

FIELD NOTES

OF THE SURVEY OF THE

East, West and North Boundaries

of
Township 41 North, Range 2 West.

Of the Gila and Salt River Meridian,

In the ^{District} State of Arizona

EXECUTED BY

Andrew Nelson and Walter A. Steumer

In the capacity of U. S. ^{Transitman} Surveyor, under instructions dated August 25, 1910, issued by the United States Surveyor General to govern surveys included in Group No. 3, which were approved by the Commissioner of the General Land Office, September 9, 1910, pursuant to authority contained in the Act of Congress dated March 4, 1911.

Survey commenced July 28, 1911.

Survey completed August 1, 1911.

1A
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BOOK 2348

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Chains.

Survey commenced July 28, 1911 and executed with a Young and Sons, light mountain transit No. 8146 with solar attachment.

The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

This instrument was received in the field, Utah, July 20, 1911, from the Supervisor of Surveys, Frank M. Johnson, Denver Colorado. I examined the adjustments of the transit, corrected the level and collimation errors and tested the solar apparatus by comparing its indications, resulting from solar observations, made during A.M. and P.M. hours with a meridian, determined by observations on Polaris July 20-21, 1911.

From my observations, I conclude the instrument to be in adjustment.

At the standard cor. of T. 4, N., R. 1 and 2 W., latitude $36^{\circ}54'59''$ N., longitude, $112^{\circ}25'33''$ W., I set off $36^{\circ}54'$ on the lat. arc, $19^{\circ}06'$ N. on the decl. arc, and at $4^{\text{h}}06^{\text{m}}$ P.M.

l. m. t., determine with the solar a meridian and mark a point thereof on a stake firmly set in the ground 10 chains N. of the cor.

At $11^{\text{h}}09^{\text{m}}$ p. m. l. m. t. I observe Polaris at eastern elongation, in accordance with Manual of Instructions and mark a point in the line thus determined, on a peg, driven in the ground, 5 chs. N. of my station

July 28, 1911.

July 29: At $7^{\text{h}}30^{\text{m}}$ A.M. l. m. t. I lay off the azimuth of Polaris, $1^{\circ}28'$ to the

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BOOK

Chairs.

West, and mark the meridian thus determined, by driving a tack in the stake set July 28, on which the meridian falls 0.2 vis. East of the mark determined by the solar;

At 8^h 06^m. a. m. I set off 36° 54' on the lat. arc, 18° 57' - N. on the decl. arc, and mark a point in the mer. determined with the solar, by driving a tack in the stake already set 10 ch. North of my station; this mark falls 0.1 vis. east of the meridian established by the Polaris observation.

The solar apparatus by P. M. and A. M. observations, defines positions for meridians, respectively about 0' 11" W. and 0' 15" east of the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8^h 30^m. a. m. is N. 16° 05' W.; the angle thus determined gives the mag. decl. 16° 05' East.

From the standard T. cov. already described ^{in Book B} I run

North, by secs. 31 and 36

Over nearly level land, through sparse undergrowth of horse brose and sage brush.

16.00 Thence over rolling land, bears E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 vis. in the ground for 1/4 sec. cov., whd. on brass cap;

1/4 S 36 on W. half.

S 31 on E. half. raise

a mound of stone, 2 ft. base, 1 1/2 ft. high. W. of Cov. Pits impracticable

63.50 Foot of rolling land and old road, bears E. and W.; thence over level land.

Chains.
 66.60 A stagnant pool of water, 4 lks. wide
 4 vis. deep, in wash, 30 lks. wide, 6 ft.
 deep. Course S 60° W.
 80.00 Set an iron post, 3 ft. long, 3 vis. dia.;
 24 vis. in the ground for cor. of sec.;
 25, 30, 31 and 36, mkd. on brass cap:
 T 41 N. on North half.
 R 2 W S 25 in NW.
 R 1 W S 30 in NE.
 S 31 in SE. and
 S 36 in SW. quadrants. dig pits
 18x18x12 vis. in each sec.; 5 1/2 ft.
 det.; and raise a mound of earth,
 4 ft. base, 2 ft. high, W. of cor.
 Land, nearly level and rolling.
 Soil, deep, rich sandy loam and stony
 1st. and 2nd rates
 Subsoil, gravel and lime formation.
 Undergrowth horse browse and sage-
 brush on mile.
 Land, slopes NW. and SW.

12.00 North, bet. secs. 25 and 30
 Over gently rolling land through
 sparse undergrowth of sage brush.
 Dry channel of Johnson creek, 1 chain
 wide, 5 ft. deep, course SW.
 40.00 Set an iron post, 3 ft. long, 1 vis. dia.;
 26 vis. in the ground for 1/4 sec. cor.;
 mkd. on brass cap:
 S 25 on W. half.
 S 30 on E. half. dig pits
 18x18x12 vis.; N. and S. of post, 3 ft.
 det.; and raise a mound of earth,
 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.
 65.60 Old road, bears NE. and SW.
 80.00 Set an iron post, 3 ft. long, 3 vis. dia.;
 24 vis. in the ground for cor. of sec.;
 19, 24, 25 and 30. mkd. on brass cap.
 T 41 N. on N. half.

BOOK 2348

Chains.
 R 2 W S 24 in NW.
 R 1 W S 19 in NE.
 S 30 in SE. and
 S 25 in SW. quadrant; dig
 pits 18x18x12 ins. in each sec.; 5 1/2
 ft. dist; and raise a mound of earth
 4 ft. base, 2 ft. high, W. of cor.
 Land, gently rolling, slopes to the SW.
 Soil, rich sandy loam 12 to 20 ins.
 deep, 1st. rate.
 Subsoil clay hardpan.
 Undergrowth sage brush on mile.

North, bet. secs. 19 and 24.
 Over nearly level land through
 sparse undergrowth of sage brush and
 shadscale.

5:00 Wash, 8 lbs. wide, 3 ft. deep. Course SW.
 40.00 Set an iron post, 3 ft. long, 1 in. dia.;
 26 ins. in the ground for 1/4 sec. cor.;
 nkd. on brass cap:
 1/4 S 24 on W. half.
 S 19 on E. half; dig pits
 18x18x12 ins. N. and S. of post, 3 ft.
 dist; and raise a mound of earth,
 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

80.00 Set an iron post, 3 ft. long, 3 ins. dia.;
 24 ins. in the ground for cor. of secs.
 13, 18, 19 and 24, nkd. on brass cap:
 T 41 N. on N. half
 R 2 W S 13 in NW.
 R 1 W S 18 in NE.
 S 19 in SE. and
 S 24 in SW. quadrant; dig
 pits 18x18x12 ins. in each sec.; 5 1/2 ft.
 dist; and raise a mound of earth, 4 ft.
 base, 2 ft. high, W. of cor.
 Land, nearly level, slopes to the South.
 Soil, rich Clay loam, 15 to 24 ins.
 deep, 1st. rate.
 Subsoil, clay and shale.
 Undergrowth sage brush and shadscale.

Chains

North, bet. sees. 13 and 18.

Over nearly level land, through sparse undergrowth of sage brush and shadscale.

17.00

Ascend, over broken, gypsum hills, bear, NE. and SW., 40 ft. to

40.00

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cov. mkd. on brass cap:

$\frac{1}{4}$ S 13 on W. half.

S 18 on E. half. raise a

mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high,

W. of cov. Pits impracticable.

Ascend, 80 feet to

80.00

Edge of bench, bear NE. and SW.

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground for cov.

of sees. 7, 12, 13 and 18, mkd. on brass cap:

1/4 N. on N. half,

R 24 W S 12 in NW.

R 1 W S 7 in NE.

S 18 in SE and

S 13 in SW quadrant. Dig

pits 18 X 18 X 12 ins. in each sec., 3 $\frac{1}{2}$ ft.

dist.; and raise a mound of earth,

4 ft. base, 2 ft. high. W. of cov.

Land, nearly level and hilly.

Soil, South 17.00 chains, rich clay

loam, 1st rate; North 63.00 chains,

heavy clay and gypsum formation, 3rd

rate. Subsoil, shale and gypsum.

Undergrowth, sage brush and shad.

scales on mile.

Land hilly, 63.00 chains.

July 29: At this sec. cov. I set off 1854' N. on the decl. arc and at 12⁰⁶^m.

P. M. 11 m. T. observe the sun on the meridian; the resulting latitude is 36° 57 $\frac{1}{2}$ ' N.

North, bet. sees. 7 and 12.

Over rolling, bench land through

BOOK

Chains

sparse undergrowth of white sage brush.

18.60 Wood road, bears East and West.

21.00 Foot of high bench; asc., abrupt, over sandstone boulders, bears $\approx 80^{\circ}$ W and E.

25.40 100 feet above sec. cor.
Top abrupt ascent, bears \approx W. and SE, ascend more gradually.

28.00 200 feet above sec. cor.
Top of high bench, bears \approx W. and SE. Descend, gradually through dense cedar and juniper pine timber., 25 ft. to.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor.; nkd. on brass cap:
 $\frac{1}{4}$ S 12 on W. half.
 S 7 on E. half, from which a cedar, 10 ins. dia., bears $\approx 23\frac{1}{2}^{\circ}$ E., 33 $\frac{1}{2}$ lbs. dist.; nkd
 $\frac{1}{4}$ S 7 BT.
 a cedar 12 ins. dia., bears $\approx 88\frac{1}{4}^{\circ}$ W., 69 lbs. dist.; nkd
 $\frac{1}{4}$ S 12 BT.

80.00 80 ft. below sec. cor.
Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground for cor. of sec. 1, 6, 7 and 12. Nkd. on brass cap:
 T 41 N. on N half.
 R 2 W S 1 in NW.
 R 1 W S 6 in NE.
 S 7 in SE, and
 S 12 in SW quadrant;
 from which a cedar, 10 ins. dia., bears $\approx 68\frac{1}{2}^{\circ}$ E., 14.9 lbs. dist.; nkd
 T 41 N R 1 W S 6 BT
 a cedar, 8 ins. dia., bears S $24\frac{1}{2}^{\circ}$ E., 133 lbs. dist.; nkd
 T 41 N R 1 W S 7 BT.
 a cedar, 8 ins. dia., bears S 10° W., 45 lbs. dist.; nkd
 T 41 N R 2 W S 12 BT.

Chains

A cedar, 12 ins. dia., bears $\text{N}39\frac{1}{4}^{\circ}\text{W}$,
61 lbs. dist., mkd.

T 41 N R 2 W S 1 B T.

Land rolling bench land, slopes S°W
and N°W .

Soil, rocky, 6 to 18 ins deep. 2 miles
Subsoil. Sandstone.

Timber Cedar and juniper pine on
North 5-2.00 Chains.

Undergrowth, white and black
sage brush on mile.

North, bet. sec. 1 and 6.

Over rolling rocky land, through
dense forest of cedar and juniper pine timber,
dense undergrowth of sage brush.

19.60 Wash. 10 lbs. wide, 3 ft. deep, course N°W .

37.50 Wood road, bears N°W and S°E .

40.00 60 ft. below sec. cor.

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

$\frac{1}{4}$ S 1 on W. half.

S 6 on E. half, from which

a cedar, 8 ins. dia., bears $\text{S}43\frac{3}{4}^{\circ}\text{E}$,

38 lbs. dist., mkd.,

$\frac{1}{4}$ S 6 B T.

a cedar, 10 ins. dia., bears $\text{N}30\frac{1}{2}^{\circ}\text{W}$,

88 lbs. dist., mkd

$\frac{1}{4}$ S 1 B T.

58.00 Enter scattering timber, bears N°W
and S°E .

80.00 30 ft. below $\frac{1}{4}$ sec. cor.

Set an iron post, 3 ft. long, 3 ins. dia.,

24 ins. in the ground for cor. of

T 41 and 42 N., R 2 and 2 W.,

mkd. on brass cap:

T 42 N on N half,

R 2 W S 36 in N°W

R 1 W S 31 in N°E

R 1 W S 6 in S°E and

R 2 W S 1 in S°W quadrants

Chairs

T 41 N on S, half.

from which

a cedar, 12 ins dia., bears $S 3^{\circ} 45' 45'' W$,
54 lbs. dist.; nkd

T 41 N R 2 W S 1 BT.

a cedar, 10 ins. dia., bears $N 70^{\circ} 11' 45'' W$,
189 lbs. dist.; nkd

T 42 N R 2 W S 36 BT.

No suitable bearing trees available in
secs. 6 and 31. Dig pits, 24 x 24 x 12
ins., on each line, N, E, and W,
4 ft., and S. of post. 8 ft. dia.; and
raise a mound of earth, 5 ft. base,
2 1/2 ft. high, S. of cor.

Land, rolling, slopes to the NW.

Soil, rocky 6 to 20 ins. deep, 2nd rate.

Subsoil, sandstone and lime formation.

Timber cedar and pinion pine on
mile.

Undergrowth, sage brush.

Land heavily timbered South 58.0000.

Walter A. Stamm

U. S. Transitman.

July 29, 1911.

Chas. W.

Survey commenced July 29, 1911.
and executed with a W. and S. E. Gurley
light mountain transit no. 9627
with solar attachment.

For description of instrument see Book
"H" of this survey.

at 8^h 06^m. a. m. l. m. t. Set off 36' 54"
on the lat. arc, 18° 56³/₄ N. on the
decl. arc, and determine a meridian
with the solar at the witness cor.
to the Standard Cor. of T. 41 N., R. 2 and
3 W, ^{as described in Book B} thence I run
North, on offset line.

bet. recs. 31 and 36.

Along edge of East bank of Kanab
Creek wash, through dense undergrowth
of quince wood, sage and rabbit brush.

8.25 Descend 30 ft to

9.00 Kanab creek, 20 lbs. wide, 8 ins deep,
course S 30° W.

16.00 North bank of creek, 13-foot high bears
NE and S4W.

thence I run west.

50 links to true line, thence
North, on true line.

Over gently rolling land.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26
ins. in the ground for 1/4 sec. cor.; m.p. on
brass cap:

1/4 S 36 on W. half.

S 31 on E. half; dig pits
18x18x12 ins., N. and S. of post,
3 ft. dia.; and raise a mound of
earth, 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

80.00 Set an iron post, 3 ft. long, 3 ins. dia.,
24 ins. in the ground for Cor. of recs.

25, 30, 31 and 36; m.p. on brass cap:

T 41 N. on N. half.

R 2 W S 25 in NW.

R 2 W S 30 in NE.

S 31 in SE. and

S 36 in SW. quadrant.

BOOK 2518

Chains
 Dig pits 18x18x12 ins, in each sec.,
 5 1/2 ft. dia.; and raise a mound of
 earth, 4 ft. base, 2 ft. high W. of cor.
 Land, gently rolling.
 Soil, heavy sand and clay loam, 8 to
 25 vis. dep. 2nd rate.
 Subsoil, clay hardpan.
 Undergrowth, sage and rabbit brush
 and greasewood on mile

North, bet. secs. 25 and 30.
 Over gently rolling land, through
 scattering undergrowth of greasewood
 and shadscale; ascend 26 ft. to.
 37.50 Spur of hills, projects NE, 2 chs.
 descend 5 ft to
 40.00 Set an iron post, 3 ft. long, 1 in. dia.,
 26 ins. in the ground for 1/4 sec. cor.,
 Mkd. on brass cap:
 1/4 S 25 on W. half.
 S 30 on E. half; dig pits
 18x18x12 ins; N. and S. of post, 3 ft.
 dia.; and raise a mound of earth,
 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.
 60.00 Thence over loose shifting sand.
 80.00 Set an iron post, 3 ft. long, 3 ins. dia.,
 24 ins. in the ground for cor. of secs.
 19, 24, 25 and 30; Mkd. on brass cap:
 T 41 N. on N. half.
 R 34 W S 24 in NW.
 R 24 W S 19 in NE.
 S 30 in SE, and
 S 25 in SW quadrant; dig
 pits 18x18x12 ins, in each sec.; 5 1/2
 ft. dia.; and raise a mound of earth,
 4 ft. base, 2 ft. high, W. of cor.
 Land, gently rolling slopes SW.
 Soil, South, 60.00 chains, heavy
 clay 2nd rate, North, 20.00 chains,
 loose, shifting sand, 3rd rate.
 Subsoil, gnl.
 Undergrowth, greasewood and shadscale.

Chains. North, bet. secs. 19 and 24.
Over low rolling hills, through
sparse undergrowth of grass wood.

16.72 Road, from Fredonia to Pipe Springs
and St. George, bears East and West.

24.50 Ascend 50 feet to.

28.00 Spur, project S E; thence over
rolling hilly land sloping S E.

40.00 Set an iron post, 3 ft. long, 1 in. dia.,
26 ins. in the ground for $\frac{1}{4}$ sec. cor.,
mkd. on brass cap:
 $\frac{1}{4}$ S 24 on W. half.
S 19 on E. half: dig pits
18 x 18 x 12 ins., N, and S. of post, 3 ft.
dia.; and raise a mound of earth
3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

60.00 South point of a red Butte, bears
N 80 $\frac{1}{2}$ ° W, about 25 chains distant

76.22 Road, bears N W. and S E.

80.00 Set an iron post, 3 ft. long, 3 ins.
dia., 24 ins. in the ground for cor. of
secs. 13, 18, 19 and 24, mkd. on brass cap.
T 41 N. on N. half.
R 3 W S 13 in N W.
R 2 W S 18 in N E.
S 19 in S E. and
S 24 in S W. quadrant; dig
pits 18 x 18 x 12 ins. in each sec.; 5 $\frac{1}{2}$ ft.
dia.; and raise a mound of earth,
4 ft. base, 2 ft. high, W. of cor.
Land, rolling, hilly, slopes to the S E.
Soil, heavy gypsum clay, 2nd rate.
Subsoil, shale.
Undergrowth, grass wood on mile.

North, between secs. 13 and 18.
Over hilly land, through scattering
undergrowth of grass wood.

2.33 Road, from Fredonia to Moccasin,
bears N W. and S E.

5.00 Ascend, abrupt, over S face of bluff,
bears E. and W.

BOOK 2346

Chains

28.60

200 feet above sec. cor.
 Top of bluff and bench land bears
 West and $780^{\circ} E$, enter scattering
 cedar and juniper fine timber and
 dense undergrowth of sage brush.

Ascend, rolling 30 feet to.

40.00

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

$\frac{1}{4}$ S 13 on W. half.

S 18 on E. half: from which
 a cedar, 6 ins. dia., bears $S 41\frac{1}{2}^{\circ} E$,
 276 lbs. dist; nkd.

$\frac{1}{4}$ S 18 BT.

a cedar, 5 ins. dia., bears $N 86^{\circ} 20' W$,
 93 $\frac{1}{2}$ lbs. dist; nkd

$\frac{1}{4}$ S 13 BT.

Ascend 10 feet to.

58.00

Ridge, bears $N W$ and $S E$,
 Gradually descend 70 feet to.

80.00

Set an iron post, 3 ft. long, 3 ins. dia.,
 24 ins. in the ground, for cor. of sec.,
 7, 12, 13 and 18; nkd. on brass cap:

T 41 N. on N half.

R 34 W S 12 in $N W$.

R 24 W S 7 in $N E$.

S 18 in $S E$. and

S 13 in $S W$ quadrant; from
 which

a cedar, 14 ins. dia., bears $S 83\frac{1}{4}^{\circ} W$,
 223 lbs. dist; nkd.

T 41 N R 34 W S 13 BT

a cedar, 16 ins. dia., bears $N 51^{\circ} 30' W$,
 145 lbs. dist; nkd

T 41 N R 34 W S 12 BT.

No suitable bearing trees available
 in secos. 7 and 18; raise a
 mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high,
 $\frac{1}{4}$ of cor. Pits impracticable.
 Land hilly and rolling bench land,
 soil, rocky 6 to 20 ins. deep, 2nd rate

Chains

Subsoil, gravel.
 Timber, Cedar and juniper pine.
 Undergrowth sage brush and grass
 wood.
 Land, hilly, 28.00 chains.
 July 29: at this sec. cor. I set off
 18° 54' N. on the decl. arc, and at
 12^h 06^m. P.M. 1. m. t. observe the Sun
 on the mer., the resulting lat. is
 36° 57½' N.

BOOK 2348

North, bet. secs. 7 and 12.

Over gently rolling land, through
 scattering Cedar and juniper pine
 timber, and dense undergrowth of
 sage brush and Shadscale.

Ascend 20 feet to

16.00 Follow course NW;

Ascend rolling, 20 feet to

40.00 Set an iron post, 3 ft. long, 1 in. dia.,
 26 ins. in the ground for ¼ sec. cor.,
 Nkd. on brass cap:

¼ S 12 on W. half.

S 7 on E. half, from which

a cedar, 10 ins. dia., bears N 45° 50' E.,

224½ lbs. dist., nkd.

¼ S 7 BT.

a cedar limb, 7 ins. dia., bears N 22° 40',

124½ lbs. dist., nkd.

¼ S 12 BT.

60.00 Leave timber, bears E. and W.

80.00 20 feet below ¼ sec. cor.

Set an iron post, 3 ft. long, 3 in. dia.,
 24 ins. in the ground for cor. of secs.
 1, 6, 7 and 12; nkd. on brass cap:

T 41 N. on N. half.

R 3 W S 1 in NW.

R 24 W S 6 in NE.

S 7 in SE. and

S 12 in SW quadrant. Dig
 pits 18 x 18 x 12 ins. in each sec.

BOOK 248

Chains.

5 1/2 ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, rolling, bench land, slopes to the NW.

Soil, gravelly, 8 to 20 ins. deep, 2nd rate, subsoil gravel hardpan, Timber, cedar and juniper pine on South 60.00 Chains.

Undergrowth, sage brush and shrub-sage, on mile.

3.80

North, bet. sec. 1 and 6.
Over gently rolling land sloping NE.
Wash, 20 lbs. wide, 4 ft. deep, course N 80° E.

40.00

Set an iron post, 3 ft. long, 1 in. dia.; 26 ins. in the ground for 1/4 sec. cor. - mkd. on brass cap:

1/4 S 1 on W. half.

S 6 on E. half; dig pits,

18 x 18 x 12 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.

58.15

Wash, 5 lbs. wide, 3 ft. deep, course S 80° E.

79.65

Trail, bears E. to Kanab creek, and West.

80.00

Set an iron post, 3 ft. long, 3 ins. dia.; 24 ins. in the ground for cor. of T's 41 and 42 N.; R's 2 and 3 W. - mkd. on brass cap:

T 42 N on N. half.

R 3 W S 36 in NW.

R 2 W S 31 in NE.

R 2 W S 6 in SE and

R 3 W S 1 in SW quadrant

T 41 N in S. half; dig pits 24 x 24 x 12 ins. on each line, N., E., and W.; 4 ft. and S. of post, 8 ft. dist.; and raise a mound of earth 5 ft. base, 2 1/2 ft. high, S. of cor.

Charius

Land gently rolling, slopes to the
N E. and S E.
Soil, deep, rich, sandy loam, 1st rate.
Subsoil, gravel.
Undergrowth, dense sage brush on
mule.

July 29, 1911.

Andree Nelson
U. S. Transient

BOOK 2348

Chain. Survey commenced July 31, 1911 and executed with a Young and Sons light mountain transit No. 8146 with solar attachment, described on Page 1, of this Book.
 at 8^h 06^m. a.m. l.m.t. I set off $36^{\circ}59\frac{1}{2}'$ on the lat. arc, $18^{\circ}28\frac{1}{4}'$ N. on the decl. arc, and determine a mer. with the solar. at the cor. of Tps 41 and 42 N., R's 1 and 2 W.

Thence I run West, on a random line, along the N. bdy. of T. 41 N.; R. 2 W. setting temp. $\frac{1}{4}$ sec. and rec. corr. at intervals of 40.00 chains. at 320.00 chains
 Cease work.

July 31, 1911.
 August 1st at 8^h. 06^m. a.m. l.m.t. I set off $36^{\circ}59\frac{1}{2}'$ on the lat. arc, $18^{\circ}13\frac{1}{2}'$ N. on the decl. arc, and determine a mer. with the solar. at this temp. cor. point on the point 320.00 chains West of the T.P. cor. I continue

West, on the random line, and at 479.43 chains; intersect W. bdy. of the T.P., 14 lbs. N. of the cor. of Tps 41 and 42 N.; R's 2 and 3 W.; hencefore described

The falling answers to a correction of $0^{\circ}51'$ or $2\frac{1}{3}$ lbs. S. per mile, counting from the N.E. cor. of the T.P.; therefore I run

$78^{\circ}54'E.$, between secs. 6 and 31

Over gently rolling land, through undergrowth of sage brush and grass-wood.

Ascend 20 ft. to.

37.45 Thence over nearly level land, bears N. and S.

39.43 Set an iron post, 3 ft. long, 1 in. dia.;

- Chain 26 ins. in the ground for $\frac{1}{4}$ sec. cor:
 mhd. on brass cap:
 $\frac{1}{4}$ S 31 on N. half.
 S 6 on S. half. dig pits
 18 X 18 X 12 ins.; E. and W. of post, 3 ft.
 dist.; and raise a mound of earth,
 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high. N. of cor.
- 56.70 Wash, 1 chain wide, 20 ft. deep. course
 S 40° E.
- 61.20 West bank of Kanab creek wash,
 25 ft. high, bears N. and S.
- 69.00 Kanab creek, 20 lbs. wide, 6 ins.
 deep. course S-W.
- 70.80 East bank of Kanab creek wash,
 25 ft. high, bears N. and S-W.
- 79.43 Set an iron post, 3 ft. long, 3 ins. dia;
 24 ins. in the ground for cor. of sec.
 5, 6, 31 and 32, mhd. on brass cap:
 T 42 N. S 31 in NW
 R 2 W S 32 in NE
 R 2 W S 5 in SE and
 T 41 N S 6 in SW quadrant.
 From which
 a lone cottonwood, 12 ins. dia., bears
 N 41° 40' E., 530 chs. dist.; mhd
 T 42 N R 2 W S 32 B.T. 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 cor.
 Land, gently rolling and nearly
 level.
 Soil, stony and gravelly. 2nd rate.
 Subsoil, \checkmark hardpan.
 Undergrowth, greasewood and
 sage brush.
 From this corner mile post.
 Number 83. of the Utah-Arizona boundary
 line bears N 13° 06' W., 58.39 chs.
 N 89° 59' E. bet. sec. 5 and 32.
 Over level land, through under-
 growth of dead sage.

BOOK 2348

Chains

- 4.00 Wash, 1 chain wide, 20 ft. deep., heads North of line, 2 chains; course of wash is S 20° W.
- 7.00 Wash, 20 lbs. wide, 10 ft. deep. course S 30° W.
- 22.00 Ascend over hilly land through scattering cedar timber, bears N 10° E. and S 20° W., 50 ft. to
- 36.70 Ridge bears N. and S.
Descend 60 ft. to.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia.; 26 ins. in the ground for $\frac{1}{4}$ sec. cor.; mkd. on brass cap:
 $\frac{1}{4}$ S 32 m N. half,
 S 5 in S half; from which a cedar, 12 ins. dia., bears S 48 $\frac{1}{2}$ ° W
 18 2 lbs. dist.; mkd
 $\frac{1}{4}$ S 5 BT.
 a cedar, 10 ins. dia., bears N 21° 53' W.,
 200 lbs. dist.; mkd
 $\frac{1}{4}$ S 32 BT.
- 40.95 Wash, 5 lbs. wide, 1 ft. deep. course S;
 thence across rolling hollow.
- 43.68 Telephone line bears N 6° W. and S 6° E;
- 44.90 Road, from Fredonia to Kanab, bears N. and S.
- 46.35 Kaibab Forest Reserve telephone line bears N 6° W. and S 6° E,
 Ascend over hilly land, 20 ft. to
- 56.20 Spur, projects South, 10 chains.
 Descend 20 ft. to.
- 58.00 Enter hollow, bears N. and S.
- 61.80 Wash, 10 lbs. wide, 1 ft. deep. course S W
- 66.25 Wash, 15 lbs. wide, 2 ft. deep. course S 45.
- 68.70 Foot of abrupt ascent; bears N. and S W; thence S E.
- 74.00 50 ft. above hollow.
 Fair bench land, projects N; 4 chains.
 Descend, 70 feet to

Chains

BOOK 2348

77.70

Gulch, course NW, 8 chains, thence SW, ascend 60 ft. to

80.00

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground for cor. of sec. 4, 5, 32 and 33; mhd. on brass cap:

T42N S32 in NW.

R2WS33 in NE.

R2WS4 in SE. and

T41NS5 in SW quadrant;

from which

a Cedar, 10 ins. dia., bears N61°E.,

83 lbs. dist.; mhd.

T42S R2WS33 BT.

No other suitable bearing trees available:

raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.

Land level and rolling mountainous.

Soil, gravelly and rocky, 2nd rate

Subsoil gravel hardpan and sandstone.

Timber, Cedar on East, 58.00 Chains. Undergrowth shrub oak and sage brush on hill.

Land hilly 58.00 Chains.

August 1: at this sec. cor. I set off 18°15' N. on the decl. arc and at 12^h06^m. P.M. 1. m.t. observe the Sun on the Mer.; the resulting lat. is 36°59 1/2' N.

N 89°59' E, bet. secs. 4 and 33.

Ascend, abruptly, rocky W. face of mountainous slope, 30 feet to edge of bench, land bears NE. and SE. Thence over rolling top of bench, through scattering forest of cedar timber; dense undergrowth of sage brush and horse browse.

40.00

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for 1/4 sec. cor.

BOOK 2388

Chains.

Nkd. on brass cap.
 $\frac{1}{4}$ S 33 on N. half.
 S 4 on S. half: from which
 a cedar, 6 ins. dia.; bears S 25° W.,
 96 lbs. dist.; nkd.
 $\frac{1}{4}$ S 4 B.T.
 a cedar, 6 ins. dia.; bears N. 5 $\frac{1}{4}$ ° W.,
 70 lbs. dist.; nkd.
 $\frac{1}{4}$ S 33 B.T.
 Leave timber, bears N E. and S W.
 52.00 Set an iron post, 3 ft. long, 3 ins. dia.;
 80.00 24 ins. in the ground, for cor. of sec.
 3, 4, 33 and 34; nkd. on brass cap:
 T 42 N S 33 in N W.
 R 2 W S 34 in N E.
 R 2 W S 3 in S E. and
 T 41 N S 4 in S W. quadrant;
 from which
 a cedar, 5 ins. dia.; bears N 62° E.,
 147 lbs. dist.; nkd.
 T 42 N R 2 W S 34 B.T.
 a cedar, 8 ins. dia.; bears N 80 $\frac{3}{4}$ ° W.,
 354 lbs. dist.; nkd.
 T 42 N R. 2 W. S 33 B.T.
 raise a mound of stone, 2 ft. base,
 1 $\frac{1}{2}$ ft high, W. of cor. Pits impracticable
 Sand, rolling bench land.
 Soil, rocky and sandy loam, 6 to
 15 ins deep, 2nd rate.
 Subsoil, sandstone.
 Timber, cedar on West. 52.00 Chains.
 Undergrowth, sagebrush and horse
 browse on mile.
 Sand mountains 1.00 chain.

N 89° 59' E. bet. sec. 3 and 34.
 Over rolling bench land,
 through dense undergrowth of sage-
 brush and horse browse.
 28.00 Leave bench; descend over 50 ft.
 perpendicular sandstone ledge bears
 N E. and S W.

Chains. Thence descend over broken
 S E. face of bluff, 200 feet to.
 36.00 Foot of bluff, bears NE. and S W.
 descend over rolling hills, 10 feet to
 40.00 Set an iron post, 3 ft. long, 1 in.
 dia.; 26 ins. in the ground for
 1/4 sec. cor.; nkd. on brass cap.
 1/4 S 34 on N half.
 S 3 on S. half; dig pits
 18 X 18 X 12 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.
 56.00 40 feet below sec. cor.;
 Foot of hills; bear NE. and S W.
 Thence over nearly level land,
 59.60 Road, from Fredonia to Johnson,
 bears NE. and S W.
 61.40 Wash, 25 lbs. wide, 12 ft. deep, course
 SW.
 80.00 Set an iron post, 3 ft. long, 3 ins. dia.;
 24 ins. in the ground for cor. of secos.
 2, 3, 34 and 35, nkd. on brass cap:
 T 4 2 N S 34 in NW.
 R 2 W S 35 in NE.
 R 2 W S 2 in SE. and
 T 4 1 N S 3 in S W quadrant.
 dig pits 18 X 18 X 12 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, rolling, rough mountainous and
 -nearly level.
 Soils: West: 36 Chains: rocky, 3rd
 rate, East: 24.00 Chains: deep,
 rich sandy loam, 1st rate, hilly
 land or 20.00 chains, heavy white
 clay, 2nd. rate.
 Subsoils: sandstone, gravel and
 shale.
 Undergrowth, sage brush and
 horse browse on mile.
 Land rough mountainous, 8.00 Chains.

BOOK 238

Chains N 89° 59' E. bet. secs. 2 and 35.
 Over gently rolling land, through
 sparse undergrowth of sage brush
 and horse browse.

4.40 Wash. 30 lbs. wide, 8 ft. deep, course SW.

40.00 Set an iron post, 3 ft. long, 1 in. dia.;
 26 ins. in the ground for $\frac{1}{4}$ sec. cor.;
 nkd. on brass cap:
 $\frac{1}{4}$ S 35 on N. half.
 S 2 on S. half; from which
 a cedar, 8 ins. dia.; bears S 22 $\frac{1}{2}$ ° W.,
 135 lbs. dist.; nkd
 $\frac{1}{4}$ S 2 BT
 a cedar, 10 ins. dia.; bears N 74° W.,
 188 lbs. dist.; nkd.
 $\frac{1}{4}$ S 35 BT.

63.00 Foot of rough mountainous land
 bears NW. and SE.
 Ascend abrupt, through scattering
 cedar timber,

65.60 Top of 75 ft. sandstone ledge, bears
 NW. and SE.

68.00 250 ft. above foot of ascent.
 Spur, projects North, 10 chains.
 Ascend, abrupt 100 feet to

71.00 Gulch, course N.
 ascend abrupt, 100 feet to

74.00 Top of high bench land and leave
 timber, bears, N. and S,
 thence over rolling rocky land.

80.00 Set an iron post, 3 ft. long, 3 in. dia.;
 24 ins. in the ground for cor. of secs.
 1, 2, 35 and 36. nkd. on brass cap;
 T 42 N S 35 in NW.
 R 24 W S 36 in NE.
 R 24 W S 1 in SE. and
 T 41 N S 2 in SW quadrant;
 raise a mound of stone, 2 ft. base,
 1 $\frac{1}{2}$ ft. high, W. of cor.
 Fits impracticable.
 Land, gently rolling

Chains. mountainous.
Soil, West, 63.00 Chains, deep,
rich sandy loam. 1st rate.
Subsoil, gravel.
East, 17.00 Chains, rocky, 3rd rate
Subsoil, sandstone.
Timber, scattering cedars on 11.00 chs.
Undergrowth sagebrush and horse
browse.
Land rolling, mountainous,
17.00 Chains.

N 89° 59' E, bet. sec. 1 and 36.
Over rocky, rolling bench land
through dense undergrowth of
sage brush and cactus.
Descend.
4.00 Enter scattering cedar and pinion
pine timber, bears N E. and S W.
13.00 Descend abrupt, over sandstone
boulders.
16.00 170 ft. below sec. cor.
Ravine, course N., ascend 60 ft. to
19.00 Spur, projects North, 1 chain.
Descend abrupt, 75 ft. to.
21.40 Enter greasewood and hollow, bears
N W. and S E., thence across bottom
of hollow, draining N W.
26.00 Ascend, abrupt., through dense
cedar and pinion pine timber, 120 ft. to
28.40 Top of bench land, bears N W. and S E.
Ascend, rocky, 40 feet to
40.00 Set an iron post. 3 ft. long, 1 in. dia.;
26 ins. in the ground. In $\frac{1}{4}$ sec. cor.;
mkd. on brass cap:
 $\frac{1}{4}$ S 36 on N. half.
 $\frac{1}{4}$ S 1 on S half; from which
a cedar 10 ins. dia.; bears S 36° 20' E.;
57 lbs. dist.; mkd
 $\frac{1}{4}$ S 1 BT.
a cedar, 14 ins. dia.; bears N 38 $\frac{1}{4}$ ° E.;

BOOK 2348

Chains 34 lks. dia.; rube
 $\frac{1}{4}$ S 36 BT.
 Ascend.
 64.50 Leave dense timber, bears NE. and SE
 74.30 Wood road, bears N 20° W and S 20° E,
 80.00 75 ft. above $\frac{1}{4}$ sec. cor.
 The cor. of T. 41 and 42 N.; R. 2
 1 and 2 W. (Previously described)
 Land rolling mountainous, slopes
 to the NW.
 Soil, rocky 6 to 20 ris. deep. 2nd rate.
 Subsoil lime formation and sand-
 stone.
 Timber, Cedar and piñon pine
 on 74.00 Chains.
 Undergrowth sagebrush and
 Cactus on hill.
 Land, heavily timbered 38.50 Chains.
 August 1, 1911.

Boundaries of T. 41 N.; R. 2 W.
 Latitudes, Departures and Closing errors.

Line Designated	True bearing	Distance	Latitudes		Departures	
			N chains	S chains	E chains	W chains
10th Sta. Pac. N.	West	480.00				480.00
West bdy	North	480.00	480.00			
North bdy	N 89° 59' E	479.43	.14		479.43	
East bdy	South	480.00		480.00		
Convergency.					.55	
			480.14	480.00	479.98	480.00
			480.00			479.98

Error in lat. .14 in dep. .02

For general description see
 Subdivision of this Township.
 Walter A. Stamm.
 U. S. Transistorian.

1912 25
449

CERTIFICATE OF ASSISTANTS.

BOOK 2348

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ~~Andrew Nelson & Walter A. Stumm~~ ^{Transitmen} U. S. Surveyors, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of

North, East and West Boundries of

T. 41 N., R. 2 W.

of the Gila and Salt River Meridian, in the ~~State~~ ^{Dist} of Arizona

which are represented in the foregoing field notes as having been executed by ~~him~~ ^{them}, and under ~~his~~ ^{their} direction; and that said survey has been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
<i>Park Stumm</i>	1911 July 29	1911 July 31	Chairman
<i>Steele Knight</i>	"	July 31	"
<i>Ruban W. Riley</i>	"	July 29	"
<i>Leo Turkman</i>	"	July 29	"
<i>Elmer E. Mullyard</i>	"	July 31	Moundman & flagman
<i>Leonard Hamman</i>	"	July 29	"
<i>Agnes Church</i>	"	July 31	Moundman
<i>Cliff Griffiths</i>	"	July 29	Flagman

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

Andrew Nelson
U. S. Surveyor
Transitman

26
750
BOOK

2348
11e

Andrew Nelson & Walter A. Stumm, U. S. Surveyors, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona bearing date of the 25th day of August, 1910, ^{we} 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

North, East and West Boundaries
of
T. 41 N., R. 2 W.

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

Andrew Nelson
Walter A. Stumm
U. S. Surveyor.
U. S. Transitmen

Subscribed by said *Andrew Nelson & Walter A. Stumm* and sworn to before me }
this 29 day of Feb, 1912

Joseph R. Suter
CLERK UNITED STATES DISTRICT COURT.
DISTRICT OF UTAH.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. June 12, 1912

The foregoing field notes of the survey of *the North East and West Boundaries of T. 41 N. R. 2 W., Gila and Salt River Meridian, Arizona*

executed by *Andrew Nelson and Walter A. Stumm* under his special instructions dated August 25, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
U. S. Surveyor General.

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