

Book N
2306
FIELD NOTES

FEB. 12 1912

BOOK 2306

152

2306

OF THE SURVEY OF THE

Admission Lines T to N. R. 13W.

2306

Of the T. & O. R. Meridian,

In the State of Territory of Arizona

EXECUTED BY

W. O. Dues

In the capacity of U. S. ^{Assistant} Surveyor, under instructions dated Sept. 16, 1911, issued by the United States Surveyor General to govern surveys included in Group No. 9, which were approved by the Commissioner of the General Land Office, Sept. 28, 1910, pursuant to authority contained in the Act of Congress dated February 27, 1911, 1899.

Survey commenced March 1, 1911

Survey completed March 18, 1911

2306

2306

2306

For Oaths, see Book J.

BOOK 2306

INDEX DIAGRAM.

Township 70 N, Range 13 W.

6	27	5	70	4	15	3	10	2	5	1
27		26		70		15		10		5
7	26	8	19	9	15	10	10	11	5	12
25		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
21		21		16		11		6		2
31	21	32	16	33	11	34	6	35	1	36

Note: For D. & E. Oaths see Book D, Group 10
 " E. Body " " " " "
 " N. " " " " " "

Chains .

Survey commenced March 1, 1911, and executed with a Buff & Burger engineer's transit, #672, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to 30" of arc. I examined the adjustments of the transit, and solar apparatus, and find them to be correct; then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours, with a meridian determined with observations on Polaris, I proceed as follows:

At the cor. of secs. 1, 2, 35 and 36 on the south bdy. of T. 20 N., R. 13 W., at 8h.49m.p.m., l.m.t., I observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a stake set in the ground about 5 chs. N. of my station.

March 1, 1911.

March 2; At 7:30 a.m., l.m.t., I lay off the azimuth of Polaris 1°25' to the east, and mark the meridian thus determined, by a tack set in a stake about 5 chs. north of my station.

At 8:00 a.m., l.m.t., I set off 35°04' N. on the lat. arc; 7°26' S. on the decl. arc, and determine a meridian with the solar; this point falls 0.4 ins. east of the point established by the Polaris observation.

I therefore conclude that the adjustments of my instrument are satisfactory.

The magnetic bearing of the meridian is 14°32' W.; the angle thus determined gives the magnetic decl. 14°32' E.;

Thence I run, N. 00°01' W., bet. secs. 35 and 36.

Over mountainous land; ascend south slope of ridge, through scattering palo negro and oak brush.

- 5.00 Top of ridge, bears E. and W.; descend.
- 18.00 Gulch, course W.; ascend.
- 23.00 Ridge, bears E. and W.; descend.
- 26.00 Foot of descent; ascend.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 35 in W., and S 36 in E. half.
- 42.00 Top of high ridge, bears E. and NW.; descend.
- 57.00 A low ridge, bears S. 70° E. and N. 70° W.; descend abruptly.
- 62.00 Gulch, course N. 70° W.; ascend steep slope.
- 65.00 Top of steep ascent, bearing E. and W. Continue to ascend gradually.
- 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 25, 26, 35 and 36, marked on brass cap, T 20 N, R 13 W in N., S 26 in NW., S 25 in NE., S 36 in SE., and S 35 in SW. quadrant, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, rocky, 4th rate. Timber, scattering palo negro with oak brush; fair grazing.

2. Subdivision of Township 20 North, Range 13 West.

Chains.

S.89°55'E. on a random line, bet. secs.25 and 36.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 79.94 Intersect E.bdy.of Tp. 5 lks.S.of cor. of secs.25,30,31
 and 36.
 Thence I run,
 N.89°57'W. on a true line bet. secs. 25 and 36; descend
 SW. slope of mountain, through scattering palo negro
 and oak brush.
 15.00 Top of SW. point of mountain; descend abruptly.
 30.00 Wash,100 lks.wide, course NW.; ascend.
 39.97 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,
 $\frac{1}{4}$ S 25 in N., and
 S 36 in S. half; and raise a mound of stone 2 ft.
 base, $1\frac{1}{2}$ ft. high,N.of cor. Pits impracticable.
 44.00 Top of hill, bears E.and W.; continue to ascend.
 65.00 Ascend precipitous east slope of rocky butte.
 70.00 Top of butte.
 79.94 The cor.of secs.25,26, 35 and 36.
 Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, scattering palo negro and oak brush; fair fgazing.
 Clouds obscure the sun at noon.

N.0°01'W., bet. secs. 25 and 26.
 Over mountainous land, through scattering palo negro and
 oak brush.
 4.00 Descend precipitous north slope.
 8.00 Foot of slope; spur from main butte runs north about 8
 chs. west of line; line runs along east slope of this
 butte.
 16.00 Ascend small rocky butte.
 20.50 Top of same; descend.
 26.00 Foot of descent; ascend east side of higher butte.
 36.00 Top of butte 8 chs. west; foot is 6 chs. east; descend
 steep slope, 31° 41'. Enter canyon near mouth.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,
 $\frac{1}{4}$ S 26 in W., and
 S 25 in E.half; and raise a mound of stone 2 ft.
 base, $1\frac{1}{2}$ ft. high,W.of cor. Pits impracticable.
 42.00 Wash,150 lks.wide, course N.70°W.; ascend steep slope.
 55.00 Top of granite ridge, bears E.and W.; descend.
 64.75 Foot of bluff, bears S.60° E. and W.
 65.50 Wash,20 lks.wide, course W.
 70.00 Wash, 25 lks.wide, course SW.; ascend.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in
 the ground, for cor.of secs. 23,24,25 and 26, marked
 on brass cap,
 T 20 N R 13 W in N.half;
 S 23 in NW.,
 S 24 in NE.,
 S 25 in SE., and
 S 26 in SW. quadrant, and raise a mound of stone 2
 ft base, $1\frac{1}{2}$ ft. high,W.of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, scattering palo negro and oak brush.

S.89°57'E., on a random line, bet. secs.24 and 25.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 79.92 Intersect east bdy.of Tp.2 lks.N.of cor.of secs.19,24,25
 and 30.

Subdivision of Township 20 North, Range 13 West. 3.

Chains.

- Thence I run,
N.89°56'W., on a true line, bet. secs.24 and 25, over
mountainous land; descend through palo negro and oak
brush.
- 21.00 Gulch, course NW.; ascend.
30.00 Top of point, bears SE.; descend.
39.96 Set a granite 28x16x10 ins. in a mound of stone 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. Pits impracticable.
47.00 Gulch, 50 lks.wide, course SW.; ascend.
65.00 Top of ascent; descend.
79.92 The cor.of secs.23,24,25 and 26.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, palo negro and oak brush.
Fair grazing.

March 2, 1911.

March 3: At 8:00 a.m., l.m.t., I set off 35° 06'N. on
the lat.arc; 7°03'S. on the decl.arc, and determine a
meridian with the solar at the cor.of secs.23,24,25
and 26.

- Thence I run,
N.0°1'W., bet. secs. 23 and 24.
Over mountainous land, through scattering palo negro and
brush.
- 13.00 South bank of Cottonwood Wash.
17.00 North bank of Cottonwood Wash, course SW.
21.60 Ascend abruptly, granite butte.
27.50 Top of granite butte; descend abruptly,
30.75 Foot of abrupt descent; ascend gentle slope.
36.00 Foot of round granite butte; ascend steep slope.
40.00 Set a granite 28x18x16 ins. in a mound of stone for $\frac{1}{4}$
sec.cor., marked $\frac{1}{4}$ on W.face, and raise a mound of
stone 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits imprac-
ticable.
42.20 Top of east slope of butte; descend.
46.00 Foot of slope; thence ascend over rough hilly land.
80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in
the ground for cor.of secs. 13,14,23 and 24, marked on
brass cap,
T 20 N R 13 W in N.,
S 14 in NW.,
S 13 in NE.,
S 24 in SE., and
S 23 in SW. quadrant; and raise a mound of stone
3 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
Land, mountainous.
Soil, rocky, 4th rate.
Timber, palo negro and oak brush.
Fair grazing.

- S.89°56'E., on a random line, bet. secs.13 and 24.
40.00 Set temp. $\frac{1}{4}$ sec.cor.
79.90 Intersect E.bdy.of Tp. at cor.of secs.13,18,19 and 24.
Thence I run,
N.89°56'W., on a true line, bet. secs.13 and 24.
Over mountainous land; ascend.
4.50 Top of spur in saddle; hill 2 chs. S.; hill 6 chs.N.
Descend along south slope of hill into Cottonwood Canyon.

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

Chains.

24.00 Cottonwood Canyon, wash, 200 lks. wide, course NW.
 28.55 Cottonwood Canyon, wash, 200 lks. wide, course SW.; ascend.
 precipitously SE. slope, angle 26°.
 35.26 Top of spur in saddle, bears SW.; descend.
 39.95 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 13 in N., and
 S 24 in S. half; and raise a mound of stone 2 ft.
 base, $1\frac{1}{2}$ ft. high, N. of cor.
 46.00 Leave mountainous land, and enter heavy rolling land,
 bears NW. and SE.
 75.00 A dim road, bears N. and S.
 79.90 The cor. of secs. 13, 14, 23 and 24.
 Land, mountainous, 46 chs.; heavily rolling for 33.90
 chs.
 Soil, rocky, 4th rate; timber, scattering palo nrgro and
 oak brush.
 Fair grazing.
 At this cor. I set off 7° 0' S. on the decl. arc, and at 12h.
 12m., l.m.t., observe the sun on the meridian; the re-
 sulting lat. is 35° 07' N.

N. 0° 1' W., bet. secs. 13 and 14.
 Over heavily rolling land; ascend.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 14 in W., and
 S 13 in E. half, and raise a mound of stone 2 ft. base,
 $1\frac{1}{2}$ ft. high, W. of cor.
 61.00 Top of point bears N. 30° E.; descend.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in
 the ground for cor. of secs. 11, 12, 13 and 14, marked on
 brass cap,
 T 20 N R 13 W in N. half;
 S 11 in NW.,
 S 12 in NE.,
 S 13 in SE., and
 S 14 in SW. quadrant; and raise a mound of stone 2
 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 Land, heavily rolling.
 Soil, a heavy granite sand mixed with gravel.
 Timber, scattering oak brush.
 Fair grazing.

S. 89° 56' E., on a random line, bet. secs. 12 and 13.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.82 Intersect E. bdy. of Tp. at cor. of secs. 7, 12, 13 and 18.
 Thence I run,
 N. 89° 56' W., on a true line, bet. secs. 12 and 13.
 Over heavily rolling land, through dense brush, drainage
 SW.; ascend.
 7.40 Old road, brs. NE. and SW.
 21.50 Gulch SE.; ascend.
 39.91 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 12 in N., and
 S 13 in S. half, and raise a mound of stone 2 ft.
 base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 43.00 Top of ridge, bears NE. and SW.; descend.
 64.20 Old road, bears NE. and SW.; ascend over rough land.
 76.00 Spur bears NE.
 79.82 The cor. of secs. 11, 12, 13 and 14.

Chains.

Land, heavily rolling.
Soil, a heavy granite sand, with numerous boulders.
Dense scrub oak; fair grazing.

March 3, 1911.

March 4, 1911: At 8:00 a.m., l.m.t., I set off $35^{\circ}08'N$. on the lat.arc; $6^{\circ}40'S$. on the decl.arc, and determine a meridian with the solar at the corner of secs. 11, 12, 13 and 14.

Thence I run,
 $N.0^{\circ}1'W$., bet. secs. 11 and 12.

Over heavily rolling land, through scattering palo negro and yucca; descend.

- 5.00 Draw, course SW.; ascend.
20.00 Top of ridge, bears NE. and SW.; descend.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,
 $\frac{1}{4}$ S 11 in W. and
S 12 in E.half, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
44.50 Wash, 10 lks.wide, course $S.70^{\circ}W$.; ascend.
52.00 Top of ridge, bears $N.70^{\circ}E$., and $S.70^{\circ}W$.; descend.
57.00 Bottom of descent; ascend.
62.00 Top of ridge, bears $N.75^{\circ}E$., $S.75^{\circ}W$.; descend.
69.35 Wash, 10 lks.wide, course $S.70^{\circ}W$.; ascend.
78.50 Top of ridge, bears $N.60^{\circ}E$., and $S.60^{\circ}W$.; descend.
80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor.of secs. 1, 2, 11 and 12, marked on brass cap,
T 20 N, R 13 W in N.half;
S 2 in NW.,
S 1 in NE.,
S 12 in SE., and
S 11 in SW. quadrant; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
Land, heavily rolling.
Soil, heavy granite sand mixed with gravel.
Timber, scattering palo negro and yucca; fair grazing.

- $S.89^{\circ}56'E$., on a random line, bet. secs. 1 and 12.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.76 Intersect E. bdy.of township 9 lks.N.of cor. of secs. 1, 6, 7 and 12.
Thence I run,
 $N.89^{\circ}52'W$., on a true line, bet. secs. 1 and 12, over heavily rolling country.
39.88 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,
 $\frac{1}{4}$ S 1 in N.half; and
S 12 in S.half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
66.80 Ascend ridge.
79.76 The cor.of secs. 1, 2, 11 and 12.
Land, heavily rolling.
Soil, heavy granite sand, mixed with gravel.
Scattering palo negro; fair grazing.

- $N.0^{\circ}1'W$., bet. secs. 1 and 2.
Over heavily rolling land, descending.
9.00 Bottom; ascend.

6. Subdivision of Township 20 North, Range 13 West.

Chains
 14.00 Ridge, brs. N.65°E. and S.65°W.; descend.
 22.05 Draw, 2 chs.wide, course S.65° W., ascend.
 28.00 Top of ridge, bears N.65°E. and S.65°W.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 2 in W., and S 1 in E.half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, west of cor. Pits impracticable.
 44.30 Draw, 150 lks.wide, course SW.; ascend.
 52.50 Top of ridge, bears E, and W.; descend.
 60.00 Draw, 50 lks.wide near head, course W.
 73.00 Top of ridge, bears E.and W.
 79.70 Intersect the 5th Standard Parallel North 15.35 chs.west of the standard $\frac{1}{4}$ sec.cor. on S.bdy. sec.36.
 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. to secs. 1 and 2, marked on brass cap,
 C C S.of center,
 T 21 N R 13 W S 35, S 36 in N.half;
 S 1 in SE., and
 S 2 in SW. quadrant, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, S.of cor. Pits impracticable.
 Land, heavily rolling.
 Soil, a heavy sand, with clay subsoil.
 Timber, scattering palo negro; fair grazing.
 March 4, 1911.

 March 6: At 8:00 a.m., l.m.t., I set off 35°04'N. on the lat.arc; 5°54'S. on the decl.arc; and determine a meridian with the solar at the cor.of secs.2,3,34, and 35 on the S.bdy.

Thence I run,

N.0°1'W., bet. secs.34 and 35.

Over heavily rolling foot-hills; ascend through palo negro and oak brush.

10.00 Top of ridge, bears N.70°W. and S.70°E.; descend.

24.00 Gulch, course N.70°W.; ascend.

32.00 Top of ridge, bears E.and W.; descend.

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

$\frac{1}{4}$ S 34 in W., and

S 35 in E.half, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.

68.00 Center of draw, course SW.; ascend.

74.00 Top of ridge, bears SW. and NE.; at 10 chs.E.turns E.; descend.

80.00 Set an iron post 3 ft. long, 2 ins.diam., 24 ins. in ground for cor.of secs.26,27,34 and 35, marked on brass cap,

T 20 N R 13 W in N.half;

S 27 in NW.,

S 26 in NE.,

S 35 in SE., and

S 34 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W.of cor.

Land, mountainous.

Soil, rocky, 4th rate; timber, scattering palo negro and oak brush; fair grazing.

 40.00 S.89°55'E., on a random line, bet. secs.26 and 35.
 Set temp. $\frac{1}{4}$ sec.cor.

Subdivision of Township 20 North, Range 13 West.

7.

Chains.

- 80.00 Intersect N. and S. line 5 lks. N. of cor. of secs. 25, 26, 35 and 36.
Thence I run,
N. 89° 53' W., on a true line, bet. secs. 26 and 35.
Over mountainous land, through palo negro and oak brush.
Ascend.
9.90 Top of high rocky butte; descend steep slope, angle 25°.
18.00 Foot of descent.
34.00 Ascend precipitously.
37.00 Top of rocky butte, descend precipitously.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 26 in N. half, and S 35 in S. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
Descend N. slope of ridge.
80.00 The cor. of secs. 26, 27, 34 and 35.
Land, mountainous; soil, rocky, 4th rate.
Timber, palo negro with oak brush; fair grazing.
March 6: At this cor. I set off 5° 51' S. on the decl. arc; and at 12h. 12m. 1.m.t., observe the sun on the meridian; the resulting lat. is 35° 05' N.

- N. 0° 01' W., bet. secs. 26 and 27.
Over heavily rolling land; ascend through scattering palo negro and brush.
10.00 Top of flat point, bears SW. and E.; descend.
13.00 Enter valley, bears SW. and NE.
24.00 Enter overflow land of Cottonwood Creek.
34.00 Main Wash of Cottonwood Creek, 150 lks. wide, course SW.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 27 in W., and S 26 in E. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
75.00 Low point of ridge of huge granite boulders, bears NE. and SW.
77.50 Road, NE. and SW.
80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 22, 23, 26 and 27, marked on brass cap,
T 20 N, R 13 W in N. half;
S 22 in NW.,
S 23 in NE.,
S 26 in SE., and
S 27 in SW. quadrant, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, heavily rolling.
Soil, a sandy loam, mixed with gravel; timber, scattering palo negro and brush; fair grazing.

- S. 89° 53' E., on a random line, bet. secs. 23 and 26.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.90 Intersect N. and S. line 2 lks. south of cor. of secs. 23, 24, 25 and 26.
Thence I run,
N. 89° 54' W., on a true line, bet. secs. 23 and 26.
Over rolling land, through palo negro, catclaw and other brush.
4.50 East bank of Cottonwood Wash.
10.00 Center of Cottonwood Creek, course SW.
13.65 West edge of Cottonwood Creek, and foot of steep slope; ascend.

8. Subdivision of Township 20 North, Range 13 West.

Chains.

- 18.00 Top of ascent; descend.
 35.00 Wash, 50 lks. wide, course SW.
 39.95 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 23 in N., and S 26 in S. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 50.00 Ascend steep rocky slope.
 58.00 Top of ridge of huge granite boulders, bears N. 10° E. and SW.; descend.
 63.00 Foot of ridge.
 78.90 Road, bears NE. and SW.
 79.90 The cor. of secs. 22, 23, 26 and 27.
 Land, heavily rolling.
 Soil, a sandy loam, mixed with gravel.
 Timber, palo negro, catclaw and other brush; fair grazing.
 March 6, 1911.

March 7: At 8:00 a.m., l.m.t., I set off $35^{\circ}06'$ N. on the lat. arc; $5^{\circ}31'$ S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.

- Thence I run,
 N. $0^{\circ}01'$ W., bet. secs. 22 and 23; ascend along W. slope of rolling foot-hills, through scattering brush.
 27.50 Draw, 50 lks. wide, course SW.
 36.00 Draw, 50 lks. wide, course SW.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 22 in W., and S 23 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked on brass cap,
 T 20 N R 13 W in N. half;
 S 15 in NW.,
 S 14 in NE.,
 S 23 in SE., and
 S 22 in SW. quadrant; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 Land, rolling.
 Soil, a sandy loam, mixed with gravel; timber, scattering brush; fair grazing.

-
- S. $89^{\circ}54'$ E. on a random line, bet. secs. 14 and 23.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.86 Intersect N. and S. line at cor. of secs. 13, 14, 23 and 24.
 Thence I run,
 N. $89^{\circ}54'$ W. on a true line, bet. secs. 14 and 23; ascend.
 12.00 Top of ridge, bears N. and S.; descend.
 30.60 Wash, 10 lks. wide, course SW.; ascend.
 39.93 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 14 in N. half; and S 23 in S. half, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 46.20 Top of ridge 8 chs. N. of south end, bears N. and S.; descend.
 52.00 Foot of descent; ascend.
 56.15 Top of ridge, bears N. and S.; descend.
 79.86 The cor. of secs. 14, 15, 22 and 23.

Subdivision of Township 20 North, Range 13 West. 9.

Chains.

Land, heavily rolling, covered with scattering brush. Soil, a sandy loam mixed with gravel. Fair grazing. March 7: At this cor. I set off 5° 28'S. on the decl. arc, and at 12h.11m., l.m.t., observe the sun on the meridian; the resulting lat. is 35° 07'N.

N.0°1'W., bet.secs.14 and 15. Over rolling, broken foot-hills, across west point of spurs, through scattering palo negro and cactus.

- 12.00 Spur bears NE.
 - 23.00 Wash, 12 lks. wide, course SW.; ascend.
 - 35.00 Top of spur, bears NE. and SW.; descend.
 - 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec.cor., marked on brass cap, ¼ S 15 in W., and S 14 in E.half, and raise a mound of stone 2 ft. base, 1½ ft. high, W.of cor. Pits impracticable.
 - 49.00 Wash, 10 lks. wide, course SW.
 - 55.00 Wash, 15 lks. wide, course SW., ascend.
 - 68.00 Top of spur, bears W. and NE.; descend.
 - 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 10, 11, 14 and 15, marked on brass cap, T 20 N, R 13 W in N., S 10 in NW., S 11 in NE., S 14 in SE., and S 15 in SW. quadrant, and raise a mound of stone 2 ft. base, 1½ ft. high, W.of cor. Pits impracticable.
- Land, rough and hilly.
Soil, a heavy granite sand and loam.
Scattering brush and cactus.

- 46.00 S.89°54'E., on a random line, bet. secs.11 and 14. Set temp. ¼ sec.cor.
- 79.90 Intersect N. and S. line 2 lks. N. of cor. of secs. 11, 12, 13 and 14. Thence I run, N.89°53'W., on a true line, bet. secs. 11 and 14. Drainage for the first 20 chs. is SW. into the Cottonwood Creek; descend.
- 5.00 Draw, course S.10° W.; ascend.
- 21.00 Spur, bears NE. and SW.
- 39.95 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec.cor., marked on brass cap, ¼ S 11 in N., and S 14 in S.half; and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
- 52.70 Wash, 15 lks. wide, course SW.; ascend.
- 55.00 Top of spur, bears N.60°E. and S.75°W.; descend.
- 60.00 Foot of spur; line runs along NW. slope of spur; descend.
- 79.90 The cor. of secs. 10, 11, 14 and 15. Land, rough and hilly. Soil, heavy granite sand and gravel; no timber. March 7, 1911.

March 8: At 8:00 a.m., l.m.t., I set off 35°08'N. on the lat.arc; 5°7½'S. on the decl.arc, and determine a meridian with the solar at the corner of secs.10,11,14

Vhains.

- and 15.
Thence I run,
N.0°1'W., bet. secs.10 and 11.
Over heavily rolling land, across west points of spur; ascend.
- 20.00 Top of spur, bears E.and W.; descend.
34.00 Wash,20 lks.wide, course SW.; ascend.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 10 in W., and S 11 in E.half, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high,W.of cor. Pits impracticable. Corner on top of ridge, bears NE. and SW.; descend.
- 59.00 Wash,50 lks.wide, course SW.; ascend.
64.00 Spur, bears NE.and SW.; descend.
76.00 Foot of descent; ascend.
80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor.of secs.2,3,10 and 11, marked on brass cap,
T 20 N, R 13 W in N.half;
S 3 in NW.,
S 2 in NE.,
S 11 in SE., and
S 10 in SW. quadrant, and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high,W.of cor. Pits impracticable.
Land, heavily rolling.
Soil, a heavy granite sand and gravel.
Fair grazing.
-
- S.89°53'E., on a random line, bet. secs.2 and 11.
40.00 Set temp. $\frac{1}{4}$ sec.cor.
79.80 Intersect N.and S. line 7 lks.N.of cor. of secs.1,2,11 and 12.
Thence I run,
N.89°50'W., on a true line, bet. secs. 2 and 11; descend along NW.slope of long ridge, over heavily rolling land, through scattering palo negro, cactus and yucca.
- 39.90 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 2 in N., and S 11 in S.half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high,N.of cor.
- 43.16 Wash 30 lks.wide, course S.; at 3 chs.S.turns SW.; ascend.
46.00 Top of ridge, brs. NE. and SW.; descend NW.slope.
72.00 Narrow draw, near head, course SW.; ascend.
78:00 Top of point of ridge, bears N.60° E.
79.80 The cor.of secs.2,3,10 and 11.
Land, heavily rolling.
Soil, heavy granite sand and gravel.
Timber, scattering palo negros, with cacti and yucca.
March 8: At this cor. I set off 5°4 $\frac{1}{2}$ 'S. on the decl. arc; and at 12h.11m.1.m.t., observe the sun on the meridian; the resulting lat.is 35°09'N.
-
- N.0°1'W., bet. secs.2 and 3.
Over heavily rolling land.
- 2.00 Spur near point, bears N.60°E.; descend.
6.10 Wash,20 lks.wide, course S.80°W.
17.00 Wash,20 lks.wide, course W.
24.00 Wash,40 lks.wide, course W.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,

Subdivision of Township 20 North, Range 13 West. 11.

Chains.

- $\frac{1}{4}$ S 3 in W., and
 S 2 in E. half; and raise a mound of stone 2 ft.
 base, $1\frac{1}{2}$ ft. high, W. of cor.; ascend.
 56.00 Point of spur, bears N.50°E., descend.
 75.00 Wash, 50 lks. wide, course SW.
 79.42 Intersect 5th. Standard Parallel North 15.02 chs. west of
 Standard $\frac{1}{4}$ sec. cor. on south boundary of sec. 35.
 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in
 the ground for closing cor. of secs. 2 and 3, marked
 on brass cap,
 C C S of center,
 T 21 N, R 13 W, S 35, S 34 in N. half;
 S 2 in SE., and
 S 3 in SW. quadrant; and raise a mound of stone 2
 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.
 Land, heavily rolling.
 Soil, sandy gravel, mixed with loam; no timber.
 March 8, 1911.

-
- March 9, 1911: At 8h. a.m., l.m.t., I set off 35°04'N.
 on the lat. arc; 4°44'S. on the decl. arc, and determine
 a meridian with the solar at the cor. of secs. 3, 4, 33
 and 34 on the S. bdy.
 Thence I run,
 N.0°2'W., bet. secs. 33 and 34; descend.
 Over heavily rolling land.
 1.00 Foot of descent; proceed across narrow valley; ascend gen-
 tle slope.
 1.70 Kingman road, bears NW. and SE.
 9.80 North side of valley; ascend.
 17.00 Top of ascent; descend.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 33 in W., and
 S 34 in E. half, and raise a mound of stone 2 ft.
 base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 49.00 Gulch, course SW.; ascend.
 53.00 Top of point of ridge, bears NW.; descend.
 64.50 Descend abruptly to Round Valley.
 67.00 Foot of descent. Thence across smooth valley; ascend
 gentle slope.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in
 the ground for cor. of secs. 27, 28, 33 and 34, marked
 on brass cap,
 T 20 N, R 13 W in N. half.
 S 28 in NW.,
 S 27 in NE.,
 S 34 in SE. and
 S 33 in SW. quadrant, and 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, heavily rolling for 67 chs.; smooth valley for
 13 chs.; soil, heavy granite sand for 67 chs.; a sandy
 loam with heavy clay sub-soil for 13 chs.; fair
 grazing.

-
- S.89°55'E. on a random line, bet. secs. 27 and 34.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.96 Intersect N. and S. line 5 lks. N. of cor. of secs. 26, 27,
 34 and 35.
 Thence I run,
 N.89°53'W., on a true line, bet. secs. 27 and 34.
 Over heavily rolling land; ascend.

12. Subdivision of Township 20 North, Range 13 West.

Chains.

- 20.00 Point of spir, bears NE.; descend.
 28.00 Enter valley.
 32.00 Near mouth of Cottonwood Creek, course SW., 250 lks.wide, proceed across overflow land.
 39.98 Point for $\frac{1}{4}$ sec.cor. comes in insecure place on overflow land.
 41.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for witness cor. to $\frac{1}{4}$ sec.cor., marked on brass cap,
 W C $\frac{1}{4}$ in E.half,
 S 27 in NW., and
 S 34 in SW. quadrant, and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
 44.00 Big Sandy Wash, 200 lks.wide, course S.
 68.45 Road, bears N.and S.
 76.59 Road bears N.and S.
 79.96 The cor.of secs.27,28, 33 and 34.
 Land, heavily rolling for 20 chs.; level valley for 60 chs.; soil, a sandy loam with clay sub-soil; no timber.
 March 9, 1911: At 12h.11m.1.m.t., I set off $4^{\circ}41'S.$ on the decl.arc; and observe the sun on the meridian; the resulting lat.is $35^{\circ}05'N.$

N. $0^{\circ}2'W.$, bet. secs.27 and 28.

Over smooth valley land.

- 9.25 Well with wind-mill and pump house bears west 20 lks.dist.
 12.00 2-room house of Dan Bacon bears east 3 chs. dist.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins, in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,
 $\frac{1}{4}$ S 28 in W., and
 S 27 in E.half; dig pits 18x18x12 ins. N.and S.of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W.of cor.
 70.00 Leave valley; enter hills; ascend land, slopes SE.
 75.00 Draw, course S., $60^{\circ}E.$
 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, marked on brass cap,
 T 20 N R 13 W in N.half;
 S 21 in NW.,
 S 22 in NE.,
 S 27 in SE., and
 S 28 in SW. quadrant; dig pits 18x18x12 ins.in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W.of cor.
 Land, rolling, for 10 chs.; smooth valley land 70 chs.
 Soil, a sandy loam with clay sub-soil; no timber; fair grazing.

S. $89^{\circ}53'E.$ on a random line, bet. secs.22 and 27.

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

79.90 Intersect N.and S. line 5 lks.S.of cor. of secs.22,23,26 and 27.

Thence I run,

N. $89^{\circ}55'W.$, on a true line, bet. secs.22 and 27.

Over rolling land; descend.

- 22.00 Enter valley of Big Sandy.

39.95 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,
 $\frac{1}{4}$ S 22 in N., and
 S 27 in S.half; and raise a mound of stone 2 ft.

Subdivision of Township 20 North, Range 13 West. 13.

Chains.

- base, 1½ ft. high, N. of cor.
- 40.25 East bank of Big Sandy Wash, course S.
- 42.00 West bank of Big Sandy Wash.
- 53.00 Road to Hackberry, bears NE. and SW.
- 60.00 Enter hills, ascend.
- 79.90 The cor. of secs. 21, 22, 27 and 28.
Land, rolling, 42 chs.; level for 38 chs.
Soil, a sandy loam, with clay sub-soil 38 chs.; heavy granite sand for 42 chs.; no timber.

March 9, 1911.

March 10, 1911. At 8:00 a.m., l.m.t., I set off 35°06' N. on the lat. arc; 4°21' S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.

- Thence I run, N. 0°2' W., bet. secs. 21 and 22.
Over rolling hills, through moderately thick brush, grease-weed, catclaw, etc.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap, ¼ S 21 in W., and S 22 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.
- 53.00 Wash, 30 lks. wide, course E.
- 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked on brass cap,
T 20 N, R 13 W in N. half,
S 16 in NW.,
S 15 in NE.,
S 22 in SE., and
S 21 in SW. quadrant; dig pits 18x18x12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, heavily rolling.
Soil, disintegrated sand and gravel, with clay sub-soil; moderately thick grease-weed and catclaw; fair grazing.

-
- S. 89°55' E. on a random line, bet. secs. 15 and 22.
 - 40.00 Set temp. ¼ sec. cor.
 - 79.86 Intersect N. and S. line 7 lks. S. of cor. of secs. 14, 15, 22 and 23.
Thence I run,
N. 89°58' W., on a true line, bet. secs. 15 and 22.
Over rolling ground; descend.
 - 10.00 Descend abruptly to Valley of Big Sandy.
 - 12.00 Proceed across valley.
 - 20.00 Center of Big Sandy Wash, 2 chs. wide, course S.
 - 30.50 Hackberry road, bears NW. and SE.
 - 31.00 Enter foot-hills, bearing NW. and SE.; ascend.
 - 39.93 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap, ¼ S 15 in N., and S 22 in S. half; dig pits 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high, N. of cor.
 - 46.00 Top of ascent ridge, bears NW. and SE.; descend.

14. Subdivision of Township 20 North, Range 13 West.

Chains.

76.00 Wash, 50 lks. wide, course SE.; ascend.
 79.86 The cor. of secs. 15, 16, 21 and 22.
 Land, level, 20 chs.; land rolling, 60 chs.
 Soil, a sandy loam; 2nd rate for 20 chs.; heavy granite
 sand for 59.86 chs.
 No timber or brush.

 March 10, 1911: At this cor. I set off $4^{\circ}17\frac{1}{2}'$ S. on the
 decl. arc; and at 12h. 10m. 1m.t., I observe the sun on
 the meridian; the resulting lat. is $35^{\circ}07'N$.
 $N.0^{\circ}2'$ W., bet. secs. 15 and 16.
 Over rolling land.

8.50 Wash, 50 lks. wide, course SE.; ascend.
 22.00 Top of low ridge, bears NW. and SE.; descend.
 35.50 McGarry's Wash 150 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., marked on brass cap,
 $\frac{1}{4}$ S 16 in W., and
 S 15 in E. half; dig pits 18x18x12 ins., N. and S. of
 post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft.
 base, $1\frac{1}{2}$ ft. high, W. of cor.
 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, marked on
 brass cap,
 T 20 N, R 13 W in N. half;
 S 9 in NW.,
 S 10 in NE.,
 S 15 in SE., and
 S 16 in SW. quadrant; dig pits 18x18x12 ins. in each
 sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft.
 base, 2 ft. high, W. of cor.
 Land, rolling.
 Soil, a sandy loam with heavy clay sub-soil.
 No timber.
 Fair grazing.

 S. $89^{\circ}58'E$, on a random line, bet. secs. 10 and 15.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.80 Intersect N. and S. line 9 lks. N. of cor. of secs. 10, 11, 14
 and 15.
 Thence I run,
 $N.89^{\circ}54'W$, on a trueline, bet. secs. 10 and 15.
 Descend over rolling land.
 35.00 Enter valley of Big Sandy.
 39.00 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., marked on
 brass cap,
 W C $\frac{1}{4}$ in E. half,
 S 10 in NW., and
 S 15 in SW. quadrant; 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.
 39.90 Point for $\frac{1}{4}$ sec. cor. comes in Big Sandy Wash, course
 $S.20^{\circ}E$.
 47.90 Hackberry road, bears N. and S.
 64.00 Wash, 40 lks. wide, course SE.
 79.80 The cor. of secs. 9, 10, 15 and 16.
 Land, rolling.
 Soil, a sandy loam, with clay sub-soil.
 No timber; fair grazing.

March 10, 1911.

Chains.

- March 11, 1911: At 8:00 a.m., l.m.t., I set off $35^{\circ}08'$ N. on the lat. arc; $3^{\circ}57'S.$ on the decl. arc, and determine a meridian with the solar at the corner of secs. 9, 10, 15 and 16.
- Thence I run,
N. $0^{\circ}2'W.$, bet. secs. 9 and 10.
Over rolling land.
- 7.00 Wash, 40 lks. wide, course SE.
22.00 Foot of point of ridge, bears NW.
33.00 Wash, 20 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., marked on brass cap,
 $\frac{1}{4}$ S 9 in W., and
S 10 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
66.00 Wash, 40 lks. wide, course SE.
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, marked on brass cap,
T 20 N, R 13 W in N. half;
S 4 in NW.,
S 3 in NE.,
S 10 in SE., and
S 9 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base; 2 ft. high, W. of cor.
Land, rolling.
Soil, a sandy loam, with clay sub-soil; fair grazing.
-
- S. $89^{\circ}54'E.$, on a random line, bet. secs. 3 and 10.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.70 Intersect N. and S. line 9 lks. N. of cor. of secs. 2, 3, 10 and 11.
Thence I run,
N. $89^{\circ}50'W.$ on a true line, bet. secs. 3 and 10.
Over heavily rolling land; ascend.
6.00 Top of ridge, bears N. $70^{\circ}E.$ and S. $70^{\circ}W.$, and ends 10 chs. SW.; descend.
30.18 East bank of Big Sandy Wash, course S.
31.60 West bank of Big Sandy Wash, course S.
39.23 Hackberry road, bears N. and S.
39.85 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 3 in N., and
S 10 in 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.
68.10 Road to Kingman, bears NW. and SE.
73.00 Wash, 50 lks. wide, course SE.
79.70 The cor. of secs. 3, 4, 9 and 10.
Land, rolling.
Soil, a sandy loam with clay subsoil.
Fair grazing.
No timber.
-
- March 11, 1911: At this cor. I set off $3^{\circ}54'S.$ on the decl. arc, and at 12h. 10m. p.m., l.m.t., I observe the sun on the meridian; the resulting lat. is $35^{\circ}09'N.$
N. $0^{\circ}2'W.$, bet. secs. 3 and 4.
6.00 Wash, 50 lks. wide, course SE.

16. Subdivision of Township 20 North, Range 13 West.

Chains

- 7.00 Kingman road bears NW. and SE.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 4 in W., and S 3 in E. half; dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 72.00 Center of wash, 2 chs. wide, course S. 30° E.
 79.23 Intersect 5th. Standard Parallel North, 14.70 chs. W. of standard $\frac{1}{4}$ sec. cor. on south bdy. of sec. 34.
 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 3 and 4, marked on brass cap,
 C C S. of center,
 T 21 N R 13 W, S 33, S 34 in N. half;
 S 3 in SE., and
 S 4 in SW. quadrant; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable.
 Land, rolling.
 Soil, a sandy loam, mixed with gravel, 3rd rate.
 No timber. Fair grazing.

March 11, 1911.

March 13, 1911: At 8:00 a.m., l.m.t., I set off 35° 04' N. on the lat. arc; 3° 10' S. on the decl. arc, and determine a meridian with the solar at the corner of secs. 4, 5, 32 and 33 on the S. bdy.

Thence I run,

N. 0° 3' W., bet. secs. 32 and 33.

Over rolling, broken land, through scattering palo negro, and grease-brush.

18.00 Wash, 20 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., marked on brass cap, $\frac{1}{4}$ S 32 in W., and S 33 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 58.00 Wash, 20 lks. wide, course E.; ascend.
 62.00 Top of ridge, bears E. and W.; descend.
 63.70 Wash, 30 lks. wide, course S. 70° E.; ascend.
 70.00 Top of ascent; descend.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 28, 29, 32 and 33, marked on brass cap,

T 20 N, R 13 W in N. half;

S 29 in NW.,

S 28 in NE.,

S 33 in SE., and

S 32 in SW. quadrant; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, heavily rolling.

Timber, scattering palo negro and grease-brush.

Fair grazing.

Soil, a heavy granite sand mixed with gravel.

S. 89° 55' E., on a random line, bet. secs. 28 and 33.

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

80.00 Intersect N. and S. line 2 lks. N. of cor. of secs. 27, 28, 33 and 34.

Thence I run,

N. 89° 54' W., on a true line, bet. secs. 28 and 33.

Over level valley land, with a good growth of alfilaria.

Chains.

- 23.95 A wire fence, bears NW. and SE.; leave Round Valley. Ascend NE. slope of ridge.
- 32.00 Top of ridge, bears NW. and SE.; descend.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 28 in N., and S 33 in S. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 44.00 Enter draw, bears SE. and NW., through dense greasewood and cacti.
- 62.55 Kingman road, bears SE. and NW.
- 74.00 Wash, 10 lks. wide, course S. 50° E.
- 77.00 Wash, 40 lks. wide, course S. 60° E.
- 80.00 The cor. of secs. 28, 29, 32 and 33. Land, level valley 23.95 chs.; land heavily rolling, 56.05 chs.; dense greasewood and cactus for 34.00 chs. Soil, sandy loam with heavy clay sub-soil for 24.00 chs.; heavy granite sand for 56.00 chs. Heavy growth of alfilaria in Round Valley; the rolling hills contain fair growth of bunch grass. March 13, 1911: At this cor. I set off $3^{\circ}07'$ S. on the decl. arc; and at 12h. 10m. p.m., l.m.t., I observe the sun on the meridian; the resulting lat. is $35^{\circ}05'$ N.

-
- N. $0^{\circ}3'$ W., bet. secs. 28 and 29. Over heavily rolling land, through dense greasewood.
 - 2.50 Wash, 50 lks. wide, course S. 60° E.
 - 6.80 Wash, 80 lks. wide, course SE.
 - 12.90 Kingman road, bears SE. and NW.; ascend.
 - 18.50 Top of ridge, brs. NW. and SE., and ends 6 chs. NW.; descend.
 - 21.00 Foot of descent; enter Round Valley draw.
 - 35.50 Wash, 20 lks. wide, course E.
 - 37.00 Road, bears E. and W.
 - 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 29 in W., and S 28 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 - 43.00 Top of mesa, bears E. and W.
 - 79.00 Edge of mesa, bears E. and W.; descend.
 - 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 20, 21, 28 and 29, marked on brass cap, T 20 N R 13 W in N. half; S 20 in NW., S 21 in NE., S 28 in SE., and S 29 in SW. quadrant, and 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, heavily rolling. Soil, heavy sand, mixed with gravel. Dense grease-brush; fair grazing.

-
- S. $89^{\circ}54'$ E., bet. secs. 21 and 28, on a random line.
 - 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 - 80.04 Intersect N. and S. line, 9 lks. S. of cor. to secs. 21, 22, 27 and 28. Thence I run, N. $89^{\circ}58'$ W. on a true line, bet. secs. 21 and 28.

18. Subdivision of Township 20 North, Range 13 West.

Chains.

- Over rolling land; ascend gradually through dense grease-brush and cactus.
- 15.00 Wash, 50 lks. wide, course SE.
- 40.02 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 21 in N., and S 28 in 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.
- 80.04 The corner of secs. 20, 21, 28 and 29.
Land, rolling.
Soil, sandy, with heavy clay sub-soil covered with dense grease-brush, cactus and fair bunch grass.
March 13, 1911.

March 14, 1911: At 8:00 a.m., l.m.t., I set off $35^{\circ}06'$ N. on the lat. arc; $2^{\circ}46\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the corner of secs. 20, 21, 28 and 29.

- Thence I run,
N. $0^{\circ}3'$ W., bet. secs. 20 and 21.
Over heavily rolling land, through dense cacti.
- 10.00 Draw, course S. 80° E.; ascend.
- 18.00 Top of mesa, bears E. and NW.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 20 in W., and S 21 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- 54.00 Descend from mesa, bears E. and W.
- 60.00 Center of draw, course E.
- 73.00 Ascend.
- 75.00 Top of ascent.
- 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked on brass cap,
T 20 N R 13 W in N. half;
S 17 in NW.,
S 16 in NE.,
S 21 in SE., and
S 20 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
Land, rolling.
Soil, heavy granite sand, mixed with gravel, covered with dense cacti and fair bunch grass.

-
- S. $89^{\circ}58'$ E., on a random line, bet. secs. 16 and 21.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.00 Intersect N. and S. line 2 lks. N. of cor. of secs. 15, 16, 21 and 22.
- Thence I run,
N, $89^{\circ}57'$ W. on a true line, bet. secs. 16 and 21; ascend over heavily rolling land.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 16 in N., and S 21 in 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.
- 80.00 The cor. of secs. 16, 17, 20 and 21.

Chains.

Land, rolling.
Soil, a sandy loam, mixed with gravel.
Fair grazing. No timber.

March 14, 1911: At this cor. I set off $2^{\circ}43\frac{1}{2}'$ S. on the decl. arc; and at 12h.10m.p.m., l.m.t., I observe the sun on the meridian; the resulting lat. is $35^{\circ}07'N$.

N. $0^{\circ}3'W$., bet. secs. 16 and 17.
Ascend gradually over rolling land.

- 23.00 Wash, 20 lks. wide, course S. $80^{\circ}E$.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 17 in W., and S 16 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

- 55.00 Enter draw.
- 68.00 McGarry Wash, 100 lks. wide, course S. $80^{\circ}E$.
- 76.00 Wash, 40 lks. wide, course E.
- 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked on brass cap, T 20 N, R 13 W in N. half; S 8 in NW., S 9 in NE., S 16 in SE., and S 17 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, rolling.
Soil, a sandy loam, mixed with gravel.
No timber; fair grazing.

- 40.00 S. $89^{\circ}57'E$., on a random line, bet. secs. 9 and 16. Set temp. $\frac{1}{4}$ sec. cor.
- 80.06 Intersect N. and S. line 2 lks. N. of cor. of secs. 9, 10, 15 and 16. Thence I run, N. $89^{\circ}56'W$., on a true line, bet. secs. 9 and 16. Over rolling land; ascend.
- 40.03 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 9 in N., and S 16 in 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.
- 51.00 Wash, 100 lks. wide, course S., $75^{\circ}E$.; ascend.
- 62.30 Top of low ridge, bears NW. and SE.; descend.
- 80.06 The cor. of secs. 8, 9, 16 and 17.

Land, rolling.
Soil, a sandy loam, mixed with gravel.
No timber; fair grazing.

March 14, 1911.

March 15, 1911: At 8:00 a.m., l.m.t., I set off $35^{\circ}08'$ N. on the lat. arc; $2^{\circ}23'S$ on the decl. arc, and determine a meridian with the solar at the cor. of secs. 8, 9, 16 and 17. Thence I run,

20. Subdivision of Township 20 North, Range 13 West.

Chains.

- N.0°3'W., bet. secs.8 and 9.
Over rolling land, through scattering cedars.
- 3.00 Wash,40 lks.wide, course E.
22.00 Wash,40 lks.wide, course E.
25.00 Wash,30 lks.wide, course E.
40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 8 in W., and S 9 in E.half; dig pits 18x18x12 ins. N.and S.of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high,W.of cor.
- 48.00 Wash,20 lks.wide, course S. 50°E.
56.00 Ascend.
58.00 Top of mesa, bears E.and W.
64.30 Wash,30 lks.wide, course SE.
75.00 North rim of mesa, bears N.50°W., and S.50°E.; descend.
80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor.of secs. 4,5,8 and 9, marked on brass cap,
T 20 N, R 13 W in N.half;
S 5 in NW.,
S 4 in NE.,
S 9 in SE., and
S 8 in SW. quadrant, from which,
A cedar 10 ins. diam., bears S.4°45'W., 65 lks. dist., marked T 20 N R 13 W S 8 B T.
No other tree available; dig pits 18x18x12 ins.in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 2 ft base, $1\frac{1}{2}$ ft. high,W.of cor.
- Land, rolling.
Soil, a sandy loam, mixed with gravel.
Timber, scattering cedars; fair grazing.

- S.89°56'E. on a random line, bet. secs.4 and 9.
40.00 Set temp. $\frac{1}{4}$ sec.cor.
80.10 Intersect N.and S. line 5 lks.N.of cor. of secs.3,4,9 and 10.
Thence I run,
N.89°54'W., on a true line, bet. secs.4 and 9; descend gradually over rolling land.
- 12.00 Wash,20 lks.wide, course SE.
24.00 Wash,20 lks.wide, course S.70° E.
40.05 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 4 in N.,and S 9 in 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.
At this cor. I set off 2°20'S., on the decl.arc, and at 12h.9m.p.m.,l.m.t.; I observe the sun on the meridian; the resulting lat.is 35°09'N.
- 60.00 Enter scattering cedars; ascend.
80.10 The cor.of secs. 4,5,8 and 9.
Land, rolling.
Soil, a sandy loam, mixed with gravel.
Timber, scattering cedars; fair grazing.

- N.0° 3'W., bet. secs.4 and 5.
Over broken land, drainage, E.
- 4.00 Wash,20 lks.wide, course E.
19.20 Wash,20 lks.wide, course E.

Chains.

- 26.00 Wash, 20 lks. wide, course E.; ascend.
 36.00 Top of low, sharp ridge, bears NW. and SE.; descend.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 5 in W., and S 4 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 70.30 Wash, 20 lks. wide, course E.
 74.30 Wash, 20 lks. wide, course SE.
 75.00 Old road, bears E. and W.
 79.05 Intersect 5th. Standard Parallel North, 14.80 chs. W. of standard $\frac{1}{4}$ sec. cor. on S. bdy. sec. 33.
 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 4 and 5, marked on brass cap,
 C C S. of center,
 T 21 N R 13 W, S 32, S 33 in N. half,
 S 4 in SE., and
 S 5 in SW. quadrant; dig pits 24x18x12 ins. cross-wise on each line E. and W. 3 ft. and S. of post 7 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, S. of cor.
 Land, rolling and broken.
 Soil, heavy granite sand, mixed with gravel; fair grazing.
 March 15, 1911.

March 16, 1911: At 8:00 a.m., l.m.t., I set off $35^{\circ}04'N.$ on the lat. arc; $1^{\circ}59'S.$ on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32 on the S. bdy.

Thence I run,
 $N.0^{\circ}3'W.$, bet. secs. 31 and 32.

Over heavily rolling and broken land; ascend over a succession of small ridges, drainage SE., through palo negro and sage.

- 30.00 Ridge bears E. and W.; descend.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 31 in W., and S 32 in E. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 40.50 Wash, 30 lks. wide, course $S.75^{\circ}E.$
 70.00 Leave draw, ascend.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked on brass cap,
 T 20 N, R 13 W in N. half;
 S 30 in NW.,
 S 29 in NE.,
 S 32 in SE., and
 S 31 in SW. quadrant, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 Land, heavily rolling.
 Timber, palo negro, with sage brush.
 Soil, heavy granite sand, mixed with gravel; fair grazing.

$S.89^{\circ}55'E.$, on a random line, bet. secs. 29 and 32.

- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.04 Intersect N. and S. line 7 lks. S. of cor. of secs. 28, 29, 32 and 33.

22. Subdivision of Township 20 North, Range 13 West.

Chains

- Thence I run,
 N.89°58'W. on a true line, bet. secs.29 and 32.
 Over heavily rolling land, through scattering cedars and
 palo negro.
- 2.00 Ascend point of spur.
 - 6.00 Top of short spur, thence along N.slope of spur.
 - 30.00 Descend.
 - 38.00 Enter wash 40 lks.wide, course N.60°E.
 - 40.02 Point for $\frac{1}{4}$ cor. in wash.
 - 40.50 Leave wash from S.60°W.
 - 41.00 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., marked on
 brass cap,
 W C $\frac{1}{4}$ in E.half,
 S 29 in NW., and
 S 32 in SW. quadrant, and raise a mound of stone 2
 ft.base, 1 $\frac{1}{2}$ ft. high,N.of cor.
 - 52.00 Wash,40 lks.wide, course S.60°E.; ascend.
 - 61.00 Top of ascent.
 - 80.04 The cor.of secs.29,30,31 and 32.
 Land,heavily rolling.
 Soil, stony, 4th rate.
 Timber, scattering cedars and palo negro; fair grazing.
-
- N.89°55'W. on a random line, bet. secs.30 and 31.
 Over mountainous land; ascend.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 - 78.75 Intersect W. bdy. of Tp., 12 lks.N.of corner of secs.25,
 30,31 and 36.
 Thence I run,
 East, on a true line, bet. secs.30 and 31.
 Over mountainous land; descend along S.slope of ridge.
 - 38.75 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,
 $\frac{1}{4}$ S 30 in N., and
 S 31 in S.half, and raise a mound of stone 2 ft.
 base, 1 $\frac{1}{2}$ ft. high,N.of cor. Pits impracticable.
 - 78.75 The cor.of secs. 29,30, 31 and 32.
 Land, mountainous.
 Soil, heavy granite sand and gravel.
 No timber.
 Fair grazing.
 At this cor. I set off 1°56'S. on the decl.arc, and at 12h.
 9m.p.m., 1.m.t., I observe the sun on the meridian;
 the resulting lat.is 35°05'N.
-
- N.0°3'W., bet. secs.29 and 30.
 Over heavily rolling, brcken land, drains E.
- 4.00 Descend.
 - 6.00 Wash,20 lks.wide, course S.80°E.
 - 24.30 Wash,30 lks.wide, course E.; ascend.
 - 35.00 Top of ridge, bears E.and W.; descend.
 - 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,
 $\frac{1}{4}$ S 30 in W., and
 S 29 in E.half; dig pits 18x18x12 ins.N.and S.of
 post 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft.
 base, 1 $\frac{1}{2}$ ft. high,W.of cor.
 - 43.00 Wash,40 lks.wide, course E.
 - 45.00 Round Valley draw, bears S.70°E. and N.70°W.
 - 56.00 Wash 50 lks.wide, course S.70°E.
 - 70.00 Ascend from draw.

Chains.

- 74.00 Top of mesa, bears W. and SE.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 19, 20, 29 and 30, marked on brass cap,
 T 20 N R 13 W in N. half;
 S 19 in NW.,
 S 20 in NE.,
 S 29 in SE., and
 S 30 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
 Land, heavily rolling and broken.
 Soil, heavy granite sand.
 No timber. Fair grazing.

- S. $89^{\circ}58'E.$ on a random line, bet. secs. 20 and 29.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.00 Intersect N. and S. line, 5 lks. S. of cor. of secs. 20, 21, 28 and 29.
 Thence I run,
 West, on a true line, bet. secs. 20 and 29.
 Ascend over heavily rolling land, through scattering palo negro, cedars and cactus.
 12.50 Top of mesa bears S. $80^{\circ}E.$ and N. $50^{\circ}W.$; ascend gentle slope.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 20 in N., and
 S 29 in S. half; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 50.22 Kingman road, bears NW. and SE.
 80.00 The cor. of secs. 19, 20, 29 and 30.
 Land, heavily rolling.
 Soil, heavy granite sand.
 Timber, scattering cedars and palo negro and cacti.
 Fair grazing.

March 16, 1911.

- March 17, 1911: At 8:00 a.m., l.m.t., I set off $35^{\circ}06'N.$ on the lat. arc; $1^{\circ}35\frac{1}{2}'S.$ on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29, and 30.
 Thence I run,
 W. on a random line, bet. secs. 19 and 30.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 78.75 Intersect W. bdy. of Tp. 12 lks. S. of cor. of secs. 19, 24, 25 and 30.
 Thence I run,
 S. $89^{\circ}55'E.$, on a true line, bet. secs. 19 and 30.
 Over rough, rolling land; through dense palo negro and scattering cacti; ascend.
 4.00 Top of mesa, bears W. and SE.; descend gentle slope.
 38.75 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 19 in N., and
 S 30 in 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, north of cor.
 78.75 The corner of secs. 19, 20, 29 and 30.
 Land, rough and broken.
 Soil, heavy sand and gravel.
 Timber, dense palo negro; fair grazing.
-

Chains

N. $0^{\circ}3'W.$, bet. secs. 19 and 20.
 Over heavily rolling land, through dense palo negro.
 28.00 Wash, course E.
 32.50 Kingman 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., marked on brass cap, $\frac{1}{4}$ S 19 in W., and S 20 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 45.00 Wash, 20 lks. wide, course SE.
 69.00 Wash, 1 ch. wide, course SE.
 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, marked on brass cap,
 T 20 N, R 13 W in N. half,
 S 18 in NW.,
 S 17 in NE.,
 S 20 in SE., and
 S 19 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
 Land, heavily rolling.
 Soil, heavy granite sand and gravel.
 Fair grazing.
 Timber, dense palo negro.

East on a random line, bet. secs. 17 and 20.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.04 Intersect N. and S. line 7 lks. N. of cor. of secs. 16, 17, 20 and 21.
 Thence I run,
 N. $89^{\circ}57'W.$, on a true line, bet. secs. 17 and 20.
 Over rolling land; ascend through scattering palo negro, cedar and cactus.
 40.02 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 17 in N., and S 20 in 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.
 80.04 The cor. of secs. 17, 18, 19 and 20.
 Land, heavily rolling.
 Soil, granite sand and gravel.
 Timber, scattering cedars and palo negro and cactus.
 Fair grazing.
 At this cor. I set off $1^{\circ}32'S.$ on the decl. arc, at 12h. 9m. p.m., 1.m.t., and observe the sun on the meridian; the resulting lat. is $35^{\circ}07'N.$

N. $89^{\circ}55'W.$, on a random line, bet. secs. 18 and 19.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 78.94 Intersect W. bdy. of Tp. 16 lks. S. of corner of secs. 13, 18, 19 and 24; thence I run,
 S. $89^{\circ}48'E.$, on a true line, bet. secs. 18 and 19.
 Over rough, rolling land, through palo negro and cacti.
 22.00 Wash, course SE.
 33.10 Kingman road, bears N. $10^{\circ}W.$ and S. $10^{\circ}E.$
 38.75 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 18 in N., and S 19 in S. half; dig pits 18x18x12 ins. E. and W. of

Chains.

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.
 60.20 Wash, 40 lks. wide, course S. 60° E.
 78.75 The cor. of secs. 17, 18, 19 and 20.
 Land, heavily rolling.
 Soil, heavy granite sand, mixed with gravel.
 Timber, palo negro and cacti.

N. $0^{\circ}03'$ W., bet. secs. 17 and 18.
 Over heavily rolling land, through dense cacti, palo negro and brush.
 23.10 Wash, 40 lks. wide, course S. 65° E.
 34.40 Wash, 30 lks. wide, 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., marked on brass cap, $\frac{1}{4}$ S 18 in W., and S 17 in E. half; dig pits 18x18x12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
 62.00 Descend to valley.
 66.50 Center of McGarry's Wash, 2 chs. wide, course SE.
 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, marked on brass cap,
 T 20 N, R 13 W in N. half;
 S 7 in NW.,
 S 8 in NE., and
 S 17 in SE., and
 S 18 in SW. quadrant; dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
 Land, rolling.
 Soil, a sandy loam. mixed with gravel.
 Timber, palo negro with dense cactus.

S. $89^{\circ}57'$ E., on a random line, bet. secs. 8 and 17.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.08 Intersect N. and S. line 12 lks. N. of cor. of secs. 8, 9, 16 and 17.
 Thence I run,
 N. $89^{\circ}52'$ W., on a true line, bet. secs. 8 and 17.
 Over rolling land, through scattering palo negro and cactus.
 40.04 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 8 in N., and S 17 in 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.
 80.08 The cor. of secs. 7, 8, 17 and 18.
 Land, rolling.
 Soil, a sandy loam, mixed with gravel.
 Timber, scattering palo negro and cactus.
 Fair grazing.

March 17, 1911.

March 18, 1911: At 8:00 a.m., 1.m.t., I set off $35^{\circ}08'$ N. on the lat. arc; $1^{\circ}12'$ S. on the decl. arc, and deter-

Chains.

mine a meridian with the solar at the corner of secs. 7, 8, 17 and 18.

Thence I run,

N. 89°48' W. on a random line, bet. secs. 7 and 18.

40.00 Set temp. 1/4 sec. cor.

78.94 Intersect W. boundary of township 12 lks. south of corner of secs. 7, 12, 13 and 18.

Thence I run,

S. 89°43' E. on a true line, bet. secs. 7 and 18.

17.50 Wash, 80 lks. wide, course SE.

38.94 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap, 1/4 S 7 in N., and

S 18 in S. half; dig pits 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.

73.20 McGarry's Wash 100 lks. wide, course S. 15° E.

78.94 The cor. of secs. 7, 8, 17 and 18.

Land, rolling and broken.

Soil, sandy loam, mixed with gravel.

Timber, scattering palo negro and cactus. Fair grazing.

N. 0°3' W. bet. secs. 7 and 8.

Over rough broken land.

4.75 Ascend from McGarry's Wash, through dense cedars, palo negro and oak brush.

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

W C 1/4 in N. half;

S 7 in SW. quadrant, and

S 8 in SE. quadrant; dig pits 18x18x12 ins. N. and

S. of post 3 ft. dist., and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

40.00 Wash, 50 lks. wide, course E., and point for 1/4 sec. cor.

66.00 Wash, 50 lks. wide, course E.

80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 5, 6, 7 and 8, marked on brass cap,

T 20 N R 13 W in N. half;

S 6 in NW.,

S 5 in NE.,

S 8 in SE., and

S 7 in SW. quadrant; dig pits 18x18x22 ins., in each sec. 5 1/2 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, rough and broken.

Soil, sandy loam, mixed with gravel.

Timber, dense cedars, palo negro and oak brush.

S. 89°52' E. on a random line, bet. secs. 5 and 8.

40.00 Set temp. 1/4 sec. cor.

80.12 Intersect N. and S. line 7 lks. N. of cor. of secs. 4, 5, 8 and 9.

Thence I run,

N. 89°49' W. on a true line, bet. secs. 5 and 8.

Over broken, choppy land; ascend.

10.30 Wash, 20 lks. wide, course N. 65° E.

26.00 Wash, 20 lks. wide, course S. 50° E.

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

Chains.

- $\frac{1}{4}$ S 5 in N., and
 S 8 in 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.
- 46.00 Descend from mesa, bears N.60°W. and S.60°E.
 80.12 The cor. of secs. 5, 6, 7 and 8.
 Land, very broken.
 Soil, a heavy sand, mixed with gravel.
 Timber, scattering cedars.
 March 18, 1911: At this cor. I set off 1°09'S. on the
 decl. arc; and at 12h.08m.p.m.l.m.t., I observe the sun
 on the meridian; the resulting lat. is 35°09'N.
-
- N.89°43'W., on a random line, bet. secs. 6 and 7.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 78.85 Intersect W. bdy. of Tp. at cor. of secs. 1, 6, 7 and 12.
 Thence I run,
 S.89°43'E., on a true line, bet. secs. 6 and 7.
 Over broken, choppy land, through dense cedars and pin-
 ons.
- 23.00 Wash, course S. 65°E., 60 lks. wide.
 38,85 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 6 in N., and
 S 7 in S. half, from which,
 A pinon, 7 ins. diam., bears S.35°10'E., 45 lks.
 dist., marked $\frac{1}{4}$ S 7 B T.
 A cedar, 6 ins. in diam., bears N.18°47'W., 20 lks.
 dist., marked $\frac{1}{4}$ S 6 B T.
- 57.00 Wash, 60 lks. wide, course SE.
 78.85 The cor. of secs. 5, 6, 7 and 8.
 Land, broken, choppy.
 Soil, a heavy yellow clay.
 Timber, dense pinons and cedars for 60 chs.; east 28 chs.
 no timber.
-
- N.0°3'W., bet. secs. 5 and 6.
 Over rolling, broken land.
- 15.75 Ascend bluff of mesa.
 20.50 Top of bluff of mesa, bears NW. and SE.
 31.00 Descend from mesa, bears NW. and SE.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,
 $\frac{1}{4}$ S 6 in W., and
 S 5 in E. half; from which,
 A cedar 5 ins. diam., bears S.50°20'W., 21 lks. dist.,
 marked $\frac{1}{4}$ S 6 B T.
 A cedar 5 ins. in diam., bears S.50°E., 32 lks.
 dist., marked $\frac{1}{4}$ S 5 B T.
- 42.60 Wash, 30 lks. wide, course NE.
 51.00 Wash, 50 lks. wide, course NW. to NE.
 78.63 Intersect the 5th. Standard Parallel North, 14.70 chs. W.
 of true point for standard $\frac{1}{4}$ sec. cor. on south bdy. of
 sec. 32.
 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground for closing cor. of secs. 5 and 6, marked
 on brass cap,
 C C S of center,
 T 21 N, R 13 W, S 31, S 32 in N. half;
 S 5 in SE., and
 S 6 in SW. quadrant; dig pits 24x18x12 ins.
 crosswise on each line E. and W. 3 ft., and south of

Chains.

post 7 ft. dist., and raise a mound of earth 4 ft. base,
 2 ft. high, S. of cor.
 Land, rough and broken.
 Soil, sandy loam, mixed with gravel.
 Timber, scattering cedars, cactus; fair grazing.
 March 18, 1911.

GENERAL DESCRIPTION.

This township is composed of rough mountains on the east, the narrow valley of the Big Sandy near the center, and the rough foot-hills of the Hualpai Mountains in the west. The mountainous district in the east comprises the eastern two tiers of sections, and are extremely rough and nearly inaccessible. The land is of a mineral character, and seems to have value only for the mineral it may contain.

The valley of the Big Sandy is seldom more than 15 chs. in width, the soil of which is a light sandy loam of great depth. The western portion comprising the foot-hills of the Hualpai Mountains, is composed of rough ridges and deep gulches, which drain easterly into the Big Sandy, These ridges are high, with very steep slopes of heavy disintegrated granite-gravel, but which produce a fair crop of bunch grass, and this portion of the township is valuable for grazing. The only water in the township is contained in a well in the SE. quarter of sec. 28 belonging to Dan Bacon, whose house is situated in the SW. quarter of sec. 27. The house is in a dilapidated condition and unoccupied.

W. O. Peacor
 U. S. Transitman.

18 29

APPROVAL.

BOOK 2306

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Ariz. March 15, 1912

The foregoing field notes of the survey of *the subdivision of T 20 N. R 13 W,*
Es R, Meridian, Arizona

executed by *W. O. Peacor, U. S. Transitman*
 under his special instructions dated *Sept. 16*, 191*0*, 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
 U. S. Surveyor General.