 Cor. of secs.19,20,29 and 30.
 Land, nearly level.
 Soil, adobe and sandy soil, covered with loose malpais
 stone.
 Mesquite, palo verde and ironwood along big wash.
 Giant cactus and cholla and ocotillo.

October 2, 1913.

40.00
80.09

October 3, 1913:
 S.89°58'W. on a random line, bet. secs.19 and 30.
 Set temp. $\frac{1}{4}$ sec.cor.
 Intersect the west bdy of the Tp. at the cor. of secs.19,24,
 25 and 30, established by me, as described in Book "B."

Thence I run,
 N.89°58'E., on a true line, bet. secs.19 and 30.
 Over nearly level land, covered with loose stone; scatter-
 ing greasewood brush.

40.09

Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked,
 $\frac{1}{4}$ S 19 on N.half; and
 S 30, 1913 on S.half; pits impracticable.

61.80
68.60
76.00
80.09

Raise a mound of stone, 4 ft.base, 2 ft.high, north of cor.
 Wash, 20 lks.wide, 2 ft. banks, course S.30°E.
 Wagon road, brs.NW. and SE.
 Wash, 60 lks.wide, 3 ft. banks, course S.30°E.
 Cor. of secs.19,20,29 and 30.
 Land, nearly level.
 Soil, adobe, covered with volcanic rock boulders.
 Palo verde, ironwood and mesquite along washes.
 Giant cactus and cholla.

24. Subdivision of Township 4 South, Range 13 West.

Chains.

- At the cor. of secs. 19, 20, 29 and 30, at 8h.0m.a.m., l.m.t.
I set off $33^{\circ} 03\frac{1}{2}'$ N. on the lat. arc, and $3^{\circ} 52'$ S. on
the decl. arc, and determine a meridian with the solar.
Thence I run,
N. $0^{\circ} 03'$ W., on a true line, bet. secs. 19 and 20.
Over gently rolling land, covered with loose stone, scat-
tering brush.
- .25 Wash, 60 lks. wide, banks 5 to 30 ft. high.
36.80 Road brs. 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., with brass cap, marked,
 $\frac{1}{4}$ S 19 on W. half;
S 20 on E. half; and
1913 on S. half;
dig pits 18x18x12 ins., N. and S. of post, 3 ft. dist.,
and raise a mound of earth and stone $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$
ft. high, west of cor.
- 63.80 Wash, 40 lks. wide, 4 ft. banks, course S. 40° E.
68.30 Wash, 15 lks. wide, course S. 40° E.
80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
the ground, for cor. of secs. 17, 18, 19 and 20, with
brass cap, marked,
T 4 S S 18 in NW.,
R 13 W S 17 in NE.,
S 20 in SE., and
S 19 in SW. quadrants;
1913 on S. half; pits impracticable.
raise a mound of stone 4 ft. base, 2 ft. high, west of
corner.
Land, gently rolling.
Soil, adobe, covered with loose rock.
Palo verde, ironwood and mesquite along washes.
-
- 40.00 N. $89^{\circ} 56'$ E. on a random line, bet. secs. 17 and 20.
Set temp. $\frac{1}{4}$ sec. cor.
79.82 Intersect N. and S. line, 2 lks. north of the cor. of secs.
16, 17, 20 and 21.
Thence I run,
S. $89^{\circ} 57'$ W., on a true line, bet. secs. 17 and 20.
Over rolling land, covered with loose stone.
Scattering greasewood brush.
- 19.00 Wash, 20 lks. wide, 2 ft. deep, course south.
30.00 A low hill brs. N. about 20.00 chs.
34.00 A draw, 10 lks. wide, 3 ft. deep, course south.
39.91 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 17 on N. half; and
S 20, 1913 on S. half; pits impracticable.
Raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
- 45.80 Wash, 20 lks. wide, 2 ft. banks, course south.
A hill, about 90 ft. high, 8 chs. base, brs. N. 8.00 chs.
49.10 Road brs. N. and S.
68.00 A shallow wash, 20 lks. wide, course south.
72.17 A ravine, 20 lks. wide, 6 ft. deep, course S. 10° E.
79.82 Cor. of secs. 17, 18, 19 and 20.
Land, rolling, covered with loose stone, very little
soil.
Palo verde along wash; giant cactus, eholla and ocotillo.
Scattering greasewood brush.
-
- 40.00 S. $89^{\circ} 58'$ W., on a random line, bet. secs. 18 and 19.
Set temp. $\frac{1}{4}$ sec. cor.
80.00 Intersect the west bdy. of the Tp., at the cor. of secs.
13, 18, 19 and 24, established by me, as described in

Subdivision of Township 4 South, Range 13 West.

Chains.

Book "B."
Thence I run,
N.89°58'E., on a true line, bet. secs.18 and 19.
Over gently rolling land, covered with loose stone and scattering greasewood brush.

40.00 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., with brass cap, marked, $\frac{1}{4}$ S 18 on N.half; and S 19, 1913 on S.half; from which,
A palo verde, 8 ins. in diam., brs.N.61°E.,122 lks.dist., marked $\frac{1}{4}$ S 18 B T.
No other tree in limit. Pits impracticable.

65.40 Raise a mound of stone, 3 ft.base, 2 ft.high, N.of cor.
Wash, 40 lks.wide, 4 ft.banks, course S.40° E.

80.00 Cor.of secs.17,18,19 and 20.
Land, gently rolling, covered with loose malpais stone. Palo verde, along washes. Scattering greasewood brush. Ocotillo, cholla and giant cactus.
October 3, 1913.

October 4, 1913:
At 8h.0m. a.m.,l.m.t., I set off 33° 04 $\frac{1}{2}$ 'N. on lat.arc; and 4°15'S.on decl.arc, and determine a meridian with the solar at the cor.of secs.17,18,19 and 20.

Thence I run,
N.0°03'W., on a true line, bet. secs.17 and 18.
Over gently rolling land, covered with loose stone;scattering greasewood brush.

4.40 Wash, 40 lks.wide, 3 ft. banks, course S.60°E.

15.00 Wash, 10 lks.wide, course S.10°W.
Ascend SE. slope.

25.00 Change to east slope.

40.00 Set an iron post 3 ft.long, 1 in. in diam., 18 ins. in the ground (could not set deeper for solid rock), for $\frac{1}{4}$ sec.cor., with brass cap, marked, $\frac{1}{4}$ S 18 on W.half; and S 17 on E.half; and 1913 on S.half; pits impracticable.
Raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, around post.
Raise a mound of stone, 4 ft.base, 2 ft. high, west of corner.

50.00 Change to gradual NE. slope.

61.00 The Coyote Mining claim shaft, brs.east about 100 lks.,(a prospect.)

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs.7,8,17 and 18, with brass cap, marked,
T 4 S S 7 in NW.,
R 13 W S 8 in NE.,
S 17 in SE., and
S 18 in SW. quadrants;
1913 on S.half;
dig pits, 18x18x12 ins., in each sec.5 $\frac{1}{2}$ ft. dist.,and raise a mound of earth and stone, 4 ft.base, 2 ft. high, west of corner.
Land, rolling, covered with loose stone, very little soil. Scattering greasewood brush. Scattering palo verde and ironwood along washes. Ocotillo, cholla and giant cactus.

N.89°57'E., on a random line, bet. secs.8 and 17.
40.00 Set temp. $\frac{1}{4}$ sec.cor.
80.03 Intersect N.and S. line, 3 lks.N.of cor.of secs.8,9,16

26. Subdivision of Township 4 South, Range 13 West.

Chains.

- and 17.
Thence I run,
S. 89° 58' W., on a true line, bet. secs. 8 and 17.
Over rolling land, covered with malpais boulders. Scattering greasewood brush.
- 40.00 Wash, 60 lks. wide, 2 ft. banks, course S. 10° E.
40.015 True point for $\frac{1}{4}$ sec. cor. falls in wash; therefore at
40.53 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for wit. cor. to $\frac{1}{4}$ sec. cor., with brass cap, marked,
W C $\frac{1}{4}$ S 8 on N. half; and
S 7, 1913 on S. half;
dig pits 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth and stone, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 62.00 Wash, 10 lks. wide, 2 ft. banks, course S. 10° E.
67.00 Wagon road brs. NW. and SE.
75.00 Wash, 10 lks. wide, 2 ft. banks, course S. 15° W.
80.03 Cor of secs. 7, 8, 17 and 18.
Land, rolling, covered with loose malpais stone.
No soil; giant cactus and cholla.

- S. 89° 58' W., on a random line, bet. secs. 7 and 18.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.88 Intersect the west bdy. of the Tp., 2 links south of the cor. of secs. 7, 12, 13 and 18, established by me, as described in Book "B."
Thence I run,
N. 89° 59' E., on a true line, bet. secs. 7 and 18.
Over rolling land, stony surface, through greasewood brush.
- 18.78 Wash, 15 lks. wide, 2 ft. banks, course SE.
26.50 Wash, 30 lks. wide, 5 ft. banks, course south.
33.68 Wash, 30 lks. wide, 6 ft. banks, course south.
39.88 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 7 on N. half; and
S 18, 1913 on S. half; pits impracticable.
Raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
- 42.00 Wash, 30 lks. wide, 2 ft. banks, course south.
79.88 Corner of secs. 7, 8, 17 and 18.
Land, rolling, covered with loose stone; very little soil. Palo verde and ironwood along washes.
Greasewood brush (scattering).

October 4, 1913.

- October 7, 1913: At 8h. Om. a.m., l.m.t., I set off 33° 05' N. on lat. arc; and 5° 24' S. on decl. arc, and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.
Thence I run,
N. 0° 03' W., on a true line, bet. secs. 7 and 8.
- 6.00 Road brs. NW. and SE.
8.00 Enter a wash, 50 lks. wide, from north to S. 30° E.
18.20 Leave wash, from NW. to S.
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in the ground (could not set deeper for solid rock) for $\frac{1}{4}$ sec. cor., with brass cap, marked,
 $\frac{1}{4}$ S 7 on W. half;
S 8 on E. half; and
1913 on S. half; pits impracticable.
Raise a mound of stone, 3 ft. base, 2 ft. high, around post.
Raise a mound of stone, 4 ft. base, 2 ft. high, W. of cor.
- 44.10 A prospect hole on line about 50 ft. deep, not covered; dangerous.

Subdivision of Township 4 South, Range 13 West. 27.

Chains.

80.00 Ascend steep south slope, over boulders.
 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in a mound of stone, 4 ft. base, 2½ ft. high, for cor. of secs. 5, 6, 7 and 8, with brass cap, marked,
 T 4 S S 6 in NW.,
 R 13 W S 5 in NE.,
 S 8 in SE., and
 S 7 in SW. quadrants;
 1913 on S. half; pits impracticable.
 Raise a mound of stone, 4 ft. base, 2½ ft. high, W. of cor. Land, rolling and stony, 44.00 chs.
 Mountainous, over boulders, 36.00 chs. No soil.

40.00 N. 89° 58' E., on a random line, bet. secs. 5 and 8.
 79.94 Set temp. ¼ sec. cor.
 Intersect N. and S. line, 4 lks. north of the cor. of secs. 4, 5, 8 and 9.
 Thence I run,
 West, on a true line, bet. secs. 5 and 8.
 Over rough and broken surface.
 23.24 Wash, 60 lks. wide, 5 ft. banks, course N. 80° E.
 27.20 A ravine, 10 lks. wide, 5 ft. deep, course S. 80° E.
 35.00 Wash, 30 lks. wide, 2 ft. banks, course N. 80° E.
 39.97 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor., with brass cap, marked,
 ¼ S 5 on N. half; and
 S 8, 1913 on S. half;
 dig pits 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth and stone, 3½ ft. base, 1½ ft. high, north of corner.
 Ascend broken SE. slope of mountain.
 79.94 Corner of secs. 5, 6, 7 and 8.
 Land, rolling, 40.00 chs.
 Stony surface of mountain, 39.94 chs. Large boulders.
 No soil.

40.00 S. 89° 59' W., on a random line, bet. secs. 6 and 7.
 79.77 Set temp. ¼ sec. cor.
 Intersect the W. bdy. of the Tp., 2 lks. N. of cor. of secs. 1, 6, 7 and 12, established by me, as described in Book "B."
 Thence I run,
 N. 89° 58' E., on a true line, bet. secs. 6 and 7.
 Over broken surface.
 39.77 Set an iron post, 3 ft. long, 1 in. in diam., 18 ins. in the ground (could not set deeper for solid rock) for ¼ sec. cor., with brass cap, marked,
 ¼ S 6 on N. half; and
 S 7, 1913 on S. half; pits impracticable.
 Raise a mound of stone, 2 ft. base, 1½ ft. high around post.
 Raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
 42.00 A ravine, 20 lks. wide, 10 ft. deep, course south.
 Ascend broken SW. slope of mountain.
 79.77 Cor. of secs. 5, 6, 7 and 8.
 Land, rough and broken mountain surface, covered with loose boulders.
 No soil.

Note: At the cor. of secs. 5, 6, 7 and 8, I set off 5° 29' S., on the decl. arc, and at noon, observe the sun on the meridian; the resulting latitude is 33° 06' N.

28. Subdivision of Township 4 South, Range 13 West.

Chains.

Thence I run,
N.0°03'W., on a random line, bet. secs.5 and 6.
40.00 Set temp. $\frac{1}{4}$ sec.cor.
79.96 Intersect the north bdy.of the Tp., 3 links S.89°59'W.,
of the cor.of secs.5,6,31 and 32, established by W.K.
Kierulff, U.S.Transitman, as described in Book "A."
Thence I run,
S.0°02'E., on a true line, bet. secs.5 and 6.
Over rough and broken SW. slope.
37.00 A ravine, 50 lks.wide, 20 ft. deep, course SW. Foot of
500 ft. descent.
39.96 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
a mound of stone, 3 ft.base, 2 $\frac{1}{2}$ ft. high, for $\frac{1}{4}$ sec.
cor., with brass cap, marked.
 $\frac{1}{4}$ S 6 on W.half;
S 5 on E.half; and
1913 on S.half; pits impracticable.
raise a mound of stone, 3 $\frac{1}{2}$ ft.base, 2 $\frac{1}{2}$ ft. high, W.of
corner.
45.00 Ascend steep NW. slope, over boulders.
51.50 Top of ridge, brs.E.and W., 500 ft. ascent.
Descend over steep south slope.
68.00 Head of ravine, 10 links wide, 5 ft.deep, course SE.
79.96 Cor.of secs.5,6,7 and 8.
Land, mountainous; no soil.
Surface covered with large volcanic rock boulders.
Note: Solar observations were taken at each set up in the
survey of this township.

October 7, 1913.

GENERAL DESCRIPTION.

This township is rough and broken, covered with loose malpais rock, cut-up by numerous shallow washes. There is some good adobe soil in secs.26,35 and 36, about 1500 A.in all. There are high hills in the NW. portion, covered with boulders. No soil. There are no settlers. A few mining prospects in secs. 5,6,7,8, and 17, none being worked at this time. Small scrub palo verde, ironwood and mesquite timber along washes. Scattering greasewood brush on the rolling and level land. Scattering ocotillo, cholla and giant cactus.

A. H. Shorn
U.S.Surveyor.

64
29
BOOK 2704

ES
For FINAL OATH OF UNITED STATES SURVEYOR. & TRANSITMAN
See Book "L" (Subdivision of T.5 S., R.13 W.)

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance
of special instructions received from the U. S. Surveyor General for _____
bearing date of the _____ day of _____, 191 , 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 _____
_____ of the _____
_____ Meridian, in the State of _____, 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 accord-
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor
General for _____ and in the specific manner described in the field notes, and that
the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 191



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Phoenix, Arizona, DECEMBER 1, 1914

The foregoing field notes of the survey of _____
the Subdivision lines of Township No. 4 South, Range No. 13 West,
of the Gila and Salt River Base and Meridian, in the State of
Arizona,

executed by W. H. Thorn, U.S. Surveyor,
under his special instructions dated Feby. 26, 1913, for Group 28, _____, 191 , having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.

Frank B. Lyall
U. S. Surveyor General.
of Arizona.

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

~~U. S. Surveyor General.~~
~~of Arizona.~~